			SECTION D. CERTIFICATION
Report and obtaining th knowledge.	all attached docun le information, I ve I understand that f	nents erify the s	have personally examined and am familiar with the information submitted in this Annual s and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false Information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Check the fo	llowing, if applicabl	e:	
l certi	fy the information _and has not chang		ired in Section B-1, General Properties was supplied to the Department for the year
Form	Submitted:		Form 26R
			Other (specify)
Date	Submitted:		
□ l certi 	fy the information and has not chang		ired in Section B-2, Chemical Analysis was supplied to the Department for the year
Form	Submitted:		Form 26R
			Other (specify)
Date	Submitted:		
	y the information re year and ha		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
Form	Submitted:		Form 26R
			Other (specify)
Date	Submitted:		
Name of Res	ponsible Official		Title Environmental Specialist
Dina Brown Signature	<u>A</u>	<	Date 2/2.5/11

Lab ID: 08-0 Lab ID: 39-0		Eas 2566 S Phor	ark Analytics, In stern Division Pennsylvania Ave. ayre, PA 18840 ne: (570) 888-0169 ax: (570) 888-0717	C.	Work	Order: 101	125 <b>2</b> 5
SEND DATA	TO:						
NAME:	Steve Gridley			W	/O#: 1011	2525	
COMPANY:		nc.	· · · · ·	P	AGE: 1 of 2	2	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845					_	
	1010010203, 111 14040			P	O#: AF78	3425	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	Т	EST REPORT	P	WS ID#		-
01-	-023						
	OR LAB BY: SCP	DA	TE: 11/16/2010 16:40			Pa	age 1 of 2
SAMPLE: AI	r Cuttings		Lab ID: 10112525-001A	Grab			
SAMPLE	D BY: SG	Si	ample Time: 11/16/2010 14:56	SLOQ			
Test		Result	Method	SLUG	Analysis Start	Analysis End	Analyst *
	oleum Hydrocarbons	< 172 mg/Kg	EPA 9071	172	11/18/10 14:40	11/18/10	
Sample	Note: Analysis performed by I	Microbac Laborato	ries, Inc-Erie Division.				
SAMPLE: Air	-		Lab ID: 10112525-001B	Grab			
SAMPLE	D BY: SG	Sa	ample Time: 11/16/2010 14:56	SLOQ			
Test		<u>Result</u>	Method	VLVX	Analysis Start	Analysis End	Analyst *
Moisture		25.2 %	Moisture Calc.	0.01	11/17/10 9:00	11/18/10	IC-SA
Free Liqui	d	< 0.1 %	EPA 9095A	0.1	11/17/10 9:00	11/17/10	K-SA
pH		10.20@24.1°C	EPA 9045C		11/17/10 16:52	11/17/10	SG-SA
SAMPLE: Air			Lab ID: 10112525-001C	Grab			
SAMPLE	D BY: SG	Sa	ample Time: 11/16/2010 14:56	<u>SLOQ</u>			
Test		Result	Method		Analysis Start	Analvsis End	Analyst *
Sodium		1390 mg/Kg-dry	EPA 6010B	100.0	11/18/10 9:00	11/18/10	GSR-CV
Chloride		429 mg/Kg-dry	EPA 300.0	67.1	11/18/10 15:13	11/19/10	HDP-CV
Percent M	oisture	25.2 %	SM2540G		11/17/10 9:00	11/18/10	IC-SA
	LP Leachate of Air Cutting	•	Lab ID: 10112525-001E	Grab			
SAMPLE	D BY: SG	Sa	ample Time: 11/17/2010 8:00	SLOQ			
Test		Result	Method	<u></u>	Analysis Start	Analysis End	Analyst *
-	TCLP extracted	< 0.0008 mg/L	EPA 7470A	8000.0	11/17/10 9:00	11/18/10	KW-CV
	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/18/10 13:15	11/18/10	GSR-CV
	CLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/18/10 13:15	11/18/10	GSR-CV
	- TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/18/10 13:15	11/18/10	GSR-CV
	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 0.100	11/18/10 13:15 11/18/10 13:15	11/18/10 11/18/10	GSR-CV
Copper - I	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/10/10 10:10	11/10/10	GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L

MANAGER

anie M. Davis DATE: 11/19/2010

Lab ID: 08-( Lab ID: 39-(		<b>East</b> 2566 P	ern l ennsy	n <b>alytics, In Division</b> /Ivania Ave. A 18840	C.		Work	Order: 101	112525
			• •	888-0169 888-0717					
SEND DATA	A TO:								
NAME:	Steve Gridley				w	'O#:	10112	2525	
COMPANY:		nc.			p	AGE:	2 of 2		
ADDRESS:	337 Daniel Zenker Dr				.,		2012		
	Horseheads, NY 14845				P	O#:	AF784	425	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TES	ST RI	EPORT	P	WS ID#			
01	-023								
RECEIVED I	FOR LAB BY: SCP	DATE	: 11/1	6/2010 16:40				P	age 2 of 2
Lead - T(	CLP extracted	< 0.500 mg/L		EPA 6010B	0.500	11/18/10	13:15	11/18/10	GSR-CV
Nickel - T	TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	11/18/10	13:15	11/18/10	GSR-CV
Selenium	n - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	11/18/10	13:15	11/18/10	GSR-CV
Silver - T	CLP extracted	< 0.100 mg/L		EPA 6010B	0.100	11/18/10	13:15	11/18/10	GSR-CV
Zinc - TC	CLP extracted	40.1 mg/L	L	EPA 6010B	0.200	11/18/10	13:15	11/18/10	GSR-CV

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L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE:

11/19/2010

CHAIN OF CUSTODY								PAGE 1OF1
Talisman / UEG	]							
geowetlands@aol.com	1						W/O#: 10112525	ARE SPECIAL DETECTION LIMITS
300000000					50			NEEDED: YES / NO
	1	riger/ Er col			:0	6		ISED FOR: IF YES, PLEASE ATTACH
	- ·					DV GV		
CONTACT Steve Gridley		TRANS	PORT			/ sv wi		YES 🗹 NO
PH# 607-731-0145	1.	π	-				DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	IF YES, PLEASE ATTACH REQUIREMENTS
FAX#		ABOR/ IN COO				15	/ H HYDROCHLORIC ACID OH SODIUM HYDROXIDE S SULFURIC ACID AS ASCORBIC ACID	
BILL TO: Talisman	_	WITH			/ /		N NITRICACID AC ACETICACID SO3 SODIUM SULFITE NH, AMMONIUM CHLORIDE	
20# 10-104/25	_	-7	7	$\neg$			Thio SODIUM THIOSULFATE ZN ZINC ACETATE – NONE Hg MERCURIC CHLORIDE	
	-			'/*	/ 8		An incomplete chain of custody may delay the	Please fill out all
SAMPLER SIGNATURE / AFFILIATION	4,	THE SAMPLED	Ser.	SALLENATRIX			An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)	applicable areas
Slow use			5/	<u><u></u></u>	47 / .		ξ/	
CONTAINER SAMPLING POINT	/ శ్		SALLE SALLELING	/ ऊँ	/ 3	PRESS MITHLS COMPOSITE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	LAB USE ONLY
1 Air Cuttings	11/16	1456	50	I	95-		ТРН	
2							pH, Chlorides, Sodium	
3							TCLP 8 RCRA Metals + Cu, Ni, Zn	
4 A - TPH							Free Liquids / % Moisture	
5 B-pH, free Liquid, 1. mois	ture							
6 C- Anions, metals							Perform BTEX ONLY IF the TPH	
7 D- Total Sanple							exceeds 100,000 mg/Kg	
8 E- TCLP metals								
9							フン HOUR TURNAROUND	
10							DAY TURNAROUND	
11								
LAB USE ONLY THE REPORT OF								
								A REAL OF ARKIVAL UNIGE MAN
RELINQUISHEEPBY			ATE:	11 5	0	TIME:	YO RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:			ATE:	61		TIME:	RECEIVED BY:	DATE: TIME:
			1	/				1 1
RELINQUISHED BY:		10	ATE:			TIME:	RECEIVED BY:	DATE: (1/16/16 TIME: 1/0:40

LAB ID: 08-00380 LAB ID: 39-00401	Easter 2566 Pen Sayre,	Analytics, Ir n Division nsylvania Ave. PA 18840	ıc.	Work	Order: 101	20839
	•	70) 888-0169				
	Fax: (5	70) 888-0717				
SEND DATA TO:						
NAME: Steve Gridley			W	O#: 1012	0839	
COMPANY: Talisman Energy USA			P	AGE: 1 of	1	
ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 148	1				-	
11013616a03, 141 140	+ <b>J</b>		P	O#: AF78	3425	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TEST	REPORT	P\	NS ID#		
FAX: (607) 562-4001				میں اور		
01-023	:					
RECEIVED FOR LAB BY: CMS	DATE: 1	2/06/2010 15:40			Pa	age 1 of 1
SAMPLE: Inv. Cuttings	1.4	ab ID: 10120839-001A	Compo	site		
SAMPLED BY: SG		Fime: 12/06/2010 10:30				
Tret	Beault	<b>1 d</b> - 44	<u>SLOQ</u>	Analusia Otari	Analusia Mad	ð er mla er fað
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u> 42500 mg/Kg	Method EPA 9071		Analvsis Start 12/08/10 14:20	Analysis End 12/08/10	Analyst
Sample Note: Analysis performed				12,00,10 14.20	12,00,10	
		ab ID: 10120839-001B	Compo	eite		
SAMPLE: Inv. Cuttings SAMPLED BY: SG	•	Time: 12/06/2010 10:30	Compo	310		
	•		<u>SLOQ</u>			
<u>Test</u> Moisture	<u>Result</u> 37.7 %	<u>Method</u> Moisture Calc.	0.01	Analysis Start 12/06/10 17:30	Analysis End 12/07/10	
Free Liquid	<:0.1 %	EPA 9095A	0.01	12/06/10 17:20	12/06/10	IC-SA IC-SA
pH	8.23@21.7°C	EPA 9045C	0.1	12/07/10 14:20	12/07/10	MED-SA
					12/01/10	
SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG	lingo	ib ID: 10120839-001E	Compo	site		
SAMFLED BT. 30	Sample	Fime: 12/07/2010 8:00	<u>SLOQ</u>			
Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/07/10 10:15	12/09/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	.12/08/10	GSR-C\
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/08/10 12:15	12/08/10	GSR-C\
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-C\
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-C\
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-C\
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-C\
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-C\
	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-CV
Selenium - TCLP extracted	, –					
Selenium - TCLP extracted Silver - TCLP extracted	< 0.100 mg/L 39.5 mg/L	EPA 6010B	0.100	12/08/10 12:15 12/08/10 12:15	12/08/10 12/08/10	GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 12/10/2010

CHAIN OF CUSTODY

### PAGE\_\_\_1\_\_\_OF\_\_\_1\_\_\_

REPORT TO: Talisman / UEG								
geowetlands@aol.com	-					١	N/O#: 10120839	
	REFRI	GERA	TE SA	MPI F	s			
	AFTER				.0		DRINKING WATER SL SLUDGE NYDOH NYDEC PADEP	IF YES, PLEASE ATTACH
· · · · · · · · · · · · · · · · · · ·						/DW GV	V DRINKING WATER SL SLUDGE NYDOH NYDEC PADEP V GROUND WATER SO SOIL	IS A QC PACKAGE NEEDED?
CONTACT Steve Gridley	TH	ANSP	ORT			/ 5M W		YES 🔽 NO
PH# 607-731-0145		TO				DE	DEIGNIZED WATED DI DICTULED WATED DEDCOMA OTHED	IF YES, PLEASE ATTACH REQUIREMENTS
FAX#	1	BORA I COO				15	H HYDROCHLORIC ACID OH SODIUM HYDROXIDE S SULFURIC ACID AS ASCORBIC ACID	105
BILL TO: Talisman		WITH	CE	,	/ · ,		N NITRIC ACID AC ACETIC ACID	JE CO
			-7-	$\neg$		ર્શ/	SO3 SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE	La Contraction
PO# AF 78425	4		2	1.	/ §	ة / <sup>ي</sup>	- NONE Hg MERCURIC CHLORIDE	Please fill out all
01-023		27		The second	ا نیچ		イム An incomplete chain of custody may delay the ろ デ processing of your sample(s).	applicable areas
SAMPLER SIGNATURE / AFFILIATION		1/8	$\frac{3}{2}$	¥ /	4.	3		S completely
CONTAINER SAMPLING POINT	DAITE SAL	THE	SAMPLING SAMPLING	SAM.	241	PRESS MITTALS	SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE         Thio       SODIUM SULFITE         NONE       Hg         MERCURIC CHLORIDE         An incomplete chain of custody may delay the processing of your sample(s).         ANALYSIS TO BE PERFORMED (PER CONTAINER)	Please fill out all applicable areas completely LAB USE ONLY
1 Inv Cuttings	12/1	030			50	N	трн	
2							рН	
3							TCLP 8 RCRA Metals + Cu, Ni, Zn	
4							Free Liquids / % Moisture	
5 001A - TPH								
6 B. pH, Free liquid	• j. V	nois	tur	e,			Perform BTEX ONLY IF the TPH	
7 C- Amons, metals							exceeds 100,000 mg/Kg	
8 D- TUTAL Sample								
9 ETCLP metals.							72 HOUR TURNAROUND	
10							DAY TURNAROUND	
11								
LAB USE CNLY DELLIVERED BY								
		Lac						
RELINGHISHED		DA		11	υT	IME:	FYU RECEIVED BY:	DATE: TIME:
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								Ad Graphics Printing 570-888-0685

NY ID # 11216	80	<b>Ea</b> 2560	istern D	vania Ave.	NC. Work Order: 10121752				21752
			ne: (570) 8 ax: (570) 8						
SEND DATA TO	):								
	na Brown				W	O#:	10121	752	
	lisman Energy USA, In	c.							
	7 Daniel Zenker Dr				PA	AGE:	1 of 3		
Ho	orseheads, NY 14845				PC	D#: /	AF784	425	
		÷.,			P۱	NS ID#			
	07) 562-4000 07) 562-4001		TEST REI	PORT					
01-023	3								
RECEIVED FOR	LAB BY: RML	D	ATE: 12/09	/2010 15:45				Pa	ige 1 of 3
SAMPLE: Inv. C	uttings	t	Lab ID:	10121752-001A	Grab				ور مسلم مساقیه
SAMPLED B	Y: SG		Sample Time:	12/09/2010 12:04					
<u>Test</u>		Result		Method	<u>SLOQ</u>	Analysis S	Start	Analysis End	Analyst *
Ignitability		Neg ASIS °F		SW846 1030		12/15/10 1	3:30	12/15/10	
• •	te: Analysis performed by Q	-		SW846 1030		12/15/10 1	3:30	12/15/10	
Sample Not		-	Lab ID:	SW846 1030	Grab	12/15/10 1	3:30	12/15/10	
• •	uttings	C Laboratories				12/15/10 1	3:30	12/15/10	
Sample Not SAMPLE: Inv. Co SAMPLED B	uttings	C Laboratories		10121752-001C 12/09/2010 12:04	Grab SLOQ				Applyet*
Sample Not SAMPLE: Inv. Co SAMPLED B <u>Test</u>	uttings Y: SG	C Laboratories		10121752-001C 12/09/2010 12:04 <u>Method</u>	<u>SLOQ</u>	Analysis S	Start	Analysis End	
Sample Not SAMPLE: Inv. C SAMPLED B	uttings Y: SG ctive	C Laboratories Result < 0.2 mg/Kg		10121752-001C 12/09/2010 12:04			<u>Start</u> 3:56		HDP-CV
Sample Not SAMPLE: Inv. C SAMPLED B <u>Test</u> Cyanide, Read Reactive Sulfit	uttings Y:SG ctive de	C Laboratories	Sample Time: Q	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3	<u>SLOQ</u> 0.2 32	<u>Analysis S</u> 12/13/10 8	<u>Start</u> 3:56	Analysis End 12/14/10	HDP-CV
Sample Not SAMPLE: Inv. C SAMPLED B <u>Test</u> Cyanide, Read Reactive Sulfid SAMPLE: Inv. C	uttings Y: SG ctive de uttings	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg	Sample Time: Q Lab I <b>D</b> :	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D	<u>SLOQ</u> 0.2	<u>Analysis S</u> 12/13/10 8	<u>Start</u> 3:56	Analysis End 12/14/10	HDP-CV
Sample Not SAMPLE: Inv. C SAMPLED B <u>Test</u> Cyanide, Read Reactive Sulfit	uttings Y: SG ctive de uttings	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg	Sample Time: Q Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04	<u>SLOQ</u> 0.2 32	<u>Analysis S</u> 12/13/10 8 12/14/10 13	<u>Start</u> 3:56 2:30	Analysis End 12/14/10	HDP-CV LTW-CV
Sample Not SAMPLE: Inv. Ca SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Ca SAMPLE B Test	uttings Y: SG ctive de uttings Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u>	Sample Time: Q Lab ID: Sample Time:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u>	SLOQ 0.2 32 Grab SLOQ	<u>Analysis S</u> 12/13/10 8 12/14/10 13 <u>Analysis S</u>	<u>Start</u> 3:56 2:30 <u>Start</u>	Analysis End 12/14/10 12/14/10 Analysis End	HDP-CV LTW-CV Analyst *
Sample Not SAMPLE: Inv. Ca SAMPLED B Test Cyanide, Read Reactive Sulfin SAMPLE: Inv. Ca SAMPLED B Test % Solids	uttings Y: SG ctive de uttings Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght	Q Lab ID: Sample Time:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B	<u>SLOQ</u> 0.2 32 Grab <u>SLOQ</u> 0.10	<u>Analysis S</u> 12/13/10 8 12/14/10 12 <u>Analysis S</u> 12/10/10 1	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA
Sample Not SAMPLE: Inv. Ca SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Ca SAMPLE B Test	uttings Y: SG ctive de uttings Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u>	Q Lab ID: Sample Time:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u>	SLOQ 0.2 32 Grab SLOQ	<u>Analysis S</u> 12/13/10 8 12/14/10 13 <u>Analysis S</u>	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00	Analysis End 12/14/10 12/14/10 Analysis End	HDP-CV LTW-CV Analyst*
Sample Not SAMPLE: Inv. Ca SAMPLED B Test Cyanide, Read Reactive Sulfin SAMPLE: Inv. Ca SAMPLE: Inv. Ca SAMPLE B Test % Solids Total Volatile S SAMPLE: TCLP	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B EPA 160.4 10121752-001F	<u>SLOQ</u> 0.2 32 Grab <u>SLOQ</u> 0.10	<u>Analysis S</u> 12/13/10 8 12/14/10 12 <u>Analysis S</u> 12/10/10 1	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA
Sample Not SAMPLE: Inv. Co SAMPLED B Test Cyanide, Reac Reactive Sulfor SAMPLE: Inv. Co SAMPLE: Inv. Co SAMPLED B Test % Solids Total Volatile S	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B EPA 160.4	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab	<u>Analysis S</u> 12/13/10 8 12/14/10 12 <u>Analysis S</u> 12/10/10 1	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA
Sample Not SAMPLE: Inv. Ca SAMPLED B Test Cyanide, Read Reactive Sulfin SAMPLE: Inv. Ca SAMPLE: Inv. Ca SAMPLE B Test % Solids Total Volatile S SAMPLE: TCLP	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B EPA 160.4 10121752-001F	<u>SLOQ</u> 0.2 32 Grab <u>SLOQ</u> 0.10 0.01	<u>Analysis S</u> 12/13/10 8 12/14/10 12 <u>Analysis S</u> 12/10/10 1	<u>Start</u> 8:56 2:30 <u>Start</u> 7:00 3:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA NFM-SA
Sample Not SAMPLE: Inv. Ci SAMPLED B Test Cyanide, Reac Reactive Sulfit SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLED B Test % Solids Total Volatile S SAMPLE: TCLP SAMPLED B	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght <b>js</b>	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab	<u>Analysis S</u> 12/13/10 8 12/14/10 1 <u>Analysis S</u> 12/10/10 1 12/10/10 8	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00 3:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA NFM-SA <u>Analyst*</u>
Sample Not SAMPLE: Inv. Ci SAMPLED B Test Cyanide, Reac Reactive Sulfic SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE: CLP SAMPLE: TCLP SAMPLED B	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght <b>js</b> <u>Result</u>	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 <u>Method</u> SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 <u>Method</u> SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45 <u>Method</u>	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab           SLOQ	<u>Analysis S</u> 12/13/10 8 12/14/10 1 <u>Analysis S</u> 12/10/10 1 12/10/10 8 <u>Analysis S</u>	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00 3:00 Start 7:48	Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End	HDP-CV LTW-CV Analyst * IC-SA NFM-SA Analyst * RHH-SA
Sample Not SAMPLE: Inv. Cd SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Cd SAMPLE Inv. Cd SAMPLED B Test % Solids Total Volatile S SAMPLE: TCLP SAMPLED B	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg 37.70 % Wght 71.88 % Wght 71.88 % Wght <b>Result</b> < 0.10 mg/L	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 Method SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 Method SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45 Method EPA 8270C	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.01	<u>Analysis S</u> 12/13/10 t 12/14/10 1 <u>Analysis S</u> 12/10/10 t 12/10/10 t <u>Analysis S</u> 12/15/10 7	Start 3:56 2:30 Start 7:00 3:00 Start 7:48 7:48	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u> 12/15/10	Analyst * IC-SA NFM-SA Analyst * RHH-SA RHH-SA
Sample Not SAMPLE: Inv. Ci SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE B Test % Solids Total Volatile S SAMPLE: TCLP SAMPLED B Test Pyridine 1,4-Dichlorobe	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting Y: SG	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg 37.70 % Wght 71.88 % Wght 71.88 % Wght <b>Result</b> < 0.10 mg/L < 0.10 mg/L	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 Method SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 Method SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45 Method EPA 8270C EPA 8270C	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10	<u>Analysis S</u> 12/13/10 8 12/14/10 12 <u>Analysis S</u> 12/10/10 1 12/10/10 8 <u>Analysis S</u> 12/15/10 7 12/15/10 7	Start 3:56 2:30 Start 7:00 3:00 Start 7:48 7:48 7:48	Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10	Analyst * IC-SA NFM-SA Analyst * RHH-SA RHH-SA
Sample Not SAMPLE: Inv. Ci SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE B Test % Solids Total Volatile S SAMPLE: TCLP SAMPLE B Test Pyridine 1,4-Dichlorobe o-Cresol	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting Y: SG enzene esol	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg <u>Result</u> 37.70 % Wght 71.88 % Wght <b>1.88</b> % Wght <b>1.88</b> % Wght <b>2.1</b> <b>1.88</b> % Wght <b>3.1</b> <b>1.88</b> % Wght <b>3.1</b> <b>1.00</b> mg/L < 0.10 mg/L < 0.10 mg/L	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 Method SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 Method SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45 Method EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.11           O.10           0.10           0.10           0.10           0.10           0.10	<u>Analysis S</u> 12/13/10 8 12/14/10 12 12/14/10 12 12/10/10 1 12/10/10 8 Analysis S 12/15/10 7 12/15/10 7 12/15/10 7	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00 3:00 <u>Start</u> 7:48 7:48 7:48 7:48	Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10	Analyst* IC-SA NFM-SA Analyst* RHH-SA RHH-SA RHH-SA RHH-SA
Sample Not SAMPLE: Inv. Ci SAMPLED B Test Cyanide, Read Reactive Sulfid SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE: Inv. Ci SAMPLE: TCLP SAMPLE: TCLP SAMPLED B Test Pyridine 1,4-Dichlorobe o-Cresol p-Cresol/m-Cr	uttings Y: SG ctive de uttings Y: SG Solids Leachate of Inv. Cutting Y: SG enzene esol	C Laboratories <u>Result</u> < 0.2 mg/Kg 1100 mg/Kg 1100 mg/Kg 37.70 % Wght 37.70 % Wght 37.70 % Wght 37.70 % Wght 37.70 % Wght 37.70 % Ught 37.70 % U	Q Lab ID: Sample Time: Lab ID:	10121752-001C 12/09/2010 12:04 Method SW 7.3.3.2 SW846 7.3 10121752-001D 12/09/2010 12:04 Method SM2540B EPA 160.4 10121752-001F 12/11/2010 12:45 Method EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           32           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	Analysis S 12/13/10 8 12/14/10 12 12/14/10 12 12/10/10 1 12/10/10 8 Analysis S 12/15/10 7 12/15/10 7 12/15/10 7 12/15/10 7	<u>Start</u> 3:56 2:30 <u>Start</u> 7:00 3:00 <u>Start</u> 7:48 7:48 7:48 7:48 7:48	Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA NFM-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Analyte detected in the associated Method Blank в

Due to matrix effects, not all quality control parameters met acceptance criteria Q

MANAGER

Carrie M. Davis

12/16/2010 DATE:

SEND DATA TO:

NAME:

# Benchmark Analytics, Inc.

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169

Work Order: 10121752

10121752

2 of 3

Fax: (570) 888-0717 WO#:

PO#: AF78425

PAGE:

PWS ID#

## TEST REPORT

PHONE: (607) 562-4000 FAX: (607) 562-4001

Dina Brown

ADDRESS: 337 Daniel Zenker Dr

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

01-023						
RECEIVED FOR LAB BY: RML	DAT	E: 12/09/2010 15:45			Р	age 2 of 3
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10 7:48	12/15/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
SAMPLE: TCLP Leachate of Inv. Cu	ttings	Lab ID: 10121752-001G	Grab			
SAMPLED BY: SG	Sam	ple Time: 11/17/2010 8:00				
		<b>.</b>	<u>SLOQ</u>			
Test	<u>Result</u>	Method		Analysis Start	<u>Analysis End</u>	<u>Analyst *</u>
Strontium - TCLP extracted	< 0.050 mg/L	EPA 6010B	0.050	11/18/10 13:15	11/18/10	GSR-CV
Sample Note: Sample for TCLP ex	tracted Strontium was re	eceived on 11/16/10 at 16:40	by SCP.			

SAMPLE: TCLP Leachate of Inv. Cuttin	ngs	Lab ID: 10121752-001H	Grab			
SAMPLED BY: SG	Sam	nple Time: 12/11/2010 12:45				
<u>Test</u> pH	<u>Result</u> 5.10@16.9°C	Method SM4500H+B	<u>SLOQ</u>	Analysis Start 12/14/10 8:00	<u>Analysis End</u> 12/14/10	<u>Analyst *</u> SG-SA
SAMPLE: ZHE Extract of Inv. Cuttings		Lab ID: 10121752-0011	Grab			
SAMPLED BY: SG	San	ple Time: 12/13/2010 8:45	SLOQ			
<u>Test</u>	Result	Method		Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropyibenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA

### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

- B Analyte detected in the associated Method Blank
- Oue to matrix effects, not all quality sontrel parameters met acceptance criteria

MANAGER

ani M. Davis

DATE: 12/16/2010

NY ID # 112	00380 116	<b>Ea</b> 2566	stern [	nalytics, In Division Ivania Ave. 18840	IC.	N	Work	Order: 1012	21752
			. ,	888-0169 888-0717					
SEND DATA	TO:								
NAME:	Dina Brown				W	O#:	1012	1752	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	IC.			PA	GE:	3 of 3	3	
ADDRE33.	Horseheads, NY 14845					S.H.		-	
	·····				PC	)#:	AF78	9425	
	(007) 500 4000	-	<b>FEST RE</b>	PORT	P۷	VS ID#			
PHONE: FAX:	(607) 562-4000 (607) 562-4001								
04									
	-023 FOR LAB BY: RML		TE: 12/0	9/2010 15:45				Da	2 - 5'
			ATE. 12/0:						ge 3 of 3
Tetrachio	roethene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10		12/13/10	CTM-S/
Toluene Trichloroe	athene	< 0.0250 mg/L < 0.0250 mg/L		EPA 8260B EPA 8260B	0.0250 0.0250	12/13/10 12/13/10		12/13/10 12/13/10	CTM-S/
	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10		12/13/10	CTM-S/
		-						12/13/10	CTM-S/
1.3.5-Trin	nethylbenzene	< 0.0250 ma/L		EPA 8260B	0.0250	12/13/10	0.11		U 11VI-3/
	nethylbenzene vride	< 0.0250 mg/L < 0.0250 mg/L		EPA 8260B EPA 8260B	0.0250 0.0250	12/13/10 12/13/10		12/13/10	
Vinyl chlo	ride	< 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L					8:11		CTM-SA
Vinyl chlo	ride rt-butyl ether	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11 8:11	12/13/10	CTM-SA CTM-SA CTM-SA
Vinyl chlo Methyl ter 2-Butanor	ride rt-butyl ether ne	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L	Lab ID:	EPA 8260B EPA 8260B	0.0250 0.0250	12/13/10 12/13/10	8:11 8:11	12/13/10 12/13/10	CTM-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS	ride rt-butyl ether	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L		EPA 8260B EPA 8260B EPA 8260B	0.0250 0.0250 0.0500 Grab	12/13/10 12/13/10	8:11 8:11	12/13/10 12/13/10	CTM-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE	ride rt-butyl ether ne STM Extract of Inv. Cuttings	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S		EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15	0.0250 0.0250 0.0500	12/13/10 12/13/10 12/13/10	8:11 8:11 8:11	12/13/10 12/13/10 12/13/10	CTM-SA CTM-SA CTM-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE <u>Test</u>	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u>		EPA 8260B EPA 8260B EPA 8260B : 10121752-001J 12/10/2010 11:15 <u>Method</u>	0.0250 0.0250 0.0500 Grab	12/13/10 12/13/10	8:11 8:11 8:11 <u>Start</u>	12/13/10 12/13/10 12/13/10 <u>Analvsis End</u>	CTM-SA CTM-SA CTM-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE <u>Test</u> Chemical	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG Oxygen Demand	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L	Sample Time: B	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10	12/13/10 12/13/10 12/13/10 <u>Analysis</u>	8:11 8:11 8:11 <u>Start</u>	12/13/10 12/13/10 12/13/10	CTM-SA CTM-SA CTM-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE: <u>Test</u> Chemical	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG Oxygen Demand STM Extract of Inv. Cuttings	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L	Sample Time: B Lab ID:	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	0.0250 0.0250 0.0500 Grab <u>SLOQ</u>	12/13/10 12/13/10 12/13/10 <u>Analysis</u>	8:11 8:11 8:11 <u>Start</u>	12/13/10 12/13/10 12/13/10 <u>Analvsis End</u>	CTM-SA CTM-SA CTM-SA
Vinyi chlo Methyi ter 2-Butanor SAMPLE: AS SAMPLE: AS Chemical SAMPLE: AS	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG Oxygen Demand	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L	Sample Time: B Lab ID:	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10	8:11 8:11 8:11 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 <u>Analvsis End</u>	CTM-SA CTM-SA CTM-SA
Vinyi chlo Methyi ter 2-Butanor SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: AS	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG Oxygen Demand STM Extract of Inv. Cuttings	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S Result 548 mg/L S <u>Result</u> S	Sample Time: B Lab ID:	EPA 8260B EPA 8260B EPA 8260B : 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 : 10121752-001L 12/10/2010 11:15 <u>Method</u>	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10 Grab	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u>	8:11 8:11 8:11 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10	CTM-SA CTM-SA CTM-SA Analyst
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: Test pH	ride rt-butyl ether ne STM Extract of Inv. Cuttings D BY: SG Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L S <u>Result</u> 6.80@17.9°C	Sample Time: B Lab ID:	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121752-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u>	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u> 12/14/10	8:11 8:11 8:11 <u>Start</u> 8:00 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10 Analysis End 12/14/10	CTM-SA CTM-SA CTM-SA Analyst KMF-SA Analyst SG-SA
Vinyl chlo Methyl ter 2-Butanor SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: AS	ride rt-butyl ether ne STM Extract of Inv. Cuttings D BY: SG Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S Result 548 mg/L S <u>Result</u> S	Sample Time: B Lab ID:	EPA 8260B EPA 8260B EPA 8260B : 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 : 10121752-001L 12/10/2010 11:15 <u>Method</u>	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10 Grab	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u>	8:11 8:11 8:11 <u>Start</u> 8:00 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10	CTM-SA CTM-SA CTM-SA Analyst
Vinyi chlo Methyi ter 2-Butanor SAMPLE: AS SAMPLE: AS Chemical SAMPLE: AS SAMPLE: AS DH Test pH Total Solie	ride rt-butyl ether ne STM Extract of Inv. Cuttings D BY: SG Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L S <u>Result</u> 6.80@17.9°C	B B Lab ID: Sample Time:	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121752-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u>	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u> 12/14/10	8:11 8:11 8:11 <u>Start</u> 8:00 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10 Analysis End 12/14/10	CTM-SA CTM-SA CTM-SA Analyst KMF-SA Analyst SG-SA
Vinyi chlo Methyi ter 2-Butanor SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: AS DH Total Solid SAMPLE: Inv	ride rt-butyl ether ne STM Extract of Inv. Cuttings ED BY: SG Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG ds	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L S <u>Result</u> 6.80@17.9°C 720 mg/L	Sample Time: B Lab ID: Sample Time: Lab ID:	EPA 8260B EPA 8260B EPA 8260B 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121752-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 0.10 Grab	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u> 12/14/10	8:11 8:11 8:11 <u>Start</u> 8:00 <u>Start</u> 8:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10 Analysis End 12/14/10	CTM-SA CTM-SA CTM-SA Analyst KMF-SA Analyst SG-SA
Vinyi chlo Methyi ter 2-Butanor SAMPLE: AS SAMPLE: AS SAMPLE: AS SAMPLE: AS DH Total Solid SAMPLE: Inv	ride rt-butyl ether ne STM Extract of Inv. Cuttings DBY: SG Oxygen Demand STM Extract of Inv. Cuttings DBY: SG ds v. Cuttings	< 0.0250 mg/L < 0.0250 mg/L < 0.0500 mg/L S <u>Result</u> 548 mg/L S <u>Result</u> 6.80@17.9°C 720 mg/L	Sample Time: B Lab ID: Sample Time: Lab ID:	EPA 8260B EPA 8260B EPA 8260B i 10121752-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 i 10121752-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B i 10121752-001M	0.0250 0.0250 0.0500 Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u> 0.10	12/13/10 12/13/10 12/13/10 <u>Analysis</u> 12/11/10 <u>Analysis</u> 12/14/10	8:11 8:11 8:11 <u>Start</u> 8:00 <u>Start</u> 8:00 17:00	12/13/10 12/13/10 12/13/10 Analysis End 12/13/10 Analysis End 12/14/10	CTM-SA CTM-SA CTM-SA Analyst ' SG-SA IC-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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Analyte detected in the associated Method Blank в

Due to matrix effects, not all quality control parameters met acceptance criteria Q

MANAGER

Carrie M. Darkis

DATE: 12/16/2010

	CHAIN OF CUSTODY							Benchmar	0F
RE	Talisman / UEG	]				2	566 [	Easl Pennsylvania W/OH· 10121752	
ae	eowetlands@aol.com					~	JUU 1	Pennsylvania W/O#: 10121752 Phone:	ECIAL DETECTION LIMITS
95								Fax: (5/0) 000-0/1/	TES / NO
			rigef Er CC			ES	~		FYES, PLEASE ATTACH
					non			W DRINKING WATER SL SLUDGE NYDOH NYDEC PADEP	IS A QC PACKAGE NEEDED
co	NTACT Steve Gridley	-	<b>FRAN</b>	SPOR	т		/ s	W SURFACE WATER HZ HAZARDOUS LANDFILL Mostoller	YES NO
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FAX	#		ABOF		łΥ '		/ 5	/H     HYDROCHLORIC ACID     OH     SODIUM HYDROXIDE       /S     SULFURIC ACID     AS     ASCORBIC ACID	
BIL	L TO: Talisman		IN CO WITH		1	/		N NITRIC ACID AC ACETIC ACID	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
		<u> </u>			—/	' /	<u>`</u> 8/	SO3 SODIUM SULFITE NH4 AMMONIUM CHLORIDE	8
PO#	$\pi$ $10(\alpha)$				¥ / .	/ġ	<u></u>	- NONE Hg MERCURIC CHLORIDE	Please fill out all
PR	PERT DESCRIPTION 84 01-023		[E]		[]\$	ا بنا		$4$ An incomplete chain of custody may delay the $\delta$ $\delta$	applicable areas
SAN	APPERSIGNATURE / AFFILIATION	/	125	ર્સ /		12	E		completely
	NTAINER SAMPLING POINT	/\$	The Sampled	Con SAMPLING	South I MATRIX	Sui ETTPE.Go.	Por Ex MITIAL	SO <sub>3</sub> SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE - NONE Hg MERCURIC CHLORIDE An incomplete chain of custody may delay the processing of your sample(s).	Please fill out all applicable areas completely LAB USE ONLY
1	Inv Cuttings	12/9	1204	Se		EB	Ņ	Ignitability, Reactive Sulfide & Cyanide	
2		$\left[ \right]$	1	1	C			PCBs, Total Solids	
3	A-flords, Igr.				G			Total Volatile Solids	
4	C- Rectivity	$\prod$		$\prod$	С		Π	Ammonia-Nitrogen	
5	D-TS, TVS			Π.	C		$\square$	Water Leaching Procedure: COD,	
6	E-T. Scaple	V	11	11	C	17	Y	Total Solids, Oil & Grease,	
7	F-TCLP BNA, Rots.						1		
8	G-TCLP States. Sr		¥-	4.5	m	4-	*		
9	H-TCLP pH		1		m		1 .	36 HOUR TURNAROUND	
10	I-TCCP Vels.			170			1	DAY TURNAROUND	
11	J-AST CODING				<u> </u>	1.	1		
LA	B USE CALY								
									ICE ARRIVALIONICE
REL	INQUISTED BY. Jee	angular 14, 2003	[		۵,	10	IME;		DATE: TIME:
REL	INQUISHED BY:			ATE:	<u>7,1</u>		IME:		DATE: , TIME:
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE

ANNUAL REPORT BY THE GENERATOR

typed or legi each attache	bly printed in the spaces ed sheet as Form 26R,	itely completed. All requi s provided. If additional sp reference the item numb	ace is necessary, identi er and identify the da	ify Date Receive	USE:ONLY
prepared. Th	e date on attached shee	ts needs to match the date	noted below.		
	rence 287.54				
Date Prepare		oruary 11, 2011	and a subscription of the second strategy of		
<u> </u>		CEIENT (GENERATOR	R OF THE WASTE) IN	FORMATION	•
Company Na Talisman En	<b>me</b> ergy USA Inc.				
If a Subsidiar	ry, Name of Parent Comp	bany	<u>, , , , , , , , , , , , , , , , , , , </u>	EPA	Generator ID#
Talisman En			<u> </u>	N/A	
	iling Address Line 1	C	ompany Mailing Addres	s Line 2	
50 Pennwoo	dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale	-	PA	15086	(724) 814-530	
	ntact Last Name	First Name	MI	Suffix	<
Brown Municipality		Dina	County		
Warrendale			Allegheny		
Contact Phor	ne Ext	Contact Email Address			pa.u
(724) 814-53		dybrown@talismanusa.c			
		y Mailing Address (noted a			Yes 🖾 No
		eration and storage. <u>Drill c</u> ed at 504 Ballard Hill Road, 0			
containers on			olumbia romanp, prad		
Municipality	Columbia	County Bradfo		State	PA
		SECTION B. WAST	E DESCRIPTION		· · · · · · · · · · · · · · · · · · ·
Residual	Kesid			Unit of	
Waste Code		ual Waste Description	Amount		Time Frame
Waste Code	Code D	escription	Amount	Measure	Frame
Waste Code 810		pescription gas)	1,034	Measure	
810	Code D Drill cuttings (oil and g	pescription gas) 1. General P		Measure	Frame
810 a. pH Ra	Code D Drill cuttings (oil and g	pescription gas) 1. GENERAL P 17 to 7.96	1,034	Measure	Frame
810 a. pH Ra	Code D Drill cuttings (oil and g ange 6.0	pescription gas) 1. General P	1,034	Measure	Frame
810 a. pH Ra b. Physi	Code D Drill cuttings (oil and g ange 6.0 cal State	pescription gas) 1. GENERAL P 7 to 7.96 ☐ Liquid Waste (EPA Me Solid (EPA Method 909 ☐ Gas (ambient temperation)	1,034     []       ROPERTIES       (based on analyses or kr       thod 9095)       95)       ture & pressure)	Measure cu yd gal lb ⊠ ton nowledge)	Frame
810 a. pH Ra b. Physi	Code D Drill cuttings (oil and g ange 6.0	as) <b>1. GENERAL P</b> To 7.96 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal <b>Color</b> Greyish Black	1,034 ROPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor	Measure cu yd gal b ⊠ ton howledge) Earthy/Slight I	Frame
810 a. pH Ra b. Physi	Code D Drill cuttings (oil and g ange 6.0 cal State	Description gas) 1. GENERAL P 07 to 7.96 □ Liquid Waste (EPA Me ○ Solid (EPA Method 909 □ Gas (ambient temperal Color Greyish Black Number of Solid or Liquid	1,034     Image: Constraint of the second seco	Measure         cu yd       gal         lb       ∑ ton         nowledge)	Frame
810 a. pH Ra b. Physi	Code D Drill cuttings (oil and g ange 6.0 cal State	as) <b>1. GENERAL P</b> To 7.96 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal <b>Color</b> Greyish Black	1,034     Image: Constraint of the second seco	Measure         cu yd       gal         lb       ∑ ton         nowledge)	Frame
810 a. pH Ra b. Physi c. Physi	Code D Drill cuttings (oil and g ange 6.0 cal State cal Appearance	as) 1. GENERAL P 7 to 7.96 ↓ Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperation Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	1,034  ROPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. Soil and Roc SIS ATTACHMENTS	Measure cu yd gal b ⊠ ton nowledge) Earthy/Slight F One ck Fragments	Frame
<ul> <li>810</li> <li>a. pH Ra</li> <li>b. Physi</li> <li>c. Physi</li> <li>a. The reinstru</li> </ul>	Code D Drill cuttings (oil and g ange 6.0 cal State cal Appearance	Description         gas)         1. GENERAL P         07 to 7.96         1. Liquid Waste (EPA Method 90%         2. Solid (EPA Method 90%         3. Gas (ambient temperation of Solid or Liquid Color Greyish Black         Number of Solid or Liquid Describe each phase of s         2. CHEMICAL ANALYS         Analysical characterization of the	1,034  ROPERTIES (based on analyses or kr thod 9095) 95) ture & pressure)  Odor I Phases of Separation eparation. Soil and Roc SIS ATTACHMENTS waste, as described in	Measure cu yd gal b ⊠ ton nowledge) Earthy/Slight F One ck Fragments	Frame
810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta	Code D Drill cuttings (oil and g ange 6.0 cal State cal Appearance esults of a detailed chem ictions, is attached. ailed description of the v	Description         gas)         1. GENERAL P         07 to 7.96         1. Liquid Waste (EPA Method 90%         2. Gas (ambient temperation of Solid or Liquid Vaste)         Color       Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS         Lical characterization of the         Vaste sampling method is a	1,034       I         ROPERTIES         (based on analyses or kr         thod 9095)         25)       Odor         Odor         I Phases of Separation         eparation. Soil and Root         SIS ATTACHMENTS         waste, as described in         ttached.	Measure         cu yd       gal         lb       X ton         nowledge)       Ib         Earthy/Slight F       One         One       One         ck Fragments       X         the       X	Frame       One Time       One Time       Petroleum       Yes     No       Yes     No
810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta	Code D Drill cuttings (oil and g ange 6.0 cal State cal Appearance esults of a detailed chem ictions, is attached. ailed description of the v uality assurance/quality	Description         gas)         1. GENERAL P         07 to 7.96         1. Liquid Waste (EPA Method 90%         2. Solid (EPA Method 90%         3. Gas (ambient temperation of Solid or Liquid Color Greyish Black         Number of Solid or Liquid Describe each phase of s         2. CHEMICAL ANALYS         Analysical characterization of the	1,034       I         ROPERTIES         (based on analyses or kr         thod 9095)         25)       Odor         Odor         I Phases of Separation         eparation. Soil and Root         SIS ATTACHMENTS         waste, as described in         ttached.	Measure         cu yd       gal         lb       X ton         nowledge)       Ib         Earthy/Slight F       One         One       One         ck Fragments       X         the       X	Frame       One Time       One Time       Petroleum       Yes     No
a. pH Ra b. Physi c. Physi a. The re instru b. A deta c. The q attach d. The re	Code D Drill cuttings (oil and g ange 6.0 cal State cal Appearance esults of a detailed chem actions, is attached. ailed description of the v uality assurance/quality red. esults of the hazardous v	Description         gas)         1. GENERAL P         07 to 7.96         1. Liquid Waste (EPA Method 90%         2. Gas (ambient temperation of Solid or Liquid Vaste)         Color       Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS         Lical characterization of the         Vaste sampling method is a	1,034       I         ROPERTIES         (based on analyses or kr         thod 9095)         05)       Odor         Odor         I Phases of Separation         eparation. Soil and Roc         SIS ATTACHMENTS         waste, as described in         ttached.         yet by the laboratory(ie         ched.	Measure         cu yd       gal         lb       ton         nowledge)	Frame       One Time       One Time       Petroleum       Yes     No       Yes     No

	2	PROCESS DESCRIPTION	8 SOUTHATIC ATTA	NUMENTO							
	A detailed description of the				<u> </u>						
a.	the waste, as specified in the	instructions, is attache	d.		🛛 Yes	🗌 No					
b.	A schematic of the manufact as specified in the instruction		ontrol processes pro	lucing the waste,	🛛 Yes	🗌 No					
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	🗌 No	🛛 N/A					
	SECTION C. MANAGEMENT OF RESIDUAL WASTE										
			DISPOSAL FACILITY (IE								
The a	rea below (ad.) will accommod	late the identification of	two facilities. Attach	additional sheets	if necessary	•					
a.	Solid waste permit number(s) 100361	for processing or disp	osal facility being util	ized.	,						
b.	Facility Name	McKean County Lan	dfill								
	Address Line 1	19 Ness Lane									
	Address Line 1										
	Address City State ZIP	Kane	PA	16735							
	Municipality	Sergeant Twp	County	McKean							
с.	Facility Contact Name	Mike Manderfeld									
	Title			********							
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com						
d.	Volume of waste shipped to p	rocessing or disposal f	acility in the previous	•	)	~					
a.	Solid waste permit number(s) 9-0232-00003	for processing or disp	osal facility being utíl	ized.							
b.	Facility Name	Hyland Landfill									
	Address Line 1	6653 Herdman Road									
	Address Line 1										
	Address City State ZIP	Angelica	NY	14709							
	Municipality	Angelica	County	Allegany							
c.	Facility Contact Name	Larry Shilling									
	Title		······								
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com						
d.	Volume of waste shipped to p	, ,	acility in the previous								
u.	293	cu yd 📋 gal									
3.2.1.1	an and a star and a star and a		FICIAL USE								
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No					
	If "Yes", list the general perm										
b.	Volume of waste beneficially	used in the previous yea	ar.								
	0	cu yd 🗌 gal	🗌 lb 🗌 ton	(check one)							

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS										
a.	A detailed description of the			esses producing	🛛 Yes	🗌 No				
)	the waste, as specified in the	instructions, is attached	i.							
b.	A schematic of the manufact		ntrol processes pro	ducing the waste,	Yes	No No				
	as specified in the instruction									
C.	If portions of the information			n for 🗌 Yes	🗌 No	🖾 N/A				
a confidentiality claim, as described in the instructions, is attached.										
SECTION C. MANAGEMENT OF RESIDUAL WASTE										
1. PROCESSING OR DISPOSAL FACILITY(IES) The area below (ad.) will accommodate the identification of two facilities. Attach additional sheets if necessary.										
The ai					if necessary	•				
a.	Solid waste permit number(s) 8-4630-00010	for processing or dispo	sal facility being util	ized.						
b.	Facility Name	Hakes C&D Landfill								
	Address Line 1	4376 Manning Ridge	Road							
	Address Line 1									
	Address City State ZIP	Painted Post	NY	14870						
	Municipality	Erwin Twp	County	Steuben						
C.	Facility Contact Name	Joseph Boyles								
	Title									
	Phone	(607) 937-6044	Email Address	joe.boyles@case	ella.com					
		(585) 466-7271								
d.	Volume of waste shipped to p									
	151	cu yd 📃 gal	🗌 lb 🛛 tor	,						
a.	Solid waste permit number(s)	for processing or dispo	sal facility being util	ized.						
	100945									
b.	Facility Name	Cumberland County L	andfill							
	Address Line 1	135 Vaughn Road								
	Address Line 1									
	Address City State ZIP	Newburg	PA	17240						
1	Municipality	Newbug Boro	County	Cumberland						
с.	Facility Contact Name	Dusty Hilbert								
	Title	Compliance Manager								
	Phone	(717) 729-5261	Email Address	dhilbert@iswaste	e.com					
d.	Volume of waste shipped to p	rocessing or disposal fa	cility in the previous	year.						
	72	cuyd 🔲 gal	☐ lb 🛛 ton							
			FICIAL USE	and the second						
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No				
	If "Yes", list the general perm	it number or approval nu	mber.							
b.	Volume of waste beneficially									
	0	cuyd 🗌 gal	b ton	(check one)						

1992	· · · · · · · · · · · · · · · · · · ·	<b>PROCESS DESCRIPTIO</b>	NO CONTRACT		ITO						
-							<u> </u>				
a.	A detailed description of the the waste, as specified in the	<b>.</b> .		oi processes	producing	🛛 Yes	🗌 No				
b.	A schematic of the manufact as specified in the instruction		control proces	ses producin	; the waste,	🛛 Yes	No No				
C.	If portions of the information a confidentiality claim, as des				📋 Yes	🗌 No	N/A				
	SECTI	ON C. MANAGEN	IENT OF R	ESIDUAL	WASTE						
		1. PROCESSING OF	R DISPOSAL FA	CILITY(IES)		2, 2					
The a	rea below (ad.) will accommod	late the identification o	of two facilities	. Attach addi	tional sheets	if necessary	•				
a.	Solid waste permit number(s) 101243	for processing or disp	oosal facility b	eing utilized.							
b.	Facility Name	Chemung County La	andfill								
	Address Line 1	1690 Lake Street									
	Address Line 1										
	Address City State ZIP	Elmira	NY		14903						
	Municipality	Elmira	Cou	i <b>nty</b> Che	mung						
с.	Facility Contact Name										
	Title	Environmental Mana	aner								
	Phone	(585) 797-5941	Email Add	iress carl	a.canjar@ca	sella.com					
d.	Volume of waste shipped to p	. ,	facility in the .								
u.	15	cu yd gal		ton	(check one)						
а.	Solid waste permit number(s)	for processing or disp	osal facility be	eing utilized.							
b.	Facility Name										
	Address Line 1										
	Address Line 1										
	Address City State ZIP										
	Municipality		Cou	nty							
c.	Facility Contact Name										
	Title										
	Phone		Email Add	iress							
d.	Volume of waste shipped to p	rocossing or disposal	facility in the r								
u.		cu yd gal		ton	(check one)						
			EFICIAL USE								
a.	Has the waste been approved	for beneficial use?				Yes	🛛 No				
	lf "Yes", list the general perm	it number or approval i	number.								
b.	Volume of waste beneficially										
	0	cuyd 📋 gal	🗌 lb	ton	(check one)						

•

SECTION D. CERTIFICATION								
Report and all attached doct obtaining the information, I knowledge. I understand tha	that I have personally examined and am familiar with the information submitted in this Annual uments and that based upon my inquiry of those individuals immediately responsible for verify that the submitted information is true, accurate and complete to the best of my t the submission of false information herein is made subject to the penalties of 18 Pa. C.S. sification to authorities, which include fine and imprisonment.							
Check the following, if applica	ble:							
I certify the information	n required in Section B-1, General Properties was supplied to the Department for the year nged.							
Form Submitted:	Form 26R							
	Other (specify)							
Date Submitted:								
I certify the information	n required in Section B-2, Chemical Analysis was supplied to the Department for the year nged.							
Form Submitted:	Form 26R							
	Other (specify)							
Date Submitted:								
I certify the information for the year and I	required in Section B-3, Process Description and Schematic, was supplied to the Department has not changed.							
Form Submitted:	Form 26R							
	Other (specify)							
Date Submitted:								
Name of Responsible Official	Title Environmental Specialist							
Dina Brown Signature	9/8n/ Date 2/2.5/11							

LAB ID: 08-00380 LAB ID: 39-00401		Easter 2566 Pen	Analytics, In n Division nsylvania Ave. PA 18840	C. Work Order: 10112530					
		•	70) 888-0169 70) 888-0717				1.		
SEND DATA	TO:								
NAME:	Steve Gridley			w	O#: 101	12530			
COMPANY:	Talisman Energy USA, Ir	nc.		n,					
	337 Daniel Zenker Dr			P/	AGE: 1 of	2			
	Horseheads, NY 14845			P	O#: AF7	6723			
	(607) 731-0145 (607) 562-4001	TEST	REPORT	P۱	NS ID#				
03-04	15	and a second							
	OR LAB BY: SCP	DATE: 1	1/16/2010 16:40			Pa	age 1 of 2		
SAMPLE: Air	Cuttings	1 a	ь ID: 10112530-001A	Grab					
SAMPLED			"ime: 11/15/2010 18:39	0.00					
· · · · · · · · · · · · · · · · · · ·		Denvik	Mathad	<u>sloq</u>	Analysis Start	Analysis End	Amaluat 1		
Test	· · · ·	Result	Method		Analysis Start	Analysis End	Analyst		
	leum Hydrocarbons	39400 ma/Ka	EPA 9071	170	11/18/10 14.40	11/18/10			
Total Petrol	leum Hydrocarbons Note: Analysis performed by N	39400 mg/Kg /licrobac Laboratories, Ind	EPA 9071 c-Erie Division.	170	11/18/10 14:40	11/18/10			
Total Petrol Sample N	Note: Analysis performed by N	licrobac Laboratories, Inc	c-Erie Division.		11/18/10 14:40	11/18/10			
Total Petrol	Note: Analysis performed by M Cuttings	/licrobac Laboratories, ind	c-Erie Division. b ID: 10112530-001B	170 Grab	11/18/10 14:40	11/18/10			
Total Petrol Sample N SAMPLE: Air SAMPLED	Note: Analysis performed by M Cuttings	licrobac Laboratories, Ind La Sample T	c-Erie Division. b ID: 10112530-001B ïme: 11/15/2010 18:39				trobust *		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u>	Note: Analysis performed by M Cuttings	/licrobac Laboratories, Ind La Sample T <u>Result</u>	c-Erie Division. b ID: 10112530-001B ïme: 11/15/2010 18:39 <u>Method</u>	Grab <u>SLOQ</u>	Analysis Start	Analysis End			
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture	Note: Analysis performed by N Cuttings DBY: SG	/licrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 %	c-Erie Division. b ID: 10112530-001B ïme: 11/15/2010 18:39 <u>Method</u> Moisture Calc.	Grab	<u>Analysis Start</u> 11/17/10 9:00	<u>Analvsis End</u> 11/18/10	IC-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u>	Note: Analysis performed by N Cuttings DBY: SG	/licrobac Laboratories, Ind La Sample T <u>Result</u>	c-Erie Division. b ID: 10112530-001B ïme: 11/15/2010 18:39 <u>Method</u>	Grab <u>SLOQ</u> 0.01	Analysis Start	Analysis End			
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH	Note: Analysis performed by N Cuttings DBY: SG	/licrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C	c-Erie Division. b ID: 10112530-001B ïme: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Grab <u>SLOQ</u> 0.01 0.1	Analysis Start 11/17/10 9:00 11/17/10 9:05	<u>Analvsis End</u> 11/18/10 11/17/10	IC-SA IC-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid	Note: Analysis performed by N Cuttings D BY: SG Cuttings	flicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La	c-Erie Division. b ID: 10112530-001B ime: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C	Grab <u>SLOQ</u> 0.01	Analysis Start 11/17/10 9:00 11/17/10 9:05	<u>Analvsis End</u> 11/18/10 11/17/10	IC-SA IC-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLED	Note: Analysis performed by N Cuttings D BY: SG Cuttings	flicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T	c-Erie Division. b ID: 10112530-001B iime: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C iime: 11/15/2010 18:39	Grab <u>SLOQ</u> 0.01 0.1	Analvsis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52	<u>Analvsis End</u> 11/18/10 11/17/10 11/17/10	ic-sa ic-sa sg-sa		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLED <u>Test</u>	Note: Analysis performed by N Cuttings D BY: SG Cuttings	flicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u>	c-Erie Division. b ID: 10112530-001B ime: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C ime: 11/15/2010 18:39 <u>Method</u>	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u>	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start	Analvsis End 11/18/10 11/17/10 11/17/10 Analvsis End	IC-SA IC-SA SG-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE) <u>Test</u> Sodium	Note: Analysis performed by N Cuttings D BY: SG Cuttings	flicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132	<u>Analvsis Start</u> 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 <u>Analvsis Start</u> 11/18/10 9:00	<u>Analvsis End</u> 11/18/10 11/17/10 11/17/10 <u>Analvsis End</u> 11/18/10	IC-SA IC-SA SG-SA <u>Analyst*</u> GSR-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLED <u>Test</u>	Note: Analysis performed by N Cuttings BY: SG Cuttings BY: SG	flicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u>	c-Erie Division. b ID: 10112530-001B ime: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C ime: 11/15/2010 18:39 <u>Method</u>	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u>	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start	Analvsis End 11/18/10 11/17/10 11/17/10 Analvsis End	IC-SA IC-SA SG-SA <u>Analvst *</u> GSR-CV HDP-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLED <u>Test</u> Sodium Chloride Percent Mo	Note: Analysis performed by N Cuttings D BY: SG Cuttings D BY: SG	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 %	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132 74.8	<u>Analysis Start</u> 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 <u>Analysis Start</u> 11/18/10 9:00 11/18/10 15:13	Analvsis End 11/18/10 11/17/10 11/17/10 <u>Analvsis End</u> 11/18/10 11/19/10	IC-SA IC-SA SG-SA <u>Analyst*</u> GSR-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLED <u>Test</u> Sodium Chloride Percent Mo	Note: Analysis performed by N Cuttings BY: SG Cuttings BY: SG isture P Leachate of Air Cutting	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132	<u>Analysis Start</u> 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 <u>Analysis Start</u> 11/18/10 9:00 11/18/10 15:13	Analvsis End 11/18/10 11/17/10 11/17/10 <u>Analvsis End</u> 11/18/10 11/19/10	IC-SA IC-SA SG-SA Analvst * GSR-CV HDP-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLED <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLED	Note: Analysis performed by N Cuttings BY: SG Cuttings BY: SG isture P Leachate of Air Cutting	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La Sample T	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E Time: 11/17/2010 8:00	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132 74.8	<u>Analysis Start</u> 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 <u>Analysis Start</u> 11/18/10 9:00 11/18/10 15:13 11/17/10 9:00	Analvsis End 11/18/10 11/17/10 11/17/10 <u>Analvsis End</u> 11/18/10 11/19/10 11/18/10	IC-SA IC-SA SG-SA Analvst* GSR-CV HDP-CV IC-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLE) <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE) <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLE] <u>Test</u>	Note: Analysis performed by N Cuttings D BY: SG Cuttings D BY: SG isture P Leachate of Air Cutting BY: SG	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % s La Sample T <u>Result</u>	C-Erie Division. b ID: 10112530-001B ime: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C ime: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E ime: 11/17/2010 8:00 <u>Method</u>	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132 74.8 Grab <u>SLOQ</u>	<u>Analysis Start</u> 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 <u>Analysis Start</u> 11/18/10 9:00 11/18/10 15:13 11/17/10 9:00 <u>Analysis Start</u>	<u>Analvsis End</u> 11/18/10 11/17/10 11/17/10 <u>Analvsis End</u> 11/18/10 11/19/10 11/18/10 <u>Analysis End</u>	IC-SA IC-SA SG-SA Analyst * IC-SA Analyst *		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLED <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLED <u>Test</u> Mercury - Test	Note: Analysis performed by N Cuttings BY: SG Cuttings BY: SG isture P Leachate of Air Cutting BY: SG CLP extracted	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La Sample T <u>Result</u> < 0.0008 mg/L	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E Time: 11/17/2010 8:00 <u>Method</u> EPA 7470A	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 74.8 Grab <u>SLOQ</u> 0.0008	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start 11/18/10 9:00 11/18/10 9:00 11/18/10 9:00 Analysis Start 11/17/10 9:00	Analvsis End 11/18/10 11/17/10 11/17/10 11/17/10 Analvsis End 11/18/10 11/18/10 Analysis End 11/18/10	IC-SA IC-SA SG-SA Analyst * GSR-CV HDP-CV IC-SA Analyst * KW-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLE) <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLED <u>Test</u> Mercury - Te Arsenic - TC	Note: Analysis performed by N Cuttings DBY: SG Cuttings BY: SG BY: SG P Leachate of Air Cutting BY: SG CLP extracted CLP extracted	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La Sample T <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E Time: 11/17/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0008 0.500	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start 11/18/10 9:00 11/18/10 15:13 11/17/10 9:00 Analysis Start 11/17/10 9:00 11/18/10 13:15	Analvsis End 11/18/10 11/17/10 11/17/10 11/17/10 Analvsis End 11/18/10 11/18/10 11/18/10 11/18/10 11/18/10	Analvst* GSR-CV HDP-CV IC-SA		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLE) <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLE: TCL SAMPLED <u>Test</u> Mercury - T( Arsenic - TC) Barium - TC	Note: Analysis performed by N Cuttings BY: SG Cuttings BY: SG BY: SG BY: SG CLP extracted CLP extracted CLP extracted CLP extracted	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La Sample T <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E Time: 11/17/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 74.8 Grab <u>SLOQ</u> 0.0008	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start 11/18/10 9:00 11/18/10 9:00 11/18/10 9:00 Analysis Start 11/17/10 9:00	Analvsis End 11/18/10 11/17/10 11/17/10 11/17/10 Analvsis End 11/18/10 11/18/10 Analysis End 11/18/10	Analyst* GSR-CV HDP-CV IC-SA Analyst* KW-CV GSR-CV GSR-CV		
Total Petrol Sample N SAMPLE: Air ( SAMPLED <u>Test</u> Moisture Free Liquid pH SAMPLE: Air ( SAMPLE: Air ( SAMPLE) <u>Test</u> Sodium Chloride Percent Mo SAMPLE: TCL SAMPLED <u>Test</u> Mercury - TC Arsenic - TC Barium - TC Cadmium - TC	Note: Analysis performed by N Cuttings DBY: SG Cuttings BY: SG BY: SG P Leachate of Air Cutting BY: SG CLP extracted CLP extracted	Alicrobac Laboratories, Ind La Sample T <u>Result</u> 34.8 % < 0.1 % 7.96@24.3°C La Sample T <u>Result</u> 294 mg/Kg-dry 1030 mg/Kg-dry 34.8 % <b>s</b> La Sample T <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	C-Erie Division. b ID: 10112530-001B Time: 11/15/2010 18:39 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C b ID: 10112530-001C Time: 11/15/2010 18:39 <u>Method</u> EPA 6010B EPA 300.0 SM2540G b ID: 10112530-001E Time: 11/17/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 132 74.8 Grab <u>SLOQ</u> 0.0008 0.500 10.00	Analysis Start 11/17/10 9:00 11/17/10 9:05 11/17/10 16:52 Analysis Start 11/18/10 9:00 11/18/10 15:13 11/17/10 9:00 Analysis Start 11/17/10 9:00 11/18/10 13:15	Analvsis End 11/18/10 11/17/10 11/17/10 Analvsis End 11/18/10 11/18/10 11/18/10 11/18/10 11/18/10 11/18/10	Analvst* GSR-CV HDP-CV IC-SA		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER \_\_\_\_\_ Davis \_\_\_\_\_ DATE: \_\_\_\_\_\_DATE: \_\_\_\_\_\_

LAB ID: 08-00380 LAB ID: 39-00401		2566 Penr	Analytics, Ir Division Isylvania Ave. PA 18840	IC.	Work Order: 10112530				
			0) 888-0169 0) 888-0717						
SEND DAT	A TO:								
NAME:	Steve Gridley			WO#:	10112	530			
COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr		nc.	э.						
ADDRESS:	Horseheads, NY 14845			PO#:	AF767	- 			
	· .					25			
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	REPORT	PWS	ID#				
03-	045								
RECEIVED	FOR LAB BY: SCP	DATE: 1	1/16/2010 16:40			Р	age 2 of 2		
Lead - T	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500 11/	18/10 13:15	11/18/10	GSR-CV		
Nickel -	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 11/	1 <b>8/10</b> 13:15	11/18/10	GSR-CV		
Seleniun	n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 11/	18/10 13:15	11/18/10	GSR-CV		
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100 11/	18/10 13:15	11/18/10	GSR-CV		
Zinc - TC	CLP extracted	2.15 mg/L	EPA 6010B	0.200 11/	18/10 13:15	11/18/10	GSR-CV		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: \_\_\_\_11/19/2010

UTAIN OF CUSTODI	<b>CHAIN</b>	OF	CUSTODY	
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REPORT TO: Talisman / UEG	]								
geowetlands@aol.com	1						W/O#: 10112530	ARE SPECIAL DETECT	
	REF	RIGER	ATE S	AMPLE	Es		RESULTS ARE BEING USED FOR:	NEEDED: YES /	_
		ER CO							
0.01/74.07	-					/ GV	V GROUND WATER SO SOIL		
CONTACT Steve Gridley	· ·	TRANS	SPORT			/ sv w	WASTE WATER OTHER		NO
PH# 607-731-0145	].	T	-				DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	_ IF YES, PLEASE ATTAC	H REQUIREMENTS
FAX#		ABOR		r		10	H HYDROCHLORIC ACID OH SODIUM HYDROXIDE S SULFURIC ACID AS ASCORBIC ACID		
BILL TO: Talisman	_	WITH		,	/ ,	/ 🛓	N NITRIC ACID AC ACETIC ACID SO3 SODIUM SULFITE NH, AMMONIUM CHLORIDE		
			-7	/		~~/ ~~/	This SODIUM THIOSULFATE ZN ZINC ACETATE		
PO# AF 78489	_		/	بر ا	/8	§ / 3	- NONE Hg MERCURIC CHLORIDE	F Pleas	e fill out all
PROJECT DESCRIPTION					jui j		イム An incomplete chain of custody may delay the ろう を processing of your sample(s). 名	applic	able areas
SAMPLER SIGNATURE / AFFILIATION	] /	13	\$	4	14	3			mpletely
CONTAINER SAMPLING POINT		The Sampled	SALLE OF SALLELING	SALEMATRIX	10	PRESS MITALS	An incomplete chain of custody may delay the processing of your sample(s).	LAB USE	ONLY
1 Air Cuttings	1/15	1839	50	C	S	N	ТРН		
2							pH, Chlorides, Sodium		
3							TCLP 8 RCRA Metals + Cu, Ni, Zn		
4 A - TPH		1					Free Liquids / % Moisture		
5 B- pH free liguid, 1. miost	ire	1							
6 c- Anions, metals							Perform BTEX ONLY IF the TPH		
7 D- TUTAL Sample							exceeds 100,000 mg/Kg		
8 E- TCLP metals.									
9							<u>72</u> HOUR TURNAROUND		
10		T					DAY TURNAROUND		
11									
				3/2001 3/2001					
RELITION SHED BY:		[	DATE:	GI	0	TIME:	SYO RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:			DATE:	<u> </u>		TIME:	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:		[	DATE:			TIME:	RECEIVED BY: SOLA LEWY	DATE: 116/10	TIME:
							OMGAU	Ad Gr	raphics Printing 570-888-068

LAB ID: 08-00380 LAB ID: 39-00401		Benchmark Analytics, Inc. Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840			C. Work Order: 10120827			
			(570) 888-0169 (570) 888-0717					
SEND DATA	TO:							
NAME:	Steve Gridley			W	O#: 1012	0827		
COMPANY:		С.			05. 1.4			
ADDRESS:	337 Daniel Zenker Dr			PA	GE: 1 of '	1		
	Horseheads, NY 14845			PC	)#: AF78	3489		
PHONE:	(607) 731-0145	TE	ST REPORT	P٧	VS ID#			
FAX:	(607) 562-4001							
03-0	045	1	· ·					
RECEIVED F	FOR LAB BY: CMS	DATE	E: 12/06/2010 15:40			Pa	age 1 of 1	
SAMPLE: In	v Cuttings + Omni		Lab ID: 10120827-001A	Compo	site			
	ED BY: SG	Sam	ple Time: 12/06/2010 11:22	•				
Test		<u>Result</u>	Method	<u>sloq</u>	Analysis Start	Analysis End	Analyst *	
	roleum Hydrocarbons	22800 mg/Kg	EPA 9071		12/08/10 14:20	12/08/10	Analyst	
	e Note: Analysis performed by N							
SAMPLE: In	v Cuttings + Omni	· · · · · · · · · · · · · · · · · · ·	Lab ID: 10120827-001B	Compo	site			
	ED BY: SG	Sam	ple Time: 12/06/2010 11:22	•				
<b>T</b> 4		Decult	Billethead	<u>SLOQ</u>	Analysia Clark	Archiola Ead	A	
<u>Test</u> Moisture	·	<u>Result</u> 33.1 %	<u>Method</u> Moisture Calc.	0.01	Analysis Start 12/06/10 17:30	Analysis End 12/07/10	IC-SA	
Free Liqui	id	< 0.1 %	EPA 9095A	0.1	12/06/10 17:00	12/06/10	IC-SA	
pH		6.07@21.7°C	EPA 9045C	0.1	12/07/10 14:20	12/07/10	MED-SA	
			Lab ID: 10120827-001E	Compo				
	CLP Leachate of Inv Cutting ED BY: SG		ple Time: 12/07/2010 8:00	Compos	ыс			
				SLOQ				
Test	·	Result	Method		Analysis Start	Analysis End	Analyst *	
Mercury -	TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/07/10 10:15	12/09/10	KW-CV	
•	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-CV	
Arsenic -	TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/08/10 12:15	12/08/10	GSR-CV	
Arsenic - Barium - 1			EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-CV	
Arsenic - Barium - Cadmium	- TCLP extracted	< 0.100 mg/L		0 500	4000000 40-40		000 01	
Arsenic - Barium - Cadmium Chromium	n - TCLP extracted n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	<b>12/08/</b> 10	GSR-CV	
Arsenic - Barium - Cadmium Chromium Copper -	n - TCLP extracted n - TCLP extracted TCLP extracted	< 0.500 mg/L < 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10 12/08/10	GSR-CV	
Arsenic - Barium - Cadmium Chromium Copper - Lead - TC	n - TCLP extracted n - TCLP extracted TCLP extracted CLP extracted	< 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 6010B EPA 6010B	0.100 0.500	12/08/10 12:15 12/08/10 12:15	12/08/10 12/08/10 12/08/10	GSR-CV GSR-CV	
Arsenic - Barium - Cadmium Chromium Copper - Lead - TC Nickel - T	n - TCLP extracted n - TCLP extracted TCLP extracted CLP extracted TCLP extracted	< 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B EPA 6010B	0.100 0.500 0.100	12/08/10 12:15 12/08/10 12:15 12/08/10 12:15	12/08/10 12/08/10 12/08/10 12/08/10	GSR-CV GSR-CV GSR-CV	
Arsenic - Barium - 1 Cadmium Chromium Copper - Lead - TC Nickel - T Selenium	n - TCLP extracted n - TCLP extracted TCLP extracted CLP extracted	< 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 6010B EPA 6010B	0.100 0.500	12/08/10 12:15 12/08/10 12:15	12/08/10 12/08/10 12/08/10	GSR-CV GSR-CV	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Carrie M. Davis MANAGER

DATE: <u>12/10/2010</u>

PAGE 1 OF 1 CHAIN OF CUSTODY **REPORT TO:** Talisman / UEG W/O#: 10120827 ARE SPECIAL DETECTION LIMITS geowetlands@aol.com NEEDED: YES / 7 NO REFRIGERATE SAMPLES RESULTS ARE BEING USED FOR: IF YES, PLEASE ATTACH NYDEC AFTER COLLECTION IZ PADEP NYDOH ึกพ DRINKING WATER SL SLUDGE IS A QC PACKAGE NEEDED? GROUND WATER SO SOL G₩ CONTACT SURFACE WATER HZ HAZARDOUS SW LANDFILL Steve Gridley YES ZINO TRANSPORT ww WASTE WATER OTHER PERSONAL OTHER DISTILLED WATER DEIONIZED WATER DI 607-731-0145 то DE IF YES, PLEASE ATTACH REQUIREMENTS PH# SAMPLE TYPE - GRAB/COMPOSITE PRESERVATIVE ADDED ON RECEIPT F LABORATORY HYDROCHLORIC ACID SODIUM HYDROXIDE ′н OH FAX# SULFURIC ACID S AS ASCORBIC ACID IN COOLER BILL TO: Talisman Ν NITRIC ACID AC ACETIC ACID WITH ICE COMPOSITED ON RECEIPT SO<sub>1</sub> SODIUM SULFITE NH, AMMONIUM CHLORIDE SODIUM THIOSULFATE Thio ΖN ZINC ACETATE The of Suntung NONE MERCURIC CHLORIDE Ha F78489 SAMPLE MUTRIX Please fill out all PRESERVATIVE Date Sampled 03-045 An incomplete chain of custody may delay the applicable areas processing of your sample(s). SAMPLER SIGNATURE / AFFILIATION completely SAMPLING POINT CONTAINER ANALYSIS TO BE PERFORMED LAB USE ONLY (PER CONTAINER) 12/6 1122 50 56 N Inv Cuttings + Own i 6 TPH pН 2 TCLP 8 RCRA Metals + Cu, Ni, Zn 3 Free Liquids / % Moisture 4 A. TPH 5 Perform BTEX ONLY IF the TPH B- pH, Free liquid, 1. moisture C- Anions, metals 6 exceeds 100,000 mg/Kg 7 D- Total Sample 8 HOUR TURNAROUND AW F-TCLP metals. 9 DAY TURNAROUND 10 11 LAB USE ONLY TEMPERATURE UPONIRECEIPT VERED RELINOVISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME: 540 1216110 1 P 1 RECEIVED BY: RELINQUISHED BY DATE: TIME: DATE: TIME: 1 1 1 TIME: RECEIVED BY ME: (e10 **RELINQUISHED BY:** DATE: Ad Graphics Printing 578-

PA ID #: 08-00380 NY ID # 11216	2566 Penr	Analytics, In n Division nsylvania Ave. PA 18840	IC.	C. Work Order: 10121740				
		70) 888-0169 70) 888-0717						
SEND DATA TO:								
NAME: Dina Brown			w	O#: 1012	21740			
COMPANY: Talisman Energy USA	, Inc.				0			
ADDRESS: 337 Daniel Zenker Dr	47		P7	AGE: 1 of	3			
Horseheads, NY 148	ł0		P	D#: AF78	3489			
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST	REPORT	P۱	WS ID#				
FAX: (607) 562-4001								
03-045								
RECEIVED FOR LAB BY: RML	DATE: 1	2/09/2010 15:45			Pa	ige 1 of 3		
SAMPLE: Inv. Cuttings	la	b ID: 10121740-001A	Grab					
SAMPLED BY: SG	Sample T	0.05						
Test			<u>SLOQ</u>		A subjects Frank			
Test	Result Neg ASIS °F	Method		Analysis Start	Analysis End	Analyst *		
Ignitability	Neg ASIS °F	<u>Method</u> SW846 1030		Analysis Start 12/15/10 13:30	<u>Analysis End</u> 12/15/10	<u>Analyst *</u>		
Ignitability Sample Note: Analysis performed t	Neg ASIS °F oy QC Laboratories	SW846 1030				<u>Analyst *</u>		
Ignitability Sample Note: Analysis performed t SAMPLE: Inv. Cuttings	Neg ASIS °F by QC Laboratories Lai	SW846 1030	Grab			<u>Analyst *</u>		
Ignitability Sample Note: Analysis performed t	Neg ASIS °F by QC Laboratories Lai	SW846 1030	Grab			<u>Analyst *</u>		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u>	Neg ASIS °F by QC Laboratories Lai	SW846 1030						
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive	Neg ASIS °F by QC Laboratories Lat Sample T <u>Result</u> 0.2 mg/Kg	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00		12/15/10 13:30	12/15/10			
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u>	Neg ASIS °F by QC Laboratories Lal Sample T <u>Result</u>	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u>	<u>SLOQ</u>	12/15/10 13:30	12/15/10	Analyst *		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive	Neg ASIS °F by QC Laboratories Lat Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2	<u>SLOQ</u> 0.2	12/15/10 13:30 Analysis Start 12/13/10 8:56	12/15/10 Analysis End 12/14/10	Analvst * HDP-CV		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide	Neg ASIS °F by QC Laboratories Lat Sample T 0.2 mg/Kg 1300 mg/Kg Lat	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3	SLOQ 0.2 16 Grab	12/15/10 13:30 Analysis Start 12/13/10 8:56	12/15/10 Analysis End 12/14/10	Analvst * HDP-CV		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG	Neg ASIS °F by QC Laboratories Lat Sample T 0.2 mg/Kg 1300 mg/Kg Lat Sample T	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00	<u>SLOQ</u> 0.2 16	12/15/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30	12/15/10 Analysis End 12/14/10 12/14/10	<u>Analvst *</u> HDP-CV LTW-CV		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u>	Neg ASIS °F by QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample Tr <u>Result</u>	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u>	SLOQ 0.2 16 Grab SLOQ	12/15/10 13:30 <u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u>	12/15/10 Analysis End 12/14/10 12/14/10 Analysis End	Analvst * HDP-CV LTW-CV Analvst *		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG	Neg ASIS °F by QC Laboratories Lat Sample T 0.2 mg/Kg 1300 mg/Kg Lat Sample T	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00	SLOQ 0.2 16 Grab	12/15/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30	12/15/10 Analysis End 12/14/10 12/14/10	<u>Analvst *</u> HDP-CV LTW-CV <u>Analvst *</u> IC-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids	Neg ASIS °F ay QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample Tr <u>Result</u> 59.58 % Wght. 30.21 % Wght.	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10 0.01	Analysis Start 12/13/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00	12/15/10 <u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	<u>Analyst *</u> HDP-CV LTW-CV <u>Analyst *</u>		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cut	Neg ASIS °F by QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. Lai	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10 0.01 Grab	Analysis Start 12/13/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00	12/15/10 <u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	<u>Analvst *</u> HDP-CV LTW-CV <u>Analvst *</u> IC-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutt SAMPLED BY: SG	Neg ASIS °F by QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. Lai Sample T Sample T	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10 0.01 Grab	Analysis Start 12/13/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00	12/15/10 Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10	Analvst * HDP-CV LTW-CV <u>Analvst *</u> IC-SA NFM-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutt SAMPLED BY: SG <u>Test</u>	Neg ASIS °F by QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. Lai Sample T Result	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u>	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ	12/15/10 13:30           Analysis Start           12/13/10 8:56           12/13/10 8:56           12/14/10 12:30           Analysis Start           12/10/10 17:00           12/10/10 8:00           Analysis Start           12/10/10 8:00	12/15/10 <u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u>	Analvst * HDP-CV LTW-CV <u>Analvst *</u> IC-SA NFM-SA <u>Analvst *</u>		
Ignitability Sample Note: Analysis performed I SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG <u>Test</u> Pyridine	Neg ASIS °F by QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. tings Lai Sample T <u>Result</u> Sample T	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.11           Grab	12/15/10 13:30 <u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48	12/15/10 <u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u> 12/15/10	Analvst * HDP-CV LTW-CV Analvst * IC-SA NFM-SA Analvst * RHH-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene	Neg ASIS °F by QC Laboratories Lai Sample T Result 0.2 mg/Kg 1300 mg/Kg Lai Sample T Result 59.58 % Wght. 30.21 % Wght. tings Lai Sample T Result < 0.10 mg/L < 0.10 mg/L	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.110           O.10           0.10           0.10	12/15/10 13:30 <u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48 12/15/10 7:48	12/15/10 <u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u> 12/15/10 12/15/10	Analvst * HDP-CV LTW-CV Analvst * IC-SA NFM-SA Analvst * RHH-SA RHH-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutt SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol	Neg ASIS °F ay QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. tings Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.110           0.10           0.10           0.10           0.10           0.10           0.10           0.10	12/15/10 13:30 <u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48 12/15/10 7:48	12/15/10 Analysis End 12/14/10 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10	Analvst * HDP-CV LTW-CV Analvst * IC-SA NFM-SA RHH-SA RHH-SA RHH-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol	Neg ASIS °F ay QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. tings Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	12/15/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	12/15/10 Analysis End 12/14/10 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	Analvst * HDP-CV LTW-CV IC-SA NFM-SA RHH-SA RHH-SA RHH-SA RHH-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutt SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol Hexachloroethane	Neg ASIS °F by QC Laboratories Lai Sample T Result 0.2 mg/Kg 1300 mg/Kg Lai Sample T Result 59.58 % Wght. 30.21 % Wght. Lai Sample T Result 59.58 % Wght. Lai Sample T Result < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	12/15/10 13:30         Analysis Start         12/13/10 8:56         12/13/10 8:56         12/14/10 12:30         Analysis Start         12/10/10 12:30         Analysis Start         12/10/10 8:00         Analysis Start         12/10/10 8:00         Analysis Start         12/15/10 7:48         12/15/10 7:48         12/15/10 7:48         12/15/10 7:48         12/15/10 7:48         12/15/10 7:48         12/15/10 7:48	12/15/10 Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	Analvst * HDP-CV LTW-CV Analvst * IC-SA NFM-SA RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA		
Ignitability Sample Note: Analysis performed to SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol	Neg ASIS °F ay QC Laboratories Lai Sample T <u>Result</u> 0.2 mg/Kg 1300 mg/Kg Lai Sample T <u>Result</u> 59.58 % Wght. 30.21 % Wght. tings Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	SW846 1030 b ID: 10121740-001C ime: 12/08/2010 20:00 <u>Method</u> SW 7.3.3.2 SW846 7.3 b ID: 10121740-001D ime: 12/08/2010 20:00 <u>Method</u> SM2540B EPA 160.4 b ID: 10121740-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	12/15/10 13:30 Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	12/15/10 Analysis End 12/14/10 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	Analvst * HDP-CV LTW-CV Analvst * IC-SA NFM-SA RHH-SA RHH-SA RHH-SA RHH-SA		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

- B Analyte detected in the associated Method Blank
- E Value above quantitation range

MANAGER

Camie M. Davis

DATE: 12/16/2010

SEND DATA TO:

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# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave.

Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

Vork Order:	10121740
vork Order:	10121740

PHONE:         (607) 562-4000         TEST REPORT         PWS ID#           03-045         03-045         Page 2 of 3           RECEIVED FOR LAB BY: RML         DATE:         12/09/2010 15:45         Page 2 of 3           2,4,6-Trichlorophenol         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           2,4,6-Trichlorophenol         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           2,4,6-Trichlorophenol         < 0.00 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           2,4,0-Initrotoluene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           2,4-Dinitrotoluene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           Age/Dinitrotoluene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHI-SA           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121740-0016         Grab         SLOQ           Sample Note:         Sample Time: 12/11/2010 12:45         SLOQ         Analysis Start         Analysis Start         Analysis End         Analysis Start           JH         6.120/16.7°C	NAME: COMPANY: ADDRESS:	Dina Brown Talisman Energy USA, In 337 Daniel Zenker Dr Horseheads, NY 14845	<b>C</b> .					1012 2 of 3 AF78	3	
RECEIVED FOR LAB BY: RML         DATE: 12/09/2010 15:45         Page 2 of 3           2.4.6-Trichlorophenol         < 0.10 mg/L			Т	EST REF	PORT	PV	NS 1D#			
2,4,6-Trichlorophenol         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10 RHH-SA           2,4,5-Trichlorophenol         < 0.10 mg/L	03-0	045			· · · · · · · · · · · · · · · · · · ·			• • • • •		
2.4,5-Trichlorophenol         < 0.10 mg/L	RECEIVED F	FOR LAB BY: RML	DA	TE: 12/09/	/2010 15:45				Pa	age 2 of 3
Pentachlorophenol         < 0.50 mg/L         EPA 8270C         0.50         12/15/10         7.48         12/15/10         RHH-SA           2,4-Dinitrotoluene         < 0.10 mg/L	2,4,6-Tric	chlorophenol	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
2,4-Dinitrotoluene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10         RHH-SA           Hexachlorobenzene         < 0.10 mg/L	2,4,5-Tric	chlorophenol	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-\$A
Hexachlorobenzene Naphthalene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10         RHH-SA           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121740-001G         Grab         12/15/10         RHH-SA           SAMPLED BY: SG         Sample Time: 11/17/2010 8:00         Grab         SLOQ         Analysis Start         Analysis End         A	Pentachic	orophenol	< 0.50 mg/L		EPA 8270C	0.50	12/15/10	7:48	12/15/10	RHH-SA
Naphthalene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7.48         12/15/10         RHH-SA           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121740-001G         Grab         Sample Time: 11/17/2010 8:00         Analysis Start         Analysis End         Analysis Time: 11/17/2010 8:00         Sample Time: 12/11/2010 12:45         Sample Time: 12/13/2010 8:45         Analysis Start         Analysis End         Analysis Start	2,4-Dinitro	otoluene	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
SAMPLE:     TCLP Leachate of Inv. Cuttings     Lab ID: 10121740-001G     Grab       SAMPLED BY: SG     Sample Time: 11/17/2010 8:00     SLOQ       Test     Result     Method     0.050       SAMPLED BY: SG     Sample for TCLP extracted     7.33 mg/L     E       Strontium - TCLP extracted     7.33 mg/L     E     EPA 6010B     0.050       Sample Note:     Sample for TCLP extracted Strontium was received on 11/16/10 at 16:40 by SCP.     11/18/10 13:15     11/18/10       SAMPLED BY: SG     Sample Time: 12/11/2010 12:45     SLOQ     Analysis Start     Analysis End       MPH     6.12@16.7°C     SM4500H+B     SLOQ     Analysis Start     Analysis End       PH     6.12@16.7°C     SM4500H+B     12/14/10 8:00     12/14/10     SG-SA       SAMPLE:     ZHE Extract of Inv. Cuttings     Lab ID: 10121740-0011     Grab       SAMPLED BY: SG     Sample Time: 12/13/2010 8:45     SLOQ       Test     Result     Method     Analysis Start     Analysis End       Benzene     < 0.0250 mg/L	Hexachio	robenzene	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
SAMPLED BY: SGSample Time: 11/17/2010 8:00IestResultMethodAnalysis StartAnalysis EndAnalysisStrontlum - TCLP extracted7.33 mg/LEEPA 6010B0.05011/18/10 13:1511/18/10GSR-CVSample Note: Sample for TCLP extracted Strontlum was received on 11/16/10 at 16:40 by SCP.Grab11/18/10GSR-CVSAMPLE: TCLP Leachate of Inv. CuttingsLab ID: 10121740-001HGrabSLOQAnalysis StartAnalysis EndAnalysisImage: Sample Der SGSample Time: 12/11/2010 12:45SLOQAnalysis StartAnalysis EndAnalysispH6.12@16.7°CSM4500H+B12/14/10 8:0012/14/10SG-SASAMPLE: ZHE Extract of Inv. CuttingsLab ID: 10121740-0011GrabSLOQAnalysis StartAnalysis EndAnalysis'SAMPLED BY: SGSample Time: 12/13/2010 8:45Sample Time: 12/13/2010 8:45SLOQAnalysis StartAnalysis EndAnalysis'SAMPLED BY: SGSample Time: 12/13/2010 8:45SLOQAnalysis StartAnalysis EndAnalysis'Benzene< 0.0250 mg/L	Naphthal	ene	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
SAMPLED BY: SG         Sample Time: 11/17/2010 8:00         SLOQ         Analysis Start         Analysis End         A	SAMPLE: TO	CLP Leachate of Inv. Cutting	18	Lab ID:	10121740-001G	Grab				
IestResultMethodAnalysis StartAnalysis EndAnalysisStrontlum - TCLP extracted7.33 mg/LEEPA 6010B0.05011/18/10 13:1511/18/10GSR-CVSample Note:Sample for TCLP extracted Strontlum was received on 11/16/10 at 16:40 by SCP.Grab5511/18/10GSR-CVSAMPLE:TCLP Leachate of Inv. CuttingsLab ID: 10121740-001HGrabGrab555SAMPLED BY: SGSample Time: 12/11/2010 12:45SLOQAnalysis StartAnalysis EndAnalysispH6.12@16.7°CSM4500H+B12/14/10 8:0012/14/10SG-SASAMPLE:ZHE Extract of Inv. CuttingsLab ID: 10121740-0011Grab12/14/10SG-SASAMPLED BY: SGSample Time: 12/13/2010 8:45SI_OQ12/14/1012/14/10SG-SASAMPLED BY: SGSample Time: 12/13/2010 8:45SI_OQ12/14/1012/14/10SG-SASAMPLED BY: SGSample Time: 12/13/2010 8:45SI_OQ12/14/1012/14/10CTM-SAGarbon tetrachloride< 0.0250 mg/L				ample Time: 1	1/17/2010 8:00					
Strontlum - TCLP extracted         7.33 mg/L         E         EPA 6010B         0.050         11/18/10         11/18/10         GSR-CV           Sample Note:         Sample for TCLP extracted Strontlum was received on 11/16/10 at 16:40 by SCP.         Grab         11/18/10         11/18/10         GSR-CV           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121740-001H         Grab         Grab         11/18/10         SAMPLED BY: SG         Analysis Start         Analysis End         Analysis E				·		<u>SLOQ</u>		<b>.</b>		
Sample Note: Sample for TCLP extracted Strontium was received on 11/16/10 at 16:40 by SCP.SAMPLE: TCLP Leachate of Inv. CuttingsLab ID: 10121740-001HGrabSAMPLED BY: SGSample Time: 12/11/2010 12:45TestResultMethodAnalysis StartAnalysis EndAnalyst *pH6.12@16.7°CSM4500H+B12/14/10 8:0012/14/10SG-SASAMPLED BY: SGLab ID: 10121740-001IGrabSAMPLED BY: SGSample Time: 12/13/2010 8:45SAMPLED BY: SGSample Time: 12/13/2010 8:45TestResultMethodAnalysis StartAnalysis EndAnalyst *Benzene< 0.0250 mg/LEPA 8260B0.025012/13/10 8:1112/13/10CTM-SACarbon tetrachloride< 0.0250 mg/LEPA 8260B0.025012/13/10 8:1112/13/10CTM-SAChlorobenzene< 0.0250 mg/LEPA 8260B0.025012/13/10 8:1112/13/10CTM-SALab ID: 10,200 mg/LEPA 8260B0.025012/13/10 8:1112/13/10CTM-SAColspan="4">Colspan=4Colspan=16Colspan=16Colspan=12MethodAnalysis StartAnalysis EndAnalysisSAMPLED BY: SGEPA 8260B0.025012/13/10 8:1112/13/10CTM-SACarbon tetrachloride< 0.0250 mg/LEPA 8260B0.025012/13/10 8:1112/13/10CTM-SAChlorobenzene< 0.0250 mg/LEPA 8260B0.0250				-						
SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121740-001H         Grab           SAMPLED BY: SG         Sample Time: 12/11/2010 12:45         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis End           pH         6.12@16.7°C         SM4500H+B         12/14/10 8:00         12/14/10         SG-SA           SAMPLE:         ZHE Extract of Inv. Cuttings         Lab ID: 10121740-001I         Grab         Analysis End         An			-				11/18/10	13:15	11/18/10	GSR-UV
SAMPLED BY: SG         Sample Time: 12/11/2010 12:45         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis           pH         6.12@16.7°C         SM4500H+B         12/14/10 8:00         12/14/10         SG-SA           SAMPLE:         ZHE Extract of Inv. Cuttings         Lab ID: 10121740-0011         Grab         12/14/10         SG-SA           SAMPLED BY: SG         Sample Time: 12/13/2010 8:45         SLOQ         SLOQ         12/14/10         SG-SA           Test         Result         Method         Analysis Start         Analysis End         Analysis           Benzene         < 0.0250 mg/L	·									
Test pH         Result 6.12@16.7°C         Method SM4500H+B         Analysis Start 12/14/10 8:00         Analysis End 12/14/10         Analysis End SG-SA           SAMPLE:         ZHE Extract of Inv. Cuttings SAMPLED BY: SG         Lab ID: 10121740-0011 Sample Time: 12/13/2010 8:45         Grab         France         Analysis Start         Analysis End 12/14/10         Analysis Mark           Test         Result         Method         SLOQ         Analysis Start         Analysis End 12/13/10         Analysis End SG-SA           Test         Result         Method         Analysis Start         Analysis End 12/13/10         Analysis End CTM-SA           Carbon tetrachloride         <0.0250 mg/L		-	-			Grab				
Test pH         Result 6.12@16.7°C         Method SM4500H+B         Analysis Start 12/14/10 8:00         Analysis End 12/14/10         Analysis End SG-SA           SAMPLE:         ZHE Extract of Inv. Cuttings SAMPLED BY: SG         Lab ID: 10121740-0011         Grab         Grab         Image: Start star	SAMPLE	ED BY: SG	Sa	ample Time: 1	12/11/2010 12:45	SI 00				
pH         6.12@16.7°C         SM4500H+B         12/14/10 8:00         12/14/10         SG-SA           SAMPLE:         ZHE Extract of Inv. Cuttings SAMPLED BY: SG         Lab ID: 10121740-0011 Sample Time: 12/13/2010 8:45         Grab         SILOQ	Test		Result		Method	OLOG	Analysis	Start	Analysis End	Analyst *
SAMPLED BY: SG         Sample Time: 12/13/2010 8:45         SLOQ         Analysis Start         Analysis End         Analysis End         Analysis End         Analysis End         Analysis *           Benzene         < 0.0250 mg/L			6.12@16.7°C							
SAMPLED BY: SG         Sample Time: 12/13/2010 8:45         SLOQ         Analysis Start         Analysis End         Analysis End         Analysis End         Analysis End         Analysis *           Benzene         < 0.0250 mg/L	SAMPLE: 71	JE Extract of Inv. Cuttinge		l ah ID <sup>.</sup>	10121740-001	Grah				
Test         Result         Method         Analysis Start         Analysis End         A		-				0100				
Benzene         < 0.0250 mg/L         EPA 8260B         0.0250         12/13/10         8:11         12/13/10         CTM-SA           Carbon tetrachloride         < 0.0250 mg/L			01	ampio timo.	12/10/2010 0.40	SLOQ				
Carbon tetrachloride         < 0.0250 mg/L         EPA 8260B         0.0250         12/13/10         12/13/10         CTM-SA           Chlorobenzene         < 0.0250 mg/L	<u>⊤est</u>		<u>Result</u>		<u>Method</u>		<u>Analysis</u>	Start	Analysis End	Analyst *
Chlorobenzene         < 0.0250 mg/L         EPA 8260B         0.0250         12/13/10         12/13/10         CTM-SA           Chloroform         < 0.0250 mg/L	Benzene		< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
Chloroform         < 0.0250 mg/L         EPA 8260B         0.0250 12/13/10 8:11         12/13/10         CTM-SA           1,2-Dichloroethane         < 0.0250 mg/L	Carbon te	etrachloride	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	
1,2-Dichloroethane < 0.0250 mg/L EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA	Chlorobe	nzene	< 0.0250 mg/L		EPA 8260B		12/13/10	8:11	12/13/10	
-	Chlorofor	m	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	
1,1-Dichloroethene < 0.0250 mg/L EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA	1,2-Dichle	oroethane	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
	1,1-Dichle	oroethene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA

### **REMARKS:**

Ethylbenzene

Isopropylbenzene

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

EPA 8260B

EPA 8260B

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.0250 mg/L

< 0.0250 mg/L

Analyte detected in the associated Method Blank В

Value above quantitation range Ε

MANAGER

anie M. Davis

12/16/2010 DATE:

12/13/10

12/13/10

CTM-SA

CTM-SA

0.0250 12/13/10 8:11

0.0250 12/13/10 8:11

.

### **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121740

Phone: (570) 888-0169 Fax: (570) 888-0717

SEND DATA	TO:							
NAME:	Dina Brown	·			W	'O#:	10121740	
COMPANY:	Talisman Energy USA, In	IC.			D	AGE: 3	3 of 3	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845	;			F7	-0L. (	5015	
	nuiseneaus, nit 14040				P	O#: /	AF78489	
		TE	ST RE	DODT	P١	WS ID#		
PHONE: FAX:	(607) 562-4000 (607) 562-4001	1 5	.31 KE					
03-0	)45							
RECEIVED F	OR LAB BY: RML	DAT	E: 12/0	9/2010 15:45				Page 3 of 3
Tetrachlo	roethene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	3:11 12/13/10	CTM-SA
Toluene		< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	B:11 12/13/10	CTM-SA
Trichloroe	thene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	3:11 12/13/10	CTM-SA
1,2,4-Trim	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	3:11 12/13/10	CTM-SA
1,3,5-Trim	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	3:11 12/13/10	CTM-SA
Vinyl chio	ride	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	3:11 12/13/10	CTM-SA
Methyl ter	t-butyl ether	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8	8:11 12/13/10	CTM-SA
2-Butanor	10	< 0.0500 mg/L		EPA 8260B	0.0500	12/13/10 8	3:11 12/13/10	CTM-SA
SAMPLE: AS	TM Extract of Inv. Cuttings	i	Lab ID	: 10121740-001J	Grab			
SAMPLE	D BY: SG	Sar	nple Time:	12/12/2010 13:10	SLOQ			
Test		Result		Method	<u>5100</u>	Analysis S	itart Analysis E	ind Analyst *
	Oxygen Démand	222 mg/L	8	HACH 8000	10	12/11/10 8		
SAMPLE: AS	TM Extract of Inv. Cuttings	· · · · · · · · · · · · · · · · · · ·	Lab ID	: 10121740-001L	Grab			
SAMPLE	D BY: SG	Sar	nple Time:	12/12/2010 13:10				
Test		Result		Method	<u>SLOQ</u>	Analysis S	tart Analysis E	nd Analyst*
pH		7.46@16.7°C		SM4500H+B		12/14/10 8		
Total Solid	ds .	1210 mg/L		SM2540B	0.10	12/10/10 1		
SAMPLE: Inv	/. Cuttings	•	Lab ID	10121740-001M	Grab			
	DBY: SG	San	nple Time:	12/12/2010 13:10	SLOQ			
Test		Result		Method	SLUG	Analysis S	tart Analysis E	nd Analyst *
	anic Halides	< 5.00 mg/kg		SW846/9023	5.00	12/15/10 1		
Sample	Note: Analysis performed by A	nalytical Services,	Inc.					

**REMARKS:** 

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Analyte detected in the associated Method Blank в

Value above quantitation range E

MANAGER

Cami M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY	Benchm	E <u>1</u> OF_
REPORT TO: Talisman / UEG	Eε 2566 Pennsylvan W/O#: 10121740	······································
geowetlands@aol.com	Phone	SPECIAL DETECTION L
)	REFRIGERATE SAMPLES	THE DED; YES / 7NO
		IF YES, PLEASE ATTACH
	I GW GROUNDWALER SO SOIL I	1
CONTACT Steve Gridley	TRANSPORT SW SURFACE WATER HZ HAZARDOUS LANDFILL Mostolle	YES NO
PH# 607-731-0145	TO DE DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	_ IF YES, PLEASE ATTACH REQ
FAX#	LABORATORY     /4/     /H     HYDROCHLORIC ACID     OH     SODIUM HYDROXIDE       IN COOLER     /5/     /S     SULFURIC ACID     AS     ASCORBIC ACID	Laiz
BILL TO: Talisman	WITH ICE / S / N NITRIC ACID AC ACETIC ACID SO3 SODIUM SULFITE NH, AMMONIUM CHLORIDE	L L L L L L L L L L L L L L L L L L L
PO# AE70409	Thio SODIUM THIOSULFATE ZN ZINC ACETATE	
	An incomplete chain of custody may delay the	Please fill ou
	An incomplete chain of custody may delay the processing of your sample(s).	applicable and completel
SAMPLER SIGNATURE / AFFILIATION		E.
CONTAINER SAMPLING POINT	LABORATORY IN COOLER WITH ICE WITH ICE USING CACID OF SODIUM HYDROXIDE S SULFURC ACID AS ASCORBIC ACID N NITRIC ACID AC ACETIC ACID N NITRIC ACID AC ACETIC ACID SO, SODIUM SULFITE This SODIUM SULFITE NH, AMMONIUM CHLORIDE SO, SODIUM SULFITE NH, AMMONIUM CHLORIDE SO, SODIUM SULFITE NH, AMMONIUM CHLORIDE NH, AMMONIUM CHLORIDE SO, SODIUM THIOSULFATE NONE Hg MERCURIC CHLORIDE SO SOLIUM SULFITE NH, AMMONIUM CHLORIDE NH, AMMONIUM CHLORIDE NH, AMMONIUM CHLORIDE NH, AMMONIUM CHLORIDE SOLIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM CHLORIDE SOLIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM SULFITE NH, AMMONIUM SULFI	Lab USE ONLY
1 Inv Cuttings		
2	C PCBs, Total Solids	
3 A- Plants, Ign.	G Total Volatile Solids	
4 E - Reachivity	C Ammonia-Nitrogen	
5 5-TS, TUS	C Water Leaching Procedure: COD,	
6 E-T. Sa-ple	V V C V V Total Solids, Oil & Grease,	
7 F-TELP BNA, Posts.		
8 G-TCLP Autor Sr		
9 H-TCLP ,H	F-137-046 36 HOUR TURNAROUND	
10 I-TELP Yols.	L-ASTM-TS, OH DAY TURNAROUND	
11 J- ASTM COD, with	m-Tax	
LAB USE ONLY		
DAAVAKADBY	ŢĿĔĬŴĬŦĔŔŴŨŔĿĿŬŔŎŊĿĿĔſĸĔĬ <u>ŖŬĊŢĿĿ</u>	C CARRIVALIONIC
RELINQUISHEE BX	TATE: 91 10 TIME: 1530 RECEIVED BY:	DATE: TIME
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2540-PM-BWM0347 Rev. 1/2011 pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					ify Da	DEP USE ONLY Date Received & General Notes		
General	Refere	ence 287.54						
Date Pre	epared	/ <b>Revised</b> Feb	oruary 11, 2011					
		SECTION A.	<b>CLIENT</b> (GENERATOR	R OF THE WASTE) IN	IFORMA	TION		
Compar								
		rgy USA Inc. , Name of Parent Comp				EDA	Generator ID#	
Talisma			ally			N/A	Generator ID#	
		ing Address Line 1	C	ompany Mailing Addres	ss Line 2			
50 Penr								
		ress Last Line – City	State	Zip+4	Phone	-	Ext	
Warren		tact Last Name	PA First Name	15086 MI	(724)	814-530 Suffix		
Brown		lact Last Manie	Dina	Wit		Julia	<b>X</b>	
Municip	ality		(	County				
Warren				Allegheny				
Contact			Contact Email Address					
(724) 81			dybrown@talismanusa.c y Mailing Address (noted a				Yes 🛛 No	
			eration and storage. Drill o		iring natura			
the			at 1349 Buckwheat Road, G					
containe	re on si	ito					· · · · · · · · · · · · · · · · · · ·	
			Oriente D. K				<b>D</b> 4	
Municip		Granville	County Bradfo		S1	ate	PA	
Municip	ality	Granville	SECTION B. WAST					
Municip Residu	ality Jal	Granville Residu	SECTION B. WAST	E DESCRIPTION	Unit	of	Time	
Municip Residu Waste C	ality Jal	Granville Residu Code D	SECTION B. WAST ual Waste escription	E DESCRIPTION Amount	Unit Measu	of ure	Time Frame	
Municip Residu	ality Jal	Granville Residu	SECTION B. WAST Jal Waste escription Jas)	EDESCRIPTION Amount 1,949	Unit Measi	of ure	Time	
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Municip Residu Waste C 810	ality Jal Code	Granville Residu Code D Drill cuttings (oil and g nge 8.8	SECTION B. WAST Jal Waste escription jas) 1. GENERAL P 9 to 9.01	Amount         1,949         ROPERTIES         (based on analyses or kit)	Unit Measu cu yd lb	of ure	Time Frame	
Municip Residu Waste C 810	ality Jal Code	Granville Residu Code D Drill cuttings (oil and g	SECTION B. WAST Jal Waste escription jas) 1. General P	EDESCRIPTION Amount 1,949 ROPERTIES (based on analyses or ki thod 9095)	Unit Measu cu yd lb	of ure	Time Frame	
Municip Residu Waste C 810	ality Jal Code	Granville Residu Code D Drill cuttings (oil and g nge 8.8	SECTION B. WAST Jal Waste escription jas) 1. GENERAL P 9 to 9.01 Uiquid Waste (EPA Me	EDESCRIPTION Amount 1,949 ROPERTIES (based on analyses or ki thod 9095) 95)	Unit Measu cu yd lb	of ure	Time Frame	
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Municip Residu Waste C 810 a. p b. F c. F	ality Jal Code DH Ran Physica	Granville Residu Code D Drill cuttings (oil and g nge 8.8 al State al Appearance	SECTION B. WAST Jal Waste escription jas) 1. GENERAL P 9 to 9.01 Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 1,949 ROPERTIES (based on analyses or kithod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	Unit Measu cuyd lb nowledge) r Earthy One ck Fragme	of ⊔re ⊇ gal ⊠ ton	Time Frame         One Time         One Time	
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Municip Residu Waste C 810 a. p b. F c. F a. 1 ib. A	ality Jal Joh Ran Physica Physica The res nstruc A detail	Granville Residu Code D Drill cuttings (oil and g ige 8.8 al State al Appearance sults of a detailed chem tions, is attached. led description of the w	SECTION B. WAST al Waste escription jas) 1. GENERAL P 9 to 9.01 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS Ical characterization of the waste sampling method is a	Amount     Amount     1,949      ROPERTIES     (based on analyses or kn thod 9095) 95) ture & pressure)     Odo     Phases of Separation     eparation. Soil and Ro     Sis ATTACHMENTS     waste, as described in attached.	Unit Measu cuyd lb nowledge) r Earthy One ck Fragme	of ure gal X ton y/Slight F ents	Time Frame         One Time         One Time         Petroleum         Yes         No         Yes         No	
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Municip. Residu Waste C 810 a. p b. F c. F a. 1 b. A c. 1 a. 1 b. A c. 1 a. 1 b. A	ality Jal Johenson Physica Physica Physica Che res Sustruct A detail The qua attache The res	Granville Residu Code D Drill cuttings (oil and g age 8.8 al State al Appearance sults of a detailed chem tions, is attached. led description of the w ality assurance/quality ed.	SECTION B. WAST al Waste escription jas) 1. GENERAL P 9 to 9.01 Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANAL YS Ical characterization of the vaste sampling method is a control procedures employ	Amount Amount 1,949 ROPERTIES (based on analyses or kethod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached. yed by the laboratory(ie ched.	Unit Measu cuyd lb nowledge) r Earthy One ck Fragme	of ure gal X ton y/Slight F ents	Time Frame         One Time         One Time         Petroleum         Yes       No         Yes       No         Yes       No	

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<ul> <li>a. A detailed description of the manufacturing and/or pollution control processes producing Yes the waste, as specified in the instructions, is attached.</li> <li>b. A schematic of the manufacturing and/or pollution control processes producing the waste, Yes as specified in the instructions, is attached.</li> <li>c. If portions of the information submitted are confidential, the substantiation for Yes No a confidentiality claim, as described in the instructions, is attached.</li> <li>SECTION C. MANAGEMENT OF RESIDUAL WASTE         <ul> <li>PROCESSING OR DISPOSAL FACILITY(IES)</li> <li>The detailed of the unit of the o</li></ul></li></ul>	<ul> <li>No</li> <li>No</li> <li>N/A</li> </ul>
as specified in the instructions, is attached.         c.       If portions of the information submitted are confidential, the substantiation for Yes No a confidentiality claim, as described in the instructions, is attached.         SECTION C.       MANAGEMENT OF RESIDUAL WASTE         1.       PROCESSING OR DISPOSAL FACILITY(IES)	
a confidentiality claim, as described in the instructions, is attached.  SECTION C. MANAGEMENT OF RESIDUAL WASTE  1. PROCESSING OR DISPOSAL FACILITY (IES)	⊠ N/A
1. PROCESSING OR DISPOSAL FACILITY(IES)	
	States and the second second second
The area below (ad.) will accommodate the identification of two facilities. Attach additional sheets if necessary.	
a. Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010	
b. Facility Name Hakes C&D Landfill	
Address Line 1 4376 Manning Ridge Road	
Address Line 1	
Address City State ZIP Painted Post NY 14870	
Municipality Erwin Twp County Steuben	
c. Facility Contact Name Joseph Boyles	
Title	
Phone (607) 937-6044 Email Address joe.boyles@casella.com (585) 466-7271	
d. Volume of waste shipped to processing or disposal facility in the previous year.	
1,087	
a. Solid waste permit number(s) for processing or disposal facility being utilized. 9-0232-00003	
b. Facility Name Hyland Landfill	
Address Line 1 6653 Herdman Road	
Address Line 1	
Address City State ZIP Angelica NY 14709	
Municipality Angelica County Allegany	
c. Facility Contact Name Larry Shilling	
Title	
Phone (585) 466-7271 Email Address larry.shilling@casella.com	
d.       Volume of waste shipped to processing or disposal facility in the previous year.         620       □ cu yd       □ gal       Ib       ∑ ton (check one)	
2. BENEFICIAL USE	
a. Has the waste been approved for beneficial use?	No No
If "Yes", list the general permit number or approval number.	
b.       Volume of waste beneficially used in the previous year.         0	

encounter de la company			ally setting to the set of an angle of the set			
		<b>PROCESS DESCRIPTION 8</b>				an a
a.	A detailed description of the the waste, as specified in the	instructions, is attached.	-		🛛 Yes	No No
b.	A schematic of the manufactu as specified in the instruction		trol processes pro	ducing the waste,	🛛 Yes	No No
C.	If portions of the information a confidentiality claim, as des			on for 🗌 Yes	No No	N/A
	SECTIO	ON C. M'AN'AGEME				
		1. PROCESSING OR DI	SPOSAL FACILITY(I	ES)		
The a	rea below (ad.) will accommod	ate the identification of tw	vo facilities. Attac	h additional sheets	if necessary.	
a.	Solid waste permit number(s) 8-0728-00004	for processing or dispos	al facility being uti	lized.		
b.	Facility Name	Chemung County Land	Ifill			
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
C.	Facility Contact Name	Carla Canjar	•			
	Title	Environmental Manage	<u>۲</u>			
	Phone	(585) 797-5941	Email Address	carla.canjar@cas	sella.com	
d.	Volume of waste shipped to p	rocessing or disposal fac	ility in the previou	s vear		
	242	cuyd 🛄 gal [	ib 🖂 to	n (check one)		
а.	Solid waste permit number(s)	for processing or dispos	al facility being uti	lized.		
b.	Facility Name					
	Address Line 1					
	Address Line 1					
	Address City State ZIP					
	Municipality		County			
с.	Facility Contact Name					
	Title			· · · · ·		
	Phone		Email Address			
d.	Volume of waste shipped to p	ocessing or disposal fac	ility in the previous	s vear.		
		cuyd 🗌 gal [	b tor			
		2. Benefi	CIAL USE	-		
a.	Has the waste been approved	for beneficial use?			Yes [	🛛 No
	If "Yes", list the general permi	t number or approval nur	nber.			
b.	Volume of waste beneficially u					
	0	cuyd 🗌 gal [	lbtor	n (check one)		

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		SECTION D. CERTIFICATION						
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applical	ole:							
I certify the information and has not chan		ired in Section B-1, General Properties was supplied to the Department for the year						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:		·						
I certify the information	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
Name of Responsible Official		Title Environmental Specialist						
Dina Brown	-5	1502 Date 2/25/11						
	-)							

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_AB ID: 08-00380 _AB ID: 39-00401	<b>Easte</b> 2566 Pe	Benchmark Analytics, In Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840			<b>IC.</b> Work Order: 10074058			
		(570) 888-0169 (570) 888-0717						
SEND DATA TO:			•					
NAME: Steve Gridley			W	O#: 1007	4058			
COMPANY: Talisman Energy US ADDRESS: 337 Daniel Zenker D			PA	AGE: 1 of	1			
Horseheads, NY 14				<u>.</u>	7400			
			PU	D#: AF77	/406			
PHONE: (607) 562-4000 FAX: (607) 562-4001	TES	ST REPORT	P۷	VS ID#				
RECEIVED FOR LAB BY: DLM2	DATE	: 07/26/2010 15:15			Pa	age 1 of 1		
SAMPLE: Inv. Cuttings		Lab ID: 10074058-001A	Compo	site				
SAMPLED BY: SG	Samr	ble Time: 07/26/2010 11:45						
SAMFLED DT. 3G								
	•		<u>SLOQ</u>	Analvsis Start	Analysis End	Analyst *		
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u> 72400 mg/Kg	<u>Method</u> EPA 9071	<u>SLOQ</u>	<u>Analysis Start</u> 07/27/10 12:00	<u>Analysis End</u> 07/27/10	<u>Analyst *</u>		
Test	<u>Result</u> 72400 mg/Kg	Method	<u>SLOQ</u>			<u>Analyst *</u>		
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u> 72400 mg/Kg	Method	<u>SLOQ</u> Compos	07/27/10 12:00		<u>Analyst *</u>		
<u>Test</u> Total Petroleum Hydrocarbons Sample Note: Analysis performed	<u>Result</u> 72400 mg/Kg d by Microbac-Erie	<u>Method</u> EPA 9071	Compos	07/27/10 12:00		<u>Analyst *</u>		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed MPLE: Inv. Cuttings SAMPLED BY: SG	<u>Result</u> 72400 mg/Kg d by Microbac-Erie Samp	Method EPA 9071 Lab ID: 10074058-001B de Time: 07/26/2010 11:45		07/27/10 12:00	07/27/10			
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed GAMPLE: Inv. Cuttings	<u>Result</u> 72400 mg/Kg d by Microbac-Erie	Method EPA 9071 Lab ID: 10074058-001B	Compos	07/27/10 12:00				
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed GAMPLE: Inv. Cuttings SAMPLED BY: SG Test	<u>Result</u> 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u>	Method EPA 9071 Lab ID: 10074058-001B ole Time: 07/26/2010 11:45 <u>Method</u>	Compos SLOQ	07/27/10 12:00 site <u>Analysis Start</u>	07/27/10	Analyst *		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture	<u>Result</u> 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 %	Method EPA 9071 Lab ID: 10074058-001B ble Time: 07/26/2010 11:45 <u>Method</u> Moisture Calc.	Compos SLOQ 0.01	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30	07/27/10 Analysis End 07/27/10	<u>Analyst *</u> NFM-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH	<u>Result</u> 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 % < 0.1 % 9.01@21.0°C	Method EPA 9071 Lab ID: 10074058-001B ole Time: 07/26/2010 11:45 <u>Method</u> Moisture Calc. EPA 9095A	Compos SLOQ 0.01	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed GAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid	<u>Result</u> 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 % < 0.1 % 9.01@21.0°C	Method EPA 9071 Lab ID: 10074058-001B ole Time: 07/26/2010 11:45 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Compos SLOQ 0.01 0.1	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu	Result 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 % < 0.1 % 9.01@21.0°C uttings Samp	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           Je Time: 07/26/2010 11:45	Compos SLOQ 0.01 0.1	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20	07/27/10 Analysis End 07/27/10 07/26/10 07/27/10	<u>Analyst *</u> NFM-SA IC-SA NFM-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u>	Result 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 % < 0.1 % 9.01@21.0°C uttings Samp <u>Result</u>	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method	Compos SLOQ 0.01 0.1 Grab SLOQ	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u>	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 <u>Analysis End</u>	<u>Analyst *</u> NFM-SA IC-SA NFM-SA <u>Analyst *</u>		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG Test Mercury - TCLP extracted	Result 72400 mg/Kg d by Microbac-Erie Samp <u>Result</u> 21.7 % < 0.1 % 9.01@21.0°C uttings Samp <u>Result</u> < 0.0010 mg/L	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method EPA 7470A	Compos <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0010	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 <u>Analysis End</u> 07/29/10	<u>Analyst *</u> NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed GAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH GAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG Test Mercury - TCLP extracted Arsenic - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp           Result           21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method EPA 7470A           EPA 6010B	Compos <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0010 0.500	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 <u>Analysis End</u> 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG Test Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp           Result           21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10074058-001D           ole Time: 07/26/2010 11:45           Method EPA 7470A EPA 6010B           EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/27/10 07/27/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG Test Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp           Result           21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/27/10 07/27/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-SA Analyst * RMD-CV GSR-CV GSR-CV GSR-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG Test Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp <u>Result</u> 21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10074058-001D           ole Time: 07/26/2010 11:45           Method EPA 7470A EPA 6010B           EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/26/10 07/27/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp <u>Result</u> 21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10074058-001D           ole Time: 07/26/2010 11:45           Method EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100	07/27/10 12:00 site Analysis Start 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 Analysis Start 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/27/10 07/27/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp <u>Result</u> 21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10074058-001D           Ide Time: 07/26/2010 11:45           Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp           Result           21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10074058-001D           ole Time: 07/26/2010 11:45           Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100 0.500	07/27/10 12:00 site Analysis Start 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 Analysis Start 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed SAMPLE: Inv. Cuttings SAMPLED BY: SG Test Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted Nickel - TCLP extracted	Result           72400 mg/Kg           d by Microbac-Erie           Samp           Result           21.7 %           < 0.1 %	Method EPA 9071           Lab ID: 10074058-001B           ole Time: 07/26/2010 11:45           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10074058-001D           ole Time: 07/26/2010 11:45           Method EPA 7470A           EPA 6010B           EPA 6010B	Compos SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100 0.500 0.100	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:15 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50 07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Canij	M.	Davis

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DATE: 7/30/2010

LAB ID: 08-00380 LAB ID: 39-00401	Benchmark Analytics, In Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840			<b>1C.</b> Work Order: 10081723			
		570) 888-0169 570) 888-0717					
SEND DATA TO:							
NAME: Steve Gridley			W	O#: 1008	31723		
COMPANY: Talisman Energy USA, I	nc.		PA	AGE: 1 of 1	2		
ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845			D				
·····, ····,			PU	D#: AF7	406		
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST	REPORT	P١	NS ID#			
					_		
RECEIVED FOR LAB BY: DLM2	DATE:	08/10/2010 15:33	_		P	age 1 of 2	
SAMPLE: Air Cuttings		ab ID: 10081723-001A	Grab				
SAMPLED BY: SG	Sample	Time: 08/09/2010 15:50	SLOQ				
Test	Result	<u>Method</u>		Analysis Start	Analysis End	Analyst *	
Total Petroleum Hydrocarbons	1230 mg/Kg	EPA 9071		08/12/10 11:10	08/12/10		
Sample Note: Analysis performed by N	Aicrobac-Erie			armanana Madata			
SAMPLE: Air Cuttings		ab ID: 10081723-001B	Grab				
SAMPLED BY: SG	Sample	Time: 08/09/2010 15:50	SLOQ				
Test	Result	Method		Analysis Start	Analysis End	<u>Analyst *</u>	
Moisture	18.2 %	Moisture Calc.	0.01	08/12/10 8:45	08/13/10	MED-SA	
Free Liquid	< 0.1 %	EPA 9095A	0.1	08/12/10 15:15	08/12/10	RHN-SA	
рН	8.89@21.8°C	EPA 9045C		08/12/10 15:42	08/12/10	MED-SA	
SAMPLE: Air Cuttings		ab ID: 10081723-001C	Grab				
SAMPLED BY: SG	Sample	Time: 08/09/2010 15:50	SLOQ				
Test	<u>Result</u>	Method		Analysis Start	Analysis End	<u>Analyst *</u>	
					00110110	RMD-CV	
Sodium	941 mg/Kg-dry	EPA 6010B	108	08/13/10 9:40	08/13/10		
Chloride	370 mg/Kg-dry	EPA 300.0	108 61.1	08/11/10 14:31	08/12/10	HDP-CV	
Chloride	370 mg/Kg-dry 18.2 %	EPA 300.0		08/11/10 14:31	08/12/10	HDP-CV	
Chloride Percent Moisture	370 mg/Kg-dry 18.2 %	EPA 300.0 SM2540G	61.1 Grab	08/11/10 14:31	08/12/10	HDP-CV	
Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutting	370 mg/Kg-dry 18.2 %	EPA 300.0 SM2540G ab ID: 10081723-001E	61.1	08/11/10 14:31	08/12/10	HDP-CV MED-SA	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG	370 mg/Kg-dry 18.2 % Is L Sample	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50	61.1 Grab	08/11/10 14:31 08/12/10 8:45	08/12/10 08/13/10	HDP-CV MED-SA	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG <u>Test</u>	370 mg/Kg-dry 18.2 % <b>js</b> L Sample <u>Result</u>	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50 <u>Method</u>	61.1 Grab <u>SLOQ</u>	08/11/10 14:31 08/12/10 8:45 <u>Analysis Start</u>	08/12/10 08/13/10 <u>Analysis End</u>	HDP-CV MED-SA <u>Analyst *</u> KW-CV	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted	370 mg/Kg-dry 18.2 % <b>js</b> L Sample <u>Result</u> < 0.0008 mg/L	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50 <u>Method</u> EPA 7470A	61.1 Grab <u>SLOQ</u> 0.0008	08/11/10 14:31 08/12/10 8:45 <u>Analysis Start</u> 08/12/10 8:30	08/12/10 08/13/10 <u>Analysis End</u> 08/13/10	HDP-CV MED-SA <u>Analyst *</u> KW-CV RMD-CV	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted	370 mg/Kg-dry 18.2 % <b>js</b> L Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50 <u>Method</u> EPA 7470A EPA 6010B	61.1 Grab <u>SLOQ</u> 0.0008 0.500	08/11/10 14:31 08/12/10 8:45 <u>Analysis Start</u> 08/12/10 8:30 08/13/10 7:20	08/12/10 08/13/10 <u>Analysis End</u> 08/13/10 08/13/10	HDP-CV MED-SA <u>Analyst *</u> KW-CV RMD-CV RMD-CV	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	370 mg/Kg-dry 18.2 % <b>js</b> L Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	61.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00	08/11/10 14:31 08/12/10 8:45 <u>Analysis Start</u> 08/12/10 8:30 08/13/10 7:20 08/13/10 7:20	08/12/10 08/13/10 <u>Analysis End</u> 08/13/10 08/13/10 08/13/10	HDP-CV MED-SA <u>Analyst *</u> KW-CV RMD-CV RMD-CV RMD-CV	
Chloride Percent Moisture SAMPLE: <b>TCLP Leachate of Air Cutting</b> SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted	370 mg/Kg-dry 18.2 % <b>js</b> L Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	EPA 300.0 SM2540G ab ID: 10081723-001E Time: 08/09/2010 15:50 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	61.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100	08/11/10 14:31 08/12/10 8:45 Analysis Start 08/12/10 8:30 08/13/10 7:20 08/13/10 7:20 08/13/10 7:20	08/12/10 08/13/10 <u>Analysis End</u> 08/13/10 08/13/10 08/13/10	HDP-CV MED-SA	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 8/13/2010

LAB ID: 08-00380 LAB ID: 39-00401		Benchmark Analytics, Inc. Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717		C.	C. Work Order: 1008			081723
SEND DATA		Fax. 15/1	11000-0717					
NAME:	Steve Gridley			\\/(	D#:	10081723	Ł	
COMPANY:	-	IC.					,	
ADDRESS:	337 Daniel Zenker Dr			PA	GE:	2 of 2		
	Horseheads, NY 14845			PC	D#:	AF77406		
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST R	REPORT	PV	VS ID#			
					• • • • •			
RECEIVED	FOR LAB BY: DLM2	DATE: 08	/10/2010 15:33				P	age 2 of 2
Nickel - 1	CLP extracted	0.230 mg/L	EPA 6010B	0.100	08/13/10	7:20 08	3/13/10	RMD-CV
Selenium	<ul> <li>TCLP extracted</li> </ul>	< 0.500 mg/L	EPA 6010B	0.500	08/13/10	7:20 08	3/13/10	RMD-CV
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10	7:20 08	3/13/10	RMD-CV
Zinc - TC	LP extracted	0.735 mg/L	EPA 6010B	0.200	08/13/10	7:20 08	3/13/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Camie M. Davis

DATE: 8/13/2010



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				tify Date Receive	DEP USE ONLY Date Received & General Notes		
General Refe							
Date Prepare		ry 11, 2011					
	SECTION A. CI	IENT (GENERATOR	R OF THE WASTE)	IFORMATION			
Company Na							
	ergy USA Inc. ry, Name of Parent Company			EPA	Generator ID#		
Talisman En				N/A	Selicitator 10#		
Company Ma	iling Address Line 1	C	ompany Mailing Addre	ss Line 2			
50 Pennwoo	d Place dress Last Line – City	State	Zip+4	Phone	Ext		
Warrendale	uress Last Line – City	PA	15086	(724) 814-530			
	ntact Last Name	First Name	MI	Suffi			
Brown		Dina	<u></u>				
Municipality Warrendale			County Allegheny				
Contact Phor	ne Ext Co	ontact Email Address	lioghony				
(724) 814-53		brown@talismanusa.c					
	generated at the Company M be location of waste genera				Yes 🛛 No		
the (01-	003) well pad site located at 1	349 Buckwheat Road, G	ranville Township, Bradf	ord County, PA. Was	ste is stored in		
containers on Municipality	site.			State			
wunicipality	Granville	County Bradfo		State	<u>PA</u>		
Residual	Residual			Unit of	Time		
Waste Code	Code Desc	ription	Amount	Measure	Frame		
810	Drill cuttings (oil and gas)	i	1,949	cuydgal lb ⊠ton	One Time		
14 - Tiel		1. GENERAL P	ROPERTIES				
a. pHRa			(based on analyses or k	nowledge)			
b. Physi	cal State	Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera	95)				
c. Physi		olor Greyish Black			Petroleum		
		mber of Solid or Liquic					
	De	scribe each phase of s	eparation. <u>Soil and Ro</u>	ck Fragments			
		2. CHEMICAL ANALYS					
instru	esults of a detailed chemical ctions, is attached.			the	Yes 🗌 No		
	ailed description of the wast				Yes 🗌 No		
c. The q	uality assurance/quality con ned.	trol procedures employ	yed by the laboratory(ie	es) is 🖂	Yes 🔄 No		
	esults of the hazardous was	e determination is atta	ched.		Yes 🗌 No		
e. If app	licable, a detailed explanatic f actual chemical analysis is	on supporting use of ge		Yes	No 🛛 N/A		

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	and the second	3. PROCESS DESCRIPTIO	SOUTHATIC ATTA	CUMENTO		and the second second
520352724						- <u></u>
a.	A detailed description of the the waste, as specified in the			esses producing	🛛 Yes	🗌 No
b.	A schematic of the manufac as specified in the instruction		control processes pro	ducing the waste,	Yes Yes	No No
C.	If portions of the informatio a confidentiality claim, as d			on for 🗌 Yes	No No	🛛 N/A
	SECT	ION C. MANAGEN		Character and a character and a start water and a second water and		
			DISPOSAL FACILITY			
The a	rea below (ad.) will accommo	odate the identification o	f two facilities. Attac	h additional sheets	if necessary	<b>.</b>
а.	Solid waste permit number( 8-4630-00010	s) for processing or disp	osal facility being uti	lized.		
b.	Facility Name	Hakes C&D Landfill	·····		······	
	Address Line 1	4376 Manning Ridge	Road			
	Address Line 1	<u>UU_</u>		· · · · · · · · · · · · · · · · · · ·		
1	Address City State ZIP	Painted Post	NY	14870		
-	Municipality	Erwin Twp	County	Steuben		
C.	Facility Contact Name	Joseph Boyles				
	Title	JUSEPH Doyles				
	Phone	(607) 937-6044	Email Address	joe.boyles@case	alla com	
	T none	(585) 466-7271		Joe.boyles@cast	sha.com	
d.	Volume of waste shipped to		facility in the previou	s vear.		
	1,087 [	cuyd gal	☐ lb ⊠ to		1	
a.	Solid waste permit number( 9-0232-00003	s) for processing or disp	osal facility being uti	lized.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Road	d			
	Address Line 1			·····		
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
c.	Facility Contact Name	Larry Shilling				···
	Title	·				
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to 620	processing or disposal	facility in the previous			
		2. BEN		•		
а.	Has the waste been approve				Yes	No No
	If "Yes", list the general per	mit number or approval i	number.			
b.	Volume of waste beneficially					
	0	] cuyd [] gal	b to	n (check one)		

•

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTACH	IMENTS	sa Si	
a.	A detailed description of the manufacturing and/or pollution control processes producing Xes No the waste, as specified in the instructions, is attached.					
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.					
C.	If portions of the information submitted are confidential, the substantiation forYesNoN/A a confidentiality claim, as described in the instructions, is attached.					
	SECTI	ON C. MANAGEME	NT OF RESIDUA	L WASTE		
		1. PROCESSING OR D	ISPOSAL FACILITY (IES	)		
The a	rea below (ad.) will accommo	late the identification of t	wo facilities. Attach a	dditional sheets	if necessary	•
a.	Solid waste permit number(s 8-0728-00004	for processing or dispo	sal facility being utiliz	ed.		
b.	Facility Name	Chemung County Lan	dfill			
	Address Line 1	1690 Lake Street		· · · · · · · · · · · · · · · · · · ·		
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
c.	Facility Contact Name	Carla Canjar				
	Title	Environmental Manag	er			· · · ·
	Phone	(585) 797-5941		carla.canjar@ca	sella.com	· · · ·
d.	Volume of waste shipped to p	processing or disposal fa			·····	
u.	242	cuyd 🗍 gal	☐ lb ⊠ ton	(check one)		
a.	Solid waste permit number(s)	for processing or dispos		, , , , , , , , , , , , , , , , , , ,		
a.	• • • •	for processing of dispos	sai lacinty being utilize	cu.		
b.	Facility Name					
	Address Line 1					
	Address Line 1					
	Address City State ZIP					
	Municipality		County			
C.	Facility Contact Name					
	Title		×		<u> </u>	
	Phone		Email Address	······		
d.	Volume of waste shipped to processing or disposal facility in the previous year.					
<b>u</b> .		cu yd 🗌 gal		(check one)		
1. sel je s		2. Benef	FICIAL USE			
a.	Has the waste been approved for beneficial use?					
	If "Yes", list the general permit number or approval number.					
b.	Volume of waste beneficially used in the previous year					
	0	cuyd 🗌 gal	☐ lb ☐ ton	(check one)		

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SECTION D. CERTIFICATION								
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applicable:								
I certify the information required in Section B-1, General Properties was supplied to the Department for the year and has not changed.								
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year and has not changed.								
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year and has not changed.								
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
Name of Responsible Official		Title Environmental Specialist						
Dina Brown Signature 212S/(L								

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LAB ID: 08-00380 Benchmark Analytics, Inc. LAB ID: 39-00401 Eastern Division 2566 Pennsylvania Ave. Work Order: 10074058 Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717 SEND DATA TO: NAME: Steve Gridley WO#: 10074058 COMPANY: Talisman Energy USA, Inc. PAGE: 1 of 1 337 Daniel Zenker Dr ADDRESS: Horseheads, NY 14845 PO#: AF77406 PWS ID# TEST REPORT PHONE: (607) 562-4000 FAX: (607) 562-4001 RECEIVED FOR LAB BY: DLM2 DATE: 07/26/2010 15:15 Page 1 of 1 Lab ID: 10074058-001A SAMPLE: Inv. Cuttings Composite SAMPLED BY: SG Sample Time: 07/26/2010 11:45 <u>SLOQ</u> Test Result **Method** Analysis End Analyst \* Analysis Start **Total Petroleum Hydrocarbons** 72400 mg/Kg EPA 9071 07/27/10 12:00 07/27/10 Sample Note: Analysis performed by Microbac-Erie Lab ID: 10074058-001B SAMPLE: Inv. Cuttings Composite SAMPLED BY: SG Sample Time: 07/26/2010 11:45 SLOQ Test Result Method Analysis Start Analysis End Analyst \* 21.7 % Moisture Calc. 0.01 07/26/10 10:30 Moisture 07/27/10 NFM-SA EPA 9095A Free Liquid < 0.1 % 07/26/10 16:15 07/26/10 0.1 IC-SA 9.01@21.0°C EPA 9045C 07/27/10 12:20 07/27/10 pН NFM-SA SAMPLE: TCLP Leachate of Inv. Cuttings Lab ID: 10074058-001D Grab SAMPLED BY: SG Sample Time: 07/26/2010 11:45 SLOQ Test Result Method Analysis Start Analysis End Analyst \* Mercury - TCLP extracted < 0.0010 ma/LEPA 7470A 0.0010 07/29/10 9:00 07/29/10 RMD-CV Arsenic - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 07/29/10 9:50 07/29/10 GSR-CV Barium - TCLP extracted < 10.00 mg/L EPA 6010B 10.00 07/29/10 9:50 07/29/10 GSR-CV Cadmium - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Chromium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 07/29/10 9:50 07/29/10 GSR-CV Copper - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Lead - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 07/29/10 9:50 07/29/10 GSR-CV Nickel - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Selenium - TCLP extracted < 0.500 mg/L s EPA 6010B 0.500 07/29/10 9:50 07/29/10 GSR-CV Silver - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Zinc - TCLP extracted 8.30 mg/L EPA 6010B 0.200 07/29/10 9:50 07/29/10 GSR-CV

### **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

uni M. Davis

DATE: 7/30/2010

LAB ID: 08-1 LAB ID: 39-1		<b>Eas</b> 2566 Sá	ark Analytics, In stern Division Pennsylvania Ave. ayre, PA 18840 e: (570) 888-0169	C. Work Order: 10081723				
		Fa	x: (570) 888-0717					
SEND DATA								
NAME:	Steve Gridley			W	O#:	1008	1723	
ADDRESS:	Talisman Energy USA, Ir 337 Daniel Zenker Dr	IC.	PA	GE:	1 of 2	2		
ADDIALOO.	Horseheads, NY 14845			P	D#:	AF77	406	
							400	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	Т	EST REPORT	P۷	VS ID#			
RECEIVED	FOR LAB BY: DLM2	DA	TE: 08/10/2010 15:33				Ра	age 1 of 2
SAMPLE: A	ir Cuttings		Lab ID: 10081723-001A	Grab				
	ED BY: SG	Sa	ample Time: 08/09/2010 15:50					
Test		Pecult	Method	<u>SLOQ</u>	Analysis	Start	Analysis End	Analyst *
<u>Test</u> Total Pei	troleum Hydrocarbons	<u>Result</u> 1230 mg/Kg	EPA 9071		08/12/10		Analysis End 08/12/10	Analyst
	le Note: Analysis performed by M							
SAMPLE: A	ir Cuttings		Lab ID: 10081723-001B	Grab				
	ED BY: SG	Sa	ample Time: 08/09/2010 15:50					
				<u>SLOQ</u>	<b>.</b>	<u>.</u>		
<u>Test</u> Moisture		<u>Result</u> 18.2 %	<u>Method</u> Moisture Calc.	0.01	<u>Analysis</u> 08/12/10		Analysis End 08/13/10	
Free Liqu		< 0.1 %	EPA 9095A	0.01	08/12/10		08/13/10	MED-SA RHN-SA
pH		8.89@21.8°C	EPA 9045C	0.1	08/12/10		08/12/10	MED-SA
· · · · · · · · · · · · · · · · · · ·	• • •••			Croh				
SAMPLE: A	I <b>r Cuttings</b> ED BY: SG	84	Lab ID: 10081723-001C ample Time: 08/09/2010 15:50	Grab				
SAMP L	LD D1. 30	02	ample filme. 00/03/2010 13:50	<u>SLOQ</u>				
Test		<u>Result</u>	<u>Method</u>		<u>Analysis</u>	Start	Analysis End	<u>Analyst *</u>
Sodium		941 mg/Kg-dry	EPA 6010B	108	08/13/10		08/13/10	RMD-CV
Chloride		370 mg/Kg-dry	EPA 300.0	61.1	08/11/10		08/12/10	HDP-CV
Percent	Moisture	18.2 %	SM2540G		08/12/10	8:45	08/13/10	MED-SA
	CLP Leachate of Air Cutting		Lab ID: 10081723-001E	Grab				
SAMPLI	ED BY: SG	Sa	mple Time: 08/09/2010 15:50	SLOQ				
Test		<u>Result</u>	Method	<u></u>	<u>Analysis</u>	Start	Analysis End	<u>Analyst *</u>
Mercury	- TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/12/10	8:30	08/13/10	KW-CV
Arsenic -	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
Barium -	TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/13/10	7:20	08/13/10	RMD-CV
Cadmium	n - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10	7:20	08/13/10	RMD-CV
Chromiu	m - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
Copper -	TCLP extracted	0.112 mg/L	EPA 6010B	0.100	08/13/10	7:20	08/13/10	RMD-CV
Lead - T(	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
REMARKS:								

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER \_\_\_\_\_ Davis \_\_\_\_\_ DATE: 8/13/2010

LAB ID: 08-( LAB ID: 39-(		Easte 2566 Per	<b>Analytics, Ind rn Division</b> Insylvania Ave. 9, PA 18840	с.	V	Vork Order: 10	081723
			570) 888-0169 570) 888-0717				
SEND DATA	A TO:						
NAME:	Steve Gridley			W	O#:	10081723	
COMPANY:	<b>U</b> 7 ·	IC.		PA	AGE: 2	2 of 2	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845						
					D#: /	AF77406	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	P۷	VS ID#		
RECEIVED	FOR LAB BY: DLM2	DATE:	08/10/2010 15:33				Page 2 of 2
Nickel - 1	TCLP extracted	0.230 mg/L	EPA 6010B	0.100	08/13/10 7	7:20 08/13/10	RMD-CV
Selenium	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10 7	7:20 08/13/10	RMD-CV
	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/107		RMD-CV
Zinc - TC	CLP extracted	0.735 mg/L	EPA 6010B	0.200	08/13/10 7	7:20 08/13/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 8/13/2010



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legil each attache	ust be fully and accurate bly printed in the spaces p ed sheet as Form 26R, re ne date on attached sheets	fy Date Receiv	USE ONLY ed & General Notes		
General Refe	rence 287.54				
Date Prepare	d/Revised Febru	uary 11, 2011			
		LIENT (GENERATOR	R OF THE WASTE) IN	FORMATION	
Company Na					
	ergy USA Inc. y, Name of Parent Compar	nv		EPA	Generator  D#
Talisman En	ergy Inc.	-	<u> </u>	N/A	
	iling Address Line 1	C	ompany Mailing Addres	s Line 2	
50 Pennwoo Company Ad	d Place dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale	,	PA	15086	(724) 814-53	
	ntact Last Name	First Name	MI	Suffi	x
Brown Municipality		Dina	County		
Warrendale			Allegheny		
Contact Phor		Contact Email Address			
(724) 814-53	generated at the Company	dybrown@talismanusa.c Mailing Address (noted a		<b>—</b> —	Yes 🕅 No
If 'No', descri	be location of waste gener	ration and storage. Drill c	uttings are generated du	ليا ring natural gas drill	
the (	01-071) well pad site located	1 at 5290 Fallbrook Road,	Troy Township, Bradford	County, PA. Waste	is stored in
Containers on Municipality	site. Troy	County Bradfo	ord	State	PA
		SECTION B. WAST			
Residual	Residua			Unit of	Time
Waste Code	Code Des		Amount	Measure	Frame
810	Drill cuttings (oil and ga	s)	3,377		
					🗌 🗌 One Time
a. pHRa		1. GENERAL P	a we are the second construction for a weak a water of the second second second second second second second second		
h Dhuai		to 9.67	(based on analyses or kr		
b. Physi	cal State		(based on analyses or kr thod 9095) 95)		
	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black	(based on analyses or kr thod 9095) 95) ture & pressure) Odor	owledge)	
	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation	owledge) Earthy/Slight One	
	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation	owledge) Earthy/Slight One	
	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. <u>Soil and Roc</u>	owledge) Earthy/Slight One	
c. Physic a. The re- instru	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 903 Gas (ambient temperat Color <u>Greyish Black</u> Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS al characterization of the	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. <u>Soil and Roc</u> SIS ATTACHMENTS waste, as described in	owledge) Earthy/Slight _One _k Fragments	
c. Physic a. The re- instru b. A deta	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 903 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS al characterization of the ste sampling method is a	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. <u>Soil and Roc</u> SIS ATTACHMENTS waste, as described in ttached.	owledge) <u>Earthy/Slight</u> One K Fragments the	Petroleum Yes No Yes No
c. Physic a. The re- instru b. A deta c. The q	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 903 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS al characterization of the ste sampling method is a	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. <u>Soil and Roc</u> SIS ATTACHMENTS waste, as described in ttached.	owledge) <u>Earthy/Slight</u> One K Fragments the	Petroleum Yes 🗌 No
c. Physic a. The re- instru b. A deta c. The q attach	cal State	to 9.67 Liquid Waste (EPA Me Solid (EPA Method 903 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS al characterization of the ste sampling method is a pontrol procedures employ	(based on analyses or kr thod 9095) 95) ture & pressure) Odor I Phases of Separation eparation. <u>Soil and Roc</u> SIS ATTACHMENTS waste, as described in ttached. yed by the laboratory(le	owledge) <u>Earthy/Slight</u> One K Fragments the	Petroleum Yes No Yes No

SALAR SALAR			0.0		The second s					
		PROCESS DESCRIPTIC								
a.	A detailed description of the the waste, as specified in the			esses producing	🛛 Yes	No No				
b.	A schematic of the manufac as specified in the instruction		control processes pro	ducing the waste,	🛛 Yes	No No				
C.	If portions of the information a confidentiality claim, as de			on for 🗌 Yes	No No	🛛 N/A				
SECTION C. MANAGEMENT OF RESIDUAL WASTE										
			R DISPOSAL FACILITY (II			Contrastic state of the second state of the contra-				
The a	rea below (ad.) will accommo	date the identification of	of two facilities. Attacl	h additional sheets	if necessary	<b>'</b> .				
a.	Solid waste permit number(s 9-0232-00003	s) for processing or dis	posal facility being uti	lized.						
b.	Facility Name	Hyland Landfill								
	Address Line 1	6653 Herdman Roa	d							
	Address Line 1									
	Address City State ZIP	Angelica	NY	14709		······				
	Municipality	Angelica	County	Allegany						
C.	Facility Contact Name	Larry Shilling		, mogariy						
υ.	Title	Larry Shining								
		(505) 400 7074	Cus all Aslalas a		11					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	isella.com					
d.	Volume of waste shipped to 2,218	processing or disposal	facility in the previous		)					
a.	Solid waste permit number(s 8-4630-00010	s) for processing or dis	oosal facility being util	ized.						
b.	Facility Name	Hakes C&D Landfill								
	Address Line 1	4376 Manning Ridg								
	Address Line 1									
	Address City State ZIP	Painted Post	NY	14870						
	Municipality	Erwin Twp	County	Steuben	1	·				
c.	Facility Contact Name	Joseph Boyles								
0.	Title	Jusepin Doyles								
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	ella.com					
d.	Volume of waste shipped to		facility in the previous	s year.						
	907	]cuyd 🔲 gal	🗌 lb 🛛 tor		1					
		2. Ben	NEFICIAL USE		an a	7				
а.	Has the waste been approve	d for beneficial use?			Yes	No No				
	If "Yes", list the general perm	nit number or approval	number.			_				
b.	Volume of waste beneficially									
<i></i>	0	] cu yd 🛛 🗌 gal	□ lb □ tor	(check one)						
	J L									

.

	3.	PROCESS DESCRIPTION & S	CHEMATIC ATTACHME	NTS							
a.	A detailed description of the r the waste, as specified in the		on control processes	producing	🛛 Yes	🗌 No					
b.	A schematic of the manufactu as specified in the Instruction	s, is attached.		g the waste,	Yes Yes	🗌 No					
C.	a confidentiality claim, as described in the instructions, is attached.										
	SECTION C. MANAGEMENT OF RESIDUAL WASTE										
55 (11) (1		1. PROCESSING OR DISPO									
The ar	ea below (ad.) will accommod	ate the identification of two	facilities. Attach addi	tional sheets	if necessary.						
а.	Solid waste permit number(s) 100361	for processing or disposal f	acility being utilized.		· · · · · · · · · · · · · · · · · · ·						
b.	Facility Name	McKean County Landfill									
	Address Line 1	19 Ness Lane									
	Address Line 1										
	Address City State ZIP	Kane	PA	16735							
	Municipality	Sergeant Twp	County Mc	Kean							
C.	Facility Contact Name	Mike Manderfeld									
	Title										
	Phone	(814) 778-9931 E	mail Address mai	nderfeld@gm	ail.com						
d.	Volume of waste shipped to p	cu yd gal gal	y in the previous year lb 🛛 ton	(check one)							
a.	Solid waste permit number(s)	for processing or disposal f	acility being utilized.								
b.	Facility Name										
	Address Line 1										
	Address Line 1										
	Address City State ZIP	- 1- 00 - 12									
	Municipality		County								
с.	Facility Contact Name			-							
	Title		·····								
	Phone	E	mail Address								
d.	Volume of waste shipped to p	ocessing or disposal facility cu yd 🔲 gal 🗌	/ in the previous year lb [] ton	(check one)							
		2. BENEFICIA	LUSE								
а.	Has the waste been approved		ang ng ang ang ang ang ang ang ang ang a	nen en	☐ Yes	No No					
	If "Yes", list the general permi	number or approval numbe	er.		_						
b.	Volume of waste beneficially u										
	0 Ú	cuyd 🗌 gal 🗌	lb 🗌 ton	(check one)							

SECTION D. CERTIFICATION									
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the Information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.									
Check the following, if applicable	e:								
I certify the information r	equired in Section B-1, General Properties was supplied to the Department for the year								
Form Submitted:	Form 26R								
	Other (specify)								
Date Submitted:	· · · · · · · · · · · · · · · · · · ·								
I certify the information r and has not change	equired in Section B-2, Chemical Analysis was supplied to the Department for the year								
Form Submitted:	Form 26R								
	Other (specify)								
Date Submitted:									
I certify the information re- for the year and has	quired in Section B-3, Process Description and Schematic, was supplied to the Department s not changed.								
Form Submitted:	Form 26R								
	Other (specify)								
Date Submitted:									
Name of Responsible Official	Title Environmental Specialist								
Dina Brown Signature	Jan Date 2/25/11								

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LAB ID: 08-0 LAB ID: 39-0		<b>Eas</b> 2566	nalytics, In Division /Ivania Ave. A 18840	NC. Work Order: 10092016					
			• •	888-0169 888-0717					
SEND DATA	TO:								
NAME:	Steve Gridley				W	O#:	1009	2016	
COMPANY: ADDRESS:	Talisman Energy USA, I 337 Daniel Zenker Dr	nc.			PA	AGE:	1 of 2	2	
ADDRESS.	Horseheads, NY 14845					<b>~</b> #.	A E 77	700	
					P	O#:	AF77	728	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	EST RE	EPORT	P١	NS ID#			
01-	071								
	FOR LAB BY: TJC	DAT	E: 09/1	3/2010 17:12				P	age 1 of 2
					Oreh				
SAMPLE: AI	r Cuttings ED BY: SG	Sa		): 10092016-001A ): 09/13/2010 12:20	Grab				
SAMI EL	D D1. 30	04	mpie rime	. 03/13/2010 12.20	<u>SLOQ</u>				
<u>Test</u>	I II becoderes	Result		Method	000	Analysis		Analysis End	<u>Analyst *</u>
	roleum Hydrocarbons e Note: Analysis performed by I	< 209 mg/Kg /licrobac Laboratori	es inc-Fr	EPA 9071 ie Division	209	09/19/10	10.20	09/19/10	
·					0				
SAMPLE: AII	r Cuttings ED BY: SG	Sa		): 10092016-001B ): 09/13/2010 12:20	Grab				
SAIVIF LE	0 01. 30	04	inple fille	. 03/13/2010 12.20	<u>SLOQ</u>				
Test		Result		Method	0.04	Analysis		Analysis End	
Moisture		25.3 %		Moisture Calc.	0.01	09/14/10		09/15/10	MED-SA
Free Liqui pH	iù	< 0.1 % 7.90@20.3°C		EPA 9095A EPA 9045C	0.1	09/14/10 09/14/10		09/14/10 09/14/10	IC-SA MED-SA
·		7.00@20.0 0					14.20		
SAMPLE: AII	<b>r Cuttings</b> ED BY: SG	Sa		: 10092016-001C : 09/13/2010 12:20	Grab				
SAMPLE	UDT. 30	34	inhie Time	. 09/13/2010 12.20	SLOQ				
Test		<u>Result</u>		Method		<u>Analysis</u>		Analysis End	
Sodium		< 180 mg/Kg-dry	140	EPA 6010B	180	09/16/10		09/16/10	RMD-CV
Chloride	6 - i - t	< 66.9 mg/Kg-dry	MS	EPA 300.0	66.9	09/15/10		09/16/10	HDP-CV
Percent M		25.3 %		SM2540G		09/14/10	10.00	09/15/10	MED-SA
	CLP Leachate of Air Cutting			: 10092016-001E	Grab				
SAMPLE	D BY: SG	Sa	mple Time	: 09/15/2010 9:00	<u>SLOQ</u>				
Test		<u>Result</u>		Method		<u>Analysis</u>	Start	Analysis End	Analyst *
Mercury -	TCLP extracted	< 0.0008 mg/L		EPA 7470A	0.0008	09/15/10	9:00	09/16/10	KW-CV
	TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	09/16/10	8:00	09/16/10	RMD-CV
	TCLP extracted	< 10.00 mg/L		EPA 6010B	10.00	09/16/10		09/16/10	RMD-CV
	- TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	09/16/10		09/16/10	RMD-CV
	n - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	09/16/10		09/16/10	RMD-CV
• •	TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	09/16/10		09/16/10	RMD-CV
	LP extracted	< 0.500 mg/L		EPA 6010B	0.500	09/16/10	0:00	09/16/10	RMD-CV
REMARKS									

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MS Limit of detection increased due to matrix interference and spike recovery data

MANAGER

Carrie M. Davis

DATE: 9/20/2010

Lab ID: 08-0 Lab ID: 39-0		<b>Easte</b> 2566 Pe	k Analytics, Ind rn Division nnsylvania Ave. e, PA 18840	<b>C</b> .	Work Order: 10092016			
		•	570) 888-0169 570) 888-0717					
SEND DATA	A TO:							
NAME:	Steve Gridley			W	O#:	10092	2016	
COMPANY:		IC.		PA	AGE:	2 of 2		
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845							
	1101Selleaus, 111 14045			P	O#:	AF77	728	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TES	T REPORT	P١	WS ID#			
01-	-071							
RECEIVED I	FOR LAB BY: TJC	DATE:	09/13/2010 17:12				Р	age 2 of 2
Nickel - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10	0 8:00	09/16/10	RMD-CV
Selenium	a - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/16/10	0 8:00	09/16/10	RMD-CV
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/16/10	00:8 0	09/16/10	RMD-CV
Zinc - TC	LP extracted	< 0.200 mg/L	EPA 6010B	0.200	09/16/10	0 8:00	09/16/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MS Limit of detection increased due to matrix interference and spike recovery data

MANAGER

Carrie M. Davis

DATE: 9/20/2010

	00380 00401	Easter 2566 Per Sayre Phone: (5	x <b>Analytics, In</b> r <b>n Division</b> nnsylvania Ave. 9, PA 18840 570) 888-0169	IC. Work Order: 10103216				
		Fax: (8	570) 888-071 <b>7</b>					
SEND DATA NAME:					<b>~</b> // / / / /			
COMPANY:	Steve Gridley Talisman Energy USA, Ir			Υ¥(	O#: 1010	)3216		
ADDRESS:	337 Daniel Zenker Dr			PA	GE: 1 of	2		
	Horseheads, NY 14845			PC	)#: AF7	7729		
				-				
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TESI	REPORT	<b>۲</b> ۹	VS ID#			
01-	071							
	FOR LAB BY: TJC	DATE:	10/21/2010 11:37			Pa	age 1 of 2	
SAMPLE: In	v Cuttings		ab ID: 10103216-001A	Compos	site			
	ED BY: SG		Time: 10/19/2010 10:39	Compo.	510			
				<u>sloq</u>				
<u>Test</u> Total Date	an la sua la subana di ana	<u>Result</u> 115000 mg/Kg	<u>Method</u> EPA 9071	170	Analysis Start 10/23/10 9:00	Analysis End 10/23/10	Analyst *	
	roleum Hydrocarbons e Note: Analysis performed by N	• •		170	10/23/10 9.00	10/23/10		
SAMPLE: In			ab ID: 10103216-001B	Compos	site			
	ED BY: SG		Time: 10/19/2010 10:39					
_		•		<u>SLOQ</u>	An altra a Otant	Amelia Cod	A	
Test		<u>Result</u>	Method		Analysis Start	Analysis End		
<u>Test</u> Moisture	:4	<u>Result</u> 11.1 %	<u>Method</u> Moisture Calc.	0.01	10/25/10 15:00	10/26/10	NFM-SA	
<u>Test</u> Moisture Free Liqu	id	<u>Result</u> 11.1 % < 0.1 %	<u>Method</u> Moisture Calc. EPA 9095A		10/25/10 15:00 10/22/10 15:10	10/26/10 10/22/10	NFM-SA IC-SA	
<u>Test</u> Moisture	id	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0°C	<u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	0.01 0.1	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50	10/26/10	NFM-SA	
Test Moisture Free Liqu pH SAMPLE: In	v. Cuttings	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0℃	Method Moisture Calc. EPA 9095A EPA 9045C .ab ID: 10103216-001C	0.01	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50	10/26/10 10/22/10	NFM-SA IC-SA	
Test Moisture Free Liqu pH SAMPLE: In		<u>Result</u> 11.1 % < 0.1 % 9.67@23.0℃	<u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	0.01 0.1 Compos	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50	10/26/10 10/22/10	NFM-SA IC-SA	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE	v. Cuttings	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0°C ⊾ Sample	Method Moisture Calc. EPA 9095A EPA 9045C .ab ID: 10103216-001C	0.01 0.1	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site	10/26/10 10/22/10	NFM-SA IC-SA	
Test Moisture Free Liqu pH SAMPLE: In	v. Cuttings	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0℃	Method Moisture Calc. EPA 9095A EPA 9045C .ab ID: 10103216-001C Time: 10/19/2010 10:39	0.01 0.1 Compos	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50	10/28/10 10/22/10 10/26/10	NFM-SA IC-SA NFM-SA	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE	v. Cuttings	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0°C t Sample <u>Result</u>	<u>Method</u> Moisture Calc. EPA 9095A EPA 9045C .ab ID: 10103216-001C Time: 10/19/2010 10:39 <u>Method</u>	0.01 0.1 Compos	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u>	10/26/10 10/22/10 10/26/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE SAMPLE Test Sodium	<b>v. Cuttings</b> ED BY: SG	<u>Result</u> 11.1 % < 0.1 % 9.67@23.0°C t Sample <u>Result</u> 704 mg/Kg-dry	Method Moisture Calc. EPA 9095A EPA 9045C ab ID: 10103216-001C Time: 10/19/2010 10:39 Method EPA 6010B	0.01 0.1 Compos <u>SLOQ</u> 92.5	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10	NFM-SA IC-SA NFM-SA Analvst* RMD-CV	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE SAMPLE Test Sodium Chloride Percent M	<b>v. Cuttings</b> ED BY: SG Moisture	Result           11.1 %           < 0.1 %	Method Moisture Calc. EPA 9095A EPA 9045C ab ID: 10103216-001C Time: 10/19/2010 10:39 Method EPA 6010B EPA 300.0	0.01 0.1 Compos <u>SLOQ</u> 92.5	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10	NFM-SA IC-SA NFM-SA Analvst* RMD-CV HDP-CV	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: Test Sodium Chloride Percent M	<b>v. Cuttings</b> ED BY: SG	Result         11.1 %         < 0.1 %	Method Moisture Calc. EPA 9095A EPA 9045C ab ID: 10103216-001C Time: 10/19/2010 10:39 Method EPA 6010B EPA 300.0 SM2540G	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10	NFM-SA IC-SA NFM-SA Analvst* RMD-CV HDP-CV	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: Test Sodium Chloride Percent M	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin	Result         11.1 %         < 0.1 %	Method           Moisture Calc.           EPA 9095A           EPA 9045C           .ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 300.0           SM2540G           .ab ID: 10103216-001E	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10	NFM-SA iC-SA NFM-SA Analvst* RMD-CV HDP-CV NFM-SA	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: IC SAMPLE: IC SAMPLE: IC	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin	Result           11.1 %           < 0.1 %	Method           Moisture Calc.           EPA 9095A           EPA 9045C           .ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 6010B           EPA 300.0           SM2540G           .ab ID: 10103216-001E           Time: 10/22/2010 7:30	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analvsis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00 site	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10 10/26/10	NFM-SA iC-SA NFM-SA Analvst* RMD-CV HDP-CV NFM-SA	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin ED BY: SG	Result           11.1 %           < 0.1 %	Method           Moisture Calc.           EPA 9095A           EPA 9045C           .ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 300.0           SM2540G           .ab ID: 10103216-001E           Time: 10/22/2010 7:30	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos <u>SLOQ</u>	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00 site <u>Analysis Start</u> 10/23/10 10:20 10/23/10 11:10	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10 10/26/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA Analvst* RMD-CV NFM-SA Analvst* RMD-CV RMD-CV	
Test Moisture Free Liqu pH SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: To Sodium Chloride Percent M SAMPLE: To SAMPLE: T	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin ED BY: SG • TCLP extracted	Result           11.1 %           < 0.1 %	Method Moisture Calc.           EPA 9095A           EPA 9045C           .ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 300.0           SM2540G           .ab ID: 10103216-001E           Time: 10/22/2010 7:30           Method           EPA 300.0           SM2540G           .ab ID: 10103216-001E           Time: 10/22/2010 7:30           Method           EPA 7470A	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos <u>SLOQ</u> 0.0008	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site <u>Analysis Start</u> 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00 site <u>Analysis Start</u> 10/23/10 10:20	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/26/10 <u>Analysis End</u> 10/24/10	NFM-SA IC-SA NFM-SA Analvst* RMD-CV NFM-SA Analyst* RMD-CV RMD-CV	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In SAMPLE: In Sample Percent M SAMPLE: In SAMPLE: In Sample Percent A SAMPLE: In SAMPLE: In Sample Percent A SAMPLE: In SAMPLE: In Sample Percent A SAMPLE: In Sample Samp	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted	Result           11.1 %           < 0.1 %	Method Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 300.0           SM2540G           ab ID: 10103216-001E           Time: 10/22/2010 7:30           Method           EPA 7470A           EPA 6010B	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos <u>SLOQ</u> 0.0008 0.500	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site Analysis Start 10/22/10 10:40 10/22/10 15:00 site Analysis Start 10/23/10 15:00 10/23/10 10:20 10/23/10 11:10 10/23/10 11:10	10/26/10 10/22/10 10/26/10 <u>Analysis End</u> 10/22/10 10/23/10 10/26/10 <u>Analysis End</u> 10/24/10 10/23/10 10/23/10 10/23/10	NFM-SA iC-SA NFM-SA Analvst* RMD-CV NFM-SA Analvst* RMD-CV RMD-CV RMD-CV	
Test Moisture Free Liqu pH SAMPLE: In SAMPLE: In SAMPLE: In Sodium Chloride Percent M SAMPLE: TC SAMPLE: TC	v. Cuttings ED BY: SG Moisture CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted	Result           11.1 %           < 0.1 %	Method Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10103216-001C           Time: 10/19/2010 10:39           Method           EPA 6010B           EPA 300.0           SM2540G           ab ID: 10103216-001E           Time: 10/22/2010 7:30           Method           EPA 7470A           EPA 6010B           EPA 6010B	0.01 0.1 Compos <u>SLOQ</u> 92.5 55.1 Compos <u>SLOQ</u> 0.0008 0.500 10.00	10/25/10 15:00 10/22/10 15:10 10/26/10 8:50 site Analysis Start 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00 site Analysis Start 10/23/10 10:20 10/23/10 11:10	10/26/10 10/22/10 10/26/10 Analysis End 10/22/10 10/23/10 10/26/10 Analysis End 10/24/10 10/23/10 10/23/10	NFM-SA IC-SA NFM-SA Analyst* RMD-CV NFM-SA Analyst* RMD-CV	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER \_\_\_\_\_ Davis \_\_\_\_\_ DATE: 10/26/2010

LAB ID: 08-00380 LAB ID: 39-00401		2566 Penr	Analytics, Ir n Division nsylvania Ave. PA 18840	nC.	Work Order: 10103216				
		Phone: (57 Fax: (57							
SEND DATA	A TO:	:							
NAME:	Steve Gridley	e e		wo	<b>)#</b> :	10103	216		
	COMPANY: Talisman Energy USA,	ic.		DA	GE:	2 of 2			
ADDRESS: 337 Daniel Zenker Dr			FA	GL.					
	Horseheads, NY 14845	·		PC	PO#: AF77729				
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	TEST REPORT			PWS ID#			
01	-071								
	FOR LAB BY: TJC	DATE: 1	0/21/2010 11:37		•		P	age 2 of 2	
Lead - T	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/23/10	11:10	10/23/10	RMD-CV	
Nickel - 1	TCLP extracted	0.138 mg/L	EPA 6010B	0.100	10/23/10	11:10	10/23/10	RMD-CV	
Selenium	n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/23/10	11:10	10/23/10	RMD-CV	
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/23/10	11:10	10/23/10	RMD-CV	
Zinc - TC	CLP extracted	0.217 mg/L	EPA 6010B	0.200	10/23/10	11:10	10/23/10	RMD-CV	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

DATE: 10/26/2010 avis Carrie M MANAGER

EPORT TO: Talisman / UEG	]			14/		<u></u>	10102010 3840	
geowetlands@aol.com	1			VV.	10	#:	IUIUJZID ARE SPECIAL DETECTION L	IMITS
wollin@rallysolutions.ca		IGER	ATE SA	MPI F	8			
			LECT		Ĩ	6	W DRINKING WATER SL SLUDGE WOOH NYDEC PADEP IS A QC PACKAGE NE	
CONTACT Otavia Oriallari	-						W GROUND WATER SO SOIL	EVENT
CONTACT Steve Gridley	<u> </u> т	RANS T(	PORT		1	/ w		
AX#	- LA		) Atory	,		- Tk		URCEMENTO
BILL TO: Tallsman		N CO WITH		_/	/	PRESENTITIAL COMPOSITE	H       HYDROCHLORIC ACID       OH       SODIUM HYDROXIDE         S       SULFURIC ACID       AS       ASCORBIC ACID         N       NITRIC ACID       AC       ACETIC ACID         SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE       Hg       Hercuric CHLORIDE         Thio       SODIUM THIOSULFATE       ZINC ACETATE       Hg       MERCURIC CHLORIDE         -       NONE       Hg       MERCURIC CHLORIDE       Hg       Pease fill c         An incomplete chain of custody may delay the       Processing of your sample(s).       Pease fill c       SO       SO         ANALYSIS TO BE PERFORMED       CONTAINER)       CAB       USE ONLY       CAB       CAB	
0#/F77729	-		6	7			- NONE Hg MERCURIC CHLORIDE	. 11
CAMPLER SIGNATURE / AFFILIATION			SAMPLIN	MATRY	in all	R MITLA	An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (REP CONTAINED)	areas
SCONTAINER SAMPLING POINT	Dares	TIME	Super Same ING	SAME MATRIX		Tommer of the second	SO <sub>3</sub> SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE - NONE Hg MERCURIC CHLORIDE An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)	Ý
1 Inv Cuttings	10/19	1039	50		8	N		DOI K
2							pH	
3							TCLP 8 RCRA Metals + Cu, Ni, Zn	
4 A. TPH					μ		Free Liquids / % Moisture	
5 B-pH, Free Lige	fill	0	lon	poi	tu	pe	BTEX	
6 CLINA					<u> </u>		TCLE CLOS + SETO ONLY IF the TPH	
7 D.T.Sanples		• 1			. 		exceeds 120,000 mg/Kg	
8 TCLP Metals 4	-0	(N)	1,4	p			7之 HOUR TURNAROUND	
9					<u> </u>		DAY TURNAROUND	
10	+			<b> </b>				20/10
LAS USE GAD: 1. A State	<u> </u>	:	L	L_,,				901
	йн 1977-	•	<i>.</i>		<u>ې</u> ک			
RELINGUISTED BY: / / Les			ATE:	211/	0	TIME:	37 RECEIVED BY: DATE:	E:
RELINQUISHED BY:		Ē	ATE:			TIME:	RECEIVED BY: DATE: / TIM	E:

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		sylvania	
$\mathcal{P}$	DEPARTMENT OF	ENVIRONMENTAL PROTECTION	ł

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legil each attache	his form must be fully and accurately completed. All required information must be yped or legibly printed in the spaces provided. If additional space is necessary, identify ach attached sheet as Form 26R, reference the item number and identify the date repared. The date on attached sheets needs to match the date noted below.				DEP USE ONLY Received & General	
General Refe	General Reference 287.54					
Date Prepare	d/Revised Febru	iary 11, 2011				
1.1.1		LIENT (GENERATOR	OF THE WASTE) IN	FORMATI	ON	
Company Na Talisman En	<b>me</b> ergy USA Inc.					
	y, Name of Parent Compan	ıy			EPA Generator	ID#
Talisman En					N/A	
50 Pennwoo	iling Address Line 1 d Place	C	ompany Mailing Addres	s Line 2		
	dress Last Line – City	State	Zip+4	Phone		xt
Warrendale		PA	15086	(724) 81		
Brown	ntact Last Name	<b>First Name</b> Dina	MI		Suffix	
Municipality		(	County	(i.e.,		
Warrendale Contact Phor	ne Ext C	A Contact Email Address	Allegheny			
(724) 814-53		lybrown@talismanusa.c	om			
Is the waste g	generated at the Company	Mailing Address (noted a	above)?		🗌 Yes 🛛	
If 'No'. descri	be location of waste gener 1-032) well pad site located a	ation and storage. <u>Drill c</u>	uttings are generated du	ring natural ga	as drilling operatio	ns at
containers on		at 554 Alba Wountain Roa	u, Canton Township, Bra	alora County,	PA. Waste is sto	
Municipality	Canton	County Bradfo		State	PA	
						and months includes
		ECTION B. WAST	EDESCRIPTION	11-14-6		
Residual Waste Code	Residual	l Waste	Amount	Unit of Measure	Tin Frai	
Waste Code	Residual Code Des	l Waste cription	Amount	Measure cuyd	gal	me
	Residual	I Waste scription s)	Amount 4,091	Measure cuyd	gal	
Waste Code	Residual Code Des Drill cuttings (oil and gas	I Waste cription S) 1. GENERAL P	Amount 4,091	Measure ☐ cu yd _ ☐ lb	gal	me
Waste Code 810 a. pH Ra	Residual Code Des Drill cuttings (oil and gas inge 9.18 cal State	I Waste cription S) 1. GENERAL P	Amount 4,091 ROPERTIES (based on analyses or ki thod 9095) 95)	Measure ☐ cu yd _ ☐ lb	gal	me
Waste Code 810 a. pH Ra b. Physi	Residual         Code Des         Drill cuttings (oil and gas         inge       9.18         cal State       []         cal Appearance       C	I Waste cription 5) 1. GENERAL P to 10.33 ☐ Liquid Waste (EPA Me Solid (EPA Method 909 ☐ Gas (ambient temperation Color Greyish Black	Amount 4,091 ROPERTIES (based on analyses or ki thod 9095) 95) ture & pressure) Odo	Measure	gal	me
Waste Code 810 a. pH Ra b. Physi	Residual Code Des Drill cuttings (oil and gas inge 9.18 cal State [ Cal Appearance C N	I Waste acription S) 1. GENERAL P to 10.33 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black lumber of Solid or Liquic	Amount 4,091 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo I Phases of Separation	Measure cu ydlb nowledge) rEarthy/S One	gal ] gal ] ton	me
Waste Code 810 a. pH Ra b. Physi	Residual Code Des Drill cuttings (oil and gas inge 9.18 cal State [ Cal Appearance C N	I Waste cription 5) 1. GENERAL P to 10.33 ☐ Liquid Waste (EPA Me Solid (EPA Method 909 ☐ Gas (ambient temperation Color Greyish Black	Amount 4,091 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo I Phases of Separation	Measure cu ydlb nowledge) rEarthy/S One	gal ] gal ] ton	me
Waste Code 810 a. pH Ra b. Physi c. Physi	Residual Code Des Drill cuttings (oil and gas ange 9.18 cal State [ Cal Appearance C N D	I Waste Cription  I. GENERAL P to 10.33 I. Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Iumber of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS	Amount 4,091 ROPERTIES (based on analyses or kit thod 9095) 35) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro	Measure	gal ]gal ]ton □ One ]ton □ One	me <u>a</u> Time
Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru	Residual Code Des Drill cuttings (oil and gas ange 9.18 cal State [ cal Appearance C N besults of a detailed chemica ctions, is attached.	I Waste         ccription         s)         1. GENERAL P         to       10.33         Liquid Waste (EPA Me         Solid (EPA Method 909         Gas (ambient temperal         color       Greyish Black         lumber of Solid or Liquic         bescribe each phase of s         2. CHEMICAL ANALYS         al characterization of the	Amount 4,091 ROPERTIES (based on analyses or kit thod 9095) 35) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in	Measure	Silight Petroleum	me Time No
Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta	Residual Code Des         Drill cuttings (oil and gas         ange       9.18         cal State       []         cal Appearance       C         sults of a detailed chemica       D         ctions, is attached.       ailed description of the was	I Waste Coription  I. GENERAL P  to 10.33  Liquid Waste (EPA Me  Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Iumber of Solid or Liquic Describe each phase of s  C. CHEMICAL ANALYS al characterization of the ste sampling method is a	Amount 4,091 ROPERTIES (based on analyses or ki thod 9095) 55) ture & pressure) Odo I Phases of Separation eparation. <u>Soil and Ro</u> SIS ATTACHMENTS waste, as described in ttached.	Measure cu yd lb nowledge) rEarthy/S  One ck Fragments the	S Yes	me 2 Time 2 Time 3 No 3 No
Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta	Residual Code Des         Drill cuttings (oil and gas         ange       9.18         cal State       []         cal Appearance       C         cal Appearance       C         cal Appearance       C         ailed description of the was       ailed description of the was	I Waste Coription  I. GENERAL P  to 10.33  Liquid Waste (EPA Me  Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Iumber of Solid or Liquic Describe each phase of s  C. CHEMICAL ANALYS al characterization of the ste sampling method is a	Amount 4,091 ROPERTIES (based on analyses or ki thod 9095) 55) ture & pressure) Odo I Phases of Separation eparation. <u>Soil and Ro</u> SIS ATTACHMENTS waste, as described in ttached.	Measure cu yd lb nowledge) rEarthy/S  One ck Fragments the	Silight Petroleum	me Time No
Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta c. The q attach d. The re	Residual Code Des         Drill cuttings (oil and gas         ange       9.18         cal State       []         cal Appearance       C         cal Appearance       C         cal Appearance       C         ailed description of the was       ailed description of the was		Amount 4,091 ROPERTIES (based on analyses or kit thod 9095) 35) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in ttached. yed by the laboratory(ie ched.	Measure cu yd lb nowledge) rEarthy/S  One ck Fragments the	S Yes	me 2 Time 2 Time 3 No 3 No 3 No 3 No 3 No

	3.	PROCESS DESCRIPTI	ON & SCHEMATIC ATTA	CHMENTS	1997 - 1997 -		
a.	A detailed description of the				Yes	□ No	
	the waste, as specified in the						
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, Xes No as specified in the instructions, is attached.						
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	No No	🛛 N/A	
	SECTIO		MENT OF RESIDU				
			R DISPOSAL FACILITY(II				
The ar	rea below (ad.) will accommod	ate the identification	of two facilities. Attack	h additional sheets	if necessary		
а.	Solid waste permit number(s) 9-0232-00003	for processing or dis	posal facility being util	lized.			
b.	Facility Name	Hyland Landfill					
	Address Line 1	6653 Herdman Roa	ad				
	Address Line 1						
	Address City State ZIP	Angelica	NY	14709	······································		
	Municipality	Angelica	County	Allegany			
c.	Facility Contact Name	Larry Shilling					
	Title		est sa				
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com		
d.	Volume of waste shipped to p 2,494	cu yd 🗌 gal	☐ lb 🛛 tor	n (check one)			
а.	Solid waste permit number(s) 8-4630-00010	for processing or dis	posal facility being util	ized.			
b.	Facility Name	Hakes C&D Landfil	1				
	Address Line 1	4376 Manning Ridg	ge Road				
	Address Line 1						
	Address City State ZIP	Painted Post	NY	14870			
	Municipality	Erwin Twp	County	Steuben			
c.	Facility Contact Name	Joseph Boyles					
	Title						
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	ella.com		
d.	Volume of waste shipped to p	rocessing or disposa	I facility in the previous	s year.			
1	1,377	cuyd 🗌 gal	🗌 lb 🛛 tor	n (check one)			
	14	2. BE	NEFICIAL USE				
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No	
	If "Yes", list the general permi	t number or approval	number.				
b.	Volume of waste beneficially						
	0	cuyd 🗌 gal	🗌 lb 🗌 tor	n (check one)			

	3.	<b>PROCESS DESCRIPTION &amp;</b>	SCHEMATIC ATTAC	HMENTS	· · · · · · · · · · · · · · · · · · ·
a.	A detailed description of the the waste, as specified in the		lution control proce	sses producing	🛛 Yes 🗌 No
b.	A schematic of the manufacture as specified in the instruction		trol processes prod	ucing the waste,	Yes 🗌 No
C.	If portions of the information a confidentiality claim, as des			n for Yes	🗌 No 🛛 N/A
	SECTIO	ON C. MANAGEME	NT OF RESIDU	AL WASTE	
		1. PROCESSING OR D			
The ar	ea below (ad.) will accommod	ate the identification of the	vo facilities. Attach	additional sheets	if necessary.
a.	Solid waste permit number(s) 8-0728-00004	for processing or dispos	al facility being utili	zed.	
b.	Facility Name	Chemung County Land	Ifill		
	Address Line 1	1690 Lake Street			
	Address Line 1				
	Address City State ZIP	Elmira	NY	14903	
	Municipality	Elmira	County	Chemung	
C.	Facility Contact Name	Carla Canjar			
	Title	Environmental Manage			
	Phone	(585) 797-5941	Email Address	carla.canjar@cas	sella.com
d.	Volume of waste shipped to p	rocessing or disposal fac cu yd gal	ility in the previous	year. (check one)	
a.	Solid waste permit number(s) 100361	for processing or dispos	al facility being utili	zed.	
b.	Facility Name	McKean County Landfi			
	Address Line 1	19 Ness Lane			
	Address Line 1				
	Address City State ZIP	Kane	PA	16735	
	Municipality	Sergeant Twp	County	McKean	
C.	Facility Contact Name	Mike Manderfeld			
	Title				
	Phone	(814) 778-9931	Email Address	manderfeld@gma	ail.com
d.	Volume of waste shipped to p	rocessing or disposal fac cu yd gal	ility in the previous	year. (check one)	
184 <b>1</b> -000		2. BENEF		An in the second sec	
a.	Has the waste been approved	for beneficial use?			🗌 Yes 🛛 No
	If "Yes", list the general perm	t number or approval nur	nber.		
b.	Volume of waste beneficially	ised in the previous year			
	0	cuyd 🗌 gal [	b ton	(check one)	

SECTION D. CERTIFICATION					
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.					
Check the following, if applica	e:				
I certify the information and has not char	•	ction B-1, General Properties was supplied to the Department for the year			
Form Submitted:	Form 26F	R			
	Other (sp	ecify)			
Date Submitted:					
I certify the information		ction B-2, Chemical Analysis was supplied to the Department for the year			
Form Submitted:	Form 26F	R			
	Other (sp	ecify)			
Date Submitted:					
I certify the information for the year and I	-	on B-3, Process Description and Schematic, was supplied to the Department			
Form Submitted:	Form 26R				
	Other (sp	ecify)			
Date Submitted:		· · · · ·			
Name of Responsible Official		Title Environmental Specialist			
Dina Brown Signature	3/6	Date 2/25/11			

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LAB ID: 39-00401	<b>Easter</b> 2566 Pen Sayre Phone: (5	Analytics, Ir n Division nsylvania Ave. , PA 18840 70) 888-0169 70) 888-0717	IC.	Work	c Order: 100	74528
SEND DATA TO:	1 47. 10					
NAME: Steve Gridley			W	O#: 1007	74528	
COMPANY: Talisman Energy			PA	AGE: 1 of	2	
ADDRESS: 337 Daniel Zen Horseheads, N			D	∩#• ∧ ⊑7/	6317	
,,.					0317	
PHONE: (607) 562-400 FAX: (607) 562-400	10	REPORT	P\	NS ID#		
Well						
RECEIVED FOR LAB BY: DL	_M2 DATE:	07/29/2010 9:32			Pa	age 1 of 2
SAMPLE: Air Cuttings SAMPLED BY: SG		ab ID: 10074528-001A Time: 07/28/2010 15:00	Grab			
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons Sample Note: Analysis per	s 890 mg/Kg	EPA 9071			08/02/10	
SAMPLE: Air Cuttings	Li	ab ID: 10074528-001B	Grab			
SAMPLE: Air Cuttings SAMPLED BY: SG		ab ID: 10074528-001B Time: 07/28/2010 15:00				
			Grab <u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
SAMPLED BY: SG	Sample	Time: 07/28/2010 15:00		<u>Analysis Start</u> 07/29/10 14:30	<u>Analysis End</u> 07/30/10	<u>Analyst *</u> NFM-SA
SAMPLED BY: SG <u>Test</u>	Sample <u>Result</u>	Time: 07/28/2010 15:00 <u>Method</u>	<u>sloq</u>			
SAMPLED BY: SG <u>Test</u> Moisture	Sample <u>Result</u> 16.1 %	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc.	<u>SLOQ</u> 0.01	07/29/10 14:30	07/30/10	NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A	<u>SLOQ</u> 0.01	07/29/10 14:30 07/30/10 17:10	07/30/10 07/30/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C Li	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	<u>SLOQ</u> 0.01 0.1 Grab	07/29/10 14:30 07/30/10 17:10	07/30/10 07/30/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00	<u>SLOQ</u> 0.01 0.1	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00	07/30/10 07/30/10 07/30/10	NFM-SA IC-SA NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C Li Sample <u>Result</u>	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C	<u>SLOQ</u> 0.01 0.1 Grab	07/29/10 14:30 07/30/10 17:10	07/30/10 07/30/10	NFM-SA IC-SA NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u>	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u>	SLOQ 0.01 0.1 Grab SLOQ	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u>	07/30/10 07/30/10 07/30/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C Li Sample <u>Result</u> 1280 mg/Kg-dry	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 71.8	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 %	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 71.8	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: <b>Air Cuttings</b> SAMPLED BY: SG <u>Test</u> Sodium Chloride	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C La Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % La Air Cuttings	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 71.8 59.6 Grab	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C La Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % La Sample	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 71.8 59.6	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10 07/30/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u>	Sample          Result         16.1 %         < 0.1 %	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u>	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 71.8 59.6 Grab <u>SLOQ</u>	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u>	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/30/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV NFM-SA <u>Analyst *</u>
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C La Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % La Sample <u>Result</u> Sample La Sample	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u> EPA 7470A	SLOQ           0.01           0.1           Grab           SLOQ           71.8           59.6           Grab           SLOQ           0.0008	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u> 07/30/10 12:50	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10 07/30/10 <u>Analysis End</u> 08/03/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % Air Cuttings L: Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	Time: 07/28/2010 15:00 <u>Method</u> EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u> EPA 7470A EPA 6010B	SLOQ           0.01           0.1           Grab           SLOQ           71.8           59.6           Grab           SLOQ           0.0008           0.500	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u> 07/30/10 12:50 08/02/10 8:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/30/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV RMD-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % L: Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	Time: 07/28/2010 15:00 <u>Method</u> EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	SLOQ           0.01           0.1           Grab           SLOQ           71.8           59.6           Grab           SLOQ           0.0008	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u> 07/30/10 12:50 08/02/10 8:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10 07/30/10 <u>Analysis End</u> 08/03/10 08/02/10	NFM-SA IC-SA NFM-SA MFM-SA RMD-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV RMD-CV RMD-CV RMD-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Barium - TCLP extracted	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 16.1 % Air Cuttings L: Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	Time: 07/28/2010 15:00 <u>Method</u> EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u> EPA 7470A EPA 6010B	SLOQ           0.01           0.1           Grab           SLOQ           71.8           59.6           Grab           SLOQ           0.0008           0.500           10.00	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 8:30 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u> 07/30/10 12:50 08/02/10 8:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10 07/30/10 <u>Analysis End</u> 08/03/10 08/02/10 08/02/10	NFM-SA IC-SA NFM-SA MD-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV RMD-CV RMD-CV RMD-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of A SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	Sample <u>Result</u> 16.1 % < 0.1 % 10.33@21.0°C L: Sample <u>Result</u> 1280 mg/Kg-dry 173 mg/Kg-dry 173 mg/Kg-dry 16.1 % Air Cuttings L: Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L < 0.100 mg/L <	Time: 07/28/2010 15:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10074528-001C Time: 07/28/2010 15:00 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10074528-001E Time: 07/30/2010 7:50 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	SLOQ           0.01           0.1           Grab           SLOQ           71.8           59.6           Grab           SLOQ           0.0008           0.500           10.00           0.100	07/29/10 14:30 07/30/10 17:10 07/29/10 8:00 <u>Analysis Start</u> 07/30/10 15:42 07/29/10 14:30 <u>Analysis Start</u> 07/30/10 12:50 08/02/10 8:30 08/02/10 8:30	07/30/10 07/30/10 07/30/10 <u>Analysis End</u> 07/31/10 07/31/10 07/30/10 <u>Analysis End</u> 08/03/10 08/02/10 08/02/10 08/02/10	NFM-SA IC-SA NFM-SA MFM-SA MD-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

Carrie M. Davis DATE: 8/4/2010

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

LAB ID: 08 LAB ID: 39		2566 Penns Sayre, I	<b>Division</b> sylvania Ave. PA 18840	C.		Work (	Order: 100	)74528
		Phone: (570 Fax: (570	)) 888-0169 )) 888-0717					
SEND DATA	A TO:							
NAME:	Steve Gridley			W	O#:	10074	528	
COMPANY: ADDRESS:	<b>.</b> ,	ъ.		PA	GE:	2 of 2		
	Horseheads, NY 14845			PC	D#:	AF763	17	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST F	REPORT	P٧	VS ID#			
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RECEIVED	FOR LAB BY: DLM2	DATE: 07	/29/2010 9:32				Р	age 2 of 2
	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/02/10		08/02/10	RMD-CV
	n - TCLP extracted CLP extracted	< 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B	0.500 0.100	08/02/10		08/02/10	RMD-CV
	CLP extracted	< 0.100 mg/L 60.4 mg/L	EPA 6010B	1.80	08/02/10 08/02/10		08/02/10 08/02/10	RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 8/4/2010

	00380 00401	Easte 2566 Per Sayre Phone: (S	<b>x Analytics, In rn Division</b> nnsylvania Ave. e, PA 18840 570) 888-0169	IC.	Work	Order: 100	81716
		Fax: (	570) 888-0717				
SEND DATA	TO:						
NAME:	Steve Gridley			W	O#: 1008	31716	
COMPANY:	-	Inc.				4	
ADDRESS:	337 Daniel Zenker Dr			PA	AGE: 1 of		
	Horseheads, NY 14845	5		P	D#: AF77	7446	
				P\	NS ID#		
PHONE:	(607) 562-4000	TES	<b>F REPORT</b>				
FAX:	(607) 562-4001						
	FOR LAB BY: DLM2		08/10/2010 15:33			D	age 1 of 1
			00/10/2010 13:33			1	
SAMPLE: In	v. Cuttings		Lab ID: 10081716-001A	Grab			
~		Sample					
SAMPLE	ED BY: SG	Sample	e Time: 08/10/2010 12:10	8100			
SAMPLI <u>Test</u>	-D BY: SG	<u>Result</u>	Method	<u>SLOQ</u>	Analysis Start	Analysis End	<u>Analyst *</u>
Test	ED BY: SG roleum Hydrocarbons			<u>SLOQ</u>	<u>Analysis Start</u> 08/12/10 11:10	<u>Analysis End</u> 08/12/10	<u>Analyst *</u>
<u>Test</u> Total Pet		<u>Result</u> 149000 mg/Kg	Method	<u>SLOQ</u>			<u>Analyst *</u>
<u>Test</u> Total Pet Sample	roleum Hydrocarbons e Note: Analysis performed by	<u>Result</u> 149000 mg/Kg Microbac-Erie	Method	<u>SLOQ</u> Grab			<u>Analyst *</u>
<u>Test</u> Total Pet Sample SAMPLE: In	roleum Hydrocarbons e Note: Analysis performed by	<u>Result</u> 149000 mg/Kg Microbac-Erie	<u>Method</u> EPA 9071	Grab			<u>Analyst *</u>
<u>Test</u> Total Pet Sample SAMPLE: In SAMPLE	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b>	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample	Method EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10		08/12/10 11:10	08/12/10	
<u>Test</u> Total Pet Sample SAMPLE: In SAMPLE <u>Test</u>	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b>	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample <u>Result</u>	<u>Method</u> EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10 <u>Method</u>	Grab <u>SLOQ</u>	08/12/10 11:10	08/12/10	Analyst *
<u>Test</u> Total Pet Sample SAMPLE: In SAMPLE <u>Test</u> Moisture	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample <u>Result</u> 29.5 %	<u>Method</u> EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10 <u>Method</u> Moisture Calc.	Grab	08/12/10 11:10 Analysis Start 08/12/10 8:45	08/12/10 Analysis End 08/13/10	<u>Analyst *</u> MED-SA
<u>Test</u> Total Pet Sample SAMPLE: In SAMPLE <u>Test</u>	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample <u>Result</u>	<u>Method</u> EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10 <u>Method</u>	Grab <u>SLOQ</u> 0.01	08/12/10 11:10	08/12/10	Analyst *
Test Total Pet Sample SAMPLE: In SAMPLE <u>Test</u> Moisture Free Liqu pH	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG id	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample <u>Result</u> 29.5 % < 0.1 % 9.45@21.5°C	<u>Method</u> EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Grab <u>SLOQ</u> 0.01 0.1	08/12/10 11:10 Analysis Start 08/12/10 8:45 08/12/10 15:00	08/12/10 Analysis End 08/13/10 08/12/10	Analyst * MED-SA RHN-SA
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: In Free Liqu pH	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv. Cuttin</b>	<u>Result</u> 149000 mg/Kg Microbac-Erie Sample <u>Result</u> 29.5 % < 0.1 % 9.45@21.5°C	Method EPA 9071 Lab ID: 10081716-001B Time: 08/10/2010 12:10 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C Lab ID: 10081716-001D	Grab <u>SLOQ</u> 0.01	08/12/10 11:10 Analysis Start 08/12/10 8:45 08/12/10 15:00	08/12/10 Analysis End 08/13/10 08/12/10	Analyst * MED-SA RHN-SA
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Test Total Pet Sample SAMPLE: In SAMPLE: In Moisture Free Liqu pH SAMPLE: TO SAMPLE: TO	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv. Cuttin</b> ED BY: SG	Result 149000 mg/Kg Microbac-Erie Sample Result 29.5 % < 0.1 % 9.45@21.5°C ngs Sample Result	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u>	08/12/10 11:10 Analysis Start 08/12/10 8:45 08/12/10 15:00 08/12/10 15:42 Analysis Start	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 <u>Analysis End</u>	<u>Analyst *</u> MED-SA RHN-SA MED-SA <u>Analyst *</u>
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO	roleum Hydrocarbons e Note: Analysis performed by <b>v. Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv. Cuttin</b> ED BY: SG TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 <u>Analysis End</u> 08/13/10	Analyst * MED-SA RHN-SA MED-SA <u>Analyst *</u> KW-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE Free Liqu pH SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/12/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 <u>Analysis End</u> 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA <u>Analyst *</u> KW-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE Test Moisture Free Liqu pH SAMPLE: TC SAMPLE: TC SAMPLE Test Mercury - Arsenic - Barium -	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B           EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00	08/12/10 11:10 <u>Analysis Start</u> 08/12/10 8:45 08/12/10 15:00 08/12/10 15:42 <u>Analysis Start</u> 08/12/10 8:30 08/13/10 7:20 08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 <u>Analysis End</u> 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: In Free Liqu pH SAMPLE: TO SAMPLE: T	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted ICLP extracted ICLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B           EPA 6010B           EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-SA KW-CV RMD-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: I Free Liqu pH SAMPLE: T SAMPLE: T	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted ICLP extracted n - TCLP extracted n - TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA KW-CV RMD-CV RMD-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: TO Free Liqu pH SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO Cadmium Chromium Copper -	roleum Hydrocarbons a Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted i - TCLP extracted i - TCLP extracted i - TCLP extracted TCLP extracted i - TCLP extracted TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500 0.100	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 <u>Analysis End</u> 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE Free Liqu pH SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: Construct Mercury - Arsenic - Barium - Cadmium Chromiun Copper - Lead - TC	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted ICLP extracted n - TCLP extracted n - TCLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE Free Liqu pH SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC Cadmium Chromium Copper - Lead - TC Nickel - T	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted i - TCLP extracted i - TCLP extracted i - TCLP extracted i - TCLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500 0.100 0.500	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 <u>Analysis End</u> 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Test Total Pet Sample SAMPLE: In SAMPLE: In SAMPLE: TO Free Liqu pH SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO Cadmium Chromium Copper - Lead - TO Nickel - T Selenium	roleum Hydrocarbons e Note: Analysis performed by v. Cuttings ED BY: SG id CLP Leachate of Inv. Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted n - TCLP extracted CLP extracted CLP extracted CLP extracted	Result           149000 mg/Kg           Microbac-Erie           Sample           Result           29.5 %           < 0.1 %	Method EPA 9071           Lab ID: 10081716-001B           Time: 08/10/2010 12:10           Method Moisture Calc. EPA 9095A EPA 9045C           Lab ID: 10081716-001D           Time: 08/10/2010 12:10           Method EPA 7470A EPA 6010B           EPA 6010B	Grab <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500 0.100 0.500 0.100	Analysis Start           08/12/10 11:10           Analysis Start           08/12/10 8:45           08/12/10 15:00           08/12/10 15:42           Analysis Start           08/12/10 15:42           Analysis Start           08/12/10 8:30           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20           08/13/10 7:20	08/12/10 <u>Analysis End</u> 08/13/10 08/12/10 08/12/10 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * MED-SA RHN-SA MED-SA MED-SA MED-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Carrie M. Davis DATE: 8/13/2010 MANAGER

LAB ID: 08-0 LAB ID: 39-0		Easte 2566 Pe Sayr Phone: (	k Analytics, In ern Division ennsylvania Ave. e, PA 18840 (570) 888-0169 (570) 888-0717	IC.	Work	Order: 100	81719
SEND DATA	TO						
NAME:	Steve Gridley			\ <b>\</b> /	O#: 1008	1719	
COMPANY:	Talisman Energy USA, Ir	IC.					
ADDRESS:	337 Daniel Zenker Dr			PA	AGE: 1 of <sup>r</sup>	1	
	Horseheads, NY 14845			P	D#: AF77	446	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TES	T REPORT	PV	NS ID#		
	FOR LAB BY: DLM2		08/10/2010 15:33			D	age 1 of 1
RECEIVED F			08/10/2010 15:55	_		r	age 1 01 1
	v. Cuttings & Biomatrix	Lab ID: 10081719-001A		Grab			
SAMPLE	ED BY: SG	Samp	le Time: 08/10/2010 12:15	SLOQ			
Test		Result	Method	OLOQ	Analysis Start	Analysis End	Analyst *
Total Petr	oleum Hydrocarbons	169000 mg/Kg EPA 9071			08/12/10 11:10	08/12/10	
Sample	Note: Analysis performed by M	licrobac-Erie					
SAMPLE: Inv	v. Cuttings & Biomatrix		Lab ID: 10081719-001B	Grab			
SAMPLE	D BY: SG	Samp	le Time: 08/10/2010 12:15				
Test		Result	Method	<u>sloq</u>	Analysis Start	Analysis End	Analvst *
Moisture		23.4 %	Moisture Calc.	0.01	08/12/10 8:45	08/13/10	MED-SA
Free Liqui	id	< 0.1 %	EPA 9095A	0.1	08/12/10 15:05	08/12/10	RHN-SA
pН		9.18@21.9°C	EPA 9045C		08/12/10 15:42	08/12/10	MED-SA
SAMPLE: TC	LP Leachate of Inv. Cutting	us & Biomatrix	Lab ID: 10081719-001D	Grab			
	DBY: SG	-	le Time: 08/10/2010 12:15				
Test		Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
<u>Test</u> Mercury -	TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/12/10 8:30	08/13/10	KW-CV
	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10 7:20	08/13/10	RMD-CV
	CLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/13/10 7:20	08/13/10	RMD-CV
	- TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10 7:20	08/13/10	RMD-CV
	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10 7:20	08/13/10	RMD-CV
	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10 7:20	08/13/10	RMD-CV
000000	LP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10 7:20	08/13/10	RMD-CV
			EPA 6010B	0.100	08/13/10 7:20	08/13/10	RMD-CV
Lead - TC	CLP extracted	< 0.100 mg/L					
Lead - TC Nickel - TC	CLP extracted - TCLP extracted	< 0.100 mg/L < 0.500 mg/L	EPA 6010B	0.500	08/13/10 7:20	08/13/10	RMD-CV
Lead - TC Nickel - TC Selenium		-				08/13/10 08/13/10	RMD-CV RMD-CV

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DATE: 8/13/2010

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Carrie M. Davis

MANAGER

PA ID #: 08- NY ID # 11		Easter 2566 Pen	Analytics, In n Division nsylvania Ave. , PA 18840	nc.	Work	Order: 100	82687
		-	Phone: (570) 888-0169 Fax: (570) 888-0717				
SEND DAT	A TO:						
NAME:	Steve Gridley			W	'O#: 1008	32687	
COMPANY:	0,	, Inc.		P	AGE: 1 of	<b>2</b>	
ADDRESS:						2	
	Horseheads, NY 1484	10		P	O#:		
PHONE:	(607) 562-4000	TEST	REPORT	P	WS ID#		
FAX:	(607) 562-4001						
Relog of 10	081719-001						
	FOR LAB BY: DLM2	DATE:	08/10/2010 15:33			Р	age 1 of 2
							8
	CLP Leachate of Inv. Cut	+	ab ID: 10082687-001B	Grab			
SAMPL	ED BY: SG	Sample	Time: 08/17/2010 8:18	SLOQ			
Test		Result	Method	0200	Analysis Start	Analysis End	Analyst *
Pyridine		< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
1,4-Dich	lorobenzene	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
o-Cresol		< 0.10 mg/L	Y EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
p-Cresol	/m-Cresol	< 0.10 mg/L	Y EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
Hexachle	oroethane	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
Nitroben	zene	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
Hexachle	orobutadiene	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
2,4,6-Tri	chlorophenol	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
2,4,5-Tri	chlorophenol	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
Pentachl	lorophenol	< 0.50 mg/L	EPA 8270C	0.50	08/18/10 15:52	08/18/10	RHH-SA
2,4-Dinit	rotoluene	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
Hexachle	orobenzene	< 0.10 mg/L	EPA 8270C	0.10	08/18/10 15:52	08/18/10	RHH-SA
SAMPLE Z	HE Extract of Inv. Cutting	s & Biomatrix	ab ID: 10082687-001C	Grab			
	ED BY: SG		Time: 08/17/2010 8:15	<u>SLOQ</u>			
Test		<u>Result</u>	Method	_	Analysis Start	Analysis End	<u>Analyst *</u>
Benzene	•	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
2-Butanc	one	< 0.20 mg/L	EPA 8260B	0.20	08/17/10 20:26	08/18/10	RHH-SA
Carbon t	etrachloride	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
Chlorobe	enzene	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
Chlorofo		< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
	lorobenzene	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
1,2-Dichl	loroethane	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
1,1-Dichl	loroethene	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
Trichloro	ethene	< 0.02 mg/L	EPA 8260B	0.02	08/17/10 20:26	08/18/10	RHH-SA
				0.02			

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER

Cami M. Davis

DATE:

8/19/2010

PA ID #: 08- NY ID # 112		<b>Easterr</b> 2566 Penn Sayre, Phone: (57	Analytics, Inc Division sylvania Ave. PA 18840 0) 888-0169 0) 888-0717	<b>C.</b> Work Order: 10			)82687
SEND DATA	A TO:						
NAME:	Steve Gridley			WO#:	10082687		
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	С.		PAGE:	2 of 2		
ABBRECO.	Horseheads, NY 14845			PO#:			
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	PWS ID≉	4		
Relog of 100	······································						
-	FOR LAB BY: DLM2	DATE: 08	8/10/2010 15:33			Р	age 2 of 2
Vinyl chlo	pride	< 0.02 mg/L	EPA 8260B	0.02 08/17/	10 20:26 08	/18/10	RHH-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Y LFB % Recovery below acceptance limits. The result may be biased low.

MANAGER \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

8/19/2010

# Benchmark Analytics, Inc. **Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

# 

SEND DATA TO: NAME: Steve Gridley COMPANY: Talisman Energy USA, Ir ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845	ю.		PA	O#: 1008 AGE: 1 of 2 D#:	2689 2	
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST RE	EPORT	₽\ 	NS ID#		
Relog of 10081716-001 RECEIVED FOR LAB BY: DLM2	DATE: 08/1	10/2010 15:33			Pa	age 1 of 2
SAMPLE: TCLP Leachate of Inv. Cutting SAMPLED BY: SG	30	D: 10082689-001B e: 08/17/2010 8:15	Grab SLOQ			
<u>Test</u> Pyridine	<u>Result</u> < 0.10 mg/L	<u>Method</u> EPA 8270C	0.10	<u>Analysis Start</u> 08/18/10 15:52	<u>Analysis End</u> 08/18/10	RHH-SA
1,4-Dichlorobenzene o-Cresol	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L <sup>S</sup>	EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10	08/18/10 15:52 08/18/10 15:52 08/18/10 15:52	08/18/10 08/18/10 08/18/10	RHH-SA RHH-SA
p-Cresol/m-Cresol Hexachloroethane Nitrobenzene	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10	08/18/10 15:52 08/18/10 15:52	08/18/10 08/18/10 08/18/10	RHH-SA RHH-SA RHH-SA
Hexachlorobutadiene 2,4,6-Trichlorophenol	< 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C	0.10 0.10	08/18/10 15:52 08/18/10 15:52	08/18/10 08/18/10	RHH-SA RHH-SA
2,4,5-Trichlorophenol Pentachlorophenol	< 0.10 mg/L < 0.50 mg/L	EPA 8270C EPA 8270C	0.10 0.50	08/18/10 15:52 08/18/10 15:52	08/18/10 08/18/10	RHH-SA RHH-SA
2,4-Dinitrotoluene Hexachlorobenzene	< 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C	0.10 0.10	08/18/10 15:52 08/18/10 15:52	08/18/10 08/18/10	RHH-SA RHH-SA
SAMPLE: <b>ZHE Extract of Inv. Cuttings</b> SAMPLED BY: SG		): 10082689-001C e: 08/17/2010 8:15	Grab <u>SLOQ</u>			
<u>Test</u> Benzene	<u>Result</u> < 0.02 mg/L	<u>Method</u> EPA 8260B	0.02	<u>Analysis Start</u> 08/17/10 20:26	<u>Analysis End</u> 08/18/10	<u>Analyst *</u> RHH-SA
2-Butanone Carbon tetrachloride	< 0.20 mg/L < 0.02 mg/L	EPA 8260B EPA 8260B	0.20 0.02	08/17/10 20:26 08/17/10 20:26	08/18/10 08/18/10	RHH-SA RHH-SA
Chlorobenzene Chloroform	< 0.02 mg/L < 0.02 mg/L	EPA 8260B EPA 8260B	0.02	08/17/10 20:26 08/17/10 20:26	08/18/10 08/18/10	RHH-SA RHH-SA
1,4-Dichlorobenzene 1,2-Dichloroethane	< 0.02 mg/L < 0.02 mg/L < 0.02 mg/l	EPA 8260B EPA 8260B EPA 8260B	0.02 0.02 0.02	08/17/10 20:26 08/17/10 20:26 08/17/10 20:26	08/18/10 08/18/10 08/18/10	RHH-SA RHH-SA
1,1-Dichloroethene Trichloroethene Tetrachloroethene	< 0.02 mg/L < 0.02 mg/L < 0.02 mg/L	EPA 8260B EPA 8260B EPA 8260B	0.02 0.02 0.02	08/17/10 20:26 08/17/10 20:26 08/17/10 20:26	08/18/10 08/18/10 08/18/10	RHH-SA RHH-SA RHH-SA

## **REMARKS**:

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

 $\cap$ 

MANAGER

ani	M.	Davis
C		

DATE:

8/19/2010

Work Order: 10082689

PA ID #: 08- NY ID # 112		Easter 2566 Pen	Analytics, In n Division nsylvania Ave. PA 18840	IC.	Work	Order: 10	082689
		•	70) 888-0169 70) 888-0717				
SEND DATA	A TO:						
NAME:	Steve Gridley			WO	#: 10082	2689	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	с.		PAG	GE: 2 of 2		
	Horseheads, NY 14845			PO#	<b>#</b> :		
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	PW	S ID#		
Relog of 100	081716-001						
RECEIVED	FOR LAB BY: DLM2	DATE: (	08/10/2010 15:33			F	age 2 of 2
Vinyl chlo	oride	< 0.02 mg/L	EPA 8260B	0.02 0	08/17/10 20:26	08/18/10	RHH-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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S Spike Recovery outside accepted recovery limits

MANAGER \_\_\_\_\_

$\Lambda$	<b>~</b> .	
ani	M. Davis	

DATE: 8/19/2010



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attache	bly printed in the space ed sheet as Form 26R	rately completed. All requi es provided. If additional sp R, reference the item numb eets needs to match the date	ace is necessary, iden per and identify the d	tify Date Receive	USE:ONLY ed & General Notes
General Refe	rence 287.54				
Date Prepare	d/Revised F	ebruary 11, 2011			
	SECTION A	. CLIENT (GENERATOR	R OF THE WASTE) I	NFORMATION	
Company Na					
	ergy USA Inc. y, Name of Parent Con			<b>EDA</b> (	Generator ID#
Talisman En		прапу		N/A	Generator ID#
Company Ma	iling Address Line 1	C	ompany Mailing Addre		
50 Pennwoo					·····
	dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale Company Co	ntact Last Name	PA First Name	15086	(724) 814-530 Suffix	
Brown	ntavi Last Manic	Dina	1411	Sum	N Contraction of the second se
Municipality			County	······································	
Warrendale			Allegheny		
Contact Phor		Contact Email Address			
(724) 814-53		dybrown@talismanusa.c any Mailing Address (noted a			Yes 🛛 No
		eneration and storage. Drill of			
		d site located at 909 Newell Ro			
containers on		• • • • • • • •		- · ·	
Municipality	Canton	County Bradfo	ord	State	PA
					<u>FA</u>
	· · · · · · · · · · · · · · · · · · ·	SECTION B. WAST	E DESCRIPTION		
Residual Waste Code		dual Waste		Unit of Measure	Time
Waste Code	Code	dual Waste Description	Amount	Measure	
		dual Waste Description I gas)	Amount 6,211 -		Time
Waste Code 810	Code Drill cuttings (oil and	dual Waste Description I gas) 1. General P	Amount 6,211 ROPERTIES	Measure ☐ cu yd	Time Frame
Waste Code       810       a.     pH Ra	Code Drill cuttings (oil and inge 7	dual Waste Description I gas) 1. GENERAL P .91 to 9.58	Amount 6,211 ROPERTIES (based on analyses or k	Measure ☐ cu yd	Time Frame
Waste Code       810       a.     pH Ra	Code Drill cuttings (oil and	dual Waste Description I gas) .91 to 9.58 	Amount 6,211 ROPERTIES (based on analyses or k thod 9095)	Measure ☐ cu yd	Time Frame
Waste Code       810       a.     pH Ra	Code Drill cuttings (oil and inge 7	dual Waste Description I gas) 1. GENERAL.P .91 to 9.58 ☐ Liquid Waste (EPA Method 909) Solid (EPA Method 909)	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95)	Measure ☐ cu yd	Time Frame
Waste Code810a.pH Rab.Physi	Code Drill cuttings (oil and inge 7 cal State	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 □ Liquid Waste (EPA Metod 900 □ Gas (ambient tempera	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure)	Measure	Time     Frame       One Time
Waste Code810a.pH Rab.Physi	Code Drill cuttings (oil and inge 7	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 1. Liquid Waste (EPA Mee Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd	Measure	Time     Frame       One Time
Waste Code810a.pH Rab.Physi	Code Drill cuttings (oil and inge 7 cal State	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 □ Liquid Waste (EPA Metod 900 □ Gas (ambient tempera	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd I Phases of Separation	Measure           □ cu yd         gal           □ lb         ⊠ ton           nowledge)           r         Earthy/Slight F One	Time     Frame       One Time
Waste Code810a.pH Rab.Physic.Physi	Code Drill cuttings (oil and inge 7 cal State	dual Waste Description I gas) .91 to 9.58 Liquid Waste (EPA Metod 900) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd t Phases of Separation eparation. Soil and Ro	Measure           □ cu yd         gal           □ lb         ⊠ ton           nowledge)           r         Earthy/Slight F One	Time     Frame       One Time
Waste Code 810 a. pH Ra b. Physi c. Physi	Code Drill cuttings (oil and inge 7 cal State cal Appearance	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 2. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS	Measure □ cu yd □ gal □ lb ⊠ ton nowledge) r Earthy/Slight F One ock Fragments	Time Frame         One Time         One Time
Waste Code810a.pH Rab.Physic.Physia.The re	Code Drill cuttings (oil and inge 7 cal State cal Appearance	dual Waste Description I gas) .91 to 9.58 Liquid Waste (EPA Metod 900) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS	Measure □ cu yd □ gal □ lb ⊠ ton nowledge) r Earthy/Slight F One ock Fragments	Time     Frame       One Time
Waste Code810a.pH Rab.Physic.Physia.The regiment of the regiment of	Code Drill cuttings (oil and inge 7 cal State cal Appearance esults of a detailed che ctions, is attached.	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 2. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. <u>Soil and Ro</u> Sis ATTACHMENTS waste, as described in	Measure □ cu yd □ gal □ lb ⊠ ton nowledge) or Earthy/Slight F One ock Fragments n the ⊠	Time Frame         One Time         One Time
Waste Code810a.pH Rab.Physic.Physia.Physia.The rainstrub.b.A deta	Code Drill cuttings (oil and ange 7 cal State cal Appearance esults of a detailed che ctions, is attached. ailed description of the uality assurance/qualit	dual Waste Description I gas) I GENERAL P .91 to 9.58 Liquid Waste (EPA Mee Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS mical characterization of the	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. <u>Soil and Ro</u> Sis ATTACHMENTS waste, as described in attached.	Measure □ cu yd □ gal □ lb ⊠ ton nowledge) or Earthy/Slight F One ock Fragments n the ⊠	Time Frame         One Time         Petroleum         Yes       No
Waste Code810a.pH Rab.Physic.Physia.The registrationb.A detac.The q attach	Code Drill cuttings (oil and inge 7 cal State cal Appearance esults of a detailed che ctions, is attached. ailed description of the uality assurance/qualit ed.	dual Waste Description I gas) 1. GENERAL P .91 to 9.58 2. Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS mical characterization of the waste sampling method is a	Amount 6,211 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS waste, as described in attached. yed by the laboratory(i	Measure         □ cu yd       gal         □ lb       ⊥ ton         nowledge)	Time Frame         One Time         One Time         Petroleum         Yes       No         Yes       No

risego-weat-ormation					in production and the second	
			ION & SCHEMATIC ATTA			<u> de la secola de la</u>
a.	A detailed description of the the waste, as specified in the			esses producing	🛛 Yes	🗌 No
b.	A schematic of the manufact as specified in the instructio		n control processes pro	ducing the waste,	Yes Yes	No No
C.	If portions of the information a confidentiality claim, as de			on for 🔲 Yes	No No	🛛 N/A
	SECTI	and the second of the second o	MENT OF RESIDU			
			OR DISPOSAL FACILITY(II			2000 - C.
The a	rea below (ad.) will accommo	date the identification	of two facilities. Attac	h additional sheets	if necessary	•
а.	Solid waste permit number(s 9-0232-00003	) for processing or di	sposal facility being uti	lized.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Ro	ad			
	Address Line 1		· · · · · · · · · · · · · · · · · · ·			
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany	· · · · · · · · · · · · · · · · · · ·	
C.	Facility Contact Name	Larry Shilling				
0.	Title	Larry Shining				
	Phone	(585) 466-7271	Email Address	larry.shilling@ca		
		( )			sella.com	
d.	Volume of waste shipped to 2,875	processing or dispos ] cu yd	al facility in the previous			
a.	Solid waste permit number(s 8-4630-00010	) for processing or di	sposal facility being util	lized.		
b.	Facility Name	Hakes C&D Landf	ili			
	Address Line 1	4376 Manning Rid				
	Address Line 1	X	×			
	Address City State ZIP	Painted Post		14870		
	Municipality	Erwin Twp	County	Steuben	······································	
C.	Facility Contact Name	Joseph Boyles				
••	Title					
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	ella.com	
d.	Volume of waste shipped to		al facility in the previous	s year.		
	2,176	]cuyd 🗌 gal	☐ lb 🛛 tor		·	
		2. Bi	ENEFICIAL USE			
a.	Has the waste been approved	d for beneficial use?			Yes	🛛 No
	If "Yes", list the general pern	nit number or approva	al number.			
b.	Volume of waste beneficially					
	0	] cu yd 📋 gal	b tor	n (check one)		i

		PROCESS DESCRIPTIC	N & SCHEMATIC ATTA	NUMENTO		
a.	A detailed description of the				Yes [	
а.	the waste, as specified in the			sses producing		
b.	A schematic of the manufact as specified in the instruction		control processes pro	ducing the waste,	Yes [	No
C.	If portions of the information a confidentiality claim, as de			n for 📋 Yes	No [	N/A
	SECTI	ON C. MANAGEN				
		1. PROCESSING OF	R DISPOSAL FACILITY (I	ES)		and and a second se
The a	rea below (ad.) will accommo	late the identification of	of two facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 8-0728-00004	for processing or dis	posal facility being util	ized.		
b.	Facility Name	Chemung County L	andfill			
	Address Line 1	1690 Lake Street			······································	
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
C.	Facility Contact Name	Carla Canjar				
<b>v</b> .	Title	Environmental Man				*
	Phone	(585) 797-5941	Email Address	carla.canjar@ca		
		( )		, 0	sella.com	
d.	Volume of waste shipped to p	rocessing or disposal cu yd gal	facility in the previous		I	
а.	Solid waste permit number(s) 100361	for processing or disp	oosal facility being util	ized.		
b.	Facility Name	McKean County Lar	ndfill			
	Address Line 1	19 Ness Lane				
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
c.	Facility Contact Name	Mike Manderfeld				
•.	Title	Mille Mandonola				
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to p	. ,	facility in the provinue	00		
u.	550	cuyd 🗌 gal	☐ lb 🖾 ton			
			IEFICIAL USE			
a.	Has the waste been approved	for beneficial use?			Yes 2	🛛 No
	If "Yes", list the general perm	it number or approval	number.			
b.	Volume of waste beneficially					
	0 Ĺ	cuyd 🗌 gal	🗌 lb 📋 ton	(check one)		

	SECTION D. CERTIFICATION
Report and all attached docum obtaining the information, I ve knowledge. I understand that t	at I have personally examined and am familiar with the information submitted in this Annual nents and that based upon my inquiry of those individuals immediately responsible for wrify that the submitted information is true, accurate and complete to the best of my he submission of false information herein is made subject to the penalties of 18 Pa. C.S. ication to authorities, which include fine and imprisonment.
Check the following, if applicable	ə:
I certify the information in a local sector is and has not change	required in Section B-1, General Properties was supplied to the Department for the year ed.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	
I certify the information a and has not change	required in Section B-2, Chemical Analysis was supplied to the Department for the year ed.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	
I certify the information re for the year and has	quired in Section B-3, Process Description and Schematic, was supplied to the Department s not changed.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	· · · · · · · · · · · · · · · · · · ·
Name of Responsible Official	Title Environmental Specialist
Dina Brown	
Signature	2/202 Date 2/25/11

Lab ID: 08-( Lab ID: 39-(		Easte 2566 Pe Say Phone:	<b>k Analytics, In</b> <b>Ern Division</b> Ennsylvania Ave. re, PA 18840 (570) 888-0169 (570) 888-0717	IC.	Ņ	Work	Order: 100	81720
SEND DATA NAME: COMPANY: ADDRESS: PHONE:	Steve Gridley		ST REPORT	PA PC	0#: \GE: )#: VS ID#	1008 1 of 2 AF76	2	
FAX: Harvest Hold	(607) 562-4001 dings				0.00 0 0.0000000 0 0.0000000			
RECEIVED	FOR LAB BY: DLM2	DATE	: 08/10/2010 15:33				Pa	age 1 of 2
SAMPLE: Ai SAMPLI	<b>ir Cuttings</b> ED BY: SG	Samp	Lab ID: 10081720-001Á ble Time: 08/09/2010 16:00	Grab <u>SLOQ</u>				
	roleum Hydrocarbons e Note: Analysis performed by l	<u>Result</u> 272 mg/Kg ⁄licrobac-Erie	<u>Method</u> EPA 9071	<u></u>	<u>Analysis</u> 08/12/10		<u>Analysis End</u> 08/12/10	<u>Analyst *</u>
SAMPLE: <b>Ai</b> SAMPLE <u>Test</u> Moisture Free Liqu pH	ED BY: SG	Samp <u>Result</u> 17.0 % 2.6 % 8.63@21.7°C	Lab ID: 10081720-001B ole Time: 08/09/2010 16:00 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Grab <u>SLOQ</u> 0.01 0.1	Analysis 08/12/10 08/12/10 08/12/10	8:45 15:10	Analysis End 08/13/10 08/12/10 08/12/10	<u>Analyst *</u> MED-SA RHN-SA MED-SA
SAMPLE: <b>Ai</b> SAMPLE <u>Test</u> Sodium	<b>ir Cuttings</b> ED BY: SG	Samp <u>Result</u> < 556 mg/Kg-dry	Lab ID: 10081720-001C le Time: 08/09/2010 16:00 <u>Method</u> EPA 6010B	Grab <u>SLOQ</u> 556	<u>Analysis :</u> 08/13/10		Analysis End 08/13/10	<u>Analyst *</u> RMD-CV
Chloride Percent N	Moisture	402 mg/Kg-dry 17.0 %	EPA 300.0 SM2540G	60.2	08/11/10 08/12/10		08/12/10 08/13/10	HDP-CV MED-SA
	CLP Leachate of Air Cutting ED BY: SG		Lab ID: 10081720-001E le Time: 08/09/2010 16:00	Grab <u>SLOQ</u>				
Arsenic - Barium - Cadmium Chromiun Copper -	- TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted m - TCLP extracted TCLP extracted CLP extracted	Result < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L	<u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.0008 0.500 10.00 0.100 0.500 0.100 0.500	Analysis 3 08/12/10 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10	8:30 7:20 7:20 7:20 7:20 7:20 7:20	Analysis End 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10 08/13/10	Analyst * KW-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
REMARKS:								

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

DATE: 8/13/2010

Carrie M. Davis

Value above calibration range but within annually verified linear range L

MANAGER

LAB ID: 08-1 LAB ID: 39-1		<b>East</b> 2566 P	ern Pennsy	<b>nalytics, Ir Division</b> ylvania Ave. A 18840	IC.	,	Work C	)rder: 10(	081720
			• •	888-0169 888-0717					
SEND DATA	A TO:								
NAME:	Steve Gridley				W	D#:	100817	720	
COMPANY:		IC.			PA	GE:	2 of 2		
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845							00	
					PC	)#:	AF767:	23	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	ST RI	EPORT	PV	VS ID#			
Harvest Hol	dings								
	FOR LAB BY: DLM2	DATE	E: 08/	10/2010 15:33				P	age 2 of 2
Nickel -	TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	08/13/10	7:20	08/13/10	RMD-CV
Seleniun	n - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
Silver - T	CLP extracted	< 0.100 mg/L		EPA 6010B	0.100	08/13/10	7:20	08/13/10	RMD-CV
Zinc - TC	CLP extracted	28.6 mg/L	L	EPA 6010B	0.200	08/13/10	7:20	08/13/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 8/13/2010

LAB ID: 08-00380 LAB ID: 39-00401	Benchmark Analytics, Ir Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840	<b>1C.</b> Work Order: 10110477
	Phone: (570) 888-0169 Fax: (570) 888-0717	
SEND DATA TO:	·	
NAME: Steve Gridley	2 Contraction of the second	WO#: 10110477
COMPANY: Talisman Energy US	A, Inc.	
ADDRESS: 337 Daniel Zenker D		PAGE: 1 of 1
Horseheads, NY 148	345	PO#: AF 76719
	TEST DEBORT	PWS ID#
PHONE: (607) 731-0145	TEST REPORT	
FAX: (607) 562-4001		
Harvest Holdings		
RECEIVED FOR LAB BY: RML	DATE: 11/03/2010 12:36	Page 1 of 1
SAMPLE: Pad Soil SAMPLED BY: SG	Lab ID: 10110477-001A Sample Time: 11/03/2010 10:45	Composite
SAMPLED BT. 30	Sample time. 1703/2010 10.43	SLOQ
Test	Result Method	Analysis Start Analysis End Analyst *
Specific Conductance	4130 µmho/cm@25°C SM2510B	1.0 11/04/10 11:00 11/04/10 IC-SA
pН	7.87@23.4°C EPA 9045C	11/04/10 15:32 11/04/10 SG-SA
Total Dissolved Solids	14300 mg/kg × SM2540C	10 11/03/10 10:00 11/03/10 NFM-SA
SAMPLE: Pad Soil	Lab ID: 10110477-001B	Composite
SAMPLED BY: SG	. Sample Time: 11/03/2010 10:45	
Test	Result Method	SLQQ Analysis Start Analysis End Analyst *
Sodium	<pre>&lt; 273 mg/Kg MS EPA 6010B</pre>	273 11/04/10 7:50 11/04/10 RMD-CV
Chloride	105 mg/Kg EPA 300.0	50.0 11/03/10 14:32 11/04/10 HDP-CV
SAMPLE: Pad Soil	Lab ID: 10110477-001C	Composite
SAMPLED BY: SG	Sample Time: 11/03/2010 10:45	SLOQ
Test	Result Method	Analysis Start Analysis End Analyst *
Total Petroleum Hydrocarbons	193 mg/Kg EPA 9071	193 11/04/10 14:30 11/04/10
Sample Note: Analysis performed	by Microbac Laboratories, Inc-Erie Division.	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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MS Limit of detection increased due to matrix interference and spike recovery data

х Value exceeds Maximum Contaminant Level

MANAGER

Carrie	M.	Davis
Ç		

DATE: 11/5/2010

CHAIN OF CUSTODY		E			PAGE1	_OF
REPORT TO: 'Talisman / UEG	1	2566 P				
geowetlands@aol.com		2000 11	W/O#: 10110477		ARE SPECIAL DETEC	
twollin@rallysolutions.ca					NEEDED: YES /	
twoining ranysolutions.ca	AFTER COLLECTION		RESULTS ARE BE	ING USED FOR: DEC PADEP	IF YES, PLEASE ATTAC	
CONTRACT	· ·	/ GV	GROUND WALER SO SUIL		1	
CONTACT Steve Gridley	TRANSPORT	SW WA	WASTE WATER OTHER	IDFILL	YES	
PH# 607-731-0145 FAX#	LABORATORY		DEIONIZED WATER DI DISTILLED WATER PERSONAL OTH	IER	IF YES, PLEASE ATTAC	CH REC
BILL TO: Talisman	- IN COOLER		S SULFURIC ACID AS ASCORBIC ACID N NITRIC ACID AC ACETIC ACID			
	WITH ICE		N NITRIC ACID AC ACETIC ACID SO3 SODIUM SULFITE NH4 AMMONIUM CHLORIE	DE /	5 3	
PO# AF 76719	- 7/07	1	Thio SODIUM THIOSULFATE ZN ZINC ACETATE	E Š		
PROJECT DESCRIPTION/	DATE SUMPLED TIME OF SUMPLED SUMPLE MATRY SUMPLE MATRY	SAMPLER WITHLE COMPOSITE	An incomplete chain of custody may delay the	PE E	LAB USE	se fill o icable a
SAMPTER SIGNATURE / AFFILIATION			processing of your sample(s).	El H		omplete
CONTAINED SAMPLING POINT	DATE SAMPLED TIME OF SAMPLIN SAMPLE MATRIX	V \$	An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)		y y	
/			(PER CONTAINER)			
1 Winter Spill Goil Pad Soil	1/3 1045 50 C	B-N	TDS, Conductivity, PH		-0011	<u> </u>
2			pH, Chlorides, Sodium, Pro; st			ß
3			Salinity			
4			ТРН		and the second	<u>C</u>
5			. *			-
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8						
9			24 HOUR TURNAROUND			
10			DAY TURNAROUND			
11						
LAE USE ONLY DEL VERED BY	clic I		TEMPERATURE UPON RECE	ipt 👘	<u> </u>	ON
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RELINQUISHED	DATE; 11 13 10	TIME	36 RECEIVED BY		DATE:	TIM
RELINQUISHED BY:	DATE:	TIME:			DATE:	Тім
RELINQUISHED BY:	DATE:	TIME:	RECRIVED BY DO TO	•	DATE: 0 10	) TIM
	1 1		CHULT 199		DIF: 310	Graphica

LAB ID: 08-00 LAB ID: 39-00		<b>Eas</b> 2566 Sa	<b>stern [</b> Pennsy ayre, PA	nalytics, Ir Division Ivania Ave. \ 18840 888-0169	IC.	Wor	k Order: 100	071880
			· ·	888-0717				
SEND DATA 1	ГО:							
	Steve Gridley				W	O#: 100	71880	
	Talisman Energy USA, Ind	o.						
	337 Daniel Zenker Dr				PA	AGE: 1 of	1	
ł	Horseheads, NY 14845				P	O#: AF7	76719	
		_			P۱	NS ID#		
	(607) 562-4000	Т	EST RE	PORT				
FAX: (	(607) 562-4001			10810-1180-11				
Harvest Hldgs	Well							
•	OR LAB BY: WCB	DA	TE: 07/1	3/2010 13:15			P	age 1 of 1
					Ourth			
SAMPLE: Inv. SAMPLED	-	0		: 10071880-001A : 07/12/2010 12:45	Grab			
SAMPLED	01.00	30	ample rime.	. 0771272010 12.45	<u>SLOQ</u>			
Test		<u>Result</u>		Method		Analysis Start	Analysis End	Analyst *
	eum Hydrocarbons	16300 mg/Kg		EPA 9071		07/15/10 0:00	07/15/10	
Sample r	Note: Analysis performed by Mi	crobac-Erie						
SAMPLE: Inv.	-		Lab ID	: 10071880-00 <b>1</b> B	Grab			
SAMPLED	BY: SG	Sa	ample Time:	: 07/12/2010 12:45	SLOQ			
Test		Result		Method	<u>3200</u>	Analysis Start	Analysis End	Analyst *
Moisture		31.7 %		Moisture Calc.	0.01	07/14/10 14:30	07/15/10	NFM-SA
Free Liquid		< 0.1 %		EPA 9095A	0.1	07/14/10 8:35	07/14/10	IC-SA
рН		9.58@22.2°C		EPA 9045C		07/14/10 12:23	07/14/10	DLM-SA
SAMPLE: TCL	P Leachate of Inv. Cutting	S	Lab ID:	: 10071880-001D	Grab			
SAMPLED	-		ample Time:	07/12/2010 12:45				
Test		Result		Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
	CLP extracted	< 0.0008 mg/L		EPA 7470A	8000.0	07/16/10 9:00	07/18/10	RMD-CV
	CLP extracted	< 0.500 mg/L		EPA 6010B	0.500	07/16/10 15:00		RMD-CV
	CLP extracted	< 10.00 mg/L		EPA 6010B	10.00	07/16/10 15:00		RMD-CV
	TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Chromium -	TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Copper - TC	CLP extracted	< 0.100 mg/L		EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
Lead - TCL	P extracted	< 0.500 mg/L		EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
	_P extracted	< 0.100 mg/L		EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-CV
	TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-CV
Selenium - <sup>-</sup> Silver - TCL Zinc - TCLP	P extracted	< 0.100 mg/L 29.4 mg/L	L	EPA 6010B EPA 6010B	0.100 0.200	07/16/10 15:00 07/16/10 15:00		RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L

MANAGER

/ '	<b>`</b>
Carrie M.	Davis

DATE: \_\_\_\_\_7/20/2010

LAB ID: 08-00380 LAB ID: 39-00401		Benchmark Analytics, Inc Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717			<b>C.</b> Work Order: 10110480				
SEND DATA 1	ГО:								
	Steve Gridley				WO#: 10110480				
	Talisman Energy USA, Ir 337 Daniel Zenker Dr	IC.		PAGE: 1 of 1					
	Horseheads, NY 14845								
		,		P	O#: AF7€	5719			
	(607) 731-0145 <b>TEST REPORT</b> PWS ID#								
Harvest Holdin	nas-cu	a and a second					al tothing to one for an an and the second		
	OR LAB BY: RML	DATE:	11/03/2010 12:36			Pa	age 1 of 1		
SAMPLE: Inve	<ul> <li>→</li> </ul>		ab ID: 10110480-001A	Grab					
SAMPLE. INVE			Time: 11/03/2010 10:45	Grab					
				<u>SLOQ</u>					
<u>Test</u>	launa Lludassanhann	Result Method 230 ma/Ka EPA 907			Analysis Start 11/04/10 14:30	Analvsis End 11/04/10	Analyst *		
	leum Hydrocarbons Note: Analysis performed by N	230 mg/Kg /licrobac Laboratories, l			11/04/10 14.30	11/04/10			
SAMPLE: Inve	ert		_ab ID: 10110480-001B	Grab	·······				
SAMPLED	BY: SG	Sample Time: 11/03/2010 10:45							
Test		Result	Method	<u>SLOO</u>	Analysis Start	Analysis End	Analyst *		
Moisture		8.02 %	Moisture Calc.	0.01	11/03/10 14:45	11/04/10	IC-SA		
Free Liquid		< 0.1 %	EPA 9095A	0.1	11/03/10 14:30	11/03/10	IC-SA		
pH		7.91@23.4°C	EPA 9045C	••••	11/04/10 15:32	11/04/10	SG-SA		
	P Leachate of Invert		ab ID: 10110480-001D	Grab					
SAMPLE. ICL SAMPLED		-	Time: 11/04/2010 7:30	Grau					
0,411 220		•		<u>SLOQ</u>					
Test		Result	Method		Analysis Start	Analysis End			
-	CLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	11/04/10 13:15	11/04/10	RMD-C		
	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-C		
	CLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/04/10 14:05	11/04/10	RMD-C		
	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-C		
	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-C		
••	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-C		
Lead - TCL		< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-C		
	LP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-C		
	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10 11/04/10	RMD-C		
	P extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-C		
Zinc - TCLF	extracted	< 0.200 mg/L	EPA 6010B	0.200	11/04/10 14:05	11/04/10	RMD-C		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Camie M. Davis DATE: 11/5/2010 MANAGER

CHAIN OF CUSTODY	Т	1					PAGE <u>1</u>	<u> </u> _0
Talisman / UEG		2566 F	M//O#·	101104	20		ARE SPECIAL D	ETECTIC
geowetlands@aol.com			<b>Ψ</b> /Oπ.	1011040	50		NEEDED:	
twollin@rallysolutions.ca	REFRIGERATE SAMPLE	S	·	RESULTS	ARE BEING USE	) FOR:	IF YES, PLEASE	<b>II</b>
	AFTER COLLECTION		DRINKING WATER SL. SLUD		NYDEC	<b>IZ</b> PADEP	IS A QC 1	
CONTACT Change Cartellary	~ *	GV SV		ARDOUS	LANDFILL	1100		
CONTACT Steve Gridley PH# 607-731-0145	TRANSPORT	WI DE		ILLED WATER PERSONA			IFYES, PLEASE	
FAX#	TO LABORATORY		/ /H HYDROCHLORIC ACI				T /S/	A IAON
BILL TO: Talisman	IN COOLER		S SULFURIC ACID	AS ASCORBIC AC AC ACETIC ACID		,		
	,WITH ICE	/ डैं /	SO 3 SODIUM SULFITE Thio SODIUM THIOSULFAT	NH, AMMONIUM C	HLORIDE		5 3	
PO# AF 76719		3	- NONE	Hg MERCURIC C	HLORIDE		3/2/	
PROJECT DESCRIPTION Hanvest Holdings CU		ii ii	An incomplete ch	ain of custody may del ig of your sample(s).	ay the		The second second	Please   applicat
SAMPLES SIGNATURE / AFFILIATION		<u>,</u> 5	S processin	ig oi your aampia(s).			S.	i comp
CONTAINER (SAMPLING POINT	GATE SAMPLED TIME OF SAMPLED SAMPLE MATRY SAME	SAMPLEA MITLES COMPOSITE	An incomplete cha processin ANALYSISTO BE	PERFORMED		PRESE ON REC.	COMMUNE ADED ON RECEIPT	USE O
				TAINER)				lł I
1 Bentlings Envert	#/3 1045 50 C	DE-N	TPH .		() 전다. (************************************		- 07	1 Place - 1 - 1 - 1 - 1 - 1
2	┝──┝──┝──┥	<b></b>	pH					B
3		 	TCLP 8 RCRA Metals					<u>   C</u>
4	·		Free Liquids / % Moistu	JLG			<u> </u>	B
5			TCLP 8260 / 8270 ONI		23.83 23.85 23.85 23.85 23.85 23.85 23.85 23.85 24.85			
6		┠	······································			·····································		
7.			exceeds 120,000 m	y/ry	28.34 - 28.4 - 28.4 - 19.4			
8			29 HOUR TL	JRNAROUND	<u>, 31,11</u>			
9				NAROUND				
10								
11								<u>周辺。</u> [[23] - [12]
DEVIVERED BY			TEMP	ERATURE UPON F	RÊOÊIPT			VALO
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La Ren	11 13 110		36				/ /	
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date			tify Date Receive	Date Received & General Notes			
prepared. The date on attached sheets needs to match the date noted below.							
General Refe	erence 287.54						
Date Prepare	ed/Revised Fe	ebruary 11, 2011					
		<b>CLIENT</b> (GENERATOR	ROF THE WASTE) IN	IFORMATION			
Company Na	i <b>me</b> iergy USA Inc.						
	ry, Name of Parent Com	pany		EPA	Generator ID#		
Talisman Er	ergy Inc.			N/A			
Company Ma 50 Pennwoo	iling Address Line 1	C	ompany Mailing Addres	ss Line 2			
	dress Last Line – City	State	Zip+4	Phone	Ext		
Warrendale		PA	15086	(724) 814-530			
Company Co Brown	ntact Last Name	<b>First Name</b> Dina	MI	Suffix	C C C C C C C C C C C C C C C C C C C		
Municipality			County				
Warrendale			Allegheny				
Contact Phot (724) 814-53		Contact Email Address dybrown@talismanusa.c	om				
		ny Mailing Address (noted a		,,,	Yes 🛛 No		
		neration and storage. Drill o					
the (0 on site.	1-017) well pad site locate	ed at 13766 Route 14, Cantor	Township, Bradford Co	unty, PA. Waste is st	tored in containers		
Municipality	Canton	Country Durill	rd	State			
mannenpanny	Canton	County Bradfo		Otate	PA		
		SECTION B. WAST	E DESCRIPTION		-		
Residual	Resid	SECTION B. WAST	E DESCRIPTION	Unit of	Time		
Residual Waste Code	Resid Code	SECTION B. WAST Jual Waste Description	E DESCRIPTION Amount		-		
Residual	Resid	SECTION B. WAST Jual Waste Description gas)	E DESCRIPTION Amount 3,382	Unit of Measure	Time		
Residual Waste Code 810	Resid Code Drill cuttings (oil and	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P	E DESCRIPTION Amount 3,382 ROPERTIES	Unit of Measure □ cu yd  □ gal □ lb  ⊠ ton	Time Frame		
Residual Waste Code 810 a. pH Ra	Resid Code Drill cuttings (oil and ange 8.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or ki	Unit of Measure □ cu yd  □ gal □ lb  ⊠ ton	Time Frame		
Residual Waste Code 810 a. pH Ra	Resid Code Drill cuttings (oil and	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 Liquid Waste (EPA Met Solid (EPA Method 90)	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or ki thod 9095) 95)	Unit of Measure □ cu yd  □ gal □ lb  ⊠ ton	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi	Resid Code Drill cuttings (oil and ange 8. cal State	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or kithod 9095) 95) ture & pressure)	Unit of Measure cu yd gal lb X ton	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi	Resid Code Drill cuttings (oil and ange 8.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1 Liquid Waste (EPA Me Solid (EPA Method 90) 1 Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo	Unit of Measure cu yd gal lb X ton nowledge)	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi	Resid Code Drill cuttings (oil and ange 8. cal State	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo I Phases of Separation	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight pe One	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi	Resid Code Drill cuttings (oil and ange 8. cal State	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1 Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight pe One	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Resid Code Drill cuttings (oil and ange 8. cal State cal Appearance	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1 Liquid Waste (EPA Me 2 Solid (EPA Method 90) 3 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or ki thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	Unit of Measure □ cu yd □ gal □ lb ⊠ ton nowledge) r Earthy/slight pr One ck Fragments	Time Frame		
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Resid Code Drill cuttings (oil and ange 8. cal State cal Appearance esults of a detailed cher actions, is attached.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or ki thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in	Unit of Measure □ cu yd □ gal □ lb ⊠ ton nowledge) r Earthy/slight pr One ck Fragments the ⊠ `	Time Frame One Time etroleum		
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det	Resid         Code         Drill cuttings (oil and         ange       8.         cal State         cal Appearance         esults of a detailed cher         esults of a detailed cher         ange (constructions, is attached.)         ailed description of the	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in ttached.	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight pr One ck Fragments the X X	Time         Frame         One Time         etroleum         Yes       No         Yes       No		
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det c. The q attack	Resid Code Drill cuttings (oil and ange 8. cal State cal Appearance esults of a detailed cher actions, is attached. ailed description of the uality assurance/quality ned.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a r control procedures employ	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in ttached. yed by the laboratory(ie	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight pr One ck Fragments the X X	Time Frame One Time etroleum		
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det c. The q attact d. The ra	Resid         Code         Drill cuttings (oil and         ange       8.         cal State         cal Appearance         esults of a detailed cher         ctions, is attached.         ailed description of the         uality assurance/quality         ned.         esults of the hazardous	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	E DESCRIPTION Amount 3,382 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in ttached. yed by the laboratory(ie ched.	Unit of Measure □ cu yd □ gal □ lb ⊠ ton nowledge) r Earthy/slight pr One ck Fragments o the ⊠ `` es) is ⊠ ``	Time         Frame         One Time         etroleum         Yes       No         Yes       No		

ter and the second s	<b>•</b>	Design Description			a a constanta da fara	de la contra de la c			
11. A.		PROCESS DESCRIPTIO							
а.	A detailed description of the manufacturing and/or pollution control processes producing Xes No the waste, as specified in the instructions, is attached.								
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.								
C.	If portions of the information a confidentiality claim, as de			n for 📋 Yes	No No	N/A			
Magarian 30 vights									
	SECTI	ON C. MANAGEN	and the second	an na historia and an					
<u></u>			DISPOSAL FACILITY						
The a	area below (ad.) will accommo	date the identification of	of two facilities. Attach	additional sheets	if necessary	<b>'.</b>			
a.	Solid waste permit number(s 101243	) for processing or dis	oosal facility being util	ized.					
b.	Facility Name	Northern Tier Solid	Waste Authority - Bra	dford County					
	Address Line 1	108 Steam Hollow F	Road						
	Address Line 1								
	Address City State ZIP	Troy	PA	16947					
	Municipality	West Burlington Tw	p <b>County</b>	Bradford					
c.	Facility Contact Name	Charles Woodward							
	Title	Recycling Coordinat	tor						
	Phone	(570) 297-4177	Email Address	chuckwoodward(	@epix.net				
d.	Volume of waste shipped to 1,227	processing or disposal ] cu yd gal	facility in the previous						
a.	Solid waste permit number(s 9-0232-00003	) for processing or disp	oosal facility being util	ized.					
b.	Facility Name	Hyland Landfill							
	Address Line 1	6653 Herdman Roa	d	·····					
	Address Line 1								
	Address City State ZIP	Angelica	NY	14709					
	Municipality	Angelica	County	Allegany					
c.	Facility Contact Name	Larry Shilling				·			
	Title Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com				
d.	Volume of waste shipped to 1,158		facility in the previous						
		2. Ben	IEFICIAL USE						
a.	Has the waste been approved	l for beneficial use?	and a second	<u>an an a</u>	Yes	No No			
	If "Yes", list the general pern	nit number or approval	number.						
b.	Volume of waste beneficially								
	0 Ĺ	]cuyd 🛄 gal	🗌 lb 📋 ton	(check one)					

1200200000000	•				New York of the second second second	
		PROCESS DESCRIPTION & SC				<u> </u>
а.	A detailed description of the the waste, as specified in the	instructions, is attached.			Yes	No No
b.	A schematic of the manufacture as specified in the instruction		processes proc	ducing the waste,	Yes Yes	No No
C.	If portions of the information a confidentiality claim, as des			n for 🔲 Yes	No No	N/A
	SECTIO	ON C. MANAGEMENT	<b>OF RESIDU</b>	JAL WASTE		
1943		1. PROCESSING OR DISPO	SAL FACILITY	ES)		
The a	rea below (ad.) will accommod				if necessary.	
a.	Solid waste permit number(s) 8-0728-00004	for processing or disposal fa	cility being util	ized.		
b.	Facility Name	Chemung County Landfill				
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
C.	Facility Contact Name	Carla Canjar				
1	Title	Environmental Manager				
	Phone		nail Address	carla.canjar@cas	sella.com	
d.	Volume of waste shipped to p	cu yd 🗌 gal 🗌	lb 🛛 ton	n (check one)		
а.	Solid waste permit number(s) 8-4630-00010	for processing or disposal fa	cility being util	ized.		
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridge Road				
	Address Line 1	<b>T</b>				
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
C.	Facility Contact Name	Joseph Boyles		·····		
	Title					
	Phone	(585) 466-7271	nail Address	joe.boyles@case	lla.com	
d.	Volume of waste shipped to p					
	108	cuyd 🔄 gal 📋	lb 🛛 ton	n (check one)		
		2. BENEFICIA	USE			
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general perm		r.			
b.	Volume of waste beneficially					
	0	cuyd 🗌 gal 🗌	lb 🗌 ton	n (check one)		

			SECTION D. CERTIFICATION
Repo obtai know	ort and all attached docu ining the information, I vledge. I understand that	ments verify the s	have personally examined and am familiar with the information submitted in this Annual s and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Chec	k the following, if applical	ole:	
	I certify the information and has not chan		ired in Section B-1, General Properties was supplied to the Department for the year
	Form Submitted:		Form 26R
			Other (specify)
	Date Submitted:		
	I certify the information and has not chan		ired in Section B-2, Chemical Analysis was supplied to the Department for the year
	Form Submitted:		Form 26R
1			Other (specify)
	Date Submitted:		
	l certify the information for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
	Form Submitted:		Form 26R
			Other (specify)
	Date Submitted:	. <u></u>	
Name	e of Responsible Official		Title Environmental Specialist
Dina Signa	Brown	5	Date 2/25/11

2540-PM-BWM0347 Rev. 1/2011
Perspective
Department of environmental protection

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attache	bly printed in the speed sheet as Form	ccurately completed. All requ paces provided. If additional sp 26R, reference the item num sheets needs to match the date	pace is necessary, ident ber and identify the da	tify Date Receive	JSE ONEY
General Refe	erence 287.54	·			
Date Prepare	d/Revised	February 11, 2011			
		A. CLIENT (GENERATO	R OF THE WASTE) IN	IFORMATION	
Company Na	i <b>me</b> iergy USA Inc.				
	ry, Name of Parent (	Company		EPA	Generator ID#
Talisman En	ergy Inc.			N/A	
	iling Address Line	1 (	Company Mailing Addres	ss Line 2	
50 Pennwoo	id Place Idress Last Line – C	City State	Zip+4	Phone	Ext
Warrendale		PA	15086	(724) 814-530	
	ntact Last Name	First Name	MI	Suffi	(
Brown Municipality		Dina	County		
Warrendale			Allegheny		
Contact Pho	ne Ext	Contact Email Address	<u> </u>		
(724) 814-53		dybrown@talismanusa.			
		mpany Mailing Address (noted e generation and storage. Drill			Yes 🔯 No
the (0	1-024) well pad site l	located at 720 Knights Drive, Troy	y Township, Bradford Cou	inty, PA. Waste is st	ored in containers
on site.					
Municipality	Trov	County Bradf	ford	State	PA
Municipality	Troy			State	PA
Residual	F	SECTION B. WAS	TE DESCRIPTION	Unit of	Time
	F	SECTION B. WAS		Unit of Measure	
Residual	F	SECTION B. WAS Residual Waste ode Description	TE DESCRIPTION	Unit of	Time Frame
Residual Waste Code	F Ci	SECTION B. WAS Residual Waste ode Description	TE DESCRIPTION Amount 673 PROPERTIES	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time
Residual Waste Code 810 a. pH Ra	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL 9.74 to 10.61	TE DESCRIPTION Amount 673 PROPERTIES (based on analyses or kit	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Residual Waste Code 810 a. pH Ra	F Cu Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 Liquid Waste (EPA M	TE DESCRIPTION Amount 673 PROPERTIES (based on analyses or ki ethod 9095)	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Residual Waste Code 810 a. pH Ra	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 Liquid Waste (EPA M Solid (EPA Method 90	Amount         673         PROPERTIES         (based on analyses or kiethod 9095)         095)	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 Liquid Waste (EPA M	Amount         673         PROPERTIES         (based on analyses or kill         ethod 9095)         095)         ature & pressure)	Unit of Measure Cu yd gal Ib X ton	Time     Frame       Image: Description of the second sec
Residual Waste Code 810 a. pH Ra b. Physi	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 Liquid Waste (EPA M Solid (EPA Method 90 Gas (ambient temperation)	Amount         673         PROPERTIES         (based on analyses or k)         ethod 9095)         095)         ature & pressure)          Odo	Unit of Measure Cu yd gal Ib X ton nowledge)	Time     Frame       Image: Description of the second sec
Residual Waste Code 810 a. pH Ra b. Physi	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 Uiquid Waste (EPA M Solid (EPA Method 90 Gas (ambient tempera Color Greyish Black	Amount         673         PROPERTIES         (based on analyses or kill         ethod 9095)         095)         ature & pressure)         <	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight p One	Time     Frame       Image: Description of the second sec
Residual Waste Code 810 a. pH Ra b. Physi	Drill cuttings (oil	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 J. Liquid Waste (EPA M Solid (EPA Method 90 Gas (ambient tempera Color Greyish Black Number of Solid or Liqui Describe each phase of a	Amount         673         PROPERTIES         (based on analyses or kill         ethod 9095)         095)         ature & pressure)         Code         Odo         id Phases of Separation         separation.         Soil and Ro	Unit of Measure cu yd gal lb X ton nowledge) r Earthy/slight p One	Time     Frame       Image: Description of the second sec
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	F Ca Drill cuttings (oil ange ical State ical Appearance	SECTIONIB. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 1. Liquid Waste (EPA M Solid (EPA Method 90 Gas (ambient tempera Color Greyish Black Number of Solid or Liqui Describe each phase of a 2. CHEMICAL ANALY chemical characterization of th	TE DESCRIPTION Amount 673 PROPERTIES (based on analyses or k ethod 9095) 095) ature & pressure) C Odo Id Phases of Separation separation. Soil and Ro Sis ATTACHMENTS	Unit of Measure Cu yd gal Ib X ton nowledge) r _Earthy/slight p One ck Fragments	Time     Frame       Image: Description of the second sec
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	F Cr Drill cuttings (oil ange ical State ical Appearance esults of a detailed actions, is attached.	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 ☐ Liquid Waste (EPA M Solid (EPA Method 90 ☐ Gas (ambient tempera Color Greyish Black Number of Solid or Liqui Describe each phase of 9 2. CHEMICAL ANALY chemical characterization of th	Amount         673         PROPERTIES         (based on analyses or k         ethod 9095)         095)         ature & pressure)         Odo         Id Phases of Separation         separation.         Soil and Ro         'SIS ATTACHMENTS         e waste, as described in	Unit of Measure Cu yd gal Ib X ton nowledge) r Earthy/slight p One ck Fragments	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det	F Cr Drill cuttings (oil ange ical State cal Appearance esults of a detailed actions, is attached. ailed description of uality assurance/qu	SECTIONIB. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 1. Liquid Waste (EPA M Solid (EPA Method 90 Gas (ambient tempera Color Greyish Black Number of Solid or Liqui Describe each phase of a 2. CHEMICAL ANALY chemical characterization of th	Amount         673         PROPERTIES         (based on analyses or k         ethod 9095)         095)         ature & pressure)         <	Unit of Measure Cu yd gal Ib X ton nowledge) r Earthy/slight p One ck Fragments the X	Time Frame         One Time         One Time         vetroleum         Yes
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det c. The q attacl d. The ra	F Cr Drill cuttings (oil ange ical State ical Appearance esults of a detailed actions, is attached. ailed description of uality assurance/qu hed.	SECTION B. WAS Residual Waste ode Description and gas) 1. GENERAL I 9.74 to 10.61 ☐ Liquid Waste (EPA M Solid (EPA Method 90 ☐ Gas (ambient tempera Color Greyish Black Number of Solid or Liqui Describe each phase of a 2. CHEMICAL ANALY chemical characterization of th the waste sampling method is	Amount         673         PROPERTIES         (based on analyses or k         ethod 9095)         095)         ature & pressure)         Odo         Id Phases of Separation         separation.         Soil and Ro         'SIS ATTACHMENTS         e waste, as described in         attached.         oyed by the laboratory(id	Unit of Measure □ cu yd □ gal □ lb   ⊠ ton nowledge) r Earthy/slight p One ck Fragments n the   ⊠ es) is   ⊠	Time Frame         One Time         One Time         vetroleum         Yes         No         Yes         No

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1.1.1.1	3.	PROCESS DESCRIPTION & S	CHEMATIC ATTAC	HMENTS		
a.	A detailed description of the r the waste, as specified in the		ion control proces	sses producing	Yes	🗌 No
b.	A schematic of the manufacture as specified in the instruction		l processes prod	ucing the waste,	Yes Yes	No No
C.	If portions of the information a confidentiality claim, as des			n for Yes	No No	🛛 N/A
	SECTIO	N C. MANAGEMEN	T OF RESIDU	AL WASTE		
		1. PROCESSING OR DISP	OSAL FACILITY (IE	s)		
The ar	ea below (ad.) will accommod	ate the identification of two	facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 101243	for processing or disposal	facility being utili	zed.		
b.	Facility Name	Northern Tier Solid Wast	e Authority			
	Address Line 1	108 Steam Hollow Road				
	Address Line 1					
	Address City State ZIP	Troy	PA	16947		
	Municipality	West Burlington Twp	County	Bradford		
с.	Facility Contact Name	Charles Woodward				
	Title					
	Phone	(570) 29 <b>7</b> -4177	Email Address	chuckwoodward(	@epix.net	
d.	Volume of waste shipped to p 603	rocessing or disposal facili cu yd gal	t <b>y in the previous</b> lb ⊠ ton	year. (check one)		
а.	Solid waste permit number(s) 8-0728-00004	for processing or disposal	facility being utiliz	zed.		
b.	Facility Name	Chemung County Landfil				
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
с.	Facility Contact Name	Carla Canjar				
	Title	Environmental Manager				
	Phone	(000) / 00 00 00	mail Address	carla.canjar@cas	sella.com	
d.	Volume of waste shipped to p	ocessing or disposal facilit cu yd gal	b in the previous Ib ⊠ ton	year. (check one)		
		2. BENEFICI	ai Usf			
a.	Has the waste been approved				☐ Yes	No No
	If "Yes", list the general permi		er.			
b.	Volume of waste beneficially u		· · · · · · · · · · · · · · · · · · ·			
	0	cuyd 🗌 gal 📋	lb 🗌 ton	(check one)		

SECTION D. CERTIFICATION	
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted Report and all attached documents and that based upon my inquiry of those individuals immediately re obtaining the information, I verify that the submitted information is true, accurate and complete to the knowledge. I understand that the submission of false information herein is made subject to the penalties §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.	esponsible for e best of my
Check the following, if applicable:	
I certify the information required in Section B-1, General Properties was supplied to the Departmer and has not changed.	t for the year
Form Submitted: Gran Form 26R	
Other (specify)	
Date Submitted:	
I certify the information required in Section B-2, Chemical Analysis was supplied to the Departmen and has not changed.	t for the year
Form Submitted: Gran 26R	
Other (specify)	
Date Submitted:	
I certify the information required in Section B-3, Process Description and Schematic, was supplied to the for the year and has not changed.	ne Department
Form Submitted:  Form 26R	
Other (specify)	
Date Submitted:	
Name of Responsible Official Title Environmental Specialist	
Dina Brown	
Signature <u>Am Ston</u> Date <u>2/2S/11</u>	



# **Certificate of Analysis**

Project Name:	Marcellus Shale	Workorder:	9814714	
Purchase Order:		Workorder ID:	L2H Well Pad:INV+Cut.	

Mr. Steve Gridley Fortuna 337 Daniel Zenker Drive Horseheads, NY 14845

October 23, 2009

Dear Mr. Gridley,

Enclosed are the analytical results for samples received by the laboratory on Wednesday. October 21, 2009

ALSI is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Denise Brooks (Project Coordinator) or Anna G Milliken (Laboratory Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALSI's NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALSI.

NOTE: ALSI has changed the report generation tool and while we have tried to retain the existing format, you will notice some changes in the laboratory report. Please feel free to contact ALSI in case you have any questions.

Analytical Laboratory Services, Inc.

CC: Phyllis, Accounts Payable

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Anna G Milliken Laboratory Manager

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Report ID: 9814714



### SAMPLE SUMMARY

Workorder 98	L2H Well Pad://NV+Cut.				Discard Date: 11/06/2009
Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9814714001	L2H - Inv Cuttings Bin	Solid	10/20/09 13:20	10/21/09 09:15	Steve Gridley

Workorder Comments:

Notes

- -- Samples collected by ALSI personnel are done so in accordance with the procedures set forth in the ALSI Field Sampling Plan (20 Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- -- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- -- The Chain of Custody document is included as part of this report.

#### Standard Acronyms/Flags

- J, B Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
- U Indicates that the analyte was Not Detected (ND)
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- RDL Reporting Detection Limit
- ND Not Detected indicates that the analyte was Not Detected at the RDL
- Cntr Analysis was performed using this container
- RegLmt Regulatory Limit
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- %Rec Percent Recovery
- RPD Relative Percent Difference



### ANALYTICAL RESULTS

Lab ID: 9814714001				Date Col	lected: 10/20/2009 1	3:20		Matrix: Solid		
Sample ID: L2H -	Inv Cutting	s Bin		Date Rec	ceived: 10/21/2009 0					
Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	Ву	Cntr
PETROLEUM HC's	1									
Total Petroleum Hydrocarbons (TPH)	202000		mg/kg	16300	SW846 8015D	10/21/09	RSS	10/23/09 14:16	ΊĴΉ	A1
WET CHEMISTRY										
Free Liquids	Negative				SW846 9095			10/22/09 12:15	SDL	А
Moisture	18.8		%	0.1	SM20-2540 G			10/21/09 22:45	MBR	А
pН	10.61	1,2	pH_Units		SW846 9045D			10/22/09 07 44	SAD	А
Total Solids	81.2		%	0.1	SM20-2540 G			10/21/09 22:45	MBR	А
TCLP METALS										
Arsenic, Total	ND		mg/L	0.18	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Barium, Total	0.37		mg/L	0.22	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Cadmium, Total	0.16		mg/L	0.044	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Chromium, Total	ND		mg/L	0.12	SW846 6010C	10/23/09	MNP	10/23/09 12.07	TED	A3
Copper, Total	ND		mg/L	0.22	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Lead, Total	0.20		mg/L	013	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Mercury. Total	ND		mg/L	0.0020	SW846 7470A	10/23/09	BLB	10/23/09 11:04	BLB	A2
Nickel, Total	ND		mg/L	0 44	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Selenium. Total	ND		mg/L	0 44	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Silver, Total	ND		mg/L	0.088	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
Zinc, Total	172		mg/L	0.44	SW846 6010C	10/23/09	MNP	10/23/09 12:07	TED	A3
TCLP LEACHATE										
Extraction Fluid Used	2				SW846 1311			10/22/09 07:00	ΕL	А
Final pH	5.28		pH_Units		SW846 1311			10/22/09 07:00	EL	А
Preliminary pH after DI water	8.01		pH_Units		SW846 1311			10/22/09 07:00	EL	А
Preliminary pH after HCl	5.01		pH Units		SW846 1311			10/22/09 07:00	EL	А

#### Sample Comments:

Due to spectral interference from Zinc, this sample was diluted 1/20 for the 6010C metals analysis. The detection limits were raised accordingly. TED 10/23/09

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly. Surrogate recovery could not be evaluated as a result of the dilution.

ann mille

Anna G Milliken Laboratory Manager

Page 3 of 5



# ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9814714 L2H Well Pad:INV+Cut.

# PARAMETER QUALIFIERS\FLAGS

- [1] The solid pH measured in water was 10.614 at 21.4 degrees C.
- [2] Analyte was analyzed past the 24 hour holding time.

Analytical Laboratory Service Environmental w Kndustilel Hyperne w 34 Dogwood Lama w Middletown, PA 17057 w 717.94	Field Services	17,944.1430			QU	EST D'AREA	FOR		LYS	IS D RY TH NL BAC		Generation NT	ni try AL	*	P9.
llent Name: Fortuna Energy Inc. (FEI)		1	Containe	r Type	Glass	Glasa	Glass	Glass						Ĩ	Receipt Information (completed by Receiving Lab)
dress: 337 Daniel Zenker Drive		PA S	Contain	er Sise	4-0Z	4-02	4-02	4-02							Cooler Temp: 6 Therm 10: 5/023
Horseheads, New York 14845			Preser	valins	N	N	N	N							Ho. of Coolern:Y H In
ntact: Sleve Gridley	<u>*</u>					A	NALYS	ESIMET	HODR	EQUES	TED				Custedy Seets Present?
mell: 607-731-0145				٢.	برق	1							[· -		(If present) Solds Intact?
ject Namel#:   2H Well Pad: W	V + Cuttings				ດ ວັ•										Roceivad en Ica?
To: FEI: AF #73289					3.			Ê							COC/Labels ComptetelAccurate?
TAT Normal-Standard TAT is 10-					315	,	1	Liquids (% Moisture)				1			Cont. in Good Cand.?
X Rush-Subject to ALSI appro		-		;	Z			N N							Correct Containers?
	pproved By:					].		8				1			Correct Sample Volarges?
sall? X Y geowetlands@aol.com	& 500 COMIT	rents			N N	1	l	Į.	l			l I	l		Correct Preservation7
1x7 Y No:			U	ĕ	5.0	ほし		8							Headspace/Volatiles?
Sample Description/Location (as it will appear on the lab report)	Sample	-	80	"Watch	<u>P4Ť</u>	18			<u> </u>	<u> </u>		<u> </u>		L	CounterTracking # 2597 4333 6954
	Date	Time			·	_		<del>Y</del>	ners Pe	r Sample	or Fig	d Resul	ts Below	", T <sup></sup>	Sample/COC Companys
Knights L2H-Inv Cuttings-Bin	102009	1120	$\left\{ \downarrow \right\}$	SO	X	X	<u> </u>	<u>⊢×</u>	5	402		<u> </u>	<u> </u>	+	Drill Cuttings w residual oil-based drilling flu
			┢╂		<u> </u>	┼			2	hu		are	<u>b</u>		IF TPH IS > 120,000 mg/Kg - RUN EPA 8260 &82
	-		╊╋		┼──	+	+	<u>-</u>	t	KUM	10		4!		WITH RUSH
	t		+	_	<u>├</u>		+	1	<u> </u>	<u> </u>		┼╼──	+	┼──	
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															Sampling oRental Equipment
0								4							Sampling oRental Equipment
OMMENTS: Also Email Results to: rollingrzäyschutions.ca &	<b>.</b>	LOOGED B	r(signat	N10):		7	h	w	Ŗ	\$ 16	2/09	1124			Standard Special Processing Sta
hyilis@waynelwplandfill.com & kathymstron	ARabit ust	REVIEWED	81 ( <b>sig</b> a	uture)		5	30		<u> </u>	50	2210	E,	Data	$\square$	LP-ike USACE
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Beinquished By / Company Na		Date		Ime	-		· · · ·	Comp	ny Na	18	Date	_	_		
Man Mall U	UBG-	102009	160	0	2 Fe	dex #8	97833	6956			1020				X P/
		<u> </u>			14	×	<u>-W</u>	<u> </u>	AU	<u>51</u>	ig/x/b	0915		_	to PADEP? Sample Disposal Ni
		ļ			6			۰ <b>ـــــ</b>			<u> </u>	<u> </u>	-		. #237861 Lab <sup>2</sup> X
, 			1		8						L	1	PWS		101243 Special
· · · · · · · · · · · · · · · · · · ·					10								EDDS	: Forma	Tripe
	Composite			-	-De-La	- 18 -	- CIMA	2000		-01.01	-04-04	ا -اطر سنة 1	e		=Soll; WPaWipe; WW=Westewater



www.analyticaliab.com



# **Certificate of Analysis**

Project Name:	Marcelius Shale	Workorder:	9815605	
Purchase Order:		Workorder ID:	L2H	

Mr Steve Gridley Fortuna 337 Daniel Zenker Drive Horseheads, NY 14845

October 29, 2009

Dear Mr. Gridley,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, October 27, 2009

ALSI is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Denise Brooks (Project Coordinator) or Anna G Milliken (Laboratory Manager) at (717) 944-5541.

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Analytical Laboratory Services, Inc.

CC: Phyllis

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

112

Anna G Milliken Laboratory Manager

Report ID: 9815605



#### SAMPLE SUMMARY

Workorder: 98	L2H				Discard Date: 11/12/2009
Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9815605001	Inv-Cuttings	Solid	10/26/09 10:15	10/27/09 09:30	Steve Gridley

Workorder Comments:

Notes

- -- Samples collected by ALSI personnel are done so in accordance with the procedures set forth in the ALSI Field Sampling Plan (20 Field Services Sampling Plan)
- -- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- -- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- -- The Chain of Custody document is included as part of this report.

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- U Indicates that the analyte was Not Detected (ND)
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- RDL Reporting Detection Limit
- ND Not Detected indicates that the analyte was Not Detected at the RDL
- Cntr Analysis was performed using this container
- RegLmt Regulatory Limit
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- %Rec Percent Recovery
- RPD Relative Percent Difference



# ANALYTICAL RESULTS

Lab ID: 9815605001					lected: 10/26/2009 1			Matrix: Solid		
Sample ID: Inv-Cuttings				Date Red	ceived: 10/27/2009 0	9:30				
Parameters	Results	Flag	Units	RDL	Method	Prepared	Ву	Analyzed	By	Cntr
PETROLEUM HC's										
Total Petroleum Hydrocarbons (TPH)	176000		mg/kg	32300	SW846 8015D	10/28/09	GMG	10/28/09 21:21	KJH	B1
WET CHEMISTRY										
Moisture	18.5		%	0.1	SM20-2540 G			10/28/09 04:00	KMW	А
pН	9.74	1,2	pH_Units		SW846 9045D			10/28/09 01:10	SAD	A
Total Solids	81.5		%	0.1	SM20-2540 G			10/28/09 04:00	KMW	A
CLP METALS								,		
Arsenic. Total	ND		mg/L	0.0090	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Barium, Total	0.77		mg/L	0.011	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Cadmium, Total	0.012		mg/L	0.0022	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Chromium, Total	ND		mg/L	0.0060	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Copper, Total	0.067		mg/L	0.011	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Lead, Total	0.055		mg/L	0.0067	SW846 6010C	10/29/09	MNP	10/29/09 10.42	JWK	A1
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/29/09	BLB	10/29/09 12:42	BLB	A2
Nickel Total	0.18		mg/L	0.022	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Selenium Total	ND		mg/L	0.022	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Silver, Total	ND		mg/L	0.0044	SW846 6010C	10/29/09	MNP	10/29/09 10:42	JWK	A1
Zinc. Total	12.9		mg/L	0.044	SW846 6010C	10/29/09	MNP	10/29/09 12:17	JWK	A1
CLP LEACHATE										
Extraction Fluid Used	1				SW846 1311			10/28/09 07:20	ΕL	А
Final pH	5.94		pH_Units		SW846 1311			10/28/09 07:20	EL	А
Preliminary pH after DI water	7.23		pH_Units		SW846 1311			10/28/09 07:20	ΕL	A
Preliminary pH after HCI	1.84		pH Units		SW846 1311			10/28/09 07:20	EL	А

#### Sample Comments:

EPA Methods require samples to be transported at 4 degrees centigrade. This can be accomplished by adding ice to the cooler before transporting to the lab. The temperature of this sample was above 4 degrees centigrade when received.

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected in the sample. Reporting limits were adjusted accordingly. Surrogate recovery could not be evaluated as a result of the dilution.

ann millie

Anna G Milliken Laboratory Manager



# ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9815605

# PARAMETER QUALIFIERS\FLAGS

- [1] The solid pH measured in water was 9.739 at 19.9 degrees C.
- [2] Analyte was analyzed past the 24 hour holding time.

L2H

Analytical Laboratory Service Environmental - Environmental - Environmental - Environmental - Environmental - Middebown, PA 17057 - 717.544	Pano Services Al 5641 + Pax: 717.044.1430 C	CHA REQUI L SHADED AR IENT / SAMPL	EAS MUS ER. INST	DR AN IT BE CO RUCTIO	ALYSIS MPLETED	E BACK.	8	Courier: Iracking #:	<sup>2</sup> age 4 <sup>01</sup> - 4 4 - 1 <u>3 83 9 7</u> 0			; 6	0 5			1		
Co. Narre: Fortung Bu Contact Marine: Steve Cord Address:	hey Phone: 6	07 31-0145	Trype Type Trype State Present	harr y ruho N	G- 4 4 U 2 -	G-C 4-G ANALYS		THOD R	EQUESTED		- <u>- 1</u> -	ooler Te	ne ne ne ne ne ne ne ne ne ne ne ne ne n	Ne 110	<b>万</b> く		34 Dog	
Bill to platinics than Report by: Project Name/#: TAT: Standard TAT in 10-12 by sin TAT: Standard TAT in 10-12 by sin Standard TAT in 10-12 by s	L2H ALSI QUOI Neto days. Data Required	yghr. Sot		TELP & RENA MERES	TPH	2 mortune	PH		2) 407. Da	Sej) 5445 Wj 27	correct containers? (* ) * 2 - 3 - 3	,106	alo alo	HandspaceVolationan	ŝ	19 19 19 19 19 19 19 19 19 19 19 19 19 1	Dogwood Lane - Middletown,	VALYTICAL ABORATORY ERVICES, ÎNC.
Sample Description/Location	COC Comments Drill Cuttings	Sample Mill Date Th 10/26 /0/	<b>74</b>	50 /		Enter N	iumber	of Con	tainers Per Ar	nalysis		2	0	* - -	* 9		PA 17057	www.analyticallab. NELAP Accredited PA 22-293 NJ PA
4 5 6 7	•										Custody seats Present?	(if present) Seels intert	Received on ide?	COCKabels complete/accurate	Container in good condition?		Phone: 717-944-5541	icallab.com credited NJ PA010
sampleD BY (Please Print): Skell Grad Sheve Grad & Y Relingvished By / Company Na 1 Grad & Grad & Grad 3 5	REVIEWED BY (standard):	12 F2d EX 6	ier By TC		ame 37.707	Date	Time 1500	EDBs Data Defiverables	Standard CLP-ike NJ-Reduced NJ-Fuli	STMA         State Sample           Farma 700         Callectual In7           rra         40           rra         HJ           rra         HJ           rra         HJ           rra         HJ           rra         HJ           rra         HJ           STMA         State Sample			Pickup  Labor  Cemp	SERVI osta 31 (Eq./pr	nçting		Fax:	ACCREOTIN ACCO
9 Copies: WINTE-ORIGINAL CANARY-CUSTOM		10 10 Nir: OW=Drinking W Type: AQ-Amber GI					ցլ.=⊊երվ	ge; 60%84						Pav 6	507		717-944-1430	OHO JOHO



# **Certificate of Analysis**

Project Name:	Marcellus Shale	Workorder:	9816272	
Purchase Order		Workorder ID:	L2H	

Mr Steve Gridley Fortuna 337 Daniel Zenker Drive Horseheads, NY 14845

November 3, 2009

Dear Mr. Gridley,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, October 27, 2009

ALSI is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Denise Brooks (Project Coordinator) or Anna G Milliken (Laboratory Manager) at (717) 944-5541.

Please visit us at www.analyticallab.com for a listing of ALSI's NELAP accreditations and Scope of Work, as well as other links to Water Quality documentation on the internet.

This laboratory report may not be reproduced, except in full, without the written approval of ALSI.

NOTE: ALSI has changed the report generation tool and while we have tried to retain the existing format, you will notice some changes in the laboratory report. Please feel free to contact ALSI in case you have any questions.

Analytical Laboratory Services, Inc.

CC: Phyllis, Twolling, Ms. Kathy Murphy-Strong

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

hill.

Anna G Milliken Laboratory Manager

Report ID: 9816272



### SAMPLE SUMMARY

Workorder: 98	816272 L2H				Discard Date: 11/17/2009
Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
9816272001	Inv - Cuttings	Solid	10/26/09 10 15	10/27/09 09:30	Customer

#### Workorder Comments:

Notes

- Samples collected by ALSI personnel are done so in accordance with the procedures set forth in the ALSI Field Sampling Plan (20 -Field Services Sampling Plan).
- -- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- -- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141
- -- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis
- -- The Chain of Custody document is included as part of this report.

#### Standard Acronyms/Flags

- J. B Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
- U Indicates that the analyte was Not Detected (ND)
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- RDL Reporting Detection Limit
- ND Not Detected indicates that the analyte was Not Detected at the RDL
- Cntr Analysis was performed using this container
- RegLmt Regulatory Limit
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- %Rec Percent Recovery
- RPD Relative Percent Difference



ANALYTICAL RESULTS

Lab ID: 9816272001				Date Col	lected: 10/26/2009 1	0:15		Matrix: Solid		
Sample ID: Inv - Cuttings				Date Re	ceived: 10/27/2009 0	9:30				
Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
CLP VOLATILE ORGANICS										
Benzene	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
2-Butanone	ND		ug/L	200	SW846 8260B			11/3/09 10:29	MES	А
Carbon Tetrachloride	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
Chlorobenzene	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
Chloroform	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
1.2-Dichloroethane	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
1,1-Dichloroethene	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
Tetrachloroethene	ND		ug/L	20.0	SW846 8260B			11/3/09 10.29	MES	А
Trichloroethene	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
√inyl Chloride	ND		ug/L	20.0	SW846 8260B			11/3/09 10:29	MES	А
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane-d4 (S)	5		%	62-133	SW846 8260B			11/3/09 10:29	MES	A
4-Bromofluorobenzene (S)	4.6		%	79-114	SW846 8260B			11/3/09 10:29	MES	А
Dibromofluoromethane (S)	4.4		%	78-116	SW846 8260B			11/3/09 10:29	MES	A
oluene-d8 (S)	4.9		%	76-127	SW846 8260B			11/3/09 10:29	MES	A
CLP SEMI-VOLATILES										
np-Cresol	ND		ug/L	160	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
p-Cresol	ND		ug/L	160	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
.4-Dichlorobenzene	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
2,4-Dinitrotoluene	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
lexachlorobenzene	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Hexachlorobutadiene	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Hexachloroethane	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Vitrobenzene	ND		ug/L	60.0	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Pentachlorophenol	ND		ug/L	320	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Pyridine	ND		ug/L	160	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
2,4,5-Trichlorophenol	ND		ug/L ug/L	160	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
2,4,6-Trichlorophenol	ND		ug/L	160	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
4,6-Tribromophenol (S)	85.5		%	40-125	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
Phenol-d5 (S)	33.2		%	13-49	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
erphenyl-d14 (S)	80		%	50-122	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
litrobenzene-d5 (S)	80 82		%	40-110	SW846 8270D	11/2/09	TNC	11/2/09 22:08	CGS	A1
<b>C</b> 1 1 1 1 1 ( <b>C</b> 1	69.9		%	40-110 50-110	SW846 8270D	11/2/09	TNC			
-Fluorobiphenyl (S)			%	20-75	SW846 8270D			11/2/09 22:08	CGS	
-Fluorophenol (S)	48.7		70	20-73	377040 021 UL	11/2/09	TNC	11/2/09 22:08	CGS	<u> </u>
CLP LEACHATE										
xtraction Fluid Used	1				SW846 1311			10/30/09 06:45	EL	А
inal pH	6.14		pH_Units		SW846 1311			10/30/09 06:45	EL	А
Preliminary pH after DI water	7.23		pH_Units		SW846 1311			10/30/09 06:45	EL	А
reliminary pH after HCI	1.84		pH_Units		SW846 1311			10/30/09 06:45	EL	А



# ANALYTICAL RESULTS

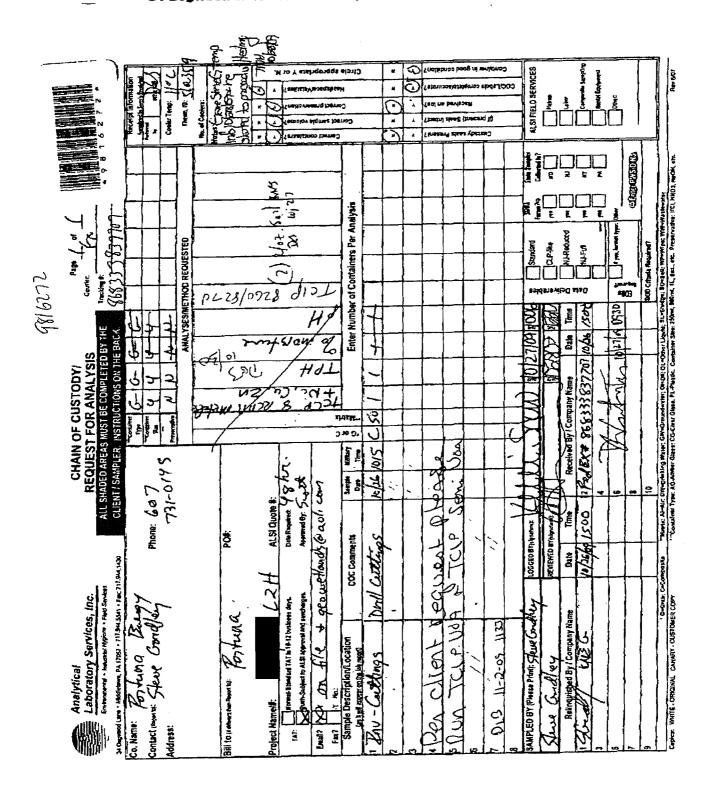
Workorder: 9	816272	.2H				···· =							
Lab ID:	9816272001				Date Collected:	10/26/2009	10:15	N	latrix.	Solid			
Sample ID:	Inv - Cuttings				Date Received	10/27/2009	09:30						
Parameters	· · · · · · · · · · · · · · · · · · ·	Results	Flag	Units	RDL	Method	Prepared	By	Anal	zed	Ву	Cntr	

Sample Comments:

ann millie Anna G Milliken

Laboratory Manager





2540-PM-BWM0347 Rev. 1/2011
Pennsylvania
Department of Environmental Protection

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legil each attache	bly printed in the spaces ed sheet as Form 26R,	tely completed. All requi provided. If additional sp reference the item numb ts needs to match the date	ace is necessary, iden er and identify the d	tify Date Rece	PUSE ONLY Dived & General Notes
General Refe	rence 287.54				
Date Prepare	d/Revised Fet	oruary 11, 2011			
		<b>CLIENT</b> (GENERATOR	OF THE WASTE) IN	<b>IFORMATION</b>	V
Company Na					
	ergy USA Inc. ry, Name of Parent Comp	anv		EP	A Generator ID#
Talisman En	ergy Inc.			 N//	
	iling Address Line 1	Co	ompany Mailing Addre	ss Line 2	
50 Pennwoo	d Place dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale	uless Last Line - Oity	PA	15086	(724) 814-5	
	ntact Last Name	First Name	MI		ffix
Brown		Dina			
Municipality Warrendale			<b>County</b> Allegheny		
Contact Phor	ne Ext	Contact Email Address			
(724) 814-53		dybrown@talismanusa.c			
		ny Mailing Address (noted a neration and storage. <u>Drill c</u>		uting notural good	Yes No
the	(03-008) well pad site I	located at 2202 Wolfe Hollow	Road. Columbia Towns	hip. Bradford Cou	ntv. PA. Waste is
stored in conta	ainers on site.				
Municipality	Columbia	County Drodfe	ord	State	PA
		County Bradfo			
		SECTION B. WAST			
Residual Waste Code	Residu			Unit of Measure	Time Frame
Residual	Residu	SECTION B. WAST ual Waste lescription	E DESCRIPTION	Unit of Measure	Time Frame
Residual Waste Code	Residu Code D	SECTION B. WAST ual Waste bescription gas)	Amount 8,491	Unit of Measure	Time Frame
Residual Waste Code	Residu Code D Drill cuttings (oil and g	SECTION B. WAST ual Waste lescription gas) 1. GENERAL P	Amount 8,491	Unit of Measure Cuyd ga Ub X tor	Time Frame
Residual Waste Code 810 a. pH Ra	Residu Code D Drill cuttings (oil and g	SECTION B. WAST ual Waste description gas) 1. GENERAL P 79 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat	Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure)	Unit of Measure Cuyd ga Ub X tor nowledge)	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Residu Code D Drill cuttings (oil and g ange 9.7	SECTION B. WAST val Waste vescription gas) 1. GENERAL P 79 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat Color Greyish Black	Amount     Amount     A,491     ROPERTIES     (based on analyses or k thod 9095)     95) ture & pressure)    Odo	Unit of Measure Cu yd ga Ib X tor nowledge)	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Residu Code D Drill cuttings (oil and g ange 9.7 cal State	SECTION B. WAST ual Waste lescription gas) 1. GENERAL P '9 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid	EDESCRIPTION Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation	Unit of Measure Cu yd ga Ib S tor nowledge) r Earthy/Sligh One	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Residu Code D Drill cuttings (oil and g ange 9.7 cal State	SECTION B. WAST val Waste vescription gas) 1. GENERAL P 79 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat Color Greyish Black	EDESCRIPTION Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation	Unit of Measure Cu yd ga Ib S tor nowledge) r Earthy/Sligh One	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Residu Code D Drill cuttings (oil and g ange 9.7 cal State cal Appearance	SECTION B. WAST ual Waste lescription gas) 1. GENERAL P '9 to 11.10 Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS	EDESCRIPTION Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	Unit of Measure cu yd ga lb dtor nowledge) r Earthy/Sligh One ck Fragments	Time Frame
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Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru	Reside Code D Drill cuttings (oil and g ange 9.7 cal State cal Appearance	SECTION B. WAST wal Waste lescription gas) 1. GENERAL P 9 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS lical characterization of the	E DESCRIPTION Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in	Unit of Measure cu yd ga lb dtor nowledge) r Earthy/Sligh One ck Fragments	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta	Reside Code D Drill cuttings (oil and g ange 9.7 cal State cal Appearance esults of a detailed chem actions, is attached. ailed description of the w uality assurance/quality	SECTION B. WAST ual Waste lescription gas) 1. GENERAL P '9 to 11.10 Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS	Amount     Amount     Amount     A,491     ROPERTIES     (based on analyses or k thod 9095)     95) ture & pressure)     Odo     Phases of Separation     eparation. Soil and Ro     SIS ATTACHMENTS     waste, as described in tttached.	Unit of Measure Unit of Measure ga ga lb ga to nowledge) r Earthy/Sligh One ok Fragments n the	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The re instru b. A deta c. The q attach	Reside Code D Drill cuttings (oil and g ange 9.7 cal State cal Appearance esults of a detailed chem ictions, is attached. ailed description of the w uality assurance/quality ned.	SECTION B. WAST wal Waste vescription gas) 1. GENERAL P 9 to 11.10 Liquid Waste (EPA Me Solid (EPA Method 905 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of so 2. CHEMICAL ANALYS ical characterization of the waste sampling method is a	E DESCRIPTION Amount 8,491 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in tttached. yed by the laboratory(in	Unit of Measure Unit of Measure ga ga lb ga to nowledge) r Earthy/Sligh One ok Fragments n the	Time Frame

-	0					
S. Halles			ON & SCHEMATIC ATTA			
a.	A detailed description of the the waste, as specified in the			esses producing	🛛 Yes	🗌 No
b.	A schematic of the manufacture as specified in the instruction		control processes pro	ducing the waste,	Yes	🗌 No
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	No No	🛛 N/A
	SECTIO	er Sex Charles Shere and the State of the State of States of States of the States of the States of the second stat	MENT OF RESIDU	Control and action appropriate general product and the second s		
			R DISPOSAL FACILITY (I			
The a	rea below (ad.) will accommod	ate the identification of	of two facilities. Attach	n additional sheets	if necessary.	
a.	Solid waste permit number(s) 9-0232-00003	for processing or dis	posal facility being util	ized.		
b.	Facility Name	Hyland Landfill	······································			
	Address Line 1	6653 Herdman Roa	Id			
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
с.	Facility Contact Name	Larry Shilling				
0.	Title	Larry Onlining		·······		
	Phone	(585) 466-7271	Email Address	larry.shilling@ca		
		<b>、</b> ,				
d.	Volume of waste shipped to p 3,773	cuyd 🗌 gal	🗌 lb 🖂 ton	(check one)		
a.	Solid waste permit number(s) 8-4630-00010	for processing or dis	posal facility being util	ized.		
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridg		LE Aphiliphic broad and		
	Address Line 1					
	Address City State ZIP	Painted Post		14870	<u> </u>	
	Municipality	Erwin Twp	County	Steuben		
с.	Facility Contact Name	Joseph Boyles				
	Title			1174-75-		
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	ella.com	
d.	Volume of waste shipped to p		facility in the previous	уеаг.		
-	3,387	cuyd 🗌 gal	🗍 lb 🖂 ton			
	and the second	ar heavy and have been been a start of the second start of the second start of the second start of the second s	NEFICIAL USE		<u> </u>	2.
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general permi					
b.	Volume of waste beneficially u	ised in the previous y	ear.	· · · · · · · · · · · · · · · · · · ·		
	0	cuyd 🗌 gal	🔲 lb 🗌 ton	(check one)		

03.3 <b>5</b> 5	3	<b>PROCESS DESCRIPTIO</b>	N& SCHEMA		NTS	2.4.1.1	····			
a.	A detailed description of the					X Yes				
u.	the waste, as specified in the	instructions, is attach	ed.							
b.	A schematic of the manufactu as specified in the instruction		control proc	esses producin	g the waste,	X Yes	🗌 No			
C.	If portions of the information a confidentiality claim, as des				Yes	🗌 No	N/A			
		DN.C. MANAGEN			WASTE					
		1. PROCESSING OF								
The a	rea below (ad.) will accommod	ate the identification of	of two faciliti	es. Attach add	itional sheets	if necessary				
a.	Solid waste permit number(s) 8-0728-00004	for processing or dis	posal facility	being utilized.	- ··					
b.	Facility Name	Chemung County L	andfill							
	Address Line 1	1690 Lake Street								
	Address Line 1									
	Address City State ZIP	Elmira	N	Y	14903		·····			
	Municipality	Elmira	С	ounty Che	emung		==			
с.	Facility Contact Name Carla Canjar									
0.	Title	Environmental Mana	ager							
	Phone (585) 797-5941 Email Address carla.canjar@casella.com									
		( )								
d.	Volume of waste shipped to p	rocessing or disposal cu yd gal	facility in the	e previous year	(check one)					
a.	Solid waste permit number(s)	for processing or disp	osal facility	being utilized.						
b.	Facility Name									
	Address Line 1									
	Address Line 1	· · · · · · · · · · · · · · · · · · ·								
-	Address City State ZIP	***************************************								
	Municipality		C	ounty						
с.	Facility Contact Name		_							
С.	Title									
	Phone		Email A	ddroce						
d.	Volume of waste shipped to p									
	L	cuyd 🔄 gal	∐ lb	∐ ton	(check one)					
Server a		2. BEN	IEFICIAL USE			2022-2004 <mark>-</mark> 30				
a.	Has the waste been approved	for beneficial use?				Yes	🛛 No			
	If "Yes", list the general permi	t number or approval	number.							
b.	Volume of waste beneficially u									
	0 Ĺ	cuyd 🗌 gal	🗌 lb	🔲 ton	(check one)					

		SECTION D. CERTIFICATION								
Report and all attached docu obtaining the information, I knowledge. I understand that	I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.									
Check the following, if applica	ble:									
I certify the information		ired in Section B-1, General Properties was supplied to the Department for the year								
Form Submitted:		Form 26R								
		Other (specify)								
Date Submitted:										
I certify the information		ired in Section B-2, Chemical Analysis was supplied to the Department for the year								
Form Submitted:		Form 26R								
		Other (specify)								
Date Submitted:										
I certify the information for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.								
Form Submitted:		Form 26R								
		Other (specify)								
Date Submitted:										
Name of Responsible Official		Title Environmental Specialist								
Dina Brown		- /1								
Signature	2	Date 2/2.5/(1								

SEND DATA TO:

NAME:

# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10071897

WO#: 10071897 PAGE: 1 of 1 PO#: AF76834 PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

**TEST REPORT** 

Well						
RECEIVED FOR LAB BY: WCB	DATE:	07/13/2010 13:15			Pa	age 1 of
SAMPLE: Inv. Cuttings		Lab ID: 10071897-001A	Grab			
SAMPLED BY: SG	Sampl	e Time: 07/12/2010 15:00	SLOQ			
Test	<u>Result</u>	Method	OLOQ	Analysis Start	Analysis End	<u>Analyst</u>
Total Petroleum Hydrocarbons	105000 mg/Kg	EPA 9071		07/15/10 0:00	07/15/10	
Sample Note: Analysis performed	by Microbac-Erie					
SAMPLE: Inv. Cuttings		Lab ID: 10071897-001B	Grab			
SAMPLED BY: SG	Sampl	e Time: 07/12/2010 15:00				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst
Moisture	13.8 %	Moisture Calc.	0.01	07/14/10 14:30	07/15/10	NFM-S
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/14/10 8:50	07/14/10	IC-SA
pH	9.79@22.2°C	EPA 9045C		07/14/10 12:23	07/14/10	DLM-S
SAMPLE: TCLP Leachate of Inv. Cu	ıttings	Lab ID: 10071897-001D	Grab			
SAMPLED BY: SG	Sampl	e Time: 07/12/2010 15:00	SLOQ			
Test	Result	Method	<u>5200</u>	Analysis Start	Analysis End	Analyst
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	07/16/10 9:00	07/18/10	RMD-C
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-C
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/16/10 15:00	07/17/10	RMD-C
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-C
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-C
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-C
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-C
Nickel - TCLP extracted	0.166 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-C
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/16/10 15:00	07/17/10	RMD-C
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/16/10 15:00	07/17/10	RMD-C
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/16/10 15:00	07/17/10	RMD-C

#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 7/20/2010

SEND DATA TO:

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave.

Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

**TEST REPORT** 

Work Order: 10074055

WO#: 10074055PAGE: 1 of 2PO#: AF77442PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

RECEIVED FOR LAB BY: DLM2	DATE:	07/26/2010 15:15			Ра	age 1 of 2
SAMPLE: Air Cuttings & Gypsum	-	ab ID: 10074055-001A	Compo	site		
SAMPLED BY: SG	Sample	Time: 07/26/2010 12:38	SLOQ			
Test	<u>Result</u>	Method	OLOQ	Analysis Start	Analysis End	<u>Analyst *</u>
Sodium	723 mg/Kg-dry	EPA 6010B	105	07/28/10 10:30	07/28/10	GSR-CV
Chloride	615 mg/Kg-dry	EPA 300.0	66.9	07/27/10 15:16	07/28/10	HDP-CV
Percent Moisture	25.3 %	SM2540G		07/26/10 10:30	07/27/10	NFM-SA
SAMPLE: Air Cuttings & Gypsum	Li	ab ID: 10074055-001B	Compo	site		
SAMPLED BY: SG	Sample	Time: 07/26/2010 12:38	81.00			
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Moisture	25.3 %	Moisture Calc.	0.01	07/26/10 10:30	07/27/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/26/10 16:35	07/26/10	IC-SA
рН	11.10@20.8°C	EPA 9045C		07/27/10 12:20	07/27/10	NFM-SA
SAMPLE: Air Cuttings & Gypsum	Li	ab ID: 10074055-001C	Compo	site		
SAMPLED BY: SG	Sample	Time: 07/26/2010 12:38				
T	Decult	Mathed	<u>SLOQ</u>	Analysia Start	Analysia End	Analust *
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u> 154 mg/Kg	<u>Method</u> EPA 9071		<u>Analysis Start</u> 07/27/10 12:00	Analysis End 07/27/10	<u>Analyst *</u>
Sample Note: Analysis performed	0 0			01/21/10 12:00	01/21/10	
SAMPLE: TLCP of Air Cuttings & G	/nsum	ab ID: 10074055-001E	Grab		·····	·······
SAMPLED BY: SG	pount	Time: 07/26/2010 12:38				
			<u>SLOQ</u>			
Test	<u>Result</u>	Method		Analysis Start	Analysis End	
Mercury - TCLP extracted	< 0.0010 mg/L	EPA 7470A	0.0010	07/29/10 9:00	07/29/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/29/10 9:50	07/29/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV

#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 7/30/2010

Lab ID: 08-( Lab ID: 39-(		2566 Pe	rn D nnsyl	<b>alytics, In</b> <b>Division</b> Ivania Ave. 18840	C.	١	Work C	)rder: 100	)74055
		•		888-0169 888-0717					
SEND DATA	A TO:								
NAME:	Steve Gridley				W	O#:	100740	055	
COMPANY: ADDRESS:		IC.			PA	GE:	2 of 2		
ADDRESS.	Horseheads, NY 14845				P	D#:	AF774	42	
								72	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TES	T RE	PORT	P۱	VS ID#			
RECEIVED	FOR LAB BY: DLM2	DATE:	07/26	6/2010 15:15				Р	age 2 of 2
Nickel - 1	TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	07/29/10	9:50	07/29/10	GSR-CV
Selenium	- TCLP extracted	< 0.500 mg/L	S	EPA 6010B	0.500	07/29/10	9:50	07/29/10	GSR-CV
Silver - T	CLP extracted	< 0.100 mg/L		EPA 6010B	0.100	07/29/10	9:50	07/29/10	GSR-CV
Zinc - TC	CLP extracted	< 0.200 mg/L		EPA 6010B	0.200	07/29/10	9:50	07/29/10	GSR-CV

## **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER \_\_\_\_\_

Carrie	M.	Davis
C		

DATE: 7/30/2010

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#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attach	bly printed in the space ed sheet as Form 26R,	ately completed. All requi s provided. If additional sp reference the item numb ets needs to match the date	ace is necessary, ident er and identify the da	ify Dat		JSE ONLY d & General Notes
General Refe	erence 287.54					
Date Prepare	d/Revised Fe	bruary 11, 2011				
		CLIENT (GENERATOR	R OF THE WASTE) IN	<u>FORMA</u>	TION	
Company Na						
	ergy USA Inc. ry, Name of Parent Com	pany			EPA	Generator ID#
Talisman Er	ergy Inc.				N/A	
	iling Address Line 1	C	ompany Mailing Addres	s Line 2		
50 Pennwoo	d Place dress Last Line – City	State	Zip+4	Phone		Ext
Warrendale	uless Last Line - City	PA	15086		, 814-530	
	ntact Last Name	First Name	MI		Suffix	
Brown		Dina			······	
Municipality Warrendale			County Allegheny			
Contact Pho	ne Ext	Contact Email Address	silegheny			
(724) 814-53	321	dybrown@talismanusa.c				
Is the waste	generated at the Compa	ny Mailing Address (noted a	above)?			Yes 🛛 No
the (01-0	ibe location of waste gen (15) well pad site located a	neration and storage. <u>Drill c</u> at 225 Buckwheat Road, Troy	uttings are generated du	ring natural	<u>gas drilli</u> asto is st	ng operations at
1 110 (01-0						
on site.	<u></u>	at 220 Buokunioat rioda, moy	Township, Diadiora Cou			
on site. Municipality	Troy	County Bradfo	brd		ate	PA
Municipality	Troy	County Bradfo	brd	St	ate	PA
Municipality Residual	Troy	County Bradfo SECTION B. WAST lual Waste	TE DESCRIPTION	St	ate of	PA Time
Municipality Residual Waste Code	Troy Resid Code I	County Bradfo SECTION B. WAST lual Waste Description	E DESCRIPTION Amount	St	ate of	PA
Municipality Residual	Troy	County Bradfo SECTION B. WAST lual Waste Description gas)	ord E DESCRIPTION Amount 3,161	St Unit Measu	ate of ure	PA Time
Municipality Residual Waste Code 810	Troy Resid Code I Drill cuttings (oil and	County Bradfo SECTION B. WAST lual Waste Description gas) 1. GENERAL P	ord E DESCRIPTION Amount 3,161 ROPERTIES	St Unit o Measu cu yd lb	ate of ure gal	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Troy Resid Code I Drill cuttings (oil and	County Bradfo SECTION B. WAST lual Waste Description gas) 1. GENERAL P 0.65 to	E DESCRIPTION         Amount         3,161         ROPERTIES         (based on analyses or kr	St Unit o Measu cu yd lb	ate of ure gal	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Troy Resid Code I Drill cuttings (oil and	County Bradfo SECTION B. WAST lual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me	Amount 3,161 ROPERTIES (based on analyses or kr thod 9095)	St Unit o Measu cu yd lb	ate of ure gal	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Troy Resid Code I Drill cuttings (oil and	County Bradfo SECTION B. WAST lual Waste Description gas) 1. GENERAL P 0.65 to	E DESCRIPTION         Amount         3,161         ROPERTIES         (based on analyses or kr         thod 9095)         95)	St Unit o Measu cu yd lb	ate of ure gal	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Troy Resid Code I Drill cuttings (oil and	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION         Amount         3,161         ROPERTIES         (based on analyses or kr         thod 9095)         95)         ture & pressure)         Odout	St Unit ( Measu ] cu yd ] lb nowledge)	ate of ire gal X ton	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Troy Resid Code I Drill cuttings (oil and ange 10 ical State	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION         Amount         3,161         ROPERTIES         (based on analyses or kr         thod 9095)         95)         ture & pressure)         Odout         1         Phases of Separation	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One	ate of Ire gal X ton	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Troy Resid Code I Drill cuttings (oil and ange 10 ical State	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION         Amount         3,161         ROPERTIES         (based on analyses or kr         thod 9095)         95)         ture & pressure)         Odout         1         Phases of Separation	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One	ate of Ire gal X ton	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Troy Resid Code I Drill cuttings (oil and ange 10 ical State	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION         Amount         3,161         'ROPERTIES         (based on analyses or kr         thod 9095)         95)         ture & pressure)         Odor         Homes of Separation         eparation. Soil and Root	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One	ate of Ire gal X ton	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Troy Resid Code I Drill cuttings (oil and ange 10 cal State cal Appearance	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Number of Solid or Liquid Describe each phase of s	E DESCRIPTION         Amount         3,161         'ROPERTIES         (based on analyses or kr         thod 9095)         95)         ture & pressure)         Odor         1 Phases of Separation         eparation. Soil and Root         SIS ATTACHMENTS	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One ck Fragme	ate of ire gal X ton //Slight F	PA Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Troy Resid Code I Drill cuttings (oil and ange 10 cal State cal Appearance esults of a detailed chen ictions, is attached.	County Bradfo SECTION B. WAST Iual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the	Amount Amount 3,161 COPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor d Phases of Separation eparation. Soil and Rod Sis ATTACHMENTS e waste, as described in	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One ck Fragme	ate	PA Time Frame One Time Petroleum Yes No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The r instru b. A det	Troy Resid Code I Drill cuttings (oil and ange 10 cal State cal Appearance esults of a detailed chen ictions, is attached. ailed description of the	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	Amount Amount 3,161 COPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor d Phases of Separation eparation. Soil and Rod Sis ATTACHMENTS waste, as described in attached.	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One ck Fragme	ate of ire gal X ton //Slight F nts	PA Time Frame One Time Petroleum Yes No Yes No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The r instru b. A det	Troy Resid Code I Drill cuttings (oil and ange 10 cal State cal Appearance esults of a detailed chem ictions, is attached. ailed description of the v uality assurance/quality	County Bradfo SECTION B. WAST Iual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the	Amount Amount 3,161 COPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor d Phases of Separation eparation. Soil and Rod Sis ATTACHMENTS waste, as described in attached.	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One ck Fragme	ate of ire gal X ton //Slight F nts	PA Time Frame One Time Petroleum Yes No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The r instru b. A det c. The q attact d. The r	Troy Resid Code I Drill cuttings (oil and ange 10 cal State cal Appearance cal Appearance esults of a detailed chen ictions, is attached. ailed description of the uality assurance/quality red. esults of the hazardous	County Bradfo SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 0.65 to Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	Amount Amount 3,161 COPERTIES (based on analyses or kr thod 9095) 95) ture & pressure) Odor d Phases of Separation eparation. Soil and Rod Sis ATTACHMENTS waste, as described in attached. yed by the laboratory(le ched.	St Unit ( Measu ] cu yd ] lb nowledge) Earthy One ck Fragme	ate	PA Time Frame One Time Petroleum Yes No Yes No

		PROCESS DESCRIPTION &	COURNATIO ATTAC		<u></u>	
a.	A detailed description of the the waste, as specified in the		ition control proce	sses producing	🛛 Yes	🗌 No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the Instructions, is attached.					
C.	If portions of the Information a confidentiality claim, as des			n for 🗌 Yes	No No	🛛 N/A
	SECTIO	ON C. MANAGEMEN				
		1. PROCESSING OR DIS				
The ar	ea below (ad.) will accommod	ate the identification of two	o facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 8-4630-00010	for processing or disposa	I facility being utili	ized.		
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridge Ro	ad			
	Address Line 1	<b>_</b>				
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben	·······	
c.	Facility Contact Name	Joseph Boyles				
	Title		·····		·	
	Phone	(607) 937-6044	Email Address	joe.boyles@case	ella com	
		(585) 466-7271		,,		
d.	Volume of waste shipped to p		ity in the previous	year.		
	1,566	cuyd 门 gal 🗌	]İb 🛛 🔀 ton			
a.	Solid waste permit number(s) 9-0232-00003	for processing or disposa	l facility being utili	zed.		
b.	Facility Name	Hyland Landfill			· ·····	
	Address Line 1	6653 Herdman Road	· · · · · · · · · · · · · · · · · · ·			
	Address Line 1		······································			
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
c.	Facility Contact Name	Larry Shilling	<del></del>			
	Title					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to p	. ,	ity in the provinue			
u.	855	cuyd 门 gal 🗌	] lb 🔀 ton			
	1	2. BENEFIC				
a.	Has the waste been approved	for beneficial use?			🗌 Yes	No No
	If "Yes", list the general permi		ber.			
b.	Volume of waste beneficially u		<b>.</b>			
	0	cu yd 🔄 gal 🗌	] lb 🔤 ton	(check one)		

.

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTAC	HMENTS		
a.	A detailed description of the the waste, as specified in the	nanufacturing and/or po	Ilution control proce	the an elaborary territy that Ages has been get that the true to be that the that the	Yes	No No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, Xes No as specified in the instructions, is attached.					
c.	If portions of the information submitted are confidential, the substantiation for Yes No N/A a confidentiality claim, as described in the instructions, is attached.					
	SECTIO	ON C. MANAGEMI	ENT OF RESIDU	AL WASTE		
			DISPOSAL FACILITY (IE			
The ar	ea below (ad.) will accommod	ate the identification of	two facilities. Attach	additional sheets	if necessary.	
а.	Solid waste permit number(s) 8-0728-00004	for processing or dispo	sal facility being utili	zed.		
b.	Facility Name	Chemung County Lar	ndfill			
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
C.	Facility Contact Name	Carla Canjar				
	Title	Environmental Manac	ler			
	Phone	(585) 797-5941	Email Address	carla.canjar@cas	sella.com	
d.	Volume of waste shipped to p 573	rocessing or disposal fa	cility in the previous	year. (check one)		
а.	Solid waste permit number(s) 100361	for processing or dispo	sal facility being utili	zed.		
b.	Facility Name	McKean County Land	fill	····		
	Address Line 1	19 Ness Lane		····		
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
с.	Facility Contact Name	Mike Manderfeld				
	Title					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to p 167	rocessing or disposal fa	cility in the previous ☐ lb ⊠ ton			
		2. Bene	FICIAL ÜSE			
a.	Has the waste been approved			n an	Yes	No No
	If "Yes", list the general permi	t number or approval nu	ımber.			
b.	Volume of waste beneficially u					
	0	cuyd 🗌 gal	b ton	(check one)		

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		SECTION D. CERTIFICATION
Report and all attached doc obtaining the information, I knowledge. I understand tha	uments verify t the s	have personally examined and am familiar with the information submitted in this Annual s and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Check the following, if applica	ble:	
I certify the information		ired in Section B-1, General Properties was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information and has not char		ired in Section B-2, Chemical Analysis was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information for the year and	-	ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
Name of Responsible Official		Title Environmental Specialist
Dina Brown Signature	5	1500 Date 2/25/11

LAB ID # 11216 **Benchmark Analytics, Inc.** LAB ID # 11827 **Eastern Division** 2566 Pennsylvania Ave. Work Order: 10041878 Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717 SEND DATA TO: WO#: 10041878 NAME: Steve Gridley COMPANY: Talisman Energy USA, Inc. PAGE: 1 of 1 ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845 PO#: AF76509 PWS ID# **TEST REPORT** PHONE: (607) 562-4000 FAX: (607) 562-4001 -5H RECEIVED FOR LAB BY: DLM2 DATE: 04/14/2010 10:50 Page 1 of 1 Lab ID: 10041878-001A SAMPLE: Inv. Cuttings Composite SAMPLED BY: SG Sample Time: 04/12/2010 17:00 SLOQ Test Result Method Analysis Start Analysis End Analyst \* Mercury - TCLP extracted < 0.0008 mg/L EPA 7470A 0.0008 04/15/10 11:30 04/15/10 RMD-CV Arsenic - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 04/15/10 11:45 04/15/10 RMD-CV < 10.00 mg/L EPA 6010B 04/15/10 11:45 04/15/10 Barium - TCLP extracted 10.00 RMD-CV < 0.100 mg/L 0.100 04/15/10 Cadmium - TCLP extracted EPA 6010B 04/15/10 11:45 RMD-CV Chromium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 04/15/10 11:45 04/15/10 RMD-CV Copper - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 04/15/10 11:45 04/15/10 RMD-CV 0.500 Lead - TCLP extracted < 0.500 mg/L EPA 6010B 04/15/10 11:45 04/15/10 RMD-CV Nickel - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 04/15/10 11:45 04/15/10 RMD-CV Selenium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 04/15/10 11:45 04/15/10 RMD-CV Silver - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 04/15/10 11:45 04/15/10 RMD-CV 0.200 Zinc - TCLP extracted 2.20 mg/L EPA 6010B 04/15/10 11:45 04/15/10 RMD-CV 10.65 @ 21.5°C EPA 9045D 04/15/10 10:45 04/15/10 SMH-CV pН Percent Moisture 30.4 % SM2540G 04/15/10 8:00 04/15/10 DTG-CV EPA 1664A 1400 04/15/10 8:25 04/15/10 Total Petroleum Hydrocarbons 59000 mg/Kg-dry DTG-CV Sample Note: The temperature of the extraction room exceeded the range of 23 ± 2°C

# REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Can	; M.	Davis

DATE: 4

4/15/2010

2540-PM-BWM0347 Rev. 1/2011 pennsylvania Department of Environmental Protection

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

Inis form m	ust be fully and accura	ately completed. All requi	red information must	be 🗱 🔊	🔆 🖉 DEP l	JSE ONLY
	yped or legibly printed in the spaces provided. If additional space is necessary, identify				Date Received & General Notes	
	ch attached sheet as Form 26R, reference the item number and identify the date pared. The date on attached sheets needs to match the date noted below.					
1		ets needs to match the date	noted below.			
	rence 287.54	haven 44, 2014				
Date Prepare		bruary 11, 2011			TION	
		CLIENT (GENERATOR	COFFICE WASIE) IN	IFURMA	ATION	
Company Na Talisman En	iergy USA Inc.					
	ry, Name of Parent Com	pany			EPA (	Generator ID#
Talisman En					N/A	
	iling Address Line 1	C	ompany Mailing Addre	ss Line 2		
50 Pennwoo	d Place dress Last Line – City	State	Zip+4	Phon		Ext
Warrendale	uress Last Line – City	PA	15086		814-530	
	ntact Last Name	First Name	MI		Suffix	
Brown		Dina				
Municipality			County			
Warrendale Contact Pho	ne Ext	Contact Email Address	Allegheny			
(724) 814-53		dybrown@talismanusa.c	om			
Is the waste	generated at the Compar	ny Mailing Address (noted a	above)?			Yes 🛛 No
if 'No', descr	ibe location of waste ger	neration and storage. <u>Drill c</u>	uttings are generated du	uring natura	<u>l gas drilli</u>	ng operations at
		d at 1185 Garrison Road, We	ells Township, Bradford C	<u>Jounty, PA.</u>	Waste is	stored in
containers on	site					
containers on Municipality	site. Wells	County Bradfo		S	tate	PA
1		County Bradfo		S	tate	PA
Municipality Residual	Wells	SECTION B. WAST	E DESCRIPTION	Unit	of	Time
Municipality	Wells Resid Code D	SECTION B. WAST ual Waste Description	E DESCRIPTION Amount	Unit Meas	of ure	
Municipality Residual	Wells	SECTION B. WAST ual Waste Description	E DESCRIPTION	Unit	of	Time
Municipality Residual Waste Code	Wells Resid Code D	SECTION B. WAST ual Waste Description gas) 1. GENERAL P	E DESCRIPTION Amount 721 ROPERTIES	Unit Meas Cuyd	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Wells Resid Code I Drill cuttings (oil and g	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k	Unit Meas Cuyd	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Wells Resid Code I Drill cuttings (oil and g	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095)	Unit Meas cu yd lb	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Wells Resid Code I Drill cuttings (oil and g	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me Solid (EPA Method 909	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95)	Unit Meas cu yd lb	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State -	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperation)	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure)	Unit Meas Cuyd Ib nowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Wells Resid Code I Drill cuttings (oil and g	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperation)	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo	Unit Meas Cuyd Ib nowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State -	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation	Unit Meas cu yd lb nowledge) r Earth One	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State -	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 1 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat Color Greyish Black Number of Solid or Liquic Describe each phase of s	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro	Unit Meas cu yd lb nowledge) r Earth One	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Wells Resid Code D Drill cuttings (oil and g ange 7.7 cal State cal Appearance	SEC.TION.B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	Unit Meas cuyd lb nowledge) r <u>Earth</u> One ock Fragme	of ure gal X ton y/Slight F	Time Frame         Image: One Time         One Time         Petroleum
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State . cal Appearance esults of a detailed chem ictions, is attached.	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS e waste, as described in	Unit Meas cuyd lb nowledge) r <u>Earth</u> One ock Fragme	of ure gal X ton y/Slight F	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ru instru b. A det	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State cal Appearance esults of a detailed chem attached. ailed description of the w	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the waste sampling method is a	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached.	Unit Meas cu yd lb nowledge) r Earth One ck Fragme	of ure □ gal ⊠ ton y/Slight F ants □ □	Time         Frame         One Time         Petroleum         Yes       No         Yes       No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ru instru b. A det c. The q	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State cal Appearance esults of a detailed chem attached. ailed description of the w uality assurance/quality	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached.	Unit Meas cu yd lb nowledge) r Earth One ck Fragme	of ure □ gal ⊠ ton y/Slight F ants □ □	Time         Frame         One Time         Petroleum         Yes       No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ru instru b. A det c. The q attacl	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State cal Appearance esults of a detailed chem attached. ailed description of the v uality assurance/quality ned.	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the waste sampling method is a	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and RC SIS ATTACHMENTS waste, as described in attached. yed by the laboratory(in	Unit Meas cu yd lb nowledge) r Earth One ck Fragme	of ure gal X ton y/Slight F ents	Time         Frame         One Time         Petroleum         Yes       No         Yes       No
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ru instru b. A det c. The q attacl d. The ro e. If app	Wells Resid Code I Drill cuttings (oil and g ange 7.7 cal State cal Appearance esults of a detailed chem attached. ailed description of the v uality assurance/quality ned. esults of the hazardous of the secure of	SECTION B. WAST ual Waste Description gas) 1. GENERAL P 78 to 8.20 Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the waste sampling method is a control procedures employ waste determination is attach hation supporting use of ge	E DESCRIPTION Amount 721 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached. yed by the laboratory(in ched.	Unit Meas cu yd lb nowledge) r Earth One ck Fragme	of ure gal X ton y/Slight F ents	Time         Frame         One Time         Petroleum         Yes       No         Yes       No         Yes       No         Yes       No

	.3.	PROCESS DESCRIPTION	SCHEMATIC ATTAC	HMENTS		
a.	A detailed description of the the waste, as specified in the			sses producing	Yes	No No
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, Xes No as specified in the Instructions, is attached.					
c.	If portions of the information submitted are confidential, the substantiation for Yes No N/A a confidentiality claim, as described in the instructions, is attached.					
	SECTIO	ON C. MANAGEME	NT OF RESIDU	AL WASTE	-	
		1. PROCESSING OR D				
The ar	ea below (ad.) will accommod	ate the identification of the	wo facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 9-0232-00003	for processing or dispos	al facility being utili	zed.		
b.	Facility Name	Hyland Landfill	· · · · · · · · · · · · · · · · · · ·			
	Address Line 1	6653 Herdman Road				
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
с.	Facility Contact Name	Larry Shilling				
	Title					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to p 423	rocessing or disposal fac	cility in the previous ☐ lb ⊠ ton			
a.	Solid waste permit number(s) 100361	for processing or dispos	al facility being utili	zed.		
b.	Facility Name	McKean County Landf				
	Address Line 1	19 Ness Lane				
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
C.	Facility Contact Name	Mike Manderfeld				_
	Title					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to p	rocessing or disposal fac cu yd gal	cility in the previous ☐ lb   ⊠ ton	year. (check one)		
		2. Benef	ICIAL USE			
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general permi	t number or approval nu	mber.			
b.	Volume of waste beneficially		•			
	0	cuyd 🗌 gal	b ton	(check one)		

	SECTION D. CERTIFICATION			
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.				
Check the following, if applicat	ble:			
I certify the information and has not chan	n required in Section B-1, General Properties was supplied to the Department for the year nged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information	n required in Section B-2, Chemical Analysis was supplied to the Department for the year nged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information i for the year and h	required in Section B-3, Process Description and Schematic, was supplied to the Department has not changed.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
Name of Responsible Official	Title Environmental Specialist			
Dina Brown				
Signature	_ Slow Date 2/2/11			

LAB ID: 08-1 LAB ID: 39-1		East 2566 P Say	rk Analytics, Ir ern Division ennsylvania Ave. /re, PA 18840	IC.	Work	Order: 101	13523
			: (570) 888-0169 : (570) 888-0717				
SEND DATA	A TO:						
NAME:	Steve Gridley			W	O#: 1011	3523	
COMPANY:		nc.		DA	GE: 1 of	1	
ADDRESS:	337 Daniel Zenker Dr				AGE. TUI	1	
	Horseheads, NY 14845			PC	D#: AF76	888	
				₽V	VS ID#		
PHONE:	(607) 731-0145	, TE	ST REPORT	••			
FAX:	(607) 562-4001				i		
	FOR LAB BY: SCP		E: 11/22/2010 12:33			D.	
RECEIVED		DATI				ra	ige 1 of 1
SAMPLE: In	v. Cuttings		Lab ID: 10113523-001A	Grab			
SAMPL	ED BY: \$G	Sam	ple Time: 11/21/2010 9:00	0.00			
Test		<u>Result</u>	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst '
	troleum Hydrocarbons	54000 mg/Kg	EPA 9071	170	11/23/10 0:00	11/23/10	
Sampl	le Note: Analysis performed by I	Microbac Laboratorie	s, IncErie Division				
SAMPLE: In	v Cuttinge		Lab ID: 10113523-001B	Grab			
	ED BY: SG	Sam	ple Time: 11/21/2010 9:00	0.00			
			-	SLOQ			
Test		Result	Method	0.04	Analysis Start	Analysis End	
Moisture Erce Lice		36.9 % < 0.1 %	Moisture Calc. EPA 9095A	0.01 0.1	11/24/10 10:30 11/23/10 17:10	11/29/10 11/23/10	IC-SA IC-SA
Free Liqu	Шa		EPA 9095A EPA 9045C	0.1	11/23/10 17:10	11/23/10	SG-SA
pH		7.78@24.2°C	EFA 30400		11/23/10 14:00	11/23/10	3G-3A
	CLP Leachate of Inv. Cuttin		Lab ID: 10113523-001D	Grab			
C A A A DI	ED BY: SG	: Sam	ple Time: 11/24/2010 8:00	SLOQ			
SAMPL				<u>orod</u>	A	Analysis End	Analyst '
		Result	Method		<u>Analysis Start</u>		
Test	- TCLP extracted	<u>Result</u> < 0.0008 mg/L	<u>Method</u> EPA 7470A	0.0008	Analysis Start 11/27/10 12:35	11/28/10	RMD-C
<u>Test</u> Mercury	- TCLP extracted TCLP extracted			0.0008 0.500			
<u>Test</u> Mercury Arsenic -		< 0.0008 mg/L	EPA 7470A		11/27/10 12:35	11/28/10	JRA-CV
<u>Test</u> Mercury Arsenic - Barium -	TCLP extracted	< 0.0008 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B	0.500	11/27/10 12:35 11/27/10 8:15	11/28/10 11/27/10	JRA-CV JRA-CV
<u>Test</u> Mercury Arsenic - Barium - Cadmiun	TCLP extracted TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	EPA 7470A EPA 6010B EPA 6010B	0.500 10.00	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10	JRA-CV JRA-CV JRA-CV
<u>Test</u> Mercury Arsenic - Barium - Cadmiun Chromiu	TCLP extracted TCLP extracted n - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B	0.500 10.00 0.100	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10 11/27/10	JRA-C\ JRA-C\ JRA-C\ JRA-C\
<u>Test</u> Mercury Arsenic - Barium - Cadmiun Chromiu Copper -	TCLP extracted TCLP extracted n - TCLP extracted m - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.500 10.00 0.100 0.500	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10 11/27/10 11/27/10	JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV
Test Mercury Arsenic - Barium - Cadmiun Chromiu Copper - Lead - To	TCLP extracted TCLP extracted n - TCLP extracted m - TCLP extracted TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.500 10.00 0.100 0.500 0.100	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10 11/27/10 11/27/10 11/27/10	JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV
Test Mercury Arsenic - Barium - Cadmiun Chromiu Copper - Lead - To Nickel -	TCLP extracted TCLP extracted n - TCLP extracted m - TCLP extracted TCLP extracted CLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.500 10.00 0.100 0.500 0.100 0.500 0.100 0.500	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10 11/27/10 11/27/10 11/27/10 11/27/10	JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV
Test Mercury Arsenic - Barium - Cadmiun Chromiu Copper - Lead - To Nickel - Selenium	TCLP extracted TCLP extracted n - TCLP extracted m - TCLP extracted TCLP extracted CLP extracted TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B Z EPA 6010B	0.500 10.00 0.100 0.500 0.100 0.500 0.100	11/27/10 12:35 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15 11/27/10 8:15	11/28/10 11/27/10 11/27/10 11/27/10 11/27/10 11/27/10 11/27/10	RMD-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV JRA-CV

# **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

- Value above calibration range but within annually verified linear range L
- z Due to matrix blas, spike recovery was outside acceptance limits

MANAGER \_\_\_\_\_

$\Lambda$		_
ani	M.	Davis

DATE: \_\_\_\_1/30/2010

PAGE 1 OF 1 CHAIN OF CUSTODY REPORT TO: Talisman / UEG 40 ARE SPECIAL DETECTION LIMITS W/O#: 10113523 geowetlands@aol.com NEEDED: YES / NO REFRIGE. RESULTS ARE BEING USED FOR: IF YES, PLEASE ATTACH AFTER COLLECTION ✓ PADEP DRINKING WATER SL SLUDGE wg/ IS A QC PACKAGE NEEDED? GW GROUND WATER SO SOIL CONTACT Steve Gridley SURFACE WATER ΗZ HAZARDOUS SW LANDFILL YES NO TRANSPORT ww WASTE WATER OTHER DEIONIZED WATER DISTILLED WATER PERSONAL OTHER DE DI IF YES, PLEASE ATTACH REQUIREMENTS TO PH# 607-731-0145 Sumple Trpe- Scue Composite PRESERVATIVE ADDED ON RECEIPT F LABORATORY HYDROCHLORIC ACID OH SODIUM HYDROXIDE ′н FAX# SULFURIC ACID AS ASCORBIC ACID 5 **IN COOLER** BILL TO: Talisman N NITRIC ACID AC ACETIC ACID WITH ICE COMPOSITED ON RECEIPT SO3 SODIUM SULFITE NH, AMMONIUM CHLORIDE SODIUM THIOSULFATE ZN Thio ZINC ACETATE TIME OF SAMPLING NONE Hg MERCURIC CHLORIDE AF 76888 PO# SAMPLE MATRIX Please fill out all DATE SAMPLED PRESERVATIVE PROJECT DESCRIPTION An incomplete chain of custody may delay the applicable areas processing of your sample(s). completely SAMPLER SIGNATURE / AFFILIATION UBC CONTAINER SAMPLING POINT ANALYSIS TO BE PERFORMED LAB USE ONLY (PER CONTAINER) 10/21 1000 50 8 TPH Inv Cuttings pН 2 TCLP 8 RCRA Metals + Cu, Ni, Zn 3 Free Liquids / % Moisture 4 N-TPH 5 Perform BTEX ONLY IF the TPH Wetchein 6 Total Scomple TCLP Metals exceeds 100,000 mg/Kg 8 72 HOUR TURNAROUND 9 DAY TURNAROUND 10 112910 11 LAB USE ONLY TEMPERATUREULION RECEIPT TO THE SCI ARRIVALION INC. RELINQUISHED BY DATE: TIME: 1231 RECEIVED BY: DATE: TIME: 11 122110 1 RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME: 1 1 RECEIVED BY: DATE: **RELINQUISHED BY:** DATE: TIME: TIME "ïD: 1221 Ad Graphics Printing 570-688-0685

	Easter 2566 Pen Sayre Phone: (5	Analytics, Ir n Division nsylvania Ave. , PA 18840 70) 888-0169 70) 888-0717	)C.	Work	Order: 101	10482
Steve Gridley JMPANY: Talisman Energy USA, Ir ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845	<b>c</b> .		PA	AGE: 1 of	0482 1 6888	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TEST	REPORT	P\	WS ID#		
J2H RECEIVED FOR LAB BY: RML		11/03/2010 12:36			P	age 1 of 1
SAMPLE: Air Cuttings SAMPLED BY: SG		ab ID: 10110482-001A Time: 11/03/2010 19:40	Grab			
<u>Test</u> Total Petroleum Hydrocarbons Sample Note: Analysis performed by N	<u>Result</u> 1110 mg/Kg licrobac Laboratories, Ir	<u>Method</u> EPA 9071 Ic-Erie Division.	<u>sloq</u>	Analvsis Start 11/04/10 14:30	Analysis End 11/04/10	<u>Analyst*</u>
SAMPLE: Air CuttIngs SAMPLED BY: SG <u>Test</u> Moisture	L Sample <u>Result</u> 33.7 %	ab ID: 10110482-001B Time: 11/03/2010 19:40 <u>Method</u> Moisture Calc,	Grab <u>SLQQ</u> 0.01	<u>Analysis Start</u> 11/03/10 14:45	Analysis End 11/04/10	IC-SA
Free Liquid pH	< 0.1 % 8.20@23.6°C	EPA 9095A EPA 9045C	0.1	11/03/10 14:40 11/04/10 15:32	11/03/10 11/04/10	IC-SA SG-SA
SAMPLE: TCLP Leachate of Air Cutting SAMPLED BY: SG		ab ID: 10110482-001D Time: 11/04/2010 7:30	Grab	<u></u>		
Test Mercury - TCLP extracted Arsenic - TCLP extracted	<u>Result</u> < 0.0008 mg/L < 0.500 mg/L	<u>Method</u> EPA 7470A EPA 6010B	<u>SLOQ</u> 0.0008 0.500	<u>Analysis Start</u> 11/04/10 13:15 11/04/10 14:05	<u>Analysis End</u> 11/04/10 11/04/10	RMD-CV RMD-CV
Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted	< 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B EPA 6010B EPA 6010B	10.00 0.100 0.500 0.100	11/04/10 14:05 11/04/10 14:05 11/04/10 14:05 11/04/10 14:05	11/04/10 11/04/10 11/04/10 11/04/10	RMD-CV RMD-CV RMD-CV RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 0.100	11/04/10 14:05 11/04/10 14:05	11/04/10 11/04/10	RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valléy, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER	Carrie	m. Davis	 DATE:	11/5/2010
WIANAGER	any	M. Oavis	 DATE:	11/3/2010

CHAIN OF CUSTODY				•   • .		Be	nct					(	GE <u>1</u>		OF_
REPORT TO: Talisman / UEG	7		:	• 22	256	6 Pen	nsvt	W/O#:	1011	0483	>	_			
geowetlands@aol.com				•	200	0101	Ph.			0402	-		E SPECIAL D	1	
twollin@rallysolutions.ca	REFR	IGERATE	SAMP	PLES			Fax: (570)	888-0717	RESULTS	ARE BEING U		-	EDED: 🌅 YES 'ES, PLEASE		
	- AFTE	R COLLE	CTION	1		/DW	DRINKING WATER	SL SLUDGE	Пероги	NYDEC			IS A QC I	1	
CONTACT Steve Gridley					/	/ GW SW	GROUND WATER BURFACE WATER			LANDFILL	17.00			EB E	
Oleve Ghuley	T	RANSPOI TO	,			WW De	WASTE WATER DEIONIZED WATE	OTHER R DI DISTILLED W							
FAX#		BORATO	RY		/ ,	1	/н нуо	ROCHLORIC ACID OH	SODIUM HYD	ROXIDE		7	15/		
BILL TO: Talisman		N COOLE WITH ICE	R	A	1.	8	/ N NITE	FURIC ACID AS RIC ACID AC	ACETIC ACID			/			
			- /	/	18	3/	/ Thio SOD	IUM THIOSULFATE ZN		HLORIDE	/	E	Š		
PO# AF'76888			2/	~ /	\$ /	PRESERVATION S	- <u>NON</u>	č.	MERCURIC C	HLORIDE			\$ /	Please	3 fill
PROJECT DESCRIPTION		TIME OF SAME			i /	PRESERVATION		incomplete chain of c processing of yo		lay the		AND A		applica com	
SAMPLER SIGNATURE / AFFILIATION		\$ 5	J.	14		5   \$				,					ihia
CONTAINER SAMPLING POINT	_//ð	TIME OF SAME	SAMPLE MATCH	\$/	र्जे	PRESERVITING CONTE	/	ANALYSIS TO BE PERFO (PER CONTAINER)			COMPOSITE ON C	ž /	LAB	ise c	JNI
1 Air Cuttings	1/3	1940 50		_			ЪН			2 A.		2010) 1.241 (-)		771	(A
2						7	H, Chloride	s, Sodium		1. 1.					Ē
3						1	CLP 8 RCF	RA Metals + Cu	, NI, Zn						<b>C</b>
4						F	ree Liquids	/ % Moisture				1			6
5							BTEX			r.					· · ·
6		•		[[		<u>-</u>		8270 ONLY IL				10		1. <u>1</u>	
7				_			exceeds	1 <b>2</b> 0,000 mg/Kg		1 1 1 1					
8	_														: ند ب. ح
9							-72	HOUR TURN							).
10				_#				DAY TURNAR		· · · · · · · · · · · · · · · · · · ·					
11			Ļ		<u>.</u>  _	<u> </u>			। जनसंस्थानिक संय		* <u> </u>	1			
LABUSE OF Y		أع	; e	Y	<u></u>			TEMPERAT	URE UPON I	Receipt_		o	CiARR	VAL (	ON
RELINQUISHED	<u> </u>	DATE		<u>   -</u>	TIM	ΛE:	RE	CENCED BY:	<u></u>		<u></u>	D	ATE:		TIN
RELINQUISHED BY:		11	131	110	711.4	<u>/                                    </u>	36.	CEIVED BY					<u> </u>		TIN
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RELINQUISHED BY:		DATE			TIM	1E.		P DY O OX				- In	17:3	L	IJ

2540-PM-BWM0347 Rev. 1/2011 pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attach	bust be fully and accur bly printed in the space ed sheet as Form 26R,	tify Date Receive	JSE ONLY d & General Notes					
1	erence 287.54	ets needs to match the date	noted below.					
Date Prepare		bruary 11, 2011						
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION								
Company Na	ime		- <u> </u>					
	ergy USA Inc.			<b>EDA</b> (	0			
	If a Subsidiary, Name of Parent Company EPA Generator ID# Talisman Energy Inc. N/A							
	Company Mailing Address Line 1 Company Mailing Address Line 2							
	dress Last Line – City	State	Zip+4	Phone	Ext			
Warrendale		PA	15086	(724) 841-530				
	ntact Last Name	First Name	MI	Suffix	(			
Brown Municipality		Dina	County		····			
Warrendale			Allegheny					
Contact Pho		Contact Email Address						
(724) 814-5321 dybrown@talismanusa.com								
Is the waste generated at the Company Mailing Address (noted above)?								
the (0	1-074) well pad site locat	ed at 2018 Mountain Avenue,	Armenia Township, Bra	adford County, PA. W	aste is stored in			
containers on	site.							
Municipality	Armenia	County Bradfo		State	PA			
Residual	Deale	SECTION B. WAST	E DESCRIPTION	11-14 -4	<b>T</b> ime -			
Waste Code		Description	Amount	Unit of Measure	Time Frame			
810	Drill cuttings (oil and	•		Cu vd al				
0.0	Dim outingo (on and	nas)	5.619					
1. GENERAL PROPERTIES								
a nH R		1. GENERAL P		🗌 lb 🛛 ton	One Time			
a. pH Ra b. Physi	ange 8.	<b>1. GENERAL P</b> 26 to 8.89	ROPERTIES (based on analyses or k	🗌 lb 🛛 ton				
•		1. GENERAL P	ROPERTIES (based on analyses or k thod 9095)	🗌 lb 🛛 ton	One Time			
b. Physi	ange 8 cal State	1. GENERAL P         26       to       8.89         ☐ Liquid Waste (EPA Me         ⊠ Solid (EPA Method 900         ☐ Gas (ambient tempera)	ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure)	Ib Ston				
b. Physi	ange 8.	1. GENERAL P         26       to       8.89         Liquid Waste (EPA Me         Solid (EPA Method 900         Gas (ambient tempera         Color       Greyish Black	ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odd	☐ Ib ⊠ ton mowledge) pr Earthy/Slight F				
b. Physi	ange 8 cal State	1. GENERAL P         26       to       8.89         Liquid Waste (EPA Me         Solid (EPA Method 90)         Gas (ambient tempera         Color       Greyish Black         Number of Solid or Liquid	ROPERTIES (based on analyses or lefthod 9095) 95) ture & pressure) Odd I Phases of Separation	☐ lb ⊠ ton mowledge) Pr _Earthy/Slight F				
b. Physi	ange 8 cal State	1. GENERAL P         26       to       8.89         Liquid Waste (EPA Me         Solid (EPA Method 900         Gas (ambient tempera         Color       Greyish Black	ROPERTIES (based on analyses or lefthod 9095) 95) ture & pressure) Odd I Phases of Separation	☐ lb ⊠ ton mowledge) Pr _Earthy/Slight F				
b. Physi c. Physi	ange 8. ical State cal Appearance	1. GENERAL P     26 to 8.89     ☐ Liquid Waste (EPA Me         Solid (EPA Method 90)     ☐ Gas (ambient tempera         Color Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS	ROPERTIES (based on analyses or leased thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro	☐ Ib ⊠ ton knowledge) pr Earthy/Slight F One ock Fragments				
b. Physi c. Physi a. The re	ange 8. ical State cal Appearance	1. GENERAL P         26       to       8.89         ☐       Liquid Waste (EPA Me         ⊠       Solid (EPA Method 90)         ☐       Gas (ambient tempera         Color       Greyish Black         Number of Solid or Liquid         Describe each phase of s	ROPERTIES (based on analyses or leased thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro	☐ Ib ⊠ ton knowledge) pr Earthy/Slight F One ock Fragments				
b. Physi c. Physi a. The ro instru b. A det	ange 8. cal State cal Appearance esults of a detailed chen actions, is attached. ailed description of the v	1. GENERAL P     26 to 8.89     ☐ Liquid Waste (EPA Me         Solid (EPA Method 90)     ☐ Gas (ambient tempera         Color Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	ROPERTIES (based on analyses or leased on analyses of Separation of the second of	☐ Ib ⊠ ton knowledge) pr Earthy/Slight F One pck Fragments n the ⊠	Petroleum			
b. Physi c. Physi a. The ro instru b. A det	ange 8. cal State cal Appearance esults of a detailed chen actions, is attached. ailed description of the v uality assurance/quality	1. GENERAL P     26 to 8.89     ☐ Liquid Waste (EPA Me         Solid (EPA Method 90)     ☐ Gas (ambient tempera         Color Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS nical characterization of the	ROPERTIES (based on analyses or leased on analyses of Separation of the second of	☐ Ib ⊠ ton knowledge) pr Earthy/Slight F One pck Fragments n the ⊠	Petroleum Yes No			
b. Physic c. Physic a. The re- instru- b. A det c. The q attack d. The re-	ange 8. cal State cal Appearance esults of a detailed chen ictions, is attached. ailed description of the uality assurance/quality ned. esults of the hazardous	1. GENERAL P     26 to 8.89     ☐ Liquid Waste (EPA Me         Solid (EPA Method 90)     ☐ Gas (ambient tempera         Color Greyish Black         Number of Solid or Liquid         Describe each phase of s         2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	ROPERTIES (based on analyses or lefthod 9095) 95) ture & pressure) Odd Phases of Separation eparation. <u>Soil and Ro</u> SIS ATTACHMENTS waste, as described in attached. yed by the laboratory(in ched.		Petroleum Yes No Yes No			

	3	PROCESS DESCRIPTION &	SCHEMATIC ATTAC	HMENTS				
a.	A detailed description of the the waste, as specified in the	manufacturing and/or poll			Yes	No No		
	· · · · · · · · · · · · · · · · · · ·	·····						
b.	A schematic of the manufactor as specified in the instruction		rol processes proc	ducing the waste,	🛛 Yes	🗌 No		
C.	If portions of the information a confidentiality claim, as des			n for 🔲 Yes	No No	N/A		
	SECTIO	ON C. MANAGEMEI	encode a construction of the construction of t					
		1. PROCESSING OR DIS						
The a	rea below (ad.) will accommod	late the identification of tw	o facilities. Attach	additional sheets	if necessary.			
a.	a. Solid waste permit number(s) for processing or disposal facility being utilized. 8-4630-00010							
b.	Facility Name	Hakes C&D Landfill						
	Address Line 1	4376 Manning Ridge Ro	oad					
	Address Line 1							
	Address City State ZIP	Painted Post	NY	14870				
	Municipality	Erwin Twp	County	Steuben				
c.	Facility Contact Name	Joseph Boyles						
	Title							
	Phone	(607) 937-6044	Email Address	joe.boyles@case	lla.com			
		(585) 466-7271						
d.	d. Volume of waste shipped to processing or disposal facility in the previous year.							
	2,512	cuyd 🔤 gal 🔤	b 🛛 ton	(check one)				
a.	Solid waste permit number(s) 9-0232-00003	for processing or dispose	al facility being util	ized.				
b.	Facility Name	Hyland Landfill						
Б.	Address Line 1	6653 Herdman Road						
	Address Line 1	0055 Heruman Road						
	Address City State ZIP	Angelica	NY	14709				
	Municipality	Angelica	County	Allegany				
C.	Facility Contact Name	Larry Shilling		, moguriy				
<b>U</b> .	Title	Larry Shining				~		
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella com			
d.	Volume of waste shipped to p 2,139	cu yd gal	ty in the previous    b   X  ton					
		2. BENEFI	CIAL USE			and in the second		
a.	Has the waste been approved	for beneficial use?			Yes	No No		
	If "Yes", list the general perm	it number or approval num	nber.					
b.	Volume of waste beneficially	used in the previous year.						
	0	cuyd 📋 gal 📋	b ton	(check one)				

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS	generative and see the					
a.	A detailed description of the				Yes					
	the waste, as specified in the			p						
b.	A schematic of the manufactu as specified in the instruction		ontrol processes proc	ducing the waste,	🛛 Yes	🗌 No				
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	🗌 No	🛛 N/A				
	SEGTI	DN C. MANAGEM								
	1. PROCESSING OR DISPOSAL FACILITY (IES)									
The ar	The area below (ad.) will accommodate the identification of two facilities. Attach additional sheets if necessary.									
a.	a. Solid waste permit number(s) for processing or disposal facility being utilized. 100361									
b.	Facility Name	McKean County Lan	dfill							
	Address Line 1	19 Ness Lane								
	Address Line 1									
	Address City State ZIP	Kane	PA	16735	17. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19					
	Municipality	Sergeant Twp	County	McKean						
c.	Facility Contact Name	Mike Manderfeld								
	Title									
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com					
d.	d. Volume of waste shipped to processing or disposal facility in the previous year.									
	938	cuyd 🗌 gal	🗌 lb 🛛 ton	(check one)	)					
a.	Solid waste permit number(s) 100945	for processing or disp	osal facility being util	ized.						
b.	Facility Name	Cumberland County	l andfill							
	Address Line 1	135 Vaughn Road	Euriann							
	Address Line 1	- roo vaagiin rooaa								
	Address City State ZIP	Newburg	PA	17240						
	Municipality	Newburg Boro	County	Cumberland						
c.	Facility Contact Name	Dusty Hilbert								
0.	Title	Compliance Manage	r							
	Phone	(717) 729-5261	Email Address	dhilbert@iswaste						
		· · ·		-	<del></del>					
d.	Volume of waste shipped to p									
	30	cuyd 🗌 gal	🔄 lb 🖂 ton	(check one)						
	4	The Provide Provid	FICIALUSE			14				
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No				
	If "Yes", list the general permi	t number or approval n	umber.							
b.	Volume of waste beneficially u		ar.							
	0	cuyd 🗌 gal	🗌 lb 🗌 ton	(check one)						

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SECTION D. CERTIFICATION								
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applicable:								
I certify the information required in Section B-1, General Properties was supplied to the Department for the year and has not changed.								
Form Submitted: Def Form 26R								
Other (specify)								
Date Submitted:								
I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year and has not changed.								
Form Submitted: Derm 26R								
Other (specify)								
Date Submitted:								
I certify the information required in Section B-3, Process Description and Schematic, was supplied to the Department for the year and has not changed.								
Form Submitted: Form 26R								
Other (specify)								
Date Submitted:								
Name of Responsible Official Title Environmental Specialist								
Dina Brown								
Signature <u>Are</u> Sum Date <u>2728/11</u>								

LAB ID: 08-0 LAB ID: 39-0		<b>Ea</b> 256	<b>mark Analytic astern Divisic</b> 6 Pennsylvania <i>A</i> Sayre, PA 18840	on Ave.	C.	N	Work (	Order: 100	83653
			one: (570) 888-016 Fax: (570) 888-071						
SEND DATA	TO:								
NAME:	Steve Gridley				W	O#:	10083	653	
COMPANY:		IC.			PA	AGE:	1 of 2		
ADDRESS:	337 Daniel Zenker Dr						1012		
	Horseheads, NY 14845				PC	D#:	AF777	'17	
PHONE:	(607) 562-4000		TEST REPORT		P٧	NS ID#			
FAX:	(607) 562-4000								
01-0	)74-01								
	FOR LAB BY: DLM2	Ľ	ATE: 08/20/2010 1	1:51				Pa	ige 1 of 2
					Compo	oito			
SAMPLE: AI	i <b>r Cuttings</b> ED BY: SG		Lab ID: 10083653 Sample Time: 08/19/201		Compo	site			
SAMP LL	_D D1. 3G		Sample Time. 00/19/201	15.00	<u>SLOQ</u>				
Test		<u>Result</u>	Method	-		Analysis		Analysis End	
Sodium		1830 mg/Kg			60.0	08/24/10		08/24/10	RMD-CV
pH		8.30 @ 17.8°C			50.0	08/25/10		08/25/10	TLB-CV
Chloride		223 mg/Kg	EPA 30	0.0	50.0	08/23/10 <sup>-</sup>	14:05	08/23/10	HDP-CV
SAMPLE: AI	-		Lab ID: 10083653		Compo	site			
SAMPLE	ED BY: SG		Sample Time: 08/19/201	0 15:06	SLOQ				
Test		Result	Method	<u>1</u>	<u>0200</u>	Analysis :	<u>Start</u>	Analysis End	<u>Analyst *</u>
Moisture		35.0 %	Moisture	Calc.	0.01	08/23/10 <sup>-</sup>	13:30	08/24/10	MED-SA
Free Liqu	id	< 0.1 %	EPA 90	95A	0.1	08/23/10 <sup>-</sup>	15:25	08/23/10	IC-SA
SAMPLE: AI	r Cuttings		Lab ID: 10083653	3-001C	Compos	site			
	ED BY: SG		Sample Time: 08/19/201	0 15:06					
Teet		Result	Method	r	<u>sloq</u>	Analysis	Stort	Analysis End	Ánalvat *
<u>Test</u> Total Petr	roleum Hydrocarbons	5400 mg/Kg	EPA 9	-		08/23/10		Analysis End 08/23/10	Analyst
	e Note: Analysis performed by N			071		00/20/10	11.10	00/20/10	
SAMPLE TO	CLP Leachate of Air Cutting	e	Lab ID: 10083653	3-001F	Compos	site			
	ED BY: SG	3	Sample Time: 08/21/201		compo				
		<b>m</b> ()			<u>SLOQ</u>		<b>.</b>		
<u>Test</u>	TOLD suffranted	Result	Method	•	0.0000	Analysis S		Analysis End	Analyst *
-	TCLP extracted	< 0.0008 mg/l			0.0008 0.500	08/24/10 08/24/10 1		08/24/10	KW-CV
	TCLP extracted TCLP extracted	< 0.500 mg/L < 10.00 mg/L			10.00	08/24/101			RMD-CV
	- TCLP extracted	< 10.00 mg/L 0.101 mg/L	EPA 60		0.100	08/24/10 1			RMD-CV
	n - TCLP extracted	< 0.500 mg/L			0.500	08/24/10 1			RMD-CV RMD-CV
	TCLP extracted	< 0.100 mg/L			0.100	08/24/10 1			RMD-CV RMD-CV
•••	CLP extracted	< 0.500 mg/L			0.500	08/24/10 1			RMD-CV RMD-CV
	CLP extracted	< 0.100 mg/L			0.100	08/24/10 1			RMD-CV
		· · · · · · · · · · · · · · · · · · ·			0.100	50/27/10	0.00	00/21/10	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L

MANAGER

Carrie M. Davis

DATE: 8/25/2010

LAB ID: 08-( LAB ID: 39-(		East 2566 P Say Phone:	ern l ennsy /re, P/ (570)	nalytics, In Division /Ivania Ave. A 18840 888-0169 888-0717	IC.		Work (	Order: 100	083653
SEND DATA	A TO:								
NAME:	Steve Gridley	_			W	'O#:	10083	653	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	С.			P/	AGE:	2 of 2		
	Horseheads, NY 14845				P	O#:	AF777	717	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	ST RE	EPORT	P١	WS ID#			
01-0	)74-01								
RECEIVED	FOR LAB BY: DLM2	DATE	E: 08/2	20/2010 11:51				Р	age 2 of 2
Selenium	n - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	08/24/10	10:50	08/24/10	RMD-CV
Silver - T	CLP extracted	< 0.100 mg/L		EPA 6010B	0.100	08/24/10	10:50	08/24/10	RMD-CV
Zinc - TC	CLP extracted	115 mg/L	L	EPA 6010B	0.200	08/24/10	10:50	08/24/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER \_\_\_\_\_

Camie M. Davis

DATE: 8/25/2010

LAB ID: 08- LAB ID: 39-		<b>Eas</b> 2566 Si Phon	<b>stern E</b> Pennsyl ayre, PA ne: (570) (	<b>alytics, In</b> <b>Division</b> Ivania Ave. 18840 888-0169 888-0717	IC.	Worl	k Order: 100	92004
SEND DAT	A TO:							
NAME:	Steve Gridley				W	O#: 100	92004	
COMPANY:		IC.			PA	AGE: 1 of	1	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845							
	11015elleaus, 101 14045				PC	D#: AF7	7717	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST REPORT			P٧	NS ID#		
RECEIVED	FOR LAB BY: TJC	DA	TE: 09/13	3/2010 17:12			Pa	age 1 of 1
SAMPLE: Ir	ו <b>יע. Cuttings</b> ED BY: SG	S		10092004-001A 09/13/2010 12:05	Grab			
			ampie mine.		<u>SLOQ</u>			
	troleum Hydrocarbons le Note: Analysis performed by M	Result Method 77900 mg/Kg EPA 9071 d by Microbac Laboratories, IncErie Division			<u>Analysis Start</u> 09/19/10 10:20	<u>Analysis End</u> <u>Analyst *</u> 09/19/10		
SAMPLE: In	ny. Cuttings		Lab ID:	10092004-001B	Grab			
	ED BY: SG	S	ample Time:	09/13/2010 12:05				
Test		Result		Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Moisture	9	22.9 %		Moisture Calc.	0.01	09/14/10 10:00		MED-SA
Free Liqu		< 0.1 %		EPA 9095A	0.1	09/14/10 15:00		IC-SA
рН		8.89@20.3°C		EPA 9045C		09/14/10 14:26	09/14/10	MED-SA
SAMPLE: T	CLP Leachate of Inv. Cutting	IS	Lab ID:	10092004-001D	Grab			
	ED BY: SG	-	ample Time:	09/15/2010 9:00				
Test		Result		Method	<u>SLOQ</u>	<u>Analysis Start</u>	Analysis End	Analyst *
	- TCLP extracted	< 0.0008 mg/L		EPA 7470A	0.0008	09/15/10 9:00	09/16/10	KW-CV
•	- TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	09/16/10 8:00	09/16/10	RMD-CV
Arsenic -		•		EPA 6010B	10.00	09/16/10 8:00	09/16/10	RMD-CV
	TCLP extracted	< 10.00 mg/L		EINCOLOD				
Barium -	n - TCLP extracted	< 10.00 mg/L < 0.100 mg/L		EPA 6010B	0.100	09/16/10 8:00	09/16/10	RMD-CV
Barium - Cadmiun		•					09/16/10 09/16/10	RMD-CV RMD-CV
Barium - Cadmiun Chromiu	n - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	09/16/10 8:00		
Barium - Cadmiun Chromiui Copper -	n - TCLP extracted m - TCLP extracted	< 0.100 mg/L < 0.500 mg/L		EPA 6010B EPA 6010B	0.100 0.500	09/16/10 8:00 09/16/10 8:00	09/16/10	RMD-CV
Barium - Cadmiun Chromiun Copper - Lead - T(	n - TCLP extracted m - TCLP extracted TCLP extracted	< 0.100 mg/L < 0.500 mg/L < 0.100 mg/L		EPA 6010B EPA 6010B EPA 6010B	0.100 0.500 0.100	09/16/10 8:00 09/16/10 8:00 09/16/10 8:00	09/16/10 09/16/10	RMD-CV RMD-CV
Barium - Cadmiun Chromiun Copper - Lead - T( Nickel - 1	n - TCLP extracted m - TCLP extracted TCLP extracted CLP extracted	< 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L		EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.100 0.500 0.100 0.500	09/16/10 8:00 09/16/10 8:00 09/16/10 8:00 09/16/10 8:00	09/16/10 09/16/10 09/16/10	RMD-CV RMD-CV RMD-CV
Barium - Cadmiun Chromiun Copper - Lead - T( Nickel - 1 Selenium	n - TCLP extracted m - TCLP extracted TCLP extracted CLP extracted TCLP extracted	< 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L 0.114 mg/L		EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.100 0.500 0.100 0.500 0.100	09/16/10 8:00 09/16/10 8:00 09/16/10 8:00 09/16/10 8:00 09/16/10 8:00	09/16/10 09/16/10 09/16/10 09/16/10	RMD-CV RMD-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Camie M. Davis

DATE:

9/20/2010

LAB ID # 11216 LAB ID # 11827

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

### SEND DATA TO:

NAME: Steve Gridley COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845			P	AGE: 1 of	94268 <sup>:</sup> 1 77718	
PHONE: (607) 562-4000 FAX: (607) 562-4001	TE	ST REPORT	P	WS ID#		
01-074			<u> </u>			
RECEIVED FOR LAB BY: BMM	DAT	E: 09/27/2010 14:48			Pa	age 1 of 1
SAMPLE: Gel Cuttings SAMPLED BY: SG	Sar	Lab ID: 10094268-001B nple Time: 09/25/2010 17:1		osite		
Test	Result	Method	<u></u>	Analysis Start	Analysis End	Analyst *
Moisture	26.7 %	Moisture Calc.	0.01	09/27/10 17:00	09/28/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	09/27/10 16:10	09/27/10	IC-SA
pH	8.26@21.4°C	EPA 9045C		09/27/10 16:28	09/27/10	MED-SA
SAMPLE: TCLP Leachate of Gel Cutti	ıgs	Lab ID: 10094268-001C	Compo	osite		
SAMPLED BY: SG	Sar	mple Time: 09/28/2010 7:30	21.00			
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/28/10 14:15	09/28/10	JRA-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/28/10 14:00	09/28/10	JRA-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/28/10 14:00	09/28/10	JRA-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/28/10 14:00	09/28/10	JRA-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/28/10 14:00	09/28/10	JRA-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/28/10 14:00	09/28/10	JRA-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/28/10 14:00	09/28/10	JRA-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/28/10 14:00	09/28/10	JRA-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/28/10 14:00	09/28/10	JRA-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/28/10 14:00	09/28/10	JRA-CV
Zinc - TCLP extracted	28.7 mg/L	L EPA 6010B	0.200	09/28/10 14:00	09/28/10	JRA-CV
SAMPLE: Gel Cuttings		Lab ID: 10094268-001D	Compo	osite		
SAMPLED BY: SG	Sar	nple Time: 09/25/2010 17:19	) <u>SLOQ</u>			
Test	<u>Result</u>	Method	3200	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	5220 mg/Kg	EPA 9071		09/28/10 12:58		
Sample Note: Analysis performed by	0 0					

### **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L  $\sim$ 

MANAGER

ani	M.	Davis

DATE: 9/30/2010

Work Order: 10094268

LAB ID # 11216 LAB ID # 11827	<b>Eas</b> 2566	<b>nalytics, Ir Division</b> vlvania Ave. A 18840	NC. Work Order: 1010180				
		• •	888-0169 888-0717				
SEND DATA TO:							
NAME: Steve Gridley				W	O#: 101	01808	
COMPANY: Talisman Energy USA, I	nc.			D	AGE: 1 of	1	
ADDRESS: 337 Daniel Zenker Dr				Г <i>1</i>	AGE. 101	1	
Horseheads, NY 14845				P	O#: AF7	7717	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TE	EST RI	EPORT	P١	NS ID#		
Pad Inv. Spill					**************************************	·	
RECEIVED FOR LAB BY: BMM	DAT	E: 10/1	2/2010 16:22			P	age 1 of 1
SAMPLE: Clean Soil		Lab II	D: 10101808-001A	Compo	site		
SAMPLED BY: SG	Sai	mple Time	: 09/28/2010 19:55	•			
Tost	Popult		Method	SLOQ	Analysis Start	Analysis End	Analyst *
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u> <118 mg/Kg		EPA 9071	118	10/14/10 10:25	10/14/10	Analyse
Sample Note: This sample was analy		ooratories					
SAMPLE: Clean Soil		Lab IC	): 10101808-001B	Compo	site		
SAMPLED BY: SG	Sar		: 09/28/2010 19:55				
Trat		-		<u>SLOQ</u>	Applying Clark	Analusia End	A
<u>Test</u> Moisture	<u>Result</u> 9.12 %	к	<u>Method</u> Moisture Calc.	0.01	Analysis Start 10/13/10 17:00	<u>Analysis End</u> 10/15/10	Analyst * IC-SA
Free Liquid	< 0.1 %		EPA 9095A	0.01	10/13/10 15:10	10/13/10	IC-SA
. pH	8.35@22.8°C	к	EPA 9045C	0.1	10/15/10 17:00	10/15/10	IC-SA
• 							
SAMPLE: TCLP Leachate of Clean Soil			): 10101808-001D	Compo	site		
SAMPLED BY: SG	Sal	npie rime	: 10/14/2010 7:30	SLOQ			
Test	Result		Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L		EPA 7470A	0.0008	10/16/10 9:35	10/17/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	10/16/10 10:15	10/16/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L		EPA 6010B	10.00	10/16/10 10:15	10/16/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	10/16/10 10:15	10/16/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	10/16/10 10:15	10/16/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	10/16/10 10:15	10/16/10	RMD-CV
	< 0.500 mg/L		EPA 6010B	0.500	10/16/10 10:15	10/16/10	RMD-CV
Lead - TCLP extracted				0.100	10/16/10 10:15	10/16/10	RMD-CV
Lead - TCLP extracted Nickel - TCLP extracted	< 0.100 mg/L		EPA 6010B		10/10/10 10 10	10110110	
Lead - TCLP extracted Nickel - TCLP extracted Selenium - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	10/16/10 10:15	10/16/10	RMD-CV
Lead - TCLP extracted Nickel - TCLP extracted	-				10/16/10 10:15 10/16/10 10:15 10/16/10 10:15	10/16/10 10/16/10 10/16/10	RMD-CV RMD-CV RMD-CV

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κ Sample was received past holding time.

MANAGER

Carrie M. Davis

DATE: 10/18/2010

CHAIN OF CUSTODY Talisman / UEG						B	enchmark Analytics, Inc.		PAGE1	OF1	L
geowetlands@aol.com									ARE SPECIAL DE		
twollin@rallysolutions.ca	REFRI AFTEF					١	N/O#: 10101808	ig USED For; // EC PADEP	IF YES, PLEASE		,. 17
CONTACT Steve Gridley	те	RANSP	пот			/ sw ww		FILL	. 🗖 🖌	Б []] NO	
PH# 607-731-0145		TO				DE	DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHE	R	IF YES, PLEASE	TACH REQUIRE	MENTS
AX# BILL TO: Talisman PO# AZ7777	IN	BORA I COOI WITH I	LER CE	' /		e/composite	H         HYDROCHLORIC ACID         OH         SODIUM HYDROXIDE           S         SULFURIC ACID         AS         ASCORBIC ACID           N         NITRIC ACID         AS         ASCORBIC ACID           SO         SODIUM SULFITE         NH,         AMMONIUM CHLORIDE           Thio         SODIUM THIOSULFATE         N         ZINC ACETATE           -         NONE         Hq         MERCURIC CHLORIDE		CEPT ED ON RECEIPT		
COMPLET DESCRIPTION PROJECT DESCRIPTION PACE ZAV Spill SAMPLING SIGNATURE / AFFILIATION UISC CONTAINER SAMPLING POINT	CATE SAL	THE OF O	ALC SAMPLING	SAMOLEMATRIX	LETTRE GR	PRESS MITHLS COMPOSITE	An incomplete chain of custody may delay the processing of your sample(s).	COMPOSITED ON REC.	LAB L	Pease fill out all oplicable areas completely	
	<u> </u>		_			L		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
1 Las Cuttinge Clean Sor	9-28/	1955	SC	C	\$C_	$\mathcal{N}$	ТРН		COLF-	$\downarrow$	
2	<b> </b>				 		pH		<u> Yonğ</u>		
3,					 		TCLP 8 RCRA Metals + Cu, Ni, Zn Free Liquids / % Moisture				
4									CUID		
5 6							TCLP 8260 / 8270 ONLY IF the TPH				
7							exceeds 120,000 mg/Kg				
8					Í						
9							フン HOUR TURNAROUND				
10							DAY TURNAROUND				
11			<del></del>	<u> </u>		<u> </u>					
	lie	H	٢			-	TEMPERATURE UPON RECEI	?T <u> </u>	<u> </u>	VAL ON ICE	
RELINGUISHED BY	<u>1 </u>	ĐA	TE:	1211		TIME:	ら 之 之 RECEIVED BY:		DATE:	TIME:	18
RELINQUISHED BY:	,		TE:	· <u> </u>		IME:	RECEIVED BY:		DATE:	TIME:	
RELINQUISHED BY:		-+	NTE:,	'	÷	IME:	RECEIVED BY. Deple Mc Carte		DATE: 1012	Ad Graphics Piloling	

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PA ID #: 08-00380 NY ID # 11216	2566 Penns Sayre, F Phone: (570	<b>Division</b> sylvania Ave. PA 18840	IC.	Work	Order: 1012	21720
SEND DATA TO:						
NAME: Dina Brown COMPANY: Talisman Energy USA	Inc		W	O#: 1012	1720	
ADDRESS: 337 Daniel Zenker Dr	, 11 I.C.		PA	AGE: 1 of 3	3	
Horseheads, NY 1484	5		PC	D#: AF77	720	
PHONE: (607) 562-4000 FAX: (607) 562-4001	TESTR	EPORT	P١	WS ID#		
D1-074						
RECEIVED FOR LAB BY: RML	DATE: 12	/09/2010 15:45			Pa	ige 1 of 3
SAMPLE: Air or Gel Cuttings	Lab	D: 10121720-001A	Grab			
SAMPLED BY: SG	Sample Tin	ne: 12/08/2010 19:23				
Test	Result	Method	<u>sloq</u>	Analysis Start	Analysis End	Analyst *
Ignitability	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10	
Sample Note: Analysis performed b	y QC Laboratories					
SAMPLE: Air or Gel Cuttings	Lab	ID: 10121720-001C	Grab			
SAMPLED BY: SG	Sample Tin	ne: 12/08/2010 19:23	<u>SLOQ</u>			
Test	<u>Result</u>	Method	<u>SLUU</u>	Analysis Start	Analysis End	Analyst *
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
Reactive Sulfide	16 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV
SAMPLE: Air or Gel Cuttings	Lab	ID: 10121720-001D	Grab			
SAMPLED BY: SG	Sample Tin	ne: 12/08/2010 19:23	01.00			
Test	Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
% Solids	64.88 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
Total Volatile Solids	13.81 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA
SAMPLE: TCLP Leachate of Air or G	el Cuttinos Lab	ID: 10121720-001F	Grab			
SAMPLED BY: SG		ne: 12/11/2010 12:45				
Tort	Result	Method	<u>sloq</u>	Analysis Start	Analysis End	Analyst *
<u>Test</u> Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Analyte detected in the associated Method Blank в

MANAGER

Camie M. Davis

DATE: 12/16/2010

# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121720

Phone: (570) 888-0169 Fax: (570) 888-0717

# SEND DATA TO:

PHONE:

NAME:	Dina Brown	WO#:	10121720
	Talisman Energy USA, Inc. 337 Daniel Zenker Dr	PAGE:	2 of 3
	Horseheads, NY 14845	PO#:	AF77720
		PWS ID#	

# TEST REPORT

(607) 562-4000 FAX: (607) 562-4001

01-074						
RECEIVED FOR LAB BY: RML	DATE:	12/09/2010 15:45			Pa	age 2 of 3
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/14/10 8:37	12/14/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/14/10 8:37	12/14/10	RHH-SA
SAMPLE: TCLP Leachate of Air o	r Gel Cuttings	ab ID: 10121720-001G	Grab			
SAMPLED BY: SG	Sample	Time: 08/21/2010 9:00				
	<b>D</b>	<b>N.N.</b> (1)	<u>SLQQ</u>			
Test	<u>Result</u>	Method		Analysis Start	Analysis End	
Strontium - TCLP extracted	0.110 mg/L	EPA 6010B	0.010	08/24/10 10:50	08/24/10	RMD-CV
Sample Note: Sample for TCLF	extracted Strontium was rece	ived on 8/20/10 at 11:51 t	DLM2.			
SAMPLE: TCLP Leachate of Air o	r Gel Cuttings L	ab ID: 10121720-001H	Grab			
SAMPLED BY: SG	Sample	Time: 12/11/2010 12:45				
<b>T</b>	Denvik	5 8 - 41 J	<u>sloq</u>	An aluaia Otaat	Analysis Fad	A
Test	Result	Method		Analysis Start	Analysis End 12/14/10	
pH	5.72@16.8°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
SAMPLE: ZHE Extract of Air or G	el Cuttings	ab ID: 10121720-0011	Grab			
SAMPLED BY: SG	Sample	Time: 12/11/2010 12:45				
<b></b>			<u>SLOQ</u>		A	
Test	<u>Result</u>	Method		Analysis Start	Analysis End	Analyst*
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
	-					

### **REMARKS:**

Toluene

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

EPA 8260B

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.0250 mg/L

B Analyte detected in the associated Method Blank

MANAGER

anie M. Davis

DATE:

0.0250 12/13/10 8:11

12/16/2010

12/13/10 CTM-SA

NY ID # 11:	-00380 216	Ē	Eastern I	/Ivania Ave.	IC.		Work	Order: 101	21720
		PI	hone: (570) Fax: (570)						
SEND DAT	A TO:	·							
NAME:	Dina Brown				W	O#:	1012	1720	
COMPANY: ADDRESS:	Talisman Energy USA, I 337 Daniel Zenker Dr	nc.			PA	GE:	3 of :	3	
Horseheads, NY 14845					PC		AF77		
								120	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	.*	TEST RE	EPORT	PV	VS ID#			
D1-0		-							
RECEIVED	FOR LAB BY: RML		DATE: 12/0	9/2010 15:45				Pa	ige 3 of 3
Trichloro	ethene	< 0.0250 m	g/L	EPA 8260B	0.0250	12/13/1	0 8:11	12/13/10	CTM-SA
1,2,4-Tri	methylbenzene	< 0.0250 m	g/L	EPA 8260B	0.0250	12/13/1	0 8:11	12/13/10	CTM-SA
1,3,5-Tri	methylbenzene	< 0.0250 m	g/L	EPA 8260B	0.0250	12/13/1	0 8:11	12/13/10	CTM-SA
Vinyl chi	oride	< 0.0250 m	g/L	EPA 8260B	0.0250	12/13/1	0 8:11	12/13/10	CTM-SA
Mathud to	ert-butyl ether	< 0.0250 m	a/L	EPA 8260B	0.0050		0.8.11	12/13/10	CTM-SA
wieuryr te	at buly outon		<b>.</b> –		0.0250	12/13/1	0.0.11		
2-Butanc	•	< 0.0500 mg	•	EPA 8260B	0.0250	12/13/1 12/13/1		12/13/10	CTM-SA
2-Butanc	one STM Extract of Air or Gel C	< 0.0500 mg	g/L Lab ID	EPA 8260B				12/13/10	CTM-SA
2-Butanc	pne	< 0.0500 mg	g/L Lab ID	EPA 8260B	0.0500 Grab			12/13/10	CTM-SA
2-Butanc	one STM Extract of Air or Gel C	< 0.0500 mg	g/L Lab ID	EPA 8260B	0.0500	12/13/1	0 8:11	12/13/10 Analysis End	CTM-SA
2-Butanc SAMPLE: A SAMPL <u>Test</u>	one STM Extract of Air or Gel C	< 0.0500 mg	g/L Lab ID	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15	0.0500 Grab		0 8:11		
2-Butance SAMPLE: A SAMPL Test Chemica	one STM Extract of Air or Gel C ED BY: SG	< 0.0500 m uttings <u>Result</u> 91 mg/L	g/L Lab ID Sample Time B	EPA 8260B : 10121720-001J : 12/10/2010 11:15 <u>Method</u>	0.0500 Grab <u>SLOQ</u>	12/13/1 Analysis	0 8:11	Analysis End	Analyst *
2-Butance SAMPLE: A SAMPL <u>Test</u> Chemica SAMPLE: A	one STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand	< 0.0500 m uttings <u>Result</u> 91 mg/L	g/L Lab ID Sample Time B Lab ID	EPA 8260B 10121720-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	0.0500 Grab <u>SLOQ</u> 10 Grab	12/13/1 Analysis	0 8:11	Analysis End	Analyst *
2-Butance SAMPLE: A SAMPLI <u>Test</u> Chemica SAMPLE: A SAMPL	one STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C	< 0.0500 m uttings <u>Result</u> 91 mg/L uttings	g/L Lab ID Sample Time B Lab ID	EPA 8260B 10121720-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121720-001L 12/10/2010 11:15	0.0500 Grab <u>SLOQ</u> 10	12/13/1 <u>Analysis</u> 12/11/1	0 8:11	<u>Analysis End</u> 12/13/10	<u>Analyst *</u> KMF-SA
2-Butance SAMPLE: A SAMPLI <u>Test</u> Chemica SAMPLE: A SAMPLE: A	one STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C	< 0.0500 m uttings <u>Result</u> 91 mg/L uttings <u>Result</u>	g/L Lab ID Sample Time B Lab ID Sample Time	EPA 8260B 10121720-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121720-001L 12/10/2010 11:15 <u>Method</u>	0.0500 Grab <u>SLOQ</u> 10 Grab	12/13/1 <u>Analysis</u> 12/11/1	0 8:11	Analysis End 12/13/10 Analysis End	<u>Analyst *</u> KMF-SA <u>Analyst *</u>
2-Butance SAMPLE: A SAMPLI <u>Test</u> Chemica SAMPLE: A SAMPLE: A SAMPLE: <u>A</u> SAMPLE: <u>A</u>	STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C ED BY: SG	< 0.0500 m uttings <u>Result</u> 91 mg/L uttings <u>Result</u> 7.10@16.5 <sup>6</sup>	g/L Lab ID Sample Time B Lab ID Sample Time	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15 <u>Method</u> HACH 8000 1: 10121720-001L 1: 12/10/2010 11:15 <u>Method</u> SM4500H+B	0.0500 Grab SLOQ 10 Grab SLOQ	12/13/1 <u>Analysis</u> 12/11/11 <u>Analysis</u> 12/14/11	0 8:11	Analysis End 12/13/10 Analysis End 12/14/10	<u>Analyst *</u> KMF-SA <u>Analyst *</u> SG-SA
2-Butance SAMPLE: A SAMPLE Chemica SAMPLE: A SAMPLE: A SAMPLE DEST PH Total Sol	one STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C ED BY: SG	< 0.0500 m <b>uttings</b> <u>Result</u> 91 mg/L <b>uttings</b> <u>Result</u> 7.10@16.5° 196 mg/L	g/L Lab ID Sample Time B Lab ID Sample Time	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15 <u>Method</u> HACH 8000 1: 10121720-001L 1: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	0.0500 Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u> 0.10	12/13/1 <u>Analysis</u> 12/11/1	0 8:11	Analysis End 12/13/10 Analysis End	Analyst * KMF-SA Analyst *
2-Butance SAMPLE: A SAMPLE: A Chemica SAMPLE: A SAMPLE: A Total Sol	STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C ED BY: SG Iids	< 0.0500 m uttings <u>Result</u> 91 mg/L uttings <u>Result</u> 7.10@16.5 <sup>6</sup>	g/L Lab ID Sample Time B Lab ID Sample Time C Lab ID	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15 <u>Method</u> HACH 8000 1: 10121720-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B 1: 10121720-001M	0.0500 Grab SLOQ 10 Grab SLOQ	12/13/1 <u>Analysis</u> 12/11/11 <u>Analysis</u> 12/14/11	0 8:11	Analysis End 12/13/10 Analysis End 12/14/10	<u>Analyst *</u> KMF-SA <u>Analyst *</u> SG-SA
2-Butance SAMPLE: A SAMPLE: A Chemica SAMPLE: A SAMPLE: A Total Sol SAMPLE: A	one STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C ED BY: SG	< 0.0500 m <b>uttings</b> <u>Result</u> 91 mg/L <b>uttings</b> <u>Result</u> 7.10@16.5° 196 mg/L	g/L Lab ID Sample Time B Lab ID Sample Time C Lab ID	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15 <u>Method</u> HACH 8000 1: 10121720-001L 1: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	0.0500 Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u> 0.10	12/13/1 <u>Analysis</u> 12/11/11 <u>Analysis</u> 12/14/11	0 8:11	Analysis End 12/13/10 Analysis End 12/14/10	<u>Analyst *</u> KMF-SA <u>Analyst *</u> SG-SA
2-Butance SAMPLE: A SAMPLE: A Chemica SAMPLE: A SAMPLE: A Total Sol SAMPLE: A	STM Extract of Air or Gel C ED BY: SG Il Oxygen Demand STM Extract of Air or Gel C ED BY: SG Iids	< 0.0500 m <b>uttings</b> <u>Result</u> 91 mg/L <b>uttings</b> <u>Result</u> 7.10@16.5° 196 mg/L	g/L Lab ID Sample Time B Lab ID Sample Time C Lab ID Sample Time	EPA 8260B 1: 10121720-001J 1: 12/10/2010 11:15 <u>Method</u> HACH 8000 1: 10121720-001L 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B 1: 10121720-001M	0.0500 Grab SLOQ 10 Grab SLOQ 0.10 Grab	12/13/1 <u>Analysis</u> 12/11/11 <u>Analysis</u> 12/14/11	0 8:11 5 Start 0 8:00 5 Start 0 8:00 0 17:00	Analysis End 12/13/10 Analysis End 12/14/10	Analyst * KMF-SA Analyst * SG-SA IC-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

DATE: 12/16/2010

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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Camie M. Davis

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B Analyte detected in the associated Method Blank

MANAGER

CONTACT       Steve Gridley       TRANSPORT       GW GROUND WATER       SO SOL       LANDFILL       Mostoller       I vest         PH#       607-731-0145       TO       DE       DEIONIZED WATER       DI DISTILLED WATER       PERSONAL OTHER       IF YES, PLEASE AT         FAX#       LABORATORY       IN COOLER       WITH ICE       SULFURICACID       AS ASCORBIC ACID       ACETIC ACID       AS ASCORBIC ACID       AS ASCORBIC ACID         P0#       AT P77720       NITRICE       SO, SOLUM SULFITE       NH, AMMONIUM CHLORIDE       SO, SODIUM THIOSULFATE       NITRICE CHLORIDE       SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE         P0#       AT P77720       SO, SODIUM THIOSULFATE       NITRIC CHLORIDE       SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE         P0#       AT P77720       SO, SODIUM THIOSULFATE       NITRIC CHLORIDE       SO, SODIUM THIOSULFATE       NITRIC CHLORIDE         PBOJECT DESCRIPTION       GO       SO, SODIUM THIOSULFATE       NITRIC CHLORIDE       SO       SOLUM THIOSULFATE       NITRIC CHLORIDE         SAMPLIATYSIGNATURE / AFFILIATION       SOLUM THIOSULFATE       NITRIC CHLORIDE       SOLUM THIOSULFATE       NITRIC CHLORIDE       SOLUM THIOSULFATE       NITRIC CHLORIDE       SOLUM THIOSULFATE       NITRIC CHLORIDE       SOLUM THIOSULFATE       NITRIC ACETATE       NITRIC AC	
2566 Pennsylvanik       Phone:       W/O#: 10121720       PECIAL DET         geowetlands@aol.com       Fax: (       W/O#: 10121720       Picolat.Det         REFRIGERATE SAMPLES       AFTER COLLECTION       Fax: (       Republic factor       Picolat.Det         CONTACT       Steve Gridley       TRANSPORT       OW       DRINKING WATER       St. SLUDGE       Picolat.Det         PH#       607-731-0145       TRANSPORT       OW       DEIONIZED WATER       DI       DISTILLED WATER       PERSONAL OTHER       IF YES, PLEASE AT         JABORATORY       IN COOLER       WITH ICE       SUBLICATIC ACID       ASCORBIO ACID       ASCORBIO ACID       ASCORBIO ACID       ASCORBIO ACID         PO#       AP777200       PBOJECT DESCRIPTION       PG       PICAL DET       PICAL DET       PICAL DET         PBOJECT DESCRIPTION       79       SAMPULARSIGNATURE / AFFILIATION       AMAUNUM CHLORIDE       ASCORBIO ACID       ASCORBIO ACID         SAMPULARSIGNATURE / AFFILIATION       PERCENTE       PICAL DET       PICAL DET       PICAL DET         This SODIUM THOSULFATE       SAMPULARSITO BE PERFORMED       PICALICACID       ASCORBIO ACID       ASCORBIO ACID         SAMPULARSIGNATURE / AFFILIATION       PICAL DET       PICAL DET       PICAL DET       PICAL DET       PI	OF1
geowetlands@aol.com       Phone: Fax: (       W/O#: 10121720       Precur use         REFRIGERATE SAMPLES AFTER COLLECTION       REFRIGERATE SAMPLES AFTER COLLECTION       Fax: (       RESULTS ARE BEING USED FOR: Fax: (       IF YES, PLEASE AT IS A OC PAC WW DERINKING WATER SUBJECT DESCRIPTION         CONTACT Steve Gridley       TRANSPORT TO LABORATORY       TRANSPORT TO LABORATORY       DW DRINKING WATER WW DECIDED WATER WATER DECIDED WATER WATER WW DECIDED WATER WATER DI DISTILLED WATER PERSONAL OTHER       IF YES, PLEASE AT IS A OC PAC WW WASTE WATER WW DECIDED WATER WATER DECIDED WATER WATER WW DECIDED WATER WATER DECIDED WATER DECIDED WATER DECIDED WATER WATER DECIDED WATER WATER DECIDED WATER DECIDED WATER DECIDED WATER DECIDE DECIDED WATER DECIDED WATER DECIDE DECIDE	
AFTER COLLECTION       DW       DRINKING WATER       SL       SLUDGE       DW       DRINKING WATER       SL       SLUDGE       WDOH       NYDOH       NY	
CONTACT       Steve Gridley       TRANSPORT       JW       Diskniking water       SL       SLUDGE       NYDOH       NYDOH       NYDEC       PADEP       Is A OC PAC         CONTACT       Steve Gridley       TRANSPORT       TRANSPORT       SW       SURFACE WATER       HZ       HAZARDOUS       LANDFILL       Mostoller       IP YES, PLEASE AT         PH#       607-731-0145       TO       DE       DE       DE       DISTULED WATER       DI       DISTULED WATER       IP YES, PLEASE AT         FAX#       LABORATORY       IN COOLER       WITH ICE       S       SULFURIC ACID       As       ASCORBIC ACID       AS       ASCORBIC ACID       ACETIC ACID       A       ACETIC ACID       A       ACETIC ACID	TACH
CONTACT       Steve Gridley       TRANSPORT       SW       SURFACE WATER       HZ       HAZARDOUS       LANDFILL       Mostoller       I ves         PH#       607-731-0145       TO       DE       DEIONIZED WATER       DI DISTILLED WATER       PERSONAL OTHER       IF YES, PLEASE AT         FAX#       LABORATORY       IN COOLER       WITH ICE       SULFACE CAID       AS ASCORBIC ACID       ASCORBIC ACID       AS ASCORBIC ACID       AS ASCORBIC ACID	KAGE NEEDED?
PH#       607-731-0145       TO       DE       DEIONIZED WATER       DI       DISTILLED WATER       PERSONAL       OTHER       IF YES, PLEASE AT         FAX#       IN COOLER       IN COOLER       IN COOLER       IN COOLER       IN NITRICACID       AS ASCORBIC ACID       AS ASCORDICACID       AC ACETICACID       AC ACE	S 🔽 NO
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	TACH REQUIREMENTS
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	ease fill out all
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	plicable areas completely
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	
1 Air or Gel Cuttings     12/8/1923 50 C     50 C     50 PCBs, Total Solids       2     1 C     PCBs, Total Solids	SE ONLY
3 A Thereof, Jon.	
4 C - Leastinity C Ammonia-Nitrogen	
5 D - 70 TS, TVS // C Water Leaching Procedure: COD,	
6 E - T. Scrple VVCVV Total Solids, Oil & Grease,	
7 F. Tect 8270, Asts.	
8 5-TELP Hertes Sr K-ASTA DAS	
9 H-TELP PH L-ASTM T.S. pH 36 HOUR TURNAROUND	
10 I-TELP Vals. M-TOX DAY TURNAROUND	
11 J-ASTM COD, 1013	
LAB USE ONLY LIT WE NIT	
RELINQUISHED BY: DATE: 1/2/9/0 TIME:/530 RECEIVED BY: DATE: 1/	TIME:
RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE:	TIME:
RELINQUISHED BY: DATE: , TIME: RECEIVED BY: DATE: , TIME: RECEIVED BY: DATE: , , TIME:	> THE US

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

December 17, 2010

Attn: Dina Brown Talisman Energy USA, Inc. 337 Daniel Zenker Dr Horseheads, NY 14845

Dear Dina Brown:

The enclosed corrected test report for work order 10121754 is a replacement for a test report sent earlier. We did not report the COD analysis (ASTM) with a B qualifier, indicating that the analyte was detected in the associated ASTM blank. I apologize for any inconvenience that this may have caused. Thank you.

Sincerely Yours,

Carrie Davis Quality Assurance Officer

PA ID #: 08-00380 NY ID # 11216		Benchmark Analytics, Inc Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840 Phone: (570) 888-0169			I <b>C.</b> Work Order: 10121754			
		Fax: (5	70) 888-0717					
SEND DATA	TO:							
NAME:	Dina Brown			W	O#: 1012	21754		
COMPANY:	Talisman Energy USA, I	nc.		PAGE: 1 of 3				
ADDRESS:	337 Daniel Zenker Dr			P7	AGE: IO	3		
	Horseheads, NY 14845			P	0#: AF7	7720		
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	P\	WS ID#			
01-07	74							
	FOR LAB BY: RML		12/09/2010 15:45			P	age 1 of 3	
							1go 1 01 5	
SAMPLE: Inv	_		ab ID: 10121754-001A	Grab				
SAMPLE	D BY: SG	Sample	Time: 12/08/2010 19:15	SLOQ				
Tee		Result	Method	0000	Analysis Start	Analysis End	Analyst *	
Test								
lgnitability	1	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10		
Ignitability	v Note: Analysis performed by				12/15/10 13:30	12/15/10		
lgnitability Sample	Note: Analysis performed by	QC Laboratories		Grab	12/15/10 13:30	12/15/10		
lgnitability Sample SAMPLE: Inv	Note: Analysis performed by	QC Laboratories	SW846 1030		12/15/10 13:30	12/15/10		
Ignitability Sample SAMPLE: Inv SAMPLE	Note: Analysis performed by	QC Laboratories La Sample	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15	Grab <u>SLOQ</u>			Analyst *	
Ignitability Sample SAMPLE: Inv SAMPLEI <u>Test</u>	Note: Analysis performed by <b>7. Cuttings</b> ED BY: SG	QC Laboratories La Sample <sup>-</sup> <u>Result</u>	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u>	<u>sloq</u>	Analysis Start	Analysis End		
Ignitability Sample SAMPLE: Inv SAMPLEI <u>Test</u> Cyanide, F	Note: Analysis performed by <b>J. Cuttings</b> ED BY: SG Reactive	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15				Analyst * HDP-CV LTW-CV	
Ignitability Sample SAMPLE: Inv SAMPLE SAMPLE Test Cyanide, F Reactive S	Note: Analysis performed by <b> Cuttings</b> D BY: SG Reactive Sulfide	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3	<u>SLOQ</u> 0.2 16	<u>Analysis Start</u> 12/13/10 8:56	<u>Analysis End</u> 12/14/10	HDP-CV	
Ignitability Sample SAMPLE: Inv SAMPLE: <u>Test</u> Cyanide, F Reactive S SAMPLE: Inv	Note: Analysis performed by <b>J. Cuttings</b> ED BY: SG Reactive Sulfide <b>J. Cuttings</b>	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D	<u>SLOQ</u> 0.2	<u>Analysis Start</u> 12/13/10 8:56	<u>Analysis End</u> 12/14/10	HDP-CV	
Ignitability Sample SAMPLE: Inv SAMPLE Cyanide, F Reactive S SAMPLE: Inv	Note: Analysis performed by <b> Cuttings</b> D BY: SG Reactive Sulfide	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3	<u>SLOQ</u> 0.2 16	<u>Analysis Start</u> 12/13/10 8:56	<u>Analysis End</u> 12/14/10	HDP-CV	
Ignitability Sample SAMPLE: Inv SAMPLE Cyanide, F Reactive S SAMPLE: Inv	Note: Analysis performed by <b>J. Cuttings</b> ED BY: SG Reactive Sulfide <b>J. Cuttings</b>	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u>	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D	<u>SLOQ</u> 0.2 16 Grab	<u>Analysis Start</u> 12/13/10 8:56	<u>Analysis End</u> 12/14/10	HDP-CV LTW-CV	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: <u>Inv</u> SAMPLE: <u>X</u> Solids	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u> 77.07 % Wght.	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE:	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u>	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Fime: 12/08/2010 19:15 <u>Method</u>	SLOQ 0.2 16 Grab SLOQ	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u>	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u>	HDP-CV LTW-CV	
Ignitability Sample SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Model Test % Solids Total Volat	Note: Analysis performed by . Cuttings D BY: SG Reactive Sulfide . Cuttings D BY: SG tile Solids	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u> 77.07 % Wght. 8.78 % Wght.	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Test % Solids Total Volat SAMPLE: TC	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u> 77.07 % Wght. 8.78 % Wght.	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV <u>Analyst*</u> IC-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Test % Solids Total Volat SAMPLE: TC	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cuttin	QC Laboratories	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Fime: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Fime: 12/11/2010 12:45	<u>SLOQ</u> 0.2 16 Grab <u>SLOQ</u> 0.10 0.01	Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10	HDP-CV LTW-CV <u>Analyst*</u> iC-SA NFM-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Test SAMPLE: TC SAMPLE: TC	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cuttin	QC Laboratories La Sample <sup>-</sup> <u>Result</u> 0.2 mg/Kg 80 mg/Kg 80 mg/Kg La Sample <sup>-</sup> <u>Result</u> 77.07 % Wght. 8.78 % Wght.	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Fime: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10	HDP-CV LTW-CV Analyst* IC-SA NFM-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC	A Note: Analysis performed by Cuttings D BY: SG Reactive Sulfide Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cuttin	QC Laboratories	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Time: 12/11/2010 12:45 <u>Method</u>	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ	Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u>	HDP-CV LTW-CV <u>Analyst*</u> iC-SA NFM-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC	A Note: Analysis performed by A. Cuttings ED BY: SG Reactive Sulfide A. Cuttings ED BY: SG Atile Solids ELP Leachate of Inv. Cutting ED BY: SG	QC Laboratories	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Fime: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Fime: 12/11/2010 12:45 <u>Method</u> EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.01	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48	<u>Analysis End</u> 12/14/10 12/14/10 <u>Analysis End</u> 12/13/10 12/14/10 <u>Analysis End</u> 12/15/10	HDP-CV LTW-CV Analyst * IC-SA NFM-SA Analyst * RHH-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC	A Note: Analysis performed by A. Cuttings D BY: SG Reactive Sulfide A. Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cuttin D BY: SG Arobenzene	QC Laboratories	SW846 1030 ab ID: 10121754-001C Fime: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Fime: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Fime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.01           Grab	<u>Analysis Start</u> 12/13/10 8:56 12/14/10 12:30 <u>Analysis Start</u> 12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48 12/15/10 7:48	Analysis End 12/14/10 12/14/10 12/14/10 12/13/10 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10	HDP-CV LTW-CV IC-SA NFM-SA Analyst* RHH-SA RHH-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TCI SAMPLE: TCI SAMPLE: TCI SAMPLE: Inv SAMPLE: Inv SAMP	A Note: Analysis performed by A Cuttings D BY: SG Reactive Sulfide A Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cutting D BY: SG Probenzene n-Cresol	QC Laboratories         La           Result         Sample           0.2 mg/Kg         La           0.2 mg/Kg         La           80 mg/Kg         La           Sample         Sample           Result         77.07 % Wght.           8.78 % Wght.         Sample           Result         Sample           77.07 % Ught.         Sample           0.10 mg/L         0.10 mg/L           < 0.10 mg/L	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Time: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48	Analysis End 12/14/10 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10	HDP-CV LTW-CV iC-SA NFM-SA Analyst* RHH-SA RHH-SA RHH-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: To: SAMPLE: TC: SAMPLE: SAMPLE: SAMPLE: TC: SAMPLE: SAMPLE: SAMP	A Note: Analysis performed by A Cuttings D BY: SG Reactive Sulfide A Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cutting D BY: SG A Cutting Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttin	QC Laboratories         La           Result         Sample           0.2 mg/Kg         La           80 mg/Kg         La           Sample         Sample           Result         Sample           77.07 % Wght.         Sample           8.78 % Wght.         Sample           Result         Sample           70.10 mg/L         0.10 mg/L           < 0.10 mg/L	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> EPA 160.4 ab ID: 10121754-001F Time: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.01           Grab	Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	Analysis End 12/14/10 12/14/10 12/14/10 12/13/10 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10	HDP-CV LTW-CV iC-SA NFM-SA Analyst* RHH-SA RHH-SA RHH-SA RHH-SA	
Ignitability Sample SAMPLE: Inv SAMPLE: Cyanide, F Reactive S SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: Total Volat SAMPLE: TC SAMPLE: TC SAM	A Note: Analysis performed by A Cuttings D BY: SG Reactive Sulfide A Cuttings D BY: SG Atile Solids CLP Leachate of Inv. Cutting D BY: SG A Cutting Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttings D BY: SG A Cuttings Cuttin	QC Laboratories	SW846 1030 ab ID: 10121754-001C Time: 12/08/2010 19:15 <u>Method</u> SW 7.3.3.2 SW846 7.3 ab ID: 10121754-001D Time: 12/08/2010 19:15 <u>Method</u> SM2540B EPA 160.4 ab ID: 10121754-001F Time: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C	SLOQ           0.2           16           Grab           SLOQ           0.10           0.01           Grab           SLOQ           0.10           0.01           Grab           10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10           0.10	Analysis Start 12/13/10 8:56 12/14/10 12:30 Analysis Start 12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	Analysis End 12/14/10 12/14/10 Analysis End 12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	Anaivst* IC-SA NFM-SA Anaivst* RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA	

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MANAGER	M. Davis	DATE:	12/16/2010
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# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121754

Phone: (570) 888-0169 Fax: (570) 888-0717

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	0:		*				
NAME: D	lina Brown			W	O#: 1	0121754	
	alisman Energy USA, In	C. ,		DA	AGE: 2	of 3	
	37 Daniel Zenker Dr			PP		OF 3	
п	orseheads, NY 14845			PC	)#: A	F77720	
		TES	T REPORT	P۷	VS ID#		
	607) 562-4000 607) 562-4001						
01-074		······································					
RECEIVED FOI	R LAB BY: RML	DATE:	12/09/2010 15:45	_		Pa	age 2 of 3
2,4,5-Trichlor	rophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:	48 12/15/10	RHH-SA
Pentachlorop	phenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10 7:	48 12/15/10	RHH-SA
2,4-Dinitrotoi	uene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:	48 12/15/10	RHH-\$A
Hexachlorob	enzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:	48 12/15/10	RHH-SA
Naphthalene		< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:	48 12/15/10	RHH-SA
SAMPLE: TOLE	Leachate of Inv. Cutting	· · · · · · · · · · · · · · · · · · ·	Lab ID: 10121754-001G	Grab			<u></u>
SAMPLED E	-		e Time: 09/15/2010 9:00				
		•		<u>SLOQ</u>			
Test		<u>Result</u>	Method		Analysis St		
	CLP extracted	0.212 mg/L	EPA 6010B	0.050	09/16/10 8:	00 09/16/10	RMD-CV
Sample No	ote: Sample for TCLP extract	ed Strontium was rec	eived on 9/13/10 at 17:12 b	y TJC.			
SAMPLE: TCLP	Leachate of Inv. Cutting	8	Lab ID: 10121754-001H	Grab			
SAMPLED E	-		e Time: 12/11/2010 12:45				
<b>T</b> 4		Denville	<b>B</b> Badhaad	<u>SLOQ</u>	Ameliaia Cá	and Amplyin's Find	A
Test		Result 6.03@16.9°C	<u>Method</u> SM4500H+B		Analysis Sta 12/14/10 8:		
ρH		0.03@10.9 C	3M4300077B		12/14/10 6.	00 12/14/10	SG-SA
SAMPLE: ZHE	Extract of Inv. Cuttings		Lab ID: 10121754-0011	Grab			
SAMPLED E	BY: SG	Sample	e Time: 12/13/2010 8:45				
Test		Result	Method	SLOQ	Analysis Sta	art Analysis End	Analyst *
Benzene		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:		CTM-SA
Carbon tetrac	chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:		CTM-SA
Chlorobenzer		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:		CTM-SA
	<del>-</del>	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:		CTM-SA
Chloroform							
Chioroform 1.2-Dichloroe	thane			0.0250	12/13/10 8:	11 12/13/10	CTM-SA
1,2-Dichloroe		< 0.0250 mg/L	EPA 8260B		12/13/10 8: 12/13/10 8:		CTM-SA CTM-SA
1,2-Dichloroe 1,1-Dichloroe	ethene	< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B EPA 8260B	0.0250 0.0250 0.0250	12/13/10 8: 12/13/10 8: 12/13/10 8:	11 12/13/10	CTM-SA
1,2-Dichloroe 1,1-Dichloroe Ethylbenzene	ethene e	< 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:	11 12/13/10 11 12/13/10	CTM-SA CTM-SA
1,2-Dichloroe 1,1-Dichloroe	ethene e zene	< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B EPA 8260B EPA 8260B	0.0250 0.0250	12/13/10 8: 12/13/10 8:	11 12/13/10 11 12/13/10 11 12/13/10	CTM-SA

### **REMARKS:**

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DATE: 12/16/2010 Carrie M. avisi MANAGER

PA ID #: 08-/ NY ID # 112		Eas 2566 Sa	ark Analytics, In stern Division Pennsylvania Ave. ayre, PA 18840	с.	Work	Order: 101:	21754
			e: (570) 888-0169 x: (570) 888-0717				
SEND DATA		1.4	x. (373) 888-07 17				
		î					
NAME: COMPANY:	Dina Brown Talisman Energy USA, Ir	ic. H		VVG	O#: 1012	1754	
ADDRESS:	337 Daniel Zenker Dr			PA	GE: 3 of 3	3	
	Horseheads, NY 14845			PC	)#: AF77	720	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	<b>T</b> I	EST REPORT	PV	VS ID#		
01-0	74			, and the second se			
	FOR LAB BY: RML		TE: 12/09/2010 15:45			Pa	ige 3 of 3
Trichloro	ethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
1,2,4-Trin	nethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
1,3,5-Trin	nethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
Vinyl chic	oride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
Methyl te	rt-butyl ether	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
2-Butano	ne	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-S/
	STM Extract of Inv. Cuttings		Lab ID: 10121754-001J	Grab			
SAMPLE	ED BY: SG	Sa G	mple Time: 12/10/2010 11:15	SLOQ			
Test		Result	Method	<u></u>	Analysis Start	Analysis End	<u>Analyst</u>
	Owene Demand	276 mg/L	HACH 8000	1	12/15/10 10:00	12/15/10	KAL-SA
Chemical	Oxygen Demand	. 🗸					
	STM Extract of Inv. Cuttings		Lab ID: 10121754-001L	Grab			
SAMPLE: A	· · · · · · · · · · · · · · · · · · ·		Lab ID: 10121754-001L mple Time: 12/10/2010 11:15				
SAMPLE: AS SAMPLE	STM Extract of Inv. Cuttings	s Sa	mple Time: 12/10/2010 11:15	Grab <u>SLOQ</u>	Analysis Start	Analysis End	Analvet
SAMPLE: AS SAMPLE <u>Test</u>	STM Extract of Inv. Cuttings	s Sa <u>Result</u>	mple Time: 12/10/2010 11:15 <u>Method</u>		Analysis Start 12/14/10 8:00	Analysis End	
SAMPLE: <b>At</b> SAMPLE <u>Test</u> pH	STM Extract of Inv. Cuttings ED BY: SG	Sa <u>Result</u> 8.19@17.2°C	mple Time: 12/10/2010 11:15		<u>Analysis Start</u> 12/14/10 8:00 12/10/10 17:00	<u>Analysis End</u> 12/14/10 12/13/10	SG-SA
SAMPLE: At SAMPLE <u>Test</u> pH Total Soli	STM Extract of Inv. Cuttings ED BY: SG ds	s Sa <u>Result</u>	mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	<u>SLOQ</u> 0.10	12/14/10 8:00	12/14/10	
SAMPLE: AS SAMPLE <u>Test</u> pH Total Soli SAMPLE: Inv	STM Extract of Inv. Cuttings ED BY: SG ds v. Cuttings	Sa <u>Result</u> 8.19@17.2°C 442 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B Lab ID: 10121754-001M	<u>SLOQ</u>	12/14/10 8:00	12/14/10	SG-SA
SAMPLE: AS SAMPLE <u>Test</u> pH Total Soli SAMPLE: Inv	STM Extract of Inv. Cuttings ED BY: SG ds	Sa <u>Result</u> 8.19@17.2°C 442 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	<u>SLOQ</u> 0.10	12/14/10 8:00	12/14/10	SG-SA
SAMPLE: At SAMPLE pH Total Soli SAMPLE: In SAMPLE: In SAMPLE	STM Extract of Inv. Cuttings ED BY: SG ds v. Cuttings	Sa <u>Result</u> 8.19@17.2°C 442 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B Lab ID: 10121754-001M	SLOQ 0.10 Grab	12/14/10 8:00	12/14/10	SG-SA IC-SA

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MANAGER	Cami M. Davis	DATE:	12/16/2010	
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CHAIN OF CUSTODY	Benc	PAGEOF1
EPORT TO: Talisman / UEG	<sup>2566 Pennsy</sup> W/O#: 10121754	ARE SPECIAL DETECTION LIMITS
geowetlands@aol.com	F -	
	REFRIGERATE SAMPLES RESULTS ARE BEING USED FO	
		ADEP IS A QC PACKAGE NEEDED?
CONTACT	GW GROUND WATER SO SOIL SW SURFACE WATER HZ HAZARDOUS LANDFILL MOST	
CONTACT Steve Gridley	TRANSPORT / WW WASTE WATER OTHER	
PH# 607-731-0145	TO DE DEIONIZED WATER DI DISTILLED WATER DERSONAL OTHER	IF YES, PLEASE ATTACH REQUIREMENTS
AX#	IN COOLER S SULFURIC ACID AS ASCORBIC ACID	
BILL TO: Talisman	WITH ICE / N NITRIC ACID AC ACETIC ACID SO 3 SODIUM SULFITE NH, AMMONIUM CHLORIDE	L H
0# AF 7772 B	Thio SODIUM THIOSULFATE ZN ZINC ACETATE	/ ÿ/ ġ/
PROJECT DESCRIPTION	$\beta$	Please fill out all
	An incomplete chain of custody may delay the processing of your sample(s).	applicable areas
AMPLER SIGNATURE / AFFILIATION		
CONTAINER SAMPLING POINT	LABORATORY IN COOLER WITH ICE UNIT ICE UNI	Please fill out all applicable areas completely LAB USE ONLY
1 Inv Cuttings	19/8 19/5 So C SB- N Ignitability, Reactive Sulfide & Cyanide	
2	C   PCBs, Total Solids	
3 A -finale, Ign	G Total Volatile Solids	
4 C- Reactivity	C Ammonia-Nitrogen	
5 D-TS, TVS	C Water Leaching Procedure: COD,	
6 E-T. Somple	CVV Total Solids, Oil & Grease,	
7 F-TOLP BNA Posts.		
8 G-TCLP Hots. St	K-Astment	
9 H-TCDP pH	L-ASTM TS of 36 HOUR TURNAROUND	
10 I-TECP Vols	M-TOX DAY TURNAROUND	
11 J-ASTM COD, Noting		
LAB USE ONLY		
	The second s	E CARRIVALIONICE V//NI
RELINQUISHEDBY	DATE: TIME: RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME: RECEIVED BY:	DATE: TIME:
		-1 1
RELINQUISHED BY:	DATE: TIME: RECEIVED BI: OD KAR	19919 M 119515



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

# FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attach	ust be fully and accurately completed. All request printed in the spaces provided. If additional spaces provided if additional spaces sheet as Form 26R, reference the item number date on attached sheets needs to match the date	tify Date Receive	JSE{ONLY		
General Refe	rence 287.54				
Date Prepare					
	SECTION A. CLIENT (GENERATO	R OF THE WASTE) II	NEORMATION		
Company Na	me ergy USA Inc.				
If a Subsidia	y, Name of Parent Company		EPA	Generator ID#	
Talisman En	ergy Inc.		N/A		
50 Pennwoo	•	Company Mailing Addre	ss Line 2		
	dress Last Line – City State	Zip+4	Phone	Ext	
Warrendale	PA	15086	(724) 814-530	0	
	ntact Last Name First Name	MI	Suffix	(	
Brown Municipality	Dina	County			
Warrendale		Allegheny			
Contact Pho					
(724) 814-53	21 dybrown@talismanusa. generated at the Company Mailing Address (noted			Yes 🕅 No	
	be location of waste generation and storage. Drill				
the (C	1-076) well pad site located at 3637 Fallbrook Road, A	Armenia Township, Brad	ord County, PA. Was	ste is stored in	
containers on Municipality	site. Armenia <b>County</b> Bradfi	ord	State	PA	
	SECTION B. WAST				
Residual	Residual Waste		Unit of	Time	
Waste Code	Code Description	Amount	Measure	Frame	
810	Drill cuttings (oil and gas)	7,364	☐ lb ⊠ ton	One Time	
	1. General F				
a. pHRa b. Phvsi	nge 8.81 to 11.27 cal State	(based on analyses or l	(nowledge)		
D. Physi	Solid (EPA Method 90				
	Gas (ambient tempera	•			
c. Physi	cal Appearance Color Greyish Black		<u>Larry / Origine</u>	Petroleum	
	Number of Solid or Liqui Describe asstances of s				
	Describe each phase of s	separation. <u>Soli and Ro</u>			
	2. CHEMICAL ANALY		<u></u>		
	a. The results of a detailed chemical characterization of the waste, as described in the X Yes No instructions, is attached.				
	iled description of the waste sampling method is a	attached.		Yes 🗌 No	
	uality assurance/quality control procedures emplo		es) is 🛛 🕅	Yes 🗌 No	
	sults of the hazardous waste determination is atta			Yes 🗌 No	
	icable, a detailed explanation supporting use of ge actual chemical analysis is attached.	enerator knowledge in	Yes	No 🛛 N/A	

			ION & SCHEMATIC ATTA			
a.	A detailed description of the			esses producing	🛛 Yes	🗌 No
	the waste, as specified in the					
b.	A schematic of the manufact as specified in the instruction		o control processes pro	ducing the waste,	🛛 Yes	🗋 No
c.	If portions of the information			on for 📋 Yes	No No	🖾 N/A
	a confidentiality claim, as de	scribed in the instruc	tions, is attached.			
	SECTI	ON C. MANAGE	MENT OF RESIDU	JAL WASTE		
			OR DISPOSAL FACILITY			
The a	rea below (ad.) will accommo	date the identification	of two facilities. Attac	h additional sheets	if necessary	<i>i</i> .
a.	Solid waste permit number(s 9-0232-00003	) for processing or di	sposal facility being uti	lized.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Ro	ad			
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
c.	Facility Contact Name	Larry Shilling				
	Title					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to 4,157	p <b>rocessing or dispos</b> a	al facility in the previous	<b>s year.</b> n (check one)	)	
а.	Solid waste permit number(s 8-4630-00010	) for processing or di	sposal facility being uti	lized.		
b.	Facility Name	Hakes C&D Landfi	II			
	Address Line 1	4376 Manning Rid	ge Road			
	Address Line 1		•			
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
c.	Facility Contact Name	Joseph Boyles				
	Title					
	Phone	(607) 937-6044 (585) 4 <u>66-7271</u>	Email Address	joe.boyles@case	ella.com	
d.	Volume of waste shipped to					
	2,796	]cuyd 🗌 gal	🗌 lb 🖾 tor	n (check one)	)	
			ENEFICIAL USE			
a.	Has the waste been approved	l for beneficial use?		,	Yes	🛛 No
	If "Yes", list the general pern	nit number or approva	l number.			
b.	Volume of waste beneficially					
	0	]cuyd 🗌 gal	b tor	n (check one)	1	

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTAC	HMENTS		
a.	A detailed description of the			sses producing	X Yes	No No
	the waste, as specified in the	instructions, is attache	<b>.</b>			
b.	A schematic of the manufacture as specified in the instruction		ontrol processes proc	lucing the waste,	Yes	🗌 No
с.	If portions of the information	submitted are confident	ial, the substantiation	n for Yes	No	N/A
	a confidentiality claim, as des	cribed in the instruction	ns, is attached.			
	SECTIO	ON C. MANAGEM	ENT OF RESIDU	AL WASTE		
			DISPOSAL FACILITY(IE			
The a	rea below (ad.) will accommod	ate the identification of	two facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 8-0728-00004	for processing or dispo	osal facility being util	ized.		
b.	Facility Name	Chemung County La	ndfill			
	Address Line 1	1690 Lake Street	_			
	Address Line 1					
Ì	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
C.	Facility Contact Name	Carla Canjar				
	Title	Environmental Mana	ger			
	Phone	(585) 797-5941	Email Address	carla.canjar@ca	sella.com	
d.	Volume of waste shipped to p	rocessing or disposal f	acility in the previous	year.		
	1,172	cuyd 🔲 gal	🗌 Ib 🛛 ton	(check one)	)	
a.	Solid waste permit number(s) 100361	for processing or dispo	osal facility being utili	zed.		
b.	Facility Name	McKean County Land	fill			
	Address Line 1	19 Ness Lane				
	Address Line 1				····	
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
с.	Facility Contact Name	Mike Manderfeld				
1	Title					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to p	rocessing or disposal f	acility in the previous	year.		
	21	cu yd 🗌 🗍 gal	🗌 lb 🛛 ton	(check one)	I	
		2. Bene	FICIAL USE			
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general perm	it number or approval n	umber.			
b.	Volume of waste beneficially			· · · · · · · · · · · · · · · · · · ·		
	0	cu yd 🛛 🗌 gal	b ton	(check one)		

	SECTION D. CERTIFICATION			
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.				
Check the following, if applica	ole:			
I certify the information and has not char	required in Section B-1, General Properties was supplied to the Department for the year ged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information and has not char	required in Section B-2, Chemical Analysis was supplied to the Department for the year ged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information for the year and h	required in Section B-3, Process Description and Schematic, was supplied to the Department as not changed.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
Name of Responsible Official	Title _Environmental Specialist			
Dina Brown	$\gamma P_{i}$			
Signature	Stow Date _ 2/28/11			

SEND DATA TO:

76

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10041885

WO#: 10041885PAGE: 1 of 1PO#:PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

RECEIVED FOR LAB BY: DLM2

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

DATE: 04/14/2010 10:47

**TEST REPORT** 

Page 1 of 1

1PLE: Air Cuttings	La	ab ID: 10041885-001A	Compo	site		
SAMPLED BY: SG	Sample	Time: 04/12/2010 17:30				
Test	Result	Method	<u>SLOQ</u>	Analvsis Start	Analysis End	Analyst
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	04/15/10 11:30	04/15/10	RMD-C
Sodium	658 mg/Kg	EPA 6010B	103	04/16/10 15:25	04/19/10	RMD-C
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/15/10 11:45	04/15/10	RMD-C
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	04/15/10 11:45	04/15/10	RMD-C
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/15/10 11:45	04/15/10	RMD-C
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/15/10 11:45	04/15/10	RMD-C
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/15/10 11:45	04/15/10	RMD-C
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/15/10 11:45	04/15/10	RMD-C
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/15/10 11:45	04/15/10	RMD-C
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	04/15/10 11:45	04/15/10	RMD-C
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	04/15/10 11:45	04/15/10	RMD-C
Zinc - TCLP extracted	0.297 mg/L	EPA 6010B	0.200	04/15/10 11:45	04/15/10	RMD-C
pН	8.81 @ 25.2 °C	EPA 9045D		04/20/10 13:25	04/20/10	SMH-C\
Total Petroleum Hydrocarbons	< 330 mg/Kg	EPA 9071	330	04/20/10 8:30	04/20/10	
Chloride	621 mg/Kg	EPA 300.0	50.0	04/15/10 15:51	04/16/10	HDP-C\
Sample Note: TPH analysis perfo	rmed by Microbac Lab - Erie [	Div.				
Sample Note: The temperature of	f the extraction room exceeded	d the range of 23 ± 2°C				

### **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 4/22/2010

NAME:

FAX:

76

# **Benchmark Analytics, Inc.** Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10074059

SEND DATA TO: WO#: 10074059 Steve Gridley Talisman Energy USA, Inc. COMPANY: PAGE: 1 of 1 337 Daniel Zenker Dr ADDRESS: Horseheads, NY 14845 PO#: AF76709 PWS ID# TEST REPORT PHONE: (607) 562-4000 (607) 562-4001

RECEIVED FOR LAB BY: DLM2 DATE: 07/26/2010 15:15 Page 1 of 1 SAMPLE: Inv. Cuttings & Gypsum Lab ID: 10074059-001A Composite SAMPLED BY: SG Sample Time: 07/26/2010 10:45 <u>SLOQ</u> Test Result Method Analysis Start Analysis End Analyst \* **Total Petroleum Hydrocarbons** 122000 mg/Kg EPA 9071 170 07/27/10 12:00 07/27/10 Sample Note: Analysis performed by Microbac-Erie SAMPLE: Inv. Cuttings & Gypsum Lab ID: 10074059-001B Composite SAMPLED BY: SG Sample Time: 07/26/2010 10:45 SLOQ Method Analysis Start Analysis End Analyst \* Test <u>Result</u> Moisture 14.0 % Moisture Calc. 0.01 07/26/10 10:30 07/27/10 NFM-SA Free Liquid < 0.1 % EPA 9095A 0.1 07/26/10 16:20 07/26/10 IC-SA 11.27@20.8°C EPA 9045C 07/27/10 12:20 07/27/10 NFM-SA pН Lab ID: 10074059-001D Grab SAMPLE: TCLP Leachate of Inv. Cuttings & Gypsum SAMPLED BY: SG Sample Time: 07/26/2010 10:45 SLOQ Analysis End Analyst \* Test **Result** Method Analysis Start Mercury - TCLP extracted < 0.0010 mg/L EPA 7470A 0.0010 07/29/10 9:00 07/29/10 RMD-CV 0.500 07/29/10 9:50 07/29/10 Arsenic - TCLP extracted < 0.500 mg/L EPA 6010B GSR-CV 10.00 07/29/10 9:50 07/29/10 Barium - TCLP extracted < 10.00 mg/L EPA 6010B GSR-CV Cadmium - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Chromium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 07/29/10 9:50 07/29/10 GSR-CV Copper - TCLP extracted 0.118 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Lead - TCLP extracted EPA 6010B 0.500 07/29/10 9:50 07/29/10 < 0.500 mg/L GSR-CV Nickel - TCLP extracted 0.201 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV s 0.500 Selenium - TCLP extracted < 0.500 mg/L EPA 6010B 07/29/10 9:50 07/29/10 GSR-CV Silver - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 07/29/10 9:50 07/29/10 GSR-CV Zinc - TCLP extracted < 0.200 mg/L EPA 6010B 0.200 07/29/10 9:50 07/29/10 GSR-CV

#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Spike Recovery outside accepted recovery limits S

MANAGER

Carrie M. Davis

7/30/2010 DATE:

SEND DATA TO:

NAME:

ADDRESS:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10074060

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

337 Daniel Zenker Dr Horseheads, NY 14845

TEST REPORT

76						
RECEIVED FOR LAB BY: DLM2	DATE:	07/26/2010 15:15			Pa	age 1 of 1
SAMPLE: Inv. Cuttings		Lab ID: 10074060-001A	Compo	site		
SAMPLED BY: SG	Sampl	e Time: 07/26/2010 10:45	SLOQ			
Test	<u>Result</u>	Method	0100	Analysis Start	Analysis End	<u>Analyst *</u>
Total Petroleum Hydrocarbons	111000 mg/Kg	EPA 9071		07/27/10 12:00	07/27/10	
Sample Note: Analysis performed	by Microbac-Erie					
SAMPLE: Inv. Cuttings		Lab ID: 10074060-001B	Compo	site		
SAMPLED BY: SG	Sampl	e Time: 07/26/2010 10:45				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Moisture	9.69 %	Moisture Calc.	0.01	07/26/10 10:30	07/27/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	07/26/10 16:25	07/26/10	IC-SA
pH	10.30@21.0°C	EPA 9045C		07/27/10 12:20	07/27/10	NFM-SA
SAMPLE: TCLP Leachate of Inv. Cu	ttings	Lab ID: 10074060-001D	Compo	site		
SAMPLED BY: SG	-	e Time: 07/26/2010 10:45				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0010 mg/L	EPA 7470A	0.0010	07/29/10 9:00	07/29/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/29/10 9:50	07/29/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Nickel - TCLP extracted	0.150 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	s EPA 6010B	0.500	07/29/10 9:50	07/29/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/29/10 9:50	07/29/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/29/10 9:50	07/29/10	GSR-CV

## **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Curie M. Davis

DATE: 7/30/

LAB ID: 39-00	0380 0401	Easter 2566 Pen	<b>Analytics, In</b> <b>In Division</b> Insylvania Ave. In PA 18840	IC.	Work	Order: 100	74062
		•	570) 888-0169 570) 888-0717				
SEND DATA	το <sup>,</sup>						
	Steve Gridley				O#: 1007	4062	
	Talisman Energy USA, Ir	าс.					
	337 Daniel Zenker Dr			PA	AGE: 1 of	1	
	Horseheads, NY 14845			P	O#: AF76	6709	
			_	D١	NS ID#		
	(607) 562-4000 (607) 562-4001	TEST	REPORT	FX	NS 1D#		
76							
RECEIVED FO	OR LAB BY: DLM2	DATE:	07/26/2010 15:15	,		Pa	age 1 of 1
SAMPLE: Inv.	. Cuttings-Raw	L	ab ID: 10074062-001A.	Compo	site		
		Sample	Time: 07/26/2010 10:45				
SAMPLED	J D1. 3G	Campio	Time. 0//20/2010 10.40				
	561.36			<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Test		<u>Result</u>	<u>Method</u> EPA 9071	<u>SLOQ</u>	<u>Analysis Start</u> 07/27/10 12:00	<u>Analysis End</u> 07/27/10	<u>Analyst *</u>
<u>Test</u> Total Petro	oleum Hydrocarbons Note: Analysis performed by M	<u>Result</u> 118000 mg/Kg	Method	<u>SLOQ</u>			<u>Analyst *</u>
<u>Test</u> Total Petro Sample I	oleum Hydrocarbons Note: Analysis performed by M	<u>Result</u> 118000 mg/Kg /licrobac-Erie	<u>Method</u> EPA 9071		07/27/10 12:00		Analyst *
<u>Test</u> Total Petro	oleum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw	<u>Result</u> 118000 mg/Kg /licrobac-Erie L	Method	<u>SLOQ</u> Compo	07/27/10 12:00		<u>Analyst *</u>
Test Total Petro Sample SAMPLE: Inv. SAMPLE	oleum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw	<u>Result</u> 118000 mg/Kg /licrobac-Erie L Sample	Method EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45		07/27/10 12:00	07/27/10	
<u>Test</u> Total Petro Sample I SAMPLE: Inv. SAMPLEI <u>Test</u>	oleum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw	<u>Result</u> 118000 mg/Kg /icrobac-Erie L Sample <u>Result</u>	Method EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45 <u>Method</u>	Compo <u>SLOQ</u>	07/27/10 12:00 site <u>Analysis Start</u>	07/27/10 Analysis End	Analyst *
Test Total Petro Sample I SAMPLE: Inv. SAMPLE <u>Test</u> Moisture	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG	<u>Result</u> 118000 mg/Kg /licrobac-Erie L Sample <u>Result</u> 11.5 %	<u>Method</u> EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45 <u>Method</u> Moisture Calc.	Compo <u>SLOQ</u> 0.01	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30	07/27/10 Analysis End 07/27/10	<u>Analyst *</u> NFM-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE <u>Test</u> Moisture Free Liquid	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG	Result 118000 mg/Kg /icrobac-Erie L Sample <u>Result</u> 11.5 % < 0.1 %	Method EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45 <u>Method</u> Moisture Calc. EPA 9095A	Compo <u>SLOQ</u>	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE SAMPLE <u>Test</u> Moisture Free Liquid pH	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG	<u>Result</u> 118000 mg/Kg /icrobac-Erie L Sample <u>Result</u> 11.5 % < 0.1 % 11.0@20.8°C	<u>Method</u> EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Compo <u>SLOQ</u> 0.01 0.1	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30	07/27/10 Analysis End 07/27/10	Analyst * NFM-SA IC-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: <u>Test</u> Moisture Free Liquid pH SAMPLE: TCL	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG I LP Leachate of Inv. Cuttin	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D	Compo <u>SLOQ</u> 0.01	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE SAMPLE <u>Test</u> Moisture Free Liquid pH	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG I LP Leachate of Inv. Cuttin	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	<u>Method</u> EPA 9071 ab ID: 10074062-001B Time: 07/26/2010 10:45 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Compo <u>SLOQ</u> 0.01 0.1	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: <u>Test</u> Moisture Free Liquid pH SAMPLE: TCL	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG I LP Leachate of Inv. Cuttin	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D	Compo <u>SLOQ</u> 0.01 0.1 Grab	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30	07/27/10 Analysis End 07/27/10 07/26/10	Analyst * NFM-SA IC-SA NFM-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: <u>Test</u> Moisture Free Liquid pH SAMPLE: TCL SAMPLE:	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG I LP Leachate of Inv. Cuttin	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45	Compo <u>SLOQ</u> 0.01 0.1 Grab	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30 07/27/10 12:20	07/27/10 Analysis End 07/27/10 07/26/10 07/27/10	Analyst * NFM-SA IC-SA NFM-SA
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG LP Leachate of Inv. Cutting D BY: SG	Result           118000 mg/Kg           /icrobac-Erie           /icrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B	Compo <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0010 0.500	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 <u>Analysis End</u> 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA Analyst * RMD-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG LP Leachate of Inv. Cutting D BY: SG	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C	Compo <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0010	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 <u>Analysis End</u> 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA MFM-SA MD-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Barium - TC	oleum Hydrocarbons Note: Analysis performed by M <b>. Cuttings-Raw</b> D BY: SG <b>LP Leachate of Inv. Cuttin</b> D BY: SG FCLP extracted FCLP extracted	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA Analyst * RMD-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Barium - TC Cadmium - TC	oleum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cuttin D BY: SG FCLP extracted CLP extracted CLP extracted	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B           EPA 6010B	Compo <u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0010 0.500 10.00	07/27/10 12:00 site <u>Analysis Start</u> 07/26/10 10:30 07/26/10 16:30 07/27/10 12:20 <u>Analysis Start</u> 07/29/10 9:00 07/29/10 9:50 07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/26/10 07/27/10 <u>Analysis End</u> 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA Analyst * RMD-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCI SAMPLE: TCI	Deum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cutting D BY: SG TCLP extracted CLP extracted CLP extracted - TCLP extracted	Result           118000 mg/Kg           /licrobac-Erie           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100	Analysis Start           07/27/10 12:00           site           Analysis Start           07/26/10 10:30           07/26/10 16:30           07/27/10 12:20           Analysis Start           07/29/10 9:00           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Cadmium - TC Cadmium - TC Cadmium - TC	Deum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cutting D BY: SG TCLP extracted CLP extracted CLP extracted - TCLP extracted - TCLP extracted	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500	Analysis Start           07/27/10 12:00           site           Analysis Start           07/26/10 10:30           07/26/10 16:30           07/26/10 16:30           07/27/10 12:20           Analysis Start           07/29/10 9:00           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MFM-SA CSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Casmium - TC Cadmium - Chromium	Deum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cutting D BY: SG TCLP extracted CLP extracted CLP extracted - TCLP extracted - TCLP extracted CLP extracted - TCLP extracted CLP extracted	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 9071           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method           Moisture Calc.           EPA 9095A           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method           EPA 7470A           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100	Analysis Start           07/27/10 12:00           site           Analysis Start           07/26/10 10:30           07/26/10 16:30           07/26/10 16:30           07/27/10 12:20           Analysis Start           07/27/10 12:20           Analysis Start           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50	07/27/10 <u>Analysis End</u> 07/27/10 07/26/10 07/27/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Cadmium - TC Cadmium - TC Copper - TC Lead - TCL Nickel - TC	Deum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cutting D BY: SG TCLP extracted CLP extracted CLP extracted - TCLP extracted	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 90711           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method Moisture Calc. EPA 9095A EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method EPA 7470A           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100 0.500	Analysis Start           07/27/10 12:00           site           Analysis Start           07/26/10 10:30           07/26/10 16:30           07/26/10 16:30           07/26/10 12:20           Analysis Start           07/27/10 12:20           Analysis Start           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50	07/27/10 Analysis End 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA MD-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV
Test Total Petro Sample I SAMPLE: Inv. SAMPLE: Inv. SAMPLE: Test Moisture Free Liquid pH SAMPLE: TCL SAMPLE: TCL SAMPLE: TCL Cadmium - Chromium Copper - TC Lead - TCL Nickel - TC Selenium -	Deum Hydrocarbons Note: Analysis performed by M . Cuttings-Raw D BY: SG LP Leachate of Inv. Cutting D BY: SG TCLP extracted CLP extracted CLP extracted - TCLP extracted - TCLP extracted - TCLP extracted CLP extracted - TCLP extracted CLP extracted - P extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted	Result           118000 mg/Kg           /licrobac-Erie           L           Sample           Result           11.5 %           < 0.1 %	Method EPA 90711           ab ID: 10074062-001B           Time: 07/26/2010 10:45           Method Moisture Calc. EPA 9095A EPA 9045C           ab ID: 10074062-001D           Time: 07/26/2010 10:45           Method EPA 7470A EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Grab SLOQ 0.0010 0.500 10.00 0.100 0.500 0.100 0.500 0.100	Analysis Start           07/27/10 12:00           site           Analysis Start           07/26/10 10:30           07/26/10 16:30           07/26/10 16:30           07/26/10 12:20             Analysis Start           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50           07/29/10 9:50	07/27/10 07/27/10 07/27/10 07/26/10 07/26/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10 07/29/10	Analyst * NFM-SA IC-SA NFM-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 7/30/2010



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

## FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.				tify Date Receive	USE ONLY ed & General Notes
General Refe	rence 287.54				
Date Prepare					
	SECTION A. CLIEN	T (GENERATOR	OF THE WASTE)	NFORMATION	
Company Nat	ne ergy USA Inc.				
	y, Name of Parent Company			EPA	Generator ID#
Talisman En				N/A	
Company Ma 50 Pennwoo	ling Address Line 1	C	ompany Mailing Addre	ess Line 2	
	Iress Last Line – City	State	Zip+4	Phone	Ext
Warrendale	-	PA	15086	(724) 814-530	
		F <b>irst Name</b> Dina	MI	Suffi	x
Brown Municipality	<u>L</u>		County		
Warrendale		<i>A</i>	Allegheny		
Contact Phon		Email Address			
(724) 814-53	enerated at the Company Mailing	n@talismanusa.c			Yes 🛛 No
	be location of waste generation a			س uring natural gas drill	
the (0	1-077) well pad site located at 2871				
containers on Municipality		County Bradfo	ord	State	PA
manopany			E DESCRIPTION		
Residual	Residual Waste			Unit of	Time
Waste Code	Code Descriptio	n	Amount	Measure	Frame
810	Drill cuttings (oil and gas)		8,477	<u> </u>	One Time
-2).		1. GENERAL P	ROPERTIES		
a. pH Ra			(based on analyses or l	(nowledge)	
b. Physic	Soli	iid Waste (EPA Me d (EPA Method 909 a (ambient temperat	95)		
c. Physic	al Appearance Color	Greyish Black	Ode	ungin	Petroleum
		•	Phases of Separation		
	Describe	e each phase of s	eparation. <u>Soil and Re</u>	ock Fragments	
		CHEMICAL ANALYS		in the second	
instru	sults of a detailed chemical chara ctions, is attached.			n the 🛛 🕅	Yes 🗌 No
	iled description of the waste sam				Yes No
c. The quart of the contract o	ality assurance/quality control p ed.	rocedures employ	/ed by the laboratory(	es) is 🛛 🖂	Yes 🗌 No
	sults of the hazardous waste det	ermination is attac	ched.	$\boxtimes$	Yes No
	icable, a detailed explanation sup actual chemical analysis is attac		nerator knowledge in	Yes	No 🛛 N/A

1.1.1.2.2		3. PROCESS DESCRIPTIO	N & SCHEMATIC ATTA	CHMENTS		i i i i i i i i i i i i i i i i i i i
a.	A detailed description of th			esses producing	🛛 Yes	No No
	the waste, as specified in the	ne instructions, is attach	ed.			
b.	A schematic of the manufact	cturing and/or pollution	control processes pro	ducing the waste.	X Yes	□ No
<sup>~</sup> .	as specified in the instructi			,		
L	-		tial the substantiatio	on for Yes	[] N	57 N/A
c.	If portions of the information a confidentiality claim, as d			on for res	🗌 No	🖾 N/A
	SECT	ION C. MANAGEN	MENT OF RESIDU	JAL WASTE		
			DISPOSAL FACILITY			1944 - 19
The a	rea below (ad.) will accomm	odate the identification of	of two facilities. Attac	h additional sheets	if necessary	
a.	Solid waste permit number	s) for processing or dis	osal facility being uti	lized.		
	8-4630-00010		, ,			
b.	Facility Name	Hakes C&D Landfill				
D.	Address Line 1	4376 Manning Ridg	- Pood	······		
	Address Line 1	4576 Manning Rug				
	Address City State ZIP	Painted Post	NY	14870		
1	Municipality	Erwin Twp	County	Steuben		
			County	Steuben		
с.	Facility Contact Name	Joseph Boyles				
	Title					
	Phone	(607) 937-6044	Email Address	joe.boyles@case	ella.com	
		(585) 797-5941				
d.	Volume of waste shipped to		b k			
	3,701 [	cuydgal				
a.	Solid waste permit number(	s) for processing or disp	oosal facility being uti	lized.		
	9-0232-00003					
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Roa	d			
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
c.	Facility Contact Name	Larry Shilling				1464
	Title	<u></u>	·····	·····	·	
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
-		( )				
d.	Volume of waste shipped to	<u> </u>	b Tacility in the previous			
	3,583					
			IEFICIAL USE			
a.	Has the waste been approve	ed for beneficial use?			Yes	🛛 No
	If "Yes", list the general per	mit number or approval	number.			
b.	Volume of waste beneficial	y used in the previous ye	ear.			
	0 [	cuydgal	🗌 lb 🗌 tor	n (check one)		

	3	3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS	
a.	the waste, as specified in th		No
b.	as specified in the instruction		No
C.	If portions of the information a confidentiality claim, as de	n submitted are confidential, the substantiation for Yes No X escribed in the instructions, is attached.	N/A
	SECT	ION C. MANAGEMENT OF RESIDUAL WASTE	
The ar	ea below (ad.) will accommo	odate the identification of two facilities. Attach additional sheets if necessary.	
a.	Solid waste permit number( 8-0728-00004	s) for processing or disposal facility being utilized.	
b.	Facility Name	Chemung County Landfill	
	Address Line 1	1690 Lake Street	
	Address Line 1		
	Address City State ZIP	Elmira NY 14903	
	Municipality	Elmira County Chemung	
c.	Facility Contact Name	Carla Canjar	
	Title	Environmental Manager	
	Phone	(585) 797-5941 Email Address carla.canjar@casella.com	
d.	1,172	processing or disposal facility in the previous year.	
a.	Solid waste permit number( 100361	s) for processing or disposal facility being utilized.	
b.	Facility Name	McKean County Landfill	
	Address Line 1	19 Ness Lane	
	Address Line 1		
	Address City State ZIP	Kane PA 16735	
	Municipality	Sergeant Twp County McKean	
с.	Facility Contact Name	Mike Manderfeld	
	Title		
	Phone	(814) 778-9931 Email Address manderfeld@gmail.com	
d.	Volume of waste shipped to 21	processing or disposal facility in the previous year. cu yd gal lb ton (check one)	
		2. BENEFICIAL USE	
a.	Has the waste been approve	ed for beneficial use?	No
		mit number or approval number.	
b.	Volume of waste beneficially		
	0	cuyd gal lb ton (check one)	

	SECTION D. CERTIFICATION			
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.				
Check the following, if applica	le:			
I certify the information and has not char	required in Section B-1, General Properties was supplied to the Department for the year ged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information and has not char	required in Section B-2, Chemical Analysis was supplied to the Department for the year ged.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
I certify the information for the year and I	equired in Section B-3, Process Description and Schematic, was supplied to the Department as not changed.			
Form Submitted:	Form 26R			
	Other (specify)			
Date Submitted:				
Name of Responsible Official	Title Environmental Specialist			
Dina Brown Signature	Stown Date 2/25/11			

10

LAB ID # 11216 **Benchmark Analytics, Inc.** LAB ID # 11827 **Eastern Division** 2566 Pennsylvania Ave. Work Order: 10030703 Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717 SEND DATA TO: WO#: 10030703 NAME: Steve Gridley COMPANY: Talisman Energy USA, Inc. PAGE: 1 of 1 ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845 PO#: PWS ID# TEST REPORT PHONE: (607) 731-0145 FAX: (607) 562-4001 NTSW TCLP Metals/TPH/pH/%Moisture RECEIVED FOR LAB BY: WCB DATE: 03/03/2010 9:38 Page 1 of 1 SAMPLE: Air Cuttings P-1 Lab ID: 10030703-001A Composite SAMPLED BY: SG Sample Time: 03/01/2010 11:45 SLOQ Test Result Method Analysis Start Analysis End Analyst \* рH 9.44 @ 25.9°C EPA 9045D 03/08/10 14:37 03/08/10 NC-CV Chloride 74.3 mg/Kg EPA 300.0 50.0 03/10/10 14:03 03/11/10 HDP-CV < 170 mg/Kg **Total Petroleum Hydrocarbons** EPA 1664A 170 03/16/10 13:30 03/16/10 DTG-CV SAMPLE: TCLP Leachate of Air Cuttings P-1 Lab ID: 10030703-001C Composite SAMPLED BY: SG Sample Time: 03/01/2010 11:45 SLOQ Result Test Method Analysis Start Analysis End Analyst\* Mercury - TCLP extracted < 0.0008 mg/L EPA 7470A 0.0008 03/11/10 8:30 03/12/10 KW-CV Arsenic - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 03/10/10 13:40 03/11/10 RMD-CV Barium - TCLP extracted < 10.00 mg/L EPA 6010B 10.00 03/10/10 13:40 03/11/10 RMD-CV Cadmium - TCLP extracted < 0.100 mg/L EPA 6010B 0,100 03/10/10 13:40 03/11/10 RMD-CV Chromium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 03/10/10 13:40 03/11/10 RMD-CV Copper - TCLP extracted < 0.100 mg/L EPA 6010B 03/10/10 13:40 0.100 03/11/10 RMD-CV Lead - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 03/11/10 03/10/10 13:40 RMD-CV Nickel - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 03/10/10 13:40 03/11/10 RMD-CV Selenium - TCLP extracted < 0.500 mg/L EPA 6010B 0.500 03/10/10 13:40 03/11/10 RMD-CV Silver - TCLP extracted < 0.100 mg/L EPA 6010B 0.100 03/10/10 13:40 03/11/10 RMD-CV Zinc - TCLP extracted < 0.200 mg/L EPA 6010B 0.200 03/10/10 13:40 03/11/10 RMD-CV

#### **REMARKS:**

The above test procedures meet all the requirements of NELAC and relate only to these samples.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

ani m. Davis

DATE:

3/17/2010

CHAIN OF CUSTODY EPORT TO: Talisman	7	Eas	<b>rk Analytics, Inc.</b> stern Division	PAGEOF
Tatismay	2566 Pennsylvania Avenue • Sayre, PA 18840 Phone: (570) 888-0169			ARE SPECIAL DETECTION LIMITS
	4		570) 888-0717	NEEDED: YES / NO
	REFRIGERATE SAMPLES		RESULTS ARE BEING USE	D FOR: IF YES, PLEASE ATTACH
	AFTER COLLECTION	DW DRINKING		(PNDEP) IS A QC PACKAGE NEEDED?
CONTACT STORE ( )	-	GW GROUNDW SW SURFACEV	WATER HZ HAZARDOUS	YES NO
H# 607-731-0145	TRANSPORT TO	/ WW WASTEWA	ICD ATTICA	IF YES, PLEASE ATTACH REQUIREME
AX#	LABORATORY		DROXIDE PWS	S ID#
SILL TO: Talisman	WITH ICE			
		W/O#:	40030703 CHLORIDE	ple Point
°O#	7 / / &/			
TION	Sume Le Unitation	Supplements	An incomplete chain of custody may delay the	To the please out
AMPLER SIGNATURE / AFFILIATION			D processing of your sample(s).	
GOL UEG			ANALYSIS TO BE PERFORMED	A Comp
Container Sample Point No./Type			(PER CONTAINER)	
1 Air Cuttings P-1	3/1 1145 So C	& W	TPH PH	OGI A
2			TCLP JA 8 RCRA Metals +	-
3			Cy, Ni, Zn.	
4				
5			A - TPH, pH, CI	
6			13 - Total Sample	
7			C TCLP Metals	
8				
9				
10				
11			Duc: 3/18/10	
LAB USE THE	C.			
DELIVERED BY				C ARRIVAL ON ICE O
RELINQUISHED	131/	U TIME:938	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE: , TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY: Debbie McCart	

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10064652

WO#: 10064652PAGE: 1 of 1PO#:PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

TEST REPORT

Truck Accident 030810					_	
RECEIVED FOR LAB BY: DLM2	DAT	E: 06/29/2010 14:40			P	age 1 of 1
SAMPLE: Inv. Cuttings Rig 56 Bin	S	Lab ID: 10064652-001A	Compo	osite	· · ·	
SAMPLED BY: LS	San	nple Time: 06/28/2010 10:00	SLOQ			
<u>Test</u>	<u>Result</u>	Method		Analysis Start	Analysis End	Analyst *
Moisture	46.1 %	Moisture Calc.	0.01	06/29/10 15:55	06/30/10	IC-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	06/29/10 16:00	06/29/10	IC-SA
pH .	12.24@25.3°C	EPA 9045C		06/29/10 15:23	06/29/10	MED-SA
SAMPLE: Inv. Cuttings Rig 56 Bin	`S	Lab ID: 10064652-001B	Compo	site		
SAMPLED BY: LS	San	nple Time: 06/28/2010 10:00				
			<u>SLOQ</u>			
Test	<u>Result</u>	Method		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Petroleum Hydrocarbons	10200 mg/Kg	EPA 9071		07/01/10 0:00	07/01/10	
Sample Note: Analysis performed	l by Microbac-Erie					
SAMPLE: TCLP Leachate of Inv. Cu	uttings Rig 56 Bin's	Lab ID: 10064652-001D	Compo	site		
SAMPLED BY: LS		nple Time: 06/28/2010 10:00				

			SLOQ			
Test	<u>Result</u>	Method		Analysis Start	Analysis End	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	06/29/10 11:15	07/01/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/01/10 8:45	07/01/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	07/01/10 8:45	07/01/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/01/10 8:45	07/01/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/01/10 8:45	07/01/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/01/10 8:45	07/01/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/01/10 8:45	07/01/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/01/10 8:45	07/01/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/01/10 8:45	07/01/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/01/10 8:45	07/01/10	GSR-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	07/01/10 8:45	07/01/10	GSR-CV
Sample Note: The temperature of	the extraction room exceeded the	e range of 23 ± 2°C				

### REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

anie M. Davis

DATE:

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LAB ID: 08-00380 LAB ID: 39-00401	Easter 2566 Per	a <b>Analytics, In</b> <b>In Division</b> Insylvania Ave. , PA 18840	IC.	Work	Order: 100	71871
	•	70) 888-0169 70) 888-0717				
SEND DATA TO:						
NAME: Steve Gridley			W	'O#: 1007	1871	
COMPANY: Talisman Energy US			D	AGE: 1 of	1	
ADDRESS: 337 Daniel Zenker			F/	AGE. TO	I	
Horseheads, NY 14	-845		P	O#: AF76	6317	
PHONE: (607) 562-4000	TEST	REPORT	P	WS ID#		
FAX: (607) 562-4000						
77 Well			_			
RECEIVED FOR LAB BY: WCB	DATE	07/13/2010 13:15			D	age 1 of 1
		07/13/2010 13:13				
SAMPLE: Inv. Cuttings		ab ID: 10071871-001A	Grab			
SAMPLED BY: SG	Sample	Time: 07/12/2010 12:05	Reg			
Test	<u>Result</u>	Method	Limit	Analysis Start	Analysis End	<u>Analyst *</u>
Total Petroleum Hydrocarbons	73700 mg/Kg	EPA 9071		07/15/10 0:00	07/15/10	
Sample Note: Analysis performed	d by Microbac-Erie				· · · · · · · · · · · · · · · · · · ·	
SAMPLE: Inv. Cuttings	L	ab ID: 10071871-001B	Grab			
SAMPLED BY: SG	Sample	Time: 07/12/2010 12:05	Bog			
Test	Result	Method	<u>Reg</u> Limit	Analysis Start	Analysis End	Analyst *
Moisture	14.4 %	Moisture Calc.		07/14/10 14:30	07/15/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A		07/14/10 8:30	07/14/10	IC-SA
рH	9.27@22.4°C	EPA 9045C		07/14/10 12:23	07/14/10	DLM-SA
SAMPLE: TCLP Leachate of Inv. C	uttings	ab ID: 10071871-001D	Grab			
SAMPLED BY: SG	-	Time: 07/12/2010 12:05	_			
		Mathad	<u>Reg</u>	Analysis Start	Analysis End	Analyst *
Test	Result		1.11/111			
<u>Test</u> Mercury - TCLP extracted	<u>Result</u> < 0.0008 ma/L	<u>Method</u> EPA 7470A	<u>Limit</u> 0.2		07/18/10	RMD-CV
Test Mercury - TCLP extracted Arsenic - TCLP extracted	<u>Result</u> < 0.0008 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B	0.2 5	07/16/10 9:00 07/16/10 15:00	07/18/10 07/17/10	RMD-CV RMD-CV
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.2	07/16/10 9:00		RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B	0.2 5	07/16/10 9:00 07/16/10 15:00	07/17/10	
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	EPA 7470A EPA 6010B EPA 6010B	0.2 5 100	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10	RMD-CV RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B	0.2 5 100 1	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10 07/17/10	RMD-CV RMD-CV RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.2 5 100 1	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10 07/17/10 07/17/10	RMD-CV RMD-CV RMD-CV RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.2 5 100 1 5	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10 07/17/10 07/17/10 07/17/10	RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.2 5 100 1 5	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10 07/17/10 07/17/10 07/17/10 07/17/10	RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted Nickel - TCLP extracted	< 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L	EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.2 5 100 1 5 5	07/16/10 9:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00 07/16/10 15:00	07/17/10 07/17/10 07/17/10 07/17/10 07/17/10 07/17/10 07/17/10	RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range n

MANAGER

Cani	M. Davis	4. T	DATE:	7/20/2010
C C				

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10073110

Phone: (570) 888-0169 Fax: (570) 888-0717

SEND DATA	TO:							
NAME:	Steve Gridley				W	O#: 100	073110	
COMPANY: ADDRESS:	Talisman Energy USA, I 337 Daniel Zenker Dr	Inc.			PA	AGE: 1 o	f 2	
ADDINE00.	Horseheads, NY 14845	5			P	D#: AF	76323	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	EST RE	EPORT	P\	NS ID#		
7 RECEIVED F	OR LAB BY: WCB	DAT	Έ· 07/2	20/2010 13:25			P	age 1 of 2
-						•-		
SAMPLE: Inv	<b>/. Clean Soil</b> D BY: SG	80		): 10073110-001A e: 07/13/2010 18:40	Compo	site		
	D B1. 3G		пре ппе		<u>SLOQ</u>			
<u>Test</u> Sodium		<u>Result</u> < 123 mg/Kg-dry		<u>Method</u> EPA 6010B	123	Analysis Start 07/22/10 7:00		Analyst * GSR-CV
Chloride		< 123 mg/Kg-dry 66.2 mg/Kg-dry		EPA 300.0	51.8	07/21/10 12:3		HDP-CV
	lculated as LAS, mol	15 mg/Kg	ΖN	SM5540C	13	07/20/10 8:25		BJW-CV
Percent M		3.4 %		SM2540G		07/21/10 16:0	0 07/22/10	BJW-CV
SAMPLE: Inv	/. Clean Soil		Lab ID	): 10073110-001B	Compo	site		·
SAMPLE	D BY: SG	Sa	mple Time	: 07/13/2010 18:40	SLOQ			
Test		Result		Method	<u> 3200</u>	Analysis Start	Analysis End	<u>Analyst *</u>
Moisture		3.26 %		Moisture Calc.	0.01	07/21/10 9:40	07/22/10	NFM-SA
Free Liqui	d	< 0.1 %		EPA 9095A	0.1	07/22/10 10:0	5 07/22/10	IC-SA
pН		8.57@21.6°C		EPA 9045C		07/21/10 12:1	5 07/21/10	NFM-SA
Phosphoru	us	246 mg/kg-dry		EPA 365.3	5	07/22/10 11:00	0 07/23/10	MED-SA
SAMPLE: Inv	/. Clean Soil		Lab ID	): 10073110-001C	Compo	site		
SAMPLE	D BY: SG	Sa	mple Time	: 07/13/2010 18:40	SLOQ			
Test		Result		Method	<u>3L0Q</u>	Analysis Start	Analysis End	<u>Analyst *</u>
Total Petro	oleum Hydrocarbons	299 mg/Kg		EPA 9071		07/22/10 11:10	0 07/22/10	
Sample	Note: Analysis performed by I	Microbac-Erie						
		Soil	Lab ID	: 10073110-001E	Compo	site		
SAMPLE: IC	LP Leachate of Inv. Clean	0011						
	LP Leachate of Inv. Clean D BY: SG		mple Time	: 07/13/2010 18:40	01.00			
SAMPLE		Sa	mple Time		<u>SLOQ</u>	Analysis Start	Analysis End	Analvst *
SAMPLE <u>Test</u>			mple Time	: 07/13/2010 18:40 <u>Method</u> EPA 7470A	<u>SLOQ</u> 0.0008	<u>Analysis Start</u> 07/22/10 9:00		<u>Analyst *</u> KW-CV
SAMPLE <u>Test</u> Mercury -	D BY: SG	Sai <u>Result</u>	mple Time	Method			07/23/10	

# **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

N Parameter is not NELAC certified

Z Due to matrix bias, spike recovery was outside acceptance limits

MANAGER

In. ha had	
any M. Oak	ha

DATE: \_\_\_\_7/27/2010

OFNID DATA TO

Lead - TCLP extracted

Nickel - TCLP extracted

Silver - TCLP extracted

Zinc - TCLP extracted

Selenium - TCLP extracted

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10073110

07/22/10

07/22/10

07/22/10

07/22/10

07/22/10

GSR-CV

GSR-CV

GSR-CV

GSR-CV

GSR-CV

SEND DATA	. 10:							
NAME:	Steve Gridley			W	O#:	1007311	0	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	C.		PA	AGE:	2 of 2		
	Horseheads, NY 14845			P	D#:	AF76323	;	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	P\	WS ID#			
77								
RECEIVED F	FOR LAB BY: WCB	DATE: (	07/20/2010 13:25				Р	age 2 of 2
Cadmium	- TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 1	12:30 0	)7/22/10	GSR-CV
Chromiun	n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	07/22/10 1	12:30 0	)7/22/10	GSR-CV
Copper -	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	07/22/10 1	12:30 0	)7/22/10	GSR-CV

EPA 6010B

EPA 6010B

EPA 6010B

EPA 6010B

EPA 6010B

0.500 07/22/10 12:30

0.100 07/22/10 12:30

0.200 07/22/10 12:30

07/22/10 12:30

07/22/10 12:30

0.100

0.500

< 0.500 mg/L

< 0.100 mg/L

< 0.500 mg/L

< 0.100 mg/L

< 0.200 mg/L

**REMARKS:** 

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA \*

Parameter is not NELAC certified Ν

Due to matrix bias, spike recovery was outside acceptance limits Ζ

MANAGER

Carrie M. Davis

DATE:

7/27/2010

Steve Gridley COMPANY: Talisman Energy USA, Inc.

(607) 562-4000

(607) 562-4001

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

NAME:

PHONE:

FAX:

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10080733

WO#: 10080733 PAGE: 1 of 1 PO#: AF76709 PWS ID#

**TEST REPORT** 

77						
RECEIVED FOR LAB BY: DLM2	DAT	E: 08/05/2010 9:50			Pa	ige 1 of 1
SAMPLE: Inv. Cuttings & Gypsum		Lab ID: 10080733-001A	Grab		11 11 11 11 10 10 10 10 10 10 10 10 10 1	
SAMPLED BY: SG	Sai	mple Time: 08/04/2010 11:00	SLOQ			
Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	96900 mg/Kg	EPA 9071		08/09/10 11:25	08/09/10	
Sample Note: Analysis performed by	/ Microbac-Erie					
SAMPLE: Inv. Cuttings & Gypsum		Lab ID: 10080733-001B	Grab		<u></u>	
SAMPLED BY: SG	Sar	mple Time: 08/04/2010 11:00				
<b>T</b>	Decell	Mastha al	<u>SLOQ</u>	Analysis Ofert	Analysis End	A
<u>Test</u> Moisture	<u>Result</u> 14.1 %	<u>Method</u> Moisture Calc.	0.01	<u>Analysis Start</u> 08/09/10 14:45	Analysis End 08/10/10	Analyst *
	14.1 % < 0.1 %	EPA 9095A	0.01	08/05/10 14:15	08/05/10	NFM-SA IC-SA
Free Liquid		EPA 9095A EPA 9045C	0.1	08/06/10 14:13	08/06/10	SG-SA
рН	9.13@22.3°C	EPA 90450		08/08/10 14.21		SG-SA
SAMPLE: TCLP Leachate of Inv. Cutt	ings & Gypsum	Lab ID: 10080733-001D	Grab			
SAMPLED BY: SG	Sar	mple Time: 08/06/2010 7:45	SLOQ			
Test	Result	Method	OLOQ	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/09/10 9:00	08/10/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/09/10 10:30	08/09/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	08/09/10 10:30	08/09/10	RMD-CV

## **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE:

8/10/2010

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10080746

WO#: 10080746PAGE: 1 of 1PO#: AF76709PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

TEST REPORT

7					··	
RECEIVED FOR LAB BY: DLM2	DATE	: 08/05/2010 9:50			Pa	age 1 of 1
SAMPLE: Inv. Cuttings & Cool Ash 1		Lab ID: 10080746-001A	Grab			
SAMPLED BY: SG	Sam	ple Time: 08/04/2010 11:00	SLOQ			
<u>Test</u>	Result	Method	<u></u>	Analysis Start	Analysis End	<u>Analyst *</u>
Total Petroleum Hydrocarbons	59300 mg/Kg	EPA 9071		08/09/10 11:25	08/09/10	
Sample Note: Analysis performed by	Microbac-Erie					
SAMPLE: Inv. Cuttings & Cool Ash 1		Lab ID: 10080746-001B	Grab			
SAMPLED BY: SG	Sam	ple Time: 08/04/2010 11:00				
Test	Popult	Method	<u>SLOQ</u>	Apolygia Start	Analysia End	A polyof *
Moisture	<u>Result</u> 15.7 %	Metriou Moisture Calc.	0.01	<u>Analysis Start</u> 08/09/10 14:45	Analysis End 08/10/10	<u>Analyst *</u>
Free Liguid	< 0.1 %	EPA 9095A	0.01	08/05/10 14:45	08/05/10	NFM-SA
•		EPA 9095A EPA 9045C	0.1			IC-SA
рН	9.64@22.3°C	EPA 90450		08/06/10 14:21	08/06/10	SG-SA
SAMPLE: TCLP Leachate of Inv. Cuttin	igs & Cool Ash 1	Lab ID: 10080746-001D	Grab			
SAMPLED BY: SG	Sam	ple Time: 08/06/2010 7:45				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/09/10 9:00	08/10/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/09/10 10:30	08/09/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
	•		0.100			RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B		08/09/10 10:30	08/09/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	,08/09/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	08/09/10 10:30	08/09/10	RMD-CV

### **REMARKS**:

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: 8/10/2010

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

WO#: 10080752PAGE: 1 of 1PO#: AF76709PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

TEST REPORT

77						
RECEIVED FOR LAB BY: DM3	DATE	: 08/05/2010 9:50			Pa	age 1 of 1
SAMPLE: Inv. Cuttings & Cool Ash 2 SAMPLED BY: SG	Sam	Lab ID: 10080752-001A ple Time: 08/04/2010 11:00	Grab SLOQ			
Test	<u>Result</u>	Method		<u>Analysis Start</u>	Analysis End	Analyst *
Total Petroleum Hydrocarbons	81100 mg/Kg	EPA 9071		08/09/10 11:25	08/09/10	
Sample Note: Analysis performed by	Microbac-Erie					
SAMPLE: Inv. Cuttings & Cool Ash 2		Lab ID: 10080752-001B	Grab			
SAMPLED BY: SG	Sam	ple Time: 08/04/2010 11:00	SLOQ			
Test	Result	Method	<u>3LUQ</u>	Analysis Start	Analysis End	Analyst *
Moisture	15.3 %	Moisture Calc.	0.01	08/09/10 14:45	08/10/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	08/05/10 14:25	08/05/10	IC-SA
рН	9.33@22.4°C	EPA 9045C		08/06/10 14:21	08/06/10	SG-SA
SAMPLE: TCLP Leachate of Inv. Cuttin	igs & Cool Ash 2	Lab ID: 10080752-001D	Grab			
SAMPLED BY: SG	-	ple Time: 08/06/2010 7:45	SLOQ			
Test	<u>Result</u>	Method	OLOQ	Analysis Start	Analysis End	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	08/09/10 9:00	08/10/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	08/09/10 10:30	08/09/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/09/10 10:30	08/09/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/09/10 10:30	08/09/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	08/09/10 10:30	08/09/10	RMD-CV

### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

anie M. Davis

DATE: 8

8/10/2010



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

# FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accur typed or legibly printed in the space each attached sheet as Form 26 prepared. The date on attached sh	tify Date Receiv	USE ONLY ed & General Notes		
General Reference 287.54				
Date Prepared/Revised	February 11, 2011			
	A. CLIENT (GENERATOR	R OF THE WASTE) IN	<b>IFORMATION</b>	
Company Name				
Talisman Energy USA Inc. If a Subsidiary, Name of Parent Co	mpany		FPA	Generator ID#
Talisman Energy Inc.	mpany		N/A	Cenerator ibir
Company Mailing Address Line 1	C	ompany Mailing Addres	ss Line 2	
50 Pennwood Place	04-4-	71	Dharra	<b>P</b> 4
Company Address Last Line – City Warrendale	State	<b>Zip+4</b> 15086	Phone (724) 814-53	Ext
Company Contact Last Name	First Name	MI	(124)014-000 Suffi	
Brown	Dina			
Municipality		County		
Warrendale Contact Phone Ext	Contact Email Address	Allegheny		
(724) 814-5321	dybrown@talismanusa.c	com		
Is the waste generated at the Comp				Yes 🛛 No
If 'No', describe location of waste g	generation and storage. Drill o	cuttings are generated du	iring natural gas drill	ling operations at
the (03-006) well pad site lo containers on site.	ocated at 431 Bradford Street, T	roy Borough, Bradford C	ounty, PA. Waste is	s stored in
Municipality Troy	County Bradfo	ord	State	PA
	SECTION B. WAST	E DESCRIPTION		
	idual Waste		Unit of	Time
	e Description	Amount	Measure	Frame
810 Drill cuttings (oil an	d gas)	570	☐ lb ⊠ ton	One Time
	1. GENERAL P	na hara ta'an ang kang sa ang kang sa	+ 11 - 12 - 14 - 14 - 14 - 14 - 14 - 14 -	
• •		(based on analyses or ki	nowledge)	·····
b. Physical State	Liquid Waste (EPA Me			
	Gas (ambient temperat			
c. Physical Appearance	Color Greyish Black	///	r Earthy / Sligh	t Petroleum
	Number of Solid or Liquic	Phases of Separation	One	
	Describe each phase of s	eparation. <u>Soil and Ro</u>	ck Fragments	
	2. CHEMICAL ANALYS	SIS ATTACHMENTS		
a. The results of a detailed ch	2. CHEMICAL ANALYS emical characterization of the	a server and the server of the server and the server of the	the 🕅	Yes No
instructions, is attached.	emical characterization of the	waste, as described in		
instructions, is attached. b. A detailed description of the	emical characterization of the e waste sampling method is a	waste, as described in httached.		Yes No
instructions, is attached.b.A detailed description of thec.The quality assurance/quality	emical characterization of the	waste, as described in httached.		
instructions, is attached. b. A detailed description of the c. The quality assurance/quali attached.	emical characterization of the e waste sampling method is a	waste, as described in httached. yed by the laboratory(ie		Yes No

	3.	PROCESS DESCRIPT	TION & SCHEMATIC ATTA	CHMENTS		1			
a.	A detailed description of the the waste, as specified in the			esses producing	🛛 Yes	No No			
b.	A schematic of the manufact as specified in the instruction		n control processes pro	oducing the waste,	X Yes	🗌 No			
C.	If portions of the information submitted are confidential, the substantiation for Yes No X N/A a confidentiality claim, as described in the instructions, is attached.								
	SECTI		EMENT OF RESID						
			OR DISPOSAL FACILITY						
The a	rea below (ad.) will accommo				if necessary	·			
a.	Solid waste permit number(s 8-4630-00010	) for processing or d	isposal facility being ut	ilized.					
b.	Facility Name	Hakes C&D Land	fill						
	Address Line 1	4376 Manning Rid	dge Road	-					
	Address Line 1								
	Address City State ZIP	Painted Post	NY	14870					
	Municipality	Erwin Twp	County	Steuben					
C.	Facility Contact Name	Joe Boyles							
	Title								
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@cas	ella.com				
d.	Volume of waste shipped to p		al facility in the previou	is year.					
	204	cuyd 🗌 gal	🗍 lb 🛛 to		)				
а.	Solid waste permit number(s) 9-0232-00003	for processing or d	isposal facility being ut	ilized.					
b.	Facility Name	Hyland Landfill							
	Address Line 1	6653 Herdman Ro	oad						
	Address Line 1								
	Address City State ZIP	Angelica	NY	14709					
	Municipality	Angelica	County	Allegany					
C.	Facility Contact Name	Larry Shilling							
	Title								
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com				
d.	Volume of waste shipped to p	rocessing or dispos	al facility in the previou	-	)				
		2. B	ENEFICIAL USE						
a.	Has the waste been approved	for beneficial use?			Yes	No No			
	If "Yes", list the general perm	it number or approv	al number.						
b.	Volume of waste beneficially								
	0	cu yd 🗌 gal	🗌 lb 🗌 to	n (check one)	)				

	2	<b>PROCESS DESCRIPTION</b>	& SCHEMATIC ATTAC	HMENTS.		200 C		
a.	A detailed description of the				X Yes			
а.	the waste, as specified in the			sses producing				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.							
C.	If portions of the information a confidentiality claim, as des			n for 🔲 Yes	No No	N/A		
	SECTIÓ	ON C. MANAGEM	<b>ENT OF RESIDU</b>	AL WASTE				
		1. PROCESSING OR	DISPOSAL FACILITY (IE	(S)				
The ar	ea below (ad.) will accommod	ate the identification o	f two facilities. Attach	additional sheets	if necessary	•		
a.	Solid waste permit number(s) 8-0728-00004	for processing or disp	osal facility being util	ized.				
b.	Facility Name	Chemung County La	ndfill					
	Address Line 1	1690 Lake Street	·····		·····			
	Address Line 1							
	Address City State ZIP	Elmira	NY	14903				
	Municipality	Elmira	County	Chemung				
C.	Facility Contact Name	Carla Canjar						
	Title	Environmental Mana	aer					
:	Phone	(585) 797-5941	Email Address	carla.canjar@ca	sella.com			
d.	Volume of waste shipped to p	rocessing or disposal	facility in the previous	year.				
	127 🗌	cu yd 🗌 gal	🗌 İb 🛛 🖾 ton					
а.	Solid waste permit number(s) 100361	for processing or disp	osal facility being utili	zed.				
b.	Facility Name	McKean County Lan	dfill					
	Address Line 1	19 Ness Lane						
	Address Line 1							
	Address City State ZIP	Kane	PA	16735				
	Municipality	Sergeant Twp	County	McKean				
с.	Facility Contact Name	Mike Manderfeld						
0.	Title	Milke Manachela						
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com			
d.	Volume of waste shipped to p	cu yd gal	b K ton					
		2: BEN	EFICIAL USE					
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No		
	If "Yes", list the general perm	it numbe <mark>r or approval</mark> r	umber.					
b.	Volume of waste beneficially							
	0 📋	cuyd 🗌 gal	🗌 lb 🗌 ton	(check one)				

.

		SECTION D. CERTIFICATION						
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applicable:								
I certify the information required in Section B-1, General Properties was supplied to the Department for the year and has not changed.								
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information	•	ired in Section B-2, Chemical Analysis was supplied to the Department for the year						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information for the year and I		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
Name of Responsible Official		Title Environmental Specialist						
Dina Brown								
Signature	5	Date 2/25/11						

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10123993

 WO#:
 10123993

 PAGE:
 1 of 3

 PO#:
 AF 78732

 PWS ID#

PHONE: (607) 562-4000 FAX: (607) 562-4001

Dina Brown

ADDRESS: 337 Daniel Zenker Dr

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

TEST REPORT

A4H Well Pad RECEIVED FOR LAB BY: CMS	DATE:	12/28/2010 13:50			Pa	ige 1 of 3
SAMPLE: Air Cuttings		ab ID: 10123993-001A	Grab			
SAMPLED BY: DJD	Sample	Time: 12/28/2010 10:50				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	560 mg/Kg	EPA 9071	170	12/29/10 15:10	12/29/10	<u>r indiyot</u>
Sample Note: Analysis performe	8 8	c-Erie Division.				
SAMPLE: Air Cuttings	Ļ	ab ID: 10123993-001B	Grab			
SAMPLED BY: DJD	Sample	Time: 12/28/2010 10:50				
<b>-</b> ,	<b>D</b> "		<u>SLOQ</u>			• • • • •
Test	Result	Method		Analysis Start	Analysis End	Analyst *
Moisture	40.7 %	Moisture Calc.	0.01	01/03/11 11:30	01/04/11	KMF-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	12/28/10 17:00	12/28/10	IC-SA
pH	11.51@19.8°C	EPA 9045C		12/29/10 11:41	12/29/10	SG-SA
SAMPLE: Air Cuttings	L	ab ID: 10123993-001C	Grab			
SAMPLED BY: DJD	Sample	Time: 12/28/2010 10:50	~ ~ ~ ~			
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Sodium	636 mg/Kg	EPA 6010B	67.0	12/30/10 10:00	01/03/11	GSR-CV
Chloride	1020 mg/Kg	EPA 300.0	48.4	01/04/11 12:43	01/05/11	
ASTM D Chloride	< 25.0 mg/L	EPA 300.0	25.0	01/07/11 15:12	01/03/11	HDP-CV HDP-CV
ASTM D Ph	< 23.0 mg/∟ 10.34 @ 19.2°C	SM4500H+B	25.0	01/07/11 14:22	01/07/11	
	0	SW 7.3.3.2	0.0			LTW-CV
Cyanide, Reactive Reactive Sulfide	< 0.2 mg/Kg		0.2 64	01/06/11 9:28	01/07/11	HDP-CV
	< 64 mg/Kg	SW846 7.3	64	01/10/11 8:55	01/10/11	LTW-CV
SAMPLE: TCLP Leachate of Air C	uttings La	ab ID: 10123993-001E	Grab			
SAMPLED BY: DJD	Sample	Time: 12/29/2010 8:00	81.00			
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/30/10 11:30	01/03/11	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/30/10 9:30	01/03/11	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Caumum - TOLF Extracted	< 0.100 mg/L		0.100	12/00/10 0.00	01/03/11	03K-0V

## **REMARKS:**

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Cani M. Davis

DATE: 1/12/2011

NAME:

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717 Work Order: 10123993

WO#:	10123993
PAGE:	2 of 3
PO#:	AF 78732
PWS ID#	

PHONE: (607) 562-4000 FAX: (607) 562-4001

Dina Brown

ADDRESS: 337 Daniel Zenker Dr

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

# TEST REPORT

A4H Well Pad	<u></u>						
RECEIVED FOR LAB BY: CMS	DAT	E: 12/2	8/2010 13:50			Pa	age 2 of 3
Chromium - TCLP extracted	< 0.500 mg/L	· · · · · ·	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L		EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L		EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-CV
Strontium - TCLP extracted	2.13 mg/L	L	EPA 6010B	0.050	12/30/10 9:30	01/03/11	GSR-CV
Zinc - TCLP extracted	0.577 mg/L		EPA 6010B	0.200	12/30/10 9:30	01/03/11	GSR-CV
SAMPLE: TCLP Leachate of Air Cutt	tings	Lab ID	: 10123993-001F	Grab			
SAMPLED BY: DJD	Sar	nple Time	: 01/06/2011 8:00				
Test	Result		Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
o-Cresol	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachloroethane	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Nitrobenzene	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Pentachlorophenol	< 0.50 mg/L		EPA 8270C	0.50	01/10/11 10:20	01/10/11	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
Hexachlorobenzene	< 0.10 mg/L		EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-SA
SAMPLE: TCLP Leachate of Air Cutt	inas	Lab ID	: 10123993-001G	Grab			
SAMPLED BY:			: 01/06/2011 8:00				
				<u>SLOQ</u>			
Test	Result		Method		Analysis Start	Analysis End	<u>Analyst *</u>
Benzene	< 0.0250 mg/L		EPA 8260B	0.0250	01/07/11 9:22	01/07/11	CTM-SA

#### **REMARKS:**

Carbon tetrachloride

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

EPA 8260B

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.0250 mg/L

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011

01/07/11

CTM-SA

0.0250 01/07/11 9:22

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169

Work Order: 10123993

Fax: (570) 888-0717 SEND DATA TO: NAME: WO#: 10123993 Dina Brown COMPANY: Talisman Energy USA, Inc. PAGE: 3 of 3 ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845 AF 78732 PO#: PWS ID# **TEST REPORT** PHONE: (607) 562-4000 FAX: (607) 562-4001 A4H Well Pad RECEIVED FOR LAB BY: CMS DATE: 12/28/2010 13:50 Page 3 of 3 < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 Chlorobenzene CTM-SA Chloroform < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L 01/07/11 9:22 1,2-Dichloroethane EPA 8260B 0.0250 01/07/11 CTM-SA 1,1-Dichloroethene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA Ethylbenzene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA 01/07/11 9:22 Isopropylbenzene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 CTM-SA < 0.0250 mg/L 0.0250 01/07/11 9:22 Tetrachloroethene EPA 8260B 01/07/11 CTM-SA Toluene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA Trichloroethene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA 1,2,4-Trimethylbenzene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L 0.0250 01/07/11 9:22 01/07/11 1,3,5-Trimethylbenzene EPA 8260B CTM-SA Vinyl chloride < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L 01/07/11 9:22 Methyl tert-butyl ether EPA 8260B 0.0250 01/07/11 CTM-SA 2-Butanone < 0.0500 mg/L EPA 8260B 0.0500 01/07/11 9:22 01/07/11 CTM-SA Lab ID: 10123993-001H SAMPLE: Air Cuttings Grab SAMPLED BY: DJD Sample Time: 12/29/2010 8:00 SLOQ Test Result Method Analysis Start Analysis End Analyst \* **Total Organic Halides** < 5.00 mg/kg SW846/9023 5.00 01/11/11 15:00 01/11/11 Sample Note: Analysis performed by Analytical Services, Inc. Lab ID: 10123993-0011 SAMPLE: Air Cuttings Grah SAMPLED BY: DJD Sample Time: 12/29/2010 8:00 <u>SLOQ</u> Test Result Method Analysis Start Analysis End Analyst \* Ignitability Negative AS IS SW846 1030 01/07/11 14:00 01/07/11 Sample Note: Analysis performed by QC Laboratories.

### REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 1/12/2011



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

# CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

each attache	ust be fully and accura bly printed in the spaces ad sheet as Form 26R, ne date on attached shee	ify Date R	DEPIUSE(C Received & Ge			
General Refe	rence 287.54					
Date Prepare	d/Revised Fe	bruary 11, 2011			_	
		CLIENT (GENERATOR	R OF THE WASTE) IN	IFORMATI	ON	
Company Na						
	ergy USA Inc. v, Name of Parent Com	pany			EPA Gener	ator ID#
Talisman En					N/A	
Company Ma	iling Address Line 1	C	ompany Mailing Addres	ss Line 2		
	dress Last Line – City	State	Zip+4	Phone		Ext
Warrendale	-	PA	15086	(724) 81-		
Company Co Brown	ntact Last Name	First Name Dina	MI		Suffix	
Municipality			County		-	
Warrendale		/	Allegheny			
Contact Phot		Contact Email Address				
(724) 814-53		dybrown@talismanusa.c ny Mailing Address (noted a			Yes	No No
If 'No'. descr	be location of waste gei	neration and storage. Drill o	uttings are generated du		is drilling op	erations at
		ted at 311 Stump Road, Grar	ville Township, Bradford	County, PA.	Waste is sto	ored in
containers on Municipality	Granville	County Bradfo	ord	State	PA	
			E DESCRIPTION			
Residual	Resid			Unit of		
		ual Waste				Time
Waste Code	· · · ·	Description	Amount	Measure		Time Frame
Waste Code 810	Code I Drilling Cuttings (Oil a	Description	Amount 1,109	🗌 cu yd 📃	gal ton	
810	Drilling Cuttings (Oil a	Description and Gas) 1. GENERAL P	1,109	□ cu yd  □ □ lb   ⊠		Frame
810 a. pH Ra	Drilling Cuttings (Oil a	Description and Gas) 1. General P 53 to 8.24	1,109 ROPERTIES (based on analyses or k	□ cu yd  □ □ lb   ⊠		Frame
810 a. pH Ra	Drilling Cuttings (Oil a	Description and Gas) 53 to 8.24 Liquid Waste (EPA Me	1,109 ROPERTIES (based on analyses or k thod 9095)	□ cu yd  □ □ lb   ⊠		Frame
810 a. pH Ra	Drilling Cuttings (Oil a	Description and Gas) 1. General P 53 to 8.24	1,109 ROPERTIES (based on analyses or k thod 9095) 95)	□ cu yd  □ □ lb   ⊠		Frame
810 a. pH Ra b. Physi	Drilling Cuttings (Oil a	And Gas)           1. GENERAL P           53         to         8.24           Liquid Waste (EPA Metod 909)         Solid (EPA Method 909)           Gas (ambient temperal Color         Greyish Black	1,109 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo	□ cu yd □ □ lb   ⊠ nowledge) r   Earthy / \$		Frame One Time
810 a. pH Ra b. Physi	Drilling Cuttings (Oil a ange 6.5 cal State	Description and Gas) 1. GENERAL P 53 to 8.24 ☐ Liquid Waste (EPA Me Solid (EPA Method 909 ☐ Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	1,109 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation	□ cu yd □ □ lb   ⊠ nowledge) r _ Earthy / S _ One	Slight Petro	Frame One Time
810 a. pH Ra b. Physi	Drilling Cuttings (Oil a ange 6.5 cal State	And Gas)           1. GENERAL P           53         to         8.24           Liquid Waste (EPA Metod 909)         Solid (EPA Method 909)           Gas (ambient temperal Color         Greyish Black	1,109 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation	□ cu yd □ □ lb   ⊠ nowledge) r _ Earthy / S _ One	Slight Petro	Frame One Time
810 a. pH Ra b. Physi c. Physi	Drilling Cuttings (Oil a ange 6.t cal State cal Appearance	Description and Gas) 1. GENERAL P 3 to 8.24 Liquid Waste (EPA Met Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS	1,109 ROPERTIES (based on analyses or k thod 9095) b5) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	□ cu yd □ □ lb   ⊠ nowledge) rEarthy / S One ck Fragments	ton	Frame One Time Dleum
810 a. pH Ra b. Physi c. Physi a. The ra instru	Drilling Cuttings (Oil a ange 6.t cal State cal Appearance esults of a detailed chen actions, is attached.	Description and Gas)	1,109 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described Ir	□ cu yd □ □ lb   ⊠ nowledge) rEarthy / S One ck Fragments	Slight Petro	Frame One Time
810 a. pH Ra b. Physi c. Physi a. The ra instru b. A det	Drilling Cuttings (Oil a ange 6.t cal State cal Appearance esults of a detailed chen actions, is attached.	Description and Gas) 1. GENERAL P 33 to 8.24 ↓ Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the waste sampling method is a	1,109 ROPERTIES (based on analyses or k thod 9095) b5) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described Ir ttached.	□ cu yd □ □ lb   ⊠ nowledge) r _Earthy / S  Che ck Fragments the	ton       Slight Petro       S       X       Yes       X	Frame One Time One Time Deleum No No No
810 a. pH Ra b. Physi c. Physi a. The ra instru b. A det	Drilling Cuttings (Oil a ange 6.t cal State cal Appearance esults of a detailed chen actions, is attached. alled description of the v uality assurance/quality	Description and Gas)	1,109 ROPERTIES (based on analyses or k thod 9095) b5) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described Ir ttached.	□ cu yd □ □ lb   ⊠ nowledge) r _Earthy / S  Che ck Fragments the	Slight Petro	Frame One Time Deleum No
810 a. pH Ra b. Physi c. Physi a. The ra instru b. A det c. The q attack d. The ra	Drilling Cuttings (Oil a ange 6.t cal State cal Appearance esults of a detailed chen actions, is attached. alled description of the v uality assurance/quality red.	Description and Gas) 1. GENERAL P 33 to 8.24 ↓ Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS hical characterization of the waste sampling method is a	1,109 ROPERTIES (based on analyses or k thod 9095) b5) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described Ir ttached. //ed by the laboratory(id ched.	□ cu yd □ □ lb   ⊠ nowledge) r _Earthy / S  Che ck Fragments the	ton       Slight Petro       S       X       Yes       X	Frame One Time One Time Deleum No No No

	3.:	PROCESS DESCRIPTION &	SCHEMATIC ATTAC	CHMENTS				
a.	A detailed description of the i the waste, as specified in the	nanufacturing and/or pol	lution control proce		Yes Yes	🗌 No		
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes INO as specified in the instructions, is attached.							
C.	If portions of the information submitted are confidential, the substantiation for 🚺 Yes 🔲 No 🖾 N/A a confidentiality claim, as described in the instructions, is attached.							
	SECTIO	ON C. MANAGEME		2xx000xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
947) 1		1. PROCESSING OR D						
The ar	rea below (ad.) will accommod	ate the identification of the	vo facilities. Attach	additional sheets	if necessary.			
a.	Solid waste permit number(s) 100361	for processing or dispos	al facility being util	ized.				
b.	Facility Name	McKean County Landfi						
	Address Line 1	19 Ness Lane						
	Address Line 1							
	Address City State ZIP	Kane	PA	16735				
	Municipality	Sergeant Twp	County	McKean				
C.	Facility Contact Name Title	Mike Manderfeld						
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com			
d.	Volume of waste shipped to p 518	cu yd 🗌 gal	b 🛛 ton	(check one)				
a.	Solid waste permit number(s) 8-4630-00010	for processing or dispos	al facility being utili	zed.				
b.	Facility Name	Hakes C&D Landfill						
	Address Line 1	4376 Manning Ridge R	oad					
	Address Line 1							
	Address City State ZIP	Painted Post	NY	14870				
-	Municipality	Erwin Twp	County	Steuben				
c.	Facility Contact Name	Joseph Boyles						
	Title							
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	lla.com			
d.	Volume of waste shipped to p	r <b>ocessing or disposal fac</b> cu yd gal	ility in the previous					
÷ Tris		2. BENEF						
a.	Has the waste been approved				Ves	No No		
	If "Yes", list the general permi	t number or approval nur	nber.			_		
b.	Volume of waste beneficially u				·			
	0 Ď	cuyd 🗌 gal [	lbton	(check one)				

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTAC	HMENTS			
a.	A detailed description of the			sses producing	Yes [	] No	
1	the waste, as specified in the	instructions, is attached	d.			-	
b.	A schematic of the manufacture as specified in the instruction		ntrol processes proc	lucing the waste,	Yes [	] No	
	•					7	
C.	If portions of the information submitted are confidential, the substantiation for Yes No X N/A a confidentiality claim, as described in the instructions, is attached.						
	SECTIC	ON C. MANAGEM	ENT OF RESIDU	AL WASTE			
			DISPOSAL FACILITY (IE				
The ar	ea below (ad.) will accommod	ate the identification of	two facilities. Attach	additional sheets	if necessary.		
a.	Solid waste permit number(s) 9-0232-00003	for processing or dispo	sal facility being util	zed.			
b.	Facility Name	Hyland Landfill					
	Address Line 1	6653 Herdman Road					
	Address Line 1						
	Address City State ZIP	Angelica	NY	14709			
	Municipality	Angelica	County	Allegany			
с.	Facility Contact Name	Larry Shilling					
	Title	¥					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com		
d.	Volume of waste shipped to p	rocessing or disposal fa	cility in the previous	year.			
	181	cu yd 🗌 🔲 gal	🗍 lb 🛛 ton		,		
a.	Solid waste permit number(s)	for processing or dispo	sal facility being utili	zed.			
	8-0728-00004	J	· · · · · · · · · · · · · · · · · · ·				
b.	Facility Name	Chemung County Lar	dfill				
	Address Line 1	1690 Lake Street			,		
	Address Line 1						
	Address City State ZIP	Elmira	NY	14903			
	Municipality	Elmira	County	Chemung			
c.	Facility Contact Name	Carla Canjar		<del>_</del>			
	Title	Environmental Manag	er				
	Phone	(585)797-5941	Email Address	carla.canjar@cas	sella.com		
d.	Volume of waste shipped to p	rocessing or disposal fa	cility in the previous	• -			
u.	142	cu yd 🗌 gal	☐ lb ⊠ ton				
<i>i</i> .			FICIAL USE			No. 199	
a.	Has the waste been approved	for beneficial use?			Yes 🛛	No	
	If "Yes", list the general permi	t number or approval ni	umber.				
b.	Volume of waste beneficially u		г.				
	0	cu yd 🗌 gal	lb ton	(check one)			

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	SECTION D. CERTIFICATION
Report and all attached doc obtaining the information, I knowledge. I understand tha	that I have personally examined and am familiar with the information submitted in this Annual uments and that based upon my inquiry of those individuals immediately responsible for verify that the submitted information is true, accurate and complete to the best of my t the submission of false information herein is made subject to the penalties of 18 Pa. C.S. sification to authoritles, which include fine and imprisonment.
Check the following, if applica	ble:
I certify the information	n required in Section B-1, General Properties was supplied to the Department for the year nged.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	
I certify the information	n required in Section B-2, Chemical Analysis was supplied to the Department for the year nged.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	
I certify the information for the year and	required in Section B-3, Process Description and Schematic, was supplied to the Department has not changed.
Form Submitted:	Form 26R
	Other (specify)
Date Submitted:	
Name of Responsible Official	Title Environmental Specialist
Dina Brown Signature	Stow Date 2/2.5/11

LAB ID: 39-0	0401	East 2566 Pe Say Phone:	r <b>k Analytics, In</b> ern Division ennsylvania Ave. re, PA 18840 (570) 888-0169 (570) 888-0717	ь.	W	ork Order: 101	20835
SEND DATA	TO:						
NAME:	Steve Gridley			W	O#: 10	0120835	
COMPANY:		Inc.		PA	AGE: 1	of 1	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845						
				PC	D#: A	F77715	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TES	ST REPORT	P٧	WS ID#		
01-	-075	1	· ·				
RECEIVED F	FOR LAB BY: CMS	DATE	: 12/06/2010 15:40			Ра	ige 1 of 1
SAMPLE: In	v Cuttings		Lab ID: 10120835-001A	Compo	site		
SAMPLE	D BY: SG	Sam	ole Time: 12/06/2010 10:05				
		eany	ble filme. 12/00/2010 10:00	SI OO			
<u>⊺est</u> Total Peti	roleum Hydrocarbons	<u>Result</u> 96400 mg/Kg	<u>Method</u> EPA 9071	<u>SLOQ</u>	<u>Analysis Sta</u> 12/08/10 14:		<u>Analyst *</u>
<u>⊺est</u> Total Peti Sample	roleum Hydrocarbons e Note: Analysis performed by	<u>Result</u> 96400 mg/Kg	<u>Method</u> EPA 9071 s, Inc-Erie Division		12/08/10 14		Analyst *
Test Total Petr Sample SAMPLE: In	roleum Hydrocarbons e Note: Analysis performed by	<u>Result</u> 96400 mg/Kg Microbac Laboratories	<u>Method</u> EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B	<u>SLOQ</u> Compo	12/08/10 14		<u>Analyst *</u>
Test Total Petr Sample SAMPLE: In SAMPLE	roleum Hydrocarbons e Note: Analysis performed by v Cuttings	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ble Time: 12/06/2010 10:05		12/08/10 14: site	20 12/08/10	
<u>Test</u> Total Petr Sample SAMPLE: In SAMPLE <u>Test</u>	roleum Hydrocarbons e Note: Analysis performed by v Cuttings	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp <u>Result</u>	<u>Method</u> EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u>	Compo SLOQ	12/08/10 14: site <u>Analysis Sta</u>	20 12/08/10	Analyst *
<u>Test</u> Total Petr Sample SAMPLE: In SAMPLE <u>Test</u> Moisture	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 %	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc.	Composi SLOQ 0.01	12/08/10 14: site <u>Analvsis Sta</u> 12/06/10 17:	20 12/08/10 art <u>Analysis End</u> 30 12/07/10	<u>Analyst *</u> IC-SA
<u>Test</u> Total Petr Sample SAMPLE: In SAMPLE <u>Test</u>	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp <u>Result</u>	<u>Method</u> EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u>	Compo SLOQ	12/08/10 14: site <u>Analysis Sta</u>	20 12/08/10 art <u>Analysis End</u> :30 12/07/10 :15 12/06/10	Analyst *
Test Total Petr Sample SAMPLE: In SAMPLE Test Moisture Free Liqu pH	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 % < 0.1 % 8.24@22.3°C	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A	Compo <u>SLOQ</u> 0.01 0.1	12/08/10 14: site <u>Analysis Sta</u> 12/06/10 17: 12/06/10 17: 12/07/10 14:	20 12/08/10 art <u>Analysis End</u> :30 12/07/10 :15 12/06/10	Analyst * IC-SA IC-SA
Test Total Petr Sample SAMPLE: In SAMPLE: In SAMPLE: In Free Liqu pH SAMPLE: TO	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG	<u>Result</u> 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 % < 0.1 % 8.24@22.3°C <b>gs</b>	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	Compo SLOQ 0.01 0.1 Compo:	12/08/10 14: site <u>Analysis Sta</u> 12/06/10 17: 12/06/10 17: 12/07/10 14:	20 12/08/10 art <u>Analysis End</u> :30 12/07/10 :15 12/06/10	Analyst * IC-SA IC-SA
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b>	Result 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 % < 0.1 % 8.24@22.3°C <b>gs</b> Samp	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C Lab ID: 10120835-001E ole Time: 12/07/2010 8:00	Compo <u>SLOQ</u> 0.01 0.1	12/08/10 14: site <u>Analvsis Sta</u> 12/06/10 17: 12/06/10 17: 12/07/10 14: site	20 12/08/10 art <u>Analysis End</u> 30 12/07/10 15 12/06/10 20 12/07/10	<u>Analyst *</u> IC-SA IC-SA MED-SA
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC SAMPLE: Test	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG	Result 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 % < 0.1 % 8.24@22.3°C gs Samp <u>Result</u>	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C Lab ID: 10120835-001E ole Time: 12/07/2010 8:00 <u>Method</u>	Compo SLOQ 0.01 0.1 Compos SLOQ	12/08/10 14: site <u>Analysis Sta</u> 12/06/10 17: 12/06/10 17: 12/07/10 14: site <u>Analysis Sta</u>	20 12/08/10 art <u>Analysis End</u> 30 12/07/10 15 12/06/10 20 12/07/10 art <u>Analysis End</u>	<u>Analvst *</u> IC-SA IC-SA MED-SA <u>Analyst *</u>
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: Inv SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG TCLP extracted	Result 96400 mg/Kg Microbac Laboratories Samp <u>Result</u> 13.8 % < 0.1 % 8.24@22.3°C gs Samp <u>Result</u> < 0.0008 mg/L	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10120835-001E ole Time: 12/07/2010 8:00 <u>Method</u> EPA 7470A	Compo <u>SLOQ</u> 0.01 0.1 Compos <u>SLOQ</u> 0.0008	12/08/10 14: site <u>Analysis Sta</u> 12/06/10 17: 12/06/10 17: 12/07/10 14: site <u>Analysis Sta</u> 12/07/10 10:	art         Analysis End           :30         12/08/10           :15         12/07/10           :20         12/07/10           :20         12/07/10           :20         12/07/10           :21         12/07/10           :20         12/07/10	<u>Analvst *</u> IC-SA IC-SA MED-SA <u>Analvst *</u> KW-CV
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: TO Free Liqu pH SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG TCLP extracted TCLP extracted	Result           96400 mg/Kg           Microbac Laboratories           Samp           Result           13.8 %           < 0.1 %	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ble Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10120835-001E ble Time: 12/07/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B	Compo <u>SLOQ</u> 0.01 0.1 Compos <u>SLOQ</u> 0.0008 0.500	Analysis Sta           Analysis Sta           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/07/10 14:           site           Analysis Sta           12/07/10 10:           12/07/10 10:           12/08/10 12:	Analysis End           30         12/08/10           12/07/10         12/07/10           15         12/07/10           20         12/07/10           15         12/07/10           15         12/07/10           15         12/07/10	Analvst * IC-SA IC-SA MED-SA <u>Analvst *</u> KW-CV GSR-CV
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: TO Free Liqu pH SAMPLE: TO SAMPLE:	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG TCLP extracted TCLP extracted TCLP extracted	Result           96400 mg/Kg           Microbac Laboratories           Samp           Result           13.8 %           < 0.1 %	Method EPA 9071 s, Inc-Erle Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10120835-001E ole Time: 12/07/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	Compo SLOQ 0.01 0.1 Compos SLOQ 0.0008 0.500 10.00	Analysis State           Analysis State           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/07/10 14:           site           Analysis State           12/07/10 10:           12/08/10 12:           12/08/10 12:	Analysis End           30         12/08/10           12/07/10         12/07/10           15         12/06/10           120         12/07/10           15         12/07/10           15         12/07/10           15         12/07/10           15         12/08/10           15         12/08/10           15         12/08/10	Analvst * IC-SA IC-SA MED-SA MED-SA MED-SA MED-SA
Test Total Petr Sample SAMPLE: In SAMPLE: In SAMPLE: In Free Liqu pH SAMPLE: TO SAMPLE:	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG TCLP extracted TCLP extracted TCLP extracted TCLP extracted TCLP extracted	Result           96400 mg/Kg           Microbac Laboratories           Samp           Result           13.8 %           < 0.1 %	Method EPA 9071 s, Inc-Erie Division Lab ID: 10120835-001B ole Time: 12/06/2010 10:05 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10120835-001E ole Time: 12/07/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	Compo <u>SLOQ</u> 0.01 0.1 Compos <u>SLOQ</u> 0.0008 0.500	Analysis Sta           Analysis Sta           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/07/10 14:           site           Analysis Sta           12/07/10 10:           12/07/10 10:           12/08/10 12:	art         Analysis End           :30         12/08/10           :15         12/07/10           :20         12/07/10           :20         12/07/10           :20         12/07/10           :15         12/07/10           :15         12/08/10           :15         12/08/10           :15         12/08/10           :15         12/08/10	Analvst * IC-SA IC-SA MED-SA MED-SA MED-SA MED-SA MED-SA MED-SA
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Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE Test Moisture Free Liqu pH SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: C SAMPLE: TC SAMPLE:	roleum Hydrocarbons e Note: Analysis performed by v Cuttings ED BY: SG id CLP Leachate of Inv Cuttin ED BY: SG TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted n - TCLP extracted CLP extracted CLP extracted CLP extracted	Result           96400 mg/Kg           Microbac Laboratories           Samp           Result           13.8 %           < 0.1 %	Method EPA 9071           s, Inc-Erie Division           Lab ID: 10120835-001B           ole Time: 12/06/2010 10:05           Method Moisture Calc.           EPA 9095A           EPA 9095A           EPA 9045C           Lab ID: 10120835-001E           ole Time: 12/07/2010 8:00           Method EPA 7470A           EPA 6010B           EPA 6010B	Compo SLOQ 0.01 0.1 Compos SLOQ 0.0008 0.500 0.100 0.500 0.100 0.500	Analysis Sta           site           12/08/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/07/10 14:           site           Analysis Sta           12/07/10 10:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:	Analysis End           art         Analysis End           30         12/07/10           15         12/06/10           20         12/07/10           15         12/07/10           15         12/07/10           15         12/08/10           15         12/08/10           15         12/08/10           15         12/08/10           15         12/08/10           15         12/08/10           15         12/08/10           15         12/08/10	Analvst* IC-SA IC-SA MED-SA MED-SA MED-SA MED-SA MED-SA CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV
Test Total Petr Sample SAMPLE: Inv SAMPLE: Inv SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO SAMPLE: TO Cadmium Chromium Copper - Lead - TO Nickel - T Selenium	roleum Hydrocarbons e Note: Analysis performed by <b>v Cuttings</b> ED BY: SG id <b>CLP Leachate of Inv Cuttin</b> ED BY: SG TCLP extracted TCLP extracted TCLP extracted ITCLP extracted ITCLP extracted In - TCLP extracted In - TCLP extracted ICLP extracted ICLP extracted ICLP extracted ICLP extracted	Result           96400 mg/Kg           Microbac Laboratories           Samp           Result           13.8 %           < 0.1 %	Method EPA 9071           s, Inc-Erie Division           Lab ID: 10120835-001B           ole Time: 12/06/2010 10:05           Method           Moisture Calc.           EPA 9095A           EPA 9045C           Lab ID: 10120835-001E           ole Time: 12/07/2010 8:00           Method           EPA 7470A           EPA 6010B	Compo SLOQ 0.01 0.1 Compos SLOQ 0.0008 0.500 0.100 0.500 0.100 0.500 0.100	Analysis Sta           site           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/06/10 17:           12/07/10 14:           site           Analysis Sta           12/07/10 10:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:           12/08/10 12:	Analysis End           30         12/08/10           30         12/07/10           315         12/06/10           320         12/07/10           315         12/07/10           315         12/09/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10           315         12/08/10	Analvst* IC-SA IC-SA MED-SA MED-SA MED-SA MED-SA MED-SA CSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

DATE: <u>12/10/2010</u>

CHAIN OF CUSTODY	1				PAGE0F
REPORT TO: Talisman / UEG					
geowetlands@aol.com		V	//O#: 10120835		ARE SPECIAL DETECTION LIN
	REFRIGERATE SAMPI				NEEDED: YES / NO
	AFTER COLLECTION		RINKING WATER SL SLUDGE NYDOH NYD	NG USED FOR:	IF YES, PLEASE ATTACH
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CONTACT Steve Gridley	TRANSPORT	f f	URFACE WATER HZ HAZARDOUS LANI VASTE WATER OTHER	DFILL	YES 🔽 NO
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BILL TO: Talisman	WITHICE	SAMPLETPE. GRAB/COMPOSITE	/ N NITRIC ACID AC ACETIC ACID	_ /	LAB USE ONLY
	·····	$\left  \left  \frac{3}{2} \right  \right $	Thio SODIUM THIOSULFATE ZN ZINC ACETATE		
PO# AF 78557	DATE SAMPLED TIME OF SAMPLED SAMPLE MATRY	18 3	- NONE Hg MERCURIC CHLORIDE	COMPOSITED ON REC.	Please fill out
PROJECT DESCRIPTION	LATE SAMPLED TIME OF SAMPLED SAMPLE MATRY	PRESERVATURE	An incomplete chain of custody may delay the processing of your sample(s).		applicable are
SAMPLER SIGNATURE / AFFILIATION	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				S completely
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1 Inv Cuttings	12/6 1005 50 C	56 N TP			
2		рН			
3	<b></b>		CLP 8 RCRA Metals + Cu, Ni, Zn		
4		Fre	ee Liquids / % Moisture		
5 A- TPH	,		1		
6 B- pH, Free Liquid,	1. noisture	Pe	rform BTEX ONLY IF the TPH		
7 C- Anions, metals			exceeds 100,000 mg/Kg		
8 D- Total Sample			· · · · · · · · · · · · · · · · · · ·		
PE- TCLP Metals			72 HOUR TURNAROUND		
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11					
CERTIFICATION DELIVERED BY				1	C. ARRIVALONIQ
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NAME:

ADDRESS:

# Benchmark Analytics, Inc. Eastern Division

Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

## Work Order: 10121734

WO#: 10121734 PAGE: 1 of 3 PO#: AF78557 PWS ID#

# **TEST REPORT**

PHONE: (607) 562-4000 FAX: (607) 562-4001

Dina Brown

COMPANY: Talisman Energy USA, Inc.

337 Daniel Zenker Dr Horseheads, NY 14845

01-075

RECEIVED FOR LAB BY: RML DATE: 12/09/2010 15:45 Page 1 of 3 SAMPLE: Inv. Cuttings Lab ID: 10121734-001A Grab SAMPLED BY: SG Sample Time: 12/09/2010 11:42 SLOQ Result Method Analysis Start Analysis End Analyst \* Test SW846 1030 Ignitability Neg ASIS °F 12/15/10 13:30 12/15/10 Sample Note: Analysis performed by QC Laboratories SAMPLE: Inv. Cuttings Lab ID: 10121734-001C Grab SAMPLED BY: SG Sample Time: 12/09/2010 11:42 SLOQ Analysis End Analyst\* Analysis Start Result Method Test SW 7.3.3.2 0.2 12/13/10 8:56 12/14/10 HDP-CV Cyanide, Reactive 0.2 mg/Kg LTW-CV **Reactive Sulfide** 1200 mg/Kg SW846 7.3 16 12/14/10 12:30 12/14/10 Lab ID: 10121734-001D Grab SAMPLE: Inv. Cuttings SAMPLED BY: SG Sample Time: 12/09/2010 11:42 SLOQ Analysis End Analyst \* Method Analysis Start Test Result SM2540B 12/13/10 % Solids 76.55 % Wght. 0.10 12/10/10 17:00 IC-SA 15.07 % Wght. EPA 160.4 12/10/10 8:00 12/14/10 **Total Volatile Solids** 0.01 NFM-SA Lab ID: 10121734-001F Grab SAMPLE: TCLP Leachate of Inv. Cuttings SAMPLED BY: SG Sample Time: 12/11/2010 12:45 SLOQ Analysis Start Analysis End Analyst \* Test Result Method 0.10 12/15/10 7:48 12/15/10 Pyridine < 0.10 mg/L EPA 8270C RHH-SA 1,4-Dichlorobenzene < 0.10 mg/L EPA 8270C 0.10 12/15/10 7:48 12/15/10 RHH-SA 12/15/10 7:48 12/15/10 o-Cresol < 0.10 mg/L EPA 8270C 0.10 RHH-SA EPA 8270C 0.10 12/15/10 7:48 12/15/10 RHH-SA p-Cresol/m-Cresol < 0.10 mg/L < 0.10 mg/L EPA 8270C 0.10 12/15/10 7:48 12/15/10 RHH-SA Hexachioroethane 0.10 12/15/10 7:48 12/15/10 Nitrobenzene < 0.10 mg/L EPA 8270C **RHH-SA** Hexachlorobutadiene < 0.10 mg/L EPA 8270C 0.10 12/15/10 7:48 12/15/10 RHH-SA

### **REMARKS**:

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

L Value above calibration range but within annually verified linear range

MANAGER

ani M. Davis

DATE: 12/16/2010

<sup>.</sup> 

# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121734

Phone:	(570) 888-0	169
Fax:	(570) 888-0	717

# SEND DATA TO:

SEND DATA	A TO:						
NAME:	Dina Brown			W	O#:	10121734	
COMPANY:	Talisman Energy USA, Inc	<b>5.</b> :			CE.	0.410	
ADDRESS:	337 Daniel Zenker Dr			PA	GE:	2 of 3	
	Horseheads, NY 14845			PC	)#:	AF78557	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TI	EST REPORT	PV	VS ID#		
01-	-075						
RECEIVED F	FOR LAB BY: RML	DAT	TE: 12/09/2010 15:45			F	age 2 of 3
2,4,6-Tric	chlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48 12/15/10	RHH-SA
2,4,5-Tric	chlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48 12/15/10	RHH-SA
Pentachic	orophenol	< 0.50 mg/L	EPA 8270C	0.50	1 <b>2/1</b> 5/10	7:48 12/15/10	RHH-SA
2,4-Dinitr	otoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48 12/15/10	RHH-SA
Hexachlo	robenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48 12/15/10	RHH-SA
Naphthal	ene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48 12/15/10	RHH-SA
SAMPLE: TO	CLP Leachate of Inv. Cutting	S	Lab ID: 10121734-001G	Grab			
SAMPLE	ED BY: SG	Sa	mple Time: 12/07/2010 8:00				
Test		Result	Method	<u>SLOO</u>	Analysis S	Start Analysis End	Applyet*
	- TCLP extracted	17.8 mg/L	L EPA 6010B	0.050	12/08/10 1		GSR-CV
	e Note: Sample for TCLP extracte	Ŷ			12/00/10	12:00:00	0011-07
SAMPLE TO	CLP Leachate of Inv. Cutting	e	Lab ID: 10121734-001H	Grab			
	ED BY: SG		mple Time: 12/11/2010 12:45	0.00			
				SLOQ			
<u>Test</u>		Result	Method		Analysis S		
pH		6.53@16.6°C	SM4500H+B		12/14/10	8:00 12/14/10	SG-SA
SAMPLE: ZH	IE Extract of Inv. Cuttings		Lab ID: 10121734-0011	Grab			
SAMPLE	ED BY: SG	Şa	mple Time: 12/12/2010 13:10				
			<b>14</b> .05.1	<u>SLOQ</u>	A 1		
<u>Test</u>		Result	Method	0.0250	Analysis S		
Benzene Carbon to		< 0.0250 mg/L	EPA 8260B		12/13/10		CTM-SA
Carbon te Chlorober		< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250 0.0250	12/13/10		CTM-SA
Chlorofor		< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B EPA 8260B	0.0250	12/13/10 0		CTM-SA CTM-SA
		< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		CTM-SA CTM-SA
-		< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		CTM-SA CTM-SA
		< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		CTM-SA CTM-SA
Ethylbenz		-	EPA 8260B	0.0250	12/13/10		CTM-SA
Isopropyll	penzene	< 0.0250 mg/L		0.0200	12/13/10/	0.11 (2/13/10	CTM-3A

### REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

L Value above calibration range but within annually verified linear range

anie M. Davis MANAGER

DATE: 12/16/2010

PA ID #: 08-00380 NY ID # 11216	<b>Eas</b> 2566	<b>ark Analytics, Ir tern Division</b> Pennsylvania Ave. Iyre, PA 18840	າc.	Work	<b>Order:</b> 101:	21734
		e: (570) 888-0169 c: (570) 888-0717				
SEND DATA TO:				-	•	
NAME: Dina Brown	í		1.07	O#: 1012	21734	
COMPANY: Talisman Energy USA,	nc.		•••	0#. 1012	. 17 34	
ADDRESS: 337 Daniel Zenker Dr			PA	AGE: 3 of	3	
Horseheads, NY 14845	i		PC	)#: AF78	3557	
PHONE: (607) 562-4000 FAX: (607) 562-4001	. TE	EST REPORT	PV	VS ID#		
FAX: (607) 562-4001 01-075	1					
RECEIVED FOR LAB BY: RML	DAT	E: 12/09/2010 15:45			Pa	ige 3 of 3
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
Vinyl chloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
Methyl tert-butyl ether 2-Butanone	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-S/
	< 0.0500 mg/L	EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-S/
	<u>_</u>					
AMPLE: ASTM Extract of Inv. Cutting	<b>S</b>	Lab ID: 10121734-001J	Grab			
	<b>S</b>	Lab ID: 10121734-001J mple Time: 12/10/2010 11:15				
AMPLE: ASTM Extract of Inv. Cutting	<b>S</b>		Grab <u>SLOQ</u>	Analysis Start	Analysis End	Analyst
AMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG	<b>IS</b> Sar	mple Time: 12/10/2010 11:15		Analysis Start 12/11/10 8:00	<u>Analysis End</u> 12/13/10	
AMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand	<b>js</b> <u>Result</u> 227 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u>	<u>SLOQ</u>			
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand	IS Sar <u>Result</u> 227 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u> B HACH 8000	<u>SLOQ</u> 10			
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG	IS Sar <u>Result</u> 227 mg/L IS Sar	Method           B         HACH 8000           Lab ID: 10121734-001L           mple Time: 12/10/2010 11:15	<u>SLOQ</u> 10	12/11/10 8:00	12/13/10	KMF-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u>	IS Sar <u>Result</u> 227 mg/L IS Sar <u>Result</u>	mple Time: 12/10/2010 11:15 <u>Method</u> B HACH 8000 Lab ID: 10121734-001L mple Time: 12/10/2010 11:15 <u>Method</u>	<u>SLOQ</u> 10 Grab	12/11/10 8:00 Analysis Start	12/13/10 Analysis End	KMF-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> pH	IS <u>Result</u> 227 mg/L IS <u>Result</u> 8.00@16.7°C	Method           B         Method           HACH 8000         HACH 8000           Lab ID:         10121734-001L           mple Time:         12/10/2010 11:15           Method         SM4500H+B	SLOQ 10 Grab SLOQ	12/11/10 8:00 Analysis Start 12/14/10 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Analyst SG-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> pH Total Solids	IS Sar <u>Result</u> 227 mg/L IS Sar <u>Result</u>	mple Time: 12/10/2010 11:15 <u>Method</u> B HACH 8000 Lab ID: 10121734-001L mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	SLOQ 10 Grab SLOQ 0.10	12/11/10 8:00 Analysis Start	12/13/10 Analysis End	KMF-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> pH Total Solids SAMPLE: Inv. Cuttings	IS <u>Result</u> 227 mg/L IS San <u>Result</u> 8.00@16.7°C 2080 mg/L	Method           B         Method           HACH 8000         Lab ID: 10121734-001L           mple Time: 12/10/2010 11:15         Method           SM4500H+B         SM2540B           Lab ID: 10121734-001M -         SM25400B	SLOQ 10 Grab SLOQ	12/11/10 8:00 Analysis Start 12/14/10 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Analyst SG-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> pH Total Solids	IS <u>Result</u> 227 mg/L IS San <u>Result</u> 8.00@16.7°C 2080 mg/L	mple Time: 12/10/2010 11:15 <u>Method</u> B HACH 8000 Lab ID: 10121734-001L mple Time: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	SLOQ 10 Grab SLOQ 0.10 Grab	12/11/10 8:00 Analysis Start 12/14/10 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Analyst SG-SA
SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> Chemical Oxygen Demand SAMPLE: ASTM Extract of Inv. Cutting SAMPLED BY: SG <u>Test</u> pH Total Solids SAMPLE: Inv. Cuttings	IS <u>Result</u> 227 mg/L IS San <u>Result</u> 8.00@16.7°C 2080 mg/L	Method           B         Method           HACH 8000         Lab ID: 10121734-001L           mple Time: 12/10/2010 11:15         Method           SM4500H+B         SM2540B           Lab ID: 10121734-001M -         SM25400B	SLOQ 10 Grab SLOQ 0.10	12/11/10 8:00 Analysis Start 12/14/10 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Analyst <sup>4</sup> SG-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY				•			Benchn				ЗЕ <u>1</u>	OF1
REPORT TO: Talisman / UEG	] .				2	566 F	E Pennsylva		4040			
geowetlands@aol.com					2	.0001	Pho	W/O#:	1012	1734		ETECTION LIMITS
	DEE				<b>F</b> 0		Fax. 👝	<b>, -</b> · .	r		EDED: YES	
		R CO		sampl Tion	.ES	6				RE BEING USED FOR:	IF YES, PLEASE A	ATTACH
	· ·						W DRINKING WATER W GROUND WATER	SO SOIL	NYDOH	NYDEC PADER		ACKAGE NEEDED?
CONTACT Steve Gridley	<b>ј</b> т	RANS	SPOR1	r		1 '	W SURFACE WATER	HZ HAZARDOUS OTHER		LANDFILL Mostoller	. 🖸 YE	es 🔽 No
PH# 607-731-0145		T	0			<u>م</u> ′		R DI DISTILLED WA	TER PERSONAL	OTHER	IF YES, PLEASE A	ATTACH REQUIREMENT
FAX#		ABOR IN CO		Y			₩ /H HYC S SUL	ROCHLORIC ACID OH FURIC ACID AS	SODIUM HYDR	DXIDE		
BILL TO: Talisman		WITH						RIC ACID AC	ACETIC ACID AMMONIUM CH		BEC.	
		-7	7	/	' /	్ష /	Thio SOL	IUM THIOSULFATE ZN	ZINC ACETATE			
20# AF 7855 1			1	2/	. / &	<u>اً }</u>	- NOM		MERCURIC CHI		/ \$ F	Please fill out all
PROJECTOESCRIPTION 075		19	ang lang		14			incomplete chain of cu processing of you		the 5	3	pplicable areas
SAMPLER SIGNATURE / AFFILIATION	1 /.	13	\$	E	14	1			· · · · · · · · · · · · · · · · · · ·		\$ /	completely
CONTAINER SAMPLING POINT	1	The Sampled	SALL OF SAMPLING	SALLE MATRIX	Comple Type. GC	Parties MITLAL	AT AT	ANALYSIS TO BE PERFOR (PER CONTAINER)	MED	LORIDE ORIDE (the OUL) COULD C	TAB U LE ADED ON RECEIPT	SE ONLY
1 Inv Cuttings	12/9	1142	50		80-			eactive Sulfide &	Cyanide			
2			$\prod$	С		1	PCBs, Total	Solids	inner and " Plan and			
3 A-Phunde, Ign.				G		$\square$	Total Volatile	e Solids				
4 E - Reactivity				C			Ammonia-Ni	trogen				
5 D-75, 7050				С	11-		Water Leach	ing Procedure: (	COD,			
6 E-T. Sample		1,	17	С	11,	17	Total Solid	is, Oil & Grease	,			
7 F-TCLP BNA, Posts.		_¥			1							
8 G-TCLP Hards Sr			<b>İ</b>	1		1	1		· .			
9 H-TELP pH		K-	A		04	E	36	HOUR TURNA	ROUND			
10 I-TECP Vels.		6	A	m	17.		4	DAY TURNARC	DUND			
11 J- ASTM COD, WHY		m-	7/	X		1		• •••••••				
									ମ୍ବ-ଆମ୍ବାର ମହ		ARRIV	ALONIGE AVUN
RELINQUISHED BY.	Sharper and and			9.11	$\mathcal{R}$	ΓIME:	530 REC	EIVED BY:			DATE:	TIME:
RELINQUISHED BY:				<u>, .(</u>		TIME:	REC	EIVED BY	$\wedge$		DATE:	TIME:
( RELINQUISHED BY:			/ ATE: _	1		IME:		ENEDBAL AA	ALA	· · · · · · · · · · · · · · · · · · ·	DATE	TIME
		10	~~~ <i>t</i>	1		11W C.	INFL		1 1 1 1 1		IUMIA A	



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

## FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legit each attache	bly printed in the spaces d_sheet_as_Form 26R, i	ely completed. All requi provided. If additional sp eference the item numb s needs to match the date	ace is necessary, ident er and identify the da	ify Date Receive	USE: ONLY
General Refe	rence 287.54				
Date Prepare		ruary 11, 2011			
		CLIENT (GENERATOR	OF THE WASTE) IN	FORMATION	
Company Nar Talisman En	ne ergy USA Inc.				
	y, Name of Parent Compa	iny		EPA	Generator ID#
Talisman En				<u>N/A</u>	
50 Pennwood	ling Address Line 1	Co	ompany Mailing Addres	ss Line 2	
	Iress Last Line – City	State	Zip+4	Phone	Ext
Warrendale		PA	15086	(724) 814-530	
Company Col Brown	ntact Last Name	First Name Dina	MI	Suffi	x
Municipality			County	······	
Warrendale			Allegheny		
Contact Phon (724) 814-53		Contact Email Address dybrown@talismanusa.c	om		
		/ Mailing Address (noted a			Yes 🛛 No
lf 'N <u>o'. de</u> scri	be location of waste gene	eration and storage. Drill c	uttings are generated du		
the (03-		at 1314 Ameah Valley Roac	I, Wells Township, Bradf	ord County, PA. Wa	iste is stored in
Municipality	Wells	County Bradfo		State	PA
		SECTION B. WAST	<b>E DESCRIPTION</b>		
Residual Waste Code		al Waste scription	Amount	Unit of Measure	Time Frame
					Fidille
810	Drill cuttings (oil and g		1,970	🗌 lb 🛛 🖾 ton	One Time
a. pH Ra	nge 8.09	1. GENERAL P 5 to 11.26	ROPERTIES (based on analyses or ki	zowledge)	
	cal State	Liquid Waste (EPA Me		iowiedge)	
		Solid (EPA Method 909	95)		
c. Physic	cal Appearance	Color Greyish Black	Odo		t Petroleum
		Number of Solid or Liquid			
		Describe each phase of s	eparation. <u>Soil and Ro</u>	ck Fragments	
	e state	2. CHEMICAL ANALYS			*
instru	ctions, is attached.	cal characterization of the		the 🛛	Yes No
		aste sampling method is a			Yes No
c. The quartach		ontrol procedures employ	/ed by the laboratory(ie	es) is 🖂	Yes No
		aste determination is atta	ched.	$\square$	Yes 🗌 No
	icable, a detailed explana actual chemical analysis	ition supporting use of ge	nerator knowledge in	Yes	No 🛛 N/A

	· 3	<b>PROCESS DESCRIPTION 8</b>	SCHEMATIC ATTA	CHMENTS	
a.	A detailed description of the				Yes No
	the waste, as specified in the			producing	
b.	A schematic of the manufactu as specified in the instruction		trol processes proc	ducing the waste,	Yes No
C.	If portions of the information a confidentiality claim, as des			n for 🗌 Yes	🗋 No 🛛 N/A
	SECTIO	ON C. MANAGEME			
		1. PROCESSING OR DI	SPOSAL FACILITY (IE	ES)	
The a	rea below (ad.) will accommod				if necessary.
а.	Solid waste permit number(s) 8-4630-00010	for processing or dispos	al facility being util	lized.	
b.	Facility Name	Hakes C&D Landfill			
	Address Line 1	4376 Manning Ridge R	oad		
	Address Line 1				
	Address City State ZIP	Painted Post	NY	14870	
	Municipality	Erwin Twp	County	Steuben	
С.	Facility Contact Name	Joseph Boyles			
	Title				
	Phone	(607) 937-6044	Email Address	joe.boyles@case	lla com
		(585) 466-7271		100.001100@0000	ald.com
d.	Volume of waste shipped to p		ility in the previous	s vear.	
	1,034	cuyd 🗌 gal [	]lb 🛛 ton	n (check one)	
а.	Solid waste permit number(s) 9-0232-00003	for processing or dispos	al facility being util	ized.	
b.	Facility Name	Hyland Landfill			·····
	Address Line 1	6653 Herdman Road			
	Address Line 1				
	Address City State ZIP	Angelica	NY	14709	
	Municipality	Angelica	County	Allegany	
c.	Facility Contact Name	Larry Shilling			
	Title				
	Phone	(585) 466-7271	Email Address	larry.shilling@cas	sella.com
d.	Volume of waste shipped to p	rocessing or disposal fac	ility in the previous	s year.	
	896	cuyd 🗌 gal [	lb 🛛 ton	(check one)	
		2. BENEFI	CIAL USE		
a.	Has the waste been approved	for beneficial use?			🗌 Yes 🛛 No
	If "Yes", list the general permi				
b.	Volume of waste beneficially u	sed in the previous year.			
	0	cuyd 🗌 gal [	lbton	(check one)	

(.)		PROCESS DESCRIPTION	& SCHEMATIC ATT	ACHMENTS		etting and an
a		a second state of the second state of the second second second state of the second state of the second second s	n de la constante de la constante de la constante de la constante de la constante de la constante de la constan Notes de la constante de la constante de la constante de la constante de la constante de la constante de la cons	and the second construction of the second second second second second second second second second second second		No
<u>.</u>						
b.			ontrol processes pr	oducing the waste,	Yes 🗌	No
C.				ion for 🔲 Yes	No 🛛	N/A
	SECTIO		The California Construction and States Construction and an advantage of the Construction of the Construction of	and a second second second second second second second second second second second second second second second		
The a	rea below (ad.) will accommod	ate the identification of	two facilities. Atta	ch additional sheets	if necessary.	
а.	Solid waste permit number(s) 100361	for processing or dispo	osal facility being u	tilized.		···
b.	Facility Name	McKean County Land	fill			
]	Address Line 1	19 Ness Lane				
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
c						
0.	-	WIKE Manuellelu				
		(914) 778 0031	Email Address	mandorfold@am	oil com	
	the waste, as specified in the instructions, is attached. b. A schematic of the manufacturing and/or pollution control processes producing the waste,  Yes  as specified in the instructions, is attached. c. If portions of the information submitted are confidential, the substantiation for  Yes  No  SECTION C. MANAGEMENT OF RESIDUAL WASTE 1: PROCESSING OR DISPOSAL FACILITY(IES) The area below (ad.) will accommodate the identification of two facilities. Attach additional sheets if necessary. a. Solid waste permit number(s) for processing or disposal facility being utilized. 100361 b. Facility Name  Address Line 1 Address Line 1 Address Line 1 (B44) 778-9931 Email Address manderfeld@gmail.com (B44) 778-9931 Email Address manderfeld@gmail.com d. Volume of waste shipped to processing or disposal facility being utilized. b. Facility Name Address Line 1 A					
d.	· · · ·			-	i i	
a.	Solid waste permit number(s)	for processing or dispo	sal facility being u	tilized.		
b.	Facility Name					
	Address Line 1					
	Address Line 1	······································				
	Address City State ZIP	······				
	Municipality		County			
C	Facility Contact Name					
0.	-		· · · · · · · · · · · · · · · · · · ·			
		······································	Email Address			
<u> </u>						
d.	Volume of waste shipped to p			•		
where we are started as for	ليسا	• - •				
			FICIAL USE			1. e 0. j
a.	Has the waste been approved	for beneficial use?			🗌 Yes 🛛	No
	If "Yes", list the general perm					
b.	Volume of waste beneficially					
	0	cuyd 🗌 gal	🗍 lb 🗌 to	on (check one)		

		SECTION D. CERTIFICATION
Report and all attached docu obtaining the information, I knowledge. I understand that	uments verify t the s	have personally examined and am familiar with the information submitted in this Annual s and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Check the following, if applica	ble:	
I certify the information	-	ired in Section B-1, General Properties was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
Name of Responsible Official		Title Environmental Specialist
Dina Brown Signature	Ş,	Date 2/28/11

LAB ID: 08-00380 LAB ID: 39-00401	Easter 2566 Per Sayre Phone: (5	<b>Analytics, Ir rn Division</b> nnsylvania Ave. 9, PA 18840 570) 888-0169 570) 888-0717	ic.	Work	Order: 101	00746
SEND DATA TO:						
NAME: Steve Gridley			W	/O#: 1010	)0746	
COMPANY: Talisman Energy USA	, Inc.					
ADDRESS: 337 Daniel Zenker Dr			P/	AGE: 1 of :	2	
Horseheads, NY 1484	15		P	O#: AF78	3035	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TES	report	P	WS ID#		
03-035	1440.44 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	· · · · ·		···		
RECEIVED FOR LAB BY: DLM2	DATE:	10/06/2010 9:55			Pa	age 1 of 2
SAMPLE: Air Cuttings		_ab ID: 10100746-001A	Compo	site		
SAMPLED BY: SG	Sample	Time: 10/05/2010 16:50				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	360 mg/Kg	EPA 9071		10/08/10 14:00	10/08/10	Analyst
Sample Note: Analysis performed b						
SAMPLE: Air Cuttings	········	1 10 40400740 0040	Compo	eite		
A DESIGNED DE CARLES DE LE CONTRACTO DE LA CONTRACTÓ DE CONTRACTÓ DE LA CONTRA		-ad ID: 10100746-001B				
SAMPLE: Air Cuttings SAMPLED BY: SG	-	ab ID: 10100746-001B Time: 10/05/2010 16:50	Compu	.5165		
SAMPLED BY: SG	Sample	Time: 10/05/2010 16:50	SLOQ		Analusia End	Amol: 104 *
SAMPLED BY: SG	Sample <u>Result</u>	Time: 10/05/2010 16:50 <u>Method</u>	<u>SLOQ</u>	Analysis Start	Analysis End	
SAMPLED BY: SG <u>Test</u> Moisture	Sample <u>Result</u> 22.7 %	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc.	<u>SLOQ</u> 0.01	<u>Analysis Start</u> 10/06/10 10:30	10/07/10	NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid	Sample <u>Result</u> 22.7 % < 0.1 %	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A	<u>SLOQ</u>	<u>Analysis Start</u> 10/06/10 10:30 10/08/10 11:05	10/07/10 10/08/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	<u>SLOQ</u> 0.01 0.1	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30	10/07/10	NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C	<u>SLOQ</u> 0.01	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30	10/07/10 10/08/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50	<u>SLOQ</u> 0.01 0.1	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site	10/07/10 10/08/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u>	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u>	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u>	<u>SLOQ</u> 0.01 0.1 Compo	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start	10/07/10 10/08/10	NFM-SA IC-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B	<u>SLOQ</u> 0.01 0.1 Compo <u>SLOQ</u> 78.9	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0	<u>SLOQ</u> 0.01 0.1 Compo <u>SLOQ</u>	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B	<u>SLOQ</u> 0.01 0.1 Compo <u>SLOQ</u> 78.9	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b>	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E	<u>SLOQ</u> 0.01 0.1 Compo <u>SLOQ</u> 78.9	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b>	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti SAMPLED BY: SG	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b> L Sample	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E Time: 10/07/2010 9:15	<u>SLOQ</u> 0.01 0.1 Compo <u>SLOQ</u> 78.9 60.6	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30 site	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/08/10 10/07/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b>	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/08/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti SAMPLED BY: SG <u>Test</u>	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b> L Sample <u>Result</u>	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E Time: 10/07/2010 9:15 <u>Method</u>	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo           SLOQ	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30 site Analysis Start	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/07/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA Analyst * GSR-CV HDP-CV NFM-SA
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b> L Sample <u>Result</u> < 0.0008 mg/L	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E Time: 10/07/2010 9:15 <u>Method</u> EPA 7470A	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo           SLOQ           0.0008	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30 site Analysis Start 10/08/10 8:40	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/07/10 <u>Analysis End</u> 10/11/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> GSR-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Llquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b> L Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E Time: 10/07/2010 9:15 <u>Method</u> EPA 7470A EPA 6010B	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo           SLOQ           0.0008           0.500	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 10:30 site Analysis Start 10/06/10 10:30 site Analysis Start 10/08/10 8:40 10/08/10 12:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/07/10 <u>Analysis End</u> 10/11/10 10/08/10	NFM-SA IC-SA NFM-SA Analyst * GSR-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV GSR-CV
SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: Air Cuttings SAMPLED BY: SG <u>Test</u> Sodium Chloride Percent Moisture SAMPLE: TCLP Leachate of Air Cutti SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	Sample <u>Result</u> 22.7 % < 0.1 % 11.26@20.4C L Sample <u>Result</u> 320 mg/Kg-dry 166 mg/Kg-dry 22.7 % <b>ngs</b> L Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	Time: 10/05/2010 16:50 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10100746-001C Time: 10/05/2010 16:50 <u>Method</u> EPA 6010B EPA 300.0 SM2540G ab ID: 10100746-001E Time: 10/07/2010 9:15 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	SLOQ           0.01           0.1           Compo           SLOQ           78.9           60.6           Compo           SLOQ           0.0008           0.500           10.00	Analysis Start 10/06/10 10:30 10/08/10 11:05 10/06/10 16:30 site Analysis Start 10/07/10 12:30 10/07/10 14:51 10/06/10 10:30 site Analysis Start 10/08/10 8:40 10/08/10 12:30 10/08/10 12:30	10/07/10 10/08/10 10/06/10 <u>Analysis End</u> 10/08/10 10/07/10 <u>Analysis End</u> 10/11/10 10/08/10 10/08/10	NFM-SA IC-SA NFM-SA GSR-CV HDP-CV NFM-SA <u>Analyst *</u> KW-CV GSR-CV GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: \_\_\_\_\_10/12/2010

LAB ID: 08-( LAB ID: 39-(		2566 Penn	Analytics, In Division sylvania Ave. PA 18840	C.		Work (	Order: 101	100746
		•	0) 888-0169 0) 888-0717					
SEND DATA	A TO:							
NAME:	Steve Gridley			W	O#:	10100	746	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	NC.		PA	GE:	2 of 2		
ADDRESS.	Horseheads, NY 14845			DC	N44.	A E 700	nr.	
	·····			PC	J#:	AF780	30	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	REPORT	, PV	VS ID#			
03-03	35							
RECEIVED I	FOR LAB BY: DLM2	DATE: 10	)/06/2010 9:55				Р	age 2 of 2
Lead - T(	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/08/10	12:30	10/08/10	GSR-CV
Nickel - 7	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/08/10	12:30	10/08/10	GSR-CV
	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/08/10	12:30	10/08/10	GSR-CV
	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/08/10		10/08/10	GSR-CV
Zinc - TC	LP extracted	0.206 mg/L	EPA 6010B	0.200	10/08/10	12:30	10/08/10	GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER \_\_\_\_\_ Davis \_\_\_\_\_ DATE: 10/12/2010

SONTACT Steve Gridley       TRANSPORT       GW SURJEWAREN BY ALARADOUS       LANDFLL       DYS ZINA         HW 607-731-0145       LANDRATORY       IN COOLER       WW SURJEWAREN DI DISTILLEOWAREN PERSONAL OTHER       IPPES PLASE TACH REQUER         BALL TO' Tellisman       IN COOLER       WTHICE       IN MITGICADID       SOLUMI/PORKADE       IPPES PLASE TACH REQUER         OF A F -78 O 3.5       IN MITGICADID       A SULFING ACID       A CAETICA CID ON SOLUMI/PORKADE       IPPES PLASE TACH REQUER         OF A F -78 O 3.5       IN MITGICADID       A SULFING ACID       A CAETICA CID ON SOLUMI/PORKADE       IPPES PLASE TACH REQUER         OF A F -78 O 3.5       IN MITGICADID       A SULFING ACID       A ALYSIS TO BE PERFORMED       IPPES PLASE TACH REQUER         ONTAINER (SAMPLING POINT       IN JR ASO SOL       IN MITGICADID       A SULFING ACID ACITY       IPPES PLASE TACH REQUER         1 AIR Cuttings       Ars Social Color       IN MITGICADID       IPPES PLASE TACH REQUER       IPPES PLASE TACH REQUER       IPPES PLASE TACH REQUER         3       IN TRICKENTING ACIDY       IPPE PLASE TACH REQUER       IPPES PLASE TACH REQUER       IPPES PLASE TACH REQUER       IPPES PLASE TACH REQUER         4       A TO'L PES PLASE TACH REPORT       IPPES PLASE TACH REPORT       IPPES PLASE TACH REPORT       IPPES PLASE TACH REPORT       IPPES PLASE TACH REPORT       I	INTACT Steve Gridley       TRANSPORT       / @/ @ GROWNO WATER       SO SOL	eowetlands@aol.com wollin@rallysolutions.ca			RATE S		ES	Гш.	W/O#: 10100746		IR: ZI PADEP	NEEDED: [_]YES IF YES, PLEASE /	TACH	
1       Air Cuttings       ArS #50 \$20 C       \$2 AV       TPH       Image: Ars and the second	Air Cuttings       Image: Second	Steve Ghuley H# 607-731-0145 X# ILL TO: Talisman	٦ L	FRANS T Abor In Co With 7	SPORT O IATOR OLER 1 ICE	Г		/ SV W	V GROUND WATER SO SOIL V SURFACE WATER HZ HAZARDOUS V WASTE WATER OTHER DEIONIZED WATER DI DISTILLED WATER DERSONAL OTHE	FILL			5 <b>Z</b> M	10
2       pH, Chlorides, Sodium         3       TCLP 8 RCRA Metals + Cu, Ni, Zn         4       A - 7PH         5       B · PH, Free Liquid % Motorul         6       C - Cl, Na         7       D T.Sample         8       E TCLP Matalpa Cu, Ni, Zn         9	A-TPH       TCLP 8 RCRA Metals + Cu, Ni, Zn         A-TPH       Free Liquids / % Moisture         B-pH, Free Liquid / % Moisture       Free Liquids / % Moisture         D-C-Cl, Na       TCLP 8260 / 8270 ONLY IF the TPH         D-T.Sample       exceeds 120,000 mg/Kg         E-TCLP Moralbac       Date:         D-T.Sample       DATE:         BUELIVERED:BY       DATE:         DATE:       <	AMPLER SIGNATURE / AFFILIATION		The Samples	Same OF SAMPLING	SALLEHATRY	San Fringe	PRESEMITING	An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOS	PRESE OVE	LAB	opilcabi compl	le areas letely ;
A-TPH     Free Liquids / % Moisture       B. pH, Free Liquid % Moisture       Q - Cl, Na       TCLP 8260 / 8270 ONLY IF the TPH       D T.Sample       exceeds 120,000 mg/Kg       E TCLP Motals - Cu, Ni, Zn       D T.Sample       D DAY TURNAROUND       D DAY TURNAROUND	A-TPH       Free Liquids / % Moisture         B. pH, Free Liquid % Mo of Mo         C - CI, Na         D T.Sample         E TCLP Motals = Cu, Ni, Zn         Motals         TCLP 8260 / 8270 ONLY IF the TPH         D T.Sample         exceeds 120,000 mg/Kg         E TCLP Motals = Cu, Ni, Zn         Z2-HOUR TURNAROUND         DAY TURNAROUND         DELIVERED BY         SG         TEMPERATURE UPON RECEIPT         PATE         BIS 0.1V         DATE	Air Cuttings	12.5	ISC	50	C	R.	N						NOC
A-TPH B. pH, Free Liquid % Moisture C - CI, Na D T.Sample E TCLP Motaba Cu, Ni Zn - CI Notaba Cu, Ni Ni Zn - CI Notaba Cu, Ni Ni Zn - CI Notaba Cu, Ni Zn	A - TPH       Free Liquids / % Moisture         B · pH, Free Liquid % Moisture       TCLP 8260 / 8270 ONLY IF the TPH         C - CI, Na       TCLP 8260 / 8270 ONLY IF the TPH         D T.Sample       exceeds 120,000 mg/Kg         E TCLP Motals a Cu, Ni Zn       Z HOUR TURNAROUND         Motor TURNAROUND       Due 100 11/10.         BUSE ONY       SG         TEMPERATURE UPON RECEIPT       ************************************				<b>_</b>	<b></b>								
B PH Free Liquid % Moisture C - CI Na D T.Sample E TCLP Metalba Cu, Ni Zn DAY TURNAROUND BUSE ONLY SUSE ONLY B DH Free Liquid % Moisture TCLP 8260 / 8270 ONLY IF the TPH A D T.Sample E TCLP Metalba Cu, Ni Zn DAY TURNAROUND DAY TURNAROUND DUE 10 11/10	B PH, Free Liquid 72 Mo of me C - CI, Na D T. Sarride E TCLP Metales Cu, Ni Zn DATE: 610 TIME 954 RECEIVED BY: CMUL DATE: 610 0 TIME 954 RECEIVED BY: CMUL DATE: 610 0 TIME 954						╂							
C-CI, Na D T.Sample E TCLP Motale Cu, Ni Zn DAY TURNAROUND USE ONLY C-CI, Na D T.Sample E TCLP Motale Cu, Ni Zn DAY TURNAROUND DAY TURNAROUND	C - Ci, Na     TCLP 8260 / 8270 ONLY IF the TPH       D T.Samula     exceeds 120,000 mg/Kg       E TCLP Matalbac     Ni Zn       Z HOUR TURNAROUND     Image: Cu, Ni Zn       DAY TURNAROUND     DAY TURNAROUND       DELIVERED BY     SG       TEMPERATURE UPON RECEIPT     1°C / ARRIVAL ONICE Y       DATE:     1°D / 10 / 11		101		07,	ALO								
D T.Sample exceeds 120,000 mg/Kg E TCLP Metalba Cu, Ni Zn 	D T.SamQ2 E TCLP Metalba Cu, Ni Zn C TCLP Metalba Cu, Ni Zn DAY TURNAROUND DAY TURNAROUND DAY TURNAROUND DELIVERED BY DELIVERED BY DELIVERED BY DATE: 6110 DATE: 6110 DATE: 754 RECEIVED BY DATE: 6110 DATE: 754 RECEIVED BY DATE: 754 RECEIVED BY DATE: 754 RECEIVED BY DATE: 754 DATE: 754 D		- O		10	1998		hor						
E TCLP Metalba Cu, Ni, Zn <u>72</u> HOUR TURNAROUND DAY TURNAROUND USE ONLY	E TCLP Motalba-Cu, Ni Zn 		<i>b</i> .			<b></b>			exceeds 120,000 mg/Kg					
DAY TURNAROUND DAY TURNAROUND DUC 10/11/10.	Image: Second state     Image: Second st		_	ba	r.	1Ni	17r							<b>夏</b> 朝日
$\frac{1}{2} \log \frac{10}{11} \log \frac{10}{10} \log \frac{10}{$	SUSE OF LY     Due     10     11/10       SUSE OF LY     DELIVERED, BY     SG     TEMPERATURE UPON RECEIPT     *C     ARR VAL ONICE Y       INDUCSHED BY     DATE:     0     TIME:     95:4     RECEIVED BY:     DATE:     0     TIME:       INDUCSHED BY:     0     TIME:     95:4     RECEIVED BY:     DATE:     0     TIME:						1		<u>72</u> HOUR TURNAROUND					臺灣林
	DELIVERED BY DELIVERED BY DATE: 6110 TIME: 954 RECEIVED BY: DATE: 014 0 TIME: 354	,					·  .		DAY TURNAROUND					
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	DATE: 6110 TIME: 954 RECEIVED BY: Multin DATE: 0 TIME: 954			<u></u>		جنہ جید	۔ وب آباد	2	G TEMPERATURE UPON RECEIP	T <u>.</u>		<u></u> ℃ ARR	AL O	NICE Y.
	INQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME: TIME:	the floring and the second sec		<u> </u>	DATE:		<u> </u>	IME:				DATE:	<u> </u>	IME /
$\frac{101010}{1010}$						011		7	154 Math	•	<u> </u>		<u> </u>	_ ( _ ~

LAB ID: 39-00401	<b>Easter</b> 2566 Pen Sayre	Analytics, Ir n Division nsylvania Ave. , PA 18840	nc.	Work	c Order: 101	0 <b>40</b> 59
	,	70) 888-0169 70) 888-0717				
SEND DATA TO:						
NAME: Steve Gridley			w	O#: 1010	04059	
COMPANY: Talisman Energy US.			D	AGE: 1 of	4	
ADDRESS: 337 Daniel Zenker D				AGE. TO	I	
Horseheads, NY 148	545		PC	O#: AF7	6834	
	TEST	REPORT	P\	NS ID#		
PHONE: (607) 731-0145 FAX: (607) 562-4001						
03-035	D 4 7 7				_	
RECEIVED FOR LAB BY: SCP	DATE:	10/27/2010 14:15			P	age 1 of 1
SAMPLE: Inv. Cuttings	L	ab ID: 10104059-001A	Grab			
SAMPLED BY: SG	Sample	Time: 10/26/2010 11:40	01.00			
Test	Result	Method	<u>sloq</u>	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	7600 mg/Kg	EPA 9071	170	10/28/10 14:20	10/28/10	
Sample Note: Analysis performed	by Microbac Laboratories In	- Esta Distatan				
	by Microbac Caboratories, in	ICERE DIVISION				
		ab ID: 10104059-001B	Grab		11 <del> </del>	
SAMPLE: Inv. Cuttings SAMPLED BY: SG	Li				9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 -	
SAMPLE: Inv. Cuttings SAMPLED BY: SG	La Sample	ab ID: 10104059-001B Time: 10/26/2010 11:40	Grab SLOQ	Applycic Start	Applycic End	Analust *
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u>	La Sample <sup>-</sup> <u>Result</u>	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u>	<u>SLOQ</u>	Analysis Start 10/29/10 10:30	Analysis End	
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture	La Sample	ab ID: 10104059-001B Time: 10/26/2010 11:40		10/29/10 10:30	<u>Analysis End</u> 11/01/10 10/28/10	NFM-SA
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u>	La Sample <sup>•</sup> <u>Result</u> 19.3 %	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc.	<u>SLOQ</u> 0.01		11/01/10	
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C	<u>SLOQ</u> 0.01 0.1	10/29/10 10:30 10/28/10 11:05	11/01/10 10/28/10	NFM-SA IC-SA
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C It <b>tings</b> La	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D	<u>SLOQ</u> 0.01	10/29/10 10:30 10/28/10 11:05	11/01/10 10/28/10	NFM-SA IC-SA
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C ittings La Sample	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00	<u>SLOQ</u> 0.01 0.1	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00	11/01/10 10/28/10 11/01/10	NFM-SA IC-SA NFM-SA
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u>	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C It <b>tings</b> La Sample <u>Result</u>	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u>	SLOQ 0.01 0.1 Grab	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u>	11/01/10 10/28/10 11/01/10 <u>Analysis End</u>	NFM-SA IC-SA NFM-SA
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted	La Sample 2 <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C It <b>tings</b> La Sample 2 <u>Result</u> < 0.0008 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> -0.0008	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted	La Sample 2 <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C Ittings La Sample 2 <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA <u>Analyst *</u> RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C Ittings La Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 Analysis Start 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted	La Sample <u>Result</u> 19.3 % < 0.1 % 10.83@22.4°C Ittings La Sample <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> -0.0008 0.500 10.00 0.100	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 Analysis Start 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted	La Sample 2 Result 19.3 % < 0.1 % 10.83@22.4°C Ittings La Sample 2 Result < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted	La Sample 2 Result 19.3 % < 0.1 % 10.83@22.4°C Ittings La Sample 2 Result < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	<u>SLOQ</u> 0.01 0.1 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.100	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted	La Sample 2 Result 19.3 % < 0.1 % 10.83@22.4°C attings La Sample 2 Result < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	SLOQ 0.01 0.1 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.500	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA MD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cut SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted Nickel - TCLP extracted	La Sample 2 Result 19.3 % < 0.1 % 10.83@22.4°C attings La Sample 2 Result < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	SLOQ 0.01 0.1 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.100 0.500 0.100	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 Analysis Start 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Moisture Free Liquid pH SAMPLE: TCLP Leachate of Inv. Cu SAMPLED BY: SG <u>Test</u> Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted Lead - TCLP extracted	La Sample 2 Result 19.3 % < 0.1 % 10.83@22.4°C attings La Sample 2 Result < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L	ab ID: 10104059-001B Time: 10/26/2010 11:40 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C ab ID: 10104059-001D Time: 10/28/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	SLOQ 0.01 0.1 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.500	10/29/10 10:30 10/28/10 11:05 11/01/10 14:00 <u>Analysis Start</u> 10/30/10 8:45 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40 10/30/10 13:40	11/01/10 10/28/10 11/01/10 <u>Analysis End</u> 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10 10/31/10	NFM-SA IC-SA NFM-SA Analyst * RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis DATE: 11/1/2010

REPORT TO: Talisman / UEG						١		TION LIM
geowetlands@aol.com							N/O#: 10104059	NO
twollin@rallysolutions.ca		RIGER			ES		RESULTS ARE BEING USED FOR: IF YES, PLEASE ATTA	
	AFT	ER CO	LLECT	FION		1	W DRINKING WATER SL SLUDGE NYDOH NYDEC PADEP IS A QC PACK	AGE NEED
CONTACT Steve Gridley				-		/ 51		NO
PH# 607-731-0145		TRANS To					W WASTE WATER OTHER E DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER IF YES, PLEASE ATTA	CH REQU
FAX#		ABOR.		Y	V	$\int_{\mathcal{S}}$	H HYDROCHLORIC ACID OH SODIUM HYDROXIDE	
BILL TO: Tallsman		IN COO WITH		/		PRESENTITIAL COMPOSITI	H       HYDROCHLORIC ACID       OH       SODIUM HYDROXIDE         S       SULFURIC ACID       AS       ASCORBIC ACID         N       NITRIC ACID       AC       ACETIC AGID         SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE       A         Thio       SODIUM THIOSULFATE       ZINC ACETATE         -       NONE       Hg       MERCURIC CHLORIDE         44       An incomplete chain of custody may delay the processing of your sample(s).       N         ANALYSIS TO BE PERFORMED (PER CONTAINER)       C       C	
PO# AF 76834			/s	2/			- NONE Hg MERCURIC CHLORIDE	
PROJECT DESCRIPTION		19		/a	14	MILA .	ーム An incomplete chain of custody may delay the ろ ル appl grocessing of your sample(s). の な ま	ise fill out licable are
SAMPLER SIGNATURE / AFFILIATION		New /	5 5 5 7	E.W.	E/	E.		ompletely
		TIME SAMOLED	SALL OF SALIPLING	SALEMATRY		PRESERVITIALS	SO , SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE - NONE Hg MERCURIC CHLORIDE 4 An incomplete chain of custody may delay the processing of your sample(s).	ONLY
1 Inv Cuttings	14/26	1.4	50	C	28	N	ТРН	Ô
2						_	рН	<u>8</u> 8.
3			 	Ļ	<u>  </u>		TCLP 8 RCRA Metals + Cu, Ni, Zn	
4		l		<b></b>		.	Free Liquids / % Moisture	
5 A- TPH					1		BTEK	
6 B- pH, free Liquids, 1 mo	ist	fre		<u> .</u>			TCLP.8260/4270 ONLY IF the TPH	
7 C-T. Sample				<b>_</b>	<u>  .</u>		exceeds 1/20,000 mg/Kg	
B D- TCLP metals + Cuti	, <u>Z</u>	<u>р</u>		ļ				<u>.</u>
9	:				-		-12 HOUR TURNAROUND	
10					-		DAY TURNAROUND	
11 LAB USE (GLD) 🖉 🖓 👘 🖓	<u> </u>	<u> </u>	L	<u> </u>	<u> </u>	<u> </u>		
		· · ·	:					L ON IC
RELINQUISHED BY: Le dunt		D	ATE:	261	10 1	TIME:	130 PH Steal DATE: 10 126 V	S 73
RELINGUISHED BY/2		6	ATE:		v	TIME;	PIS RECEIVED BY:	TIME:
Sarah			o /2 IATE:	271	0	TIME:	PTS RECEIVED BY: DATE: 10137410	TIME:

:

LAB ID: 08-00380 LAB ID: 39-00401		Benchmark Analytics, Inc. Eastern Division 2566 Pennsylvania Ave.			Work Order: 10110485				
		•	Sayre, PA 18840						
			ne: (570) 888-0169 ax: (570) 888-0717						
SEND DATA	A TO:								
NAME:	Steve Gridley			WO#: 10110485					
COMPANY: Talisman Energy USA		IC.		P/	PAGE: 1 of 1				
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845								
	10130110003,141 14040			PC	D#: AF 7	8035			
PHONE: FAX:	(607) 731-0145 (607) 562-4001	· -	TEST REPORT	P١	VS ID#				
03-03				·····					
	FOR LAB BY: RML	D/	ATE: 11/03/2010 12:36			Pa	nge 1 of 1		
				0					
SAMPLE: In	i <b>v. Cuttings</b> ED BY: SG	÷ .	Lab ID: 10110485-001A Sample Time: 11/01/2010 19:20	Grab					
ŞAMPLI	ED B1: 50	÷ •		<u>SLQQ</u>					
Test		Result	Method		Analysis Start	Analysis End	<u>Analyst *</u>		
	roleum Hydrocarbons	59000 mg/Kg	EPA 9071		11/04/10 14:30	11/04/10			
Sample	e Note: Analysis performed by N	Aicrobac Laborat	ories, Inc-Ene Division.						
SAMPLE: In	v. Cuttings		Lab ID: 10110485-001B	Grab					
SAMPLE	ED BY: SG	Ś	Sample Time: 11/01/2010 19:20	SLOQ					
Test		Result	Method	<u>3LUQ</u>	Analysis Start	Analysis End	Analyst *		
Moisture		23,9 %	Moisture Calc.	0.01	11/03/10 14:45	11/04/10	IC-SA		
Free Liqu	uid	< 0.1 %	EPA 9095A	0.1	11/03/10 14:45	11/03/10	IC-SA		
pН		8.25@23.6°C	EPA 9045C		11/04/10 15:32	11/04/10	SG-SA		
	CLP Leachate of Inv. Cuttin		Lab ID: 10110485-001D	Grab	· · · · · · · · · · · · · · · · · · ·	······			
	ED BY: SG	-	Sample Time: 11/04/2010 7:30						
Test				<u>SLOQ</u>	Ameliusia Claut	Ameliusia Emel	A		
<u>Test</u>	TOI D outracted	<u>Result</u> < 0.0008 mg/L	<u>Method</u> EPA 7470A	0.0008	Analvsis Start 11/04/10 13:15	Analysis End 11/04/10	Analyst * RMD-CV		
•	- TCLP extracted TCLP extracted	< 0.0008 mg/L < 0.500 mg/L	EPA 6010B	0.500	11/04/10 13:15	11/04/10			
	TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/04/10 14:05	11/04/10	RMD-CV RMD-CV		
UQINUII "	- TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV		
Cadmium		< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV		
	n - TCLP extracted		EPA 6010B	0.100	11/04/10 14:05	11/04/10	RMD-CV		
Chromiun	n - TCLP extracted TCLP extracted	< 0.100 ma/L	EFAUVIUD						
Chromiun Copper -	n - TCLP extracted TCLP extracted CLP extracted	< 0.100 mg/L < 0.500 mg/L		0.500	11/04/10 14:05	11/04/10	RMD-CV		
Chromiun Copper - Lead - TC	TCLP extracted CLP extracted	< 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B EPA 6010B						
Chromiun Copper - Lead - TC Nickel - T	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/04/10 14:05	11/04/10	RMD-CV		
Chromiun Copper - Lead - TC Nickel - T Selenium	TCLP extracted CLP extracted TCLP extracted	< 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B	0.500 0.100	11/04/10 14:05 11/04/10 14:05	11/04/10 11/04/10	RMD-CV RMD-CV RMD-CV RMD-CV		

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\_\_\_\_\_ DATE: \_\_\_\_\_11/5/2010

Cami M. Davis

MANAGER

CHAIN OF CUSTODY REPORT TO: Talisman / UEG					25	66			PAGE1	C
geowetlands@aol.com	-			ļ	20	001	W/O#: 10110485		ARE SPECIAL D	
twollin@rallysolutions.ca	REFRI	GERATI	E SAM	PLES			RESULTS ARE BEIN		NEEDED: YES	
		COLLE						EC PADEP	IS A QC F	
CONTACT Stove Oridiau	'						GROUND WATER SO SOIL			
Sleve Glidley	TR		TAC			WW DE	WASTE WATER OTHER			.]
PH# 607-731-0145 FAX#		TO BORAT(	ORY			14	/ / HYDROCHLORIC ACID OF SODIUM HYDROXIDE		IFYES, PLEASE	
BILL TO: Talisman	— IN	I COOLI	ER			/ శ్రీ	S SULFURICACID AS ASCORBICACID N NITRICACID AC ACETICACID	[		
	, v	NITH IC	E			<u>ð</u> /	SO 3 SODIUM SULFITE NH, AMMONIUM CHLORIDE	/	5 8	
PO# AF 78035		7	1.00	7			Thio SODIUM THIOSULFATE ZN ZINC ACETATE     - NONE Hg MERCURIC CHLORIDE			
PROJECT DESCRIPTION	- /	The OF SAL	SAMPLE MATT	\$ /	18	PRESS INTIMIS COMPOSITE	An incomplete chain of custody may delay the	PRESC ON REC.	TABINE KUDED ON RECEIPT	<sup>D</sup> eas applic
SAMELER SIGNATURE / AFFILIATION	- /				£ /		processing of your sample(s).			Cot Cot
CONTAINER SAMPLING POINT	CATE SALL		1	E	I DE		An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (REE CONTAINER)		\$/	
CONTAINER 7 SAWFLING FOINT	18	12/	\$	5	13	/ ४	ANALYSIS TO BE PERFORMED (PER CONTAINER)	8/8	/ LAB	ISE
1 Inv Cuttings	11/1 1	920 51	e C	- 4	20-	N	TPH ¥		-0	11
2							рН			
3							TCLP 8 RCRA Metals + Cu, Ni, Zn			
4							Free Liquids / % Moisture			
5							RTBK			
6				Ť		-	TCLP 8260 / 8270 ONLY IF THE TOL			
7				Ţ			exceeds 120,000 mg/Kg			1 j
8										2
9				T			72_HOUR TURNAROUND			
10							DAY TURNAROUND			
11				i						
LAS USE UNIX			; <sub>و</sub> م							
DELIVERED BY		<u></u>	1. e ~	<b>X</b>	4. 4	<u></u>	TEMPERATURE UPON RECEIP		<u> </u> ℃    ARR	<b>AT</b>
RELINQUISHEDBY	<u>- a a a a a a a a a a a a a a a a a a a</u>	DATE	Ξ:,,		TI	ME	RECEIVED BY:	<u> </u>	DATE:	<u></u>
RELINQUISHEE BY:		DATE	3	1/10		VE:	2 3 C		DATE:	<u> </u>
			1	1					1	
RELINQUISHED BY:		DATE	-	- 1	TI	ME:	RECEIVED Y DOX		DATE: 3	, ī

LAB ID: 08-00380 LAB ID: 39-00401	East 2566 F Sa Phone	<b>Irk Analytics, In</b> <b>tern Division</b> Pennsylvania Ave. yre, PA 18840 :: (570) 888-0169 :: (570) 888-0717	IC.	Work	Order: 101	14050
SEND DATA TO:						
NAME: Steve Gridley			W	' <b>O#:</b> 1011	4050	
COMPANY: Talisman Energy USA, I	nc.		P	AGE: 1 of 2	<b>o</b>	
ADDRESS: 337 Daniel Zenker Dr			F7		2	
Horseheads, NY 14845	•		P	O#: AF77	7414	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TE	ST REPORT	P	WS ID#		
Pad			<u>,</u>			
RECEIVED FOR LAB BY: SCP	DAT	E: 11/29/2010 10:06			Pa	age 1 of 2
SAMPLE: Pad Soil		Lab ID: 10114050-001A	Compo	site		
SAMPLED BY: SG	San	nple Time: 11/24/2010 11:25				
<b>-</b>			SLOQ	4	Accelerate Fired	
<u>Test</u> Total Petroleum Hydrocarbons	<u>Result</u>	Method EPA 9071	171	Analysis Start 12/01/10 16:00	Analysis End 12/01/10	Analyst."
Sample Note: Analysis performed by	< 171 mg/Kg Microbac Laboratorie		17.1	12/01/10 10:00	12/01/10	
SAMPLE: Pad Soil		Lab ID: 10114050-001B	Compo	site		
SAMPLED BY: SG	San	nple Time: 11/24/2010 11:25	ффициа	iono		
_			SLOQ			
Test	Result	<u>Method</u>	0.04	Analysis Start	Analysis End	
	11.6 %	Moisture Calc.	0.01	11/30/10 9:40	12/01/10 11/29/10	NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	11/29/10 17:00 11/30/10 8:00	11/29/10	IC-SA NFM-SA
pH	8.05@22.7°C	EPA 9045C			11/30/10	NFM-5A
SAMPLE: Pad Soil	_	Lab ID: 10114050-001C	Compo	site		
SAMPLED BY: SG	San	ple Time: 11/24/2010 11:25	SLOQ			
Test	<b>Result</b>	Method	<u></u>	Analysis Start	Analysis End	Analvst *
Sodium	< 162 mg/Kg	MS EPA 6010B	162	11/30/10 10:10	12/01/10	JRA-CV
Chloride	< 50.1 mg/Kg	EPA 300.0	50.1	11/30/10 14:49	12/01/10	HDP-CV
SAMPLE: TCLP Leachate of Pad Soil		Lab ID: 10114050-001E	Compo	site		
SAMPLED BY: SG	San	ple Time: 11/30/2010 8:00				
Test	Pacult	Mathad	<u>SLOQ</u>	Analysis Start	Analysis End	Analust *
Test Mercury - TCLP extracted	<u>Result</u> < 0.0008 mg/L	<u>Method</u> EPA 7470A	0.0008	<u>Analysis Start</u> 11/29/10 9:30	12/01/10	<u>Analvst*</u> KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/30/10 13:15	11/30/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	11/30/10 13:15	11/30/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/30/10 13:15	11/30/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/30/10 13:15	11/30/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/30/10 13:15	11/30/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/30/10 13:15	11/30/10	GSR-CV
REMARKS:						

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MS Limit of detection increased due to matrix interference and spike recovery data

MANAGER

$\Lambda$		_
Canie	M.	Davis

DATE: 12/2/2010

Lab ID: 08-( Lab ID: 39-(		2566 Penn	Analytics, Ind Division sylvania Ave. PA 18840	c.		Work	Order: 10 <sup>-</sup>	14050
	·	•	0) 888-0169 0) 888-0717					
SEND DATA	A TO:							
NAME:	Steve Gridley			W	/0#:	10114	1050	
COMPANY: ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	с.		P	AGE:	2 of 2		
ADDREGG.	Horseheads, NY 14845							
	,			٣	O#:	AF774	+14	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	REPORT	P	WS ID#			
Pad								
	FOR LAB BY: SCP	DATE: 11	/29/2010 10:06				P	age 2 of 2
Nickel - 1	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/30/10	13:15	11/30/10	GSR-CV
Selenium	- TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	11/30/10	13:15	11/30/10	GSR-CV
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	11/30/10	13:15	11/30/10	GSR-CV
Zinc - TC	LP extracted	< 0.200 mg/L	EPA 6010B	0.200	<b>t1/30/10</b>	13:15	11/30/10	GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MS Limit of detection increased due to matrix interference and spike recovery data

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MANAGER

ani	M.	Davis

DATE: 12/2/2010

CHAIN OF CUSTODY

REPORT TO: Talisman / UEG	7							
geowetlands@aol.com	1					V	//O#: 10114050	
	REFE	RIGER	ATE SA	AMPLE	-s		KESULIS ARE BEING USED F	
			LLECT					
	_					GV	GROUND WATER SO SOIL	
CONTACT Steve Gridley	l I	RANS	PORT			/ \$V Wi		YES 🗹 NO
PH# 607-731-0145		T				DE	DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	IF YES, PLEASE ATTACH REQUIREMENT
FAX#			ATORY	,		145	H HYDROCHLORIC ACID OH SODIUM HYDROXIDE S SULFURIC ACID AS ASCORBIC ACID	
BILL TO: Talisman		WITH		_/	/ /	Odino S	N NITRIC ACID AC ACETIC ACID SO <sub>3</sub> SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE	CON REC.
PO# AF 77414	1		/0	. /		8/ .	- NONE Hg MERCURIC CHLORIDE	
PROJECT DESCRIPTION		The Sampled	SALLES SALLELING	SALLENATRIX	ENDE.	PRESS MITHLS COMPOSITE	An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)	LAB USE ONLY
CONTAINER SAMPLING POINT	- Jage	The S	SAMO.	Sales	loun - S	Tamus	ANALYSIS TO BE PERFORMED (PER CONTAINER)	LAB USE ONLY
1 Incontinge · Pad Soil	1/24	1125	(i)	С	te	$\mathcal{N}$	TPH, Sodium, Chlorides	
2							pH	
3					Ī		TCLP 8 RCRA Metals + Cu, Ni, Zn	
4			1				Free Liquids / % Moisture	
5 A - TPH					T	1		
6 B. OH. Free liquids . 1.	mois	4					Perform BTEX ONLY IF the TPH	
7 c - Anions, metals, p.1							exceeds 100,000 mg/Kg	
8p. Total Sample								
9E- TCIP Metals.							<u>98</u> HOUR TURNAROUND	
10							DAY TURNAROUND	
11								
					N.E.			
RELINDUISHED BY:		<u></u> [	DATE:			TIME:	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:			// /: DATE:	1911		TIME:	RECEIVED BY:	DATE: TIME:
			/	1				1 1
RELINQUISHED BY:		1	DATE: /	1		TIME:	RECEIVED BY:	- DATE: , JP1, 10 TIME: 10:01
								Ad Graphics Printing 570-888-0



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

	-	tely completed. All requi			JSE ONLY
	<i>*</i> • •	provided. If additional sp			ed & General Notes
		reference the item numb ts needs to match the date		ite	
	rence 287.54				
Date Prepare		oruary 11, 2011			
•		CLIENT (GENERATOR	R OF THE WASTE) IN		
Company Na	me				
	ergy USA Inc.				
	ry, Name of Parent Comp	any			Generator ID#
Talisman En	illing Address Line 1	C	ompany Mailing Addres	N/A	
50 Pennwoo	•	•	ompany maning Addres		
	dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale		PA	15086	(724) 814-530	
	ntact Last Name	First Name	MI	Suffix	(
Brown Municipality	<u>,</u>	Dina	County		
Warrendale			Allegheny		
Contact Pho	ne Ext	Contact Email Address			·····
(724) 814-53		dybrown@talismanusa.c			
		y Mailing Address (noted a			Yes 🛛 No
the (05	ibe location of waste gen	eration and storage. <u>Drill o</u> at 733 Regan Hill Road, Wa	uttings are generated du	ring natural gas drilli	ng operations at
i the (ua		at 755 Regari Filli Road, wa	anen Townsnip, Braulord	County, FA. Waste	
containers on	site.				
containers on Municipality	site. Warren	County Bradfo	ord	State	PA
		County Bradfo		State	PA
Municipality Residual	Warren Residu	SECTION B. WAST	E DESCRIPTION	Unit of	Time
Municipality	Warren Residu	SECTION B. WAST		Unit of Measure	
Municipality Residual	Warren Residu	SECTION B. WAST al Waste escription	E DESCRIPTION	Unit of Measure cu yd gal	Time Frame
Municipality Residual Waste Code	Warren Residu Code D	SECTION B. WAST al Waste escription	E DESCRIPTION Amount 280	Unit of Measure	Time
Municipality Residual Waste Code	Warren Residu Code D Drill cuttings (oil and g	SECTION B. WAST ral Waste escription as) 1. GENERAL P to 11.3	E DESCRIPTION Amount 280 - ROPERTIES (based on analyses or ki	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Warren Residu Code D Drill cuttings (oil and g	SECTION B. WAST ral Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Me	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or ki thod 9095)	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra	Warren Residu Code D Drill cuttings (oil and g ange 8.9	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 900	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or ki thod 9095) 95)	Unit of Measure □ cu yd □ gal □ lb ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit (based on analyses or kit (based on analyses) 95) ture & pressure)	Unit of Measure cu yd gal lb X ton	Time     Frame       One Time
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or ku thod 9095) 95) ture & pressure) Odo	Unit of Measure cu yd gal lb X ton nowledge)	Time     Frame       One Time
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo d Phases of Separation	Unit of Measure cu yd gal lb X ton nowledge) r Earthy / Slight One	Time     Frame       One Time
Municipality Residual Waste Code 810 a. pH Ra b. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit thod 9095) 95) ture & pressure) Odo d Phases of Separation	Unit of Measure cu yd gal lb X ton nowledge) r Earthy / Slight One	Time     Frame       One Time
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State cal Appearance	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit (based on	Unit of Measure cu yd gal lb ton nowledge) r Earthy / Slight One ck Fragments	Time         Frame         One Time         Petroleum
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State cal Appearance	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit (based on	Unit of Measure cu yd gal lb ton nowledge) r Earthy / Slight One ck Fragments	Time     Frame       One Time
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Warren Residu Code D Drill cuttings (oil and g ange 8.9 cal State cal Appearance	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kithod 9095) 95) ture & pressure) Odo 1 Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in	Unit of Measure Cu yd gal Ib X ton nowledge) r Earthy / Slight One ck Fragments	Time         Frame         One Time         Petroleum
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A det	Warren         Residu         Code D         Drill cuttings (oil and g         ange       8.9         cal State         cal Appearance         essults of a detailed chem         ctions, is attached.         ailed description of the w         uality assurance/quality	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kit (based on	Unit of Measure cu yd gal lb X ton nowledge) r Earthy / Slight One ck Fragments	Time Frame         One Time         Petroleum         Yes
Municipality Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A deta c. The q attack	Warren         Residu         Code D         Drill cuttings (oil and g         ange       8.9         cal State         cal Appearance         esults of a detailed chem         alled description of the w         uality assurance/quality	SECTION B. WAST al Waste escription as) 1. GENERAL P to 11.3 Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the aste sampling method is a	E DESCRIPTION Amount 280 ROPERTIES (based on analyses or kithod 9095) 95) ture & pressure) Odo 1 Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached. yed by the laboratory(ie	Unit of Measure Cu yd gal Ib X ton nowledge) r Earthy / Slight One ck Fragments the X rs) is X	Time Frame         One Time         One Time         Petroleum         Yes       No         Yes       No

-	A	D				
A. 425		PROCESS DESCRIPTION & SCHI				<del>~~</del>
а.	A detailed description of the the waste, as specified in the	nanufacturing and/or pollution instructions, is attached.	control processes	producing	🛛 Yes	No No
b.	A schematic of the manufacture as specified in the instruction	ring and/or pollution control p s, is attached.	rocesses producing	the waste,	Yes	🗌 No
C.		submitted are confidential, the cribed in the instructions, is at		Yes [	_ No	🛛 N/A
	SECTIO	DN C. MANAGEMENT C	FRESIDUAL V	NASTE		
		1. PROCESSING OR DISPOS	AL FACILITY(IES)		1,	1 - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas - Andreas
The ar	ea below (ad.) will accommod	ate the identification of two fac	ilitles. Attach addit	tional sheets if r	ecessary.	
а.	Solid waste permit number(s) 8-0728-00004	for processing or disposal fac	lity being utilized.			
b.	Facility Name	Chemung County Landfill				
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County Che	mung		
c.	Facility Contact Name	Carla Canjar		-		
	Title	Environmental Manager				
	Phone		il Address carla	a.canjar@casel	la com	·
d.		rocessing or disposal facility in				
u.	123	cuyd 🗍 gal 🗌 Ib	🛛 ton	(check one)		
а.	Solid waste permit number(s) 8-4630-00010	for processing or disposal faci	lity being utilized.			
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridge Road				
	Address Line 1	<b>x</b>			· · · ····	
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County Steu	iben		
c.	Facility Contact Name	Joseph Boyles		· · · · · · · · · · · · · · · · · · ·		
	Title					
	Phone	(607) 937-6044 Ema (585) 466-7271	il Address joe.b	ooyles@casella	.com	
d.	Volume of waste shipped to p	rocessing or disposal facility in	the previous year.			
	103	cuyd 🗌 gal 🗌 İb	🛛 ton	(check one)		
		2. BENEFICIAL L	JSE			
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general perm	t number or approval number.		_		
b.	Volume of waste beneficially					
	0	cuyd 🗌 gal 🔲 Ib	🔲 ton	(check one)		

		SECTION D. CERTIFICATION
Report and all attached docu obtaining the information, I knowledge. I understand tha	uments verify t the s	have personally examined and am familiar with the information submitted in this Annual is and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Check the following, if applica	ble:	
I certify the information	•	ired in Section B-1, General Properties was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:	_	
I certify the information		ired in Section B-2, Chemical Analysis was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information for the year and I		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
Name of Responsible Official		Title Environmental Specialist
Dina Brown Signature		Mon Date 2/25/11

LAB ID: 08-00380 LAB ID: 39-00401	<b>Easter</b> i 2566 Peni Sayre, Phone: (57	Analytics, In n Division nsylvania Ave. PA 18840 70) 888-0169 70) 888-0717	IC.	Work	Order: 101	20831
SEND DATA TO:						
NAME: Steve Gridley			W	O#: 1012	0831	
COMPANY: Talisman Energy USA,	nc.					
ADDRESS: 337 Daniel Zenker Dr			PA	AGE: 1 of <sup>r</sup>	1	
Horseheads, NY 14845			PC	)#: AF78	3267	
PHONE: (607) 731-0145	TEST	REPORT	PV	VS ID#		
FAX: (607) 562-4001						
05-005						
	DATE	0/00/0040 45 40			_	
RECEIVED FOR LAB BY: CMS	DATE: 1	2/06/2010 15:40			Pa	age 1 of 1
SAMPLE: inv. Cuttings	La	b ID: 10120831-001A	Compo	site		
SAMPLED BY: SG	Sample 1	Time: 12/06/2010 13:47				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Total Petroleum Hydrocarbons	94900 mg/Kg	EPA 9071		12/08/10 14:20	12/08/10	CULULINI.
Sample Note: Analysis performed by		c-Erie Division				
SAMPLE: Inv. Cuttings		ib ID: 10120831-001B	Compo	eita		
SAMPLED BY: SG		Time: 12/06/2010 13:47	Compo	310		
			<u>SLOQ</u>			
<u>Test</u> Molsture	<u>Result</u> 16.4 %	<u>Method</u>	0.01	Analysis Start 12/06/10 17:30	Analysis End 12/07/10	
Free Liquid	< 0.1 %	Moisture Calc. EPA 9095A	0.01 0.1	12/06/10 17:30	12/06/10	IC-SA IC-SA
pH	7.97@21.7°C	EPA 9045C	0.1	12/07/10 14:20	12/00/10	MED-SA
						WED-5A
SAMPLE: TCLP Leachate of Inv.Cuttin	-	b ID: 10120831-001E	Compo	site		
SAMPLED BY: SG	Sample I	ime: 12/07/2010 8:00	<u>SLOQ</u>			
Test	Result	Method		Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/07/10 10:15	12/09/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/08/10 12:15	12/08/10	GSR-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10	GSR-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12:15	12/08/10	GSR-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12:15	12/08/10 12/08/10	GSR-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 0.100	12/08/10 12:15 12/08/10 12:15	12/08/10	GSR-CV
Silver - TCLP extracted	< 0.100 mg/L < 0.200 mg/L	EPA 6010B EPA 6010B	0.200	12/08/10 12:15	12/08/10	GSR-CV GSR-CV
Zinc - TCLP extracted	- 0.200 mg/L		0.200			00100

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Carrie M. Davis DATE: 12/10/2010 MANAGER

CHAIN OF CUSTODY		PAGE1OF1
REPORT TO: Talisman / UEG		
geowetlands@aol.com	W/O#: 10120831	ARE SPECIAL DETECTION LIMITS
geomoticando (gaon.com		NEEDED: YES / NO
	REFRIGERATE SAMPLES	
· · · · · · · · · · · · · · · · · · ·	AFTER COLLECTION DW DRINKING WATER SL SLUDGE NYDOH NYDEC PA	DEP IS A QC PACKAGE NEEDED?
CONTACT Steve Gridley	TRANSPORT SW SURFACE WATER HZ HAZARDOUS LANDFILL	
PH# 607-731-0145		IF YES, PLEASE ATTACH REQUIREMENTS
FAX#	LABORATORY / / // H HYDROCHLORIC ACID OH SODIUM HYDROXIDE IN COOLER / S SULFURIC ACID AS ASCORBIC ACID	
BILL TO: Talisman	LABORATORY IN COOLER WITH ICE UNIT ICE	Please fill out all applicable areas completely LAB USE ONLY
	SO SOJUM SULFITE NH, AMMONIUM CHLORIDE	Please fill out all applicable areas completely LAB USE ONLY
PO# AF78267	An incomplete chain of custody may delay the processing of your sample(s).	Please fill out all
DECT DESCRIPTION	日 「 「 「 」 「 「 」 「 」 「 」 「 」 「 」 「 」 「 」	applicable areas
SAMPLER SIGNATURE / AFFILIATION		completely
SCONTAINER SAMPLING POINT	An incomplete chain of custody may delay the processing of your sample(s).	Le la la la la la la la la la la la la la
	(PER CONTAINER)	A LAB USE ONLY
1 Inv Cuttings	12/6/1347 50 C SCI N TPH	
2	рН	
3	TCLP 8 RCRA Metals + Cu, Ni, Zn	
4	Free Liquids / % Moisture	
5 A-TPH		
6 B- pH, Free liquia, "	Perform BTEX ONLY IF the TPH	
7 C- Amons, metals	exceeds 100,000 mg/Kg	
8 D- Total Sciple		
9 E- TCLP metals	TZ HOUR TURNAROUND	
10	DAY TURNAROUND	
11		
LAB USE ONLY	Real and the second second second second second second second second second second second second second second	
		C ARRIVAL ON IGE YAN
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RELINQUISHED BY:	DATE: TIME: RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME: RECEIVED BY: 10. 1010	_ DATE 16 110 TIME: 1540

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Ad Gra	phics Pr	inting	570	-88	1-066	15

PA ID #: 08-00380 NY ID #. 11216	2566 Penn Sayre, I Phone: (57	Analytics, In I Division sylvania Ave. PA 18840 0) 888-0169 0) 888-0717	IC.	Work	Order: 101	21729
SEND DATA TO: NAME: Dina Brown COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845 PHONE: (607) 562-4000	i	REPORT	P/ P(	O#: 1012 AGE: 1 of 3 O#: AF78 WS ID#		·
FAX: (607) 562-4001 05-005 RECEIVED FOR LAB BY: RML	DATE: 12	2/09/2010 15:45	-		Pi	age 1 of 3
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Ignitability Sample Note: Analysis performed by	Sample Tii <u>Result</u> Neg ASIS °F	ID: 10121729-001A me: 12/09/2010 13:28 <u>Method</u> SW846 1030	Grab <u>SLOQ</u>	<u>Analysis Start</u> 12/15/10 13:30	<u>Analysis End</u> 12/15/10	<u>Analyst *</u>
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> Cyanide, Reactive Reactive Sulfide		ID: 10121729-001C me: 12/09/2010 13:28 <u>Method</u> SW 7.3.3.2 SW846 7.3	Grab <u>SLOQ</u> 0.2 16	Analysis Start 12/13/10 8:56 12/14/10 12:30	Analysis End 12/14/10 12/14/10	<u>Analvst*</u> HDP-CV LTW-CV
SAMPLE: Inv. Cuttings SAMPLED BY: SG <u>Test</u> % Solids Total Volatile Solids	Lab	ID: 10121729-001D ne: 12/09/2010 13:28 <u>Method</u> SM2540B EPA 160.4	Grab <u>SLOQ</u> 0.10 0.01	Analysis Start 12/10/10 17:00 12/10/10 8:00	<u>Analysis End</u> 12/13/10 12/14/10	Analyst * IC-SA NFM-SA
SAMPLE: TCLP Leachate of Inv. Cuttin SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene Hexachlorobutadiene 2,4,6-Trichlorophenol	•	ID: 10121729-001F ne: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C	Grab <u>SLOQ</u> 0.10 0.10 0.10 0.10 0.10 0.10 0.10	Analvsis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	Analvst * RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis

DATE: 12/16/2010

## Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Work Order: 10121729 Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717 SEND DATA TO: NAME: Dina Brown WO#: 10121729 COMPANY: Talisman Energy USA, Inc. PAGE: 2 of 3 ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845 PO#: AF78267 PWS ID# **TEST REPORT** PHONE: (607) 562-4000 FAX: (607) 562-4001 05-005 RECEIVED FOR LAB BY: RML DATE: 12/09/2010 15:45 Page 2 of 3 < 0.10 mg/L 12/15/10 7:48 12/15/10 2,4,5-Trichlorophenol EPA 8270C 0.10 RHH-SA Pentachlorophenol < 0.50 ma/LEPA 8270C 0.50 12/15/10 7:48 12/15/10 RHH-SA 2,4-Dinitrotoluene < 0.10 mg/L EPA 8270C 0.10 12/15/10 7:48 12/15/10 RHH-SA Hexachlorobenzene < 0.10 mg/L 12/15/10 7:48 EPA 8270C 0.10 12/15/10 **RHH-SA** Naphthalene < 0.10 mg/L EPA 8270C 0.10 12/15/10 7:48 12/15/10 **RHH-SA** Lab ID: 10121729-001G Grab SAMPLE: TCLP Leachate of Inv. Cuttings SAMPLED BY: SG Sample Time: 12/07/2010 8:00 <u>SLOQ</u> Test **Result** Method Analysis Start Analysis End Analyst \* < 0.050 mg/L Strontium - TCLP extracted EPA 6010B 0.050 12/08/10 12:15 12/08/10 GSR-CV Sample Note: Sample for TCLP extracted Strontium was received on 12/6/10 at 15:40 by CMS. Lab ID: 10121729-001H SAMPLE: TCLP Leachate of Inv. Cuttings Grab SAMPLED BY: SG Sample Time: 12/11/2010 12:45 SLOQ Method Analysis Start Analysis End Analyst\* Test Result 6.26@16.6°C 12/14/10 8:00 SM4500H+B 12/14/10 pН SG-SA Lab ID: 10121729-0011 Grab SAMPLE: ZHE Extract of Inv. Cuttings SAMPLED BY: SG Sample Time: 12/12/2010 13:10 SLOQ Test Result Method Analysis Start Analysis End Analyst\* < 0.0250 mg/L 0.0250 12/13/10 8:11 12/13/10 Benzene EPA 8260B CTM-SA < 0.0250 mg/L EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA Carbon tetrachloride EPA 8260B 0.0250 12/13/10 8:11 12/13/10 Chlorobenzene < 0.0250 mg/L CTM-SA 0.0250 12/13/10 8:11 12/13/10 < 0.0250 mg/L EPA 8260B CTM-SA Chloroform 12/13/10 8:11 12/13/10 < 0.0250 mg/L EPA 8260B 0.0250 CTM-SA 1,2-Dichloroethane < 0.0250 mg/L EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA 1,1-Dichloroethene EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA < 0.0250 mg/L Ethylbenzene < 0.0250 mg/L EPA 8260B 0.0250 12/13/10 8:11 12/13/10 CTM-SA Isopropylbenzene 12/13/10 8:11 0.0250 12/13/10 Trichloroethene < 0.0250 mg/L EPA 8260B CTM-SA

## 1,2,4-Trimethylbenzene

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

EPA 8260B

0.0250

12/13/10 8:11

CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.0250 mg/L

B Analyte detected in the associated Method Blank

MANAGER

REMARKS:

Carrie M. Davis

DATE: 12/16/2010

12/13/10

CTM-SA

## **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121729

Phone: (570) 888-0169

Fax: (570) 888-0717

SEND DATA TO	):
--------------	----

NAME:	Dina Brown				W	O#:	1012	1729	
COMPANY:	Talisman Energy USA, Ir	IC.			PA	AGE;	3 of 3	3	
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845			•					
	1013610203, 111 14040	:			PC	<b>)#</b> :	AF78	267	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	ST RE	EPORT	P۷	NS ID#			
05-00	5								
RECEIVED F	FOR LAB BY: RML	DAT	E: 12/0	9/2010 15:45				P٤	age 3 of 3
1,3,5-Trir	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
Vinyl chic	pride	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
Methyl te	rt-butyl ether	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
A B -	ne	< 0.0500 mg/L		EPA 8260B	0.0500	12/13/10	8:11	12/13/10	CTM-SA
2-Butano				217(02000	0.0000				<b>Q</b> 1111 Q/ 1
<u></u>	STM Extract of Inv. Cutting		Lab ID	): 10121729-001J	Grab				
SAMPLE: A	•	3			Grab				
SAMPLE: AS	STM Extract of Inv. Cuttings	3 Sam		0: 10121729-001J 9: 12/10/2010 11:15					
SAMPLE: AS SAMPLE <u>Test</u>	STM Extract of Inv. Cuttings ED BY: SG	3 Sam <u>Result</u>	nple Time	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u>	Grab <u>SLOQ</u>	Analysis	<u>Start</u>	Analysis End	Analyst *
SAMPLE: AS SAMPLE <u>Test</u> Chemical	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand	3 <u>Result</u> 178 mg/L	nple Time в	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000	Grab <u>SLOQ</u> 10		<u>Start</u>		
SAMPLE: AS SAMPLE <u>Test</u> Chemical SAMPLE: AS	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	3 Sam <u>Result</u> 178 mg/L	в Lab IE	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L	Grab <u>SLOQ</u>	Analysis	<u>Start</u>	Analysis End	Analyst *
SAMPLE: AS SAMPLE <u>Test</u> Chemical SAMPLE: AS	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand	3 Sam <u>Result</u> 178 mg/L	в Lab IE	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000	Grab <u>SLOQ</u> 10 Grab	Analysis	<u>Start</u>	Analysis End	Analyst *
SAMPLE: AS SAMPLE <u>Test</u> Chemical SAMPLE: AS	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	3 Sam <u>Result</u> 178 mg/L	в Lab IE	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L	Grab <u>SLOQ</u> 10	Analysis	<u>Start</u> 8:00	Analysis End	Analyst *
SAMPLE: AS SAMPLE <u>Test</u> Chemical SAMPLE: AS SAMPLE: AS	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	s Sam <u>Result</u> 178 mg/L s Sam	в Lab IE	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L 4: 12/10/2010 11:15	Grab <u>SLOQ</u> 10 Grab	<u>Analvsis :</u> 12/11/10	Start 8:00	Analysis End 12/13/10	Analyst * KMF-SA
SAMPLE: AS SAMPLE <u>Test</u> Chemical SAMPLE: AS SAMPLE: <u>Test</u>	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	3 Sam <u>Result</u> 178 mg/L 3 Sam <u>Result</u>	в Lab IE	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L 4: 12/10/2010 11:15 <u>Method</u>	Grab <u>SLOQ</u> 10 Grab	Analvsis 12/11/10 Analysis	<u>Start</u> 8:00 <u>Start</u> 8:00	Analysis End 12/13/10 Analysis End	<u>Analyst *</u> KMF-SA <u>Analyst *</u>
SAMPLE: AS SAMPLE Chemical SAMPLE: AS SAMPLE: AS SAMPLE Total Soli	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	3 Sam <u>Result</u> 178 mg/L 3 Sam <u>Result</u> 7.34@16.7°C	B B Lab IC Iple Time	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L 4: 12/10/2010 11:15 <u>Method</u> SM4500H+B	Grab SLOQ 10 Grab SLOQ	<u>Analysis :</u> 12/11/10 <u>Analysis :</u> 12/14/10	<u>Start</u> 8:00 <u>Start</u> 8:00	Analysis End 12/13/10 Analysis End 12/14/10	<u>Analyst *</u> KMF-SA <u>Analyst *</u> SG-SA
SAMPLE: AS SAMPLE: AS Chemical SAMPLE: AS SAMPLE: AS SAMPLE: Test pH Total Soli SAMPLE: In	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	Sam <u>Result</u> 178 mg/L S Sam <u>Result</u> 7.34@16.7°C 1890 mg/L	B B Lab IC Ipple Time Lab IC	2: 10121729-001J 2: 12/10/2010 11:15 <u>Method</u> HACH 8000 2: 10121729-001L 4: 12/10/2010 11:15 <u>Method</u> SM4500H+B SM2540B	Grab SLOQ 10 Grab SLOQ 0.10 Grab	<u>Analysis :</u> 12/11/10 <u>Analysis :</u> 12/14/10	<u>Start</u> 8:00 <u>Start</u> 8:00	Analysis End 12/13/10 Analysis End 12/14/10	<u>Analyst *</u> KMF-SA <u>Analyst *</u> SG-SA
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#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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Analyte detected in the associated Method Blank в

MANAGER

Carrie M. Davis

12/16/2010 DATE:

CHAIN OF CUSTODY	Benchmi	E <u>1</u> 0F <u>1</u>
REPORT TO: Talisman / UEG	Ea <b>W/O#: 10121729</b>	SPECIAL DETECTION LIMITS
geowetlands@aol.com	Phone	1
	Fax: (570) 888-0717 REFRIGERATE SAMPLES RESULTS ARE BEING USED FOR:	
	REFRIGERATE SAMPLES       RESULTS ARE BEING USED FOR:         AFTER COLLECTION       Image: Construction of the second seco	IF YES, PLEASE ATTACH
	I GW GROUND WATER SO SOIL	
CONTACT Steve Gridley	TRANSPORT SW SURFACE WATER HZ HAZARDOUS LANDFILL Mostoller	
PH# 607-731-0145	TO DE DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	IF YES, PLEASE ATTACH REQUIREMENTS
FAX#	LABORATORY / / H HYDROCHLORIC ACID OH SODIUM HYDROXIDE IN COOLER / S SULFURIC ACID AS ASCORBIC ACID	
BILL TO: Talisman	WITH ICE / S / N NITRIC ACID AC ACETIC ACID SO3 SODIUM SULFITE NH4 AMMONIUM CHLORIDE /	E E E
	Thio SODIUM THIOSULFATE ZN ZINC ACETATE	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PO# AF 78 267	B B S S S F NONE Hg MERCURIC CHLORIDE	Please fill out all
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SAMPLER SIGNATURE / AFFILIATION		S completely
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1 Inv Cuttings	(PER CONTAINER)	
	C / PCBs, Total Solids	한 가슴은 알 가 상황에는 가지 않는 가에서 도망했다. 같은 것에 같은 것이 같은 가 있었다. 이 도망했다.
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4 C - Reactivity	C Ammonia-Nitrogen	
5 D- 75, TUS	C Water Leaching Procedure: COD,	
6 E-Total Sample	VVVCV Total Solids, Oil & Grease,	
7 F-TOLS BNA, fists.		
8 G-TCCP Hats Sr		
9 H -TCCP pH	- X-ASTANE 36 HOUR TURNAROUND	
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					JSE <b>[ONLY</b> d & General Notes
General Refe	rence 287.54				
Date Prepare	d/Revised Fe	ebruary 11, 2011			
		CLIENT (GENERATOR	R OF THE WASTE) IN	FORMATION	
Company Na					
	ergy USA Inc. ry, Name of Parent Com	pany		EPA	Generator ID#
Talisman En	ergy Inc.			N/A	
Company Ma 50 Pennwoo	iling Address Line 1	C	ompany Mailing Addre	ss Line 2	
	dress Last Line – City	State	Zip+4	Phone	Ext
Warrendale		PA	15086	(724) 814-530	0
Company Co   Brown	ntact Last Name	First Name Dina	MI	Suffix	<b>C</b>
Municipality			County		
Warrendale		/	Allegheny		
Contact Pho		Contact Email Address			
(724) 814-53		dybrown@talismanusa.c ny Mailing Address (noted a			Yes 🕅 No
lf 'N <u>o'. desc</u> ri	ibe location of waste ge	neration and storage. Drill o	uttings are generated du	uring natural gas drilli	ng operations at
		ocated at 706 Thomas Lane,	Troy Township, Bradford	County, PA. Waste	is stored in
containers on Municipality	_	• • • • •		<b>e</b> ( )	
	Trov	County Bradfo	ord	State	PA
manopany		County Bradfo		State	PA
Residual	Resid	SECTION B. WAST	E DESCRIPTION	Unit of	Time
	Resic Code	SECTION B. WAST lual Waste Description	E DESCRIPTION Amount	Unit of Measure	
Residual	Resid	SECTION B. WAST lual Waste Description	E DESCRIPTION	Unit of	Time
Residual Waste Code 810	Resic Code Drill cuttings (oil and	SECTION B. WAST Iual Waste Description gas) 1. GENERAL P	E DESCRIPTION Amount 2,175 ROPERTIES	Unit of Measure cu yd gal lb X ton	Time Frame
Residual Waste Code 810 a. pH Ra	Resic Code Drill cuttings (oil and ange 8.	SECTION B. WAST Iual Waste Description gas) <u>1. GENERAL P</u> 9 to 11.3	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k	Unit of Measure cu yd gal lb X ton	Time Frame
Residual Waste Code 810 a. pH Ra	Resic Code Drill cuttings (oil and	SECTION B. WAST Iual Waste Description gas) 1. GENERAL P 9 to 11.3 Liquid Waste (EPA Me	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095)	Unit of Measure cu yd gal lb X ton	Time Frame
Residual Waste Code 810 a. pH Ra	Resic Code Drill cuttings (oil and ange 8.	SECTION B. WAST Iual Waste Description gas) <u>1. GENERAL P</u> 9 to 11.3	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95)	Unit of Measure cu yd gal lb X ton	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Resic Code Drill cuttings (oil and ange 8.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo	Unit of Measure Cuyd gal Ib X ton nowledge)	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Resic Code Drill cuttings (oil and ange 8. cal State	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation	Unit of Measure Cu yd gal Ib X ton nowledge) r _Earthy / Slight One	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi	Resic Code Drill cuttings (oil and ange 8. cal State	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1 Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation	Unit of Measure Cu yd gal Ib X ton nowledge) r _Earthy / Slight One	Time Frame
Residual Waste Code 810 a. pH Ra b. Physi c. Physi	Resic Code   Drill cuttings (oil and ange 8. cal State cal Appearance	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS	Unit of Measure Cu yd gal Ib X ton nowledge) r Earthy / Slight One ck Fragments	Time         Frame         One Time         Petroleum
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi	Resic Code   Drill cuttings (oil and ange 8. cal State cal Appearance esults of a detailed cher ictions, is attached.	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS Inical characterization of the	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in	Unit of Measure □ cu yd □ gal □ lb	Time         Frame         One Time         Petroleum         Yes       No
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A deta	Resic Code Drill cuttings (oil and ange 8. cal State cal Appearance esults of a detailed cher ictions, is attached. ailed description of the	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in tttached.	Unit of Measure Unit of Measure gal gal Ib X ton nowledge) r Earthy / Slight One ck Fragments the X	Time         Frame         One Time         Petroleum         Yes       No         Yes       No
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A deta	Resic Code Drill cuttings (oil and ange 8. cal State cal Appearance esults of a detailed cher ictions, is attached. ailed description of the uality assurance/quality	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS Inical characterization of the	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in tttached.	Unit of Measure Unit of Measure gal gal Ib X ton nowledge) r Earthy / Slight One ck Fragments the X	Time         Frame         One Time         Petroleum         Yes       No
Residual Waste Code 810 a. pH Ra b. Physi c. Physi c. Physi a. The ra instru b. A deta c. The q attack d. The ra	Resic Code Drill cuttings (oil and ange 8. cal State cal Appearance cal Appearance cal Appearance cal Appearance cal Appearance cal Appearance cal Appearance	SECTION B. WAST Jual Waste Description gas) 1. GENERAL P 9 to 11.3 1. Liquid Waste (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS nical characterization of the waste sampling method is a	E DESCRIPTION Amount 2,175 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in ittached. //ed by the laboratory(in ched.	Unit of Measure Unit of Measure gal gal Ib X ton nowledge) r Earthy / Slight One ck Fragments the Share Charles C	Time         Frame         One Time         Petroleum         Yes       No         Yes       No

	3	PROCESS DESCRIPTION	SCHEMATIC ATTAC	HMENTS		1			
a.	A detailed description of the				Yes				
	the waste, as specified in the								
b.	A schematic of the manufactu	ring and/or pollution oor	tral processo proc	luging the weets	X Yes	□ No			
D.	as specified in the instruction		itroi processes proc	incling the waste,	K fes				
c.	If portions of the information	submitted are confidentia	al, the substantiation	n for Yes	No No	🛛 N/A			
	a confidentiality claim, as described in the instructions, is attached.								
	SECTIO	ON C. MANAGEME	watakey (SomeElion) New Politons (BALActy Firstless (BAVACATION South	over an example and the contract of the contract of the second and the contract of the second of the					
		1. PROCESSING OR D							
The ar	ea below (ad.) will accommod	ate the identification of t	wo facilities. Attach	additional sheets	if necessary.				
a.	Solid waste permit number(s) 9-0232-00003	for processing or dispos	al facility being utili	zed.					
b.	Facility Name	Hyland Landfill							
	Address Line 1	6653 Herdman Road							
	Address Line 1								
	Address City State ZIP	Angelica	NY	14709					
	Municipality	Angelica	County	Allegany					
C.	Facility Contact Name	Larry Shilling							
	Title	Latty Stiming							
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com				
d.	Volume of waste shipped to p	rocessing or disposal fac	lity in the previous	vear.					
	1,255	cu yd 🗌 gal	∏lb ⊠ton						
a.	Solid waste permit number(s)	for processing or dispos	al facility being utili	zed					
u.	8-0728-00004	for processing of dispos	an lacinty being utili	LCU.					
b.	Facility Name	Observer Country Loop	JC11						
D.	Address Line 1	Chemung County Land		·····					
	Address Line 1 Address Line 1	1690 Lake Street							
	Address Line 1 Address City State ZIP		NIX	44000					
	Municipality	Elmira	NY County	14903					
		Elmira	County	Chemung					
с.	Facility Contact Name	Carla Canjar	<u> </u>						
	Title	Environmental Manage							
	Phone	(585) 797-5941	Email Address	carla.canjar@cas	sella.com				
d.	Volume of waste shipped to p		ility in the previous	year.					
	548	cu yd 🗌 gal 🗌	b 🛛 ton	(check one)					
		2. BENEF	ICIAL USE		<u>.</u>				
a.	Has the waste been approved	for beneficial use?			Yes	No No			
	If "Yes", list the general permi	t number or approval nu	nber.						
b.	Volume of waste beneficially i								
	0 Ú	cuyd 🗌 gal 🛛	lbton	(check one)					

	3:	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS	an da da da da da da da da da da da da da			
a.	A detailed description of the r the waste, as specified in the	instructions, is attached		esses producing	X Yes	No No		
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.							
C.	c. If portions of the information submitted are confidential, the substantiation for Yes No N/A a confidentiality claim, as described in the instructions, is attached.							
	SECTIO	ON C. MANAGEME	- NO ADD WELLEY WITH Y STOLEN DE DATE OF AN AND AN AND AN AND AN AN AN AN AN AN AN AN AN AN AN AN AN	an an an an an an an an an an an an an a				
		1. PROCESSING OR D						
The ar	ea below (ad.) will accommod	ate the identification of t	wo facilities. Attac	h additional sheets	if necessary.			
a.	Solid waste permit number(s) 101243	for processing or dispo	sal facility being ut	ilized.	- night			
b.	Facility Name	Northern Tier Solid W	aste Authority					
	Address Line 1	108 Steam Hollow Ro	ad					
	Address Line 1							
	Address City State ZIP	Troy	PA	16947				
	Municipality	West Burlington Twp	County	Bradford				
с.	Facility Contact Name	Charles Woodward						
	Title							
	Phone	(570) 297-4177	Email Address	chuckwoodward	@epix.net			
d.	Volume of waste shipped to p 372	rocessing or disposal fa cu yd gal	cility in the previou					
a.	Solid waste permit number(s)	for processing or dispo	sal facility being ut	ilized.				
b.	Facility Name							
	Address Line 1							
	Address Line 1							
	Address City State ZIP							
	Municipality		County					
c.	Facility Contact Name							
	Title							
	Phone		Email Address					
d.	Volume of waste shipped to p	ocessing or disposal fa	cility in the previou	s year.				
		cu yd 🛛 🗌 gal	b to	n (check one)				
		2. BENER	ICIAL USE					
а.	Has the waste been approved	and the date of the latter of			Yes	No No		
	If "Yes", list the general permi	t number or approval nu	mber.					
b.	Volume of waste beneficially u							
	0 📋	cuyd 🗌 gal	🗌 lb 🗌 to	n (check one)				

		SECTION D. CERTIFICATION				
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.						
Check the following, if applical	ole:					
I certify the information and has not chan	•	ired in Section B-1, General Properties was supplied to the Department for the year				
Form Submitted:		Form 26R				
		Other (specify)				
Date Submitted:						
I certify the information	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year				
Form Submitted:		Form 26R				
		Other (specify)				
Date Submitted:						
I certify the information for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.				
Form Submitted:		Form 26R				
		Other (specify)				
Date Submitted:						
Name of Responsible Official		TitleEnvironmental Specialist				
Dina Brown						
Signature	5	Date Date 2/2/11				

LAB ID: 08-00380 LAB ID: 39-00401		Benchmark Analytics, Inc. Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840		• Work Order: 10032816				
		Phone: (570) 888-01 Fax: (570) 888-07						
SEND DATA	A TO:							
NAME:	Steve Gridley		WO#	: 1003	2816			
COMPANY:	<b>0</b> , ,	<b>ЪС.</b>	PAGI	E: 1 of	1			
ADDRESS:	50 Pennwood Place Warrendale, PA 15086				•			
	Waltendale, 177 10000		PO#:					
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST REPORT	PWS	ID#				
FTS	5H							
	FOR LAB BY: DLM2	DATE: 03/17/2010 1	4:47		Pa	ge 1 of 1		
SAMPLE: In	v. Cuttings	Lab ID: 1003281	6-001A Grab					
SAMPLI	ED BY: -	Sample Time: 03/16/20	10 0:00 SLOQ					
Test		Result Metho		nalysis Start	Analysis End	<u>Analyst *</u>		
Unknown	1	See Attached Subcor	itract 04	4/20/10 0:00	04/20/10			
Sample	Sample Note: Analysis performed by Texas Oil Tech Laboratories, Inc.							

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

anie M. Davis DATE: 4/21/2010

MANAGER

CHAIN OF CUSTODY	1	Benchmark Ana	ivtics. Inc.	PAGEOF
EPORT TOI Talismon 1/2126	·	East 2566 Pennsylvania	~~~~	FLS SPECIAL DETECTION LIMITS
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geowetland's		•	sman Energy USA, Inc.	ED: YES / NO
	AFTER COLLECTION	·····	mas FT5H	), PLEASE ATTACH
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ONTACT Steve Cridley	TRANSPORT	SW SURFACE WATER H	Z HAZARDOUS LANDFILL	YES (NO )
H#	1 👞		THER I DISTILLED WATER PERSONAL OTHER	IF YES, PLEASE ATTACH REQUIREMENTS
AX#	LABORATORY	H HYDROCH	LORIC ACID OH SODIUM HYDROXIDE PWS ID	#
ILL TO: To Isman	IN COOLER	S SULFURIC	ACID AS ASCOMBIC ACID ID AC ACETIC ACID Location	
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## **Certificate of Analysis**



SINCE 1985

Quality Controlled Through Analysis

10630 FALLSTONE RD. HOUSTON, TEXAS 77099 P.O. BOX 741905, HOUSTON, TEXAS 77274

Talisnan

TEL: (281) 495-2400 FAX: (281) 495-2410

CLIENT: Benchmark Analytics, Inc.		REQUESTED BY:	Mr. Tracy Cole
SAMPLE:	10032816-001A	REPORT DATE:	April 20, 2010
LABORATOR	Y NO: 58869	PURCHASE ORDER NO:	Pending

TEST

RESULTS

Anthracite Coal, wt%	<1.0
Bituminous Coal, wt%	<1.0
Organic Carbon Content, wt%	6.44
Crude Oil	3.84
Polymer	<1.0

#### X-Ray Diffraction Analysis

Amount Found, wt%
28
55
ND
7
10

Respectfully submitted For Texas OilTech La poratories, L.P.

A. Phil Solurbaktsh Director of Laboratory Operations



These analyses, opinions or interpretations are based on material supplied by the client to whom, and for whose exclusive and confidential use this report is made. Texas Oiltech Laboratories, Inc. and its officers assume no responsibility and make no warranty for proper operations of any petroleum, oil, gas or any other material in connection with which this report is used or relied on.





COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

			rately completed. All requi			USE ONLY
each a	typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					ed & General Notes
Genera	al Refe	ence 287.54				
Date P	repared	I/Revised F	February 11, 2011			
		SECTION A	. CLIENT (GENERATOR	R OF THE WASTE) II	NFORMATION	
Compa	ny Nar	ne		······	-	
I alism	an Ene	ergy USA Inc. /, Name of Parent Cor	many		EDA	Generator ID#
Talism	an Ene	argy Inc.	прапу		N/A	Generator ID#
Compa 50 Per	iny Mai	ling Address Line 1	C	ompany Mailing Addre		
Compa	ny Add	lress Last Line – City	State	Zip+4	Phone	Ext
Warrer			PA	15086	(724) 814-530	
Brown	-	itact Last Name	<b>First Name</b> Dina	MI	Suffi	×
Munici				County		
Warrer Contac		e Ext	Contact Email Address	Allegheny		· · · · · · · · · · · · · · · · · · ·
(724) 8			dybrown@talismanusa.c	com		
Is the v	vaste g	enerated at the Comp	any Mailing Address (noted a	above)?		Yes 🛛 No
lf 'No',	descrit	e location of waste g	eneration and storage. Drill c	cuttings are generated d	uring natural gas drill	ing operations at
<u>the TW</u> in conta			site located at 1242 Swamp R	load, Armenia Township	, Bradford County, P.	A. Waste is stored
Munici		Armenia	County Bradfo	ord	State	PA
			SECTION B. WAST			
Resid	lual	Res	idual Waste		Unit of	Time
Waste	Code	Code	Description	Amount	Measure	Frame
810		Drill cuttings (oil and	d gas)	5,840	cuydgal lb ⊠_ton	One Time
	<u> </u>		1. GENERAL P	ROPERTIES		
a.	pH Ra	nge 7		(based on analyses or l	(nowledge)	
b.	Physic	al State	Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera	95)		
с.	Physic	al Appearance	Color Grevish Black		pr Earthy / Slight	t Petroleum
			Number of Solid or Liquid		, •	
			Describe each phase of s	eparation. <u>Soil and Re</u>	ock Fragments	
		The second second	2. CHEMICAL ANALYS	SIS ATTACHMENTS		
a.	The re	sults of a detailed che	emical characterization of the		n the 🛛	Yes No
	instrug	tions, is attached.				
			waste sampling method is a		<u>\</u>	Yes No
с.	The qu attach		ty control procedures employ	yed by the laboratory(i	es) is 🛛 🖂	Yes 🗌 No
d.			s waste determination is atta	ched.	 	Yes No
	If appli	cable, a detailed expl	anation supporting use of ge			No 🛛 N/A
	lieu of	actual chemical analy	sis is attached.	-		—

	3	PROCESS DESCRIPTION	N& SCHEMATIC ATTA	CHMENTS		
a.	A detailed description of the the waste, as specified in the	manufacturing and/or	pollution control proc		🛛 Yes	🗌 No
	· •					
b.	A schematic of the manufact as specified in the instructio		control processes pro	ducing the waste,	🛛 Yes	No No
C.	If portions of the information a confidentiality claim, as de			on for 🗌 Yes	🗌 No	🛛 N/A
	SECTI	<u>on C. Managei</u>				
			R DISPOSAL FACILITY(I		1927	
The a	rea below (ad.) will accommo	date the identification of	of two facilities. Attac	h additional sheets	if necessary.	
a.	Solid waste permit number(s 9-0232-00003	) for processing or dis	posal facility being uti	lized.		
b.	Facility Name	Hyland Landfill				
1	Address Line 1	6653 Herdman Roa	id			
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
C.	Facility Contact Name	Larry Shilling				
•	Title	Earry Onlining				
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to 2,226	p <b>rocessing or disposa</b> ] cu yd gal	I facility in the previous			
a.	Solid waste permit number(s 8-4630-00010	) for processing or dis	posal facility being uti	lized.	·····	
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridg				
	Address Line 1					
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
с.	Facility Contact Name	Joseph Boyles				
	Title					······································
	Phone	(607) 937-6044	Email Address	joe.boyles@case	ella.com	
d.	Volume of waste shipped to	(585) 466-7271	facility in the proving	- Voar		
u.	2,143	] cu yd 🛛 🗍 gal				
E		2. BEI	NEFICIAL USE			
а.	Has the waste been approved		neneral and a first of fragment for a second strategy of the second second second second second second second s		Yes	No No
	If "Yes", list the general pern	nit number or approval	number.			-
b.	Volume of waste beneficially				· · · ·	
	0 Ľ	]cuyd 🗍 gal	🗌 lb 🗌 tor	n (check one)		

	3.	PROCESS DESCRIPTION & SC	HEMATIC ATTAC	HMENTS						
a.	A detailed description of the r		n control proce	sses producing	Yes	No No				
	the waste, as specified in the	instructions, is attached.								
b.	A schematic of the manufactu as specified in the instruction		processes proc	lucing the waste,	Yes	No No				
C.	If portions of the information	submitted are confidential, th	e substantiatio	n for Yes	□ No	N/A				
	a confidentiality claim, as described in the instructions, is attached.									
	SECTIO	N C. MANAGEMENT	OF RESIDU	AL WASTE						
		1. PROCESSING OR DISPO								
The ar	ea below (ad.) will accommod	ate the identification of two f	acilities. Attach	additional sheets	if necessary					
a.	Solid waste permit number(s) 8-0728-00004	for processing or disposal fa	cility being utili	ized.						
b.	Facility Name	Chemung County Landfill								
	Address Line 1	1690 Lake Street								
	Address Line 1									
	Address City State ZIP	Elmira	NY	14903						
	Municipality	Elmira	County	Chemung						
c.	Facility Contact Name	Carla Canjar				-				
	Title	Environmental Manager								
i	Phone	(585) 797-5941 Er	nail Address	carla.canjar@ca	sella.com					
d.	Volume of waste shipped to p	rocessing or disposal facility	in the previous	vear.						
	661		lb 🛛 ton							
a.	Solid waste permit number(s)	for processing or disposal fa	cility being utili	zed						
	101243	· · · · · · · · · · · · · · · · · · ·								
b.	Facility Name	Northern Tier Solid Waste	Authority							
<b>D</b> .	Address Line 1	108 Steam Hollow Road	Authonity	******						
	Address Line 1			·····						
	Address City State ZIP	Troy	PA	16947						
	Municipality	West Burlington Twp	County	Bradford		···				
с.	Facility Contact Name	Charles Woodward								
0.	Title	Charles Woodward								
	Phone	(570) 297-4177 En	nail Address	chuckwoodward	@enix net					
	Maluma of words ablumates a									
d.	Volume of waste shipped to p 476	cuyd 🗌 gal 🗌	lb 🛛 ton							
	state in the	2. BENEFICIA	USE							
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No				
	If "Yes", list the general permi		г.							
b.	Volume of waste beneficially u			** <u>********</u> ***						
	0	cuyd 🗌 gal 🗌	lb 🗌 ton	(check one)						

OT CONTRACTOR AND DO	and an an an an an an an an an an an an an		manage and the second sec	a a sub-			- and the set of the other set of the set
		PROCESS DESCRIPTIO				177 · · ·	ander la de la de
a.	A detailed description of the the waste, as specified in the	instructions, is attach	ed.		-	🛛 Yes	No No
b.	A schematic of the manufacture as specified in the instruction		control processe	s producing (	he waste,	Yes Yes	No No
C.	If portions of the information a confidentiality claim, as des				Yes	No No	⊠ N/A
	SECTIO	DN C. MANAGEN	IENT OF RE	SIDUAL W	ASTE		
	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	1. PROCESSING OR	DISPOSAL FACI	LITY(IES)			22
The a	rea below (ad.) will accommod	ate the identification o	f two facilities.	Attach additio	onal sheets i	f necessary.	
a.	Solid waste permit number(s) 100361	for processing or disp	oosal facility bei	ng utilized.			
b.	Facility Name	McKean County Lar	ldfill				
	Address Line 1	19 Ness Lane					
	Address Line 1						
	Address City State ZIP	Kane	PA		16735		
	Municipality	Sergeant Twp	Coun	ty McKe	an		
C.	Facility Contact Name	Mike Manderfeld					
	Title						
	Phone	(814) 778-9931	Email Addr	ess mand	erfeld@gma	ail.com	<u></u>
d.	Volume of waste shipped to p	rocessing or disposal cu yd     gal		<b>evious year.</b> ⊴ ton	(check one)		
а.	Solid waste permit number(s)	for processing or disp	osal facility beir	ng utilized.			
b.	Facility Name			<u>.</u>			
<b>D</b> .	Address Line 1						
	Address Line 1						
	Address City State ZIP						
	Municipality	······	Count	hv			
				.y			
с.	Facility Contact Name						
	Title		En all Adda				
	Phone		Email Addre				
d.	Volume of waste shipped to p	rocessing or disposal	facility in the pro		(check one)		
		·					
			EFICIAL USE			<u> </u>	
a.	Has the waste been approved					∐ Yes	🖂 No
	If "Yes", list the general perm						
b.	Volume of waste beneficially			<b>_</b>			
	0	cuyd 🗌 gal	[] Ib [	ton	(check one)		

SECTION D. CERTIFICATION								
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applicable	:							
I certify the information re and has not change	equired in Section B-1, General Properties was supplied to the Department for the year d.							
Form Submitted:	Form 26R							
[	Other (specify)							
Date Submitted:								
I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year and has not changed.								
Form Submitted:	Form 26R							
[	Other (specify)							
Date Submitted:								
I certify the information rec	uired in Section B-3, Process Description and Schematic, was supplied to the Department not changed.							
Form Submitted:	Form 26R							
[	Other (specify)							
Date Submitted:								
Name of Responsible Official	Title Environmental Specialist							
Dina Brown Signature	5/14-02- Date 2/28/11							

.

LAB ID # 11216 LAB ID # 11827		Easter 2566 Per Sayre Phone: (5	<b>Analytics, In</b> <b>In Division</b> Insylvania Ave. PA 18840 570) 888-0169 570) 888-0717	IC.	Work	c Order: 10040648
SEND DATA	TO:					
NAME:	Steve Gridley			W	/O#: 1004	10648
COMPANY: ADDRESS:	Talisman Energy USA, 337 Daniel Zenker Dr	Inc.		P	AGE: 1 of	3
ADDRESS.	Horseheads, NY 1484	5		P	O#: AFE	76067
						10001
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	REPORT	P	WS ID#	
TWL 01-016	-04					
RECEIVED F	FOR LAB BY: WCB	DATE:	04/06/2010 8:45			Page 1 of 3
SAMPLE: In	Cuttings - Bin	L	ab ID: 10040648-001A	Grab		
	ED BY: DB	Sample	Time: 04/05/2010 18:00	<b>D</b>		
Test		Result	Method	<u>Reg</u> Limit	Analysis Start	Analysis End Analyst *
pН		7.99 @ 23.4°C	EPA 9045D		04/07/10 11:55	04/07/10 NC-CV
Total Petr	roleum Hydrocarbons	57000 mg/Kg	EPA 1664A		04/07/10 12:40	04/07/10 DTG-CV
SAMDIE: In	Cuttings - Bin	L	ab ID: 10040648-001B	Grab		
SAMPLE. III	-	<b>.</b> .	Time: 04/05/2010 18:00			
	ED BY: DB	Sample	rime. 04/05/2010 18.00	_		
SAMPLE <u>Test</u>	ED BY: DB	Result	Method	<u>Reg</u> Limit	Analysis Start 04/06/10 14:30	Analysis End Analyst * 04/07/10 NEM-SA
SAMPLE <u>Test</u> % Solids	)	<u>Result</u> 75.37 % Wght.	Method SM2540B	Limit	<u>Analysis Start</u> 04/06/10 14:30	Analysis End Analyst * 04/07/10 NFM-SA
SAMPLE <u>Test</u> % Solids SAMPLE: <b>TC</b>	CLP Leachate of In Cuttin	<u>Result</u> 75.37 % Wght. <b>gs - Bin</b> L	<u>Method</u> SM2540B ab ID: 10040648-001D			
SAMPLE <u>Test</u> % Solids SAMPLE: <b>TC</b>	)	<u>Result</u> 75.37 % Wght. <b>gs - Bin</b> L	Method SM2540B	Limit		
SAMPLE <u>Test</u> % Solids SAMPLE: <b>TC</b> SAMPLE <u>Test</u>	CLP Leachate of In Cuttin	<u>Result</u> 75.37 % Wght. <b>gs - Bin</b> L Sample <u>Result</u>	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u>	Limit Grab <u>Reg</u> Limit	04/06/10 14:30	04/07/10 NFM-SA
SAMPLE <u>Test</u> % Solids SAMPLE: TO SAMPLE <u>Test</u> Mercury -	CLP Leachate of In Cuttin D BY: DB TCLP extracted	Result 75.37 % Wght. gs - Bin L Sample Sample < 0.0008 mg/L	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A	Limit Grab <u>Reg</u> Limit 0.008	04/06/10 14:30 <u>Analysis Start</u> 04/07/10 11:30	04/07/10 NFM-SA <u>Analysis End</u> <u>Analyst *</u> 04/07/10 RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Mercury - Arsenic -	CLP Leachate of in Cuttin D BY: DB TCLP extracted TCLP extracted	Result           75.37 % Wght.           gs - Bin         Li           Sample           Result           < 0.0008 mg/L.	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A EPA 6010B	Limit Grab <u>Reg</u> Limit 0.008 5	04/06/10 14:30 Analysis Start 04/07/10 11:30 04/07/10 11:45	04/07/10 NFM-SA <u>Analysis End</u> <u>Analyst *</u> 04/07/10 RMD-CV 04/07/10 RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - 1 Barium - 1	CLP Leachate of In Cuttin D BY: DB TCLP extracted TCLP extracted TCLP extracted	Result           75.37 % Wght.           gs - Bin         Li           Sample           Result           < 0.0008 mg/L	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	Limit Grab <u>Reg</u> Limit 0.008 5 100	<u>Analysis Start</u> 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV           04/07/10         RMD-CV           04/07/10         RMD-CV           04/07/10         RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TC SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium - T Cadmium	CLP Leachate of In Cuttin D BY: DB TCLP extracted TCLP extracted TCLP extracted TCLP extracted - TCLP extracted	Result           75.37 % Wght.           gs - Bin         Li           Sample           < 0.0008 mg/L.	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit 0.008 5 100 1	<u>Analysis Start</u> 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV           04/07/10         RMD-CV           04/07/10         RMD-CV           04/07/10         RMD-CV           04/07/10         RMD-CV
SAMPLE: <u>Test</u> % Solids SAMPLE: <b>TC</b> SAMPLE: <u>Test</u> Mercury - Arsenic - Barium - 1 Cadmium Chromium	CLP Leachate of In Cuttin DBY: DB TCLP extracted TCLP extracted TCLP extracted - TCLP extracted - TCLP extracted	Result           75.37 % Wght.           gs - Bin           Sample           Result           < 0.0008 mg/L	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab <u>Reg</u> Limit 0.008 5 100	Analysis Start 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TO SAMPLE <u>Test</u> Mercury - Arsenic - Barium - 1 Cadmium Chromium Copper - 1	CLP Leachate of In Cuttin DBY: DB TCLP extracted TCLP extracted TCLP extracted - TCLP extracted - TCLP extracted - TCLP extracted TCLP extracted	Result           75.37 % Wght.           gs - Bin           Easult           Sample           < 0.0008 mg/L.	<u>Method</u> SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit 0.008 5 100 1 5	Analysis Start 04/07/10 11:30 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TC SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium - T Cadmium Chromium Copper - T Lead - TC	CLP Leachate of In Cuttin D BY: DB TCLP extracted TCLP extracted TCLP extracted - TCLP extracted TCLP extracted TCLP extracted TCLP extracted CLP extracted	Result           75.37 % Wght.           gs - Bin         Li           Sample           Result           < 0.0008 mg/L	Method SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit 0.008 5 100 1	Analysis Start 04/07/10 11:30 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV           04/07/10         RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TC SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - 7 Barium - 1 Cadmium Chromium Copper - 1 Lead - TC Nickel - TC	CLP Leachate of In Cuttin DBY: DB TCLP extracted TCLP extracted TCLP extracted - TCLP extracted - TCLP extracted - TCLP extracted TCLP extracted	Result         X           75.37 % Wght.         Sample           gs - Bin         La           Sample         Sample           Result         Sample           < 0.0008 mg/L	Method SM2540B           ab ID: 10040648-001D           Time: 04/07/2010 6:45           Method           EPA 7470A           EPA 6010B           EPA 6010B	Limit Grab Reg Limit 0.008 5 100 1 5	Analysis Start 04/07/10 11:30 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV           04/07/10         RMD-CV
SAMPLE <u>Test</u> % Solids SAMPLE: TC SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium - T Cadmium Chromium Copper - T Lead - TC Nickel - TC Selenium	CLP Leachate of In Cuttin D BY: DB TCLP extracted TCLP extracted TCLP extracted - TCLP extracted - TCLP extracted TCLP extracted ICLP extracted CLP extracted CLP extracted	Result           75.37 % Wght.           gs - Bin         Li           Sample           Result           < 0.0008 mg/L	Method SM2540B ab ID: 10040648-001D Time: 04/07/2010 6:45 Method EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab <u>Reg</u> Limit 0.008 5 100 1 5 5	Analysis Start 04/07/10 11:30 04/07/10 11:30 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45 04/07/10 11:45	04/07/10         NFM-SA           Analysis End         Analyst *           04/07/10         RMD-CV           04/07/10         RMD-CV

The above test procedures meet all the requirements of NELAC and relate only to these samples. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 4

4/8/2010

# Benchmark Analytics, Inc.

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

SEND DATA TO:

ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845		
---	--	--

PHONE: (607) 731-0145 FAX: (607) 562-4001

RECEIVED FOR LAB BY: WCB

TEST REPORT

TWL 01-016-04

DATE: 04/06/2010 8:45

Page 2 of 3

Work Order: 10040648

10040648

AFE 76067

2 of 3

WO#:

PAGE:

PO#:

PWS ID#

SAMPLE: TCLP Leachate of In (	Cuttings - Bin	Lab ID	): 10040648-001E	Grab			
SAMPLED BY: DB	Sar	nple Time	: 04/07/2010 6:45	_			
Test	Result		Method	<u>Req</u> Limit	Analysis Start	Analysis End	Analyst *
Pyridine	< 0.10 mg/L		EPA 8270C	5	04/07/10 16:52	04/07/10	RHH-SA
1,4-Dichlorobenzene	< 0.10 mg/L		EPA 8270C	7.5	04/07/10 16:52	04/07/10	RHH-SA
o-Cresol	< 0.10 mg/L		EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
p-Cresol/m-Cresol	< 0.10 mg/L		EPA 8270C	200	04/07/10 16:52	04/07/10	RHH-SA
Hexachloroethane	< 0.10 mg/L		EPA 8270C	3	04/07/10 16:52	04/07/10	RHH-SA
Nitrobenzene	< 0.10 mg/L	S	EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobutadiene	< 0.10 mg/L		EPA 8270C	0.5	04/07/10 16:52	04/07/10	RHH-SA
2,4,6-Trichlorophenol	< 0.10 mg/L		EPA 8270C	2	04/07/10 16:52	04/07/10	RHH-SA
2,4,5-Trichlorophenol	< 0.10 mg/L		EPA 8270C	400	04/07/10 16:52	04/07/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L		EPA 8270C	100	04/07/10 16:52	04/07/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L		EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L		EPA 8270C	0.13	04/07/10 16:52	04/07/10	RHH-SA
SAMPLE: ZHE Extract of In Cutt	ings - Bin	Lab ID	: 10040648-001F	Grab			
SAMPLED BY: DB	San	nple Time	: 04/07/2010 6:45				
Test	<u>Result</u>		Method	<u>Reg</u> Limit	Analysis Start	Analysis End	<u>Analyst *</u>
Benzene - TCLP extracted	< 0.100 mg/L		EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Carbon tetrachloride - TCLP extracted	< 0.100 mg/L		EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV
Chlorobenzene - TCLP extracted	< 0.100 mg/L		EPA 8260B	100	04/07/10 14:19	04/08/10	DN-CV
Chloroform - TCLP extracted	< 0.100 mg/L		EPA 8260B	3	04/07/10 14:19	04/08/10	DN-CV

EPA 8260B

EPA 8260B

**REMARKS**:

extracted

extracted

The above test procedures meet all the requirements of NELAC and relate only to these samples.

< 0.100 mg/L

< 0.100 mg/L

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

S Spike Recovery outside accepted recovery limits

1,4-Dichlorobenzene - TCLP

1,2-Dichloroethane - TCLP

MANAGER

Carris M. Davis

DATE:

7.5 04/07/10 14:19

0.5 04/07/10 14:19

04/08/10

04/08/10

DN-CV

DN-CV

## **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10040648

04/08/10

DN-CV

Phone: (570) 888-0169 Fax: (570) 888-0717

#### SEND DATA TO:

extracted

Vinyl chloride - TCLP extracted

NAME: COMPANY: ADDRESS:	COMPANY: Talisman Energy USA, Inc ADDRESS: 337 Daniel Zenker Dr				VO#: 100 AGE: 3 of	40648 5 3	
Horseheads, NY 14845		5		Р	O#: AFI	E 76067	
PHONE: FAX:			REPORT	P	WS ID#		
TWL 01-016	5-04						
RECEIVED	FOR LAB BY: WCB	DATE: (	04/06/2010 8:45	_			Page 3 of 3
1,1-Dich extracted	loroethene - TCLP	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Methyl e extracted	thyl ketone - TCLP 1	< 0.500 mg/L	EPA 8260B	200	04/07/10 14:19	04/08/10	DN-CV
Tetrachic extracted	proethene - TCLP	< 0.100 mg/L	EPA 8260B	0.7	04/07/10 14:19	04/08/10	DN-CV
Trichloro	ethene - TCLP	< 0.100 mg/L	EPA 8260B	0.5	04/07/10 14:19	04/08/10	DN-CV

EPA 8260B

0.2

04/07/10 14:19

**REMARKS**:

The above test procedures meet all the requirements of NELAC and relate only to these samples. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.100 mg/L

Sample Note: Limit of detection increased due to sample foaming

Spike Recovery outside accepted recovery limits s

MANAGER

Carrie M. Davis

DATE: 4/8/2010

CHAIN OF CUSTODY		Benchmark A			PAGEO	F
Talisman Energy		Eastern 2566 Pennsylvania Ave Phone: (570 Fax: (570)	nue • Sayre, PA 18840 ) 888-0169		ARE SPECIAL DETECTION	
	REFRIGERATE SAMPLES			RESULTS ARE BEING USED FOR:	IF YES, PLEASE ATTACH	
· · · · · · · · · · · · · · · · · · ·	AFTER COLLECTION	DW DRINKING WATER	SL SLUDGE N		IS A QC PACKAGI	ENEEDED?
		GW GROUND WATER SW SURFACE WATER	SO SOIL HZ HAZARDOUS	LANDFILL		NO
H#607-731-0145	TRANSPORT TO	/ WW WASTE WATER	OTHER 1	, other	IFYES, PLEASE ATTACH	REQUIREMENTS
AX#	LABORATORY			OXIDE PWS ID#	••••••••••••••••••••••••••••••••••••••	
ILL TO: Talisman Energy	IN COOLER WITH ICE			Location		
Jaxon 170		W/O#:	10040648	LORIDE Sample Point		
0#AFE 76067			,	.ORIDE	/> /	A Please fill
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5 OULC - Total Sample		0				σi B
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LAB USE ONLY DELIVERED BY	Cla	At the second se	的经济资料 网络新闻教育新闻教育	UPON RECEIPT	<u> </u>	DNICE YIM
RELINQUISHED BY:	DATE:	TIME: REC	EIVED BY:		DATE:	TIME:
RELINQUISHED BY:	DATE:		EIVED BY:		DATE:	TIME:
RELINQUERED BYTHEN Arey/P	BC PATE://e/K	) TIME 8.450 REC	EIVED BY: Oabhie M	A	DATE: 16/10	TIME: 845

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LAB ID # 11216 LAB ID # 11827		<b>Eas</b> 2566 Sa	<b>ark Analytics, In stern Division</b> Pennsylvania Ave. ayre, PA 18840 e: (570) 888-0169	IC.	Work	c Order: 100	030695
			x: (570) 888-0717				
SEND DATA		14	x. 10/0/000/07/11				
-				1.67	10 <del>11</del> 1001	00005	
NAME: COMPANY:	Steve Gridley Talisman Energy USA, II			vv	'O#: 1003	30695	
ADDRESS:	337 Daniel Zenker Dr	iç.		PA	AGE: 1 of	1	
	Horseheads, NY 14845			Pr	O#:		
PHONE:	(607) 731-0145	T	EST REPORT	P۱	WS ID#		
FAX:	(607) 562-4001						
NTSW TOU	P Metals/TPH/pH/%Moistu	Ire					
	FOR LAB BY: WCB		FE. 02/02/2040 0.20			m	
RECEIVED			TE: 03/03/2010 9:38			P	age 1 of 1
SAMPLE: AI	ir Cuttings TWL-1		Lab ID: 10030695-001A	Grab			
SAMPLE	ED BY: SG	Sa	mple Time: 03/02/2010 11:00				
Test		Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
pH		8.14 @ 25.3°C	EPA 9045D		03/08/10 14:37	03/08/10	NC-CV
				50.0			
pH Chloride	roleum Hydrocarbons	8.14 @ 25.3°C	EPA 9045D	50.0 170	03/08/10 14:37	03/08/10	NC-CV
pH Chloride Total Petr	• • • • • • • • • • • • • • • • • • • •	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg	EPA 9045D EPA 300.0		03/08/10 14:37 03/10/10 14:03	03/08/10 03/11/10	NC-CV HDP-CV
pH Chloride Total Petr SAMPLE: <b>TC</b>	roleum Hydrocarbons CLP Leachate of Air Cutting ED BY: SG	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1	EPA 9045D EPA 300.0 EPA 1664A	170	03/08/10 14:37 03/10/10 14:03	03/08/10 03/11/10	NC-CV HDP-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE	CLP Leachate of Air Cutting	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00	170	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30	03/08/10 03/11/10 03/16/10	NC-CV HDP-CV DTG-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE <u>Test</u>	CLP Leachate of Air Cutting ED BY: SG	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u>	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u>	170 Grab <u>SLOQ</u>	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u>	03/08/10 03/11/10 03/16/10 Analysis End	NC-CV HDP-CV DTG-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Mercury -	CLP Leachate of Air Cutting ED BY: SG TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u> < 0.0008 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A	170 Grab <u>SLOQ</u> 0.0008	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10	NC-CV HDP-CV DTG-CV <u>Analyst *</u> KW-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Mercury - Arsenic -	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg Is TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B	170 Grab <u>SLOQ</u> 0.0008 0.500	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10	NC-CV HDP-CV DTG-CV <u>Analyst*</u> KW-CV RMD-CV
pH Chloride Total Petr SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium -	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	170 Grab <u>SLOQ</u> 0.0008 0.500 10.00	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV Analyst * KW-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Mercury - Arsenic - Barium - Cadmium	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	170 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV Analyst * KW-CV RMD-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Mercury - Arsenic - Barium - Cadmium Chromium	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L.	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	170 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV MC-CV RMD-CV RMD-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium - Cadmium Chromium Copper -	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted TCLP extracted TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg Is TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	170 Grab <u>SLOQ</u> 0.0008 0.500 10.00 0.100 0.500 0.100	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV DTG-CV KW-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: TC SAMPLE: <u>Test</u> Mercury - Arsenic - Barium - Cadmium Chromium Copper - Lead - TC	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg is TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	170 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.100 0.500	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10 03/11/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV DTG-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: TC SAMPLE: TC SAMPLE <u>Test</u> Mercury - Arsenic - Barium - Cadmium Chromium Copper - Lead - TC Nickel - T	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted TCLP extracted CLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg s TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	170 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.100 0.500 0.100	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 Analysis Start 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 Analysis End 03/12/10 03/11/10 03/11/10 03/11/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV DTG-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
pH Chloride Total Petr SAMPLE: TC SAMPLE: TC SAMPLE Mercury - Arsenic - Barium - Cadmium Chromium Copper - Lead - TC Nickel - To Selenium	CLP Leachate of Air Cutting ED BY: SG TCLP extracted TCLP extracted TCLP extracted - TCLP extracted n - TCLP extracted TCLP extracted CLP extracted CLP extracted	8.14 @ 25.3°C 466 mg/Kg < 170 mg/Kg is TWL-1 Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L	EPA 9045D EPA 300.0 EPA 1664A Lab ID: 10030695-001C mple Time: 03/02/2010 11:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	170 Grab SLOQ 0.0008 0.500 10.00 0.100 0.500 0.100 0.500 0.100 0.500	03/08/10 14:37 03/10/10 14:03 03/16/10 13:30 <u>Analysis Start</u> 03/11/10 8:30 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40 03/10/10 13:40	03/08/10 03/11/10 03/16/10 <u>Analysis End</u> 03/12/10 03/11/10 03/11/10 03/11/10 03/11/10 03/11/10	NC-CV HDP-CV DTG-CV DTG-CV KW-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV

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The above test procedures meet all the requirements of NELAC and relate only to these samples. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Carrie M. Davis

DATE: \_\_\_\_\_\_\_

CHAIN OF CUSTODY			B	enchmark	Analytics, Inc.			F
REPORT TO: Talisman			2566 Pe	nnsylvania A Phone: (5	n Division /enue • Sayre, PA 188- 70) 888-0169 )) 888-0717	40	ARE SPECIAL DETECTION	
1	REFRIGERATI AFTER COLLE TRANSPC TO	ECTION	Dw GW SW	DRINKING WATE GROUND WATE SURFACE WATE	R SO SOIL	RESULTS ARE BEING USED FOR: NYDOH NYDEC FADEP LANDFILL	IF YES, PLEASE ATTACH IS A OC PACKAGE YES IF YES, PLEASE ATTACH	NO
FAX# BILL TO: Talisman PO#	LABORATI IN COOL WITH IC		N. 1 VI		: 1003069	DE PWS ID# FIDE Location Sample Point_		
PBOJECT DESCRIPTION SAMPLER SIGNATURE / AFFILIATION Container Sample Point No./Type	DATE SOUPLED The OF SOL	SAMPLE MATTIN SAMPLE TOS	PRESE MITALS	Chlonine Residual	An incomplete chain o processing of ANALYSIS TO BE (PER CON			Please fill out all applicable areas completely. LAB USE ONLY
1 An Cuttings - Twl-1	3/2 11005	0 G-8	- N		TPH, pH	C[	· · · · · · · · · · · · · · · · · · ·	DIA-C
2				TO	IP & RUPA M	etils + Ni, Cy, Zu	1	
3			_		4 - TPH, pH	, c1		
5				Ē		stal Sample		
6				C	- TUP M	letals		
7								
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10					Due: 31	8/10		
LAB USE CNLY DENIVERED BY		Cher	ł			EUPONRECEIPT S		ON ICE @/N
RELINQUISHED BY:	DAI	E: 5/3/10	TIME	38 1	ECEIVED BY:		DATE:	TIME:
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legit each attache	his form must be fully and accurately completed. All required information must be /ped or legibly printed in the spaces provided. If additional space is necessary, identify ach attached sheet as Form 26R, reference the item number and identify the date repared. The date on attached sheets needs to match the date noted below.					<b>General Notes</b>		
General Refe	rence 287.54							
Date Prepared	d/Revised Febru	uary 11, 2011						
		LIENT (GENERATOR	R OF THE WASTE) IN	<b>IFORMA</b> 1	TION			
Company Nar	<b>ne</b> ergy USA Inc.							
	y, Name of Parent Compar	ηγ			EPA Gen	nerator ID#		
Talisman Ene	Talisman Energy Inc. N/A							
50 Pennwood	iling Address Line 1	C	ompany Mailing Addres	ss Line 2				
	dress Last Line – City	State	Zip+4	Phone		Ext		
Warrendale	-	PA	15086	(724) 8	14-5300			
Company Cor Brown	ntact Last Name	First Name Dina	MI		Suffix			
Municipality			County					
Warrendale			Allegheny					
Contact Phon (724) 814-532		Contact Email Address lybrown@talismanusa.c	YOM .					
	enerated at the Company				T Yes	s 🛛 No		
If 'No', descril	be location of waste gener	ation and storage. Drill o	cuttings are generated du	uring natural g	gas drilling o	operations at		
the	(03-004) well pad site loca	ated at 1226 Besley Road	Columbia Townshin Bra	adford County	/ DA Mast	te is stored in		
containers on s		100 01 1220 20010 <b>)</b> 110000;	Columbia (Ottionip, Die		, i A. Was			
containers on s Municipality		County Bradfo		Sta		A		
	site. Columbia		ord					
Municipality Residual	site. Columbia S Residua	County Bradfo SECTION B. WAST	ord E DESCRIPTION	Sta Unit of	te P.	A Time		
Municipality Residual Waste Code	site. Columbia S Residua Code Des	County Bradfo SECTION B. WAST I Waste scription	E DESCRIPTION Amount	Sta Unit of Measur	te P. f	<u>A</u>		
Municipality Residual Waste Code 810	site. Columbia S Residua	County Bradfo SECTION B. WAST Waste scription s)	ord E DESCRIPTION Amount 6,866	Sta Unit of Measur □ cu yd [	te P f re ] gal ⊠ ton	A Time Frame ] One Time		
Municipality Residual Waste Code 810	site. Columbia Residua Code Des Drill cuttings (oil and ga	County Bradfo SECTION B. WAST Waste scription s) 1. General P	ord E DESCRIPTION Amount 6,866 ROPERTIES	Sta Unit o Measur Cu yd [ Ib [	te P f re ] gal ⊠ ton	A Time Frame		
Municipality Residual Waste Code 810 a. pH Ra	site. Columbia Sesidua Code Des Drill cuttings (oil and ga nge 8.9	County Bradfo SECTION B. WAST Waste scription s) <u>1. General P</u> to 11.3	ord E DESCRIPTION Amount 6,866 ROPERTIES (based on analyses or k	Sta Unit o Measur Cu yd [ Ib [	te P f re ] gal ⊠ ton	A Time Frame ] One Time		
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Municipality Residual Waste Code 810 a. pH Ra b. Physic c. Physic c. Physic a. The re instruct b. A deta c. The qu	site. Columbia Residua Code Des Drill cuttings (oil and ga nge 8.9 cal State [ cal Appearance 0 sults of a detailed chemic ctions, is attached. iled description of the was uality assurance/quality co	County Bradfo SECTION B. WAST Waste scription s) 1. GENERAL P to 11.3 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient tempera Color Greyish Black Number of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS al characterization of the ste sampling method is a	Amount Amount 6,866 ROPERTIES (based on analyses or kethod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro SIS ATTACHMENTS waste, as described in attached.	Sta Unit of Measur Cu yd [ Bub [ nowledge) r Earthy One ck Fragmen	te P f gal ⊠ ton / Slight Pe its ∑ Yes	ATime Frame		
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• •	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTAC	HMENTS	× .					
a.	A detailed description of the r				Yes	□ No				
	the waste, as specified in the	instructions, is attache	d.		·····					
b.	A schematic of the manufactu as specified in the instruction		ontrol processes proc	lucing the waste,	🛛 Yes	🗋 No				
c.	If portions of the information a confidentiality claim, as des			n for 🗌 Yes	No No	N/A N/A				
	SECTION C. MANAGEMENT OF RESIDUAL WASTE 1. Processing or Disposal Facility(ies)									
The ar	rea below (ad.) will accommod				if necossan/	(1,13, s, s, s, s, s, s, s, s, s, s, s, s, s,				
	• •				in necessary.					
a.	Solid waste permit number(s) 9-0232-00003	for processing or disp	osal facility being utili	ized.						
b.	Facility Name	Hyland Landfill								
	Address Line 1	6653 Herdman Road								
	Address Line 1									
	Address City State ZIP	Angelica	NY	14709						
	Municipality	Angelica	County	Allegany						
с.	Facility Contact Name	Larry Shilling								
	Title									
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com					
d.	Volume of waste shipped to p 2,852	cuyd 🗌 gal	🗌 İb 🛛 ton	(check one)						
а.	Solid waste permit number(s) 8-4630-00010	for processing or disp	osal facility being utili	zed.						
b.	Facility Name	Hakes C&D Landfill								
	Address Line 1	4376 Manning Ridge	Road							
	Address Line 1									
	Address City State ZIP	Painted Post	NY	14870						
	Municipality	Erwin Twp	County	Steuben						
c.	Facility Contact Name	Joseph Boyles								
	Title									
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	lla.com					
d.	Volume of waste shipped to p		acility in the previous	year.						
	1,799	cuyd 🗌 gal	🔲 lb 🛛 🖂 ton	(check one)						
		2. Beni								
а.	Has the waste been approved	for beneficial use?			Yes	🛛 No				
	If "Yes", list the general permi	t number or approval n	umber.							
b.	Volume of waste beneficially u									
	0 Ö	cuyd 🗌 gal	ib ton	(check one)						

		<b>PROCESS DESCRIPTION</b>	& SCHEMATIC ATTAC	CHMENTS		
a.	A detailed description of the the waste, as specified in the	nanufacturing and/or po	llution control proce		Yes	No No
		·				
b.	A schematic of the manufact as specified in the instruction		ntrol processes proc	lucing the waste,	Yes Yes	🗌 No
C.	If portions of the information a confidentiality claim, as des			n for 🗌 Yes	No No	N/A
	SECTIO	ON C. MANAGEME	ENT OF RESIDU	AL WASTE		
		1. PROCESSING OR D	ISPOSAL FACILITY (IE	(S)		
The ar	rea below (ad.) will accommod	ate the identification of	wo facilities. Attach	additional sheets	if necessary.	
а.	Solid waste permit number(s) 101243	for processing or dispo	sal facility being util	ized.		
b.	Facility Name	Northern Tier Solid W	aste Authority			
	Address Line 1	108 Steam Hollow Ro				
	Address Line 1	· · · · · · · · · · · · · · · · · · ·				
	Address City State ZIP	Trov	PA	16947		
	Municipality	West Burlington Twp	County	Bradford		
C.	Facility Contact Name	Charles Woodward				
•.	Title	Onanes woodward				
	Phone	(570) 297-4177	Email Address	chuckwoodward(	@epix.net	
d.	Volume of waste shipped to p	rocessing or disposal fa cu yd gal	cility in the previous			
а.	Solid waste permit number(s) 8-0728-00004	for processing or dispo	sal facility being utili	zed.	and the second second second second second second second second second second second second second second second	
b.	Facility Name	Chemung County Lan	dfill			_
	Address Line 1	1690 Lake Street				
	Address Line 1					
	Address City State ZIP	Elmira	NY	14903		
	Municipality	Elmira	County	Chemung		
с.	Facility Contact Name	Carla Canjar				
	Title	Environmental Manag	er			
	Phone	(585) 797-5941	Email Address	carla.canjar@cas	ella com	
		( )				
d.	Volume of waste shipped to p 883	cu yd gal				
	4	2. BENE	ICIAL USE		12014	tin a second
a.	Has the waste been approved	for beneficial use?			Yes	No No
	If "Yes", list the general perm	t number or approval nu	mber.			
b.	Volume of waste beneficially					
	0	cuyd 🗌 gal	☐ lb ☐ ton	(check one)		ĺ

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS	-				
a.	A detailed description of the r the waste, as specified in the	nanufacturing and/or po	Ilution control proce		Yes	🗋 No			
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.								
C.	If portions of the information submitted are confidential, the substantiation forYesNoN/A a confidentiality claim, as described in the instructions, is attached.								
	SECTIO	N C. MANAGEM	ENT OF RESIDU	JAL WASTE					
		1. PROCESSING OR D							
The ar	ea below (ad.) will accommod				if necessary.				
а.	Solid waste permit number(s) 100361	for processing or dispo	sal facility being util	ized.					
b.	Facility Name	McKean County Land	fill						
	Address Line 1	19 Ness Lane							
	Address Line 1								
	Address City State ZIP	Kane	PA	16735					
	Municipality	Sergeant Twp	County	McKean					
с.	Facility Contact Name	Mike Manderfeld							
	Title								
	Phone .	(814) 778-9931	Email Address	manderfeld@gm	ail.com				
d.	Volume of waste shipped to p 331	rocessing or disposal fa	icility in the previous						
a.	Solid waste permit number(s)	for processing or dispo	sal facility being util	ized.					
b.	Facility Name								
	Address Line 1								
	Address Line 1								
	Address City State ZIP								
	Municipality		County						
c.	Facility Contact Name								
	Title	·····							
	Phone		Email Address						
d.	Volume of waste shipped to p								
L		cu yd 🔄 gal	b ton	(check one)					
			FICIAL USE						
а.	Has the waste been approved	for beneficial use?			Yes	🛛 No			
	If "Yes", list the general permit number or approval number.								
b.	Volume of waste beneficially L								
	0	cuyd 🗌 gal	b ton	(check one)					

SECTION D. CERTIFICATION									
I certify, under penalty of law, that I have personally examined and am familiar with the Information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.									
Check the following, if applicat	le:								
I certify the information required in Section B-1, General Properties was supplied to the Department for the year and has not changed.									
Form Submitted:		Form 26R							
		Other (specify)							
Date Submitted:									
I certify the information and has not change	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year							
Form Submitted:		Form 26R							
		Other (specify)							
Date Submitted:									
I certify the information r for the year and h		ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.							
Form Submitted:		Form 26R							
		Other (specify)							
Date Submitted:									
Name of Responsible Official	Name of Responsible Official Title Environmental Specialist								
Dina Brown	Dina Brown								
Signature		Date 2/25/11							

SEND DATA TO:

NAME:

## **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

**TEST REPORT** 

Work Order: 10090956

WO#: 10090956 PAGE: 1 of 1 PO#: AF77049 PWS ID#

#### PHONE: (607) 562-4000 FAX: (607) 562-4001

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

03-054							
RECEIVED FOR LAB BY: DLM2	DAT	E: 09/	07/2010 16:25			Pa	ge 1 of 1
SAMPLE: Inv. Cuttings	Lab ID: 10090956-001A			Composite			
SAMPLED BY: LS	Sample Time: 08/30/2010 12:12		SLOQ				
Test	Result		Method		Analysis Start	Analysis End	Analyst *
Moisture	12.5 %	к	Moisture Calc.	0.01	09/09/10 12:30	09/10/10	SG-SA
Free Liquid	< 0.1 %		EPA 9095A	0.1	09/07/10 17:00	09/07/10	IC-SA
рН	9.30@19.8°C		EPA 9045C		09/10/10 10:00	09/10/10	SG-SA
SAMPLE: Inv. Cuttings		Lab II	D: 10090956-001B	Compo	site		
SAMPLED BY: LS	Sample Time: 08/30/2010 12:12						
				<u>SLOQ</u>			
Test	<u>Result</u>		Method		<u>Analysis Start</u>	Analysis End	<u>Analyst *</u>
Total Petroleum Hydrocarbons	89000 mg/Kg		EPA 9071		09/08/10 14:30	09/08/10	
Sample Note: Analysis performed b	y Microbac Laboratorie	es, IncE	rie Division				

SAMPLE: TCLP Leachate of Inv. C	-	Lab ID: 10090956-001D Sample Time: 09/08/2010 10:00		Composite				
SAMPLED BY: LS	Sample							
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *		
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/09/10 10:00	09/09/10	KW-CV		
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV		
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/09/10 12:45	09/09/10	RMD-CV		
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV		
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV		
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV		
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV		
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV		
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV		
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV		
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	09/09/10 12:45	09/09/10	RMD-CV		

#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

- \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA
- к Sample was received past holding time.

MANAGER

ani	M.	Davis
C.		

0

DATE: 9/13/2010

PA ID #: 08-00380 NY ID # 11216	Benchmark Analytics, Inc Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840 Phone: (570) 888-0169 Fax: (570) 888-0717			C. Work Order: 10121731			
SEND DATA TO:							
NAME: Dina Brown	·		W	O#: 1012	1731		
COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr	Inc.		PA	AGE: 1 of :	3		
Horseheads, NY 1484	5				-		
	0		P	D#: AF77	7716		
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST	REPORT	P\	WS ID#			
03-054							
RECEIVED FOR LAB BY: RML	DATE: 1	2/09/2010 15:45			Pa	age 1 of 3	
SAMPLE: Inv. Cuttings	1 s	b ID: 10121731-001A	Grab				
SAMPLED BY: SG		Time: 12/08/2010 21:27	Club				
	:		<u>SLOQ</u>				
Test	Result	Method		Analysis Start	Analysis End	<u>Analyst *</u>	
Ignitability Sample Note: Analysis performed by	Neg ASIS °F	SW846 1030		12/15/10 13:30	12/15/10		
-							
SAMPLE: Inv. Cuttings		b ID: 10121731-001C	Grab				
SAMPLED BY: SG	Sample	ime: 12/08/2010 21:27	SLOQ				
Test	Result	Method	-	Analysis Start	Analysis End	<u>Analyst *</u>	
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV	
Reactive Sulfide	990 mg/Kg	SW846 7.3	16	12/14/10 12:30	12/14/10	LTW-CV	
SAMPLE: Inv. Cuttings	La	b ID: 10121731-001D	Grab				
SAMPLED BY: SG	Sample 1	ime: 12/08/2010 21:27					
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *	
% Solids	78.73 % Wght.	SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA	
Total Volatile Solids	22.37 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA	
SAMPLE: TCLP Leachate of Inv. Cutt		b ID: 10121731-001F	Grab				
SAMPLED BY: SG		ime: 12/11/2010 12:45	Olab				
		1116. 12/11/2010 12.40	SLOQ				
Test	Result	Method	<b>.</b>	Analysis Start	Analysis End		
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA	
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA	
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA	
p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA	
Hexachloroethane	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA	
Nitrobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10 12/15/10	RHH-SA	
	< 0:10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C	0.10 0.10	12/15/10 7:48 12/15/10 7:48	12/15/10 12/15/10	RHH-SA RHH-SA	
2,4,6-Trichlorophenol	- o. to myre		0.10	12/10/10 /.40		NUTOA	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Daris

DATE: 12/16/2010

PA ID #: 08- NY ID # 112		<b>Easte</b> 2566 Pe	<b>k Analytics, In</b> <b>ern Division</b> ennsylvania Ave. re, PA 18840	C.	١	Nork (	Order: 101;	21731
			(570) 888-0169 (570) 888-0717					
SEND DATA	A TO:							
NAME:	Dina Brown	2		w	O#:	10121	731	
COMPANY:		IC.			$\bigcirc \pi$ .	1012.1	101	
ADDRESS:	337 Daniel Zenker Dr			P/	AGE:	2 of 3		
	Horseheads, NY 14845			P	D#:	AF777	16	
							. •	
PHONE:	(607) 562-4000	TES	ST REPORT	P١	VS ID#			
FAX:	(607) 562-4001	i						
	03-054							_
RECEIVED	FOR LAB BY: RML	DATE	: 12/09/2010 15:45				Pa	ige 2 of 3
2,4,5-Trie	chlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
Pentachl	lorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10	7:48	12/15/10	RHH-SA
2,4-Diniti	rotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
Hexachic	probenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
Naphthal	lene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
SAMPLE: T	CLP Leachate of Inv. Cuttin	qs	Lab ID: 10121731-001G	Grab				
	ED BY: SG		le Time: 09/08/2010 10:00					
Tost		Popult	Mathad	<u>sloq</u>	Apolunio	Ctart	Analumia End	Analyst *
<u>Test</u> Strontiun	n - TCLP extracted	<u>Result</u> 0.056 mg/L	<u>Method</u> EPA 6010B	0.050	Analysis 3 09/09/10		Analysis End 09/09/10	Analyst * RMD-CV
	e Note: Sample for TCLP extract	•			00/00/10	14.70	00/00/10	
	- -							
	CLP Leachate of Inv. Cuttin		Lab ID: 10121731-001H	Grab				
SAMPLI	ED BY: SG	Samp	le Time: 12/11/2010 12:45	SLOQ				
<u>Test</u>		Result	Method	<u>5100</u>	Analysis \$	Start	Analysis End	Analyst *
рН		5.97@16.6°C	SM4500H+B		12/14/10	8:00	12/14/10	SG-SA
SAMPLE: 7	HE Extract of Inv. Cuttings		Lab ID: 10121731-001	Grab				
	ED BY: SG	Samp	le Time: 12/12/2010 13:10	0.02				
				SLOQ				
Test		<u>Result</u>	Method		Analysis :		Analysis End	
Benzene		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
	etrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
Chlorobe		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
Chlorofor	÷	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10 12/13/10	CTM-SA
· • • •	oroethane	< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B EPA 8260B	0.0250	12/13/10 12/13/10		12/13/10	CTM-SA CTM-SA
1,1-Dicni Ethylben:	oroethene	< 0.0250 mg/L < 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
Isopropyl		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
	proethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
Trichloro		< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
		ing =						
REMARKS:								

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis

DATE: 12/16/2010

PA ID #: 08-  NY ID # 112		<b>Eas</b> 2566	stern D	<b>alytics, Ir Division</b> Ivania Ave. 18840	IC.	V	Vork	Order: 101	21731
			• •	888-0169 888-0717					
SEND DATA	A TO:								
NAME:	Dina Brown	.*			W	O#:	1012	1731	
COMPANY:	Talisman Energy USA, Ir	1 <b>C</b> .							
ADDRESS:	337 Daniel Zenker Dr				PA	AGE:	3 of 3	5	
	Horseheads, NY 14845	:			PC	D#:	AF77	716	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	- <b>T</b>	EST RE	PORT	PV	VS ID#			
	03-054					•			
RECEIVED F	FOR LAB BY: RML	DA	TE: 12/09	9/2010 15:45				Pa	ige 3 of 3
1,2,4-Trin	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
1,3,5-Trin	nethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
Vinyl chlo	pride	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-SA
Methyl te	rt-butyl ether	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10	8:11	12/13/10	CTM-S/
2-Butano	ne	< 0.0500 mg/L		EPA 8260B	0.0500	12/13/10	8:11	12/13/10	CTM-SA
SAMPLE: AS	STM Extract of Inv. Cuttings	· ·	Lab ID:	10121731-001J	Grab				
	ED BY: SG		mple Time:	12/10/2010 11:15					
Test		Result		Method	SLOQ	Analysis S	Start	Analysis End	Analyst '
	l Oxygen Demand	234 mg/L	в	HACH 8000	10	12/11/10		12/13/10	KMF-SA
		· · · · · · · · · · · · · · · · · · ·	Lah ID:	h					
	STM Extract of Inv. Cuttings ED BY: SG			10121731-001L	Grab				
SAMPLE	ED BY: SG	. 58	imple (ime:	12/10/2010 11:15	SLOQ				
Test		Result		Method		Analysis S	Start	Analysis End	Analyst 1
pН		7.57@16.6°C		SM4500H+B		12/14/10	8:00	12/14/10	SG-SA
	ids	1840 mg/L		SM2540B	0.10	12/10/10 1	7:00	12/13/10	IC-SA
Total Soli			Lab ID:	10121731-001M	Grab				
-	v. Cuttinas			12/10/2010 10:25					
SAMPLE: In	<b>v. Cuttings</b> ED BY: SG	. Sa	imple l'ime:	12/10/2010 10:20					
SAMPLE: In SAMPLE	-		imple Time:		<u>SLOQ</u>	A	<b>-</b>	<b>A</b>	A
SAMPLE: In SAMPLE <u>Test</u>	-	Sa <u>Result</u> < 5.00 mg/kg	imple lime:	<u>Method</u> SW846/9023	<u>SLOQ</u> 5.00	<u>Analysis (</u> 12/15/10 1		<u>Analysis End</u> 12/15/10	<u>Analyst '</u>

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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B Analyte detected in the associated Method Blank

MANAGER

Camie M. Davis

DATE: 12/16/2010

CHAIN OF CUSTODY	Benchn	€ <u>1</u> OF <u>1</u>
Talisman / UEG	2566 Pennsylva	E SPECIAL DETECTION LIMITS
geowetlands@aol.com	Phor <b>VV/U#: 10121/31</b>	
<u> </u>	Fax	
		IF YES, PLEASE ATTACH
	I Z GW GROUND WATER SO SON	IS A QC PACKAGE NEEDED?
CONTACT Steve Gridley	TRANSPORT SW SURFACE WATER HZ HAZARDOUS LANDFILL Mostoller	YES Z NO
H# 607-731-0145		IF YES, PLEASE ATTACH REQUIREMENTS
AX#	LABORATORY / / // H HYDROCHLORIC ACID OH SODIUM HYDROXIDE IN COOLER / S SULFURIC ACID AS ASCORBIC ACID /	
HILL TO: Talisman	WITH ICE	
	Thio SODIUM SULFITE NH, AMMONIUM CHLORIDE	
PO# AF77716	NONE Hg MERCURIC CHLORIDE	Please fill out all
PROJECT DESCRIPTION	」 / デーデーデーデー ダー An incomplete chain of custody may delay the / ヴー デーデーデーデーデー デー クローク デー クローク デー クローク デー クローク デー クローク デー クローク アーク アーク アーク アーク アーク アーク アーク アーク アーク ア	applicable areas
SAMPLER SIGNATURE / AFFILIATION	LABORATORY     H     HYDROCHLORIC ACID     OH     SOLUCIONICAL OF SODIUM HYDROXIDE       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       WITH ICE     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER     IN COOLER       IN COOLER     IN COOLER     I	Please fill out all applicable areas completely LAB USE ONLY
CONTAINER SAMPLING POINT	ANALYSIS TO BE PERFORMED	
·		
1 Inv Cuttings	12/8 2127 50 C 56 D Ignitability, Reactive Sulfide & Cyanide	
2	C PCBs, Total Solids	
3 Actions, Inn.	G Total Volatile Solids	
4 C- Reactivity	C Ammonia-Nitrogen	
5 D-TS, TVS	C Water Leaching Procedure: COD,	
6 E-T. Sample	V V C V V Total Solids, Oil & Grease,	
F-TRIP BNA, leats.		
8 G-TECP-Harss. Sr	K-Asma ort	
H-TELP pH		
0 I-TELP Vols.	M-TOX DAY TURNAROUND	
1 J-ASTA COD, NOH		
and the second second second second second second second second second second second second second second second	ાગમંદ્રાં મુક્તરાય છે. આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં આ ગામમાં	SARAWAL ONICE W/IN
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RELINQUISHED BY:	DATE: TIME: RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:		
	DATE: TIME: RECEIVED AY OO	BE 19 10 19545

LAB ID: 08-00380 LAB ID: 39-00401		n Division	nc.			
		nsylvania Ave. PA 18840		Work	Order: 101	03214
	•	70) 888-0169 70) 888-0717				
SEND DATA TO: NAME: Steve Gridley COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr	nc.			'O#: 1010 AGE: 1 of :	)3214 2	
Horseheads, NY 14845	i !		P	D#: AF77		
PHONE: (607) 731-0145 FAX: (607) 562-4001	TEST	REPORT	P۱	WS ID#		
03-054 RECEIVED FOR LAB BY: DLM2	DATE: 1	0/21/2010 11:37			P	age 1 of 2
SAMPLE: Air Cuttings		b ID: 10103214-001A	Compo	site		
SAMPLED BY: SG	Sample T	ime: 10/19/2010 9:55	SLOQ			
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed by	<u>Result</u> 640 mg/Kg Microbac Laboratories, Ind	<u>Method</u> EPA 9071 Erie Division.	170	<u>Analysis Start</u> 10/23/10 9:00	<u>Analysis End</u> 10/23/10	<u>Analyst *</u>
SAMPLE: Air Cuttings	La	b ID: 10103214-001B	Compo	site	<u>`</u>	
SAMPLED BY: SG	Sample T	ime: 10/19/2010 9:55	SLOQ			
<u>Test</u> Moisture	<u>Result</u> 42. <del>9</del> %	<u>Method</u> Moisture Calc.	0.01	<u>Analysis Start</u> 10/25/10 15:00	<u>Analysis End</u> 10/26/10	<u>Analvst</u> * NFM-SA
Free Liquid	< 0.1 %	EPA 9095A	0.1	10/22/10 15:05	10/22/10	IC-SA
рН	12.01@23.1°C	EPA 9045C		10/26/10 8:50	10/26/10	NFM-SA
SAMPLE: Air Cuttings SAMPLED BY: SG		b ID: 10103214-001C ime: 10/19/2010 9:55	Compo	site		
<u>Test</u> Sodium	<u>Result</u> 391 mg/Kg-dry	<u>Method</u> EPA 6010B	<u>SLOQ</u> 214	Analysis Start 10/22/10 10:40	<u>Analysis End</u> 10/22/10	<u>Analyst *</u> RMD-CV
Chloride	590 mg/Kg-dry	EPA 300.0	86.8	10/22/10 15:07	10/23/10	HDP-CV
Percent Moisture	42.9 %	SM2540G		10/25/10 15:00	10/26/10	NFM-SA
SAMPLE: TCLP Leachate of Air Cuttin SAMPLED BY: SG	3.	b ID: 10103214-001E ime: 10/22/2010 7:30	Compo <u>SLOQ</u>	site		
<u>Test</u>	<u>Result</u>	Method		Analysis Start	Analysiş End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	10/23/10 10:20	10/24/10	RMD-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	10/23/10 11:10	10/23/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	10/23/10 11:10	10/23/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	10/23/10 11:10	10/23/10	RMD-CV
Chromium - TCLP extracted Copper - TCLP extracted	< 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B	0.500 0.100	10/23/10 11:10 10/23/10 11:10	10/23/10 10/23/10	RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

anie M. Davis DATE: 10/26/2010

LAB ID: 08-00380 LAB ID: 39-00401	Benchmark Analytics, Eastern Division 2566 Pennsylvania Ave Sayre, PA 18840	
	Phone: (570) 888-0169 Fax: (570) 888-0717	
SEND DATA TO:		
NAME: Steve Gridley		WO#: 10103214
COMPANY: Talisman Energy USA, I	nc.	PAGE: 2 of 2
ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845		
Horseneaus, NT 14040	·	PO#: AF77715
PHONE: (607) 731-0145 FAX: (607) 562-4001	TEST REPORT	PWS ID#
03-054		
RECEIVED FOR LAB BY: DLM2	DATE: 10/21/2010 11:37	Page 2 of 2
Lead - TCLP extracted	< 0.500 mg/L EPA 6010B	0.500 10/23/10 11:10 10/23/10 RMD-CV
Nickel - TCLP extracted	< 0:100 mg/L EPA 6010B	0.100 10/23/10 11:10 10/23/10 RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L EPA 6010B	0.500 10/23/10 11:10 10/23/10 RMD-CV
Silver - TCLP extracted	< 0.100 mg/L EPA 6010B	0.100 10/23/10 11:10 10/23/10 RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L EPA 6010B	0.200 10/23/10 11:10 10/23/10 RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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MANAGER

Carrie M. Davis

DATE: 10/26/2010

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CHAIN OF CUSTODY						E	enchmark /		_	OF 1
REPORT TO: Talisman / UEG	.				0	ree b		) <b>1</b> 4		
geowetlands@aol.com	ļ				2	900 8	ennsylvania Ave W/O#: 10103 Phone: (57)			ECTION LIMITS
twollin@rallysolutions.ca	RFE	RIGEF	RATE S/		FS		Fax: (570) 688-0717 RESULTS ARE BEING USI	· · · · · · · · · · · · · · · · · · ·		
			ILLECT		-0	/m		ED FOR: PADEP	IF YES, PLEASE A	TIACH CKAGE NEEDED?
CONTACT Steve Gridley	· .						GROUND WATER SO SOIL SURFACE WATER HZ HAZARDOUS LANDFILL			
PH# 607-731-0145			sport 'O		1	/ W Di			IF YES, PLEASE A	TACH REQUIREMENTS
FAX#	1	ABOR	ATOR\	t			H HYDROCHLORIC ACID OH SODIUM HYDROXIDE		7 /5/	
BILL TO: Talisman		IN CO WITH	IDLER				S SULFURIC ACID AS ASCORBIG ACID N NITRIG ACID AC ACETIC ACID	/	, FEC	10 a.
	<u> </u>		<del></del>	/		<u>`</u> 8/	SO 3 SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE			
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PROJECTIOESCRIPTION 03-054		The Sameled	1 Star	E.			An incomplete chain of custody may delay the processing of your sample(s).	1	ALL A	pplicable areas completely
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CONTAINER SAMPLING POINT	/\$		SALL OF SULPLING	SALL FURTHER		PRES INTIME COMPOSITE	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECENT	Land Con Recent	SE ONLY
1 Air Cuttings	10/19	955	50	C	\$G-		ТРН			- OO ALL
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3							TCLP 8 RCRA Metals + Cu, Ni, Zn			
A TPH							Free Liquids / % Moisture			
5 B. pH Free Liqui	4,0	70 H	pist	ire	1		BTEX			
6 <u>C-CINA, RM</u>	bis	<u>+</u>					IT-P 2007 HOFO ONLY IF the TPH			
7 D. T. Sample							exceeds 1 <b>2</b> 0,000 mg/Kg			
8										
9							72 HOUR TURNAROUND			
10	<u> </u>	ļ			<u> </u>		DAY TURNAROUND			
11	Ļ		<u> </u>	L		<u> </u>			Jue	10/26/10
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2540-PM-BWM0347 Rev. 1/2011 pennsylvania Department of Environmental Protection

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

General Reference 287.54         Date Prepared/Revised       February 11, 2011         SECTION A. CEIENT (GENERATOR OF THE WASTE) INFORMATION         Company Name Talisman Energy USA Inc.         Talisman Energy USA Inc.         If a Subsidiary, Name of Parent Company Talisman Energy Inc.         Company Mailing Address Line 1 S0 Pennwood Place         Company Mailing Address Line - City         State       Zip+4       Phone       Ext         Company Address Last Line - City       State       Zip+4       Phone       Ext         Company Contact Last Name       First Name       MI       Suffix         Brown       Dina       Dina       Municipality       County         Warrendale       Allegheny       County       State       No         (03-054) well pad site located at 847 Fairbanks Read, Columbia Township, Bradford County, PA. Waste is stored in containers on site.         Municipality       Columbia       County       Bradford       State       PA         Sectition Mailing Address (noted above)?         Is the waste generated at the Company Mailing Address (noted above)?         (03-054) well pad site located at 847 Fairbanks Read, Columbia Township, Bradford County, PA. Waste is s	
SECTION A. CLIENT (GENERATOR OF THE WASTE) INFORMATION         Company Name Talisman Energy USA Inc.         If a Subsidiary, Name of Parent Company Talisman Energy Inc.         IF A Generator ID# Talisman Energy Inc.         Company Mailing Address Line 1 S0 Pennwood Place         Company Mailing Address Line 1 S0 Pennwood Place         Company Address Last Line - City       State       Zip+4       Phone       Ext Company Contact Last Name       First Name       MI       Suffix         Company Contact Last Name       First Name       MI       Suffix         Municipality       County         Contact Email Address         (724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       Yes       No         If No/ if No', describe location of waste generation and storage.       Dill cuttings are generated during natural gas drilling operations at the         (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.       Municipality       Columbia       County <th cols<="" td=""></th>	
Company Name Talisman Energy USA Inc.       EPA Generator ID# N/A         If a Subsidiary, Name of Parent Company Talisman Energy Inc.       N/A         Company Mailing Address Line 1 50 Pennwood Place       Company Mailing Address Line 2         Company Address Last Line - City       State       Zip+4       Phone       Ext         Company Contact Last Name       PA       15086       (724) 814-5300       Ext         Company Contact Last Name       First Name       MI       Suffix       Suffix         Brown       Dina       County       Municipality       County       County         Municipality       Contact Email Address       Allegheny       Contact Phone       Ext       No         (724) 814-5321       dybrown@talismanusa.com       I'so', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the most for state generation and storage. Drill cuttings are generated during natural gas drilling operations at the following is county       Bradford       State       PA         Residual       Residual Waste       County       Bradford       State       PA         State       Columbia       County       Bradford       State       PA         State       Columbia       County       Bradford       State       PA <td< td=""></td<>	
Tailisman Energy USA Inc.       If a Subsidiary, Name of Parent Company Tailisman Energy Inc.       EPA Generator ID# N/A         Company Mailing Address Line 1 50 Pennwood Place       N/A         Company Address Last Line - City       State       Zip+4       Phone       Ext         Warrendale       PA       15086       (724) 814-5300       Ext         Company Contact Last Name       First Name       MI       Suffix       Suffix         Brown       Dina       Suffix       Suffix       Suffix       Suffix         Municipality       County       Allegheny       County       Varrendale       Varrendale       Varrendale       No         Contact Phone       Ext       Contact Email Address       County       Varrendale       Vestown@tailsmanusa.com	
If a Subsidiary, Name of Parent Company Talisman Energy Inc.       EPA Generator ID# N/A         Company Mailing Address Line 1 50 Pennwood Place       Company Mailing Address Line 2 50 Pennwood Place       N/A         Company Address Last Line – City       State       Zip+4       Phone       Ext         Company Address Last Line – City       State       Zip+4       Phone       Ext         Company Contact Last Name       First Name       MI       Suffix         Brown       Dina       County       Warrendale       Allegheny         Contact Phone       Ext       Contact Email Address       (724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       I Yes       No       No         If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the       (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.       State       PA         Residual       Residual Waste       Amount       Measure       Frame         810       Drill cuttings (oil and gas)       5,256       □ tu       □ to time       □ to time         810       Drill cuttings (oil and gas)       Susid (EPA Method 9095)       □ solid (EPA Method 9095)	
Company Mailing Address Line 1       Company Mailing Address Line 2         50 Pennwood Place       Company Address Last Line - City       State       Zip+4       Phone       Ext         Company Address Last Line - City       State       Zip+4       Phone       Ext         Warrendale       PA       15086       (724) 814-5300       Company Contact Last Name       First Name       Mi       Suffix         Brown       Dina       County       Municipality       County       County         Warrendale       Allegheny       Contact Phone       Ext       Contact Email Address       (724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       I Yes       No       No       No         If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the more (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.       Municipality       Columbia       County       Bradford       State       PA         810       Drill cuttings (oil and gas)       5,256       I well       I well       Cut yd       gal         810       Drill cuttings (oil and gas)       Side (EPA Method 9095)       I b       I b       I on e	
50 Pennwood Place         Company Address Last Line - City       State       Zip+4       Phone       Ext         Warrendale       PA       15086       (724) 814-5300       Company Contact Last Name       First Name       MI       Suffix         Brown       Dina       County       Allegheny       Suffix       Suffix         Municipality       County       Allegheny       County       Suffix       Suffix         Municipality       Contact Email Address       Allegheny       Yes       No       No         (724) 814-5321       dybrown@talismanusa.com       Yes       No       No       Yes       No         If 'No', describe tocation of waste generated at the Company Malling Address (noted above)?       Yes       No       No         If 'No', describe tocation of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the       County       PA         Municipality       Columbia       County       Bradford       State       PA         Musicipality       Columbia       County       Bradford       State       PA         Municipality       Columbia       County       Bradford       State       PA         Musicipality       Columbia       County       Bradf	
Company Address Last Line - City       State       Zip+4       Phone       Ext         Warrendale       PA       15086       (724) 814-5300       Ext         Company Contact Last Name       First Name       MI       Suffix       Suffix         Brown       Dina       County       Allegheny       Suffix       Suffix         Municipality       Contact Email Address       Allegheny       Contact Phone       Ext       Contact Email Address (noted above)?       Yes       No         If 'No', describe location of waste generated at the Company Mailing Address (noted above)?       If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the         Municipality       Columbia       County       Bradford       State       PA         SECTION/B.       WASTE DESCRIPTION       Frame       Frame       Frame         810       Drill cuttings (oil and gas)       5,256       Ima       One Time         810       Drill cuttings (oil and gas)       5,256       Ima       One Time         810       Drill cuttings (oil and gas)       Ima       Solid (EPA Method 9095)       Solid (EPA Method 9095)         Solid (EPA Method 9095)       Gas (ambient temperature & pressure)       Codor       Earthy / Slight	
Company Contact Last Name       First Name       MI       Suffix         Brown       Dina       Municipality       Suffix         Municipality       County       Allegheny         Contact Phone       Ext       Contact Email Address         (724) 814-5321       dybrown@talismanusa.com       Is the waste generated at the Company Malling Address (noted above)?       Is the waste generated at the Company Malling Address (noted above)?         Is the waste generated at the Company Malling Address (noted above)?       Is the waste generated at the Company Malling Address (noted above)?       Is the waste generated at the Company Malling Address (noted above)?         Is the waste generated at the Company Malling Address (noted above)?       Is the waste generated at the Company Malling Address (noted above)?       Is the waste for the company Malling Address (noted above)?         It method       Is the waste generated at the Company Malling Address (noted above)?       Is the waste for the company Malling Address (noted above)?         It method       Is the waste generated at the Company Malling Address (noted above)?       Is the waste for the company Malling Address (noted above)?         Municipality       Columbia       County       Bradford       State         Municipality       Columbia       County       Bradford       State       PA         Residual       Residual Waste       Amount       Measure	
Brown       Dina         Municipality Warrendale       County Allegheny         Contact Phone       Ext       Contact Email Address dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       Yes         Is the waste generated at the Company Mailing Address (noted above)?       Yes         If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.         Municipality       Columbia       County       Bradford       State       PA         SECTION B.       WASTIE DESCRIPTION       State       PA         Residual Waste Code       Code Description       Amount       Measure       Frame         810       Drill cuttings (oil and gas)       5,256       Cu yd gal       On one Time         810       Drill cuttings (oil and gas)       12.01       (based on analyses or knowledge)       One Time         a.       pH Range       5.97       to       12.01       (based on analyses or knowledge)       Solid (EPA Method 9095)         Solid (EPA Method 9095)       Gas (ambient temperature & pressure)       Color       Gas (ambient temperature & pressure)       Odor       Earthy / Slight Petroleum	
Municipality Warrendale       County Allegheny         Contact Phone       Ext       Contact Email Address         (724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       Yes       No         If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the       Yes       No         (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA.       Waste is stored in       containers on site.         Municipality       Columbia       County       Bradford       State       PA         SECTION/B. WASTIE DESCRIPTION         Residual       Residual Waste       Unit of       Time         Residual       Residual Waste       Gover Description       Measure       Frame         810       Drill cuttings (oil and gas)       5,256       Cu yd       gal       Image         a.       pH Range       5.97       to       12.01       (based on analyses or knowledge)       Image         b.       Physical State       Liquid Waste (EPA Method 9095)       Gas (ambient temperature & pressure)       Gas (ambient temperature & pressure)       Codor       Earthy / Slight Petroleum	
Contact Phone       Ext       Contact Email Address         (724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       □ Yes       No         Is the waste generated at the Company Mailing Address (noted above)?       □ Yes       No         If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the model       [03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.         Municipality       Columbia       County       Bradford       State       PA         SECTION/B. WASTE: DESCRIPTION         Residual Maste         Code Description       Amount       Measure       Frame         810       Drill cuttings (oil and gas)       5,256       □ cu yd □ gal       □         a. pH Range       5.97       to       12.01       (based on analyses or knowledge)       0         b.       Physical State       □ Liquid Waste (EPA Method 9095)       □ Gas (ambient temperature & pressure)       Gas (ambient temperature & pressure)         c.       Physical Appearance       Color       Greyish Black       Odor       Earthy / Slight Petroleum	
(724) 814-5321       dybrown@talismanusa.com         Is the waste generated at the Company Mailing Address (noted above)?       □ Yes ⊠ No         If 'No', describe location of waste generation and storage.       Drill cuttings are generated during natural gas drilling operations at the	
Is the waste generated at the Company Mailing Address (noted above)?       □ Yes ⊠ No         If 'No', describe location of waste generation and storage. Drill cuttings are generated during natural gas drilling operations at the	
Ite (03-054) well pad site located at 847 Fairbanks Road, Columbia Township, Bradford County, PA. Waste is stored in containers on site.         Municipality       Columbia       County       Bradford       State       PA         SECTION B. WASTE DESCRIPTION         Time Residual Waste Code Code Description       Amount       Unit of Measure       Time Frame         810       Drill cuttings (oil and gas)       5,256       I cu yd       gal       I cu	
containers on site.         Municipality       Columbia       County       Bradford       State       PA         SECTION B. WASTE DESCRIPTION         Residual Waste       Unit of       Time         Waste Code       Code Description       Amount       Measure       Frame         810       Drill cuttings (oil and gas)       5,256       Cu yd       gal         I. GENERAL PROPERTIES         a. pH Range       5.97       to       12.01       (based on analyses or knowledge)         b.       Physical State       Liquid Waste (EPA Method 9095)       Solid (EPA Method 9095)       Gas (ambient temperature & pressure)         Color       Greyish Black       Odor       Earthy / Slight Petroleum	
Municipality       Columbia       County       Bradford       State       PA         Residual Waste Code       Residual Waste Code Description       MASTE DESCRIPTION       Unit of Measure       Time Frame         810       Drill cuttings (oil and gas)       5,256       □ cu yd □ gal	
Residual Waste Code       Residual Waste Code Description       Amount       Unit of Measure       Time Frame         810       Drill cuttings (oil and gas)       5,256       □ cu yd □ gal       □         810       Drill cuttings (oil and gas)       5,256       □ lb ☑ ton □       One Time         a.       pH Range       5.97       to       12.01       (based on analyses or knowledge)       ○         b.       Physical State       Liquid Waste (EPA Method 9095)       Solid (EPA Method 9095)       Solid (EPA Method 9095)       Solid (EPA Method 9095)         Gas (ambient temperature & pressure)       Gareyish Black       Odor       Earthy / Slight Petroleum	
Waste Code     Code Description     Amount     Measure     Frame       810     Drill cuttings (oil and gas)     5,256     Cu yd gal     gal       I GENERAL PROPERTIES       a. pH Range     5.97 to     12.01 (based on analyses or knowledge)       b. Physical State     Liquid Waste (EPA Method 9095)       Solid (EPA Method 9095)     Gas (ambient temperature & pressure)       Generature & pressure)       Color     Greyish Black     Odor     Earthy / Slight Petroleum	
810       Drill cuttings (oil and gas)       5,256       I cu yd gal       gal         a.       pH Range       5.97 to       12.01 (based on analyses or knowledge)       One Time         b.       Physical State       Liquid Waste (EPA Method 9095) Solid (EPA Method 9095)       Solid (EPA Method 9095)       Solid (EPA Method 9095)         Gas (ambient temperature & pressure)       Greyish Black       Odor       Earthy / Slight Petroleum	
a.       pH Range       5.97       to       12.01       (based on analyses or knowledge)         b.       Physical State       Liquid Waste (EPA Method 9095)       Solid (EPA Method 9095)         Gas (ambient temperature & pressure)       Odor       Earthy / Slight Petroleum	
a.       pH Range       5.97       to       12.01       (based on analyses or knowledge)         b.       Physical State       I Liquid Waste (EPA Method 9095)       Solid (EPA Method 9095)         Gas (ambient temperature & pressure)         c.       Physical Appearance       Color       Greyish Black       Odor       Earthy / Slight Petroleum	
b.       Physical State       Liquid Waste (EPA Method 9095)         Solid (EPA Method 9095)       Solid (EPA Method 9095)         Gas (ambient temperature & pressure)         c.       Physical Appearance         Color       Greyish Black       Odor         Earthy / Slight Petroleum	
Color       Greyish Black       Odor       Earthy / Slight Petroleum	
c. Physical Appearance Color Greyish Black Odor Earthy / Slight Petroleum	
Number of Solid or Liquid Phases of Separation One	
Describe each phase of separation. Soil and Rock Fragments	
2. CHEMICAL ANALYSIS ATTACHMENTS      a. The results of a detailed chemical characterization of the waste, as described in the Yes No	
instructions, is attached.	
b. A detailed description of the waste sampling method is attached.	
c. The quality assurance/quality control procedures employed by the laboratory(ies) is 🛛 Yes 🗌 No	
attached.	
attached.         d.       The results of the hazardous waste determination is attached.         X       Yes         No	

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTAC	HMENTS		
a.	A detailed description of the the waste, as specified in the			sses producing	Yes Yes	No No
b.	A schematic of the manufacture as specified in the instruction		ntrol processes proc	lucing the waste,	X Yes	🗌 No
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	No No	⊠ N/A
	SECTIO	ON C. MANAGEME	ENT OF RESIDU	AL WASTE		
		1. PROCESSING OR D	ISPOSAL FACILITY (IE	(S)		
The ar	ea below (ad.) will accommod	ate the identification of	wo facilities. Attach	additional sheets	if necessary.	
a.	Solid waste permit number(s) 9-0232-00003	for processing or dispo	sal facility being utili	zed.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Road				
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
C.	Facility Contact Name	Larry Shilling				
	Title					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to p 2,795	rocessing or disposal fa cu yd 🛛 gal	cility in the previous		1	
a.	Solid waste permit number(s) 100361	for processing or dispo	sal facility being utili	zed.		
b.	Facility Name	McKean County Landi	fill			
	Address Line 1	19 Ness Lane				
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
с.	Facility Contact Name	Mike Manderfeld				
	Title					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to p 1,342	rocessing or disposal fa cu yd 🛛 gal	cility in the previous			
		2. Bener	FICIAL USE			
a.	Has the waste been approved	for beneficial use?			Yes	No No
	If "Yes", list the general permi	t number or approval nu	mber.			
b.	Volume of waste beneficially u	ised in the previous yea	٢.			
	0	cu yd 📃 gal	🗌 lb 🗌 ton	(check one)		

	3	PROCESS DESCRIPTION	1 & SCHEMATIC ATTA	CUMENTS		
a.	A detailed description of the				V Yes	
а.	the waste, as specified in the	<b>v</b> 1		esses producing	M Tes	
b.	A schematic of the manufact as specified in the instructio		ontrol processes pro	ducing the waste,	X Yes	🗌 No
C.	If portions of the information a confidentiality claim, as de			on for 📋 Yes	No	🛛 N/A
	SECTI	ON C. MANAGEM		and the first of a second state of a second state of a second state of a second state of the second state of th		
			DISPOSAL FACILITY			
The a	rea below (ad.) will accommo				if necessary	•
a.	Solid waste permit number(s 8-4630-00010	) for processing or disp	osal facility being uti	lized.		
b.	Facility Name	Hakes C&D Landfill	<u>.</u>			
	Address Line 1	4376 Manning Ridge	Road			
	Address Line 1	<u></u>				
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
c.	Facility Contact Name	Joe Boyles				
••	Title					
	Phone	(607) 937-6044	Email Address	joe.boyles@case	lla com	
		(585) 466-7271		,000.009.000@0000	ind.com	
d.	Volume of waste shipped to		acility in the previou	s vear.		,
	1,031	]cuyd 🗌 gal	🗌 İb 🖂 toı			
а.	Solid waste permit number(s 100945	) for processing or disp	osal facility being uti	lized.		
b.	Facility Name	Cumberland County	Landfill			
	Address Line 1	135 Vaughn Road				
	Address Line 1					
	Address City State ZIP	Newburg	PA	17240		
	Municipality	Newburg Boro	County	Cumberland		
с.	Facility Contact Name	Dusty Hilbert				
	Title	Compliance Manage	r			
	Phone	(717) 729-5261	Email Address	dhilbert@iswaste	e.com	
d.	Volume of waste shipped to	processing or disposal f	acility in the previous	s vear.		
	88	] cuyd 🗌 gal	☐ lb 🛛 tor	n (check one)		
		Printed and the second s	EFICIAL USE			
a.	Has the waste been approved	I for beneficial use?			Yes	🛛 No
	If "Yes", list the general perm					
b.	Volume of waste beneficially					
	0	] cuyd 🗌 gal	☐ lb ☐ tor	n (check one)		

.

		SECTION D. CERTIFICATION
Report and all attached docu obtaining the information, I knowledge. I understand that	ments verify the s	nave personally examined and am familiar with the information submitted in this Annual s and that based upon my inquiry of those individuals immediately responsible for that the submitted information is true, accurate and complete to the best of my submission of false information herein is made subject to the penalties of 18 Pa. C.S. on to authorities, which include fine and imprisonment.
Check the following, if applical	ole:	
I certify the information		ired in Section B-1, General Properties was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information and has not chan	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
I certify the information for the year and h	•	ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.
Form Submitted:		Form 26R
		Other (specify)
Date Submitted:		
Name of Responsible Official		Title Environmental Specialist
Dina Brown Signature	A	Date 2/25/11

PA ID #: 08-00380 NY ID # 11216	2566 Penr	Analytics, In n Division nsylvania Ave. PA 18840	C.	Work	Order: 1012	21731
		70) 888-0169 70) 888-0717				
SEND DATA TO:						
NAME: Dina Brown	•		W	O#: 1012	21731	
COMPANY: Talisman Energy USA,	Inc.		P/	AGE: 1 of 3	3	
ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 1484	5				-	
Horseneads, IVI 1404	,		P	D#: AF77	7716	
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST	REPORT	P١	WS ID#	·	
03-054	·				<u> </u>	
RECEIVED FOR LAB BY: RML	DATE: 1	2/09/2010 15:45			Ра	gelof3
		b ID: 10121731-001A	Grab			
SAMPLE: Inv. Cuttings SAMPLED BY: SG		ime: 12/08/2010 21:27	Giab			
			SLOQ		<del>.</del> .	
<u>Test</u> Ignitability	<u>Result</u> Neg ASIS °F	<u>Method</u> SW846 1030		Analysis Start 12/15/10 13:30	Analysis End 12/15/10	Analyst *
Sample Note: Analysis performed by	•	344840 1030		12/13/10 13.30	12/10/10	
		b ID: 10121731-001C	Grab		*	
SAMPLE: Inv. Cuttings SAMPLED BY: SG		ime: 12/08/2010 21:27	Grab			
_			<u>SLOQ</u>			
<u>Test</u>	Result	Method		Analysis Start	Analysis End	
Cyanide, Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2 16	12/13/10 8:56	12/14/10 12/14/10	HDP-CV
Reactive Sulfide	990 mg/Kg	SW846 7.3		12/14/10 12:30	12/14/10	LTW-CV
SAMPLE: Inv. Cuttings		b ID: 10121731-001D	Grab			
SAMPLED BY: SG	Sample T	ime: 12/08/2010 21:27				
		ime: 12/08/2010 21:27	SLOQ			
Test	Result	Method	<u>sloq</u>	Analysis Start	Analysis End	
<u>Test</u> % Solids	<u>Result</u> 78.73 % Wght.		0.10	12/10/10 17:00	12/13/10	IC-SA
		Method				
% Solids	78.73 % Wght. 22.37 % Wght.	<u>Method</u> SM2540B	0.10	12/10/10 17:00	12/13/10	IC-SA
% Solids Total Volatile Solids	78.73 % Wght. 22.37 % Wght. ngs La	<u>Method</u> SM2540B EPA 160.4	0.10 0.01 Grab	12/10/10 17:00	12/13/10	IC-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG	78.73 % Wght. 22.37 % Wght. ngs La Sample T	<u>Method</u> SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45	0.10 0.01	12/10/10 17:00 12/10/10 8:00	12/13/10 12/14/10	IC-SA NFM-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u>	78.73 % Wght. 22.37 % Wght. ngs La Sample T <u>Result</u>	<u>Method</u> SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 <u>Method</u>	0.10 0.01 Grab	12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u>	12/13/10	IC-SA NFM-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG	78.73 % Wght. 22.37 % Wght. ngs Lai Sample T <u>Result</u> < 0.10 mg/L	<u>Method</u> SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45	0.10 0.01 Grab SLQQ	12/10/10 17:00 12/10/10 8:00	12/13/10 12/14/10 Analysis End	IC-SA NFM-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u> Pyridine	78.73 % Wght. 22.37 % Wght. ngs La Sample T <u>Result</u>	<u>Method</u> SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C	0.10 0.01 Grab <u>SLOQ</u> 0.10	12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48	12/13/10 12/14/10 <u>Analysis End</u> 12/15/10	IC-SA NFM-SA <u>Analyst *</u> RHH-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene	78.73 % Wght. 22.37 % Wght. ngs Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L	<u>Method</u> SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 <u>Method</u> EPA 8270C EPA 8270C	0.10 0.01 Grab <u>SLOQ</u> 0.10 0.10	12/10/10 17:00 12/10/10 8:00 <u>Analysis Start</u> 12/15/10 7:48 12/15/10 7:48	12/13/10 12/14/10 <u>Analysis End</u> 12/15/10 12/15/10 12/15/10	IC-SA NFM-SA Analyst * RHH-SA RHH-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u> PyridIne 1,4-Dichlorobenzene o-Cresol	78.73 % Wght. 22.37 % Wght. ngs Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	Method SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 Method EPA 8270C EPA 8270C EPA 8270C	0.10 0.01 Grab <u>SLOQ</u> 0.10 0.10 0.10	12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	12/13/10 12/14/10 <u>Analysis End</u> 12/15/10 12/15/10 12/15/10 12/15/10	IC-SA NFM-SA Analyst * RHH-SA RHH-SA RHH-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol	78.73 % Wght. 22.37 % Wght. ngs Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	Method SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 Method EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.01 Grab <u>SLOQ</u> 0.10 0.10 0.10 0.10	12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	12/13/10 12/14/10 <u>Analysis End</u> 12/15/10 12/15/10 12/15/10 12/15/10	IC-SA NFM-SA RHH-SA RHH-SA RHH-SA RHH-SA
% Solids Total Volatile Solids SAMPLE: TCLP Leachate of Inv. Cutti SAMPLED BY: SG <u>Test</u> Pyridine 1,4-Dichlorobenzene o-Cresol p-Cresol/m-Cresol Hexachloroethane	78.73 % Wght. 22.37 % Wght. ngs Lai Sample T <u>Result</u> < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	Method SM2540B EPA 160.4 b ID: 10121731-001F ime: 12/11/2010 12:45 Method EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.01 Grab <u>SLOQ</u> 0.10 0.10 0.10 0.10 0.10	12/10/10 17:00 12/10/10 8:00 Analysis Start 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48 12/15/10 7:48	12/13/10 12/14/10 Analysis End 12/15/10 12/15/10 12/15/10 12/15/10 12/15/10	IC-SA NFM-SA RHH-SA RHH-SA RHH-SA RHH-SA RHH-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis DATE: 12/16/2010

PA ID #: 08-00380 NY ID # 11216	2566 Penns	<b>Nalytics, Ir</b> <b>Division</b> Sylvania Ave. PA 18840	1C.	Work	Corder: 101	21731
	Phone: (570 Fax: (570	) 888-0169 ) 888-0717				
SEND DATA TO:						
NAME: Dina Brown	2		w	O#: 1012	21731	
COMPANY: Talisman Energy USA,	Inc.			AGE: 2 of	<b>o</b>	
ADDRESS: 337 Daniel Zenker Dr			E,	AGE: 201	3	
Horseheads, NY 14845			P	O#: AF7	7716	
	TERT	EDODT	P\	NS ID#		
PHONE: (607) 562-4000 FAX: (607) 562-4001	1231 K	EPORT				
03-054						
RECEIVED FOR LAB BY: RML	DATE: 12/	09/2010 15:45			Pa	age 2 of 3
2,4,5-Trichlorophenol	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Pentachlorophenol	< 0.50 mg/L	EPA 8270C	0.50	12/15/10 7:48	12/15/10	RHH-SA
2,4-Dinitrotoluene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Hexachlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
Naphthalene	< 0.10 mg/L	EPA 8270C	0.10	12/15/10 7:48	12/15/10	RHH-SA
SAMPLE: TCLP Leachate of Inv. Cuttin	n <b>gs</b> Lab I	D: 10121731-001G	Grab			
SAMPLED BY: SG		e: 09/08/2010 10:00				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Strontium - TCLP extracted	0.056 mg/L	EPA 6010B	0.050	09/09/10 12:45	09/09/10	RMD-CV
Sample Note: Sample for TCLP extra	-					1440-04
SAMPLE: TCLP Leachate of Inv. Cuttin	ngs Lab I	D: 10121731-001H	Grab			
SAMPLED BY: SG	-	e: 12/11/2010 12:45				
	<b>e</b> 11		<u>SLOQ</u>			
<u>Test</u>	Result	Method		Analysis Start	Analysis End	
pH	5.97@16.6°C	SM4500H+B		12/14/10 8:00	12/14/10	SG-SA
SAMPLE: ZHE Extract of Inv. Cuttings		D: 10121731-0011	Grab			
SAMPLED BY: SG	Sample Tim	e: 12/12/2010 13:10	SLOQ			
Test	Result	Method	OLOG	Analysis Start	Analysis End	Analyst *
Benzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Carbon tetrachloride	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chlorobenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Chloroform	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2-Dichloroethane	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,1-Dichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Ethylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Isopropylbenzene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Tetrachloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L	EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
DEMARKO.						

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

MANAGER

Carrie M. Davis

12/16/2010 DATE:

PA ID #: 08-00380 NY ID # 11216		<b>Eas</b> 2566	stern D	vania Ave.	IC.		Work	Order: 101	21731
			ie: (570) 8 ix: (570) 8						
SEND DATA	A TO:								
NAME:	Dina Brown	.•			W	O#:	1012	21731	
COMPANY:	Talisman Energy USA, Ir	Inc.							
ADDRESS:	337 Daniel Zenker Dr					PAGE: 3 of 3			
	Horseheads, NY 14845	;			PC	)#:	AF77	7716	
PHONE: (607) 562-4000 FAX: (607) 562-4001		Ţ	EST REF	PORT	PV	VS ID#			
	03-054								
RECEIVED I	FOR LAB BY: RML	DA	TE: 12/00	/2010 15:45				D	ige 3 of 3
			12. 12/03/						_
	methylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
	methylbenzene	< 0.0250 mg/L < 0.0250 mg/L		EPA 8260B EPA 8260B	0.0250	12/13/10		12/13/10	CTM-SA
Vinyl chk		. 4			0.0250 0.0250	12/13/10 8:11 12/13/10 8:11		12/13/10 12/13/10	CTM-SA CTM-SA
Methyl tert-butyl ether		< 0.0250 mg/L		EPA 8260B EPA 8260B				12/13/10	CTM-SA
2-Butano	ne	< 0.0500 mg/L		EPA 8260B	0.0500	12/13/10			
2-Butano		< 0.0500 mg/L	l ab ID:			12/13/10			
2-Butano	ne STM Extract of Inv. Cuttings ED BY: SG	•		EPA 8260B 10121731-001J 12/10/2010 11:15	Grab	12/13/10			
2-Butano SAMPLE: A: SAMPLE	STM Extract of Inv. Cutting	s Sa		10121731-001J 12/10/2010 11:15				Anchusia End	Anglugi
2-Butano SAMPLE: A: SAMPLE <u>Test</u>	STM Extract of Inv. Cuttings ED BY: SG	s Sa <u>Result</u>	ample Time: 1	10121731-001J 12/10/2010 11:15 <u>Method</u>	Grab <u>SLOQ</u>	Analysis	Start	Analysis End	
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemica	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand	Sa <u>Result</u> 234 mg/L	ample Time: f	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	Grab <u>SLOQ</u> 10		Start	<u>Analysis End</u> 12/13/10	Analyst * KMF-SA
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemical SAMPLE: A:	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	s <u>Result</u> 234 mg/L	B Lab ID:	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121731-001L	Grab <u>SLOQ</u>	Analysis	Start		
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemical SAMPLE: A:	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand	s <u>Result</u> 234 mg/L	B Lab ID:	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000	Grab <u>SLOQ</u> 10 Grab	Analysis	Start		
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemical SAMPLE: A:	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	s <u>Result</u> 234 mg/L	B Lab ID:	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121731-001L	Grab <u>SLOQ</u> 10	Analysis	<u>Start</u> ) 8:00		KMF-SA
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemica SAMPLE: A: SAMPLE	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings	Sa <u>Result</u> 234 mg/L Sa	B Lab ID:	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121731-001L 12/10/2010 11:15	Grab <u>SLOQ</u> 10 Grab	<u>Analvsis</u> 12/11/10	<u>Start</u> 8:00	12/13/10	KMF-SA
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemical SAMPLE: A: SAMPLE: A: SAMPLE	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	s Sa <u>Result</u> 234 mg/L s Result	B Lab ID:	10121731-001J 12/10/2010 11:15 <u>Method</u> HACH 8000 10121731-001L 12/10/2010 11:15 <u>Method</u>	Grab <u>SLOQ</u> 10 Grab	Analvsis 12/11/10 Analvsis	<u>Start</u> ) 8:00 <u>Start</u> ) 8:00	12/13/10 Analysis End	KMF-SA
2-Butano SAMPLE: A: SAMPLE <u>Test</u> Chemical SAMPLE: A: SAMPLE: A: <u>Test</u> pH	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	Sa <u>Result</u> 234 mg/L 3 Sa <u>Result</u> 7.57@16.6°C	B B Lab ID: ample Time: 1	10121731-001J 12/10/2010 11:15 Method HACH 8000 10121731-001L 12/10/2010 11:15 Method SM4500H+B	Grab <u>SLOQ</u> 10 Grab <u>SLOQ</u>	<u>Analvsis</u> 12/11/10 <u>Analvsis</u> 12/14/10	<u>Start</u> ) 8:00 <u>Start</u> ) 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Anaiyst * SG-SA
2-Butano SAMPLE: A: SAMPLE: A: Chemical SAMPLE: A: SAMPLE: A: DH Total Soli SAMPLE: In	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG	Sa <u>Result</u> 234 mg/L 3 Sa <u>Result</u> 7.57@16.6°C 1840 mg/L	B Lab ID: ample Time: 1 Lab ID:	10121731-001J 12/10/2010 11:15 Method HACH 8000 10121731-001L 12/10/2010 11:15 Method SM4500H+B SM2540B	Grab SLOQ Grab SLOQ 0.10 Grab	<u>Analvsis</u> 12/11/10 <u>Analvsis</u> 12/14/10	<u>Start</u> ) 8:00 <u>Start</u> ) 8:00	12/13/10 Analysis End 12/14/10	KMF-SA Anaiyst * SG-SA
2-Butano SAMPLE: A: SAMPLE: A: Chemical SAMPLE: A: SAMPLE: A: DH Total Soli SAMPLE: In SAMPLE: In	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG ids v. Cuttings	Sa <u>Result</u> 234 mg/L Sa <u>Result</u> 7.57@16.6°C 1840 mg/L Sa	B Lab ID: ample Time: 1 Lab ID:	10121731-001J 12/10/2010 11:15 Method HACH 8000 10121731-001L 12/10/2010 11:15 Method SM4500H+B SM2540B 10121731-001M 12/10/2010 10:25	Grab SLOQ 10 Grab SLOQ 0.10	Analysis 12/11/10 Analysis 12/14/10 12/10/10	<u>Start</u> ) 8:00 <u>Start</u> ) 8:00 17:00	12/13/10 Analysis End 12/14/10 12/13/10	KMF-SA Anaivst * SG-SA IC-SA
2-Butano SAMPLE: A: SAMPLE: A: Chemical SAMPLE: A: SAMPLE: A: DH Total Soli SAMPLE: In SAMPLE: In SAMPLE: In	STM Extract of Inv. Cuttings ED BY: SG I Oxygen Demand STM Extract of Inv. Cuttings ED BY: SG ids v. Cuttings	Sa <u>Result</u> 234 mg/L 3 Sa <u>Result</u> 7.57@16.6°C 1840 mg/L	B Lab ID: ample Time: 1 Lab ID:	10121731-001J 12/10/2010 11:15 Method HACH 8000 10121731-001L 12/10/2010 11:15 Method SM4500H+B SM2540B 10121731-001M	Grab SLOQ Grab SLOQ 0.10 Grab	<u>Analvsis</u> 12/11/10 <u>Analvsis</u> 12/14/10	<u>Start</u> ) 8:00 <u>Start</u> ) 8:00 17:00 <u>Start</u>	12/13/10 Analysis End 12/14/10	Anaiyst * SG-SA IC-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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B Analyte detected in the associated Method Blank

MANAGER

anie	M.	Davis
$\cap$		

DATE:

12/16/2010

CHAIN OF CUSTODY	Benchn	₩ <u>1</u> 0F <u>1</u>
EPORT TO: Talisman / UEG	2566 Pennsylva	E SPECIAL DETECTION LIMITS
geowetlands@aol.com	Phor <b>VV/U#: 10121/31</b>	
	Fax. REFRIGERATE SAMPLES RESULTS ARE BEING USED FOR	
······································	reductoria e pento docortoria	IF YES, PLEASE ATTACH
	_I Z GW GROUND WATER SO SOIL I	
ONTACT Steve Gridley	TRANSPORT SW SURFACE WATER HZ HAZARDOUS LANDFILL Mostolle	YES NO
H# 607-731-0145		IF YES, PLEASE ATTACH REQUIREMENTS
AX#	LABORATORY / /4/ /H HYDROCHLORIC ACID OH SODIUM HYDROXIDE IN COOLER / S SULFURIC ACID AS ASCORBIC ACID	
HLL TO: Tálisman	IN COOLER     S     S     SULFURIC ACID     AS     ASCORBIC ACID       WITH ICE     NITRIC ACID     AC     ACETIC ACID     AC	
	- S SOJ SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE	
0# AF 77716	- NONE Hg MERCURIC CHLORIDE	Please fill out all
	」 / デーズ ズーズ / ビー An incomplete chain of custody may delay the / ゔ ー デーズ スターズ えん こ / データー の An incomplete chain of custody may delay the / ゔ ー デーズ スターズ デーズ パーズ / ジー パーズ の An incomplete chain of custody may delay the / ゔ ー ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	applicable areas
AMPLER SIGNATURE / AFFILIATION		S completely
CONTAINER SAMPLING POINT	LABORATORY IN COOLER WITH ICE       I/4 ISS       H SS       HYDROCHLORIC ACID SULFUIC ACID N       OH       SODIUM HYDROXIDE AS ASCORBIC ACID AS ASCORBIC ACID AS ASCORBIC ACID AC ACETIC ACID SOJ SODIUM SULFITE         WITH ICE       IN SS       N       NITRIC ACID N       AC ACETIC ACID N       AC ACETIC ACID N         VITH ICE       IN SS       SODIUM SULFITE       NH, AMMONIUM CHLORIDE ZINC ACETATE         IN SS       SS       SODIUM THIOSULFATE NONE       NH HISS       NH HISS         IN SS       SS       SIL       An incomplete chain of custody may delay the processing of your sample(s).       IN SS         IN SS       IN SS       IN SS       IN SS       ANALYSIS TO BE PERFORMED (PER CONTAINER)       IN SS	Please fill out all applicable areas completely LAB USE ONLY
· · ·	PER CONTAINER)	STANDARD CONTRACTOR AND AND AND AND AND AND AND AND AND AND
1 Inv Cuttings	12/8 2127 50 C 56 N Ignitability, Reactive Sulfide & Cyanide	
2	C PCBs, Total Solids	
3 Actions, Ign.	G Total Volatile Solids	
4 C- Reactivity	C Ammonia-Nitrogen	
5 D- TS, TVS	C Water Leaching Procedure: COD,	
6 E-T. Sample	V V V C V V Total Solids, Oil & Grease,	
7 F-TELP BNA, Bests.		
8 G-TCLP-Hats. Sr	K-Asma ort	
9 H-TELP pH	L-ASTM TS ON 36 HOUR TURNAROUND	
10 I-TELP Vois.	M-TOX DAY TURNAROUND	
11 J-ASTA COD, Not		
the second second second second second second second second second second second second second second second s	મનંશાવનાજગાણ વનાગારાજા, તાલુકા ગામ છે.	ARRIVAL ONICE W/IN
REINOLHSHEERY	DATE: TIME: RECEIVED BY:	DATE: TIME:
RELINGUISHEB BY:	1219110 1550	
RELINQUISHED BY:	DATE: TIME: RECEIVED BY:	DATE: , , TIME:
RELINQUISHED BY:	DATE: , TIME: RECEIVED AY, OD	DATE O IN THIS 700
	TO UN TRA	BE 19 10 19545

LAB ID: 08-00380 LAB ID: 39-00401	2566 Penn Sayre,	<b>Division</b> sylvania Ave. PA 18840	IC.	Work	Order: 101	03214
X		0) 888-0169 0) 888-0717				
SEND DATA TO: NAME: Steve Gridley COMPANY: Talisman Energy USA, ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845			PA	O#: 1010 AGE: 1 of 2 D#: AF77	_	
PHONE: (607) 731-0145 FAX: (607) 562-4001	TEST	REPORT	P١	WS ID#		
03-054 RECEIVED FOR LAB BY: DLM2	DATE: 10	0/21/2010 11:37			Pa	age 1 of 2
SAMPLE: Air Cuttings SAMPLED BY: SG		DID: 10103214-001A	Compo	site		
Test Total Petroleum Hydrocarbons Sample Note: Analysis performed by	<u>Result</u> 640 mg/Kg	<u>Method</u> EPA 9071	<u>SLOQ</u> 170	<u>Analysis Start</u> 10/23/10 9:00	<u>Analysis End</u> 10/23/10	<u>Analyst *</u>
SAMPLE: Air Cuttings SAMPLED BY: SG	Lat Sample Ti	Composite				
<u>Test</u> Moisture Free Liquid	<u>Result</u> 42.9 % < 0.1 % 12.01@23.1℃	Method Moisture Calc. EPA 9095A EPA 9045C	<u>SLOQ</u> 0.01 0.1	Analysis Start 10/25/10 15:00 10/22/10 15:05 10/26/10 8:50	<u>Analysis End</u> 10/26/10 10/22/10 10/26/10	<u>Analvst *</u> NFM-SA IC-SA NFM-SA
pH SAMPLE: Air Cuttings SAMPLED BY: SG	Lat	DID: 10103214-001C me: 10/19/2010 9:55	Compo		10/20/10	NFM-3A
Test Sodium Chloride Percent Moisture	Result 391 mg/Kg-dry 590 mg/Kg-dry 42.9 %	<u>Method</u> EPA 6010B EPA 300.0 SM2540G	<u>SLOQ</u> 214 86.8	Analysis Start 10/22/10 10:40 10/22/10 15:07 10/25/10 15:00	<u>Analysis End</u> 10/22/10 10/23/10 10/26/10	Analyst * RMD-CV HDP-CV NFM-SA
SAMPLE: TCLP Leachate of Air Cuttin SAMPLED BY: SG	3	ID: 10103214-001E me: 10/22/2010 7:30	Compo: <u>SLOQ</u>	site		
Test Mercury - TCLP extracted Arsenic - TCLP extracted Barium - TCLP extracted Cadmium - TCLP extracted Chromium - TCLP extracted Copper - TCLP extracted	<u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	<u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	0.0008 0.500 10.00 0.100 0.500 0.100	Analysis Start 10/23/10 10:20 10/23/10 11:10 10/23/10 11:10 10/23/10 11:10 10/23/10 11:10	Anaiysis End 10/24/10 10/23/10 10/23/10 10/23/10 10/23/10 10/23/10	Analyst * RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER \_\_\_\_\_ Gauie M. Davis \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

LAB ID: 08-00380 LAB ID: 39-00401		2566 Penr	Analytics, Ir n Division nsylvania Ave. PA 18840	1C.	Work	Order: 10	103214
		•	70) 888-0169 70) 888-0717				
SEND DATA	A TO:	1					
NAME:	Steve Gridley		r	WO#	t: 10103	3214	
COMPANY: Talisman Energy USA,	nc		PAG	E: 2 of 2			
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845						
				PO#	AF777	/15	
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	TEST REPORT		PWS ID#		
	03-054						
RECEIVED	FOR LAB BY: DLM2	DATE: 1	0/21/2010 11:37			F	age 2 of 2
Lead - T	CLP extracted	< 0.500 mg/L	EPA 6010B	0.500 10	/23/10 11:10	10/23/10	RMD-CV
Nickel -	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100 10	/23/10 11:10	10/23/10	RMD-CV
Selenium	n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500 10	//23/10 11:10	10/23/10	RMD-CV
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100 10	/23/10 11:10	10/23/10	RMD-CV
Zinc - TC	CLP extracted	< 0.200 mg/L	EPA 6010B	0.200 10	/23/10 11:10	10/23/10	RMD-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

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MANAGER

Carrie M. Davis

DATE: 10/26/2010

CHAIN OF CUSTODY					I	E	enchmark /		_	OF 1
REPORT TO: Talisman / UEG	,				1.01	566 P	Eastern ennsylvania Ave W/O#: 1010	12211		
geowetlands@aol.com					<u> </u>	5001	Phone: (57) Fax: (570) σ88-0717	5214	NEEDED:	
twollin@rallysolutions.ca	REFI	RIGER	ATE S	AMPL	ES		RESULTS ARE BEIN		IF YES, PLEASE A	1
			LLECT				DRINKING WATER SL SLUDGE		( i	CKAGE NEEDED?
CONTACT Steve Gridley	·		SPORT				GROUND WATER SO SOIL SURFACE WATER HZ HAZARDOUS LANDI			б []] но
PH# 607-731-0145			0			, Di	OFIGNIZED MATER OF DISTIFIED WATER DEPONIAL OTHER		IF YES, PLEASE	TACH REQUIREMENTS
FAX#	,		IATOR) OLER	f	1	1	H HYDROCHLORIC ACID OH SODIUM HYDROXIDE S SULFURIC ACID AS ASCORBIC ACID			
BILL TO: Talisman	-	WITH			A	PRE-CMITHIC COMPOSITI	N NITRIGACID AC ACETICACID SO1 SODIUM SULFITE NH, AMMONIUM CHLORIDE		LAB UN RECEIPT	:•
PO# AF 77715	<b> </b>	7	7.	/			Thio SODIUM THIOSULFATE ZN ZINC ACETATE - NONE Hg MERCURIC CHLORIDE			
PROJECTIDESCRIPTION 03-054		19		) \$	لين		An incomplete chain of custody may delay the	3		ease fill out all policable areas
SAMPLER SIGNATURE / AFFILIATION		I III	195	E.E.	1		processing of your sample(s).			completely
CONTAINER SAMPLING POINT		The Sampled	Sauce OF Saupling	SALLEHATRY			An incomplete chain of custody may delay the processing of your sample(s). ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECT		
	<u>V</u>									SE ONLY
	10/19	955	po	C	<b>X</b> -	$ \mu $	TPH			- OOIALL
2	┣		-			<b>.</b>	pH, Chlorides, Sodium	etimes a second a		
					<u> </u>		TCLP 8 RCRA Metals, + Cu, Ni, Zri Free Liquids / % Moisture			
4 A.TPH 5 B. pH, Free Liqui	4 0	7. N	bist	100		<u> </u>				
5 B· pH tree Cigue 6 C - CL Na, RM			<u>UNI</u>	<u>uce</u>	1		BTEX ITHE BOOTH OF ONLY IF the TPH	مرجع بيني جداد م		
7 D. T. Sanple		1			1	<b> </b>	exceeds 120,000 mg/Kg			
8			<u>†</u>							
9		<b> </b>					7.2 HOUR TURNAROUND			
10	1			[			DAY TURNAROUND			
11									Que.	10/26/10
					- <u> </u> .		SG TEMPERATURE UPON RECEIP			AL ON ICE, Y N
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RELINGLASTED BY: U.C.			DATE:	2111	10	TIME:	137 RECEIVED BY:		DATE:	TIME:
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							$\checkmark$			

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

## SEND DATA TO:

SEND DATA	A TO:									
NAME:	Steve Gridley					W	'O#:	1009	0956	
COMPANY: ADDRESS:	Talisman Energy USA, Ir 337 Daniel Zenker Dr	1C.				PA	AGE:	1 of 1		
	Horseheads, NY 14845					P	O#:	AF77	049	
PHONE: FAX:	(607) 562-4000 (607) 562-4001		TES	TRE	EPORT	P١	WS ID#			
	03-054									
RECEIVED I	FOR LAB BY: DLM2	E	DATE:	09/0	07/2010 16:25				Pa	ge 1 of 1
SAMPLE: In	v. Cuttings			Lab IC	): 10090956-001A	Compo	site			
SAMPLE	ED BY: LS		Sampl	e Time	e: 08/30/2010 12:12	SLOQ				
<u>Test</u>		<u>Result</u>			Method		Analysis	Start	Analysis End	<u>Analyst *</u>
Moisture		12.5 %		к	Moisture Calc.	0.01	09/09/10	12:30	09/10/10	SG-SA
Free Liqu	bid	< 0.1 %			EPA 9095A	0.1	09/07/10	17:00	09/07/10	IC-SA
pН		9.30@19.8°(	2		EPA 9045C		09/10/10	10:00	09/10/10	SG-SA
SAMPLE: In	v. Cuttings			Lab ID	: 10090956-001B	Compo	site			
SAMPLE	ED BY: LS		Sampl	e Time	: 08/30/2010 12:12	SLOQ				
<u>Test</u>		<u>Result</u>			Method		Analysis	Start	Analysis End	Analyst *
Total Pet	roleum Hydrocarbons	89000 mg/Kg	g		EPA 9071		09/08/10	14:30	09/08/10	
Sample	e Note: Analysis performed by N	licrobac Labor	atories,	IncEr	ie Division					
SAMPLE: TO	CLP Leachate of Inv. Cutting	gs		Lab ID	: 10090956-001D	Compo	site			
SAMPLE	ED BY: LS		Sampl	e Time	: 09/08/2010 10:00	SLOQ				
Test		Deput			Mathad		Analysia	Start	Analysis End	Analyst *

			<u>SLOQ</u>			
Test	Result	<u>Method</u>		Analysis Start	Analysis End	<u>Analyst *</u>
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	09/09/10 10:00	09/09/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	09/09/10 12:45	09/09/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	09/09/10 12:45	09/09/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	09/09/10 12:45	09/09/10	RMD-CV
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	09/09/10 12:45	09/09/10	RMD-CV

#### **REMARKS:**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

K Sample was received past holding time.

MANAGER

Carrie M. Davis

DATE: 9/13/2010

Work Order: 10090956



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

# CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or legi each attach	ust be fully and accurate bly printed in the spaces p ed sheet as Form 26R, re ne date on attached sheets	ace is necessary, iden er and identify the d	tify Date Rec	EP USE ONLY reived & General Notes	
General Refe	erence 287.54				
Date Prepare		uary 11, 2011			
		LIENT (GENERATOR	OF THE WASTE) IN	IFORMATIO	Ň
Company Na					
	ergy USA Inc. ry, Name of Parent Compar	nv		FI	PA Generator ID#
Talisman Er		.,		N/	
	iling Address Line 1	Co	ompany Mailing Addre	ss Line 2	
50 Pennwoo			7:	Dhama	<b></b>
Warrendale	dress Last Line – City	State PA	<b>Zip+4</b> 15086	Phone (724) 814-	Ext
	ntact Last Name	First Name	MI		uffix
Brown		Dina		······	
Municipality			County		
Warrendale Contact Pho	ne Ext (	Contact Email Address	llegheny		
(724) 814-53		dybrown@talismanusa.c	om		
Is the waste	generated at the Company				Yes 🛛 No
	ibe location of waste gener	÷			
the (03 containers on	-025) well pad site located at site	1042 Antier Road, Column	bia Township, Bradford C	County, PA. Wast	te is stored in
Municipality	Columbia	County Bradfo	rd	State	PA
	5	SECTION B. WAST	<b>E DESCRIPTION</b>		
Residual	Residua			Unit of	Time
Waste Code	Code Des	scription	Amount	Measure	Frame
810	Dell Cuttings (Oll and C				
the second second second	Drill Cuttings (Oil and G	as)	458	☐ lb ⊠ to	
		as) 1. General P			
a. pHR	ange 6.51	1. GENERAL P	ROPERTIES (based on analyses or k		
•	ange 6.51 cal State	1. GENERAL P         to          Liquid Waste (EPA Me         ⊠ Solid (EPA Method 905)	ROPERTIES (based on analyses or k thod 9095) 95)		
b. Phys	ange 6.51 Ical State	1. GENERAL P to Liquid Waste (EPA Me	ROPERTIES (based on analyses or k thod 9095) 95)	□ lb   ⊠ to nowledge)	
b. Phys	ange 6.51 Ical State [ Cal Appearance C	I. GENERAL P         to          Liquid Waste (EPA Me         ⊠       Solid (EPA Method 900)         Gas (ambient temperation)	ROPERTIES (based on analyses or k thod 9095) 95) ure & pressure) Odo	□ lb ⊠ to nowledge) r Earthy / Sli	onOne Time
b. Phys	ange 6.51 cal State [ [ [ cal Appearance C	1. GENERAL P         to          Liquid Waste (EPA Me         ⊠ Solid (EPA Method 900)         Gas (ambient temperation of the second s	ROPERTIES (based on analyses or k thod 9095) 95) ure & pressure) Odo I Phases of Separation	□ lb ⊠ to nowledge) r Earthy / Sli One	onOne Time
b. Phys	ange 6.51 cal State [ [ [ cal Appearance C	1. GENERAL P         to          Liquid Waste (EPA Me         Solid (EPA Method 905         Gas (ambient temperation         Color       Greyish Black         Number of Solid or Liquid         Describe each phase of solid	ROPERTIES (based on analyses or k thod 9095) 35) ure & pressure) Odo Phases of Separation eparation. Soil and Ro	□ lb ⊠ to nowledge) r Earthy / Sli One	onOne Time
b. Physic. Physica c. Physica c. Physica c. Physica c. Physica c. The rest of the rest of	ange 6.51 cal State [ [ [ cal Appearance C	1. GENERAL P     to     Liquid Waste (EPA Me     Solid (EPA Method 909     Gas (ambient temperat ColorGreyish Black Number of Solid or Liquid Describe each phase of s     2. CHEMICAL ANALYS	ROPERTIES (based on analyses or k thod 9095) 95) ure & pressure) Odo I Phases of Separation eparation. <u>Soil and Ro</u>	□ lb   ⊠ tc nowledge) rEarthy / Sli One ck Fragments	onOne Time
b. Phys c. Phys a. The r instru	ange 6.51 Ical State [ Ical Appearance C N Esults of a detailed chemic	1. GENERAL P     to     Liquid Waste (EPA Me     Solid (EPA Method 909     Gas (ambient temperat     ColorGreyish Black     Number of Solid or Liquid     Describe each phase of s     2. CHEMICAL ANALYS al characterization of the	ROPERTIES (based on analyses or k thod 9095) 35) ure & pressure) Odo Phases of Separation eparation. <u>Soil and Ro</u> IS ATTACHMENTS waste, as described in	Ib X to nowledge) r Earthy / Sli One ck Fragments	ght Petroleum
b. Physic. Physica c.	ange 6.51 cal State [ cal Appearance C b cal Appearance C cal Appearance C cal Appearance C b cal Appearance C cal C cal Appearance C cal C	1. GENERAL P     to     Liquid Waste (EPA Me     Solid (EPA Method 909     Gas (ambient temperat ColorGreyish Black Number of Solid or Liquid Describe each phase of s     2. CHEMICAL ANALYS al characterization of the ste sampling method is a	ROPERTIES (based on analyses or k thod 9095) 35) ure & pressure) Phases of Separation eparation. Soil and Ro is ATTACHMENTS waste, as described in ttached.	Ib X to nowledge) r Earthy / Sli One ck Fragments	ght Petroleum
b. Phys c. Phys a. The r instru b. A det c. The c attact d. The r	ange 6.51 cal State [ cal Appearance C b cal Appearance C cal Appearance C cal Appearance C b cal Appearance C cal C cal Appearance C cal C	1. GENERAL P     to	ROPERTIES (based on analyses or k thod 9095) 35) ure & pressure) Phases of Separation eparation. Soil and Ro is ATTACHMENTS waste, as described in ttached. red by the laboratory(in ched.	Ib X to nowledge) r Earthy / Sli One ck Fragments the 2 es) is 2	ght Petroleum

		3. PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS		
а.	A detailed description of the the waste, as specified in t			esses producing	🛛 Yes	No No
b.	A schematic of the manufa as specified in the instruct		ontrol processes pro	ducing the waste,	🛛 Yes	No No
c.	If portions of the information a confidentiality claim, as o			n for 🗌 Yes	No No	N/A
	SECT	ION C. MANAGEM	ENT OF RESIDU	JAL WASTE		
			DISPOSAL FACILITY			
The a	area below (ad.) will accomm	odate the identification of	two facilities. Attack	n additional sheets	if necessary	•
a.	Solid waste permit number 100361	(s) for processing or disp	osal facility being util	lized.		
b.	Facility Name	McKean County Lan	dfill			
	Address Line 1	19 Ness Lane			1	
	Address Line 1					
	Address City State ZIP	Kane	PA	16735		
	Municipality	Sergeant Twp	County	McKean		
C.	Facility Contact Name	Mike Manderfeld				
	Title					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com	
d.	Volume of waste shipped to 264	<b>processing or disposal f</b> cu yd gal	acility in the previous			
a.	Solid waste permit number 9-0232-00003	(s) for processing or disp	osal facility being util	ized.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Road				
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
c.	Facility Contact Name	Larry Shilling				
	Title					
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to 105	processing or disposal f	acility in the previous	<b>year.</b> (check one)		
a.	Has the waste been approv	ed for beneficial use?	tores and the second second second second second second second second second second second second second second		Yes	No No
	If "Yes", list the general pe	mit number or approval n	umber.			
b.	Volume of waste beneficial			(check one)		
				. ,		

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	3.	<b>PROCESS DESCRIPTION &amp;</b>	SCHEMATIC ATTA	CHMENTS		
а.	A detailed description of the	Second Schemes and the second s	no solo in and in an and a balance in the real of an any balance of the relation of the solution of the	(a) A set of the constraint and the constraint of the constrain	X Yes	□ No
	the waste, as specified in the					
b.	A schematic of the manufacture as specified in the instruction		ntrol processes pro	ducing the waste,	Yes Yes	No No
C.	If portions of the information a confidentiality claim, as des			n for 📋 Yes	□ No	🛛 N/A
	SECTIO	ON C. MANAGEME	and mean development of the statistical considered when the share the state of the			
1. E. S		1. PROCESSING OR D				
The ai	rea below (ad.) will accommod				if necessary.	
a.	Solid waste permit number(s) 8-4630-00010	for processing or dispos	al facility being util	lized.		
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridge F	Road			
	Address Line 1					
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
с.	Facility Contact Name	Joe Boyles	· · · · · · · · · · · · · · · · · · ·			
	Title			41°-00,444,		
-	Phone	(607) 937-6044	Email Address	joe.boyles@case	ella.com	
		(585) 466-7271				
d.	Volume of waste shipped to p					
	66	cu yd 🗌 gal	🗍 lb 🛛 tor	n (check one)		
a.	Solid waste permit number(s) 100945	for processing or dispos	al facility being util	lized.		
b.	Facility Name	Cumberland County La	andfill			
	Address Line 1	135 Vaughn Road				
	Address Line 1					
	Address City State ZIP	Newburg	PA	17240		
	Municipality	Newburg Boro	County	Cumberland		
C.	Facility Contact Name	Dusty Hilbert		102		
	Title	Compliance Manager				
	Phone	(717) 729-5261	Email Address	dhilbert@iswaste	e.com	
d.	Volume of waste shipped to p	rocessing or disposal fac	ility in the previous	s vear.		
	23	cu yd 🗌 gal	☐ lb ⊠ tor			
			ICIAL USE			
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No
	If "Yes", list the general perm					
b.	Volume of waste beneficially					
	0	cuyd 🗌 gal	b tor	n (check one)		

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SECTION D. CERTIFICATION							
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information hereIn is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.							
Check the following, if applicable:							
I certify the informati		ired in Section B-1, General Properties was supplied to the Department for the year					
Form Submitted:		Form 26R					
		Other (specify)					
Date Submitted:							
	I certify the information required in Section B-2, Chemical Analysis was supplied to the Department for the year and has not changed.						
Form Submitted:		Form 26R					
		Other (specify)					
Date Submitted:							
I certify the informatio for the year and	-	ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.					
Form Submitted:		Form 26R					
		Other (specify)					
Date Submitted:	···						
Name of Responsible Official		TitleEnvironmental Specialist					
Dina Brown Signature		2/25/11 Date 2/25/11					

LAB ID: 08-0 LAB ID: 39-0		Ea 256 9 Pho	nark Analytics, In Astern Division 6 Pennsylvania Ave. Sayre, PA 18840 Pine: (570) 888-0169 Fax: (570) 888-0717	IC.	Work	Order: 101	20828
SEND DATA NAME: COMPANY: ADDRESS:	ATO: Steve Gridley Talisman Energy USA, Ir 337 Daniel Zenker Dr	IC.			O#: 1012 AGE: 1 of 2		
	Horseheads, NY 14845			P	D#: AF78	554	
PHONE: FAX:	(607) 731-0145 (607) 562-4001		TEST REPORT		NS ID#		
03-02	5						
RECEIVED F	FOR LAB BY: CMS	D	ATE: 12/06/2010 15:40			Pa	age 1 of 2
SAMPLE: AI SAMPLE	<b>r Cuttings</b> ED BY: SG		Lab ID: 10120828-001A Sample Time: 12/06/2010 11:48	Compo	site		
	roleum Hydrocarbons e Note: Analysis performed by N	<u>Result</u> 212 mg/Kg licrobac Labora	<u>Method</u> EPA 9071 torles, Inc-Erie Division	<u>sloq</u>	Analysis Start 12/08/10 14:20	<u>Analysis End</u> 12/08/10	<u>Analyst *</u>
SAMPLE: AI	r Cuttings		Lab ID: 10120828-001B	Compo	site		
	ED BY: SG		Sample Time: 12/06/2010 11:48	~ ~~			
Test		Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Moisture		41.8 %	Moisture Calc.	0.01	12/06/10 17:30	12/07/10	IC-SA
Free Liqu	id	< 0.1 %	EPA 9095A	0.1	12/06/10 17:05	12/06/10	IC-SA
pН		6.51@22.0°C	EPA 9045C		12/07/10 14:20	12/07/10	MED-SA
SAMPLE: Ai	r Cuttings		Lab ID: 10120828-001C	Compo	site		
	ED BY: SG	:	Sample Time: 12/06/2010 11:48	01.00			
<u>Test</u>		Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *
Sodium		393 mg/Kg	EPA 6010B	37.8	12/07/10 12:10	12/07/10	GSR-CV
Chloride		301 mg/Kg	Z EPA 300.0	46.9	12/07/10 13:24	12/08/10	HDP-CV
SAMPLE: TO	CLP Leachate of Air Cutting	8	Lab ID: 10120828-001E	Compo	site		
	ED BY: SG	:	Sample Time: 12/07/2010 8:00	<u>SLOQ</u>			
Test		<u>Result</u>	Method		Analysis Start	Analysis End	
	TCLP extracted	< 0.0008 mg/L		0.0008	12/07/10 10:15	12/09/10	KW-CV
	TCLP extracted	< 0.500 mg/L		0.500	12/08/10 12:15	12/08/10	GSR-CV
	TCLP extracted	< 10.00 mg/L		10.00	12/08/10 12:15	12/08/10	GSR-CV
	- TCLP extracted	< 0.100 mg/L		0.100	12/08/10 12:15	12/08/10 12/08/10	GSR-CV
	n - TCLP extracted	< 0.500 mg/L < 0.100 mg/L	EPA 6010B EPA 6010B	0.500 0.100	12/08/10 12:15 12/08/10 12:15	12/08/10 12/08/10	GSR-CV GSR-CV
	TCLP extracted CLP extracted	< 0.100 mg/L < 0.500 mg/L		0.500	12/08/10 12:15	12/08/10	GSR-CV GSR-CV

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Z Due to matrix blas, spike recovery was outside acceptance limits

Carrie M. Davis DATE: 12/10/2010 MANAGER v

Zinc - TCLP extracted

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10120828

12/08/10

**GSR-CV** 

Phone: (570) 888-0169 Fax: (570) 888-0717

SEND DATA	A TO:							
NAME:	Steve Gridley			W	O#: 1	10120828 2 of 2		
ADDRESS:	Talisman Energy USA, In 337 Daniel Zenker Dr	С.		P/	AGE: 2			
	Horseheads, NY 14845			P	O#: A	F78554		
PHONE: FAX:	(607) 731-0145 (607) 562-4001	TEST	REPORT	P	NS ID#			
03-02	5	······································						
RECEIVED I	FOR LAB BY: CMS	DATE:	12/06/2010 15:40			F	Page 2 of 2	
Nickel - 1	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12	:15 12/08/10	GSR-CV	
Selenium	a - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/08/10 12	:15 12/08/10	GSR-CV	
Silver - T	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/08/10 12	:15 12/08/10	GSR-CV	

EPA 6010B

0.200 12/08/10 12:15

**REMARKS:** 

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

< 0.200 mg/L

Z Due to matrix blas, splke recovery was outside acceptance limits

MANAGER	Μ	A	NA	٩G	E	R
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anic M. Davis

12/10/2010 DATE:

CHAIN OF CUSTODY PAGE 1 OF 1 REPORT TO: Talisman / UEG ARE SPECIAL DETECTION LIMITS geowetlands@aol.com W/O#: 10120828 NEEDED: YES / NO REFRIGERATE SAMPLES BEING USED FOR: IF YES, PLEASE ATTACH NYDEC ₩ PADEP AFTER COLLECTION DW DRINKING WATER SL SLUDGE IS A QC PACKAGE NEEDED? GW GROUND WATER SO SOIL CONTACT SW SURFACE WATER HZ HAZARDOUS **Steve Gridley** LANDFILL YES NO TRANSPORT WASTE WATER OTHER ww DE DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER IF YES, PLEASE ATTACH REQUIREMENTS PH# 607-731-0145 то Sample Trpe. Gener Composite PRESERVATIVE ADDED ON RECEIPT LABORATORY /н HYDROCHLORIC ACID ОН SODIUM HYDROXIDE FAX# IN COOLER S SULFURIC ACID AS ASCORBIC ACID BILL TO: Talisman Ν NITRIC ACID AC ACETIC ACID WITH ICE COMPOSITED ON RECEIPT SO 3 SODIUM SULFITE NH, AMMONIUM CHLORIDE Thio SODIUM THIOSULFATE ZN ZINC ACETATE THE OF SAMPLING NONE Ha MERCURIC CHLORIDE F78554 SAMPLE MATRIX DATE SAMPLED PRESERVATUE Please fill out all PROJECT DESCRIPTION An incomplete chain of custody may delay the applicable areas processing of your sample(s). SAMPLER SIGNATURE / AFFILIATION completely MED CONTAINER / SAMPLING POINT ANALYSIS TO BE PERFORMED LAB USE ONLY (PER CONTAINER) 12/6 1148 50 Ċ SS N TPH Air Cuttings 1 pH, Chlorides, Sodium 2 TCLP 8 RCRA Metals + Cu, Ni, Zn 3 Free Liquids / % Moisture 4 A- TPH 5 B-pH, Free liquid, 1. moisture C-Anions, metals Perform BTEX ONLY IF the TPH 6 exceeds 100,000 mg/Kg 7 D- TOTAL Sample 8 E-TCLP metals 2 HOUR TURNAROUND du 9 DAY TURNAROUND 10 11 LAB USE ONLY THEMPERATURE UPONICE OF FOR ARRIVALIONICE SAN DELIVEREDIBYS RELINQUISHED BY DATE: 1216110 TIME: RECEIVED BY: DATE: TIME: 540 1 DATE: RELINQUISHED BY: TIME: RECEIVED BY: DATE: TIME: 1 1 1 1 PATE 16 110 RELINQUISHED BY: DATE: TIME: RECEIVED BY 00

Fax: (570) 888-0717           SEND DATA TO: NAME:         Dina Brown COMPANY:         Tailsman Energy USA, Inc. ADDRESS:         WO#:         10121730           ADDRESS:         337 Daniel Zenker Dr Horseheads, NY 14945         PAGE:         1 of 3           PHONE:         (607) 562-4000         TEST REPORT         PWS ID#           FAX:         (607) 562-4001         TEST REPORT         PWS ID#           FE1H         RECEIVED FOR LAB BY: RML         DATE:         12/09/2010 15;45         Page 1 of 3           SAMPLE:         Inv. Cuttings         Lab ID: 10121730-001A         Grab         Analysis End	PA ID #: 08-0038 NY ID # 11216	80	Eas 2566 Si Phon	ark Analytics, In stern Division Pennsylvania Ave. ayre, PA 18840 e: (570) 888-0169	c.	Wo	k Order: 101	21730
NAME: COMPANY:         Dina Brown Talisman Energy USA, Inc. ADDRESS:         W0#:         10121730           ADDRESS:         337 Daniel Zenker Dr. Horseheads, NY 14845         PAGE:         1 of 3           PHONE:         (607) 562-4000         TEST REPORT         PWS ID#           F1H         RECEIVED FOR LAB BY: RML         DATE:         12/09/2010 15:45         Page 1 of 3           SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001A         Grab           SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001C         Grab           SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001C         Grab           SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001C         Grab           SAMPLE:         10         10121730-001C         Grab         12/14/10         HDP-CV           SAMPLE:         Nodolids         Sample Time:         12/08/2010 21:56         12/14/10         12/14/10			Fa	ix: (570) 888-0717				
COMPANY: Talisman Energy USA, Inc. ADDRESS: 337 Daniel Zenker Dr Horseheads, NY 14845         PAGE: 1 of 3 PO#: AF78554           PAGE: 1 of 3 PO#: AF78554           PHONE: (607) 562-4000 FAX: (607) 562-4001           TEST REPORT           PWS ID#           PLONE: (607) 562-4000           TEST REPORT           PAGE: 1 of 3           PO#: AF78554           PHONE: (607) 562-4000           TEST REPORT           PHONE: (607) 562-4000           TEST REPORT           Page 1 of 3           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001A         Grad           Sample Note: Analysis performed by QC Laboratories         SUCO           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001C         Crab           SAMPLE: Inv. Cuttings         Lab ID: 101	SEND DATA TO	):						
ADDRESS:       337 Daniel Zenker Dr. Horscheads, NY 14845       PAGE:       1 of 3         PHONE:       (607) 562-4000       TEST REPORT       PWS ID#         FAX:       (607) 562-4001       TEST REPORT       PWS ID#         E1 H       RECEIVED FOR LAB BY: RML       DATE:       12/09/2010 15:45       Page 1 of 3         SAMPLE:       Inv. Cuttings       Lab ID:       10121730-0014       Grab       SLOQ         SAMPLE:       Inv. Cuttings       Lab ID:       10121730-0016       SLOQ       Analvsis End       Analvsis End       Analvsis End       Analvsis End       Analvsis End       Analvsis End       Analvsis       12/16/10<					W	O#: 10′	21730	
ADDRESS. 337 Daming Zeriker D1 Horseheads, NY 14845       PO#: AF78554         PHONE:       (607) 562-4000       TEST REPORT       PWS ID#         FAX:       (607) 562-4001       Page 1 of 3         E1 H       RECEIVED FOR LAB BY: RML       DATE: 12/09/2010 15:45       Page 1 of 3         SAMPLE:       Inv. Cuttings       Lab ID: 10121730-001A       Grab         SAMPLE:       N. Cuttings       Lab ID: 10121730-001A       Grab         SAMPLE:       Neg ASIS %       Sweed 1030       12/15/10 3:30         Sample Note:       Analysis performed by QC Laboratories       Suco       Analysis End       Analysis End         SAMPLE:       Inv. Cuttings       Lab ID: 10121730-001C       Grab       Suco       Analysis End			С.		P	AGE: 1 o	F3	
FOR: APPOSE           PHONE: (607) 562-4000           FEST REPORT           PWS ID#           PWS ID#           PWS ID#           FEST REPORT           FAX: (607) 562-4000           E1 H           RECEIVED FOR LAB BY: RML         DATE: 12/09/2010 15:45         Page 1 of 3           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001A         Grab           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001C         Grab           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001D         Grab           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001D         Grab           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001D         Grab           SAMPLE: Inv. Cuttings         Lab ID: 1012173					17			
PHONE:       (607) 562-4000       TEST REPORT         FAX:       (607) 562-4001       Page 1 of 3         E1 H       RECEIVED FOR LAB BY: RML       DATE:       12/09/2010 15:45       Page 1 of 3         SAMPLE:       Inv. Cuttings       Lab ID:       10121730-001A       Grab         SAMPLED BY: SQ       Sample Time:       12/09/2010 15:45       Stopping       Analysis End       Analysis       12/15/10       12/15	HU	orseneaus, interaction of the second se			PC	D#: AF	78554	
PHONE:       (607) 562-4000       TEST REPORT         FAX:       (607) 562-4001       Page 1 of 3         E1 H       RECEIVED FOR LAB BY: RML       DATE:       12/09/2010 15:45       Page 1 of 3         SAMPLE:       Inv. Cuttings       Lab ID:       10121730-001A       Grab         SAMPLED BY: SQ       Sample Time:       12/09/2010 15:45       Stopping       Analysis End       Analysis       12/15/10       12/15					P٧	NS ID#		
E1 H         Page 1 of 3           RECEIVED FOR LAB BY: RML         DATE: 12/09/2010 15:45         Page 1 of 3           SAMPLE:         Inv. Cuttings         Lab ID: 10121730-001A         Grab           SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ         Analysis End	PHONE: (60	07) 562-4000	. T	ESTREPORT				
RECEIVED FOR LAB BY: RML         DATE:         12/09/2010         15:45         Page 1 of 3           SAMPLE:         Inv. Cuttings         Lab ID:         10/12/1730-001A         Grab         SIOQ         Analysis Start         Analysis End         Analysis	FAX: (60	07) 562-4001		,				
RECEIVED FOR LAB BY: RML         DATE:         12/09/2010         15:45         Page 1 of 3           SAMPLE:         Inv. Cuttings         Lab ID:         10/12/1730-001A         Grab         SIOQ         Analysis Start         Analysis End         Analysis	E1 H							
SAMPLE:         Inv. Cuttings         Lab ID: 10121730-001A         Grab           SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ         Analysis Start         Analysis End         Analysis Start         Analysis End         Analysis         Analysis End         Analysis End <td></td> <td></td> <td></td> <td>TE- 12/00/2010 15:45</td> <td></td> <td></td> <td>р</td> <td>ara 1 af ?</td>				TE- 12/00/2010 15:45			р	ara 1 af ?
SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ         Analysis Start         Analysis End	RECEIVED FOR			TE. 12/09/2010 15.45			P	age 1 of 3
Test         Result         Method         Analvsis Start         Analvsis End         A	SAMPLE: Inv. C.	uttings	· ·	Lab ID: 10121730-001A	Grab			
Test Ignitability         Result Neg ASIS °F         Method SW846 1030         Analysis Start 12/15/10 13:30         Analysis End 12/15/10         Analysis End Analysis         Analysis End Analysis         Analysis End Analysis         Analysis End Analysis         Analysis End Analysis         Analysis         Converting Analysis           SAMPLED BY: SG         Result         Method         Analysis <start< td="">         Analysis<end Analysis<start< td="">         Analysis<end Analysis<end Analysis<end Analysis<start< td="">         Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end Analysis<end< td=""><td>SAMPLED B</td><td>Y: SG</td><td>Sa</td><td>ample Time: 12/08/2010 21:56</td><td></td><td></td><td></td><td></td></end<></end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </end </start<></end </end </end </start<></end </start<>	SAMPLED B	Y: SG	Sa	ample Time: 12/08/2010 21:56				
Ignitability         Neg ASIS *F         SW846 1030         12/15/10 13:30         12/15/10           Sample Note:         Analysis performed by QC Laboratories         Grab         Stample Note:         Analysis performed by QC Laboratories           SAMPLE:         Inv. Cuttings         Lab ID: 10121730-001C         Grab         SLOQ           SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ         Analysis Start         Analysis End         Analys	Test		Result	Method	SLOQ	Analysis Star	Analysis End	Analyst *
Sample Note: Analysis performed by QC Laboratories           SAMPLE: Inv. Cuttings         Lab ID: 10121730-001C         Grab           SAMPLED BY: SG         Sample Time: 12/08/2010 21:56           Sample Time: 12/08/2010 21:56           Sample Time: 12/08/2010 21:56           Cyanide, Reactive         Analysis End         Analy								<u>Analyst</u>
SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001C         Grab           SAMPLED BY: SG         Sample Time:         12/06/2010 21:56         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis End         Analysis End         Analysis Tart           Cyanide, Reactive         < 0.2 mg/Kg	• •	te: Analysis performed by Q	-					
SAMPLED BY: SG         Sample Time: 12/08/2010 21:56           Test         Result         Method         Analysis Start         Analysis End         Analysis           Cyanide, Reactive         < 0.2 mg/Kg					<u> </u>			
Test         Result         Method         Analysis Start         Analysis End         Analysis I           Cyanide, Reactive         < 0.2 mg/Kg		_			Grab			
Test         Result         Method         Analysis Start         Analysis End         Analysis Maty           Cyanide, Reactive         < 0.2 mg/Kg	SAMPLED 8	Y: SG	Sa	ample Time: 12/08/2010 21:56	SLOQ			
Reactive Sulfide         16 mg/Kg         SW846 7.3         16         12/14/10         LTW-CV           SAMPLE:         Inv. Cuttings         Lab ID: 10121730-001D         Grab         Grab         Sample Time: 12/08/2010 21:56         SLOQ           Test         Result         Method         Analysis Start         Analysis End	Test		Result	Method	<u>×</u>	Analysis Star	Analysis End	Analyst *
SAMPLE:         Inv. Cuttings         Lab ID:         10121730-001D         Grab           SAMPLED BY: SG         Sample Time:         12/08/2010 21:56         SLOQ         Analysis Start         Analysis End         Analysis         Start         Analysis End         Analysis         Start         Analysis End         Analysis         Start         Analysis         Analysis         Analysis         Analysis         Analysis	Cyanide, Read	ctive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	12/13/10 8:56	12/14/10	HDP-CV
SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis Find         Analysis End         Analysis Find         Analysis End         Analysis End <td< td=""><td>Reactive Sulfic</td><td>de</td><td>16 mg/Kg</td><td>SW846 7.3</td><td>16</td><td>12/14/10 12:3</td><td>) 12/14/10</td><td>LTW-CV</td></td<>	Reactive Sulfic	de	16 mg/Kg	SW846 7.3	16	12/14/10 12:3	) 12/14/10	LTW-CV
SAMPLED BY: SG         Sample Time: 12/08/2010 21:56         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis Find         Analysis End         Analysis Find         Analysis End         Analysis End <td< td=""><td>SAMPLE: Inv Cu</td><td>uttinge</td><td></td><td>Lab ID: 10121730-001D</td><td>Grab</td><td></td><td></td><td></td></td<>	SAMPLE: Inv Cu	uttinge		Lab ID: 10121730-001D	Grab			
Test         Result         Method         Analysis Start         Analysis End         A			Sa					
% Solids         75.20 % Wght.         SM2540B         0.10         12/10/10 17:00         12/13/10         IC-SA           Total Volatile Solids         12.95 % Wght.         EPA 160.4         0.01         12/10/10 8:00         12/14/10         NFM-SA           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121730-001F         Grab         State					<u>SLOQ</u>			
Total Volatile Solids         12.95 % Wght.         EPA 160.4         0.01         12/10/10 8:00         12/14/10         NFM-SA           SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121730-001F         Grab         Sample Time: 12/11/2010 12:45         Grab         SLOQ         NFM-SA <u>Test</u> Result         Method         Analysis Start         Analysis End         Analysis *           Pyridine         < 0.10 mg/L								
SAMPLE:         TCLP Leachate of Inv. Cuttings         Lab ID: 10121730-001F         Grab           SAMPLED BY: SG         Sample Time: 12/11/2010 12:45         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis*           Pyridine         < 0.10 mg/L	% Solids		-					
SAMPLED BY: SG         Sample Time: 12/11/2010 12:45         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis*           Pyridine         < 0.10 mg/L	Total Volatile S	Solids	12.95 % Wght.	EPA 160.4	0.01	12/10/10 8:00	12/14/10	NFM-SA
SAMPLED BY: SG         Sample Time: 12/11/2010 12:45         SLOQ           Test         Result         Method         Analysis Start         Analysis End         Analysis*           Pyridine         < 0.10 mg/L	SAMPLE: TCLP	Leachate of Inv. Cutting	5	Lab ID: 10121730-001F	Grab			
Test         Result         Method         Analysis Start         Analysis End         A		-		ample Time: 12/11/2010 12:45				
Pyridine         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10         RHH-SA           1,4-Dichlorobenzene         < 0.10 mg/L	<b>T</b> +		Beault	Mathe	SLOQ	Applinic Car	Apoluoio Erd	Analysi *
1,4-Dichlorobenzene       < 0.10 mg/L					0.10			
o-Cresol         < 0.10 mg/L         EPA 8270C         0.10         12/15/10         7:48         12/15/10         RHH-SA           p-Cresol/m-Cresol         < 0.10 mg/L	•	07606	-					
p-Cresol/m-Cresol         < 0.10 mg/L         EPA 8270C         0.10         12/15/10 7:48         12/15/10         RHH-SA           Hexachloroethane         < 0.10 mg/L			-				3	
Hexachloroethane         < 0.10 mg/L         EPA 8270C         0.10         12/15/10         7:48         12/15/10         RHH-SA           Nitrobenzene         < 0.10 mg/L		esol	-					
Nitrobenzene         < 0.10 mg/L         EPA 8270C         0.10         12/15/10         7:48         12/15/10         RHH-SA	-							
			-					
		ladiene	-					
	1 ISABOING ODDI		or romane	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

R RPD outside accepted recovery limits

MANAGER

Carrie M. Davis

DATE: 12/16/2010

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121730

Phone: (570) 888-0169

		Fa	ix: (57	70) 888-0717					
SEND DATA	TO:								
NAME:	Dina Brown			•	W	O#:	1012	1730	
COMPANY:	Talisman Energy USA, Inc	<b>)</b> .							
ADDRESS:	337 Daniel Zenker Dr				PÆ	GE:	2 of 3	3	
	Horseheads, NY 14845				PC	D#:	AF78	3554	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	Т	EST	REPORT	P٧	VS ID#			
E1 H			* * * *						
RECEIVED F	OR LAB BY: RML	DA	TE: 1	2/09/2010 15:45				Pa	ige 2 of 3
2,4,6-Tricl	hlorophenol	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	7:48	12/15/10	RHH-SA
2,4,5-Tricl	hlorophenol	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	) 7:48	12/15/10	RHH-SA
Pentachlo	prophenol	< 0.50 mg/L		EPA 8270C	0.50	12/15/10	) 7:48	12/15/10	RHH-SA
2,4-Dinitro	otoluene	< 0.10 mg/L		EPA 8270Č	0.10	12/15/10	7:48	12/15/10	RHH-SA
Hexachlor	robenzene	< 0.10 mg/L		EPA 8270C	0. <b>10</b>	12/15/10	) 7:48	12/15/10	RHH-SA
Naphthale	ene	< 0.10 mg/L		EPA 8270C	0.10	12/15/10	) 7:48	12/15/10	RHH-SA
	LP Leachate of Inv. Cutting	5	La	ь ID: 10121730-001G	Grab				
	D BY: SG	Sa	ample T	ime: 12/07/2010 8:00					
SAMPLE	D BY: SG		ample T		<u>SLOQ</u>	Analysis	Start	Analysis End	Analyst *
SAMPLE <u>Test</u>		Result	ample T	Method		Analysis		Analvsis End	
SAMPLE <u>Test</u> Strontium	- TCLP extracted	<u>Result</u> < 0.050 mg/L	·	<u>Method</u> EPA 6010B	0.050	<u>Analvsis</u> 12/08/10		Analysis End 12/08/10	<u>Analvst *</u> GSR-CV
SAMPLE <u>Test</u> Strontium Sample	- TCLP extracted Note: Sample for TCLP extracte	<u>Result</u> < 0.050 mg/L ed Strontium was	s receiv	Method EPA 6010B ed on 12/6/10 at 15:40 b	0.050 y CMS.				
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b>	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting	<u>Result</u> < 0.050 mg/L ed Strontium was <b>s</b>	s receiv	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H	0.050				
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b>	- TCLP extracted Note: Sample for TCLP extracte	<u>Result</u> < 0.050 mg/L ed Strontium was <b>s</b>	s receiv	Method EPA 6010B ed on 12/6/10 at 15:40 b	0.050 y CMS.				
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b>	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting	<u>Result</u> < 0.050 mg/L ed Strontium was <b>s</b>	s receiv	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H	0.050 y CMS. Grab		12:15		
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting	<u>Result</u> < 0.050 mg/L ed Strontium was s	s receiv	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H ime: 12/11/2010 12:45	0.050 y CMS. Grab	12/08/10	12:15 Start	12/08/10	GSR-CV
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE <u>Test</u> pH	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting	<u>Result</u> < 0.050 mg/L ed Strontium was s <u>Result</u>	s recelv La ample T	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H 'ime: 12/11/2010 12:45 Method	0.050 y CMS. Grab	12/08/10	12:15 Start	12/08/10 Analysis End	GSR-CV
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <u>Test</u> pH SAMPLE: <b>ZH</b>	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting D BY: SG	<u>Result</u> < 0.050 mg/L ed Strontium was s <u>Result</u> 6.17@16.4°C	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B	0.050 y CMS. Grab <u>SLOQ</u> Grab	12/08/10	12:15 Start	12/08/10 Analysis End	GSR-CV
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <b>T</b> est pH SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b>	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting D BY: SG	Result < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H 'ime: 12/11/2010 12:45 <u>Method</u> SM4500H+B b ID: 10121730-001I 'ime: 12/12/2010 13:10	0.050 y CMS. Grab <u>SLOQ</u>	12/08/10 Analysis 12/14/10	12:15 Start 9 8:00	12/08/10 Analysis End 12/14/10	GSR-CV Analyst * SG-SA
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <b>T</b> PH SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b>	- TCLP extracted Note: Sample for TCLP extracted CLP Leachate of Inv. Cutting D BY: SG IE Extract of Inv. Cuttings D BY: SG	Result < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u>	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H 'ime: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I 'ime: 12/12/2010 13:10 Method	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u>	12/08/10 Analysis 12/14/10 Analysis	12:15 Start 8:00	12/08/10 Analysis End 12/14/10 Analysis End	GSR-CV Analyst * SG-SA Analyst *
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <b>T</b> SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b> SAMPLE: <u>Test</u> Benzene	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting D BY: SG E Extract of Inv. Cuttings D BY: SG	<u>Result</u> < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I Time: 12/12/2010 13:10 Method EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250	12/08/10 Analysis 12/14/10 <u>Analysis</u> 12/13/10	12:15 <u>Start</u> 98:00 <u>Start</u> 98:11	12/08/10 <u>Analvsis End</u> 12/14/10 <u>Analvsis End</u> 12/13/10	Analyst * SG-SA Analyst * CTM-SA
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <b>TC</b> SAMPLE <u>Test</u> Benzene Carbon te	- TCLP extracted Note: Sample for TCLP extracter CLP Leachate of Inv. Cutting DBY: SG IE Extract of Inv. Cuttings DBY: SG trachloride	<u>Result</u> < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I Time: 12/12/2010 13:10 Method EPA 8260B EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250 0.0250	12/08/10 Analysis 12/14/10 <u>Analysis</u> 12/13/10 12/13/10	12:15 <u>Start</u> 0 8:00 <u>Start</u> 0 8:11 0 8:11	12/08/10 <u>Analysis End</u> 12/14/10 <u>Analysis End</u> 12/13/10 12/13/10	Analyst * SG-SA Analyst * CTM-SA CTM-SA
SAMPLE Test Strontium Sample SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC SAMPLE: TC Dest Benzene Carbon te Chloroben	- TCLP extracted Note: Sample for TCLP extracted CLP Leachate of Inv. Cutting ID BY: SG IE Extract of Inv. Cuttings ID BY: SG Itrachloride	<u>Result</u> < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I Time: 12/12/2010 13:10 Method EPA 8260B EPA 8260B EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250 0.0250 0.0250	Analysis 12/08/10 Analysis 12/14/10 Analysis 12/13/10 12/13/10 12/13/10	Start 8:00 Start 8:11 8:11 8:11	12/08/10 <u>Analysis End</u> 12/14/10 <u>Analysis End</u> 12/13/10 12/13/10 12/13/10	Analyst SG-SA Analyst CTM-SA CTM-SA CTM-SA
SAMPLE Test Strontium Sample SAMPLE: TC SAMPLE: TC SAMPLE: ZH SAMPLE: ZH SAMPLE: ZH SAMPLE: Test Benzene Carbon te Chloroben Chloroben	- TCLP extracted Note: Sample for TCLP extracted CLP Leachate of Inv. Cutting ID BY: SG IE Extract of Inv. Cuttings ID BY: SG trachloride Izene n	<u>Result</u> < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 by b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I Time: 12/12/2010 13:10 Method EPA 8260B EPA 8260B EPA 8260B EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250 0.0250 0.0250 0.0250	Analysis 12/08/10 Analysis 12/14/10 12/13/10 12/13/10 12/13/10	Start 8:00 Start 8:11 8:11 8:11 9:11	12/08/10 <u>Analysis End</u> 12/14/10 <u>Analysis End</u> 12/13/10 12/13/10 12/13/10 12/13/10	Analyst SG-SA Analyst CTM-SA CTM-SA CTM-SA CTM-SA
SAMPLE Test Strontium Sample SAMPLE: TC SAMPLE: TC SAMPLE: ZH SAMPLE: ZH SAMPLE: ZH SAMPLE: ZH SAMPLE: Chloroben Chloroben Chloroben 1,2-Dichlo	- TCLP extracted Note: Sample for TCLP extracted <b>CLP Leachate of Inv. Cutting</b> D BY: SG <b>IE Extract of Inv. Cuttings</b> D BY: SG trachloride nzene n wroethane	<u>Result</u> < 0.050 mg/L ed Strontium was <b>s</b> Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 b b ID: 10121730-001H 'ime: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I 'ime: 12/12/2010 13:10 Method EPA 8260B EPA 8260B EPA 8260B EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250 0.0250 0.0250 0.0250 0.0250	Analysis 12/08/10 Analysis 12/14/10 12/13/10 12/13/10 12/13/10 12/13/10	Start 8:00 Start 8:11 8:11 8:11 8:11 8:11	12/08/10 <u>Analysis End</u> 12/14/10 <u>Analysis End</u> 12/13/10 12/13/10 12/13/10 12/13/10 12/13/10	Analyst SG-SA Analyst CTM-SA CTM-SA CTM-SA CTM-SA CTM-SA
SAMPLE <u>Test</u> Strontium Sample SAMPLE: <b>TC</b> SAMPLE: <b>T</b> PH SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b> SAMPLE: <b>ZH</b> SAMPLE Carbon ter Carbon ter Chlorobern Chloroforn	- TCLP extracted Note: Sample for TCLP extracte CLP Leachate of Inv. Cutting DBY: SG E Extract of Inv. Cuttings DBY: SG DBY: SG trachloride nzene n wroethane proethene	<u>Result</u> < 0.050 mg/L ed Strontium was s Sa <u>Result</u> 6.17@16.4°C Sa <u>Result</u> < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L < 0.0250 mg/L	s recelv La ample T La	Method EPA 6010B ed on 12/6/10 at 15:40 by b ID: 10121730-001H Time: 12/11/2010 12:45 Method SM4500H+B b ID: 10121730-001I Time: 12/12/2010 13:10 Method EPA 8260B EPA 8260B EPA 8260B EPA 8260B	0.050 y CMS. Grab <u>SLOQ</u> Grab <u>SLOQ</u> 0.0250 0.0250 0.0250 0.0250	Analysis 12/08/10 Analysis 12/14/10 12/13/10 12/13/10 12/13/10	Start 8:00 Start 8:11 8:11 8:11 8:11 8:11 8:11 8:11	12/08/10 <u>Analysis End</u> 12/14/10 <u>Analysis End</u> 12/13/10 12/13/10 12/13/10 12/13/10	Analyst * SG-SA

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

B Analyte detected in the associated Method Blank

RPD outside accepted recovery limits R

MANAGER

Carrie M. Davis

DATE:

12/16/2010

# **Benchmark Analytics, Inc.**

**Eastern Division** 

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10121730

**PWS ID#** 

Phone: (570) 888-0169 Fax: (570) 888-0717

**TEST REPORT** 

#### SEND DATA TO:

NAME:		WO#:	10121730
	Talisman Energy USA, Inc. 337 Daniel Zenker Dr	PAGE:	3 of 3
	Horseheads, NY 14845	PO#:	AF78554

#### PHONE: (607) 562-4000 FAX: (607) 562-4001

E1 H RECEIVED FOR LAB BY: RML	DAT	E: 12/09	9/2010 15:45			P	age 3 of 3
Tetrachloroethene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Toluene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:1 <b>1</b>	12/13/10	CTM-SA
Trichloroethene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,2,4-Trimethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
1,3,5-Trimethylbenzene	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Vinyl chloride	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
Methyl tert-butyl ether	< 0.0250 mg/L		EPA 8260B	0.0250	12/13/10 8:11	12/13/10	CTM-SA
2-Butanone	< 0.0500 mg/L		EPA 8260B	0.0500	12/13/10 8:11	12/13/10	CTM-SA
SAMPLE: ASTM Extract of Inv. Cuttings	!	Lab ID:	10121730-001J	Grab			
SAMPLED BY: SG		ple Time:	12/10/2010 11:15	SLOQ			
<u>Test</u>	<u>Result</u>		Method		Analysis Start	Analysis End	Analyst *
Chemical Oxygen Demand	152 mg/L	в	HACH 8000	10	12/11/10 8:00	12/13/10	KMF-SA
SAMPLE: ASTM Extract of Inv. Cuttings	1	Lab ID:	10121730-001L	Grab			
SAMPLED BY: SG	San	nple Time:	12/10/2010 11:15	SLOQ			

Method

Lab ID: 10121730-001M

Method

SW846/9023

Sample Time: 12/10/2010 10:25

SM4500H+B

SM2540B

**REMARKS:** 

Test

**Total Solids** 

Test

SAMPLE: Inv. Cuttings SAMPLED BY: SG

**Total Organic Halides** 

pН

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

R

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Result

7.05@16.7°C

342 mg/L

Result

< 5.00 mg/kg

Analyte detected in the associated Method Blank В

RPD outside accepted recovery limits R

MANAGER

Cani	M. Davis

Sample Note: Analysis performed by Analytical Services, Inc.

12/16/2010 DATE:

Analysis Start

12/14/10 8:00

12/10/10 17:00

Analysis Start

12/15/10 15:45

0.10

Grab

**SLOQ** 

5.00

Analysis End Analyst \*

Analysis End Analyst\*

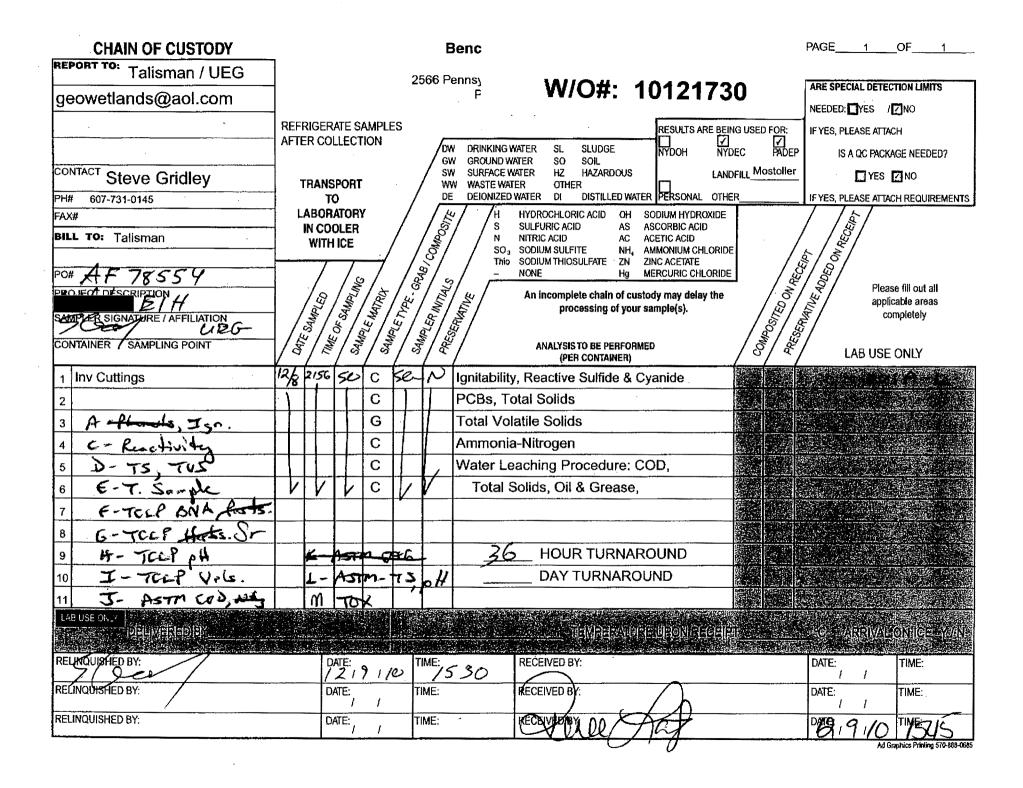
SG-SA

IC-SA

12/14/10

12/13/10

12/15/10





COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or leg each attach	nust be fully and accura ibly printed in the spaces ed sheet as Form 26R, he date on attached shee	ace is necessary, ider per and identify the c	i <b>tify</b> Da		JSE ONLY d & General Notes	
General Refe	erence 287.54					
Date Prepare	ed/Revised Feb	oruary 11, 2011				
	SECTION A.	<b>CLIENT</b> (GENERATOR	R OF THE WASTE) II	NFORMA	TION	
Company Na						
	ergy USA Inc. ry, Name of Parent Comp				EDA (	Generator ID#
Talisman Er		any			N/A	Sellerator ID#
Company Ma	ailing Address Line 1	C	ompany Mailing Addre	ss Line 2		
50 Pennwoo	od Place Idress Last Line – City	State	7:	Phon		<b>E</b> _*4
Warrendale	iuress Last Line – City	PA	<b>Zip+4</b> 15086		e 814-530	Ext
	ontact Last Name	First Name	MI	(121)	Suffix	
Brown	_	Dina				
Municipality Warrendale			County			
Contact Pho	ne Ext	Contact Email Address	Allegheny			
(724) 814-53		dybrown@talismanusa.c	com			
		y Mailing Address (noted a				Yes 🛛 No
If 'No'. descr	ibe location of waste gen	eration and storage. Drill concerned at 778 Cease Drive,	cuttings are generated d	uring natura	l gas drilli	ng operations at
containers on		ocated at 110 Cease Drive,	Troy Township, Bradiord	County, Pr	A. Waste	is stored in
Containers on	site.					
Municipality	Troy	County Bradfo			tate	PA
Municipality	Troy	SECTION B. WAST				PA
Municipality Residual	Troy Residu	SECTION B. WAST	E DESCRIPTION	Unit	of	Time
Municipality Residual Waste Code	Troy Residu Code D	SECTION B. WAST ual Waste rescription	E DESCRIPTION Amount	Unit Meas	of ure	
Municipality Residual	Troy Residu	SECTION B. WAST ual Waste rescription	E DESCRIPTION	Unit	of	Time
Municipality Residual Waste Code 810	Troy Residu Code D Drill cuttings (oil and g	SECTION B. WAST ual Waste escription jas) 1. GENERAL P	E DESCRIPTION Amount 1,094 ROPERTIES	Unit Meas	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH R	Troy Residu Code D Drill cuttings (oil and g ange 8.8	SECTION B. WAST ual Waste escription gas) 1. GENERAL P 7 to	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or lease	Unit Meas	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH R	Troy Residu Code D Drill cuttings (oil and g	SECTION B. WAST ual Waste escription gas) 1. GENERAL P 7 to Liquid Waste (EPA Me	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least othod 9095)	Unit Meas	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH R	Troy Residu Code D Drill cuttings (oil and g ange 8.8	SECTION B. WAST ual Waste escription gas) 1. GENERAL P 7 to	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least othod 9095) 95)	Unit Meas	of ure	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8	SECTION B. WAST ual Waste escription gas) 1. GENERAL P 7 to Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least thod 9095) 95) ture & pressure) Odd	Unit Meas cuyd lb mowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State	SECTION B. WAST ual Waste description gas) 1. GENERAL P 7 to Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least thod 9095) 95) ture & pressure) Odd Phases of Separation	Unit Meas cuyd lb mowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State	SECTION B. WAST ual Waste escription gas) 1. GENERAL P 7 to Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least thod 9095) 95) ture & pressure) Odd Phases of Separation	Unit Meas cuyd lb mowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State	SECTION B. WAST ual Waste description gas) 1. GENERAL P 7 to Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or least thod 9095) 95) ture & pressure) Odd Phases of Separation eparation. Soil and Ro	Unit Meas cuyd lb mowledge)	of ure ☐ gal ⊠ ton	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys c. Phys c. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State ical Appearance	SECTION B. WAST ual Waste description gas) 1. GENERAL P 7 to Liquid Waste (EPA Me Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or leased	Unit Meas cuyd ib mowledge) or <u>Earth</u> One ock Fragme	of ure ☐ gal ⊠ ton y / Slight	Time Frame
Municipality Residual Waste Code 810 a. pH R b. Phys c. Phys c. Phys	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State ical Appearance esults of a detailed chem uctions, is attached.	SECTION B. WAST ual Waste lescription jas) 1. GENERAL P 7 to Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or leased	Unit Meas cuyd ib mowledge) or <u>Earth</u> One ock Fragme	of ure gal X ton y / Slight	Time         Frame         One Time         Petroleum         Yes       No
Municipality Residual Waste Code 810 a. pH R b. Phys c. Phys c. Phys a. The r instru b. A det	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State ical Appearance esults of a detailed chem attached. ailed description of the w	SECTION B. WAST ual Waste lescription jas) 1. GENERAL P 7 to Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the waste sampling method is a	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or leased	Unit Meas cuyd lb mowledge) or Earth One ock Fragme	of ure gal X ton y / Slight ents	Time         Frame         One Time         Petroleum         Yes       No         Yes       No
Municipality Residual Waste Code 810 a. pH R b. Phys c. Phys c. Phys a. The r instru b. A det	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State ical Appearance esults of a detailed chem actions, is attached. ailed description of the w puality assurance/quality	SECTION B. WAST ual Waste lescription jas) 1. GENERAL P 7 to Liquid Waste (EPA Met Solid (EPA Method 900 Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or leased	Unit Meas cuyd lb mowledge) or Earth One ock Fragme	of ure gal X ton y / Slight ents	Time         Frame         One Time         Petroleum         Yes       No
Municipality Residual Waste Code 810 a. pH R b. Phys c. Phys c. Phys c. Phys c. The r instru b. A det c. The r attact d. The r	Troy Residu Code D Drill cuttings (oil and g ange 8.8 ical State ical Appearance esults of a detailed chem attached. ailed description of the w uality assurance/quality hed. esults of the hazardous w	SECTION B. WAST ual Waste lescription jas) 1. GENERAL P 7 to Liquid Waste (EPA Met Solid (EPA Method 90) Gas (ambient tempera Color Greyish Black Number of Solid or Liquid Describe each phase of s 2. CHEMICAL ANALYS ical characterization of the waste sampling method is a	E DESCRIPTION Amount 1,094 ROPERTIES (based on analyses or leased	Unit Meas cuyd lb mowledge) or Earth One ock Fragme	of ure gal X ton y / Slight ents	Time         Frame         One Time         Petroleum         Yes       No         Yes       No

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS						
а.	A detailed description of the r the waste, as specified in the			esses producing	🛛 Yes	🗌 No				
b.	A schematic of the manufactu as specified in the instruction	s, is attached.		-	🛛 Yes	🗌 No				
с.	If portions of the information a confidentiality claim, as des			n for 🗌 Yes	No No	⊠ N/A				
	SECTION C. MANAGEMENT OF RESIDUAL WASTE									
		1. PROCESSING OR D	ISPOSAL FACILITY (IE	ES)						
The a	rea below (ad.) will accommod				if necessary.					
а.	Solid waste permit number(s) 101243	for processing or dispos	al facility being util	ized.						
b.	Facility Name	Northern Tier Solid Wa								
	Address Line 1	108 Steam Hollow Roa	ad							
	Address Line 1									
	Address City State ZIP	Troy	PA	16947						
	Municipality	West Burlington Twp	County	Bradford						
с.	Facility Contact Name	Charles Woodward								
	Title									
	Phone	(570) 297-4177	Email Address	chuckwoodward	@epix.net					
d.	Volume of waste shipped to p 1,094	cu yd gal	cility in the previous	-						
а.	Solid waste permit number(s)	for processing or dispos	al facility being util	ized.						
b.	Facility Name									
	Address Line 1	······								
	Address Line 1									
	Address City State ZIP									
	Municipality		County							
c.	Facility Contact Name									
	Title									
	Phone		Email Address							
d.	Volume of waste shipped to p	ocessing or disposal fac	Lility in the previous							
		2. BENEF	ICIAL USE			San Sa				
a.	Has the waste been approved	for beneficial use?			Ves	No No				
	If "Yes", list the general permi	t number or approval nu	mber.			_				
b.	Volume of waste beneficially u									
	0	cu yd 🗌 gal	🛄 lb 🔄 ton	(check one)						

			SECTION D. CERTIFICATION						
Report obtain knowle	I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check	the following, if applicat	ole:							
	I certify the information and has not chan	•	ired in Section B-1, General Properties was supplied to the Department for the year						
	Form Submitted:		Form 26R						
			Other (specify)						
	Date Submitted:								
	I certify the information and has not chan		ired in Section B-2, Chemical Analysis was supplied to the Department for the year						
	Form Submitted:		Form 26R						
			Other (specify)						
	Date Submitted:								
	l certify the information i for the year and h	•	ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.						
	Form Submitted:		Form 26R						
			Other (specify)						
	Date Submitted:								
Name	of Responsible Official		Title Environmental Specialist						
Dina B Signati	AL.	Č	Date 2/2.5/4						

SEND DATA TO:

NAME:

PHONE:

FAX:

Steve Gridley

COMPANY: Talisman Energy USA, Inc.

(607) 562-4000 (607) 562-4001

Horseheads, NY 14845

ADDRESS: 337 Daniel Zenker Dr

# Benchmark Analytics, Inc. Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

#### Work Order: 10030587

WO#: 10030587PAGE: 1 of 1PO#:PWS ID#

**TEST REPORT** 

Inv. Spill RECEIVED FOR LAB BY: DLM2	DATE:	03/03/2010 9:38	~		Р	age 1 of 1
SAMPLE: Pad-Clean Soil-W1	L	ab ID: 10030587-001A.	Compo	site	<u> </u>	
SAMPLED BY: SG	Sample	Time: 03/02/2010 12:00				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
pH	8.87 @ 24.2°C	EPA 9045D		03/08/10 14:37	03/08/10	NC-CV
Total Petroleum Hydrocarbons	< 170 mg/Kg	EPA 1664A	170	03/11/10 9:00	03/11/10	DTG-CV
SAMPLE: Pad-Clean Soil-W1	L	ab ID: 10030587-001C	Compo	site		
SAMPLED BY: SG	Sample	Time: 03/02/2010 12:00				
Test	Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *
Mercury - TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	03/11/10 8:30	03/12/10	KW-CV
Arsenic - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Barium - TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	03/10/10 13:40	03/11/10	RMD-CV
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	03/10/10 13:40	03/11/10	RMD-CV
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	03/10/10 13:40	03/11/10	RMD-CV
Zinc - TCLP extracted	6.15 mg/L	EPA 6010B	0.200	03/10/10 13:40	03/11/10	RMD-CV

**REMARKS:** 

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Curie M. Davis

.

DATE: 3/12

3/12/2010

2540-PM-BWM0347 Rev. 1/2011 pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 26R, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.					tify Date Receive	DEP.USE ONLY Date Received & General Notes	
General	Refe	rence 287.54					
Date Pre	pare		bruary 11, 2011				
			CLIENT (GENERATOR	R OF THE WASTE) IN	FORMATION		
Compan							
If a Subs	idiar	ergy USA Inc. y, Name of Parent Com			EPA	Generator ID#	
Talisma	n Ene	ergy Inc.			N/A		
Compan	y Mai	ling Address Line 1	C	ompany Mailing Addre	ss Line 2		
50 Penn			04-4-	7:	DLana		
Warrenc		dress Last Line – City	State PA	<b>Zip+4</b> 15086	Phone (724) 814-530	Ext	
		ntact Last Name	First Name	MI	Suffi		
Brown	-		Dina				
Municipa				County			
Warrenc Contact		e Ext	Contact Email Address	Allegheny			
(724) 81			dybrown@talismanusa.c	om			
			ny Mailing Address (noted a			Yes 🛛 No	
	escri	be location of waste ger	neration and storage. Drill o	cuttings are generated du	uring natural gas drill	ing operations at	
the container			ted at 1749 Lodge Hill Road,	Columbia Township, Bra	adford County, PA. V	Vaste is stored in	
Municipa		Columbia	County Bradfo	ord	State	PA	
	-		SECTION B. WAST	<b>E DESCRIPTION</b>			
Residu			ual Waste		Unit of	Time	
Waste C	ode	Code [	Description	Amount	Measure	Frame	
810		Drilling Cuttings (Oil a	and Gas)	240	<u> </u>	One Time	
			1. GENERAL P	an na sharan waxa ku u yu yu yu ya ya ku ku ku yu yu yu yu yu yu yu yu yu yu yu yu yu			
	H Ra			(based on analyses or k	nowledge)		
b. P	hysio	cal State	Liquid Waste (EPA Me				
			Solid (EPA Method 90)	,			
c. P	hvsid	al Appearance	Color Grevish Black	······································	r Earthy / Slight	Petroleum	
			Number of Solid or Liquid				
			Describe each phase of s	eparation. Soil and Ro	ck Fragments		
	del altres						
a. T	ho ro	sults of a detailed chem	2. CHEMICAL ANALYS	Contraction of the second of the second second second second second second second second second second second s	n the 🛛	Yes No	
a. The results of a detailed chemical characterization of the waste, as described in the X Yes No instructions, is attached.							
	A detailed description of the waste sampling method is attached.						
c. The quality assurance/quality control procedures employed by the laboratory(ies) is Yes No							
_			control procedures employ		•		
	ttach	ed.				Yes 🗆 No	
d. T	ttach he re	ed. sults of the hazardous	waste determination is atta	ched.		Yes No	

230.899	3	PROCESS DESCRIPTION	SCHEMATIC ATTAC	HMENTS			
a.							
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.						
C.	If portions of the information submitted are confidential, the substantiation for Yes No N/A a confidentiality claim, as described in the instructions, is attached.						
	SECTIO	ON C. MANAGEME	NT OF RESIDU	IAL WASTE			
		1. PROCESSING OR D	ISPOSAL FACILITY	ES)			
The ar	ea below (ad.) will accommod	ate the identification of t	wo facilities. Attach	additional sheets	if necessary.		
a.	Solid waste permit number(s) for processing or disposal facility being utilized. 100361						
b.	Facility Name	McKean County Land	āll				
	Address Line 1	19 Ness Lane					
	Address Line 1						
	Address City State ZIP	Kane	PA	16735			
	Municipality	Sergeant Twp	County	McKean			
C.	Facility Contact Name Title	Mike Manderfeld					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com		
d.	Volume of waste shipped to p 114 Solid waste permit number(s)	cu yd 🗌 gal	b 🛛 ton	(check one)			
a.	8-4630-00010	to processing of dispos	sai lacinty being util	izeu.			
b.	Facility Name	Hakes C&D Landfill					
	Address Line 1	4376 Manning Ridge F	Road		- <u></u>		
	Address Line 1						
	Address City State ZIP	Painted Post	NY	14870			
	Municipality	Erwin Twp	County	Steuben			
с.	Facility Contact Name	Joseph Boyles					
	Title						
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	illa.com		
d.	Volume of waste shipped to p		cility in the previous	year.			
	50	cu yd 🗌 gal	🗌 lb 🛛 ton	(check one)			
		2. BENER	ICIAL USE		÷		
a.	Has the waste been approved for beneficial use?						
	If "Yes", list the general permit number or approval number.						
b.							
	0 📋	cu yd 🔲 gal	b ton	(check one)			

	3.	PROCESS DESCRIPTION &	SCHEMATIC ATTAC	HMENTS				
a.	A detailed description of the r the waste, as specified in the		tion control proce	sses producing	Yes Yes	No No		
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, Xes No as specified in the instructions, is attached.							
C.	If portions of the information submitted are confidential, the substantiation forYesNoN/A a confidentiality claim, as described in the instructions, is attached.							
	SECTIO	ON C. MANAGEMEN						
		1. PROCESSING OR DIS	POSAL FACILITY(IE	S)				
The ar	ea below (ad.) will accommod	ate the identification of two	o facilities. Attach	additional sheets	if necessary.			
a.	Solid waste permit number(s) 9-0232-00003	for processing or disposa	I facility being utili	ized.				
b.	Facility Name	Hyland Landfill						
i	Address Line 1	6653 Herdman Road						
	Address Line 1							
[	Address City State ZIP	Angelica	NY	14709				
	Municipality	Angelica	County	Allegany				
с.	Facility Contact Name	Larry Shilling						
	Title							
	Phone	(585) 466-7271	Email Address	larry shilling@ca	sella.com			
d.	Volume of waste shipped to p	rocessing or disposal facil cu yd gal	i <b>ty in the previous</b> ] ib ⊠ ton			·		
а.	. Solid waste permit number(s) for processing or disposal facility being utilized. 8-0728-00004							
b.	Facility Name	Chemung County Landf						
	Address Line 1	1690 Lake Street						
	Address Line 1							
	Address City State ZIP	Elmira	NY	14903				
	Municipality	Elmira	County	Chemung				
C.	Facility Contact Name	Carla Canjar						
	Title	Environmental Manager			·····			
	Phone		Email Address	carla.canjar@ca	sella.com			
d.	Volume of waste shipped to p	rocessing or disposal facil	ity in the previous	vear.				
	20	cuyd 🗌 gal 🚺	] lb 🛛 ton					
		2. BENEFIC	IAL USE	21				
a.	Has the waste been approved				🗌 Yes	🖾 No		
	If "Yes", list the general permit number or approval number.							
b.	Volume of waste beneficially u		<u>-</u>					
	0 🗌	cuyd 🗌 gal 🗌	b ton	(check one)				

and the second second	•	An and the second states the second states of the second states and the second states and									
S. 1999.		PROCESS DESCRIPTION					2.24				
a.	A detailed description of the the waste, as specified in the			processes produc	ing 🛛	Yes 🗌	No				
b.	A schematic of the manufacturing and/or pollution control processes producing the waste, X Yes No as specified in the instructions, is attached.										
C.	c. If portions of the information submitted are confidential, the substantiation for Yes No N/A a confidentiality clalm, as described in the instructions, is attached.										
	SECTIO	DN C. MANAGEM	ENT OF RES	IDUAL WAS	ſE	<u> </u>					
		1. PROCESSING OR	DISPOSAL FACILI	TY(IES)	Million						
The a	rea below (ad.) will accommod				heets if neco	essary.					
a.	Solid waste permit number(s) 100945	for processing or dispo	osal facility being	g utilized.							
b.	Facility Name	Cumberland County	Landfill								
	Address Line 1	135 Vaughn Road									
	Address Line 1	¥									
	Address City State ZIP	Newburg	PA	17	240						
	Municipality	Newburg Boro	County	Cumberlar	nd						
с.	Facility Contact Name	Dusty Hilbert									
<b>U</b> .	Title	Compliance Manager									
	Phone	(717) 729-5261	Email Addres	s dhilbort@i	swaste.com						
		. ,			swaste.com						
d.	Volume of waste shipped to p	rocessing or disposal f cu yd gal	acility in the prev		k one)						
a.	Solid waste permit number(s)	for processing or dispo	osal facility being	y utilized.							
b.	Facility Name										
	Address Line 1										
	Address Line 1				***=-						
	Address City State ZIP										
	Municipality		County	,							
С.	Facility Contact Name										
0.	Title				"ret						
	Phone		Email Addres								
	·										
d.	Volume of waste shipped to p		·	-							
		cuyd 🗌 gal		ton (chec	k one)		I				
		2. Bene	FICIAL USE	All and the second							
a.	Has the waste been approved	for beneficial use?				Yes 🛛	No				
	If "Yes", list the general permi	t number or approval n	umber.								
b.	Volume of waste beneficially i										
	0 Ú	cu yd 🗌 gal	□ lb □	ton (cheo	k one)						

		SECTION D. CERTIFICATION						
I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Annual Report and all attached documents and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I verify that the submitted information is true, accurate and complete to the best of my knowledge. I understand that the submission of false information herein is made subject to the penalties of 18 Pa. C.S. §4904, relating to unsworn falsification to authorities, which include fine and imprisonment.								
Check the following, if applical	ole:							
I certify the information	•	ired in Section B-1, General Properties was supplied to the Department for the year						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information and has not chan	-	ired in Section B-2, Chemical Analysis was supplied to the Department for the year						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
I certify the information for the year and h	•	ed in Section B-3, Process Description and Schematic, was supplied to the Department t changed.						
Form Submitted:		Form 26R						
		Other (specify)						
Date Submitted:								
Name of Responsible Official		Title Environmental Specialist						
Dina Brown								
Signature	-2	50000 Date 2/28/11						

LAB ID: 08-00380 LAB ID: 39-00401		<b>East</b> 2566 P	rk Analytics, Ir ern Division ennsylvania Ave. rre, PA 18840	<b>1C.</b> Work Order: 10124000				
			(570) 888-0169 (570) 888-0717					
SEND DATA	TO:							
NAME:	Dina Brown			W	O#: 1012	4000		
COMPANY:	Talisman Energy USA, II	nc.		P/	AGE: 1 of 4	4		
ADDRESS:	337 Daniel Zenker Dr Horseheads, NY 14845							
	10130112003, 111 14040	•		P	O#: AF 7	8737		
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TE	ST REPORT	P\	WS ID#	•		
J4H	ł Well Pad							
RECEIVED F	OR LAB BY: CMS	DATE	: 12/28/2010 13:50			Pa	age 1 of 4	
SAMPLE: Air	r Cuttings		Lab ID: 10124000-001A	Grab				
	D BY: DJD	Sam	ple Time: 12/28/2010 9:45					
Test		Result	Method	SLOQ	Analysis Start	Analysis End	Anaivst *	
	oleum Hydrocarbons	<190 mg/Kg	EPA 9071	190	12/29/10 15:10	12/29/10		
Sample	Note: Analysis performed by I	Aicrobac Laboratories	s, Inc-Erie Division.					
SAMPLE: Air	r Cuttings		Lab ID: 10124000-001B	Grab				
SAMPLE	D BY: DJD	Samj	ple Time: 12/28/2010 9:45	01.00				
Test		Result	Method	<u>SLOQ</u>	Analysis Start	Analysis End	Analyst *	
Moisture		71.4 %	Moisture Calc.	0.01	01/03/11 11:30	01/04/11	KMF-SA	
Free Liqui	id	< 0.1 %	EPA 9095A	0.1	12/28/10 17:05	12/28/10	IC-SA	
рН		12.24@19.8°C	EPA 9045C		12/29/10 11:41	12/29/10	SG-SA	
SAMPLE: Air	r Cuttings		Lab ID: 10124000-001C	Grab				
SAMPLE	D BY: DJD	Samj	ple Time: 12/28/2010 9:45	er oo				
Test		Result	Method	<u>sloq</u>	Analysis Start	Analysis End	Analyst *	
Sodium		941 mg/Kg	EPA 6010B	69.4	12/30/10 10:00	01/03/11	GSR-CV	
Chloride		926 mg/Kg	EPA 300.0	48.0	01/04/11 12:43	01/05/11	HDP-CV	
ASTMD C	Chloride	43.7 mg/L	EPA 300.0	25.0	01/07/11 15:12	01/07/11	HDP-CV	
ASTMD pl	н	12.25 @ 19.3°C	SM4500H+B		01/07/11 14:22	01/07/11	LTW-CV	
Cyanide, F	Reactive	< 0.2 mg/Kg	SW 7.3.3.2	0.2	01/06/11 9:28	01/07/11	HDP-CV	
Reactive S	Sulfide	< 64 mg/Kg	SW846 7.3	64	01/10/11 8:55	01/10/11	LTW-CV	
SAMPLE: TC	LP Leachate of Air Cutting	IS	Lab ID: 10124000-001E	Grab				
SAMPLE	D BY: DJD	Samj	ple Time: 12/29/2010 8:00	81.00				
Test		Result	Method	SLOQ	Analysis Start	Analysis End	Analyst *	
	TCLP extracted	< 0.0008 mg/L	EPA 7470A	0.0008	12/30/10 11:30	01/03/11	KW-CV	
•	TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-CV	
Barium - T	TCLP extracted	< 10.00 mg/L	EPA 6010B	10.00	12/30/10 9:30	01/03/11	GSR-CV	

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA L Value above calibration range but within annually verified linear range

MANAGER

Carrie M. Davis

DATE:

1/12/2011

SEND DATA TO:

NAME:

# **Benchmark Analytics, Inc. Eastern Division**

2566 Pennsylvania Ave. Sayre, PA 18840

Phone: (570) 888-0169 Fax: (570) 888-0717

### Work Order: 10124000

WO#: 10124000 PAGE: 2 of 4 PO#: AF 78737 **PWS ID#** 

PHONE: (607) 562-4000 FAX: (607) 562-4001

ADDRESS: 337 Daniel Zenker Dr

Dina Brown

COMPANY: Talisman Energy USA, Inc.

Horseheads, NY 14845

# **TEST REPORT**

EIVED FOR LAB BY: CMS	DATE	: 12/28/2010 13:50			Р	age 2 of
Cadmium - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-C
Chromium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-C
Copper - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-C
Lead - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-C
Nickel - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-C
Selenium - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	12/30/10 9:30	01/03/11	GSR-C
Silver - TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	12/30/10 9:30	01/03/11	GSR-C
Strontium - TCLP extracted	3.02 mg/L	L EPA 6010B	0.050	12/30/10 9:30	01/03/11	GSR-C
Zinc - TCLP extracted	< 0.200 mg/L	EPA 6010B	0.200	12/30/10 9:30	01/03/11	GSR-C
PLE: TCLP Leachate of Air Cutt	inas	Lab ID: 10124000-001F	Grab			
SAMPLED BY:	-	ble Time: 01/06/2011 8:00				
	Comp		<u>SLOQ</u>			
Test	Result	Method		Analysis Start	Analysis End	<u>Analys</u>
Pyridine	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-S
1,4-Dichlorobenzene	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-8
				04/40/44 40 00	01/10/11	RHH-S
o-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	12101-2
•	< 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C	0.10 0.10	01/10/11 10:20	01/10/11	
o-Cresol	•					RHH-S
o-Cresol p-Cresol/m-Cresol	< 0.10 mg/L	EPA 8270C	0.10	01/10/11 10:20	01/10/11	RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane	< 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C	0.10 0.10	01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11	RHH-S RHH-S RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10	01/10/11 10:20 01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11 01/10/11	RHH-S RHH-S RHH-S RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene Hexachlorobutadiene	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10 0.10	01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11 01/10/11 01/10/11	RHH-S RHH-S RHH-S RHH-S RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene Hexachlorobutadiene 2,4,6-Trichlorophenol	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10 0.10 0.10	01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11 01/10/11 01/10/11 01/10/11	RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene Hexachlorobutadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L	EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10 0.10 0.10 0.10	01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11 01/10/11 01/10/11 01/10/11 01/10/11	RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S
o-Cresol p-Cresol/m-Cresol Hexachloroethane Nitrobenzene Hexachlorobutadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol Pentachlorophenol	< 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.10 mg/L < 0.50 mg/L	EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C EPA 8270C	0.10 0.10 0.10 0.10 0.10 0.10 0.50	01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20 01/10/11 10:20	01/10/11 01/10/11 01/10/11 01/10/11 01/10/11 01/10/11	RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S RHH-S

#### **REMARKS:**

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\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L  $\sim$ 

MANAGER

Carrie M. Davis	11		
	lan	; M.	Davis

DATE:

1/12/2011

RECEIVED FOR LAB BY: CMS

## Benchmark Analytics, Inc.

Eastern Division

2566 Pennsylvania Ave. Sayre, PA 18840

Work Order: 10124000

Page 3 of 4

Phone: (570) 888-0169 Fax: (570) 888-0717

DATE: 12/28/2010 13:50

SEND DATA	TO:				
NAME:	Dina Brown			WO#:	10124000
ADDRESS:	Talisman Energy USA, Inc. 337 Daniel Zenker Dr	;		PAGE:	3 of 4
	Horseheads, NY 14845			PO#:	AF 78737
PHONE: FAX:	(607) 562-4000 (607) 562-4001		TEST REPORT	PWS ID#	
J4ł	H Well Pad	الشدواي دوري			

SAMPLE: TCLP Leachate of Air Cuttings Lab ID: 10124000-001G Grab SAMPLED BY: Sample Time: 01/06/2011 8:00 SLOQ Test Result Method Analysis Start Analysis End Analyst\* < 0.0250 mg/L 0.0250 EPA 8260B 01/07/11 9:22 01/07/11 Benzene CTM-SA < 0.0250 mg/L 01/07/11 9:22 Carbon tetrachloride EPA 8260B 0.0250 01/07/11 CTM-SA < 0.0250 mg/L 01/07/11 9:22 01/07/11 Chlorobenzene EPA 8260B 0.0250 CTM-SA Chloroform < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA 1,2-Dichloroethane < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA 1,1-Dichloroethene Ethylbenzene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA 0.0250 01/07/11 9:22 < 0.0250 mg/L EPA 8260B 01/07/11 Isopropylbenzene CTM-SA 0.0260 mg/L 01/07/11 9:22 Tetrachloroethene EPA 8260B 01/07/11 CTM-SA Toluene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA Trichloroethene < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L 01/07/11 9:22 1,2,4-Trimethylbenzene EPA 8260B 0.0250 01/07/11 CTM-SA < 0.0250 mg/L 1,3,5-Trimethylbenzene EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0250 mg/L Vinyl chloride EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA Methyl tert-butyl ether < 0.0250 mg/L EPA 8260B 0.0250 01/07/11 9:22 01/07/11 CTM-SA < 0.0500 mg/L EPA 8260B 0.0500 01/07/11 9:22 01/07/11 2-Butanone CTM-SA Lab ID: 10124000-001H SAMPLE: Air Cuttings Grab SAMPLED BY: DJD Sample Time: 12/29/2010 8:00 SLOQ Test Result Method Analysis Start Analysis End Analyst\* **Total Organic Halides** < 5.00 mg/kg SW846/9023 5.00 01/11/11 15:00 01/11/11 Sample Note: Analysis performed by Analytical Services, Inc.

#### REMARKS:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

Value above calibration range but within annually verified linear range L

MANAGER

ani M. Davis

DATE:

1/12/2011

LAB ID: 08-00380 LAB ID: 39-00401	Benchmark Analytics, Inc Eastern Division 2566 Pennsylvania Ave. Sayre, PA 18840	2.	Work Order: 10124000			
	Phone: (570) 888-0169 Fax: (570) 888-0717					
SEND DATA TO:						
NAME: Dina Brown		WO#:	1012	4000		
COMPANY: Talisman Energy USA ADDRESS: 337 Daniel Zenker Dr	, Inc.	PAGE:	4 of	4		
Horseheads, NY 1484	45	PO#	PO#: AF 78737			
PHONE: (607) 562-4000 FAX: (607) 562-4001	TEST REPORT	PWS ID	#			
J4H Well Pad						
RECEIVED FOR LAB BY: CMS	DATE: 12/28/2010 13:50			Page 4 of 4		
SAMPLE: Air Cuttings SAMPLED BY: DJD	Sample Time: 12/29/2010 8:00	Grab				
<u>Test</u> Ignitability Sample Note: Analysis performed t	Result Method Negative AS IS SW846 1030		<u>sis Start</u> /11 14:00	Analysis End Analyst * 01/07/11		

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

ł, .

L Value above calibration range but within annually verified linear range

MANAGER

Canie	М.	Davis

DATE: 1/12/2011

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CHAIN OF CUSTODY								PAGE1	_OF1
EPORT TO: Talisman / UEG									
jeowetlands@aol.com	1				W	/0;	¢; 10124000	ARE SPECIAL DETEC	
wollin@rallysolutions.ca	REFR	liger.					KESULTS ARE BEING USED FOR:		
		R COL					DRINKING WATER SL SLUDGE NYDOH NYDEC FADEP	IF YES, PLEASE ATTA	
DING BROWN	4					/ GY	GROUND WATER SO SOIL SURFACE WATER HZ HAZARDOUS LANDFILL	TES	
	Ţ	RANS TC			/	/ WW	WASTE WATER OTHER DEIONIZED WATER DI DISTILLED WATER PERSONAL OTHER	IF YES, PLEASE ATTA	
H# 400-0015 724-814-5321	-  u	ABOR/	-	1			/ /H HYDROCHLORIC ACID OH SODIUM HYDROXIDE	T 15	CH REQUIREMEN
ILL TO: Talisman	-  I	N COC WITH			/	Come of the second	S SULFURIC ACID AS ASCORBIC ACID N NITRIC ACID AC ACETIC ACID	📲	
	-			_/	' L	<u>§</u> [/	SO, SODIUM SULFITE NH, AMMONIUM CHLORIDE	<b>E B</b>	
O# AF # AF 78737	]	/	1	, /	Į į	¥ .	- NONE Hg MERCURIC CHLORIDE		no All out -II
SCRIPTION /1 Pad		19		[È.	/2	7	ム An incomplete chain of custody may delay the ろ	eppli	se fill out all icable areas
AMPLER SIGNATURE / AFFILIATION	=k /	3	\$ \$	¥.	5	\$	F processing of your companyer.	β cc	mpletely
ONTAINER SAMPLING POINT, JAL Shole 6111	1/\$	THE	Sure Sune Inc	Same Marrier	ALL TREE	Pares MITULS	SO, SODIUM SULFITE       NH, AMMONIUM CHLORIDE         Thio SODIUM THIOSULFATE       ZN ZINC ACETATE         - NONE       Hg         MERCURIC CHLORIDE       S         4       An incomplete chain of custody may delay the processing of your sample(s).         ANALYSIS TO BE PERFORMED (PER CONTAMER)       S	LAB USE	ONLY
1 Air Cuttings	P/19/	9:45	SO	G	THE	UNE		-001A	-8
2		2					pH, Chlorides, Sodium		
3							TCLP 8 RCRA Metals + Cu, Ni, Zn		
A-TPH							Free Liquids / % Moisture		
5 B-wetchem									
· C - Anion Metals Ac	Smp	1.01	R	EN			TCLP 8260 / 8270 ONLY IF the TPH		
1 D-Total Sample		ĺ		<u> </u>			exceeds 120,000 mg/Kg		
BE-TCLPMetals			ļ	ļ					
P- SANDTCUP		ļ	ļ	<u> </u>	<u> </u>	<u> </u>	HOUR TURNAROUND		
10 G- BLOTCLP	_		L	ļ	<u> </u>	<u> </u>	7-19 Day TURNAROUND		
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2540-PM-BWM0347 Rev. 1/2011 pennsylvania Department of environmental protection

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT

FORM 26R

CHEMICAL ANALYSIS OF RESIDUAL WASTE ANNUAL REPORT BY THE GENERATOR

typed or l each atta	legib ache	ust be fully and accurate bly printed in the spaces p d sheet as Form 26R, re e date on attached sheets	tify 🛛				NLY neral Notes		
General F	Refe	ence 287.54							
Date Prep	bared	d/Revised Febru	iary 11, 2011						
	_		LIENT (GENERATOR	R OF THE WASTE) IN	IFO	RMAT	<b>O</b> Ň		
Company		ne ergy USA Inc.							
		y, Name of Parent Compar					EPA	Genera	ator ID#
Talisman	Ene	ergy Inc.		•			N/A		
Company		ling Address Line 1	C	ompany Malling Addres	ss Liı	ne 2			
		fress Last Line – City	State	Zip+4		Phone			Ext
Warrenda	ale	_	PA	15086		(724) 81			
Company	Cor	itact Last Name	First Name Dina	MI			Suffix	C	
Municipal	lity			County					
Warrenda				Allegheny					
Contact P (724) 814			Contact Email Address lybrown@talismanusa.c	om					
		enerated at the Company					Π	Yes	No No
lf 'No', de	scril	be location of waste gener	ation and storage. Drill c	uttings are generated du	uring I	natural g	as drilli	ng ope	rations at
the in containe		-001) well pad site located a	t 765 Peackham Hill Road	l, Columbia Township, Bi	radfoi	rd County	/, PA.	The wa	aste is stored
Municipal		Columbia	County Bradfo	ord		Stat	e	PA	
		Columbi <u>a</u>	County Bradfo				<u>e</u>	PA	
Municipal Residua	lity al	Columbia S Residua	ECTION B. WAST	E DESCRIPTION		Unit of		PA	Time
Municipal Residua Waste Co	lity al	Columbia S Residua Code Des	ECTION B. WAST	E DESCRIPTION Amount					Time Frame
Municipal Residua	lity al	Columbia S Residua	ECTION B. WAST I Waste scription s)	E DESCRIPTION Amount 4,981		Unit of Measure			
Municipal Residua Waste Co 810	lity al ode	Columbia S Residua Code Des Drill cuttings (oil and gas	ECTION B. WAST Waste coription s) 1. GENERAL P	E DESCRIPTION Amount 4,981 ROPERTIES	Cu D Ib	Unit of Measure	] gal		Frame
Municipal Residua Waste Co 810 a. ph	lity al ode	Columbia S Residua Code Des Drill cuttings (oil and gas nge 6.29	SECTION B. WAST Waste coription s) 1. GENERAL P to 12.07	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k	Cu D Ib	Unit of Measure	] gal		Frame
Municipal Residua Waste Co 810 a. ph	lity al ode	Columbia S Residua Code Des Drill cuttings (oil and gas	ECTION B. WAST Waste coription s) 1. GENERAL P	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095)	Cu D Ib	Unit of Measure	] gal		Frame
Municipal Residua Waste Co 810 a. ph b. Ph	lity al ode H Ra nysic	Columbia S Residua Code Des Drill cuttings (oil and gas nge 6.29 cal State	Solid (EPA Method 905 Gas (ambient temperat	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure)	nowle	Unit of Measure yd (yd)	] gal ] ton		Frame One Time
Municipal Residua Waste Co 810 a. ph b. Ph	lity al ode H Ra nysic	Columbia S Residua Code Des Drill cuttings (oil and gas nge 6.29 cal State Cate	ECTION B. WAST Waste scription s) 1. GENERAL P to 12.07 ↓ Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperation Greyish Black	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo	nowle	Unit of Measure yd edge) Earthy /	] gal ] ton		Frame One Time
Municipal Residua Waste Co 810 a. ph b. Ph	lity al ode H Ra nysic	Columbia	ECTION B. WAST Waste scription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat color <u>Greyish Black</u> Jumber of Solld or Liquid	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation	nowle	Unit of Measure yd edge) Earthy / One	] gal ] ton Slight		Frame One Time
Municipal Residua Waste Co 810 a. ph b. Ph	lity al ode H Ra nysic	Columbia	ECTION B. WAST Waste scription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperat color <u>Greyish Black</u> Jumber of Solld or Liquic Describe each phase of s	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo I Phases of Separation eparation. Soil and Ro	nowle	Unit of Measure yd edge) Earthy / One	] gal ] ton Slight		Frame One Time
Municipal Residua Waste Co 810 a. ph b. Ph c. Ph	lity al ode H Ra nysic	Columbia  Residual Code Des  Drill cuttings (oil and gas  nge 6.29 cal State  cal Appearance  Cal Appearance	ECTION B. WAST Waste cription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black lumber of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS	cu lb nowle	Unit of Measure yd edge) Earthy / One	gal ] gal ] ton Slight	Petrol	Frame One Time leum
Municipal Residua Waste Co 810 a. ph b. Ph c. Ph c. Ph	lity al ode H Ra nysic	Columbia	ECTION B. WAST Waste cription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black lumber of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS	cu lb nowle	Unit of Measure yd edge) Earthy / One	gal ] gal ] ton Slight		Frame One Time
Municipal Residua Waste Co 810 a. ph b. Ph c. Ph c. Ph	lity al ode H Ra nysic nysic	Columbia  Residual Code Des  Drill cuttings (oil and gas  nge 6.29 cal State  cal Appearance  sults of a detailed chemica ctions, is attached.  iled description of the was	ECTION B. WAST Waste cription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black Jumber of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS al characterization of the ste sampling method is a	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS waste, as described in tttached.	nowle nowle	Unit of Measure yd dge) Earthy / One ragment	s Slight s	Petrol Yes	Frame One Time leum No No No
Municipal Residua Waste Co 810 a. ph b. Ph c. Ph c. Ph c. Th ins b. A	lity al ode H Ra nysic nysic ne re struc deta ne qu	Columbia  Residual Code Des  Drill cuttings (oil and gas  nge 6.29 cal State  cal Appearance  sults of a detailed chemic ctions, is attached.  iled description of the was cality assurance/quality co	ECTION B. WAST Waste cription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 909 Gas (ambient temperal Color Greyish Black Jumber of Solid or Liquic Describe each phase of s 2. CHEMICAL ANALYS al characterization of the ste sampling method is a	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS waste, as described in tttached.	nowle nowle	Unit of Measure yd dge) Earthy / One ragment	s Slight s	Petrol	Frame One Time leum No
Municipal Residua Waste Co 810 a. ph b. Ph c. Ph c. Ph ins b. A f c. Th att	lity al ode H Ra nysic nysic nysic e re struc deta ne qu tach	Columbia  Residual Code Des  Drill cuttings (oil and gas  nge 6.29 cal State  cal Appearance  sults of a detailed chemic ctions, is attached.  iled description of the was cality assurance/quality co	ECTION B. WAST Waste cription s) 1. GENERAL P to 12.07 Liquid Waste (EPA Me Solid (EPA Method 900 Gas (ambient temperal Color Greyish Black Jumber of Solld or Liquid Describe each phase of so 2. CHEMICAL ANALYS al characterization of the ste sampling method is a antrol procedures employ	E DESCRIPTION Amount 4,981 ROPERTIES (based on analyses or k thod 9095) 95) ture & pressure) Odo Phases of Separation eparation. Soil and Ro Sis ATTACHMENTS waste, as described in ittached. yed by the laboratory(ie	nowle nowle	Unit of Measure yd dge) Earthy / One ragment	Slight	Petrol Yes	Frame One Time leum No No No

	3	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS		den statutet.
a.	A detailed description of the the waste, as specified in the	e instructions, is attached	i		🛛 Yes	No No
b.	A schematic of the manufact as specified in the instruction	ns, is attached.		-	X Yes	🗌 No
C.	If portions of the information a confidentiality claim, as de			on for 📋 Yes	No No	🛛 N/A
	SECTI	ON C. MANAGEMI	000400/080405569900000000000000000000000000000000	esta da la companya de la companya da companya da companya da companya da companya da companya da companya da c		
		1. PROCESSING OR [				
The a	rea below (ad.) will accommo	date the identification of	two facilities. Attacl	h additional sheets	if necessary	•
a.	Solid waste permit number(s 9-0232-00003	) for processing or dispo	osal facility being util	lized.		
b.	Facility Name	Hyland Landfill				
	Address Line 1	6653 Herdman Road		- Wit		
	Address Line 1					
	Address City State ZIP	Angelica	NY	14709		
	Municipality	Angelica	County	Allegany		
C.	Facility Contact Name Title	Larry Shilling				
	Phone	(585) 466-7271	Email Address	larry.shilling@ca	sella.com	
d.	Volume of waste shipped to 3,148	processing or disposal fa	acility in the previous		1	
a.	Solid waste permit number(s 8-4630-00010	) for processing or dispo	sal facility being util	lized.		
b.	Facility Name	Hakes C&D Landfill				
	Address Line 1	4376 Manning Ridge	Road			
	Address Line 1			· · · · · · · · · · · · · · · · · · ·		
	Address City State ZIP	Painted Post	NY	14870		
	Municipality	Erwin Twp	County	Steuben		
C.	Facility Contact Name	Joseph Boyles				
	Title	· · · · · · · · · · · · · · · · · · ·				
	Phone	(607) 937-6044 (585) 466-7271	Email Address	joe.boyles@case	ella.com	····· .
d.	Volume of waste shipped to	processing or disposal fa	cility in the previous	s year.		
	1,549	] cuyd 🗌 gal	🗌 lb 🛛 tor	n (check one)		
		2. Bene	FICIAL USE	•		
a.	Has the waste been approve	d for beneficial use?			Yes	No No
	If "Yes", list the general pern	nit number or approval nu	umber.			
b.	Volume of waste beneficially			n (check one)		

	3.	PROCESS DESCRIPTION	& SCHEMATIC ATTA	CHMENTS		·					
a.	A detailed description of the				Yes						
}	the waste, as specified in the	instructions, is attache	d.			_					
b.	A schematic of the manufact		ontrol processes pro	ducing the waste,	X Yes	No No					
	as specified in the instructions, is attached.										
С.											
	a confidentiality claim, as de	scribed in the instructio	ns, is attached.								
	SECTI	ON C. MANAGEM	ENT OF RESIDU	JAL WASTE							
		1. PROCESSING OR	DISPOSAL FACILITY(II	ES)	4. 						
The ar	rea below (ad.) will accommo	late the identification of	two facilities. Attacl	n additional sheets	if necessary.						
a.	Solid waste permit number(s 100361	for processing or disp	osal facility being util	ized.							
b.	Facility Name	McKean County Lan	dfill								
	Address Line 1	19 Ness Lane									
	Address Line 1										
	Address City State ZIP	Kane	PA	16735							
	Municipality	Sergeant Twp	County	McKean							
C.	Facility Contact Name	Mike Manderfeld		· ·							
	Title					····					
	Phone	(814) 778-9931	Email Address	manderfeld@gm	ail.com						
d.	Volume of waste shipped to	processing or disposal f	acility in the previous	s year.							
	151	cuyd 🛄 gal	🗌 lb 🛛 tor		)						
a.	Solid waste permit number(s)	for processing or disp	osal facility being util	ized.							
	8-0728-00004										
b.	Facility Name	Chemung County La	ndfill								
<b>.</b>	Address Line 1	1690 Lake Street									
	Address Line 1	1000 Lake Offeet		<u>.</u>							
	Address City State ZIP	Elmira	NY	14903							
	Municipality	Elmira	County	Chemung							
с.	Facility Contact Name	Carla Canjar									
•••	Title	Environmental Mana		·							
	Phone	(585) 797-5941	Email Address	carla.canjar@ca	sella com						
d.	Volume of waste shipped to p	( )	-	, 0							
a.	133	cu yd gal									
		2. Bent	FICIAL USE	2							
a.	Has the waste been approved	for beneficial use?			Yes	🛛 No					
	If "Yes", list the general perm	it number or approval n	umber.								
b.	Volume of waste beneficially										
	0 Ĺ	cuyd 🗌 gal	🗌 lb 📋 tor	(check one)							

ų.

		SECTION D. CERTIFICATION
Report and all attached doct obtaining the information, I knowledge. I understand tha	nents and erify that the submis	versonally examined and am familiar with the information submitted in this Annual that based upon my inquiry of those individuals immediately responsible for the submitted information is true, accurate and complete to the best of my ssion of false information herein is made subject to the penalties of 18 Pa. C.S. authorities, which include fine and imprisonment.
Check the following, if applica	le:	
I certify the information	•	n Section B-1, General Properties was supplied to the Department for the year
Form Submitted:	Form	1 26R
	Othe	r (specify)
Date Submitted:		
I certify the information		n Section B-2, Chemical Analysis was supplied to the Department for the year
Form Submitted:	Form	1 26R
	Othe	r (specify)
Date Submitted:		·
I certify the information for the year and I		Section B-3, Process Description and Schematic, was supplied to the Department ged.
Form Submitted:	Form	26R
	Othe	r (specify)
Date Submitted:		
Name of Responsible Official		Title Environmental Specialist
Dina Brown Signature	ŞU	From Date 2/25/4

LAB ID: 39-(	00380 00401	<b>Eas</b> 2566	ark Analytics, In stern Division Pennsylvania Ave. ayre, PA 18840	C.	Work	Order: 100	84198
			e: (570) 888-0169 x: (570) 888-0717				
SEND DATA	A TO:						
NAME:	Steve Gridley			W	'O#: 1008	34198	
COMPANY:		Inc.		P	AGE: 1 of	1	
ADDRESS:	337 Daniel Zenker Dr	F		17		1	
	Horseheads, NY 1484	5		P	O#: AF 7	6907	
		-		P	WS ID#		
PHONE:	(607) 562-4000	1	EST REPORT				
FAX:	(607) 562-4001						
01-0	03	······································					
RECEIVED	FOR LAB BY: DLM2	DA	TE: 08/24/2010 15:10			Pa	ige 1 of 1
	v. Cuttings & Gypsum Bic ED BY: SG		Lab ID: 10084198-001A ample Time: 08/24/2010 10:20	Grab			
SAMPL	ED B1. 3G	00	ample filme. 00/24/2010 10.20	Reg			
<u>Test</u>		Result	Method	Limit	Analysis Start	<u>Analysis End</u>	<u>Analyst</u>
Total Pet	roleum Hydrocarbons	4800 mg/Kg	<u>Method</u> EPA 9071		<u>Analysis Start</u> 08/30/10 10:40	<u>Analysis End</u> 08/30/10	<u>Analyst</u>
Total Pet	roleum Hydrocarbons e Note: Analysis performed by	4800 mg/Kg					<u>Analyst</u>
Total Pet Sample	•	4800 mg/Kg Microbac- Erie					<u>Analyst</u>
Total Pet Sample SAMPLE: In	e Note: Analysis performed by	4800 mg/Kg Microbac- Erie <b>omatrix</b>	EPA 9071	<u>Limit</u> Grab			<u>Analyst</u>
Total Pet Sample SAMPLE: In SAMPLI	e Note: Analysis performed by v. Cuttings & Gypsum Bic	4800 mg/Kg Microbac- Erie omatrix Sa	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20	<u>Limit</u> Grab <u>Req</u>	08/30/10 10:40	08/30/10	
Total Pet Sample	e Note: Analysis performed by v. Cuttings & Gypsum Bic	4800 mg/Kg Microbac- Erie <b>omatrix</b>	EPA 9071 Lab ID: 10084198-001B	<u>Limit</u> Grab			Analyst
Total Pet Sampl SAMPLE: In SAMPLE <u>Test</u>	e Note: Analysis performed by <b>v. Cuttings &amp; Gypsum Bic</b> ED BY: SG	4800 mg/Kg Microbac- Erie <b>omatrix</b> Sa <u>Result</u>	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u>	<u>Limit</u> Grab <u>Req</u>	08/30/10 10:40	08/30/10	Analyst IC-SA
Total Pet Sampl GAMPLE: In SAMPLI <u>Test</u> Moisture	e Note: Analysis performed by <b>v. Cuttings &amp; Gypsum Bic</b> ED BY: SG	4800 mg/Kg Microbac- Erie <b>omatrix</b> Sa <u>Result</u> 42.6 %	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc.	<u>Limit</u> Grab <u>Req</u>	08/30/10 10:40 <u>Analysis Start</u> 08/26/10 14:30	08/30/10 Analysis End 08/27/10	Analyst IC-SA IC-SA
Total Pet Sampl SAMPLE: In SAMPLE <u>Test</u> Moisture Free Liqu pH	e Note: Analysis performed by <b>v. Cuttings &amp; Gypsum Bio</b> ED BY: SG uid CLP Leachate of Inv. Cutti	4800 mg/Kg Microbac- Erie <b>Dematrix</b> Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A	<u>Limit</u> Grab <u>Req</u>	<u>Analysis Start</u> 08/26/10 14:30 08/25/10 14:30	08/30/10 Analysis End 08/27/10 08/25/10	Analyst IC-SA IC-SA
Total Pet Sampl SAMPLE: In SAMPLE <u>Test</u> Moisture Free Liqu pH SAMPLE: T( Bi	e Note: Analysis performed by <b>v. Cuttings &amp; Gypsum Bio</b> ED BY: SG uid	4800 mg/Kg Microbac- Erie omatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C Lab ID: 10084198-001D	Limit Grab <u>Reg</u> Limit	<u>Analysis Start</u> 08/26/10 14:30 08/25/10 14:30	08/30/10 Analysis End 08/27/10 08/25/10	Analyst IC-SA IC-SA
Total Pet Sampl SAMPLE: In SAMPLE <u>Test</u> Moisture Free Liqu pH SAMPLE: T( Bi SAMPLE	e Note: Analysis performed by <b>v. Cuttings &amp; Gypsum Bio</b> ED BY: SG uid CLP Leachate of Inv. Cutti iomatrix	4800 mg/Kg Microbac- Erie omatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00	Limit Grab Reg Limit Grab	<u>Analysis Start</u> 08/26/10 14:30 08/26/10 14:30 08/26/10 16:50	08/30/10 Analysis End 08/27/10 08/25/10 08/26/10	Analyst IC-SA IC-SA SG-SA
Total Pet Sampl SAMPLE: In SAMPLE <u>Test</u> Moisture Free Liqu pH SAMPLE: T( Bi SAMPLE	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG uid CLP Leachate of Inv. Cutti iomatrix ED BY: SG	4800 mg/Kg Microbac- Erie omatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u>	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u>	Limit Grab Reg Limit Grab	<u>Analysis Start</u> 08/26/10 14:30 08/26/10 14:30 08/26/10 16:50 <u>Analysis Start</u>	08/30/10 <u>Analysis End</u> 08/27/10 08/25/10 08/26/10 <u>Analysis End</u>	Analyst IC-SA IC-SA SG-SA
Total Pet Sampl SAMPLE: In SAMPLE Moisture Free Liqu pH SAMPLE: TO BAMPLE: TO BI SAMPLE Test Mercury	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A	Limit Grab Reg Limit Grab Reg Limit 0.2	<u>Analysis Start</u> 08/26/10 14:30 08/26/10 14:30 08/26/10 16:50 <u>Analysis Start</u> 08/25/10 10:30	08/30/10 <u>Analysis End</u> 08/27/10 08/25/10 08/26/10 <u>Analysis End</u> 08/27/10	Analyst IC-SA IC-SA SG-SA Analyst
Total Pet Sampl SAMPLE: In SAMPLE Test Moisture Free Liqu pH SAMPLE: T( Bi SAMPLE Test Mercury - Arsenic -	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B	Limit Grab Req Limit Grab Reg Limit 0.2 5	<u>Analysis Start</u> 08/26/10 14:30 08/26/10 14:30 08/26/10 16:50 <u>Analysis Start</u> 08/25/10 10:30	08/30/10  Analysis End 08/27/10 08/25/10 08/26/10  Analysis End 08/27/10 08/26/10	Analyst IC-SA IC-SA SG-SA <u>Analyst</u> KW-CV RMD-C
Total Pet Sampl SAMPLE: In SAMPLE: In Moisture Free Liqu pH SAMPLE: TO Bi SAMPLE: TO SAMPLE: SAMPLE SAMPLE: TO SAMPLE: TO SAMPLE: SAMPLE SAMPLE: TO SAMPLE: SAMPLE SAMPLE: TO SAMPLE: SAMPLE SAMPLE: TO SAMPLE: e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG TCLP extracted TCLP extracted TCLP extracted	4800 mg/Kg Microbac- Erie matrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	Limit Grab Reg Limit Grab Reg Limit 0.2 5 100	Analysis Start 08/30/10 10:40 08/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/25/10 10:30 08/26/10 10:30	08/30/10  Analysis End 08/27/10 08/25/10 08/26/10  Analysis End 08/27/10 08/26/10 08/26/10 08/26/10	Analyst IC-SA IC-SA SG-SA <u>Analyst</u> KW-CV RMD-C RMD-C	
Total Pet Sampl SAMPLE: In SAMPLE: In SAMPLE: TO Free Liqu pH SAMPLE: TO Bi SAMPLE: TO Cadmium	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG aid CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted TCLP extracted a - TCLP extracted - TCLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 10.00 mg/L < 0.100 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B	Limit Grab Req Limit Grab Req Limit 0.2 5 100 1	Analysis Start 08/30/10 10:40 08/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/25/10 10:30 08/26/10 10:30 08/26/10 10:30	O8/30/10           Analysis End           08/27/10           08/25/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10	Analyst IC-SA IC-SA SG-SA Analyst KW-CV RMD-C' RMD-C' RMD-C'
Total Pet Sample SAMPLE: In SAMPLE: In Test Moisture Free Liqu pH SAMPLE: T( Bi SAMPLE: T( SAMPLE: T( SAMPLE: SAMPLE:	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG uid CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted n - TCLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit Grab Reg Limit 0.2 5 100	Analysis Start 08/30/10 10:40 08/26/10 14:30 08/26/10 14:30 08/26/10 16:50 Analysis Start 08/25/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30	08/30/10 Analysis End 08/27/10 08/25/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10	Analyst IC-SA IC-SA SG-SA KW-CV RMD-C' RMD-C' RMD-C' RMD-C'
Total Pet Sampl SAMPLE: In SAMPLE: In Moisture Free Liqu pH SAMPLE: TO BAMPLE: TO BAMPLE: TO BAMPLE: TO BAMPLE: TO BAMPLE: TO CAMPLE: TO Chromiur Chromiur Copper -	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted TCLP extracted n - TCLP extracted TCLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit Grab Reg Limit 0.2 5 100 1 5	Analysis Start 08/30/10 10:40 8/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30	08/30/10  Analysis End 08/27/10 08/25/10 08/26/10  8/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10	Analyst IC-SA IC-SA SG-SA KW-CV RMD-C' RMD-C' RMD-C' RMD-C'
Total Pet Sampl SAMPLE: In SAMPLE: In SAMPLE: T( Free Liqu pH SAMPLE: T( Bar SAMPLE: T( Bar SAMPLE: T( Barium - Cadmium Chromium Copper - Lead - T(	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted n - TCLP extracted CLP extracted CLP extracted CLP extracted CLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Req Limit Grab Req Limit 0.2 5 100 1	Analysis Start 08/30/10 10:40 8/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30	08/30/10  Analysis End 08/27/10 08/25/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10 08/26/10	Analyst IC-SA IC-SA SG-SA KW-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Total Pet Sampl SAMPLE: In SAMPLE: In SAMPLE: TO Free Liqu pH SAMPLE: TO Barium - Cadmium Chromiur Copper - Lead - TO Nickel - T	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted m - TCLP extracted CLP extracted CLP extracted CLP extracted CLP extracted CLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.500 mg/L < 0.100 mg/L < 0.100 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit Grab Reg Limit 0.2 5 100 1 5 5 5	Analysis Start 08/30/10 10:40 08/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30	O8/30/10           Analysis End           08/27/10           08/25/10           08/25/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10	Analyst IC-SA IC-SA SG-SA KW-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV RMD-CV
Total Pet Sampl SAMPLE: In SAMPLE: In SAMPLE: TO Free Liqu pH SAMPLE: TO Barium - Cadmium Chromium Chromium Copper - Lead - TO Nickel - T Selenium	e Note: Analysis performed by v. Cuttings & Gypsum Bic ED BY: SG id CLP Leachate of Inv. Cutti iomatrix ED BY: SG - TCLP extracted TCLP extracted TCLP extracted n - TCLP extracted n - TCLP extracted n - TCLP extracted CLP extracted CLP extracted CLP extracted CLP extracted	4800 mg/Kg Microbac- Erie Smatrix Sa <u>Result</u> 42.6 % < 0.1 % 6.29@20.0°C ngs & Gypsum Sa <u>Result</u> < 0.0008 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L < 0.100 mg/L < 0.500 mg/L	EPA 9071 Lab ID: 10084198-001B ample Time: 08/24/2010 10:20 <u>Method</u> Moisture Calc. EPA 9095A EPA 9095A EPA 9045C Lab ID: 10084198-001D ample Time: 08/25/2010 8:00 <u>Method</u> EPA 7470A EPA 6010B EPA 6010B EPA 6010B EPA 6010B	Limit Grab Reg Limit Grab Reg Limit 0.2 5 100 1 5	Analysis Start 08/30/10 10:40 8/26/10 14:30 08/25/10 14:30 08/26/10 16:50 Analysis Start 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30 08/26/10 10:30	Analysis End           08/30/10           Analysis End           08/25/10           08/25/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10           08/26/10	<u>Analyst</u> IC-SA

### **REMARKS**:

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted on the Analytical Report. \* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

Camie M. Davis

DATE: 8/31/2010

LAB ID: 08-00380 LAB ID: 39-00401	Ber	Easter	Analytics, In n Division	C.				
			nsylvania Ave. , PA 18840		V	Work	Order: 100	81725
			70) 888-0169 70) 888-0717					
SEND DATA TO: NAME: Steve	Gridley			\٨/	O#:	10081	725	
	an Energy USA, Inc.						120	
ADDRESS: 337 Da	aniel Zenker Dr			PA	GE:	1 of 2		
Horsel	heads, NY 14845			PC	D#:	AF769	907	
	562-4000 562-4001	TEST	REPORT	P٧	VS ID#			
RECEIVED FOR LA	B BY: DLM2	DATE:	08/10/2010 15:33				Pa	ige 1 of 2
SAMPLE: Air Cutting	gs	L	ab ID: 10081725-001A	Grab				
SAMPLED BY: S	-	Sample	Time: 08/09/2010 15:00					
Test	Re	sult	Method	<u>SLOQ</u>	Analysis	Start	Analysis End	Analyst *
Total Petroleum Hy		mg/Kg	EPA 9071		08/12/10		08/12/10	
Sample Note: A	nalysis performed by Microbac	-Erie						
SAMPLE: Air Cutting	gs	L	ab ID: 10081725-001B	Grab				
SAMPLED BY: S	G	Sample	Time: 08/09/2010 15:00	SLOQ				
Test	Re	sult	Method	<u>3100</u>	Analysis	Start	Analysis End	<u>Analyst *</u>
Moisture	40	.6 %	Moisture Calc.	0.01	08/12/10	8:45	08/13/10	MED-SA
Free Liquid	< 0	.1 %	EPA 9095A	0.1	08/12/10	15:20	08/12/10	RHN-SA
pH	12.07@	021.6°C	EPA 9045C		08/12/10	15:42	08/12/10	MED-SA
SAMPLE: Air Cutting SAMPLED BY: SO	-		ab ID: 10081725-001C Time: 08/09/2010 15:00	Grab				
				<u>SLOQ</u>				
<u>Test</u>	<u>Res</u>		Method	000	Analysis		Analysis End	
Sodium Chloride		g/Kg-dry	EPA 6010B EPA 300.0	230 84.2	08/13/10		08/13/10 08/12/10	RMD-CV
Percent Moisture		ıg/Kg-dry .6 %	SM2540G	04.2	08/11/10 08/12/10		08/12/10	HDP-CV MED-SA
					00/12/10	0.40		WIED-SA
SAMPLE: TCLP Lead SAMPLED BY: SO	•		ab ID: 10081725-001E Time: 08/09/2010 15:00	Grab				
Test	Res	sult	Method	<u>SLOQ</u>	Analysis	Start	Analysis End	<u>Analyst *</u>
Mercury - TCLP ex	tracted < 0.00	08 mg/L	EPA 7470A	0.0008	08/12/10	8:30	08/13/10	KW-CV
Arsenic - TCLP ext	racted < 0.50	00 mg/L	EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
Barium - TCLP extr		0 mg/L	EPA 6010B	10.00	08/13/10	7:20	08/13/10	RMD-CV
Cadmium - TCLP e	xtracted < 0.10	10 mg/L	EPA 6010B	0.100	08/13/10	7:20		RMD-CV
Chromium - TCLP		00 mg/L	EPA 6010B	0.500	08/13/10		08/13/10	RMD-CV
Copper - TCLP extr		10 mg/L	EPA 6010B	0.100	08/13/10			RMD-CV
Lead - TCLP extrac	cted < 0.50	10 mg/L	EPA 6010B	0.500	08/13/10	7:20	08/13/10	RMD-CV
REMARKS:								

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MANAGER

Carrie M. Daris DATE: 8/13/2010

LAB ID: 08- LAB ID: 39-		Easteri 2566 Penr	Analytics, In n Division nsylvania Ave. PA 18840	C.	٧	Work Ore	der: 10	081725
		-	70) 888-0169 70) 888-0717					
SEND DAT	A TO:							
NAME:	Steve Gridley			W	O#:	1008172	5	
COMPANY:		IC.		PA	AGE:	2 of 2		
ADDRESS:	Horseheads, NY 14845			P	D#:	AF76907	,	
PHONE: FAX:	(607) 562-4000 (607) 562-4001	TEST	REPORT	P١	NS ID#			
RECEIVED	FOR LAB BY: DLM2	DATE: 0	8/10/2010 15:33				F	age 2 of 2
Nickel -	TCLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10	7:20 (	)8/13/10	RMD-CV
Seleniun	n - TCLP extracted	< 0.500 mg/L	EPA 6010B	0.500	08/13/10	7:20 0	08/13/10	RMD-CV
	CLP extracted	< 0.100 mg/L	EPA 6010B	0.100	08/13/10		08/13/10	RMD-CV
Zinc - TC	CLP extracted	< 0.200 mg/L	EPA 6010B	0.200	08/13/10	7:20 0	08/13/10	RMD-CV

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MANAGER

(ani M. Davis DATE: 8/13/2010

# PRODUCED WATER APRIL 19 - MAY 12

Gallons per well total April 19 - May 12

Pad Name	Well Na	ne	Total
264	the second second second second second second second second second second second second second second second s	ES ALLEN 264 1H	
264 Total			1
(03-015)	TEUSA	(03-015-01) J 1H	23,77
-	TEUSA	(03-015-02) J 2H	14,764
A CONTRACTOR OF A CONTRACTOR OF	TEUSA	(03-015-03) J 3H	15,52
	TEUSA	(03-015-04) J 4H	20,93
(03-015) Total		6mm	74,99
(03-009)	FEL	T (03-009-05) L 5H	35,194
	FEI	(03-009-06) L 6H	40.880
	FEI	(03-009-07) L 7H	34,61:
And the second second	FEI	(03-009-08) L 8H	51,090
(03-009) Total	- Iter State		161,584
(01-025/070)	FEI	B 1H (01-025-01) - API 37-015-	1,519
	FEI	B 2H (01-025-02) - API 37-015-	3,864
	FEI	B 3H (01-070-01) - API 37-015-	3,52
and the second second	FEI	B 4H (01-070-02) - API 37-015-	946
(01-025/070) Total			9,853
(01-047)	FER	(01-047-01) J 1H	17,902
	FEI	(01-047-02) J 2H	16,59
	FEI	(01-047-03) J 3H	27,694
	FEI	(01-047-04) J 4H	12,03
	FEI	(01-047-05) J 5H	10,53
	FEI	(01-047-06) J 6H	13,032
(01-047) Total			97,788
(01-005/008)	FEI	(01-005-01) R1H - API 37-015-2	12,396
	FEI	(01-005-02) R3H - API 37-015-2	15,82
A second s	FEL	(01-008-01) R2H - API 37-015-2	12,594
(01-005/008) Total			40,61
DCNR 587 (02-001) PAD	DCNR 5	37 (02-001-04)	14,235
	DONR 5	6,103	
		37 (02-001-06)	19,461
DCNR 587 (02-001) PAD Tot			39,799
DCNR 587 (02-002) PAD		37 (02-002-01)	3,932
		37 (02-002-02)	2,908
		37 (02-002-03)	2,395
		37 (02-002-04)	3,652
DCNR 587 (02-002) PAD Tot			12,886
DCNR 587 (02-004) PAD		37 (02-004-02)	25,434
	the second second second second second second second second second second second second second second second se	37 (02-004-06)	37,492
DCNR 587 (02-004) PAD Tot	Contraction of the local division of the loc	an den sakan hali dan san sakan sakan sakan sakan sakan sakan sakan sakan sakan sakan sakan sakan sakan sakan s	62,92
DCNR 587 (02-008)		R 587 (02-008-03) 3H	20,028
a and the state of the		R 587 (02-008-04) 4H	18,602
		R 587 (02-008-05) 5H	16,830
	The second second second second second second second second second second second second second second second se	R 587 (02-008-06) 6H	23,416
DCNR 587 (02-008) Total		MELLING TH	78,874
DCNR 587 (02-009) PAD	FEI DON	R 587 (02-009-01)	8,286
a state and the second of the	and the second se	R 587 (02-009-02)	5,299

DCNR 587 (02-009) PAD	FEI DCNR 587 (02-009-03) FEI DCNR 587 (02-009-04) FEI DCNR 587 (02-009-05)	5,90 4,17 5,50
	FEI DCNR 587 (02-009-06)	9,51
DCNR 587 (02-009) PAD To		38,67
DCNR 587 (02-013)	TEUSA DCNR 587 (02-013-01) 1H	31,29
	TEUSA DCNR 587 (02-013-02) 2H	31,20
	TEUSA DCNR 587 (02-013-03) 3H	30,78
	TEUSA DCNR 587 (02-013-04) 4H	30,82
DCNR 587 (02-013) Total		124,11
DCNR 587 (02-014)	TEUSA DCNR 587 (02-014-01) 1H	67,95
	TEUSA DCNR 587 (02-014-02) 2H	61,95
DOND 587 (02 044) Tetal	TEUSA DCNR 587 (02-014-03) 3H	163,25
DCNR 587 (02-014) Total	DCNR 587 (02-017-01)	293,18
DCNR 587 (02-017) PAD	DCNR 587 (02-017-01)	5,356
	DCNR 587 (02-017-02)	9,353
	DCNR 587 (02-017-04)	15,74
DCNR 587 (02-017) PAD To		38,73
DCNR 587 (02-018) PAD	FEI DONR 587 (02-018-01) 1H	13,78
	FEI DCNR 587 (02-018-02) 2H	17,75
	FEI DCNR 587 (02-018-03) 3H	6,123
	FEI DCNR 587 (02-018-04) 4H	15,871
	FEI DCNR 587 (02-018-05) 5H	9,033
the second second second second	FEI DCNR 587 (02-018-06) 6H	6,140
DCNR 587 (02-018) PAD To		68,712
(03-013)	FEI 03-013-01) W 1H	1,944
	FEI 03-013-02) W 2H	11,575
	FEI (03-013-03) W 3H	14,443
	FEI (03-013-04) W 4H	14,81
	FEI (03-013-05) W 5H	13,780
	FEI (03-013-06) W 6H	3,187
	FEI (03-013-07) W 7H	20,380
(03-013) Total	FEI (03-013-08) W 8H	23,29
R (03-045)	TEUSA (03-045-01) J 1H	50.75
(00-040)	TEUSA (03-045-02) J 2H	31,92
R (03-045) Total		82,680
(01-003)	FEI 1H (01-003-01) - API 37-015-	
(01-003) Total		
(01-071)	TEUSA (01-071-01) D 1H	31,550
	TEUSA (01-071-02) D 2H	44,207
	TEUSA (01-071-03) D 3H	44,04
(01-071) Total		119,803
(01-004)	FEI (01-004-01) M1H - API 37-015-	6,659
	FEI (01-004-03) M 5H - API 37-015	4,54
	FEI M 3H (01-004-02) - API 37-015	4,77
(01-004) Total		15,978
(01-012)	FEI (01-012-01) A1H - API 37-015-	15,90
Martin Cont Of ON Tratel	FEI (01-012-02) A2H - API 37-015-	12,19
(01-012) Total HOLDING (01-03)	6) FEI HOLDINGS (01-036-01) 1H	28,10
HULDING IUI-US	b) [FEI] HOLDINGS (01-030-01) IH	20,9/3

HOLDING (01-036)	FEI	HOLDINGS (01-036-02) 2H	38,29
	PEI I	HOLDINGS (01-036-03) 3H	44,18
	FEI	HOLDINGS (01-036-04) 4H	35,45
HOLDING (01-036)		· · · · · · · · · · · · · · · · · · ·	144,90
(01-017)	FEI	(01-017-05) G 5H	11,61
	FEI	(01-017-06) G 6H	9,47
	PEI	(01-017-07) G 7H	10,00
	FEIL	(01-017-08) G 8H	15,26
(01-017) Total	The state in the second		48,38
257	EAST RES	267 1H	8,13
267 Total	TRACT DEC		8,13
261	EAST RES	261 1H	5.82
	EAST RES	261 2H 261 3H	88 <sup>4</sup> 524
	EAST RES	261 4H	2,96
	EAST RES	261 SH	2,28
	EAST RES	261 6H	1,53
261 Total	TENOI REAL	THO I DA	14,00
(01-014)	FEN	01-014-02) R 2H	23,42
(01-014)		01-014-03) R 3H	21,19
		01-014-04) R 4H	17,31
(01-014) Total	1. 61		61,93
(01-014)	FEIL	01-014-01) R 1H	18,56
L(01-014) Total			18,58
1 271	EAST RES	971 1H	
271 Total			11
(01-024)	FEI	(01-024-03) L 8H - API 37-01	18.72
	FEI	(01-024-04) L 9H - API 37-01	15,47
(01-024) Total			34,190
(01-044)	FEI	(01-044-01) L 1H	8,95
	FEI	(01-044-02) L 2H	11,14
(01-044) Total			20.093
(03-008)	FEI	(03-008-01) G 1H	26,438
	FEL	(03-008-02) G 2H	36,794
	FEI	(03-008-03) G 3H	40,850
	FEI	(03-008-04) G 4H	55,56
	FEI	(03-008-05) G 5H	56,70
	PEL	(03-008-06) G 6H (03-008-07) G 7H	3,91
	FER	(03-008-08) G 8H	41,303 62,675
R (03-008) Total		(U2"U0")Q 0F1	324,53
(01-001)		1-001-02) TIV - API 37-015-20	264,03
(01-001) Total			
(01-007)	FEI 0	1-007-01) T2H - API 37-015-20	5,31
(01-007) Total			5,31
(01-015)	FEI (0	1-015-01) T 3H	18,17
	the second second second second second second second second second second second second second second second se	1-015-02) T 4H	16,73
		1-015-03) T 5H	19,67
(01-015) Total			54,57
(01-074)	TEUSA	(01-074-01) W 1H	91.81
	TEUSA	(01-074-02) W 2H	89,50
	TEUSA	01-074-03) W 3H	107,100

.

(01-074)	TEUSA MOR	GAN (01-074-04) W 4H	110,544
(01-074) Total	International Contraction		398,958
(01-006)	TEUSA	(01-006-01) J 1H	6,398
	TEUSA	(01-006-02) J 2H	7,760
	TEUSA	(01-006-03) J 3H	
	TEUSA	(01-006-04) J 4H	7,964
(01-006) Total	Intell		22,121
(01-076)	FEIC	(01-076-01) L 7H	34,535
	FEIC	(01-076-02) L 8H	24,821
	FEI	(01-076-03) L 9H	26,804
	FEI	(01-076-04) L 10H	30,747
	图	(01-076-05) L 11H	49,176
	FEI	(01-076-06) L 12H	47,082
	FEL	(01-076-07) L 13H	57,120
(01=076) Total	Teren		284,285
(01-077)	FEI	(01-077-01) L 1H	33,510
	FEI	(01-077-02) L 2H	36,511
	FEI	(01-077-04) L 4H	30,171
	FEI	(01-077-05) L 5H	20,568
	FEI	(01-077-06) L 6H	22,961
(01-077) Total	IFAAT BE		143,721
1 Fd Fatel	EAST RES	>1	
T 259	EAST RES	259 1H	5,045
1 209	EAST RES	259 2H	59,290
	EAST RES	259 3H	61,722
	EAST RES	259 4H	3,182
	EAST RES	259 5H	21,187
	EAST RES	259 6H	- 1101
259 Total		1200 011	150.426
(01-026/027)	IFEI)	(01-027-01) D 3H - API 37-01	12,721
	FEI	D 1H (01-026-01) - API 37-01	10,991
	FEI	D 2H (01-026-02) - API 37-01	10,330
(01-026/027) Tot	and the second se		34,042
(01-043/013)	FEI	D 4H (01-043-01) - API 37-01	6,528
	FEI	D 5H (01-043-02) - API 37-01	5,105
	FEI	D 6H (01-013-01) - API 37-01	4,852
	FEI	D 7H (01-013-02) - API 37-01	4,485
	FEI	D 8H (01-013-03) - API 37-01	5,916
	FEI	D 9H (01-043-03) - API 37-01	4,316
(01-043/013) Tot			31,202
269	EAST RES	269 1H	
269 Total			
(01-001)	FEL	(01-001-01) FT1H - API 37-015	6,144
(01-001) Total			6,144
(01-002)	FEIT	(01-002-01) FT2H - API 37-015	8,269
(01-002) Total			8,269
(01-038)	FEI	(01-038-01) FT 3H	2,841
Contra Astro	FEI	(01-038-02) FT 4H	3,083
	FEI	(01-038-03) FT 5H	3,800
	FEI	(01-038-06) FT 7H	3,607
OMAS (01-038) Total		And the state of t	13,331
Second second second			Jares.

TWL ASSOCIATES (01-016)		SOCIATES 1H (01-016-01)	21,890
		SOCIATES 2H (01-016-02)	15,346
		SOCIATES 3H (01-016-03)	12,923
and the second second second second second second	FEI TWL AS	SOCIATES 4H (01-016-04)	15,152
TWL ASSOCIATES (01-016) T			65,311
M (03-004)	FEI	(03-004-01) R 1H	14,615
	FEI	(03-004-02) R 2H	13,589
	FEI	(03-604-03) R 3H	13,851
	FEI	(03-004-04) R 4H	18,652
	PEI	(03-004-05) R 5H	17,367
(03-004) Total			78,082
(03-054)	TEUSA	(03-064-01) J 1H	
	TEUSA	(03-054-02) J 2H	
	TEUSA	(03-054-03) J 3H	
	TEUSA	(03-054-04) J 4H	
1 (03-064) Total	-		
/268	EAST RES	268 1H	25,300
268 Total	- Concernant and the same		25,300
262	EAST RES	262 1 H	
262 Total			
(01-041/042)	FEI	(01-041-01) R 1H - API 37-0	8,044
	FEI	(01-041-02) R 3H - API 37-0	8,169
	FEI	(01-041-03) R 6H - API 37-0	8,928
	FEI	(01-042-01) R 2H - API 37-0	8,978
	FEI	(01-042-02) R 4H - API 37-0	8,059
	FEI	(01-042-03) R 6H - API 37-0	8,538
(01-041/042) Total	Immilia		50,715
(03-001)	TEUSA	(03-001-01) E 1H	33,264
	TEUSA	(03-001-02) E 2H	12,264
	TEUSA	(03-001-03) E 3H	34,188
	TEUSA	(03-001-04) E 4H	28,728
MR (03-001) Total	141 15		108,444
blank)	(blank)		
blank) Total	In the second		
(03-014) J PAD	TEUSA	(03-014-04) J 4H	28,980
(03-014) J PAD To	(8)		28,980
Grand Total			3,654,595

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vent date Location	State	Material released	Volume	Environmental media
009 04 15 Appalachia	US-PA	Oil based drilling fluids	0.10	Land
009 04 22 Appalachia	US-PA	Stormwater	1.91	Land
009 06 10	US-PA	Flowback / Completions Fluids Water	0.01	Land
009 06 30 Appalachia	US-PA	Other - Chemical Product or Mixture	1.15	Land
009 07 30 Mountain Ridge Road	US-PA	Hydraulic Fluids	0.0190	Land
09 08 17 Appalachia	US-PA	Oil based drilling fluids	0.1190	Land
09 08 17	US-PA	Produced Water	0.0314	Land
09 08 23 Appalachia	US-PA	Produced Water	3.18	Land
09 09 22 Appalachia	US-PA	Rig wash water (surfactant and residual oil based drilling fluid)	2.38	Land
09 10 16 Appalachia	US-PA	Produced Water	0.2840	Land
09 10 26 (Apparating	US-PA	Produced Water	0.0190	Land
00 11 12 (Annalachia	US-PA	Flowback / Completions Fluids Water	0.0020	
09 11 12 Appalachia		Flowback / Completions Fluids water	0.0020	Land
09 11 12 Appalachia	US-PA	Flowback / Completions Fluids Water	0.7950	Land
09 11 21 <b>4</b> H	US-PA	Flowback / Completions Fluids Water	0.03	Land
09 11 22 Appalachia	US-PA	Oil based drilling fluids	1.19	Land
09 11 26 Stateland	US-PA	Flowback / Completions Fluids Water	4.77	Land
09 12 07 Appalachia	US-PA	Oil based drilling fluids	0.06	Land
009 12 08	US-PA	Produced Water	4.77	Land
09 12 29 Appalachia	US-PA	Anti-freeze	0.01	Land
10 01 01 Marcellus	US-PA	Oil based drilling fluids	0.20	Land
10 01 10 03-013-01 W 1H	US-PA	Oil based drilling fluids	0.18	Land
10 01 11 (01-013-03) D8H	US-PA	Flowback / Completions Fluids Water	0.0002	Land
010 01 12 (01-006-03) J3H	US-PA	Diesel Fuel	0.132480	Land
010 01 12 (01-006-03) J3H	US-PA	Diesel Fuel	0.132480	Land/Pooled rainwater on-sit
010 01 16  DCNR 587 02-002-01	US-PA	Oil based drilling fluids	0.3028	Land
10 01 21 A R 4H	US-PA	Lubricating Oil	0.0038	Land
10 01 23 01-042-01 R2H	US-PA	Oil based drilling fluids	0.4770	Land
10 01 27 L6H - L9H (In L6H in Wellview)	US-PA	Oil based drilling fluids	0.0189	Land
10 02 04 DCNR_587 (02-017-03)	US-PA	Oil based drilling fluids	1.59	Land
10 02 22 ( 01-077-06) L 6H	US-PA	Diesel Fuel	0.01	Land
10 02 22 1 1 (01-077-06) L OH			10.09	
10 02 22 DCNR 587 (02-002-03)	US-PA	Oil based drilling fluids	0.09	Land
10 02 23 ms (01-042-02) R 4H	US-PA	Hydraulic Fluids	10.04	Land
10 02 24 Wheeler-Jackson Township	US-PA	Diesel Fuel	0.11	Land
10 02 26 h (01-077-01) L 1H	US-PA	Hydraulic Fluids	0.0160	Land
10 03 06 Marcellus Field Area	US-PA	Oil based drilling fluids	0.05	Land
10 03 08 Putnam (01-077-05)L 5H	US-PA	Diesel Fuel	0.80	Land/Wetland
10 03 08 FEI (01-077-05) L 5H	US-PA	Air drill cuttings	17.24	Land
10 03 09 Marcellus Field Area	US-PA	Hydraulic Oil	0.0080	Land
10 03 16 FEI (03-004-05) R 5H - Pioneer 59	US-PA	Diesel Fuel	0.0750	Land
10 03 16 FEI (03-004-05) R 5H - Pioneer 59	US-PA	Oil based drilling fluids	0.06	Land
10 03 17 Marcellus Field Area	US-PA	Oil based drilling fluids	0.02	Land
10 03 20 Appalachia (EFT 1 Pad)	US-PA	Flowback / Completions Fluids Water	1.60	Land
10 03 21 (DCNR 587 (02-002-04)	US-PA	Oil based drilling fluids	1.30	Land
10 03 25 Appalachia - Thomas (01-038-05) FT 7H (Rig 207)	US-PA	Oil based drilling fluids	10.02	Land
010 03 27 (01-024-04) R 5H	US-PA	Produced Water	0.02	Land
10 03 29 B Train #1	US-PA	Lubricating Oil	0.02	Land
010 03 29 Appalachia - Williams (01-041-01)R 1H	US-PA	Produced Water	0.30	Land
10 04 04 Pappalachia - Williams (01-041-01)k TH	US-PA	Floured water	0.50	Land

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2010 04 12	Cease #3	US-PA	Produced Water	0.0080	Land	-
2010 04 13	Appalachia - TWL (01-016-04)4H	US-PA	Oil based drilling fluids	0.0750	Land	_
2010 04 13	Appalachia - Vanblarcom (03-004-01) R 1H	US-PA	Oil based drilling fluids	0.0160	Land	
2010 04 14	Appalachia - DCNR 587 (02-004-02)	US-PA	Produced Water	0.16	Land	
2010 04 18	Appalachia - Eick (03-013-06) W 6H	US-PA	Hydraulic Fluids	0,0050	Land	
2010 05 02	(03-015-02) J 2H (Dallas Morris 16)	US-PA	Hydraulic Fluids	0.0190	Land	
2010 05 06	er (03-008-08) G 8H (Saxon 171)	US-PA	Oil based drilling fluids	0.06	Land	
2010 05 06	DCNR 587 (02-017-04)	US-PA	Fracwater	0.80	Land	
2010 05 11	DCNR 587 (02-018-02) (Patterson 56)	US-PA	Oil based drilling fluids	0.05	Land	
2010 05 13	(01-041-01) R 1H	US-PA	Hydraulic Fluids	0.0030	Land	
	DCNR 587 (02-017-04) (Cudd)	US-PA	Flowback / Completions Fluids Water	0.08	Land	
2010 05 25	TWL Associates (01-016-01) 1H	US-PA	Cement with residual oil based drilling fluid	0.07	Land	
2010 05 27	Marcellus Field Area	US-PA	Hydraulic Fluids	0.04	Land	2 1
2010 06 03	£ (03-009)	US-PA	Diesel Fuel	0.0020	Land	-
2010 06 03	(03-004-04) R 4H	US-PA	Oil based drilling fluids	0.0150	Land	
2010 07 04	(01-003-01) J 1H	US-PA	Produced Water	0.0190	Land	
2010 07 13	01-077-01 L1H - Precision 209	US-PA	Oil based drilling fluids	12	Land	
2010 08 03	Fallbrook Road	US-PA	Hydraulic Fluids	0.0080	Land	
2010 08 06		US-PA	Natural gas	0.003790	Air	
2010 08 13	Besley Road, Columbia Townshin	US-PA	Anti-freeze	0.0040	Land	
2010 08 20	Besley Road, Columbia Township Bradford County, Troy PA 3 1/2 miles East of route 14	ILIS-PA	Diesel Fuel	0.0950	Land	
2010 08 22	03-013-05 W5H	US-PA	Lubricating Oil	0.0080	Land	
2010 09 01	(03-001-02) E 2H	US-PA	Oil based drilling fluids	0.007570	Land	
2010 09 01	M Wellsite WL 142157	US-PA	Produced water	0.011350	Land	
2010 09 02	DCNR 587 (02-008-04)	US-PA	Diesel Fuel	0.19	Land	
2010 09 09	(01-077-01) L 1H	US-PA	Fracwater	0.07	Land	
	DCNR 587 (02-018)	US-PA	Produced water	0.01	Land	
2010 09 20	DCNR 587 (02-013-02)	US-PA	Lubricating Oil	0.0010	Land	
2010 09 23	01-026-01) D 1	US-PA	Produced water	0.0114	Land	
2010 09 23						
2010 09 27	01-074-02 W2H 01-074-02 W2H	US-PA	Oil based drilling fluids	0.0379	Land	-
		US-PA	Drill cuttings and fresh water based drilling fluid		Land	
	Harvest Holdings 01-036-04 4H	US-PA	Diesel Fuel	0.0189	Land	
2010 10 08	(01-076-07) L 13H - Saxon 170	US-PA	Spray paint	0.0010	Land	-
2010 10 12	/(03-067-02) O 2H	US-PA	Oil based drilling fluids	0.015140	Land	
2010 10 14		US-PA	Produced Water	10.0114	Land	-
2010 10 21	Mountain Ridge meter station	US-PA	Methane gas	0.0010	Air	
	DCNR 5-587-02-005-03	US-PA	Diesel Fuel	0.08	Land	
2010 10 27	Harvest Holdings (01-036-04) 4H	US-PA	Anti-freeze	0.0018	Land	
2010 10 28 2010 11 29	DCNB 587 Statelands Compressor Station Train #2	US-PA	Glycol	0.0757 0.0340	Land	
2010 11 29	05-005-01 K1H Saxon Rig 173	US-PA	Oil based drilling fluids Fracwater		Land	
2010 12 08 2010 12 14	h (01-076) 705-005-01) K 1H - Saxon 173	US-PA	Diesel Fuel	6.06	Land	
	ALL - Coven 172	US-PA	Anti-freeze		Land	
2010 12 17	4H - Saxon 172	US-PA US-PA		0.0010	Land	
2010 12 18	ad	US-PA	Produced water	0.0080	Land	
2010 12 20 2010 12 20	(01-075-04) L4H - PD329		Diesel Fuel Hydraulic Fluids	0.0080	Land	
	10CND 597 (02 005 04) D-Hamma 56	US-PA	Hydraulic Fluids		Land	~
2010 12 20	DCNR 587 (02-005-04) - Patterson 56	US-PA US-PA	Oil based drilling fluids	0.0040	Land	~
2010 12 29	DCNR 587 (02-005-05) - Patterson 56		IL IL DASEO OFILIDO DUIOS		1 ann	

2011 01 06	(03-008)	US-PA	Anti-freeze	0.009460	Land
2011 01 10	(03-008)	US-PA	Flowback / Completions Fluids Water	0.2380	Land
2011 01 16	(03-008)	US-PA	Flowback / Completions Fluids Water	9.54	Land
2011 01 17	am (01-076) - 3637 Fallbrook Road	US-PA	Flowback / Completions Fluids Water	7.95	Land
2011 01 17	DCNR 587-02-008-05	US-PA	Flowback / Completions Fluids Water	0,16	Land
2011 01 18	Noble Pad - Precision 228	US-PA	Anti-freeze	0.0189	Land
2011 01 22	Harvest Holdings (01-036)	US-PA	Flowback / Completions Fluids Water	0.4770	Land
2011 01 24	FEI Longenecker (03-008)	US-PA	Flowback / Completions Fluids Water	0.7950	Land
2011 01 25	#1 wellsite	US-PA	Produced water	8.33	Land
2011 02 02	(03-46-08) B 8H - Saxon 171	US-PA	Hydraulic Fluids	0.003790	Land
2011 02 06	(03-029-01) S 1H	US-PA	Water based drilling fluid	0.1590	Land
2011 02 12	GIV	US-PA	Cement spacer fluid (barite, solvent and other additives)	0.4770	Land
2011 02 14	h 01-076	US-PA	Anti-freeze	0.001890	Land
2011 02 15	Bates Pipeline	US-PA	Diesel Fuel	0.001890	Land
2011 02 17	DCNR 587-02-006-04 - Pioneer 64	US-PA	Solid barite	0.0283	Land
2011 02 18	Thomas Compressor Station	US-PA	Lubricating Oil	0.0001	Land
2011 03 06	(05 034 01) H1H	US-PA	Oil based drilling fluids	1.11	Land
2011 03 08	DCNR-587-(02-006-01) - Pioneer 64	US-PA	Diesel Fuel	0.0946	Land
2011 03 10	DCNR 587 02-005-06	US-PA	Stormwater	0.0001	Land
2011 03 11	DCNR 587 02-005-06	US-PA	Hydraulic Fluids	0.007570	Land
2011 03 15	h (01-076)	US-PA	Flowback / Completions Fluids Water	7.95	Land
2011 03 18	Statelands Compressor Station	US-PA	Lubricating Oil	0.0040	Land
2011 03 28	DCNR 587 (02-001) Pad 1	US-PA	Diesel Fuel	0.0020	Land
2011 03 29	r to t Pipeline	US-PA	Pipeline boring mud (bentonite and water)	0.0010	Land/Wetland
2011 04 10	Ironmine Rd. Columbia Township, PA	US-PA	Pipeline boring mud (bentonite and water)	0.0379	Land
2011 04 12	Pad	US-PA	Sewage	0.011	Land
2011 04 13	Shedden Meter Station	US-PA	Produced water	1.59	Land
2011 04 21	to er Pipeline	US-PA	Pipeline boring mud (bentonite and water)	0.3790	Land
2011 05 05		US-PA	Produced water	0.0080	Land
2011 05 08		US-PA	Hydraulic Fluids	0.0040	Land/Pooled rainwater on-site