UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JUL 25 2013

Michael Decoteau
Senior Project Engineer
364 Littleton Road, Suite 4
Westford, MA 01886

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Former Mobil Oil/Sunoco Station site located at 19 Ames Street, Dedham, MA 02026, Norfolk County; Authorization # MAG910588

Dear Mr. Decoteau:

Based on the review of a Notice of Intent (NOI) submitted by your firm Ground Water Environmental Services, Inc., on behalf of Exxon Mobil Environmental Services Company, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on a dilution factor range (DFR). With the absence of limited dilution to wetlands receiving the treated effluent from this site, EPA determined that the DFR for each parameter is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities) Therefore, the limits for copper of 5.2 ug/L, lead of 1.3 ug/L, nickel of 29 ug/L, and iron of 1,000 ug/L, are required to achieve permit compliance at your site

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on September 1, 2016. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) within 30 days of the project completion. Also, please note this permit expires September 9, 2015 and at that time a new authorization will be required in for this site to continue discharging. Please seek more information at that time from the contact person indicated below within 60 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

for Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Joseph M. Flanagan, Director Dedham, DPW
Mary W. Cathey, GES

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910588**
Authorization Issued:	July, 2013
Facility/Site Name:	Former Mobil Station
Facility/Site Address:	19 Ames Street, Dedham, MA 02026, Norfolk County
	Owners Name; 33 McDonald St. LLC; email address of owner: Not provided Phone No. 781-329-1538
Legal Name of Operator:	Groundwater and Environmental Services, Inc
Operator contact name, title, and Address:	Michael Decoteau, PE, Senior Project Engineer, 364 Littleton Road, Suite 4, Westford, MA 01886
	Email: Not provided
Estimated date of Completion:	September 1, 2016
Category and Sub-Category:	Category I- Petroleum Related Site Remediation. Sub-category A. and B. Gasoline Only Sites and Fuel Oils and Other Oils Sites respectively.
RGP Termination Date:	September 10, 2015
Receiving Water:	Wetland adjacent to Charles River

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
√	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
√	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
√	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
√	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
√	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
√	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
√	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
√	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
√	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
√	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
√	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12] Freshwater Limts	Minimum level=ML
	39. Antimony	5.6	ML 10
	40. Arsenic **	10	ML 20
	41. Cadmium **	0.2	ML 10
	42. Chromium III (trivalent) **	48.8	ML 15
	43. Chromium VI (hexavalent) **	11.4	ML 10
√	44. Copper **	5.2	ML 15
√	45. Lead **	1.3	ML 20
	46. Mercury **	0.9	ML 02
√	47. Nickel **	29	ML 20
	48. Selenium **	5	ML 20
	49. Silver	1.2	ML 10
	50. Zinc **	66.6	ML 15
√	51. Iron	1,000	ML 20

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
√	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

Groundwater
& Environmental Services, Inc.

364 Littleton Road • Suite 4 • Westford, Massachusetts 01886 • 800-221-6119 • Fax 978-392-8583

July 3, 2013

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

Re: Remediation General Permit – Notice of Intent
Former Mobil Station No. 11658 (01-081)
19 Ames Street
Dedham, Massachusetts 02026
MassDEP Site No. 3-2716

To Whom It May Concern:

Groundwater & Environmental Services, Inc. (GES) was retained by ExxonMobil Environmental Services Company, on behalf of ExxonMobil Oil Corporation (ExxonMobil), to prepare the attached Remediation General Permit (RGP) – Notice of Intent (NOI) for the above-referenced former ExxonMobil-owned location, referred to as the Site. ExxonMobil is currently in the process of planning for the installation of a Total Phase (or "Dual Phase") Extraction (TPE) System for the recovery of soil vapor and groundwater. The treatment system is proposed to include the discharge of groundwater to the storm water system.

The RGP-NOI form is included as Attachment A. The Site is a former ExxonMobil-owned petroleum retail station currently operating as a Sunoco station and owned by a third party. A Site Location Map and Site Map are provided as Figures 1 and 2, respectively. Based on gauging of monitoring wells at the Site, the depth to groundwater ranges from approximately 8 to 12 feet below ground surface (bgs).

The Site is the location of a subsurface release of petroleum hydrocarbons that was initially discovered in 1988 for which the Massachusetts Department of Environmental Protection (MassDEP) assigned Site Number 3-2716 in 1991. Since 2001, additional MassDEP Release Tracking Numbers (RTNs) have been assigned to the Site, and subsequently linked to the main MassDEP Site Number, including RTN 3-21116 (September 2001), RTN 3-23153 (September 2003), RTN 3-23994 (June 2004), RTN 3-25770 (March 2006) and RTN 3-26537 (January 2007).

On March 25, 2013, groundwater samples were obtained from two existing on-site monitoring wells (MW-4 and SVE-1), which generally exhibit the highest Site-related dissolved concentrations. Per RGP-Appendix III, groundwater samples were analyzed for

parameters applicable to Category I, Subcategories A and B (gasoline only and fuel oil and other oil sites, respectively). Laboratory analytical results indicated that the concentrations of benzene, ethylbenzene, naphthalene, toluene, total phenols, arsenic, iron, lead, cyanide and total suspended solids exceeded the MA Effluent Limitations listed in RGP-Appendix III under the National Pollutant Discharge Elimination System for Discharges in Massachusetts. The laboratory analytical reports supporting this submittal are included as Attachment B.

During the operation of the TPE System, a vacuum pump will be used to extract groundwater and soil vapor from one or more of nine extraction wells. As shown on Sheet 1 of 2 of the Process & Instrumentation Diagrams (P&ID) (included as Attachment C), following extraction, groundwater will be pumped into a 120-gallon air water separator prior to treatment. As shown on Sheet 2 of 2 of the P&ID (Attachment C), groundwater will be then be pumped from the air water separator via a transfer pump at a rate of 10 gallons per minute (gpm) or less through two (2) bag filter skids equipped with 10 micron filter bags (in parallel), three (3) green sand units in series, three (3) liquid phase carbon units (2,000 lbs per vessel) in series and into a 250-gallon holding tank. A transfer pump will then pump the groundwater into two (2) more bag filter skids equipped with 10 micron filter bags (in parallel), three (3) 3.6 cubic foot ion exchange vessels bedded with CGS resin, and a totalizer before ultimately discharging into the catch basin that is located north of the site, adjacent to the intersection of Ames and Bridge Streets. As shown on the Dual Phase Extraction System Compound Layout, which is included in Attachment D, all of the proposed treatment vessels will be enclosed within the remedial system's container, intended to receive the treated water discharge.

The location of the subject catch basin is shown on a figure included in Attachment E. According to the Town of Dedham Geographic Information Systems (GIS), from the catch basin, the storm drain line extends west across Ames Street and turns north, extending under Bridge Street for approximately 2,400 feet before discharging to the wetland (adjacent to the Charles River), north of the intersection of Zoar Avenue and Bridge Street. The overall effectiveness of the remedial system will be evaluated by conducting periodic groundwater sampling events throughout the year. Once system influent concentrations and groundwater concentrations have dropped to a level that makes continued operation of the system ineffective, the treatment system will be shut down and discharge of treated groundwater to the storm water system will be discontinued. The location of the site, the storm drain line, the discharge point and the receiving waters are depicted on the figure included in Attachment E.

The site is not located at or near any location specified in Appendix VII of the RGP as subject to consultation with the U.S. Fisheries and Wildlife Service or the National Fisheries Service. According to the Massachusetts Division of Fisheries and Wildlife the site is not located within a National Heritage Endangered Species Program (NHESP) Estimated or Priority Habitat (http://www.mass.gov/dfwele/dfw/nhesp/nhesp.htm). According to the National Park Service's National Register Information System (NRIS) (http://www.nps.gov/nr/) there are 348 listed historical sites in Norfolk County and five listed for the Town of Dedham, Massachusetts. The Massachusetts Historical Commission's Massachusetts Cultural Resource Information System (MACRIS)

(http://mhc-macris.net/) listed 446 sites in Dedham with the closest one (the Norfolk County Courthouse) approximately 3,000 feet south-southeast of the site. Based upon the information contained in the MACRIS listing, the historical sites adjacent to the site are comprised of homes and are unlikely to be adversely affected by the proposed discharge. Copies of the NRIS, MACRIS and NHESP listings and/or maps are included in Attachment F.

If you have any questions or require further information, please contact the undersigned at (800) 221-6119.

Sincerely,

Groundwater & Environmental Services, Inc.

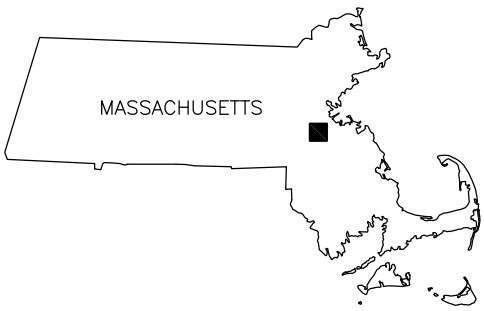
Mary W. Cathey, PG
Project Geologist

Michael Decoteau, PE
Senior Project Engineer

cc: ExxonMobil

Figures

SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1987
BOSTON SOUTH, MASSACHUSETTS
CONTOUR INTERVAL = 3 METERS



QUADRANGLE LOCATION

DRAFTED BY: W.G.S. (N.J.)	SITE LOCATION MAP
CHECKED BY: MC MD	MOBIL SERVICE STATION #11658 (01-081) 19 AMES STREET DEDHAM, MASSACHUSETTS
NORTH	Groundwater & Environmental Services, Inc. 364 LITTLETON ROAD, SUITE 4, WESTFORD, MA 01886

SCALE IN FEET	DATE	FIGURE
0 2000	2-21-11	1

M:\Graphics\1600-Westford\ExxonMobil\Mobil (some files moved to Global)\01-081 Dedham\01-081 dedham SLM.dwg, Model, 2/21/2011 3:13:19 PM, WShea

SOURCE:

C.T. MALE ASSOCIATES, P.C. 5-22-2008
(ACTIVITY AND USE LIMITATIONS (A.U.L.) PLAN).

LEGEND

- FF/O — FORMER FUEL OIL TANK
- FW/O — FORMER WASTE OIL TANK
- F/O — ABOVEGROUND FUEL OIL TANK
- W/O — ABOVEGROUND WASTE OIL TANK
- OIL/WATER SEPARATOR
- FENCE
- UTILITY POLE
- GAS VALVE
- UTILTY MANHOLE
- CATCH BASIN
- DISPENSER IDENTIFICATION
- CLEANOUT
- MONITORING WELL
- ABANDONED/DESTROYED MONITORING WELL
- VAPOR POINT
- AIR SPARGE WELL
- SOIL VAPOR EXTRACTION WELL
- TOTAL PHASE EXTRACTION WELL
- SS — UNDERGROUND SANITARY SEWER LINE
- OHU — OVERHEAD UTILITY LINE
- T — TELEPHONE LINE
- S — SEWER LINE
- W — WATER LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC LINE

NOTE:

LOCATION OF UTILITIES ARE BASED ON FIELD OBSERVATIONS, DIGSAFE MARKINGS AND GPR/PUL SURVEY DATA. THE LOCATIONS ON THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE.

F/O AND W/O TANKS ARE TO BE RELOCATED TO SOUTHWEST CORNER OF STATION.

STATION ADDITION TO BE REDUCED IN SIZE.

BRIDGE STREET
(60' WIDE RIGHT-OF-WAY)

AMES STREET
(49.5' WIDE RIGHT-OF-WAY)

2 STORY BRICK RESIDENCE
GARAGE
WOOD DECK
SHED
BLACKTOP DRIVEWAY
GRASS
CHAIN LINK FENCE
WOOD FENCE
STATION BUILDING
ADDITION
CONCRETE WALK
OVERHANG
10' HIGH WOOD STOCKADE FENCE
4' HIGH CHAIN LINK FENCE
DUMPSTER AREA
IPF
PUMP ISLAND
SIGN
IRON FENCE
3' HIGH STOCKADE FENCE
CONCRETE CURB
CONCRETE COLUMN
2 STORY FRAME RESIDENCE #30
2 STORY FRAME RESIDENCE #24
2 STORY FRAME RESIDENCE #18
2 STORY FRAME RESIDENCE #10
1 S... BRICK ... #8
8K GALLON GASOLINE UST
10K GALLON GASOLINE UST
UPWL 51
GES2
GES3
GT101A/B
GT102
GT104
GT105
MW1
MW2
MW4
MW4D
MW5
MW6
MW7
MW8
MW9
MW11
MW12
MW13
MW14
SB1P
SB3P
SB4P
SVE1
SVE3
SVE5
TPE1
TPE2
TPE3
TPE4
TPE5
TPE6
TPE8
TPE9
VP1
VP2
VP3
VP4

DRAFTED BY:	W.G.S. (N.J.)
CHECKED BY:	MC
REVIEWED BY:	MD
NORTH	

SITE MAP

FORMER MOBIL SERVICE STATION
#11658 (01-081)
19 AMES STREET
DEDHAM, MASSACHUSETTS

Groundwater & Environmental Services, Inc.
364 LITTLETON ROAD SUITE 4 WESTFORD, MA 01886

SCALE IN FEET	DATE	FIGURE
0 30	11-5-12	2

Attachment A

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Former Mobil Station		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 71 10'43.56"W latitude: 42 15'28.62"N	Facility SIC code(s): 5541	Street: 19 Ames Street		
b) Name of **facility/site owner:** 33 McDonald St LLC		Town: Dedham		
Email address of facility/site owner: na		State: Massachusetts	Zip: 02026	County: Norfolk
Telephone no. of facility/site **owner**: 781-329-1538				
Fax no. of facility/site **owner**: na		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of **operator**:	**Operator** telephone no: 800-221-6119			
Groundwater & Environmental Services, Inc. (GES)	**Operator** fax no.: 978-392-8583	**Operator** email:		
Operator contact name and title: Michael Decoteau, PE, Senior Project Engineer				
Address of **operator** (if different from owner):	Street: 364 Littleton Road, Suite 4			
Town: Westford	State: MA	Zip: 01886	County: Middlesex	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y ○ N ◉, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ◉, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ○ N ◉
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ○ N ◉

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ◉
If Y, please list:
1. site identification # assigned by the state of NH or MA: MassDEP Site No. 3-2716
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

MassDEP Northeast Regional Office
205B Lowell Street, Wilmington, MA 01887, Ph# 978-694-3200

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ○ N ◉,
if Y, number:
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ○ N ◉, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ◉

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☒ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☒ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Groundwater that will be extracted during the operation of a Total Phase (soil vapor and groundwater) Extraction System. Treated groundwater will be discharged to the storm water system.

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow: 0.0223 Is maximum flow a **design value**? Y ◉ N ○
Average flow (include units) 0.0223 cfs Is average flow a design value or estimate? design

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 42 15'29.69"N long. 71 10'43.51" pt.2: lat. _____ long. _____;
pt.3: lat. _____ long. _____ pt.4: lat. _____ long. _____;
pt.5: lat. _____ long. _____ pt.6: lat. _____ long. _____;
pt.7: lat. _____ long. _____ pt.8: lat. _____ long. _____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): _____

5) Is the discharge intermittent ◉ or seasonal ○?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start September 1, 2013 end September 1, 2016

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). Please see the attached figures.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	2	grab	2540	5	48,000	2.615	48,000	2.615
2. Total Residual Chlorine (TRC)		☒	☐	2	grab	4500	20				
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	2	grab	8015	1	74,000	4.03	74,000	4.03
4. Cyanide (CN)	57125	☐	☒	2	grab	335.4		14	0.001	14	0.001
5. Benzene (B)	71432	☐	☒	2	grab	8260B	20	710	0.039	710	0.039
6. Toluene (T)	108883	☐	☒	2	grab	8260B	20	8,830	0.481	8,830	0.481
7. Ethylbenzene (E)	100414	☐	☒	1	grab	8260B	20	1,840	0.1002	1,840	0.1002
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	2	grab	8260B	60	16,100	0.877	16,100	0.877
9. Total BTEX [2]	n/a	☐	☒	2	grab	8260B	120	27,480	1.497	27,480	1.497
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	2	grab	8260B	0.0100				
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☐	☒	2	grab	8260B	20	12	0.0007	12	0.0007
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	2	grab	8260B	200				

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	2	grab	8260B	20				
14. Naphthalene	91203	☐	☒	2	grab	8260C8260B	20	621	0.034	621	0.034
15. Carbon Tetrachloride	56235	☒	☐	2	grab	8260B	20				
16. 1,2 Dichlorobenzene (o-DCB)	95501	☐	☒	2	grab	8260B	20	9.2	0.0005	9.2	0.0005
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	2	grab	8260B	20				
18. 1,4 Dichlorobenzene (p-DCB)	106467	☐	☒	2	grab	8260B	20	2.1	0.0001	2.1	0.0001
18a. Total dichlorobenzene		☐	☒	2	grab	8260B	60	11.3	0.0006	11.3	0.0006
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	2	grab	8260B	20				
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	2	grab	8260B	20				
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	2	grab	8260B	20				
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	2	grab	8260B	20				
23. Methylene Chloride	75092	☒	☐	2	grab	8260B	40				
24. Tetrachloroethene (PCE)	127184	☒	☐	2	grab	8260B	20				
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	2	grab	8260B	20				
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	2	grab	8260B	20				
27. Trichloroethene (TCE)	79016	☒	☐	2	grab	8260B	20				

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	2	grab	8260B	20				
29. Acetone	67641	☒	☐	2	grab	8260B	200				
30. 1,4 Dioxane	123911	☒	☐	2	grab	8260B	400				
31. Total Phenols	108952	☐	☒	2	grab	8270C	7	576	0.0314	576	0.0314
32. Pentachlorophenol (PCP)	87865	☒	☐	2	grab	8270C	5				
33. Total Phthalates (Phthalate esters) [4]		☒	☐	2	grab	8270C	3				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	2	grab	8270C	5				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	2	grab	8270C	5				
a. Benzo(a) Anthracene	56553	☒	☐	2	grab	8270C	5				
b. Benzo(a) Pyrene	50328	☒	☐	2	grab	8270C	5				
c. Benzo(b)Fluoranthene	205992	☒	☐	2	grab	8270C	5				
d. Benzo(k)Fluoranthene	207089	☒	☐	2	grab	8270C	5				
e. Chrysene	21801	☒	☐	2	grab	8270C	5				
f. Dibenzo(a,h)anthracene	53703	☒	☐	2	grab	8270C	5				
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	2	grab	8270C	5				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	2	grab	8270C	5				

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	2	grab	8270C	5				
i. Acenaphthylene	208968	☒	☐	2	grab	8270C	5				
j. Anthracene	120127	☒	☐	2	grab	8270C	5				
k. Benzo(ghi) Perylene	191242	☒	☐	2	grab	8270C	5				
l. Fluoranthene	206440	☒	☐	2	grab	8270C	5				
m. Fluorene	86737	☒	☐	2	grab	8270C	5				
n. Naphthalene	91203	☐	☒	2	grab	8270C	5	621	0.034	621	0.034
o. Phenanthrene	85018	☒	☐	2	grab	8270C	5				
p. Pyrene	129000	☒	☐	2	grab	8270C	5				
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	2	grab	8082	1.9				
38. Chloride	16887006	☐	☒	2	grab	4500CL C	10	2,370,000	129	2,370,000	129
39. Antimony	7440360	☒	☐	2	grab	6010C	6				
40. Arsenic	7440382	☐	☒	2	grab	200.76010	4	17.1	0.001	17.1	0.001
41. Cadmium	7440439	☒	☐	2	grab	6010C	2.5				
42. Chromium III (trivalent)	16065831	☒	☐	2	grab	calculation					
43. Chromium VI (hexavalent)	18540299	☒	☐	2	grab	7196A					
44. Copper	7440508	☒	☐	2	grab	6010C	5				
45. Lead	7439921	☐	☒	2	grab	6010C	7.5	29.6	0.002	29.6	0.002
46. Mercury	7439976	☒	☐	2	grab	7470A	0.2				
47. Nickel	7440020	☒	☐			6010C	5				
48. Selenium	7782492	☒	☐	2	grab	6010C	15				
49. Silver	7440224	☒	☐	2	grab	6010C	5				
50. Zinc	7440666	☒	☐	2	grab	6010C	5				
51. Iron	7439896	☐	☒	1	grab	6010C6010	15	48100	2.62	48100	2.62
Other (describe):		☐	☒								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
2-Methylnaphthalene		☐	☒	2	grab	8270C		66.1	0.004	66.1	0.004
Barium		☐	☒	2	grab	6010C		355	0.019	355	0.019

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y◉ N○	If yes, which metals? iron and arsenic
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: lead DF: 12.9 Metal: iron DF: 12.9 Metal: arsenic DF: 12.9 Metal: DF: Etc. See Attachment F for dilution factor calculation.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y◉ N○ If Y, list which metals: iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

See attached description

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☐	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☒	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	Other (please describe):	air/water separator, green sand and CGS ion exchange resin		

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

4. Treatment system information.

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Refer to the Process & Instrumentation Diagram (P&ID) and Dual Phase Extraction System Layout, provided as Attachments C and D, respectively. During the operation of the TPE System, a vacuum pump (Dekker VMX0553K) will be used to extract groundwater and soil vapor from one or more of nine extraction well(s). Following extraction, groundwater will be pumped at 10 GPM or less via a transfer pump into a 120-gallon air water separator. Groundwater will be then be pumped at 10 GPM or less from the air water separator via a transfer pump through two (2) bag filter skids equipped with 10 micron filter bags in parallel, three (3) green sand units in series, three (3) Tetrasolv Filtration VFV-2000 granular activated carbon (GAC) vessels in series and into a 250-gallon holding tank. Groundwater will be then be pumped from the holding tank at 10 GPM or less via a transfer pump into two (2) more bag filter skids equipped with 10 micron filter bags in parallel, three (3) 3.6 cubic foot ion exchange vessels bedded with CGS resin, and a totalizer before ultimately discharging into the catch basin that is located north of the site, adjacent to the intersection of Ames and Bridge Streets.

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 10 gpm Maximum flow rate of treatment system 10 gpm
Design flow rate of treatment system 10 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

none

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Drain line extends across Ames Street, turns north and extends ~2,400 feet beneath Bridge Street to the discharge pt (wetlands adjacent to the Charles River).

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water Class B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 12.9 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ◉ N ○ If yes, for which pollutant(s)? see note below

Is there a final TMDL? Y ○ N ◉ If yes, for which pollutant(s)? see note below

Note: According to the MA Year 2012 Integrated List of Waters, Segment MA72-07 of the Charles River is listed as a Category 5 (requires TMDL). The impairment causes listed are fish-passage barrier and non-native aquatic plants (non-pollutant causes therefore TMDL not required) as well as other flow regime alterations, DDT, E. coli, fishes bioassessments, nutrient/eutrophication biological indicators, PCB in fish tissue and phosphorus (total).

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ◉ Underway ○ n/a

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ◉ n/a

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ◉ 2 ○ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

The following supplemental information is provided:

Figures - Site Location Map & Site Map
Attachment B - Laboratory analytical report
Attachment C - Process & Instrumentation Diagrams
Attachment D - Dual Phase Extraction System Compound System
Attachment E - figure showing discharge point and receiving waters
Attachment F - National Register of Historic Places & Massachusetts Cultural Resource Information lists, aerial photo showing no NHESP Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife identified at the site or in the vicinity. dilution factor calculations and mass calculations summary sheet

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	Former Mobil Station No. 11658
Operator signature:	
Printed Name &Title:	Michael Decoteau, PE / Senior Project Engineer
Date:	7/3/13

Attachment B

New England ACCUTEST LABORATORIES

04/10/13

Technical Report for

ExxonMobil

GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

1604541

Accutest Job Number: MC19193

Sampling Date: 03/25/13

Report to:

Groundwater & Environmental Services
364 Littleton Rd. Suite 4
Westford, MA 01886
bhoran@gesonline.com; stran@gesonline.com

ATTN: Brian Horan

Total number of pages in report: **91**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

ExxonMobil

Job No: MC19193

GESMA:S/S 01-081, 19 Ames Street, Dedham, MA
Project No: 1604541

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19193-1	03/25/13	13:15 PM	03/25/13	AQ	Ground Water	MW-4
MC19193-2	03/25/13	11:40 PM	03/25/13	AQ	Ground Water	SVE-1
MC19193-3	03/25/13	00:00 PM	03/25/13	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: ExxonMobil **Job No** MC19193

Site: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA **Report Date** 4/10/2013 4:04:46 PM

2 Sample(s), 1 Trip Blank(s) were collected on 03/25/2013 and were received at Accutest on 03/25/2013 properly preserved, at 0.5 Deg. C and intact. These Samples received an Accutest job number of MC19193. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSL3388

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for Acetone are outside control limits. Blank Spike meets program technical requirements.
- Continuing calibration check standard MSL3388-CC3357 for trichlorofluoromethane, acetone, tert-butyl ethyl ether, tert-amyl methyl ether, naphthalene exceed 20% Difference. This check standard met MCP criteria.
- The response factor (RF) for the 2-Butanone low point in the initial calibration MSL3357-ICC3357 is 0.02 less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Quadratic regression is employed for initial calibration standard in batch MSL3357-ICC3357 for methyl tert butyl ether, 2,2-dichloropropane, carbon tetrachloride.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP32401

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for 4-Nitrophenol, Aniline, Benzoic Acid, Dimethyl phthalate, Hexachlorocyclopentadiene, Hexachloroethane, Phenol are outside control limits. Blank Spike meets program technical requirements.
- Quadratic regression is employed for initial calibration standard MSF2913-ICC2913 for 2,4-Dinitrophenol, Pentachlorophenol.
- Initial calibration verification MSF2913-ICV2913 for Hexachlorocyclopentadiene exceed 30% Difference.
- RPD of OP32401-BSD for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol: Outside control limits. Blank Spike meets program technical requirements.
- MC19193-2 for 2,4,6-Tribromophenol: Outside control limits due to dilution.
- Continuing calibration check standard MSF2931-CC2913 for Nitrobenzene, 2,4-Dimethylphenol exceed 20% Difference. This check standard met MCP criteria.

Volatiles by GC By Method MADEP VPH REV 1.1

Matrix AQ **Batch ID:** GAB4070

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only range reported.

Volatiles by GC By Method SW846 8015

Matrix	AQ	Batch ID:	GBH1725

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8082

Matrix	AQ	Batch ID:	OP32446

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846-8015

Matrix	AQ	Batch ID:	OP32466

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- RPD of OP32466-BSD for TPH-DRO (Semi-VOA): Range recovery satisfactory.

Metals By Method SW846 6010C

Matrix	AQ	Batch ID:	MP20666

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19148-16SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium, Copper, Nickel, Zinc are outside control limits for sample MP20666-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7470A

Matrix	AQ	Batch ID:	MP20669

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method 6010/7196A M/200.7

Matrix	AQ	Batch ID:	R32563

- MC19193-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method EPA 335.4

Matrix	AQ	Batch ID:	GP15810

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 2540D

Matrix	AQ	Batch ID:	GN42171

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL C

Matrix	AQ	Batch ID:	GN42151

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL F

Matrix	AQ	Batch ID:	GN42135

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC19193-1 for Total Residual Chlorine: Analysis performed past the required 15 minutes of collection time/holding time.
- MC19193-2 for Total Residual Chlorine: Analysis performed past the required 15 minutes of collection time/holding time.

Wet Chemistry By Method SW846 7196A

Matrix	AQ	Batch ID:	GN42114

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC19193).

Summary of Hits

Job Number: MC19193
Account: ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA
Collected: 03/25/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19193-1	**MW-4**					
Benzene		116	0.50		ug/l	SW846 8260B
sec-Butylbenzene		18.8	5.0		ug/l	SW846 8260B
1,2-Dichlorobenzene		9.2	1.0		ug/l	SW846 8260B
1,4-Dichlorobenzene		2.1	1.0		ug/l	SW846 8260B
Ethylbenzene		1590	20		ug/l	SW846 8260B
Isopropylbenzene		88.5	5.0		ug/l	SW846 8260B
p-Isopropyltoluene		19.1	5.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		8.7	1.0		ug/l	SW846 8260B
Naphthalene		327	5.0		ug/l	SW846 8260B
n-Propylbenzene		263	5.0		ug/l	SW846 8260B
Toluene		766	20		ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1620	100		ug/l	SW846 8260B
1,3,5-Trimethylbenzene		511	100		ug/l	SW846 8260B
m,p-Xylene		5220	20		ug/l	SW846 8260B
o-Xylene		1740	20		ug/l	SW846 8260B
Xylene (total)		6970	20		ug/l	SW846 8260B
2,4-Dimethylphenol		15.7	10		ug/l	SW846 8270C
3&4-Methylphenol		15.6	10		ug/l	SW846 8270C
Acetophenone		78.1	10		ug/l	SW846 8270C
1,2-Dichlorobenzene		5.9	5.0		ug/l	SW846 8270C
2-Methylnaphthalene		40.8	2.0		ug/l	SW846 8270C
Naphthalene		194	2.0		ug/l	SW846 8270C
C5- C8 Aliphatics (Unadj.)		1550	500		ug/l	MADEP VPH REV 1.1
C9- C12 Aliphatics (Unadj.)		17300	500		ug/l	MADEP VPH REV 1.1
C9- C10 Aromatics (Unadj.)		7440	500		ug/l	MADEP VPH REV 1.1
C5- C8 Aliphatics		955	500		ug/l	MADEP VPH REV 1.1
C9- C12 Aliphatics		3280	500		ug/l	MADEP VPH REV 1.1
TPH-GRO (VOA)		27.4	2.0		mg/l	SW846 8015
TPH-DRO (Semi-VOA)		10.5	0.20		mg/l	SW846-8015
Arsenic		17.1	4.0		ug/l	SW846 6010C
Barium		355	50		ug/l	SW846 6010C
Iron		48100	100		ug/l	SW846 6010C
Lead		29.6	5.0		ug/l	SW846 6010C
Chloride		2300	50		mg/l	SM21 4500CL C
Cyanide		0.014	0.010		mg/l	EPA 335.4
Solids, Total Suspended		48.0	4.0		mg/l	SM21 2540D
Total Residual Chlorine [a]		< 0.050	0.050		mg/l	SM21 4500CL F
MC19193-2	**SVE-1**					
Benzene		710	25		ug/l	SW846 8260B
n-Butylbenzene		115	5.0		ug/l	SW846 8260B
Ethylbenzene		1840	50		ug/l	SW846 8260B

Summary of Hits

Job Number: MC19193
Account: ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA
Collected: 03/25/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Isopropylbenzene		75.7	5.0		ug/l	SW846 8260B
p-Isopropyltoluene		12.2	5.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		12.0	1.0		ug/l	SW846 8260B
Naphthalene		621	250		ug/l	SW846 8260B
n-Propylbenzene		156	5.0		ug/l	SW846 8260B
Styrene		18.3	5.0		ug/l	SW846 8260B
Toluene		8830	50		ug/l	SW846 8260B
1,2,4-Trimethylbenzene		2930	250		ug/l	SW846 8260B
1,3,5-Trimethylbenzene		912	250		ug/l	SW846 8260B
m,p-Xylene		10600	50		ug/l	SW846 8260B
o-Xylene		5460	50		ug/l	SW846 8260B
Xylene (total)		16100	50		ug/l	SW846 8260B
2,4-Dimethylphenol		477	100		ug/l	SW846 8270C
2-Methylphenol		27.0	10		ug/l	SW846 8270C
3&4-Methylphenol		72.1	10		ug/l	SW846 8270C
Acetophenone		66.8	10		ug/l	SW846 8270C
2-Methylnaphthalene		66.1	2.0		ug/l	SW846 8270C
Naphthalene		286	2.0		ug/l	SW846 8270C
C5- C8 Aliphatics (Unadj.)		11900	1000		ug/l	MADEP VPH REV 1.1
C9- C12 Aliphatics (Unadj.)		26300	1000		ug/l	MADEP VPH REV 1.1
C9- C10 Aromatics (Unadj.)		9040	1000		ug/l	MADEP VPH REV 1.1
C5- C8 Aliphatics		5250	1000		ug/l	MADEP VPH REV 1.1
C9- C12 Aliphatics		5050	1000		ug/l	MADEP VPH REV 1.1
TPH-GRO (VOA)		61.2	5.0		mg/l	SW846 8015
TPH-DRO (Semi-VOA)		12.8	0.20		mg/l	SW846-8015
Arsenic		10.7	4.0		ug/l	SW846 6010C
Barium		338	50		ug/l	SW846 6010C
Iron		22700	100		ug/l	SW846 6010C
Chloride		2370	50		mg/l	SM21 4500CL C
Cyanide		0.013	0.010		mg/l	EPA 335.4
Solids, Total Suspended		33.0	4.0		mg/l	SM21 2540D
Total Residual Chlorine [a]		< 0.050	0.050		mg/l	SM21 4500CL F

MC19193-3 TRIP BLANK

No hits reported in this sample.

(a) Analysis performed past the required 15 minutes of collection time/holding time.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72088.D	1	03/26/13	KD	n/a	n/a	MSL3388
Run #2	L72090.D	20	03/26/13	KD	n/a	n/a	MSL3388

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	116	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	18.8	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	9.2	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	2.1	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	1590 [a]	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	88.5	5.0	ug/l	
99-87-6	p-Isopropyltoluene	19.1	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.7	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	327	5.0	ug/l	
103-65-1	n-Propylbenzene	263	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	766 [a]	20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1620 [a]	100	ug/l	
108-67-8	1,3,5-Trimethylbenzene	511 [a]	100	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	5220 [a]	20	ug/l	
95-47-6	o-Xylene	1740 [a]	20	ug/l	
1330-20-7	Xylene (total)	6970 [a]	20	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	95%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F62682.D	1	04/03/13	KR	03/27/13	OP32401	MSF2934
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	15.7	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	15.6	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
98-86-2	Acetophenone	78.1	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	

ND = Not detected
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	5.9	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	ug/l	
132-64-9	Dibenzofuran	ND	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	40.8	2.0	ug/l	
91-20-3	Naphthalene	194	2.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	105%		15-110%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	70%		30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB76195.D	10	03/26/13	AF	n/a	n/a	GAB4070
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1550	500	ug/l	
	C9- C12 Aliphatics (Unadj.)	17300	500	ug/l	
	C9- C10 Aromatics (Unadj.)	7440	500	ug/l	
	C5- C8 Aliphatics	955	500	ug/l	
	C9- C12 Aliphatics	3280	500	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	97%		70-130%
	2,3,4-Trifluorotoluene	103%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8015	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH29811.D	20	03/28/13	TB	n/a	n/a	GBH1725
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (VOA)	27.4	2.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	94%		60-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ79090.D	1	04/02/13	CZ	03/30/13	OP32446	GYZ7070
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	64%		30-150%
877-09-8	Tetrachloro-m-xylene	50%		30-150%
2051-24-3	Decachlorobiphenyl	91%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	MC19193-1	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846-8015 SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20052.D	1	04/05/13	KN	04/01/13	OP32466	GBI723
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	10.5	0.20	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: MC19193-1
Matrix: AQ - Ground Water
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Date Sampled: 03/25/13
Date Received: 03/25/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Arsenic	17.1	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Barium	355	50	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Cadmium	< 4.0	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Iron	48100	100	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Lead	29.6	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Mercury	< 0.20	0.20	ug/l	1	03/26/13	03/26/13	EM	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 40	40	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Silver	< 5.0	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Thallium	< 5.0	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Vanadium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA15384
(2) Instrument QC Batch: MA15385
(3) Prep QC Batch: MP20666
(4) Prep QC Batch: MP20669

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: MC19193-1
Matrix: AQ - Ground Water
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Date Sampled: 03/25/13
Date Received: 03/25/13
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2300	50	mg/l	50	03/27/13	CF	SM21 4500CL C
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	03/26/13 09:21	MC	SW846 7196A
Chromium, Trivalent [a]	< 0.020	0.020	mg/l	1	03/26/13 18:38	EAL	6010/7196A M/200.7
Cyanide	0.014	0.010	mg/l	1	04/05/13 15:37	MA	EPA 335.4
Solids, Total Suspended	48.0	4.0	mg/l	1	03/29/13	BF	SM21 2540D
Total Residual Chlorine [b]	< 0.050	0.050	mg/l	1	03/26/13 16:42	MA	SM21 4500CL F

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)
(b) Analysis performed past the required 15 minutes of collection time/holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72089.D	1	03/26/13	KD	n/a	n/a	MSL3388
Run #2	L72091.D	50	03/26/13	KD	n/a	n/a	MSL3388

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	710 [a]	25	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	115	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	1840 [a]	50	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	75.7	5.0	ug/l	
99-87-6	p-Isopropyltoluene	12.2	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	12.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	621 [a]	250	ug/l	
103-65-1	n-Propylbenzene	156	5.0	ug/l	
100-42-5	Styrene	18.3	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	8830 [a]	50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	2930 [a]	250	ug/l	
108-67-8	1,3,5-Trimethylbenzene	912 [a]	250	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	10600 [a]	50	ug/l	
95-47-6	o-Xylene	5460 [a]	50	ug/l	
1330-20-7	Xylene (total)	16100 [a]	50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	95%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	97%	100%	70-130%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F62683.D	1	04/03/13	KR	03/27/13	OP32401	MSF2934
Run #2	W10901.D	10	04/08/13	KR	03/27/13	OP32401	MSW510

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	477 [a]	100	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
95-48-7	2-Methylphenol	27.0	10	ug/l	
	3&4-Methylphenol	72.1	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
98-86-2	Acetophenone	66.8	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	

ND = Not detected
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	ug/l	
132-64-9	Dibenzofuran	ND	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	66.1	2.0	ug/l	
91-20-3	Naphthalene	286	2.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	17%	87%	15-110%
4165-62-2	Phenol-d5	30%	64%	15-110%
118-79-6	2,4,6-Tribromophenol	96%	146% [b]	15-110%
4165-60-0	Nitrobenzene-d5	65%	127%	30-130%
321-60-8	2-Fluorobiphenyl	71%	120%	30-130%
1718-51-0	Terphenyl-d14	69%	110%	30-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB76194.D	20	03/26/13	AF	n/a	n/a	GAB4070
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	Units	Q
	C5- C8 Aliphatics (Unadj.)	11900	1000	ug/l	
	C9- C12 Aliphatics (Unadj.)	26300	1000	ug/l	
	C9- C10 Aromatics (Unadj.)	9040	1000	ug/l	
	C5- C8 Aliphatics	5250	1000	ug/l	
	C9- C12 Aliphatics	5050	1000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	98%		70-130%
	2,3,4-Trifluorotoluene	104%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8015	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH29808.D	50	03/27/13	TB	n/a	n/a	GBH1725
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (VOA)	61.2	5.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	92%		60-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ79091.D	1	04/02/13	CZ	03/30/13	OP32446	GYZ7070
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		30-150%
877-09-8	Tetrachloro-m-xylene	52%		30-150%
2051-24-3	Decachlorobiphenyl	97%		30-150%
2051-24-3	Decachlorobiphenyl	93%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
Method:	SW846-8015 SW846 3510C	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20054.D	1	04/05/13	KN	04/01/13	OP32466	GBI723
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	12.8	0.20	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SVE-1
Lab Sample ID: MC19193-2
Matrix: AQ - Ground Water
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Date Sampled: 03/25/13
Date Received: 03/25/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Arsenic	10.7	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Barium	338	50	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Cadmium	< 4.0	4.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Iron	22700	100	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Mercury	< 0.20	0.20	ug/l	1	03/26/13	03/26/13	EM	SW846 7470A [1]	SW846 7470A [4]
Nickel	< 40	40	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Silver	< 5.0	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Thallium	< 5.0	5.0	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Vanadium	< 10	10	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	03/26/13	03/26/13	EAL	SW846 6010C [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA15384
(2) Instrument QC Batch: MA15385
(3) Prep QC Batch: MP20666
(4) Prep QC Batch: MP20669

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SVE-1		
Lab Sample ID:	MC19193-2	**Date Sampled:**	03/25/13
Matrix:	AQ - Ground Water	**Date Received:**	03/25/13
		Percent Solids:	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2370	50	mg/l	50	03/27/13	CF	SM21 4500CL C
Cyanide	0.013	0.010	mg/l	1	04/05/13 15:36	MA	EPA 335.4
Solids, Total Suspended	33.0	4.0	mg/l	1	03/29/13	BF	SM21 2540D
Total Residual Chlorine [a]	< 0.050	0.050	mg/l	1	03/26/13 16:45	MA	SM21 4500CL F

(a) Analysis performed past the required 15 minutes of collection time/holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC19193-3	**Date Sampled:**	03/25/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/25/13
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB76196.D	1	03/26/13	AF	n/a	n/a	GAB4070
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	50	ug/l	
	C5- C8 Aliphatics	ND	50	ug/l	
	C9- C12 Aliphatics	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	95%		70-130%
	2,3,4-Trifluorotoluene	102%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Parameter Certifications (MA)
- Chain of Custody
- MCP Form
- VPH Form
- Sample Tracking Chronicle

Parameter Certifications

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

The following parameters included in this report are certified by the state of MA.

Parameter	CAS#	Method	Mat	Certification Status
Chloride	16887-00-6	**SM21 4500CL C**	AQ	Accutest is certified for this parameter.
Cyanide	57-12-5	**EPA 335.4**	AQ	Accutest is certified for this parameter.
Solids, Total Suspended		**SM21 2540D**	AQ	Accutest is certified for this parameter.
Total Residual Chlorine		**SM21 4500CL F**	AQ	Accutest is certified for this parameter.

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 Tech Center West, Bldg 1
Marlboro, MA 01752
508-481-6200 FAX: 508-481-6200

Accutest Job #: MC19193

Client Information | Facility Information | Analytical Information

EXXONMOBIL CORPORATION - Regional Laboratory Program Northeast

Consultants Company Name:	Project Name:
Address	Street
City / State / Zip	City / State
Project Contact:	ExxonMobil Contact
Sampler's Name:	ExxonMobil Contact Phone #:
Phone #: / Ext. / Fax #:	Location ID# / WBS#
AFE #:	PO# / Line#

Analytical Information columns: BTEX 8260 ☐ 624 ☐ 8021 ☐ 524 ☐ MTBE ☐ TBA ☐ Naphthalene ☐ Oxygenates ☐; VOC AQUEOUS 8260 ☐ 624 ☐ 524 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐; VOC SOIL 8260 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐ 5035LOW ☐ 5035MED ☐; VPH RANGES ☐ TARGETS ☐; EPH RANGES ☐ TARGET (PAH) ☐ DIESEL (PAH) ☐; TPH-CTDEP ☐ TPH418.1 ☐; TPH-MADEP GRO ☐ DRO ☐; TPH-8015 GRO X TPH-8015 DRO X; METALS TOTAL ☐ DISSOLVED ☐ HMS ☐ HMS ☐; METALS TCLP ☐ SPLP ☐ HMS ☐ HMS ☐; SM18 4500CL-C

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	MEOH	Encore	Other	None
-1														
-2			1130											
-3														

REVISED 3/26/13 JP

Turnaround Time (Business days) — Approved By:/Date

- ☒ Std. 10 Business Days
- ☐ 8 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ ~~1 Day EMERGENCY~~

Emergency T/A is for FAX or Lablink Data

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Full Deliverables
- ☐ Other
- ☐ FULL CLP
- ☐ State Forms
- ☐ Disk Deliverable Format

Site Specific: QC Yes ☐ No ☐ If yes, indicate QC sample in Comments and submit triplicate volume.

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time:	Received by: 1	Relinquished by: 2	Date Time:	Received by: 2
Relinquished by: 3	Date Time:	Received by: 3	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by: 5	Date Time:	Received by: 5	Seal #	Preserved where applicable ☐	On Ice ☐ Temp.

MC19193: Chain of Custody
Page 1 of 3

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 Tech Center West, Bldg. 1
Marlboro, MA 01752
508-481-6200 FAX: 508-481-6200

Accutest Job #: MC19193

EXXONMOBIL CORPORATION - Regional Laboratory Program Northeast

Client Information	Facility Information
Consultants Company Name: GES	Project Name: Dedham 01-081 (1604541)
Address: 364 Littleton RD, Suite 4	Street: 19 Ames St
City: Westford State: MA Zip: 01886	City: Dedham State: MA
Project Contact: Brian Horan	ExxonMobil Contact: Elizabeth Zinkevicz
Sampler's Name: Patrick Morley	ExxonMobil Contact Phone #: 207-363-8345
Phone #: 800-221-6119 Ext. x3241 Fax #:	Location ID#: 01-081 WBS#:
AFE #:	PO#: Bill Mobil Direct Line#:

Analytical Information columns: BTEX 8260 ☐ 524 ☐ 8021 ☐ 524 ☐ MTBE ☐ TBA ☐ Naphthalene ☐ Oxygenates ☐ | VOC AQUEOUS 8260 ☒ 624 ☐ 524 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐ Full List | VOC SOIL 8260 ☐ STD ☐ TCL ☐ PPL ☐ MTBE ☐ TBA ☐ Oxygenates ☐ 5035/LOW ☐ 5035MED ☐ | VPH RANGES ☒ TARGETS ☐ Fractions | EPH RANGES ☐ TARGET (PAH) ☐ DIESEL (PAH) ☐ | TPH-CTDEP ☐ TPH418.1 ☐ | TPH-MAINE GRO ☒ DRO ☒ | TPH-8015 GRO ☐ TPH-8015 DRO ☐ | METALS TOTAL ☒ DISSOLVED ☐ HM8 ☐ HM5 ☐ MCP 14 (as Copper, 13 PAH) | METALS TCLP ☐ SPLP ☐ HM8 ☐ HM5 ☐ | Total Suspended Solids 2540 | Total Residual Chlorine 4500 | Cyanide | Semi-VOCs Full List 8270 | PCBs 8082 | Chloride 300 | Chromium III & Chromium VI

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	MEOH	Encore	Other	None	BTEX	VOC Aqueous	VOC Soil	VPH	EPH	TPH-CTDEP	TPH-Maine	TPH-8015	Metals Total	Metals TCLP	Total Suspended Solids 2540	Total Residual Chlorine 4500	Cyanide	Semi-VOCs Full List 8270	PCBs 8082	Chloride 300	Chromium III & VI
-1	MW-4	03/25/13	1315	PM	GW	14	8	1	1					4		X		X			X		X		X	X	X	X	X	X	X
-2	SVE-1	↓	1140	PM	GW	14	8	1	1					4		X		X			X		X		X	X	X	X	X	X	
-3	Trip Blank	↓	—	PM	TB	1	1											X													

RUSH!

6E 19B 11D 2K4

Turnaround Time (Business days) — Approved By:/Date

- ☐ Std. 10 Business Days
- ☐ 8 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day *EMERGENCY*
- ☐ 2 Day *EMERGENCY*
- ☒ 1 Day EMERGENCY

Emergency T/A is for FAX or Lablink Data

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Full Deliverables
- ☐ Other
- ☐ FULL CLP
- ☐ State Forms
- ☐ Disk Deliverable Format ______

Site Specific: QC Yes ☐ No ☐ If yes, indicate QC sample in Comments and submit triplicate volume.

Comments / Remarks

Please meet CAMs reporting and methods for applicable analyses. RTN 3-2716 / GW-1 Site. Which use lowest possible reporting limits for each analytical method. Samples collected via low flow sampling procedures.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by:	Date Time:	Received by:
1 [signature]	03/25/13 1745	1 [signature]	2		2
Relinquished by: 3	Date Time:	Received by: 3	Relinquished by: 4	Date Time:	Received by: 4
Relinquished by: 5	Date Time:	Received by: 5	Seal #	Preserved where applicable ☐	On Ice ☐ 0.5°C Temp.

5.2

5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19193 **Client:** GES **Immediate Client Services Action Required:** No

Date / Time Received: 3/25/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: DEDHAM 01-081(1604541) **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control _Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

5.2
5

MC19193: Chain of Custody
Page 3 of 3

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

5.3 5

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC19193
Project Location:	GESMA:S/S 01-081, 19 Ames Street, Dedham, MA	MADEP RTN	None

This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s)
MC19193-1,MC19193-2,MC19193-3

Matrices: Groundwater/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other ( )

CAM Protocol (check all that apply below):

8260 VOC (X) CAM IIA	7470/7471 Hg (X) CAM III B	MassDEP VPH (X) CAM IV A	8081 Pesticides ( ) CAM V B	7196 Hex Cr (X) CAM VI B	Mass DEP APH ( ) CAM IX A
8270 SVOC (X) CAM II B	7010 Metals ( ) CAM III C	MassDEP EPH ( ) CAM IV B	8151 Herbicides ( ) CAM V C	8330 Explosives ( ) CAM VIII A	TO-15 VOC ( ) CAM IX B
6010 Metals (X) CAM III A	6020 Metals ( ) CAM III D	8082 PCB (X) CAM V A	9014 Total Cyanide/PAC ( ) CAM VI A	6860 Perchlorate ( ) CAM VIII B	

Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status

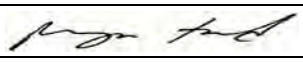
A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☑ Yes	☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☑ Yes	☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☑ Yes ☑ Yes	☐ No ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☑ Yes	☐ No

Responses to questions G, H, and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols	☐ Yes	☑ No [1]
	Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.		
H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No [1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes	☑ No [1]

[1] ***All Negative responses must be addressed in an attached Environmental Laboratory case narrative.***

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  **Position:** Laboratory Director

Printed Name: Reza Tand **Date:** 04/10/2013

MADEP VPH FORM

Matrix	Aqueous ☑	Soil ☐	Sediment ☐	Other ☐			
Containers	Satisfactory ☑	Broken ☐	Leaking ☐				
Aqueous Preservatives	N/A ☐	pH <= 2 ☑	pH > 2 ☐				
Temperature	Received on Ice ☐	Received at 4 Deg. C ☐	Other ☑	Rec'd at 0.5 deg C.			
Methanol	N/A						

Method for Ranges: MADEP VPH REV 1.1
Method for Target Analytes: MADEP VPH REV 1.1
VPH Surrogate Standards
PID:
FID:

Client ID: MW-4
Date Collected: 3/25/2013
Lab ID: MC19193-1
Date Received: 3/25/2013

Date Extracted: N/A
First Date Run: 3/26/2013
Last Date Run: N/A
% Solids: N/A
Low Dilution: 10
High Dilution: N/A

Unadjusted Ranges	CAS #	Elution Range	Units	Result	RDL	Q
C5- C8 Aliphatics (Unadj.)		N/A	ug/l	1550 [A]	500	
C9- C10 Aromatics (Unadj.)		N/A	ug/l	7440 [A]	500	
C9- C12 Aliphatics (Unadj.)		N/A	ug/l	17300 [A]	500	
Adjusted Ranges						
C5- C8 Aliphatics		N/A	ug/l	955 [B]	500	
C9- C12 Aliphatics		N/A	ug/l	3280 [C]	500	

Surrogate Recoveries			Acceptance Range
PID:2,3,4-Trifluorotoluene	%	103	70-130 %
PID:2,3,4-Trifluorotoluene	%	97	70-130 %

Footnotes

A Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

B Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.

C Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C9-C12 aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons.

Z A 'J' qualifier indicates an estimated value

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☑ Yes ☐ No- Details Attatched
Were all performance/acceptance standards for required QA/QC procedures achieved? ☑ Yes ☐ No- Details Attatched
Were any significant modifications made to the VPH method, as specified in Sect. 11.3? ☑ No ☐ Yes- Details Attatched

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

Signature 
Postition Laboratory Director

Printed Name Reza Tand
Date 4/10/2013

MADEP VPH FORM

Matrix	Aqueous ☑	Soil ☐	Sediment ☐	Other ☐			
Containers	Satisfactory ☑	Broken ☐	Leaking ☐				
Aqueous Preservatives	N/A ☐	pH <= 2 ☑	pH > 2 ☐				
Temperature	Received on Ice ☐	Received at 4 Deg. C ☐	Other ☑	Rec'd at 0.5 deg C.			
Methanol	N/A						

Method for Ranges: MADEP VPH REV 1.1
Method for Target Analytes: MADEP VPH REV 1.1
VPH Surrogate Standards
PID:
FID:

Client ID: SVE-1
Date Collected: 3/25/2013
Lab ID: MC19193-2
Date Received: 3/25/2013

Date Extracted: N/A
First Date Run: 3/26/2013
Last Date Run: N/A
% Solids: N/A
Low Dilution: 20
High Dilution: N/A

Unadjusted Ranges	CAS #	Elution Range	Units	Result	RDL	Q
C5- C8 Aliphatics (Unadj.)		N/A	ug/l	11900 [A]	1000	
C9- C10 Aromatics (Unadj.)		N/A	ug/l	9040 [A]	1000	
C9- C12 Aliphatics (Unadj.)		N/A	ug/l	26300 [A]	1000	
Adjusted Ranges						
C5- C8 Aliphatics		N/A	ug/l	5250 [B]	1000	
C9- C12 Aliphatics		N/A	ug/l	5050 [C]	1000	

Surrogate Recoveries		Result	Acceptance Range
PID:2,3,4-Trifluorotoluene	%	104	70-130 %
PID:2,3,4-Trifluorotoluene	%	98	70-130 %

Footnotes

A Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

B Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.

C Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C9-C12 aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons.

Z A 'J' qualifier indicates an estimated value

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☑ Yes ☐ No- Details Attatched
Were all performance/acceptance standards for required QA/QC procedures achieved? ☑ Yes ☐ No- Details Attatched
Were any significant modifications made to the VPH method, as specified in Sect. 11.3? ☑ No ☐ Yes- Details Attatched

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

Signature 
Postition Laboratory Director

Printed Name Reza Tand
Date 4/10/2013

MADEP VPH FORM

Matrix	Aqueous ☑	Soil ☐	Sediment ☐	Other ☐			
Containers	Satisfactory ☑	Broken ☐	Leaking ☐				
Aqueous Preservatives	N/A ☐	pH <= 2 ☑	pH > 2 ☐				
Temperature	Received on Ice ☐	Received at 4 Deg. C ☐	Other ☑	Rec'd at 0.5 deg C.			
Methanol	N/A						

Method for Ranges: MADEP VPH REV 1.1
Method for Target Analytes: MADEP VPH REV 1.1
VPH Surrogate Standards
PID:
FID:

Client ID: TRIP BLANK
Lab ID: MC19193-3
Date Collected: 3/25/2013
Date Received: 3/25/2013

Date Extracted: N/A
First Date Run: 3/26/2013
Last Date Run: N/A
% Solids: N/A
Low Dilution: 1
High Dilution: N/A

Unadjusted Ranges	CAS #	Elution Range	Units	Result	RDL	Q
C9- C12 Aliphatics (Unadj.)		N/A	ug/l	ND [A]	50	
C5- C8 Aliphatics (Unadj.)		N/A	ug/l	ND [A]	50	
C9- C10 Aromatics (Unadj.)		N/A	ug/l	ND [A]	50	
Adjusted Ranges						
C5- C8 Aliphatics		N/A	ug/l	ND [B]	50	
C9- C12 Aliphatics		N/A	ug/l	ND [C]	50	

Surrogate Recoveries		Result	Acceptance Range
PID:2,3,4-Trifluorotoluene	%	102	70-130 %
PID:2,3,4-Trifluorotoluene	%	95	70-130 %

Footnotes

A Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

B Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.

C Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C9-C12 aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons.

Z A 'J' qualifier indicates an estimated value

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☑ Yes ☐ No- Details Attatched
Were all performance/acceptance standards for required QA/QC procedures achieved? ☑ Yes ☐ No- Details Attatched
Were any significant modifications made to the VPH method, as specified in Sect. 11.3? ☑ No ☐ Yes- Details Attatched

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete

Signature 
Postition Laboratory Director

Printed Name Reza Tand
Date 4/10/2013

Internal Sample Tracking Chronicle

ExxonMobil

Job No: MC19193

GESMA:S/S 01-081, 19 Ames Street, Dedham, MA
Project No: 1604541

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19193-1 Collected: 25-MAR-13 13:15 By: PM Received: 25-MAR-13 By: MW-4						
MC19193-1	SW846 7196A	26-MAR-13 09:21	MC			XCR
MC19193-1	SW846 8260B	26-MAR-13 12:11	KD			V8260MCP
MC19193-1	SW846 8260B	26-MAR-13 13:10	KD			V8260MCP
MC19193-1	SW846 7470A	26-MAR-13 14:59	EM	26-MAR-13	EM	HG
MC19193-1	MADEP VPH REV 1.1	26-MAR-13 15:04	AF			VMAVPHR
MC19193-1	SM21 4500CL F	26-MAR-13 16:42	MA			TRC
MC19193-1	SW846 6010C	26-MAR-13 18:38	EAL	26-MAR-13	DA	AG,AS,BA,BE,CD,CR,CU,FE,NI, PB,SB,SE,TL,V,ZN
MC19193-1	6010/7196A M/200.7	26-MAR-13 18:38	EAL			CR3
MC19193-1	SM21 4500CL C	27-MAR-13	CF			CHL
MC19193-1	SW846 8015	28-MAR-13 00:04	TB			V8015GRO
MC19193-1	SM21 2540D	29-MAR-13	BF			TSS
MC19193-1	SW846 8082	02-APR-13 21:48	CZ	30-MAR-13	AJ	P8082MCP
MC19193-1	SW846 8270C	03-APR-13 17:32	KR	27-MAR-13	PA	AB8270MCP
MC19193-1	SW846-8015	05-APR-13 12:53	KN	01-APR-13	AJ	B8015DRO
MC19193-1	EPA 335.4	05-APR-13 15:37	MA	05-APR-13	MA	CN
MC19193-2 Collected: 25-MAR-13 11:40 By: PM Received: 25-MAR-13 By: SVE-1						
MC19193-2	SW846 8260B	26-MAR-13 12:40	KD			V8260MCP
MC19193-2	SW846 8260B	26-MAR-13 13:39	KD			V8260MCP
MC19193-2	MADEP VPH REV 1.1	26-MAR-13 14:25	AF			VMAVPHR
MC19193-2	SW846 7470A	26-MAR-13 15:02	EM	26-MAR-13	EM	HG
MC19193-2	SM21 4500CL F	26-MAR-13 16:45	MA			TRC
MC19193-2	SW846 6010C	26-MAR-13 18:43	EAL	26-MAR-13	DA	AG,AS,BA,BE,CD,CR,CU,FE,NI, PB,SB,SE,TL,V,ZN
MC19193-2	SM21 4500CL C	27-MAR-13	CF			CHL
MC19193-2	SW846 8015	27-MAR-13 22:04	TB			V8015GRO
MC19193-2	SM21 2540D	29-MAR-13	BF			TSS
MC19193-2	SW846 8082	02-APR-13 22:07	CZ	30-MAR-13	AJ	P8082MCP
MC19193-2	SW846 8270C	03-APR-13 17:56	KR	27-MAR-13	PA	AB8270MCP
MC19193-2	SW846-8015	05-APR-13 13:22	KN	01-APR-13	AJ	B8015DRO
MC19193-2	EPA 335.4	05-APR-13 15:36	MA	05-APR-13	MA	CN
MC19193-2	SW846 8270C	08-APR-13 12:07	KR	27-MAR-13	PA	AB8270MCP

Internal Sample Tracking Chronicle

ExxonMobil

Job No: MC19193

GESMA:S/S 01-081, 19 Ames Street, Dedham, MA
Project No: 1604541

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19193-3 Collected: 25-MAR-13 00:00 By: PM Received: 25-MAR-13 By: TRIP BLANK						
MC19193-3	MADEP VPH REV 1.1	26-MAR-13 15:44	AF			VMAVPHR

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-MB	L72087.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-MB	L72087.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-MB	L72087.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	103%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-BS	L72084.D	1	03/26/13	KD	n/a	n/a	MSL3388
MSL3388-BSD	L72085.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	72.6	145* [a]	70.5	141* [a]	3	70-130/25
71-43-2	Benzene	50	50.2	100	52.2	104	4	70-130/25
108-86-1	Bromobenzene	50	49.8	100	50.6	101	2	70-130/25
74-97-5	Bromochloromethane	50	52.6	105	54.6	109	4	70-130/25
75-27-4	Bromodichloromethane	50	55.7	111	56.7	113	2	70-130/25
75-25-2	Bromoform	50	52.8	106	51.3	103	3	70-130/25
74-83-9	Bromomethane	50	55.9	112	61.0	122	9	70-130/25
78-93-3	2-Butanone (MEK)	50	53.8	108	52.5	105	2	70-130/25
104-51-8	n-Butylbenzene	50	51.0	102	53.5	107	5	70-130/25
135-98-8	sec-Butylbenzene	50	47.7	95	50.2	100	5	70-130/25
98-06-6	tert-Butylbenzene	50	46.7	93	49.2	98	5	70-130/25
75-15-0	Carbon disulfide	50	48.4	97	51.2	102	6	70-130/25
56-23-5	Carbon tetrachloride	50	49.8	100	52.1	104	5	70-130/25
108-90-7	Chlorobenzene	50	48.6	97	50.2	100	3	70-130/25
75-00-3	Chloroethane	50	54.0	108	57.1	114	6	70-130/25
67-66-3	Chloroform	50	55.6	111	56.7	113	2	70-130/25
74-87-3	Chloromethane	50	59.4	119	61.4	123	3	70-130/25
95-49-8	o-Chlorotoluene	50	46.1	92	48.0	96	4	70-130/25
106-43-4	p-Chlorotoluene	50	48.3	97	50.4	101	4	70-130/25
108-20-3	Di-Isopropyl ether	50	58.3	117	59.7	119	2	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	52.2	104	50.2	100	4	70-130/25
124-48-1	Dibromochloromethane	50	54.3	109	56.3	113	4	70-130/25
106-93-4	1,2-Dibromoethane	50	51.2	102	52.6	105	3	70-130/25
95-50-1	1,2-Dichlorobenzene	50	47.1	94	48.6	97	3	70-130/25
541-73-1	1,3-Dichlorobenzene	50	45.9	92	48.3	97	5	70-130/25
106-46-7	1,4-Dichlorobenzene	50	48.3	97	49.5	99	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	41.5	83	43.2	86	4	70-130/25
75-34-3	1,1-Dichloroethane	50	56.4	113	58.9	118	4	70-130/25
107-06-2	1,2-Dichloroethane	50	56.7	113	57.2	114	1	70-130/25
75-35-4	1,1-Dichloroethene	50	49.0	98	52.0	104	6	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	52.7	105	54.6	109	4	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	52.8	106	55.5	111	5	70-130/25
78-87-5	1,2-Dichloropropane	50	52.8	106	53.9	108	2	70-130/25
142-28-9	1,3-Dichloropropane	50	51.6	103	51.9	104	1	70-130/25
594-20-7	2,2-Dichloropropane	50	53.7	107	55.9	112	4	70-130/25
563-58-6	1,1-Dichloropropene	50	52.0	104	54.1	108	4	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-BS	L72084.D	1	03/26/13	KD	n/a	n/a	MSL3388
MSL3388-BSD	L72085.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	47.2	94	49.1	98	4	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.0	96	49.2	98	2	70-130/25
123-91-1	1,4-Dioxane	250	241	96	214	86	12	70-130/25
60-29-7	Ethyl Ether	50	55.8	112	55.5	111	1	70-130/25
100-41-4	Ethylbenzene	50	51.0	102	53.0	106	4	70-130/25
87-68-3	Hexachlorobutadiene	50	48.1	96	51.0	102	6	70-130/25
591-78-6	2-Hexanone	50	60.6	121	59.1	118	3	70-130/25
98-82-8	Isopropylbenzene	50	46.5	93	48.7	97	5	70-130/25
99-87-6	p-Isopropyltoluene	50	52.5	105	53.9	108	3	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	42.5	85	43.6	87	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	60.9	122	58.6	117	4	70-130/25
74-95-3	Methylene bromide	50	57.9	116	56.9	114	2	70-130/25
75-09-2	Methylene chloride	50	53.6	107	54.8	110	2	70-130/25
91-20-3	Naphthalene	50	47.5	95	47.6	95	0	70-130/25
103-65-1	n-Propylbenzene	50	47.4	95	49.2	98	4	70-130/25
100-42-5	Styrene	50	49.6	99	50.5	101	2	70-130/25
994-05-8	tert-Amyl Methyl Ether	50	41.9	84	42.7	85	2	70-130/25
637-92-3	tert-Butyl Ethyl Ether	50	41.5	83	42.4	85	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	53.7	107	54.1	108	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	48.8	98	48.1	96	1	70-130/25
127-18-4	Tetrachloroethene	50	53.7	107	55.8	112	4	70-130/25
109-99-9	Tetrahydrofuran	50	60.5	121	59.8	120	1	70-130/25
108-88-3	Toluene	50	51.4	103	51.8	104	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.1	100	51.3	103	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	46.5	93	48.2	96	4	70-130/25
71-55-6	1,1,1-Trichloroethane	50	56.3	113	59.0	118	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	54.2	108	53.4	107	1	70-130/25
79-01-6	Trichloroethene	50	52.7	105	53.8	108	2	70-130/25
75-69-4	Trichlorofluoromethane	50	56.5	113	57.6	115	2	70-130/25
96-18-4	1,2,3-Trichloropropane	50	49.1	98	48.3	97	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	49.0	98	50.3	101	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	48.2	96	49.9	100	3	70-130/25
75-01-4	Vinyl chloride	50	54.3	109	56.1	112	3	70-130/25
	m,p-Xylene	100	98.8	99	100	100	1	70-130/25
95-47-6	o-Xylene	50	50.6	101	50.0	100	1	70-130/25
1330-20-7	Xylene (total)	150	149	99	150	100	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3388-BS	L72084.D	1	03/26/13	KD	n/a	n/a	MSL3388
MSL3388-BSD	L72085.D	1	03/26/13	KD	n/a	n/a	MSL3388

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC19193-1, MC19193-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	102%	70-130%
2037-26-5	Toluene-D8	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	97%	95%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Check Std:	MSL3388-CC3357	**Injection Date:**	03/26/13
Lab File ID:	L72083.D	**Injection Time:**	09:47
Instrument ID:	GCMSL	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	65840	8.16	91182	8.99	49607	12.22	54338	14.78	20528	5.84
Upper Limit [a]	131680	8.66	182364	9.49	99214	12.72	108676	15.28	41056	6.34
Lower Limit [b]	32920	7.66	45591	8.49	24804	11.72	27169	14.28	10264	5.34

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL3388-BS	65940	8.15	90903	8.98	48631	12.22	52177	14.78	21597	5.85
MSL3388-BSD	65937	8.15	92154	8.98	49123	12.22	52361	14.78	19388	5.83
MSL3388-MB	68844	8.16	94543	8.99	48573	12.22	48002	14.79	21567	5.88
MC19193-1	66368	8.15	91824	8.98	47879	12.22	57764	14.78	22462	5.84
MC19193-2	89064	8.15	118085	8.98	61347	12.22	66678	14.78	27992	5.83
MC19193-1	103806	8.16	141781	8.99	70324	12.22	75357	14.78	35455	5.87
MC19193-2	103853	8.16	141926	8.99	69068	12.22	72077	14.78	32006	5.87
MC19056-2MS	101656	8.15	139995	8.98	69472	12.22	73460	14.78	31705	5.84
MC19056-2MSD	99677	8.15	135306	8.98	68522	12.22	71800	14.78	30736	5.85
ZZZZZZ	69861	8.16	96159	8.99	49488	12.22	48827	14.78	21405	5.86
ZZZZZZ	70499	8.16	96262	8.99	49974	12.22	52159	14.78	22583	5.86
ZZZZZZ	73160	8.16	101750	8.99	51924	12.22	56919	14.78	28358	5.85
MC19056-2	70310	8.16	96484	8.99	49832	12.22	49429	14.78	26949	5.87
ZZZZZZ	72052	8.15	100030	8.98	51604	12.22	54226	14.78	24073	5.87
ZZZZZZ	71801	8.16	101632	8.99	51472	12.22	54858	14.78	28011	5.88
ZZZZZZ	72110	8.16	100565	8.99	50974	12.22	54590	14.78	27690	5.88

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC19193-1	L72090.D	95.0	101.0	99.0
MC19193-1	L72088.D	103.0	102.0	99.0
MC19193-2	L72091.D	95.0	100.0	100.0
MC19193-2	L72089.D	95.0	103.0	97.0
MSL3388-BS	L72084.D	104.0	102.0	97.0
MSL3388-BSD	L72085.D	102.0	102.0	95.0
MSL3388-MB	L72087.D	101.0	105.0	103.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-MB	F62617.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
98-86-2	Acetophenone	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-MB	F62617.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	ug/l	
132-64-9	Dibenzofuran	ND	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	15-110%
4165-60-0	Nitrobenzene-d5	50%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	76%	30-130%

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-MB	F62617.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:**

MC19193-1, MC19193-2

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-BS	F62618.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931
OP32401-BSD	F62619.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC19193-1, MC19193-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	26.5	27* [a]	27.2	27* [a]	3	30-130/20
95-57-8	2-Chlorophenol	100	56.9	57	57.2	57	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	100	68.5	69	63.6	64	7	30-130/20
120-83-2	2,4-Dichlorophenol	100	70.2	70	71.8	72	2	30-130/20
105-67-9	2,4-Dimethylphenol	100	47.7	48	44.6	45	7	30-130/20
51-28-5	2,4-Dinitrophenol	100	50.8	51	52.4	52	3	30-130/20
95-48-7	2-Methylphenol	100	51.8	52	50.9	51	2	30-130/20
	3&4-Methylphenol	100	48.7	49	50.9	51	4	30-130/20
88-75-5	2-Nitrophenol	100	70.2	70	70.7	71	1	30-130/20
100-02-7	4-Nitrophenol	100	25.5	26* [a]	27.0	27* [a]	6	30-130/20
87-86-5	Pentachlorophenol	100	69.7	70	71.1	71	2	30-130/20
108-95-2	Phenol	100	25.8	26* [a]	27.4	27* [a]	6	30-130/20
95-95-4	2,4,5-Trichlorophenol	100	62.1	62	78.2	78	23* [a]	30-130/20
88-06-2	2,4,6-Trichlorophenol	100	59.4	59	76.9	77	26* [a]	30-130/20
83-32-9	Acenaphthene	50	33.9	68	32.7	65	4	40-140/20
208-96-8	Acenaphthylene	50	26.4	53	25.9	52	2	40-140/20
98-86-2	Acetophenone	100	53.7	54	54.9	55	2	40-140/20
62-53-3	Aniline	50	13.6	27* [a]	12.9	26* [a]	5	40-140/20
120-12-7	Anthracene	50	34.8	70	33.8	68	3	40-140/20
56-55-3	Benzo(a)anthracene	50	40.3	81	38.6	77	4	40-140/20
50-32-8	Benzo(a)pyrene	50	31.8	64	30.7	61	4	40-140/20
205-99-2	Benzo(b)fluoranthene	50	37.3	75	38.2	76	2	40-140/20
191-24-2	Benzo(g,h,i)perylene	50	37.8	76	36.9	74	2	40-140/20
207-08-9	Benzo(k)fluoranthene	50	37.0	74	34.0	68	8	40-140/20
101-55-3	4-Bromophenyl phenyl ether	50	40.5	81	39.1	78	4	40-140/20
85-68-7	Butyl benzyl phthalate	50	26.4	53	24.8	50	6	40-140/20
91-58-7	2-Chloronaphthalene	100	56.2	56	59.4	59	6	40-140/20
106-47-8	4-Chloroaniline	50	20.6	41	21.1	42	2	40-140/20
218-01-9	Chrysene	50	36.7	73	35.1	70	4	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	50	29.2	58	27.2	54	7	40-140/20
111-44-4	bis(2-Chloroethyl)ether	50	23.4	47	22.6	45	3	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	50	26.4	53	25.5	51	3	40-140/20
95-50-1	1,2-Dichlorobenzene	50	23.3	47	22.3	45	4	40-140/20
122-66-7	1,2-Diphenylhydrazine	50	27.6	55	26.8	54	3	40-140/20
541-73-1	1,3-Dichlorobenzene	50	21.4	43	20.6	41	4	40-140/20
106-46-7	1,4-Dichlorobenzene	50	22.2	44	21.0	42	6	40-140/20

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-BS	F62618.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931
OP32401-BSD	F62619.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC19193-1, MC19193-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
121-14-2	2,4-Dinitrotoluene	100	67.7	68	67.5	68	0	40-140/20
606-20-2	2,6-Dinitrotoluene	100	67.7	68	68.4	68	1	40-140/20
91-94-1	3,3'-Dichlorobenzidine	50	34.4	69	34.6	69	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	50	38.1	76	37.0	74	3	40-140/20
132-64-9	Dibenzofuran	50	32.3	65	31.9	64	1	40-140/20
84-74-2	Di-n-butyl phthalate	50	31.4	63	29.8	60	5	40-140/20
117-84-0	Di-n-octyl phthalate	50	30.2	60	29.1	58	4	40-140/20
84-66-2	Diethyl phthalate	50	27.4	55	26.1	52	5	40-140/20
131-11-3	Dimethyl phthalate	50	16.3	33* [a]	14.8	30* [a]	10	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	35.6	71	34.0	68	5	40-140/20
206-44-0	Fluoranthene	50	38.8	78	37.8	76	3	40-140/20
86-73-7	Fluorene	50	36.1	72	35.0	70	3	40-140/20
118-74-1	Hexachlorobenzene	100	80.3	80	81.3	81	1	40-140/20
87-68-3	Hexachlorobutadiene	100	44.7	45	40.6	41	10	40-140/20
77-47-4	Hexachlorocyclopentadiene	100	19.6	20* [a]	22.5	23* [a]	14	40-140/20
67-72-1	Hexachloroethane	100	36.7	37* [a]	34.7	35* [a]	6	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	50	37.1	74	36.1	72	3	40-140/20
78-59-1	Isophorone	100	60.8	61	58.5	59	4	40-140/20
91-57-6	2-Methylnaphthalene	50	29.2	58	27.8	56	5	40-140/20
91-20-3	Naphthalene	50	28.2	56	26.8	54	5	40-140/20
98-95-3	Nitrobenzene	100	52.8	53	43.7	44	19	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	50	28.2	56	27.8	56	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	50	35.1	70	33.8	68	4	40-140/20
85-01-8	Phenanthrene	50	35.5	71	34.8	70	2	40-140/20
129-00-0	Pyrene	50	36.0	72	34.5	69	4	40-140/20
120-82-1	1,2,4-Trichlorobenzene	50	27.1	54	26.5	53	2	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	44%	38%	15-110%
4165-62-2	Phenol-d5	25%	26%	15-110%
118-79-6	2,4,6-Tribromophenol	100%	96%	15-110%
4165-60-0	Nitrobenzene-d5	55%	45%	30-130%
321-60-8	2-Fluorobiphenyl	53%	64%	30-130%
1718-51-0	Terphenyl-d14	81%	78%	30-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32401-BS	F62618.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931
OP32401-BSD	F62619.D	1	04/02/13	KR	03/27/13	OP32401	MSF2931

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC19193-1, MC19193-2

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Check Std:	MSF2931-CC2913	**Injection Date:**	04/02/13
Lab File ID:	F62607.D	**Injection Time:**	08:58
Instrument ID:	GCMSF	**Method:**	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	60639	4.21	300730	5.21	196222	6.65	378065	8.03	446617	10.81	439316	12.29
Upper Limit [a]	121278	4.71	601460	5.71	392444	7.15	756130	8.53	893234	11.31	878632	12.79
Lower Limit [b]	30320	3.71	150365	4.71	98111	6.15	189033	7.53	223309	10.31	219658	11.79

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP32451-MB	84560	4.21	400187	5.20	255412	6.65	479633	8.02	540184	10.80	517896	12.29
OP32450-MB	84560	4.21	400187	5.20	255412	6.65	479633	8.02	540184	10.80	517896	12.29
OP32450-BS	77889	4.21	282792	5.20	233506	6.65	448493	8.03	516164	10.80	493508	12.29
OP32451-BS	77889	4.21	282792	5.20	233506	6.65	448493	8.03	516164	10.80	493508	12.29
OP32451-MS	66627	4.21	332524	5.20	216776	6.65	415727	8.02	481485	10.80	517317	12.29
OP32450-MS	66627	4.21	332524	5.20	216776	6.65	415727	8.02	481485	10.80	517317	12.29
OP32451-MSD	82047	4.21	345995	5.21	225548	6.65	437116	8.03	506796	10.80	555775	12.29
OP32450-MSD	82047	4.21	345995	5.21	225548	6.65	437116	8.03	506796	10.80	555775	12.29
MC19300-13	94012	4.21	362101	5.20	235988	6.65	449873	8.02	553449	10.80	465441	12.29
JB32046-20	94012	4.21	362101	5.20	235988	6.65	449873	8.02	553449	10.80	465441	12.29
ZZZZZZ	100387	4.21	360359	5.20	231116	6.65	436135	8.02	372903	10.80	537222	12.29
ZZZZZZ	85125	4.21	393672	5.21	248247	6.65	459814	8.02	490611	10.80	539920	12.28
ZZZZZZ	79560	4.21	346503	5.20	221797	6.65	423626	8.02	357965	10.80	374977	12.29
ZZZZZZ	119181	4.21	417870	5.20	257631	6.65	461341	8.02	378010	10.80	392223	12.29
OP32401-MB	91552	4.21	430972	5.20	274370	6.65	520108	8.02	632553	10.80	676788	12.29
OP32401-BS	103148	4.21	368566	5.21	293047	6.65	531497	8.03	593990	10.80	679361	12.29
OP32401-BSD	110314	4.21	508000	5.20	306292	6.66	554868	8.02	624899	10.80	703710	12.29
OP32401-MS	97609	4.21	344952	5.21	213647	6.65	509216	8.03	571622	10.80	663112	12.29
OP32401-MSD	102524	4.21	359671	5.20	293074	6.65	531002	8.02	603224	10.80	694196	12.29
MC19200-7	90636	4.21	424964	5.20	263418	6.65	482822	8.02	587652	10.80	478724	12.29

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Check Std:	MSF2934-CC2913	**Injection Date:**	04/03/13
Lab File ID:	F62679.D	**Injection Time:**	16:20
Instrument ID:	GCMSF	**Method:**	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	96936	4.20	358433	5.19	233552	6.64	459198	8.01	562666	10.79	560171	12.28
Upper Limit [a]	193872	4.70	716866	5.69	467104	7.14	918396	8.51	1125332	11.29	1120342	12.78
Lower Limit [b]	48468	3.70	179217	4.69	116776	6.14	229599	7.51	281333	10.29	280086	11.78

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	102719	4.19	370708	5.19	238765	6.64	451305	8.01	535407	10.79	540214	12.27
MC19193-1	110207	4.20	394498	5.19	249555	6.64	447162	8.01	506982	10.79	510863	12.28
MC19193-2	137525	4.20	494241	5.20	317927	6.64	521080	8.01	571778	10.79	587740	12.27
ZZZZZZ	99935	4.19	336028	5.19	198373	6.64	362250	8.01	500779	10.79	479829	12.28
ZZZZZZ	100520	4.19	340046	5.19	199106	6.64	346622	8.01	484318	10.79	472268	12.28
ZZZZZZ	92869	4.19	321345	5.19	196014	6.64	360977	8.01	481076	10.79	485263	12.28
ZZZZZZ	86840	4.19	310637	5.19	193574	6.64	356614	8.01	503413	10.79	502526	12.28
ZZZZZZ	85397	4.19	298894	5.19	186964	6.64	355273	8.01	503892	10.79	454166	12.28
ZZZZZZ	84320	4.19	300553	5.19	187308	6.64	354735	8.01	495963	10.79	442648	12.27
ZZZZZZ	104597	4.19	362070	5.19	215283	6.63	382699	8.01	477314	10.79	440565	12.27
ZZZZZZ	112918	4.19	388686	5.19	228355	6.64	391813	8.01	491973	10.79	456929	12.27
ZZZZZZ	118560	4.19	400854	5.19	238910	6.64	405167	8.01	500043	10.79	465315	12.27
ZZZZZZ	104793	4.19	350953	5.19	205398	6.64	370081	8.01	487671	10.79	444945	12.28
ZZZZZZ	112769	4.19	383036	5.19	223624	6.63	384713	8.01	508677	10.79	474058	12.28
ZZZZZZ	106916	4.19	366514	5.19	219739	6.63	392897	8.01	497186	10.79	451585	12.27
ZZZZZZ	113257	4.19	382682	5.19	222819	6.64	406224	8.01	494784	10.79	452852	12.28
ZZZZZZ	110409	4.19	377630	5.19	228434	6.64	401251	8.01	530460	10.79	484556	12.28
ZZZZZZ	103008	4.19	354395	5.19	210812	6.64	371381	8.01	470843	10.79	429296	12.28
ZZZZZZ	94922	4.19	327205	5.19	201164	6.64	361976	8.01	484429	10.79	438072	12.27
ZZZZZZ	100881	4.19	348520	5.19	212407	6.64	382522	8.01	500102	10.79	464409	12.28
ZZZZZZ	87454	4.19	304746	5.19	194125	6.64	382743	8.01	498285	10.79	431481	12.28
ZZZZZZ	84233	4.19	302075	5.19	196894	6.64	385014	8.01	492546	10.79	444590	12.28
ZZZZZZ	98413	4.19	338217	5.19	208676	6.64	389427	8.01	463707	10.79	423877	12.28
ZZZZZZ	108053	4.19	365208	5.19	220815	6.64	400317	8.01	499252	10.79	442233	12.28
ZZZZZZ	97284	4.19	340770	5.19	207214	6.64	380539	8.01	498394	10.79	448238	12.28
ZZZZZZ	84760	4.19	303228	5.19	196317	6.64	398763	8.01	497009	10.79	428765	12.27
ZZZZZZ	107444	4.19	352032	5.19	210468	6.64	370556	8.01	480268	10.79	433674	12.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Check Std:	MSF2934-CC2913	**Injection Date:**	04/03/13
Lab File ID:	F62679.D	**Injection Time:**	16:20
Instrument ID:	GCMSF	**Method:**	SW846 8270C

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Check Std:	MSW511-CC471	**Injection Date:**	04/08/13
Lab File ID:	W10891.D	**Injection Time:**	08:11
Instrument ID:	GCMSW	**Method:**	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	88792	3.76	331726	4.74	218874	6.17	385159	7.49	488640	10.38	444489	11.96
Upper Limit [a]	177584	4.26	663452	5.24	437748	6.67	770318	7.99	977280	10.88	888978	12.46
Lower Limit [b]	44396	3.26	165863	4.24	109437	5.67	192580	6.99	244320	9.88	222245	11.46

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP32531-MB	117055	3.76	441131	4.74	271467	6.17	535941	7.48	644397	10.37	634975	11.95
OP32529-MB	117055	3.76	441131	4.74	271467	6.17	535941	7.48	644397	10.37	634975	11.95
OP32531-BS	119214	3.76	452527	4.74	279122	6.17	547963	7.48	676691	10.38	642467	11.96
OP32529-BS	119214	3.76	452527	4.74	279122	6.17	547963	7.48	676691	10.38	642467	11.96
OP32529-MS	116099	3.76	438228	4.74	269357	6.17	536952	7.48	656753	10.37	618438	11.96
OP32531-MS	116099	3.76	438228	4.74	269357	6.17	536952	7.48	656753	10.37	618438	11.96
OP32531-MSD	115523	3.76	436594	4.74	265761	6.17	535105	7.48	661039	10.37	626513	11.95
OP32529-MSD	115523	3.76	436594	4.74	265761	6.17	535105	7.48	661039	10.37	626513	11.95
MC19600-5	114468	3.76	436434	4.74	265063	6.17	528317	7.48	638675	10.37	618724	11.95
MC19600-7	114468	3.76	436434	4.74	265063	6.17	528317	7.48	638675	10.37	618724	11.95
ZZZZZZ	114407	3.76	435832	4.74	262902	6.17	521929	7.48	632283	10.37	625737	11.95
ZZZZZZ	105756	3.76	402740	4.74	243991	6.17	492307	7.48	584189	10.37	573002	11.95
MC19193-2	112839	3.76	430479	4.74	281064	6.17	508600	7.48	632292	10.37	608922	11.95
OP32578-MB	117084	3.76	447435	4.74	271118	6.17	542377	7.48	647776	10.37	627320	11.95
OP32507-MB	117060	3.76	447481	4.74	271112	6.17	542307	7.48	648248	10.37	627344	11.95
OP32578-BS	131637	3.76	498283	4.74	305491	6.17	610428	7.49	749940	10.38	697675	11.96
OP32507-BS	131637	3.76	498364	4.74	305512	6.17	610838	7.49	751043	10.38	698888	11.96
OP32507-BSD	110666	3.76	418792	4.74	254086	6.17	506020	7.48	626362	10.38	580552	11.95
OP32507-MS	123850	3.76	461806	4.74	285265	6.17	571907	7.49	709349	10.38	656950	11.96
OP32578-MS	123841	3.76	461575	4.74	285296	6.17	569684	7.49	709314	10.38	655551	11.96
OP32507-MSD	119561	3.76	447551	4.74	274148	6.17	542527	7.48	680296	10.38	631215	11.96
OP32578-MSD	119576	3.76	447560	4.74	274099	6.17	542014	7.48	679726	10.38	630589	11.96
MC19454-1	104183	3.76	395907	4.74	238648	6.17	476725	7.48	564209	10.37	537514	11.95
MC19626-13	104171	3.76	396479	4.74	239047	6.17	476725	7.48	564389	10.37	539098	11.95

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: SW846 8270C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC19193-1	F62682.D	27.0	33.0	105.0	60.0	77.0	70.0
MC19193-2	F62683.D	17.0	30.0	96.0	65.0	71.0	69.0
MC19193-2	W10901.D	87.0	64.0	146.0* [a]	127.0	120.0	110.0
OP32401-BS	F62618.D	44.0	25.0	100.0	55.0	53.0	81.0
OP32401-BSD	F62619.D	38.0	26.0	96.0	45.0	64.0	78.0
OP32401-MB	F62617.D	40.0	27.0	95.0	50.0	62.0	76.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Outside control limits due to dilution.

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAB4070-MB	AB76186.D	1	03/26/13	AF	n/a	n/a	GAB4070

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

MC19193-1, MC19193-2, MC19193-3

CAS No.	Compound	Result	RL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	50	ug/l	
	C5- C8 Aliphatics	ND	50	ug/l	
	C9- C12 Aliphatics	ND	50	ug/l	

CAS No.	Surrogate Recoveries		Limits
	2,3,4-Trifluorotoluene	97%	70-130%
	2,3,4-Trifluorotoluene	103%	70-130%

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBH1725-MB	BH29799A.D	1	03/27/13	TB	n/a	n/a	GBH1725

The QC reported here applies to the following samples: **Method:** SW846 8015

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (VOA)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
	2,3,4-Trifluorotoluene	90%	60-135%

Blank Spike Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBH1725-BSP	BH29800A.D	1	03/27/13	TB	n/a	n/a	GBH1725

The QC reported here applies to the following samples: **Method:** SW846 8015

MC19193-1, MC19193-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (VOA)	0.4	0.410	103	68-134

CAS No.	Surrogate Recoveries	BSP	Limits
	2,3,4-Trifluorotoluene	92%	60-135%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAB4070-BSP	AB76187.D	1	03/26/13	AF	n/a	n/a	GAB4070
GAB4070-BSD	AB76188.D	1	03/26/13	AF	n/a	n/a	GAB4070

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

MC19193-1, MC19193-2, MC19193-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	150	155	103	158	105	2	70-130/25
	C9- C12 Aliphatics (Unadj.)	150	140	93	142	95	1	70-130/25
	C9- C10 Aromatics (Unadj.)	50	52.5	105	52.9	106	1	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
	2,3,4-Trifluorotoluene	97%	98%	70-130%
	2,3,4-Trifluorotoluene	103%	104%	70-130%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: MADEP VPH REV 1.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC19193-1	AB76195.D	97.0	103.0
MC19193-2	AB76194.D	98.0	104.0
MC19193-3	AB76196.D	95.0	102.0
GAB4070-BSD	AB76188.D	98.0	104.0
GAB4070-BSP	AB76187.D	97.0	103.0
GAB4070-MB	AB76186.D	97.0	103.0

Surrogate Compounds	Recovery Limits
S1 = 2,3,4-Trifluorotoluene	70-130%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

Volatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: SW846 8015 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
MC19193-1	BH29811.D	94.0
MC19193-2	BH29808.D	92.0
GBH1725-BSP	BH29800A.D	92.0
GBH1725-MB	BH29799A.D	90.0

Surrogate Compounds	Recovery Limits
S1 = 2,3,4-Trifluorotoluene	60-135%

(a) Recovery from GC signal #1

New England ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32446-MB	YZ79076A.D	1	04/02/13	CZ	03/30/13	OP32446	GYZ7070

The QC reported here applies to the following samples: **Method:** SW846 8082

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	96%	30-150%
877-09-8	Tetrachloro-m-xylene	101%	30-150%
2051-24-3	Decachlorobiphenyl	111%	30-150%
2051-24-3	Decachlorobiphenyl	110%	30-150%

Method Blank Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32466-MB	BI20040.D	1	04/05/13	KN	04/01/13	OP32466	GBI723

The QC reported here applies to the following samples: **Method:** SW846-8015

MC19193-1, MC19193-2

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	ND	0.20	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	81%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32446-BS	YZ79077A.D	1	04/02/13	CZ	03/30/13	OP32446	GYZ7070
OP32446-BSD	YZ79084.D	1	04/02/13	CZ	03/30/13	OP32446	GYZ7070

The QC reported here applies to the following samples: **Method:** SW846 8082

MC19193-1, MC19193-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	2.0	100	2.0	100	0	40-140/20
11104-28-2	Aroclor 1221		ND		ND		nc	40-140/20
11141-16-5	Aroclor 1232		ND		ND		nc	40-140/20
53469-21-9	Aroclor 1242		ND		ND		nc	40-140/20
12672-29-6	Aroclor 1248		ND		ND		nc	40-140/20
11097-69-1	Aroclor 1254		ND		ND		nc	40-140/20
11096-82-5	Aroclor 1260	2	2.2	110	2.3	115	4	40-140/20
37324-23-5	Aroclor 1262		ND		ND		nc	40-140/20
11100-14-4	Aroclor 1268		ND		ND		nc	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	99%	96%	30-150%
877-09-8	Tetrachloro-m-xylene	98%	97%	30-150%
2051-24-3	Decachlorobiphenyl	109%	117%	30-150%
2051-24-3	Decachlorobiphenyl	109%	122%	30-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32466-BS	BI20042.D	1	04/05/13	KN	04/01/13	OP32466	GBI723
OP32466-BSD	BI20044.D	1	04/05/13	KN	04/01/13	OP32466	GBI723

The QC reported here applies to the following samples: **Method:** SW846-8015

MC19193-1, MC19193-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-DRO (Semi-VOA)	2.5	1.36	54	1.90	76	33* [a]	46-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	71%	95%	40-140%

(a) Range recovery satisfactory.

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: SW846 8082 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
MC19193-1	YZ79090.D	64.0	50.0	91.0	80.0
MC19193-2	YZ79091.D	94.0	52.0	97.0	93.0
OP32446-BS	YZ79077A.D	99.0	98.0	109.0	109.0
OP32446-BSD	YZ79084.D	96.0	97.0	117.0	122.0
OP32446-MB	YZ79076A.D	96.0	101.0	111.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-150%
S2 = Decachlorobiphenyl	30-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Semivolatile Surrogate Recovery Summary

Job Number: MC19193
Account: MOBILSS ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Method: SW846-8015 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
MC19193-1	BI20052.D	92.0
MC19193-2	BI20054.D	79.0
OP32466-BS	BI20042.D	71.0
OP32466-BSD	BI20044.D	95.0
OP32466-MB	BI20040.D	81.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	40-140%

(a) Recovery from GC signal #1

New England ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/26/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.1	1.9	-0.50	<6.0
Arsenic	4.0	1.5	2.9	0.20	<4.0
Barium	50	.67	.81	0.40	<50
Beryllium	4.0	.24	.25	0.0	<4.0
Boron	100	.93	1.4		
Cadmium	4.0	.23	.5	0.0	<4.0
Calcium	5000	23	38		
Chromium	10	.72	1.4	0.20	<10
Cobalt	50	.25	.4		
Copper	25	.63	7	0.50	<25
Gold	50	2.3	5		
Iron	100	3.8	20	4.6	<100
Lead	5.0	1.5	1.7	-0.50	<5.0
Magnesium	5000	31	59		
Manganese	15	.15	.81		
Molybdenum	100	.49	.77		
Nickel	40	.36	.57	0.10	<40
Palladium	50	4.6	7.6		
Platinum	50	8.8	14		
Potassium	5000	79	160		
Selenium	10	2.5	4.8	1.4	<10
Silicon	100	7.7	45		
Silver	5.0	.61	1	0.20	<5.0
Sodium	5000	24	60		
Strontium	10	.24	.26		
Thallium	5.0	1.3	1.9	0.60	<5.0
Tin	100	.47	1.4		
Titanium	50	.47	1.8		
Tungsten	100	6.1	16		
Vanadium	10	1	2.8	0.0	<10
Zinc	20	.24	.5	0.40	<20
Zirconium	50	.73	2.2		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20666: MC19193-1, MC19193-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			03/26/13				03/26/13		
Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	512	500	102.4	80-120	513	500	102.6	0.2	20
Arsenic	513	500	102.6	80-120	511	500	102.2	0.4	20
Barium	1960	2000	98.0	80-120	1950	2000	97.5	0.5	20
Beryllium	509	500	101.8	80-120	503	500	100.6	1.2	20
Boron									
Cadmium	516	500	103.2	80-120	515	500	103.0	0.2	20
Calcium									
Chromium	524	500	104.8	80-120	521	500	104.2	0.6	20
Cobalt									
Copper	487	500	97.4	80-120	484	500	96.8	0.6	20
Gold									
Iron	2020	2000	101.0	80-120	2000	2000	100.0	1.0	20
Lead	997	1000	99.7	80-120	995	1000	99.5	0.2	20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	509	500	101.8	80-120	508	500	101.6	0.2	20
Palladium									
Platinum									
Potassium									
Selenium	506	500	101.2	80-120	505	500	101.0	0.2	20
Silicon									
Silver	214	200	107.0	80-120	213	200	106.5	0.5	20
Sodium	anr								
Strontium									
Thallium	498	500	99.6	80-120	498	500	99.6	0.0	20
Tin									
Titanium									
Tungsten									
Vanadium	517	500	103.4	80-120	512	500	102.4	1.0	20
Zinc	524	500	104.8	80-120	523	500	104.6	0.2	20
Zirconium									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20666: MC19193-1, MC19193-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/26/13

Metal	MC19148-16 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	32.9	30.9	6.1	0-10
Beryllium	0.00	0.00	NC	0-10
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	1.00	0.00	100.0(a)	0-10
Cobalt				
Copper	1.00	0.00	100.0(a)	0-10
Gold				
Iron	96.0	105	9.0	0-10
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	0.600	0.00	100.0(a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	0.00	0.00	NC	0-10
Zinc	6.00	7.80	30.0 (a)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20666 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date:

Metal

Associated samples MP20666: MC19193-1, MC19193-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20669
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/26/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.018	.067	0.011	<0.20

Associated samples MP20669: MC19193-1, MC19193-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

QC Batch ID: MP20669
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/26/13 03/26/13

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.0	3	100.0	80-120	3.0	3	100.0	0.0	20

Associated samples MP20669: MC19193-1, MC19193-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GN42151	1.0	0.0	mg/l	10	10.5	105.0	80-120%
Chromium, Hexavalent	GN42114	0.010	0.0	mg/l	0.10	0.10	100.0	85-115%
Cyanide	GP15810/GN42258	0.010	0.0043	mg/l	0.1	0.106	106.0	90-110%
Cyanide	GP15810/GN42258			mg/l	0.2	0.197	98.5	90-110%
Solids, Total Suspended	GN42171	4.0	0.0	mg/l				
Total Residual Chlorine	GN42135	0.050	0.0	mg/l	1	0.95	95.0	80-120%

Associated Samples:
Batch GN42114: MC19193-1
Batch GN42135: MC19193-1, MC19193-2
Batch GN42151: MC19193-1, MC19193-2
Batch GN42171: MC19193-1, MC19193-2
Batch GP15810: MC19193-1, MC19193-2
(*) Outside of QC limits

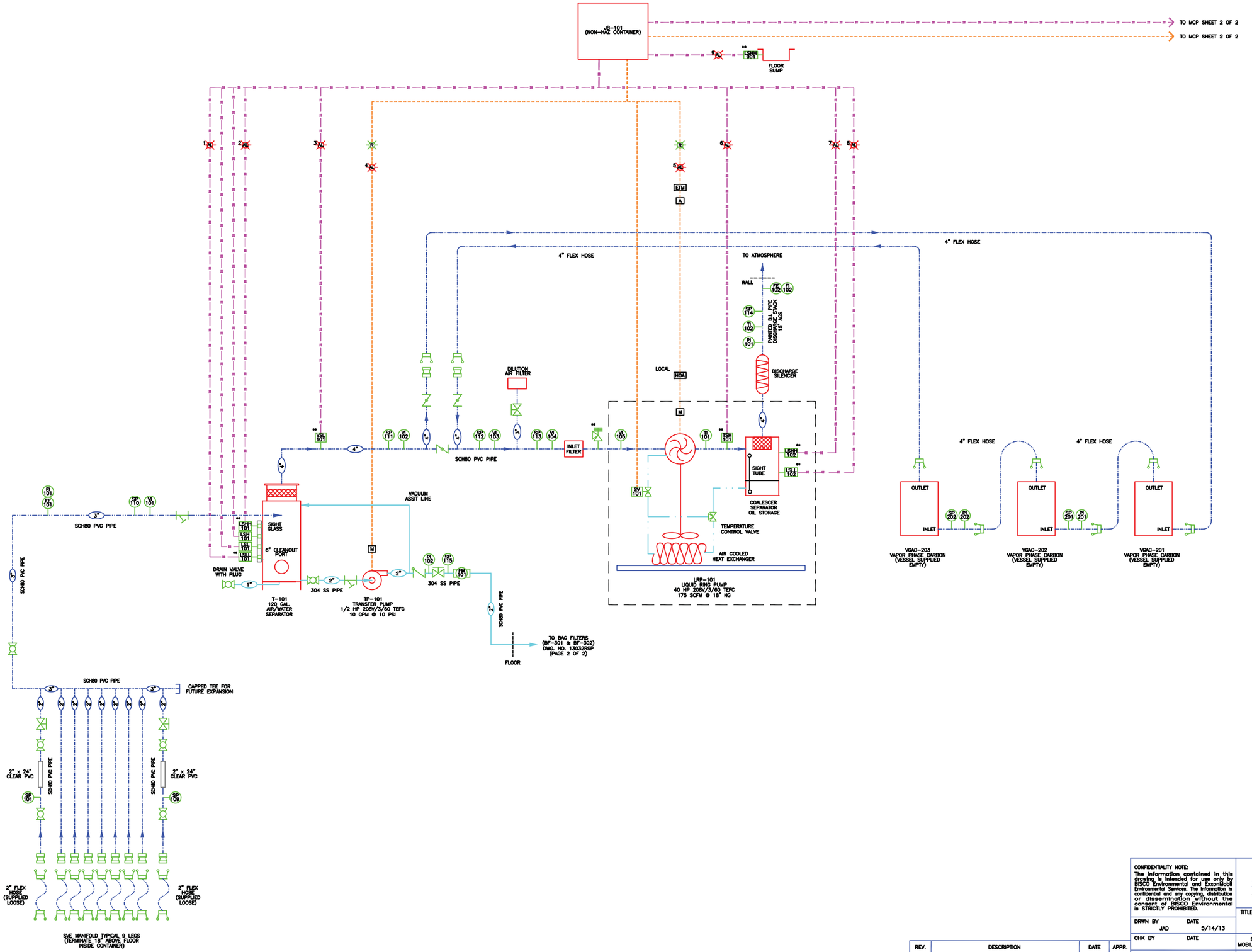
BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC19193
Account: MOBILSS - ExxonMobil
Project: GESMA:S/S 01-081, 19 Ames Street, Dedham, MA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Chromium, Hexavalent	GN42114	mg/l	0.10	0.10	0.0	20%

Associated Samples:
Batch GN42114: MC19193-1
(*) Outside of QC limits

Attachment C



LEGEND

A	AMMETER
AD	AUTODIALER
ETM	ELAPSED TIME METER
FE	FLOW ELEMENT
FI	FLOW INDICATOR
FM	FLOWMETER
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GSF	GREEN SAND FILTER
JB	JUNCTION BOX
LGAC	LIQUID PHASE CARBON
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
M	MOTOR
MCP	MASTER CONTROL PANEL
PI	PRESSURE INDICATOR
PM	PHASE MONITOR
PSL	PRESSURE SWITCH LOW
RF	RESIN FILTER
SP	SAMPLE PORT
SV	SOLENOID VALVE
TI	TEMPERATURE INDICATOR
TSH	TEMPERATURE SWITCH HIGH
VGAC	VAPOR PHASE CARBON
VI	VACUUM INDICATOR
VSL	VACUUM SWITCH LOW

BALL VALVE
CHECK VALVE
BUTTERFLY VALVE
GATE VALVE
RELIEF VALVE
WYE STRAINER
MALE CAMLOCK
FEMALE CAMLOCK
SIPHON BREAKER
REDUCER

AL ALARM LIGHT
R RUN LIGHT
E EMERGENCY STOP

AIR LINE
CONTROL LINE
INTRINSICALLY SAFE LINE
WATER LINE
** CRITICAL EQUIPMENT (CE)

ALARMS

1. AIR/WATER SEPARATOR (T-101) LOW LOW LEVEL
2. AIR/WATER SEPARATOR (T-101) HIGH HIGH LEVEL
3. LIQUID RING PUMP (LRP-101) LOW VACUUM
4. TRANSFER PUMP (TP-101) MOTOR OVERLOAD
5. LIQUID RING PUMP (LRP-101) MOTOR OVERLOAD
6. LIQUID RING PUMP (LRP-101) HIGH INLET TEMPERATURE
7. LIQUID RING PUMP (LRP-101) HIGH OIL LEVEL
8. LIQUID RING PUMP (LRP-101) LOW OIL LEVEL
9. HAZARDOUS CONTAINER FLOOR SUMP HIGH LEVEL
10. BAG FILTER (BF-301 & 302) HIGH PRESSURE
11. HOLDING TANK (T-601) HIGH HIGH LEVEL
12. HOLDING TANK (T-601) LOW LOW LEVEL
13. TRANSFER PUMP (TP-601) MOTOR OVERLOAD
14. BAG FILTER (BF-701 & 702) HIGH PRESSURE
15. NON-HAZARDOUS CONTAINER FLOOR SUMP HIGH LEVEL
16. VOLTAGE FAULT
17. EMERGENCY STOP

REV.	DESCRIPTION	DATE	APPR.
	REVISIONS		

DRWN BY JAD — DATE 5/14/13
CHK BY — DATE
APPR BY — DATE

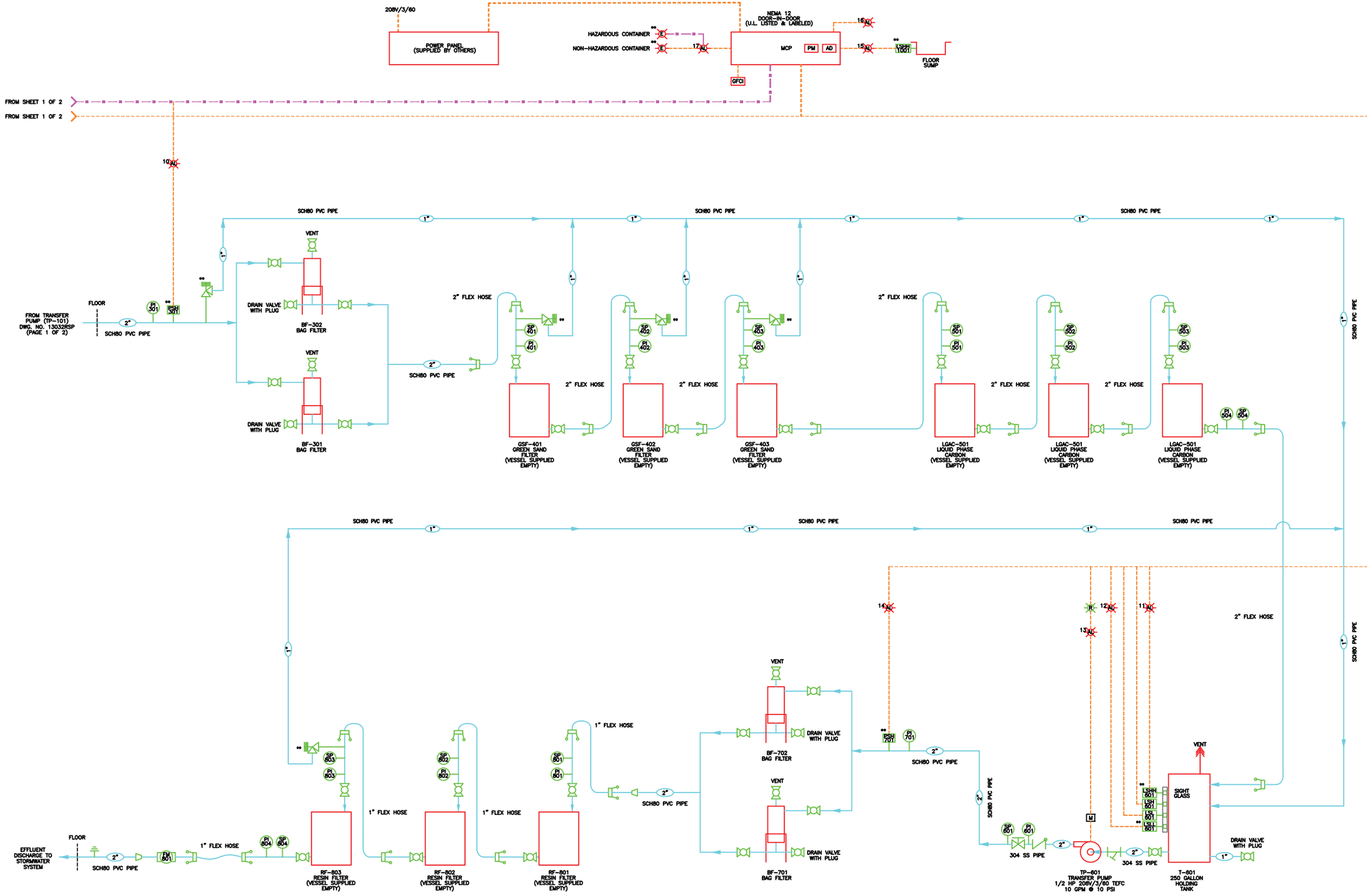
BISCO Environmental
Soil & Groundwater Remediation Equipment
Taunton, Massachusetts 02780

TITLE: DUAL PHASE EXTRACTION SYSTEM PROCESS & INSTRUMENTATION DIAGRAM

EXXONMOBIL ENVIRONMENTAL SERVICES
MOBIL SERVICE STATION #11658 – DEDHAM, MA

JOB NO. 13032

SCALE N/A | SIZE D | DWG NO. 13032RSP | SHEET 1 OF 2 | REV



LEGEND	
A	AMMETER
AD	AUTODIALER
ETM	ELAPSED TIME METER
FE	FLOW ELEMENT
FI	FLOW INDICATOR
FM	FLOWMETER
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GSF	GREEN SAND FILTER
JB	JUNCTION BOX
LGAC	LIQUID PHASE CARBON
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
M	MOTOR
MCP	MASTER CONTROL PANEL
PI	PRESSURE INDICATOR
PM	PHASE MONITOR
PSL	PRESSURE SWITCH LOW
RF	RESIN FILTER
SP	SAMPLE PORT
SV	SOLENOID VALVE
TI	TEMPERATURE INDICATOR
TSH	TEMPERATURE SWITCH HIGH
VGAC	VAPOR PHASE CARBON
VI	VACUUM INDICATOR
VSL	VACUUM SWITCH LOW
	BALL VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	GATE VALVE
	RELIEF VALVE
	WYE STRAINER
	MALE CAMLOCK
	FEMALE CAMLOCK
	SIPHON BREAKER
	REDUCER
AL	ALARM LIGHT
R	RUN LIGHT
EC	EMERGENCY STOP
	AIR LINE
	CONTROL LINE
	INTRINSICALLY SAFE LINE
	WATER LINE
**	CRITICAL EQUIPMENT (CE)

ALARMS

1. AIR/WATER SEPARATOR (T-101) LOW LOW LEVEL
2. AIR/WATER SEPARATOR (T-101) HIGH HIGH LEVEL
3. LIQUID RING PUMP (LRP-101) LOW VACUUM
4. TRANSFER PUMP (TP-101) MOTOR OVERLOAD
5. LIQUID RING PUMP (LRP-101) MOTOR OVERLOAD
6. LIQUID RING PUMP (LRP-101) HIGH INLET TEMPERATURE
7. LIQUID RING PUMP (LRP-101) HIGH OIL LEVEL
8. LIQUID RING PUMP (LRP-101) LOW OIL LEVEL
9. HAZARDOUS CONTAINER FLOOR SUMP HIGH LEVEL
10. BAG FILTER (BF-301 & 302) HIGH PRESSURE
11. HOLDING TANK (T-601) HIGH HIGH LEVEL
12. HOLDING TANK (T-601) LOW LOW LEVEL
13. TRANSFER PUMP (TP-601) MOTOR OVERLOAD
14. BAG FILTER (BF-701 & 702) HIGH PRESSURE
15. NON-HAZARDOUS CONTAINER FLOOR SUMP HIGH LEVEL
16. VOLTAGE FAULT
17. EMERGENCY STOP

REV.	DESCRIPTION	DATE	APPR.
	REVISIONS		

BISCO Environmental
Soil & Groundwater Remediation Equipment
Taunton, Massachusetts 02780

DRWN BY / DATE	JAD / 5/14/13
CHK BY / DATE	
APPR BY / DATE	

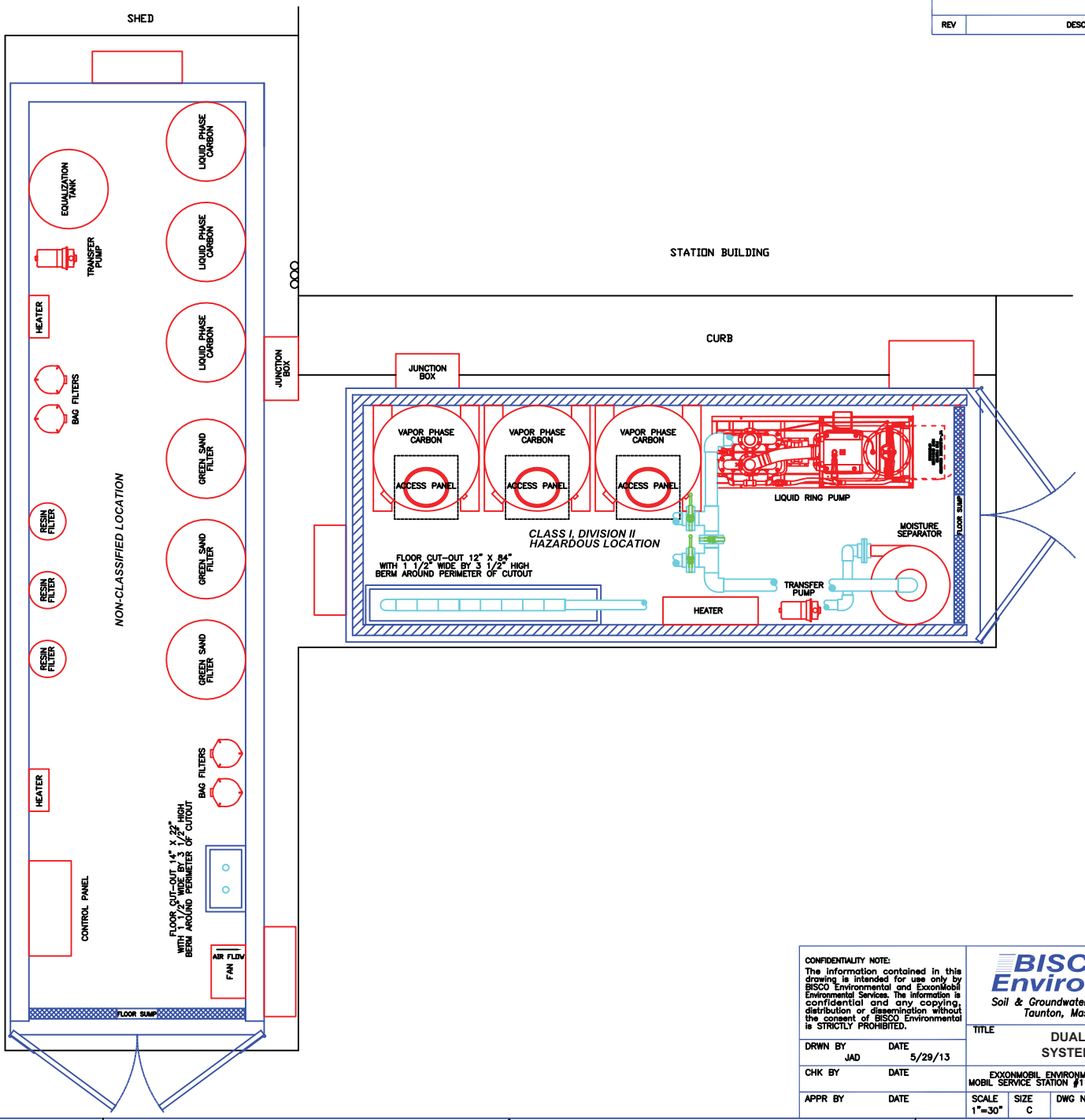
TITLE: DUAL PHASE EXTRACTION SYSTEM PROCESS & INSTRUMENTATION DIAGRAM

EXXONMOBIL ENVIRONMENTAL SERVICES
MOBIL SERVICE STATION #11658 – DEDHAM, MA

JOB NO. 13032

SCALE	SIZE	DWG NO.	SHEET	REV
N/A	D	13032RSP	2 OF 2	

Attachment D



REVISIONS			
REV	DESCRIPTION	DATE	APPR

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DRWN BY: JAD	DATE: 5/29/13
CHK BY	DATE
APPR BY	DATE

BISCO Environmental
Soil & Groundwater Remediation Equipment
Taunton, Massachusetts 02780

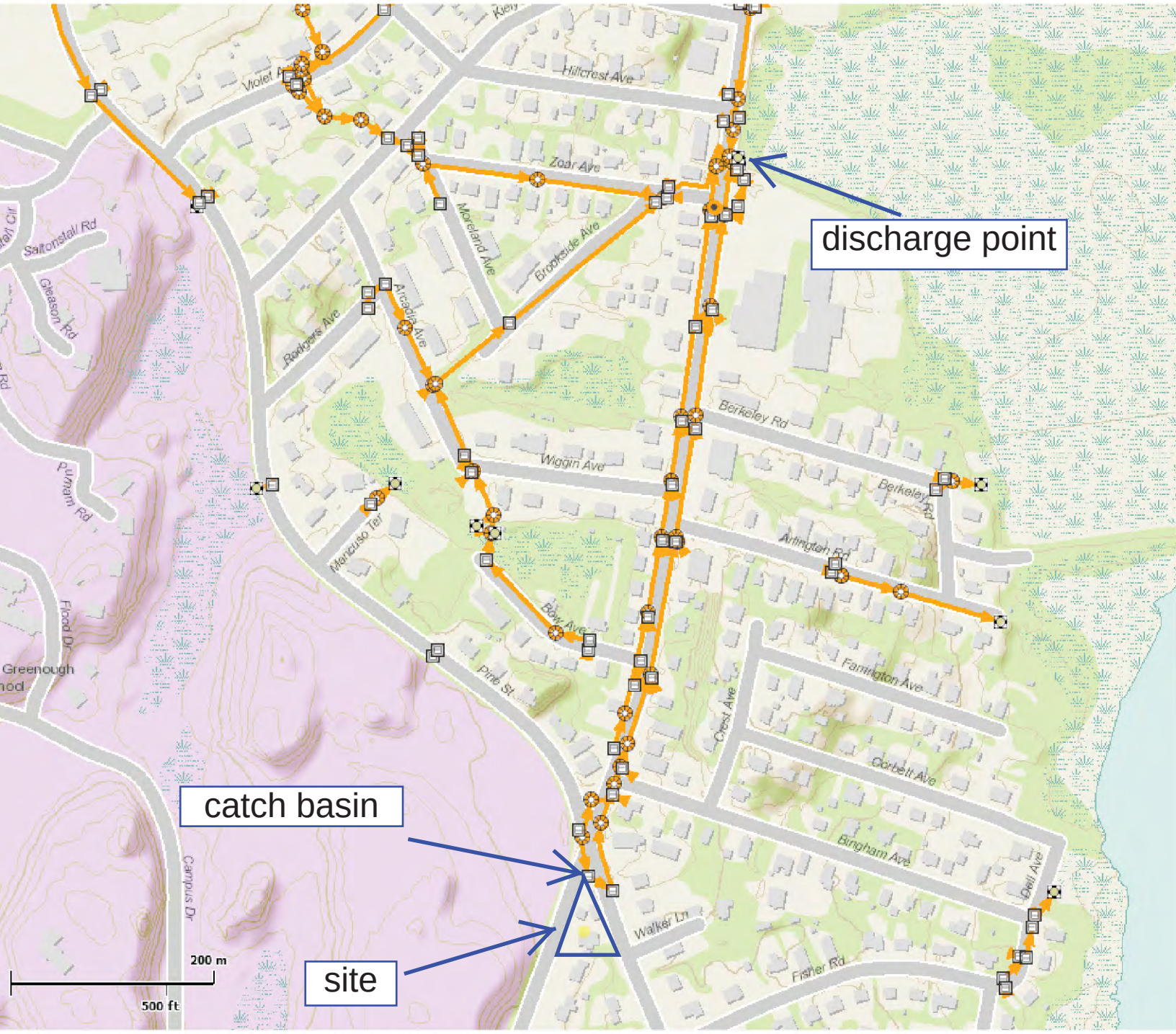
TITLE
DUAL PHASE EXTRACTION SYSTEM COMPOUND LAYOUT

EXXONMOBIL ENVIRONMENTAL SERVICES
MOBIL SERVICE STATION #11658 – DEDHAM, MA

JOB NO.	SCALE	SIZE	DWG NO.	SHEET	REV
13032	1"=30'	C	13032RSL-03	1 OF 1	

Attachment E

Former Mobil 11658
19 Ames Street
Dedham, MA



Printed on Wed Jun 26 2013 05:49:17 PM.

Attachment F

National Register of Historic Places

HOME
BROWSE
ADVANCED SEARCH
DOWNLOAD CENTER
ABOUT
STATUS
HELP

Contact Us

Find A Park
History & Culture
Nature & Science
Education & Interpretation

TITLE LIST DISPLAY

From: NPS Digital Library
Term(s) Searched: Norfolk and Massachusetts and Dedham
Records Displayed: 1 to 7 of 7

Go back to: Revise Search

Sort By: **Title** | Relevancy | Modified

- Ames Schoolhouse *[Image]* 8%
- Dedham Village Historic District *[Image]* 8%
- Endicott Estate *[Image]* 8%
- Fairbanks House *[Image]* 8%
- Fairbanks House *[Image]* 8%
- Norfolk County Courthouse *[Image]* 8%
- Norfolk County Courthouse *[Image]* 8%

Prev | 1 | Next

Massachusetts Cultural Resource Information System
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Dedham; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
DED.A	Norfolk Manufacturing Company Mill Complex		Dedham	
DED.B	Ames Street Area		Dedham	
DED.C	Court Street Area		Dedham	
DED.D	Church Street Area		Dedham	
DED.E	School Street Area		Dedham	
DED.F	Dedham Town Landing		Dedham	
DED.G	River Place Area		Dedham	
DED.H	Worthington Street Area		Dedham	
DED.I	Bryant - Fuller Streets Area		Dedham	
DED.J	Spruce - Dwight Streets Area		Dedham	
DED.K	Marion Street Area		Dedham	
DED.L	Washington - Prospect Streets Area		Dedham	
DED.M	Sandy Valley Road Area		Dedham	
DED.N	Richards Street Area		Dedham	
DED.O	Dedham Training Field		Dedham	
DED.P	Metropolitan Park System of Greater Boston		Dedham	
DED.Q	Connecticut Corner Historic District		Dedham	
DED.R	Franklin Square - Court Street Historic District		Dedham	
DED.S	Guild Street Area		Dedham	
DED.T	Endicott Estate		Dedham	
ded.u	Stony Brook Reservation Parkways		Dedham	
DED.V	Dedham Village Historic District		Dedham	
DED.W	Fairview Cemetery		Dedham	
DED.910	Dedham Powder House	Ames St	Dedham	1766
DED.916	Ames Street Bridge over Charles River	Ames St	Dedham	1843
DED.936	Landing Place, The Concrete Bench Memorial	Ames St	Dedham	1927
DED.86		4 Bates Ct	Dedham	1820

Inv. No.	Property Name	Street	Town	Year
DED.87		8 Bates Ct	Dedham	1820
DED.378		23 Bemis Rd	Dedham	1920
DED.377		47 Bemis Rd	Dedham	1920
DED.956	Blue Hill Drive Bridge over Neponset River	Blue Hill Dr	Dedham	1931
DED.911	Bridge Street Bridge over Charles River	Bridge St	Dedham	1861
DED.388	Bridge Street Pump Station	536 Bridge St	Dedham	1881
DED.400		591 Bridge St	Dedham	1898
DED.929	Dedham War Memorial	Bryant St	Dedham	1963
DED.403	Dedham Old Town House	11-13 Bullard St	Dedham	1829
DED.404		17 Bullard St	Dedham	1830
DED.405		19 Bullard St	Dedham	1900
DED.406	Dedham Old Town House	23-25 Bullard St	Dedham	1829
DED.407		27-29 Bullard St	Dedham	1835
DED.54		30 Bullard St	Dedham	1880
DED.30	Mann, Herman House	38 Bullard St	Dedham	1798
DED.158	Bullard, William House	70 Bullard St	Dedham	1870
DED.402		75 Bullard St	Dedham	1880
DED.49	Nickerson, Albert W. House	10 Campus Dr	Dedham	1888
DED.1	Fisher, Anthony Jr. House	218 Cedar St	Dedham	1684
DED.375		1 Channing Rd	Dedham	1915
DED.371		8 Channing Rd	Dedham	1915
DED.370		28 Channing Rd	Dedham	1925
DED.369		31 Channing Rd	Dedham	1915
DED.368		40 Channing Rd	Dedham	1915
DED.367		62 Channing Rd	Dedham	1915
DED.932	Needham Branch Railroad Bridge over Charles River	Charles River	Dedham	1906
DED.58	Babcock, Rev. Dr. Samuel B. House	5 Chestnut St	Dedham	1850
DED.59		17 Chestnut St	Dedham	1850
DED.60		22 Chestnut St	Dedham	1900
DED.61		25 Chestnut St	Dedham	1855
DED.408		31 Chestnut St	Dedham	1850
DED.62		43 Chestnut St	Dedham	1850
DED.409		44 Chestnut St	Dedham	1910
DED.410		57 Chestnut St	Dedham	1850
DED.411		67 Chestnut St	Dedham	1856
DED.282		72 Chestnut St	Dedham	1863
DED.412		80 Chestnut St	Dedham	1880

Inv. No.	Property Name	Street	Town	Year
DED.413		81 Chestnut St	Dedham	1840
DED.414		83 Chestnut St	Dedham	1865
DED.934	Franklin Square	Church St	Dedham	1844
DED.31	Mann, Herman House	12 Church St	Dedham	1813
DED.32	Williams, J. D. House	13 Church St	Dedham	1814
DED.33	Lewis, Joseph Jr. House	14 Church St	Dedham	1801
DED.34	Cox, John House	17 Church St	Dedham	1828
DED.35	Cain, Paul House	20 Church St	Dedham	1802
DED.36	Packard, Roland House	21 Church St	Dedham	1835
DED.37	Cain, Paul House	22 Church St	Dedham	1802
DED.38	Dedham Masonic Hall - Field's Dry Goods Store	25 Church St	Dedham	1829
DED.39	Colburn, Waldo House	29 Church St	Dedham	1865
DED.383	Dedham Public Library	43 Church St	Dedham	1888
DED.40	Fisher, Warren House	46 Church St	Dedham	1801
DED.41		52 Church St	Dedham	1817
DED.415	Dedham Telephone Exchange	53 Church St	Dedham	1906
DED.42	MacIntosh, Elisha House	59 Church St	Dedham	1806
DED.43		66 Church St	Dedham	1798
DED.44		74 Church St	Dedham	1798
DED.80	Saint Paul's Episcopal Chapel - Brick Chapel, The	76 Church St	Dedham	1875
DED.18	Hale, Albert House	1 Common St	Dedham	1874
DED.17	Shorey, John - Williams House	15 Common St	Dedham	1840
DED.16	Guild, Francis House	23 Common St	Dedham	1840
DED.63		51 Common St	Dedham	1900
DED.358		69 Common St	Dedham	1900
DED.372		99 Common St	Dedham	1920
DED.373		115 Common St	Dedham	1915
DED.374		149 Common St	Dedham	1910
DED.379		202 Common St	Dedham	1920
DED.381		267 Common St	Dedham	1915
DED.473		38 Coolidge Ln	Dedham	
DED.416		15 County St	Dedham	1915
DED.417		19-21 County St	Dedham	1859
DED.64		27-29 County St	Dedham	1865
DED.418		31-33 County St	Dedham	1859
DED.419		41 County St	Dedham	1862
DED.390		45 County St	Dedham	1849

Inv. No.	Property Name	Street	Town	Year
DED.88		1 Court Ln	Dedham	1920
DED.89		2 Court Ln	Dedham	1945
DED.420	Dedham First Parish Church Parsonage	15 Court St	Dedham	1821
DED.68	Norfolk House - Norfolk Hotel	19 Court St	Dedham	1801
DED.69	Baker Store	20 Court St	Dedham	1880
DED.70		24-26 Court St	Dedham	1860
DED.71	Wight, Dr. Danforth P. House	27 Court St	Dedham	1846
DED.72	Doggett, Dea. John House	30 Court St	Dedham	1763
DED.73	Guild, Capt. Nathaniel House	31 Court St	Dedham	1805
DED.74		34 Court St	Dedham	1865
DED.75	Alden's Boarding House	39 Court St	Dedham	1825
DED.76	Howe, William Tavern	44 Court St	Dedham	1797
DED.77	Chickering, Jabez - Cleveland, Ira House	45 Court St	Dedham	1818
DED.78	Mackintosh, Elisha House	51 Court St	Dedham	1810
DED.79	Saint Paul's Episcopal Church	59 Court St	Dedham	1859
DED.81	Turnpike Tollhouse	68 Court St	Dedham	1805
DED.82	Gay, Benjamin House - Gay Tavern	73 Court St	Dedham	1680
DED.83	Atherton, Abner House	74 Court St	Dedham	1816
DED.421		82 Court St	Dedham	1797
DED.119		97 Court St	Dedham	1970
DED.120		103 Court St	Dedham	1970
DED.84		111 Court St	Dedham	1900
DED.85	Marsh, Martin House	120 Court St	Dedham	1815
DED.424		123 Court St	Dedham	1899
DED.426		131 Court St	Dedham	1940
DED.427		135 Court St	Dedham	1865
DED.428		147 Court St	Dedham	1904
DED.429		150 Court St	Dedham	1914
DED.430		153 Court St	Dedham	1899
DED.431		157 Court St	Dedham	1910
DED.432		167 Court St	Dedham	1848
DED.433	Weatherbee House	175 Court St	Dedham	1846
DED.434	Worthington House	176 Court St	Dedham	1865
DED.933	Stony Brook Reservation - Dedham Parkway	Dedham Pkwy	Dedham	1900
DED.14		7 Dexter St	Dedham	1900
DED.13	Warren, Charles House	21 Dexter St	Dedham	1911
DED.57	Second Middle District Schoolhouse	27 Dexter St	Dedham	1846
DED.229		41 Dwight St	Dedham	1900

Inv. No.	Property Name	Street	Town	Year
DED.230		43 Dwight St	Dedham	1920
DED.231		55 Dwight St	Dedham	1850
DED.232		58 Dwight St	Dedham	1860
DED.233		62-64 Dwight St	Dedham	1870
DED.908	East Street Railroad Bridge (Milepost #10.97)	East St	Dedham	1904
DED.391	Fairbanks House	511 East St	Dedham	1641
DED.12	Metcalf House	589 East St	Dedham	1735
DED.11	Frarye House	637 East St	Dedham	1812
DED.393	Endicott, Henry Bradford House	656 East St	Dedham	1904
DED.394	Endicott, Henry Bradford Barn - Carriage House	656 East St	Dedham	1904
DED.395	Endicott, Henry Bradford Shed	656 East St	Dedham	1904
DED.396	Endicott, Henry Bradford Greenhouse	656 East St	Dedham	1925
DED.397	Endicott, Henry Bradford Caretaker House	656 East St	Dedham	1904
DED.398	Endicott, Henry Bradford Garage - Stable	656 East St	Dedham	1925
DED.10	Farrington House	697 East St	Dedham	1741
DED.9	Farrington, Arthur House	769 East St	Dedham	1740
DED.5	Trundy, Mattie House	911 East St	Dedham	1747
DED.6	Alden - McIntosh House	925 East St	Dedham	1747
DED.801	Fairview Cemetery	45 Fairview Ave	Dedham	1892
DED.952	Fairview Cemetery - Circulation System	45 Fairview Ave	Dedham	1892
DED.953	Fairview Cemetery - Rubble Perimeter Wall	45 Fairview Ave	Dedham	1892
DED.954	Fairview Cemetery - Interior Rubblestone Walls	45 Fairview Ave	Dedham	1902
DED.955	Fairview Cemetery - Chain Link Perimeter Fence	45 Fairview Ave	Dedham	1980
DED.937	Colburn Marker	Franklin Sq	Dedham	1930
DED.91	Guild House	4 Franklin Sq	Dedham	1816
DED.92	Hewins, Nathaniel House	5 Franklin Sq	Dedham	1818
DED.93		11 Franklin Sq	Dedham	1867
DED.94	Guild, Joseph House	14 Franklin Sq	Dedham	1799
DED.95		19 Franklin Sq	Dedham	1927
DED.359		10 Glenridge Rd	Dedham	1915
DED.360		15 Glenridge Rd	Dedham	1915
DED.361		25 Glenridge Rd	Dedham	1915
DED.362		39 Glenridge Rd	Dedham	1915
DED.363		56 Glenridge Rd	Dedham	1915
DED.365		75 Glenridge Rd	Dedham	1900
DED.364		84 Glenridge Rd	Dedham	1915
DED.938	Dedham Great Common - Compass Pole	Great Common	Dedham	
DED.939	Dedham Liberty Tree - Pillar of Liberty II	Great Common	Dedham	1976

Inv. No.	Property Name	Street	Town	Year
DED.940	Dedham Training Field Marker	Great Common	Dedham	1886
DED.915	Lyon's Bridge	Greendale Ave	Dedham	1877
DED.435		18 Guild Rd	Dedham	1910
DED.436		28 Guild Rd	Dedham	1910
DED.437		36 Guild Rd	Dedham	1910
DED.99	Lilacs, The	40 Guild St	Dedham	1880
DED.366		47 Haven St	Dedham	1880
DED.380	Endicott House	90 Haven St	Dedham	1880
DED.309		High St	Dedham	1900
DED.904	Dedham Pillar of Liberty	High St	Dedham	1766
DED.941	Dedham First Free Public School Marker	High St	Dedham	1898
DED.942	Dedham Little Common	High St	Dedham	1638
DED.943	Dedham Great Common Training Field	High St	Dedham	1637
DED.944	Dedham Great Common Double Rail Fence	High St	Dedham	1890
DED.950	Ancient Wight Homestead Marker	High St	Dedham	1890
DED.389	U. S. Post Office - Dedham Main Branch	611 High St	Dedham	1934
DED.399	Dedham Historical Society	612 High St	Dedham	1886
DED.438	Norfolk County Administration Office	614 High St	Dedham	1955
DED.439	Dedham First Church of Christ Scientist	619 High St	Dedham	1938
DED.440	Ames, Nathaniel House	619 High St	Dedham	1770
DED.441		622 High St	Dedham	1832
DED.442	Dedham Odd Fellows Hall	624 High St	Dedham	1910
DED.443		626 High St	Dedham	1834
DED.444		630 High St	Dedham	1834
DED.386	Dedham District Courthouse	634 High St	Dedham	1938
DED.384	Norfolk County Registry of Deeds	649 High St	Dedham	1903
DED.902	Suffolk Resolves Marker	649 High St	Dedham	1905
DED.903	Ames, Fisher Birthplace Marker	649 High St	Dedham	1905
DED.385	Norfolk County Courthouse	650 High St	Dedham	1827
DED.392	First Church Meetinghouse	670 High St	Dedham	1762
DED.446	Dedham First Parish Church Vestry	670 High St	Dedham	1929
DED.100	Haven, Judge Samuel House	671 High St	Dedham	1795
DED.468	Dedham Community House Educational Support Bldng.	671 High St	Dedham	1970
DED.948	Baker, Francis Park	671 High St	Dedham	1927
DED.101	Allin Congregational Church	683 High St	Dedham	1819
DED.102	Dexter, Samuel House	699 High St	Dedham	1761
DED.55	Miss Hewin's Private Schoolhouse	700 High St	Dedham	1850

Inv. No.	Property Name	Street	Town	Year
DED.469	Sprague House	700 High St	Dedham	1802
DED.103		712 High St	Dedham	1870
DED.104	Hewins House	715 High St	Dedham	1875
DED.105		718 High St	Dedham	1870
DED.106	Warren, Winslow House	725 High St	Dedham	1875
DED.107		726 High St	Dedham	1850
DED.108		734 High St	Dedham	1855
DED.447	Dedham Medical Associates Building	745 High St	Dedham	1937
DED.448		756 High St	Dedham	1970
DED.449	New Dowse House	759 High St	Dedham	1801
DED.109	Guild, Reuben House	774 High St	Dedham	1790
DED.111		775 High St	Dedham	1941
DED.110		788 High St	Dedham	1895
DED.112		797 High St	Dedham	1942
DED.113		800 High St	Dedham	1900
DED.114	Guild, Joseph House	810 High St	Dedham	1892
DED.450		815 High St	Dedham	1980
DED.19		832 High St	Dedham	1927
DED.20	Tuttle, Julius H. House	838 High St	Dedham	1892
DED.21		848 High St	Dedham	1799
DED.22		870 High St	Dedham	1905
DED.56	Everett, Dea. House	883 High St	Dedham	1768
DED.23		888 High St	Dedham	1798
DED.24	Baker, William House	900 High St	Dedham	1860
DED.53	Capen, Oliver House	901 High St	Dedham	1846
DED.25	Russell, Ira House	902 High St	Dedham	1847
DED.26	Baker, David Addison House	914 High St	Dedham	1840
DED.52	Bates, Martin House	915 High St	Dedham	1809
DED.8	Baker, Dea. Eliphalet House	927 High St	Dedham	1798
DED.27		930 High St	Dedham	1863
DED.7	Guild, Amasa House	935 High St	Dedham	1799
DED.28		940 High St	Dedham	1851
DED.29	Dowse, Edward House	942 High St	Dedham	1750
DED.48	Clap, Jesse - Newell, Maj. Ebenezer House	943 High St	Dedham	1736
DED.47	Hunnewell, Charles House	949 High St	Dedham	1805
DED.317	Williams House	950 High St	Dedham	1893
DED.4		961 High St	Dedham	1920
DED.96	Whiting, Calvin House	978 High St	Dedham	1780

Inv. No.	Property Name	Street	Town	Year
DED.313		986 High St	Dedham	1880
DED.312		1020 High St	Dedham	1915
DED.311		1032 High St	Dedham	1800
DED.310		1040 High St	Dedham	1850
DED.308		1150 High St	Dedham	1920
DED.422		10 Highland St	Dedham	1970
DED.295	Adams, William Joseph House	17 Highland St	Dedham	1820
DED.294		30 Highland St	Dedham	1920
DED.292		39 Highland St	Dedham	1850
DED.293		41 Highland St	Dedham	1840
DED.290		50 Highland St	Dedham	1850
DED.291		51 Highland St	Dedham	1865
DED.289		56 Highland St	Dedham	1850
DED.288		66 Highland St	Dedham	1850
DED.470		82 Highland St	Dedham	
DED.471		108 Highland St	Dedham	
DED.278		141 Highland St	Dedham	1850
DED.277	Marsh, Martin - Ivers, Samuel House	162 Highland St	Dedham	1790
DED.276	Ivers, William House	163 Highland St	Dedham	1775
DED.275		181 Highland St	Dedham	1800
DED.475		200 Highland St	Dedham	
DED.274		203 Highland St	Dedham	1795
DED.267	Stowe Tavern - Gay, Ebenezer House	210 Highland St	Dedham	1670
DED.266	Hale House	223 Highland St	Dedham	1876
DED.265		226 Highland St	Dedham	1920
DED.264		248 Highland St	Dedham	1850
DED.262		251 Highland St	Dedham	1851
DED.263		258 Highland St	Dedham	1845
DED.261	Holmes, Edward B. House	269 Highland St	Dedham	1800
DED.476		276 Highland St	Dedham	
DED.922	I-95 Northbound Bridge over Charles River	I-95	Dedham	1954
DED.923	I-95 Southbound Bridge over Charles River	I-95	Dedham	1954
DED.924	I-95 Northbound Bridge over Route 135	I-95	Dedham	1954
DED.925	I-95 Southbound Bridge over Route 135	I-95	Dedham	1954
DED.926	I-95 Bridge over Penn Central Railroad	I-95	Dedham	1956
DED.927	I-95 Bridge over Access Road	I-95	Dedham	1956
DED.300		21 Lowder St	Dedham	1850
DED.302		159 Lowder St	Dedham	1940

Inv. No.	Property Name	Street	Town	Year
DED.303		177 Lowder St	Dedham	
DED.304		199 Lowder St	Dedham	1915
DED.306		214 Lowder St	Dedham	1830
DED.305		219 Lowder St	Dedham	1880
DED.66		243 Lowder St	Dedham	1973
DED.65		253 Lowder St	Dedham	1969
DED.241		6 Marion St	Dedham	1915
DED.239		7 Marion St	Dedham	1880
DED.240		12 Marion St	Dedham	1905
DED.242		18 Marion St	Dedham	1905
DED.243		23 Marion St	Dedham	1905
DED.244		25 Marion St	Dedham	1905
DED.245		26 Marion St	Dedham	1850
DED.901	French Encampment Marker	Marsh St	Dedham	1924
DED.451		5 Marsh St	Dedham	1890
DED.452		9 Marsh St	Dedham	1890
DED.453		19 Marsh St	Dedham	1890
DED.454		21 Marsh St	Dedham	1912
DED.455		22 Marsh St	Dedham	1870
DED.456	Marsh, Francis House	36 Marsh St	Dedham	1875
DED.280		75 Martin Bates St	Dedham	1865
DED.281	Riley, P. House	79 Martin Bates St	Dedham	1890
DED.247		14 Metcalf Ln	Dedham	1900
DED.387	Norfolk County Manufacturing Company - Stone Mill	90 Milton St	Dedham	1835
DED.906	Mount Vernon Street Bridge over Conrail	Mount Vernon St	Dedham	1898
DED.900	Causeway Bridge	Needham St	Dedham	1922
DED.931	Needham Avenue Bridge over Charles River	Needham St	Dedham	1909
DED.423	Townsend, Horatio House	1 Newport Ln	Dedham	1789
DED.376		10 Nickerson St	Dedham	1920
DED.457		1 Norfolk St	Dedham	1905
DED.121	Cobb, Jonathan House	18 Norfolk St	Dedham	1801
DED.459		7 Old Farm Rd	Dedham	1950
DED.173		46 Old Farm Rd	Dedham	1955
DED.128	Ames, Fisher House	10 Old River Pl	Dedham	1795
DED.129	Chickering, Horatio House	50 Old River Pl	Dedham	1847
DED.130		62 Old River Pl	Dedham	1845
DED.131		71 Old River Pl	Dedham	1925

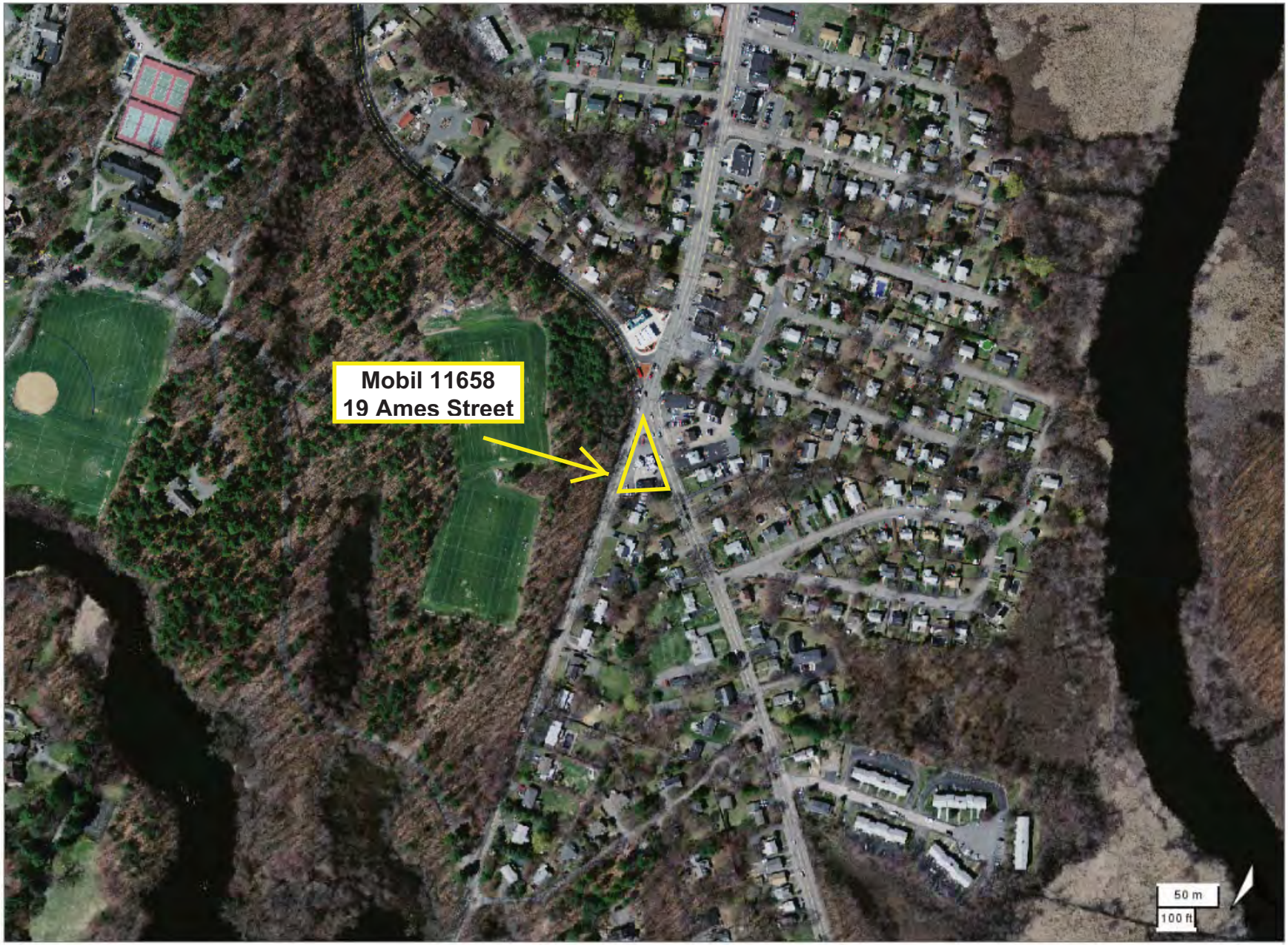
Inv. No.	Property Name	Street	Town	Year
DED.132	Gardner, John House	82 Old River Pl	Dedham	1845
DED.133	Gardner, John House	92 Old River Pl	Dedham	1845
DED.460	Norfolk Mutual Fire Insurance Company Building	4 Pearl St	Dedham	1846
DED.461		10 Pearl St	Dedham	1870
DED.125	Penniman, Edward I. House	18 Pearl St	Dedham	1828
DED.251		4 Prospect St	Dedham	1850
DED.286		20 Richards St	Dedham	1880
DED.462		26 Richards St	Dedham	1890
DED.917	Route 109 Bridge over I-95	Rt 109	Dedham	1954
DED.918	Route 109 Bridge over I-95	Rt 109	Dedham	1954
DED.920	Route 128 Northbound Bridge over Neponset River	Rt 128	Dedham	1955
DED.921	Route 128 Southbound Bridge over Neponset River	Rt 128	Dedham	1955
DED.912	Route 1 Bridge over Harris Street	Rte 1	Dedham	1932
DED.913	Route 1 Bridge over High Street	Rte 1	Dedham	1932
DED.914	Route 1 Bridge over I-95 Northbound	Rte 1	Dedham	1932
DED.273		11 Sandy Valley Rd	Dedham	1880
DED.272		121 Sandy Valley Rd	Dedham	1906
DED.271		159 Sandy Valley Rd	Dedham	1855
DED.928	Saw Mill Lane Bridge over Mother Brook	Sawmill Ln	Dedham	1914
DED.137		5 School St	Dedham	1920
DED.138		11 School St	Dedham	1835
DED.139		12 School St	Dedham	1835
DED.140		15 School St	Dedham	1850
DED.141		17 School St	Dedham	1905
DED.142	Richards, Joel House	18 School St	Dedham	1835
DED.143	Fisher, Alvin House	26 School St	Dedham	1815
DED.144		34 School St	Dedham	1820
DED.145	Alden House	42 School St	Dedham	1820
DED.146	Guild House	43 School St	Dedham	1820
DED.147	Guild - Pratt House	45 School St	Dedham	1819
DED.148	Guild House	49 School St	Dedham	1819
DED.149		53 School St	Dedham	1819
DED.150		54 School St	Dedham	1850
DED.151		57 School St	Dedham	1819
DED.152		58 School St	Dedham	1825
DED.153	Dedham Middle District School	61-63 School St	Dedham	1822

Inv. No.	Property Name	Street	Town	Year
DED.154	Gould, John House	62 School St	Dedham	1815
DED.155		66 School St	Dedham	1910
DED.156		69 School St	Dedham	1899
DED.157	Coolidge, Charles House	72 School St	Dedham	1812
DED.907	Sprague's Brook Railroad Bridge (Milepost #10.52)	Sprague's Brook	Dedham	1948
DED.909	Spring Street Bridge - Vine Rock Bridge	Spring St	Dedham	1830
DED.234		14 Spruce St	Dedham	1915
DED.235		24 Spruce St	Dedham	1850
DED.236		30 Spruce St	Dedham	1850
DED.935	Landing Place, The	Town Landing Way	Dedham	1638
DED.226		1 Union Pl	Dedham	
DED.800	Burial Place, The	Village Ave	Dedham	1638
DED.951	Burial Place, The Walls and Gates	Village Ave	Dedham	1840
DED.160		17 Village Ave	Dedham	1800
DED.159		25 Village Ave	Dedham	1860
DED.464	Norfolk County Jail	47 Village Ave	Dedham	1850
DED.161		50-52 Village Ave	Dedham	1840
DED.162		58 Village Ave	Dedham	1855
DED.163	Norfolk County Jail Office	61 Village Ave	Dedham	1850
DED.164		63 Village Ave	Dedham	1850
DED.165		66 Village Ave	Dedham	1850
DED.166		69 Village Ave	Dedham	1850
DED.168		72 Village Ave	Dedham	1855
DED.167		77 Village Ave	Dedham	1850
DED.169		78 Village Ave	Dedham	1855
DED.170		93 Village Ave	Dedham	1895
DED.171		94 Village Ave	Dedham	1880
DED.172		100 Village Ave	Dedham	1909
DED.174		111 Village Ave	Dedham	1960
DED.175		120 Village Ave	Dedham	1850
DED.176		121 Village Ave	Dedham	1876
DED.177		126 Village Ave	Dedham	1967
DED.178	Richard, Jeremiah House	136 Village Ave	Dedham	1805
DED.179		143 Village Ave	Dedham	1955
DED.180		149 Village Ave	Dedham	1955
DED.181		166 Village Ave	Dedham	1950
DED.182		181 Village Ave	Dedham	1855

Inv. No.	Property Name	Street	Town	Year
DED.183		188 Village Ave	Dedham	1876
DED.184		194 Village Ave	Dedham	1840
DED.185	Fisher Dairy Barn	195 Village Ave	Dedham	1876
DED.186		201 Village Ave	Dedham	1900
DED.187		208 Village Ave	Dedham	1845
DED.188		214-216 Village Ave	Dedham	1845
DED.189		215 Village Ave	Dedham	1945
DED.15	Whiting, Isaac House	97 Walnut St	Dedham	1825
DED.301		19 Wampatuck Rd	Dedham	1840
DED.905	Washington Street Bridge	Washington St	Dedham	1928
DED.919	Washington Street Bridge over I-95	Washington St	Dedham	1954
DED.930	Marine War Memorial and Statue	Washington St	Dedham	1957
DED.195		397 Washington St	Dedham	1850
DED.196		403-407 Washington St	Dedham	
DED.197		409-411 Washington St	Dedham	
DED.198		439 Washington St	Dedham	1851
DED.199		445 Washington St	Dedham	1850
DED.200		449-453 Washington St	Dedham	1850
DED.201	Ames Schoolhouse	450 Washington St	Dedham	1898
DED.202	Spaulding, Erastus House	462 Washington St	Dedham	1835
DED.203	Talbot House	463 Washington St	Dedham	1835
DED.467		469 Washington St	Dedham	1830
DED.465		473 Washington St	Dedham	1900
DED.204	Tolman, John B. House	474 Washington St	Dedham	1840
DED.205		478 Washington St	Dedham	1945
DED.206		481 Washington St	Dedham	1891
DED.207		488 Washington St	Dedham	1850
DED.208	Talbot House	494 Washington St	Dedham	1840
DED.466	Neal, David House	495 Washington St	Dedham	1871
DED.248		550 Washington St	Dedham	1830
DED.3		5 Westfield St	Dedham	1800
ded.2	Hunnewell, Ebenezer House and Shop	15 Westfield St	Dedham	1807
DED.46	Upper Village Fire House	25 Westfield St	Dedham	1908
DED.382		7 Whitcomb Rd	Dedham	1915
DED.237		4 Willow St	Dedham	1870
DED.249		66 Willow St	Dedham	1870
DED.260		35 Wilson Ave	Dedham	1870
DED.211		12 Worthington St	Dedham	1900

Inv. No.	Property Name	Street	Town	Year
DED.212		15 Worthington St	Dedham	1850
DED.213	Eaton House	18 Worthington St	Dedham	1830
DED.214		19 Worthington St	Dedham	1870
DED.215		23 Worthington St	Dedham	1910
DED.216		25 Worthington St	Dedham	1828
DED.217	Morrill, Josiah House	26 Worthington St	Dedham	1828
DED.218		32 Worthington St	Dedham	1928
DED.219		34 Worthington St	Dedham	1865

Mobil 11658, 19 Ames St., Dedham, MA



USGS Color Ortho Imagery 2008 30cm

NHESP Priority Habitats of Rare Species

NHESP Estimated Habitats of Rare Wildlife

Former Mobil Station 11658
19 Ames Street
Dedham, Massachusetts

Dilution Factor Calculations

$$DF = (Q_d + Q_s)/Q_d$$

DF = dilution factor

Q_d = max flow rate of the discharge (cfs) (conversion factor: 1 gpm = 0.00223 cfs)

Q_s = receiving water 7Q10 flow where 7Q10 is the min flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

	MGD	gpm	cfs
Q_d =	--	10	0.0223
Q_s =	8.34	5,792	12.9
DF =	--	--	**580**

Notes: MGD = millions of gallons per day
gpm = gallons per minute
cfs = cubic feet per second

7Q10 value (in MGD) obtained for USGS gauging station 01103500

Reference: *Water Resources and Aquifer Yields in the Charles River Basin Massachusetts, Myette and Simcox, Water Resources Investigations Report 88-4173, Revised 1991.*

http://pubs.usgs.gov/wri/1988/4173/report.pdf

Former Mobil Station 11658
19 Ames Street
Dedham, Massachusetts

Mass Calculations Summary Sheet

Analyte	Concentration (ug/L)	Concentration (mg/L)	Flowrate (gpm)	Mass (lb/hr)	Mass (lb/day)	Mass (kg/day)
Total Suspended Solids	--	48	10	2.40E-01	5.76E+00	2.615
Chloride	--	2,370	10	1.19E+01	2.85E+02	129
Cyanide	14	0.014	10	7.01E-05	1.68E-03	0.001
Benzene	710	0.710	10	3.55E-03	8.53E-02	0.039
Toluene	8,830	8.830	10	4.42E-02	1.06E+00	0.481
Ethylbenzene	1,840	1.840	10	9.21E-03	2.21E-01	0.1002
Xylenes	16,100	16.100	10	8.06E-02	1.93E+00	0.877
Total BTEX	27,480	27.480	10	1.38E-01	3.30E+00	1.497
1,2-Dichlorobenzene	9.2	0.009	10	4.60E-05	1.10E-03	0.0005
1,4-Dichlorobenzene	2.1	0.002	10	1.05E-05	2.52E-04	0.0001
Total Dichlorobenzene	11.3	0.011	10	5.65E-05	1.36E-03	0.0006
Naphthalene	621	0.621	10	3.11E-03	7.46E-02	0.034
2-Methylnaphthalene	66.1	0.066	10	3.31E-04	7.94E-03	0.004
MTBE	12	0.012	10	6.00E-05	1.44E-03	0.0007
TPH	74,000	74	10	3.70E-01	8.89E+00	4.03
Total Phenols	576	0.576	10	2.88E-03	6.92E-02	0.0314
Arsenic	17.1	0.017	10	8.56E-05	2.05E-03	0.001
Barium	355	0.355	10	1.78E-03	4.26E-02	0.019
Iron	48,100	48.1	10	2.41E-01	5.78E+00	2.62
Lead	29.6	0.030	10	1.48E-04	3.55E-03	0.002

Sample Calculations:
Mass (lb/hr) = concentration (mg/l) * flowrate (gpm) * 0.0005004
Mass (lb/day) = Mass (lb/hr) * 24 hrs/day
Mass (kg/day) = Mass (lb/day) * 0.453592