APPENDIX B

Well Inventory

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POWERTECH (USA) INC.

Inventory of Wells within 2 Kilometers of the Dewey-Burdock Uranium Project Edgemont, South Dakota

June 2012
REV. 1 January 2013

Prepared by
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INVENTORY OF WELLS WITHIN TWO KILOMETERS OF THE DEWEY-BURDOCK PROJECT AREA

Details available for wells constructed within two kilometers of the Dewey-Burdock Uranium Project are provided in this report. Historical records are reviewed in Section 1.0 and summary tables are provided in Section 2.0. Referenced materials are appended and correspond with sources cited in the summary tables.

1.0 HISTORICAL RECORDS REVIEWED

Silver King Mines, Inc. correspondence, Tennessee Valley Authority correspondence and reports, South Dakota and Wyoming databases, RESPEC's RSI 2020 report, Powertech (USA) Inc.'s records, and other records were reviewed to inventory water wells within 2 kilometers of the project in the following sections:

T6S R1E Sections 7 through 10 and 15 through 36

T6S R2E Sections 30, 31 and 32

T7S R1E Sections 1 through 24

T7S R2E Sections 5, 6, 7, 8, 17, 18, and 19

1.1 Silver King Mines, Inc. Records

A letter from Keith Andersen, Silver King Mines, Inc. (SKM), to John Hatch, SD Water Rights Commission, on January 12, 1979 was reviewed. Copies of pump test data and other records from SKM's files were attached, including an interoffice memorandum from Keith Andersen, SKM, to R. Caywood, SKM, dated December 18, 1978. This memorandum provides references to the following information:

a. Water Wells in the Edgemont Project Area prepared in May 1977: this document shows the location and available information for Hydro IDs 1 through 134; it is provided as Source A

b. Nine wells installed the Fall of 1976 for measuring water levels during the February 1977 pump test: B-1 FR (#672), B-2 (Abandoned November 1978, no Hydro ID identified), B-3 FR (no Hydro ID identified), B-3 (Abandoned November 1978, no Hydro ID identified), B-4 (Abandoned December 1978, no Hydro ID identified), B-5 (Abandoned December 1978, #637), B-6 FR(#659), B-6 (Abandoned Dec 1978, #660), B8 (#661), and Burdock Well (#668)

c. Four additional wells installed August 1977 for November 1977 pump test: B-7 FR (#665), B-7 (#666), B-9 FR (#646), and B-9(#658)

d. Ten wells installed during the Summer of 1978: BPZ 14 (#602), BPZ 15 FR (#601), BPZ 16 (#643), BPZ 17 FR (#644), BPZ 18 (#608), BPZ 19 FR (#607), BPZ 20 (#609), BPZ 21 FR (#610), BPZ 22 (#626), and BPZ 23 FR (#625)

e. Seven replacement wells installed during the Fall of 1978: B-2 LAK (#674), B-2 FU (#673), B-10 FR (#671), B-10 FU (#670), B-10 LAK (#669), B-11 FR (#664), B-11 LAK (#663)

f. Test well constructed January 1977 (#668) used during February and November 1977 pump tests

1.2 Tennessee Valley Authority Records

Tennessee Valley Authority's (TVA) Draft Environmental Statement (1979) was reviewed. This document was not finalized. Wells referenced are listed below with corresponding Hydro IDs:

p. 51, test well completed near shaft (#668)

p. 52, map showing following the wells: B-9 (BPZ-9 LAK, #658), B9FR (BPZ-9 FR, #646), B-2 (BPZ-2 LAK, #674), B1FR (BPZ-1 FR, #672), B-7 (BPZ-7 LAK, #666), B7FR (BPZ-7 FR, #665), B-6 (BPZ-6 LAK, #660), B6FR (BPZ-6 FR, #659), B-3 (BPZ-3 LAK, no corresponding Hydro ID), B3FR (BPZ-3 FR, no corresponding Hydro ID), B-4 (BPZ-4 LAK, no corresponding Hydro ID), B-5 (BPZ-5, #637), B-8 (BPZ-8 LAK, #661)

p. 53, 61 water wells within 4 miles are summarized on Table 2.5.2-1 (corresponding Hydro IDs were found for all except D-14, which had no information except a location at SESE 12-7S-1E, and E-7, which also had no information except a location at NENE 6-7S-1E; Source B provides the cross-referenced list)

The TVA report "Analysis of Aquifer Tests Conducted at the Proposed Burdock Uranium Mine Site," WR28-1-520-109, by J.M. Boggs and A.M. Jenkins, May 1980, was reviewed. Wells referenced and corresponding Hydro IDs are: Burdock test well (#668), B-10LAK (#669), B-10FU (#670), B-10FR (#671), B-11LAK (#663), B-11FR (#664), B-9LAK (#658), B-9FR (#646), B-7LAK (#666), B-7FR (#665), and Sundance Well (#662 based on depth but not location).

A letter from Gary Cummings, TVA, to Peter Martin, TVA, on March 23, 1982 regarding water levels at Dewey Pump test monitoring wells was reviewed. Wells referenced and corresponding Hydro IDs are: D-8 (#147), D-6 (#617), D-5 (#616), D-4LK (#622), D-4FR (#623), D-3LK (#657), D-3FR (#436), D-2LK (#612), D-1FU (#614), D-1FR (#613), D-1LK (#615), and Dewey Pumped Well (#611).

A letter from Gary Cummings, TVA, to Peter Martin, TVA, on April 12, 1982 regarding domestic and livestock wells monitored during the Dewey Pump Test was reviewed. Wells referenced are: 119, 103, 104, 39, BPZ 20 FR (#610), BPZ 20 LAK(#609), D-7 (#624), 40U, 40L, 102, 13, 41, 48, BY-1 FR (40U?), BPZ LA 22 (#626), BPZ FR 22 (#625), 99, 96, 106, 107, 115, 147, 148, 38, 49, 109, 110, 111, and 117. Water levels or flow rates are reported. Well locations, construction details and owners are not.

A letter from Gary Cummings, TVA, to Peter Martin, TVA, on July 12, 1982 regarding Dewey observation wells was reviewed. Wells referenced and corresponding Hydro IDs are: Dewey Main Well (#611), D-8 LK (#147), D-5 LK (#616), D-6 LK (#617), D-1 FU (#614), D-1 FR (#613), D-1 LK (#615), D-2 LK (#612), D-3 FR (#436), D-3 LK (#657), D-4 FR (#623), and D-4 LK (#622).

The TVA report "Hydrogeologic Investigations at Proposed Uranium Mine Near Dewey, South Dakota," WR28-2-520-128, by J.M. Boggs, October 1983, was reviewed. Wells referenced and corresponding Hydro IDs are: D-PW (#611), D-1LK (#615), D-1FU (#614), D-1FR (#613), D-2LK (#612), D-3LK (#657), D-3FR (#436), D-4LK (#622), D-4FR (#623), D-5LK (#616), D-6LK (#617), D-7FR (#624), D-8LK (#147), D-20LK (#609), and D-20FR (#610).

A stand-alone table showing well construction and well locations for the Dewey Pump Test wells was reviewed. The wells referenced and corresponding Hydro IDs are: Dewey Test Well (#611), D-1 FR (#613), D-1FU (#614), D-1LK (#615), D-2LK (#612), D-3FR (#436), D-3LK (#657), D-4FR (#623), D-4LK (#622), D-5LK (#616), D-6LK (#617), and D-7FR (#624).

1.3 South Dakota Water Well Records

South Dakota well records were reviewed online. Records were identified for sixty-nine Hydro IDs: 2, 13 recompletion record, 17, 38, BY-1 (possible 40U recompletion), rehabilitation record for 42, 115 replacement record, 147, 220, 429, 431, 432, 433, 436, 510, 609, 610, 611, 612, 613, 614, 615, 616, 617, 622, 623, 624, 631, 657, 662, 663, 664, 668, 669, 670, 671, 673, 674, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 703, 704 Unkpapa, 705, 706, 707, 708, 709, and 3026. Seven additional wells with no matching Hydro ID were also identified: SWSW 15-6S-1E Spencer, SWNE 18-6S-1E BNRR, 20-6S-1E SKM, NENE 27-6S-1E Smith, NWNE 29-6S-1E SKM, 2-7S-1E Linch, and 20-7S-1E Tubbs. Records found are provided in Source C.

1.4 South Dakota Oil and Gas Records

South Dakota oil and gas records were reviewed online. Thirteen oil tests were identified within two kilometers of the permit boundary. Of these, four had been converted to water wells (API Numbers 4004720045, 4004705093, 4004720065, and 4004705090, which were converted to Hydro IDS 3, 4, 5, and 11 respectively). Of the nine remaining tests, two had no information regarding plugging and abandonment (API Numbers 4003305219 and 400330521 at 19-6S-1E), four were identified as having been plugged and abandoned and a dry hole marker placed at the surface (API Numbers 4004705095 at 2-7S-1E, 4004720071 at 11-7S-1E, 4004705089 at 21-7S-1E, and 40047020077 at 15-7S-1E), two were identified as having been plugged and abandoned with no dry hole marker placed per the landowner's request (API Numbers 4004720085 at 21-7S-1E and 4004720074 at 21-7S-1E), and one (API 4004705147 at 22-7S-1E) was cased to the top of the Spearfish with a cement plug at the base of the casing. The hole is open below the casing to a second cement plug within the 2nd Converse. A steel cap is tack-welded to the surface casing making it available for possible future use as a water-supply well. A dry hole marker was screwed onto the tack-welded cap. Source D provides South Dakota Oil and Gas records for test wells that were not converted to water wells. Completion reports for test wells converted to water wells are provided in Source C.

1.5 South Dakota Water Rights Records

South Dakota water rights were also reviewed online. Three PERMITTED springs (0181-2, 0182-2 and 0183-2) issued to Grand Island and Wyoming Railroad on August 9, 1890 for springs A, B and C in 18-T6S-R1E were identified. One CANCELLED groundwater right was identified for BN Railroad in 19-T6S-R1E. The well associated with this water right was plugged and abandoned on July 31, 1998. A corresponding Hydro ID has not been assigned to it. One LICENSED groundwater right belonging to Henry Hollenbeck, number 380-2, was previously identified by RESPEC and WWC and was confirmed online in NWNW 17-6S-1E. The well associated with this water right still exists and was assigned Hydro ID 710. Coordinates for the well were estimated by Sean Hetrick, Powertech, based on the well's location on a topographic map: East 1019431, North 459018 NAD 1927, South Dakota State Plane South FIPS 4002 (feet). Mark Hollenbeck, Powertech, subsequently measured the coordinates using a handheld GPS February 27, 2012. The well's coordinates converted from the handheld GPS are East 1019432, North 459053 NAD 1927, South Dakota State Plane South FIPS 4002 (feet). The surface elevation from a USGS topographic map at the location of a mapped flowing well is 3,767 feet above mean sea level. Inspection of the well by Mark Hollenbeck the same day indicated the well was no longer flowing and is inaccessible by pump due to the casing being filled to the top with rocks. Subsequent research indicated that Silver King Mines, Inc. was also aware of the presence of this well. A water level taken from it in 1980 was below surface (the well was not flowing). The ID assigned to the well by Silver King Mines, Inc. was 149.

1.6 Wyoming Water Rights Records

Wyoming water rights were reviewed online. Water right 183561 belonging to Putnam and Putnam was previously identified by WWC and confirmed online at SWSW 28-41N-60W. This water right was found to correspond with Hydro ID 5002. Information on the water right was obtained from Ms. Krissie Groth at the Wyoming State Engineer's office in Cheyenne. A second water right, P137.0W for Earl Carr for 2,000 gallons per minute at NENW 21-41N-60W, was identified just outside the 2-kilometer boundary. The status of this water right shows CANCELLED. Further information was not available online, but can be retrieved from the State Engineer's office, if needed.

1.7 Wyoming Oil and Gas Records

Wyoming oil and gas records were reviewed online. No records were identified within the 2-kilometer area reviewed. This is a bit surprising considering the project rests on the eastern boundary of the Powder River Basin. A number of oil tests were identified northwest and southwest of the 2-kilometer boundary.

1.8 RESPEC Records

Logs in Source A-2 of RSI 2020, Draft Characterization of the Groundwater Flow System at the Dewey Burdock Uranium Project, November 2008, were reviewed. State Completion Reports prepared for 25 Powertech wells are not labeled with Hydro IDs. The order is given here for reference: 675, 677, 678, 703, 681, 686, 684, 682, 704, 683, 680, 687, 689, 3026, 698, 688, 690, 692, 696, 694, 685, 691, 693, 697, and 695. These logs are presented again in Appendix 2.2-B of Powertech's 2009 Technical Report.

Of the 56 pages of other State logs presented in Source A-2 of RSI 2020, 33 pages representing 32 logs have matching Hydro IDs, 4 logs have no matching Hydro ID, 4 logs are duplicates, and 15 pages representing 11 logs are outside the two-kilometer area reviewed. Logs are not labeled with Hydro IDs in the Source. The order is given here for reference: 429, 436, 431, 617, 433, 622, 623, dup 623, 657, 432, 614, 613, 609, 610, dup 610, outside 2-km, outside 2-km, outside 2-km, outside 2-km, 663, 664, 669, 670, 671, 674, 673, 662, 11 (2 pages), 220, 115?, outside 2-km, 8, 38, outside 2-km, no match Smith & Associates, outside 2-km (5 pages for same well), outside 2-km, outside-2km, 510, outside 2-km, outside 2-km, no match Tubbs, 2, 17, 13, dup 13, no match Linch, 116, 631, no match Spencer, and dup 662. These logs are presented again in Appendix 2.2-B of Powertech's Technical Report, February 2009.

1.9 Powertech (USA) Inc. Records

Attachments and well construction reports provided in Appendix 2.2-B of the Technical Report, February 2009 were reviewed and found to be the same as those presented by RESPEC in RSI 2020.

TR RAIs submitted to NRC in June 2011 and a report by Mike Beshore prepared in October 2011 were reviewed. Following are notes made regarding wells and Hydro IDs:

- Remove #108 from Table TR RAI P&R 10-1; is outside the 2-kilometer area reviewed
- #116 and #506 appear on both Tables TR RAI P&R 10-1 and 2; revise to show on Table 1 only
- #635 is not a well but a pipeline from #5; move to Table 2
- Add a footnote to #651 indicating it is not a well but a stock tank formerly filled by a pipeline from #6 (Fall River); #6 no longer flows and the stock tank is no longer used
- Wells or former wells possibly within 2 kilometers missing from Tables 1, 2 and 3 are: 50, 710, 5002, B-3, B-3FR, B-4, and APIs 4004705089, 4004705090, 4003305219, 4003305221, 4004705095, 4004705147, 4004720071, 4004720074, 4004720077, 4004720085.

1.10 Miscellaneous Records

A Draft Well Test Analysis report prepared by Dan Hoyer on August 20, 2007 regarding the April 1979 Burdock Lakota Pump Test, the July 1979 Burdock Fall River Pump Test 1982, and the February 1982 Dewey Lakota Pump Test was reviewed. Wells referenced and corresponding Hydro IDs are: BPZ-7FR (#665), BPZ-7LAK (#666), BPZ-11LAK (#663), BPZ-11FR (#664), BPZ-10FU (#670), BPZLAK (#669), PBZ-10FR (#671), Burdock Test Well (#668), PBZ-1FU (#673), PBZ-1FR (#674), BPZ-1FR (#672), BPZ-9FR (#646), PBZ-9LAK (#658), DPZ-7FR (#624), Bud Hollenbeck (#115), DPZ-8LAK (#147), D-3LAK (#657), DPZ-3FR (#436), DPZ 4L dewey 9 (#622), DPZ 4FR dewey 8 (#623), DPZ 2 LK dewey 5 (#612), Dewey Pump Well (#611), DPZ 1 LK dewey 2 (#615), DPZ 6 LK dewey 1 (#617), DPZ 5 LK dewey 10 (#616), 6S1E20AD6 (#613), BPZ 20 FR cement plant east (#610), and BPZ 20 LAK (#609).

1.11 Other Records Not Reviewed

Respec reviewed U.S. Geological Survey (USGS) records while preparing the February 2009 TR. Work prepared by Respec regarding USGS records was not reviewed during this inventory except where Hydro IDs within 2 kilometers occurred.

2.0 SUMMARY TABLES

Wells within two kilometers of the Dewey-Burdock project are summarized in Tables 1, 2 and 3 as follows:

- Table 1 summarizes current wells within two kilometers of the project area. These wells have been physically located in the field.
- Table 2 summarizes historical wells noted in data sources within two kilometers of the project area that are no longer present at the surface. These wells were looked for, but were not found.
- Table 3 summarizes plugged and abandoned wells within two kilometers of the project area. These wells have been confirmed by Powertech (USA) Inc. to be plugged and abandoned. Each well was visually inspected and found to have cement within its casing and/or well bore.

Wells have one of the following uses:

- Domestic: Are currently used or can reasonably be expected to be used for drinking water use, including wells that are also used for livestock water.
- Stock: Watering of livestock is sole use; well cannot be used for drinking water use (i.e., no piping to domestic water system, etc.).
- Monitor: Sole use is for monitoring.
- Irrigation: Sole use is for crop irrigation.

Sources referenced in tables are appended.

Table 1. Current Wells within 2 Kilometers of Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Aquifer(2)	Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft below ground surface)	Depth to Top of Screen or Bottom of Casing (ft below ground surface)	Depth to Bottom of Screen or Bottom of Open Hole (ft below ground surface)	Casing Diameter (in) Casing Depth (ft below ground surface)					
ALLUVIAL																	
676	6S	1E	34	SESW	1030866.53 (12)	439850.97 (12)	3666 (14)	9/26/2007	18.50 (15)	2-inch PVC 0.010-slot 12.5	to 22.5	2-inch PVC 0 to 12.5 ft	no	Alluvial	Monitor	DB-GW676	C
677	7S	1E	4	SWSW	1023525.46 (12)	434082.67 (12)	3571 (14)	9/25/2007	14.15 (15)	2-inch PVC 0.010-slot 4	to 14	2-inch PVC 0 to 4 ft	no	Alluvial	Monitor	DB-GW677	C
678	7S	1E	9	SWNE	1026522.38 (12)	431925.25 (12)	3596 (14)	9/25/2007	14.42 (15)	2-inch PVC 0.010-slot 4	to 14	2-inch PVC 0 to 4 ft	no	Alluvial	Monitor	DB-GW678	C
679	6S	1E	27	NWSE	1032295.19 (12)	446247.62 (12)	3716 (14)	9/26/2007	39.03 (15)	2-inch PVC 0.010-slot 19	to 39	2-inch PVC 0 to 19 ft	no	Alluvial	Monitor	DB-GW679	C,U
707	6S	1E	34	SWNE	1032076.78 (12)	441787.39 (12)	3692 (14)	5/5/2011	40.18 (15)	2-inch PVC 0.010-slot 30	to 40	2-inch Sched 40 PVC 0 to 30 ft	no	Alluvial	Monitor	DB11-34-ALLUV-4	C,U
708	7S	1E	3	SESW	1030408.69 (12)	434084.74 (12)	3633 (14)	5/4/2011	21.94 (15)	2-inch PVC 0.010-slot 12	to 22	2-inch Sched 40 PVC 0 to 12 ft	no	Alluvial	Monitor	DB11-3-ALLUV-3	C, S
709	7S	1E	15	SENW	1029433.59 (12)	426581.75 (12)	3595 (14)	5/9/2011	38.25 (15)	2-inch PVC 0.010-slot 28	to 38	2-inch Sched 40 PVC 0 to 28 ft	no	Alluvial	Monitor	DB11-15-ALLUV-4	C,U
711	7S	1E	3	SWSE	10303766.04 (13)	434621.05 (13)	3643 (14)	10/31/2012	27.45 (15)	2-inch PVC 0.010-slot 18	to 28	2-inch Sched 40 PVC 0 to 18 ft	no	Alluvial	Monitor		V, W
712	7S	1E	3	SESW	1030551.63 (13)	434347.43 (13)	3634 (14)	10/31/2012	22.92 (15)	2-inch PVC 0.010-slot 13	to 23	2-inch Sched 40 PVC 0 to 13 ft	no	Alluvial	Monitor		V, W
713	7S	1E	3	SESW	1030459.68 (13)	434202.54 (13)	3632 (14)	10/31/2012	28.21 (15)	2-inch PVC 0.010-slot 13	to 28	2-inch Sched 40 PVC 0 to 13 ft	no	Alluvial	Monitor		V, W
714	7S	1E	3	SESW	1030635.29 (13)	434192.58 (13)	3639 (14)	10/31/2012	27.97 (15)	2-inch PVC 0.010-slot 17	to 27	2-inch Sched 40 PVC 0 to 17 ft	no	Alluvial	Monitor		V, W
715	7S	1E	3	NESE	1031225.61 (13)	435702.30 (13)	3653 (14)	10/31/2012	32.08 (15)	2-inch PVC 0.010-slot 12	to 32	2-inch Sched 40 PVC 0 to 12 ft	no	Alluvial	Monitor		V, W
BC-1	7S	1E	3	SWNW	1029474.73 (12)	436026.65 (12)	3637 (14)	7/9/2012	29.58 (15)	2-inch PVC 0.010-slot 14	to 29	2-inch Sched 40 PVC 0 to 14 ft	no	Alluvial	Monitor	DB12-3-BC1	S,T
BC-2	7S	1E	3	NESW	1030548.07 (12)	434253.95 (12)	3634 (14)	7/9/2012	25.60 (15)	2-inch PVC 0.010-slot 15	to 25	2-inch Sched 40 PVC 0 to 15 ft	no	Alluvial	Monitor	DB12-3-BC2	S,T
BC-3	7S	1E	3	NWNW	1029035.98 (12)	438165.90 (12)	3652 (14)	7/9/2012	25.27 (15)	2-inch PVC 0.010-slot 10	to 25	2-inch Sched 40 PVC 0 to 10 ft	no	Alluvial	Monitor	DB12-3-BC3	S,T
BI-2	7S	1E	3	NESE	1030980.14 (13)	434898.92 (13)	3651 (14)	10/31/2012	33.73 (15)	2-inch PVC 0.010-slot 14	to 34	2-inch Sched 40 PVC 0 to 14 ft	no	Alluvial	Monitor		V, W
DC-1	6S	1E	30	NWSW	1013760.44 (12)	447093.13 (12)	3643 (14)	7/10/2012	24.87 (15)	2-inch PVC 0.010-slot 15	to 25	2-inch Sched 40 PVC 0 to 15 ft	no	Alluvial	Monitor	DB12-30-DC1	S,T
DC-2	6S	1E	30	SESW	1014726.19 (12)	444788.27 (12)	3614 (14)	7/10/2012	30.10 (15)	2-inch PVC 0.010-slot 11	to 31	2-inch Sched 40 PVC 0 to 11 ft	no	Alluvial	Monitor	DB12-30-DC2	S,T
DC-3	6S	1E	31	NWNE	1016403.16 (12)	444037.97 (12)	3621 (14)	7/10/2012	22.84 (15)	2-inch PVC 0.010-slot 12	to 22	2-inch Sched 40 PVC 0 to 12 ft	no	Alluvial	Monitor	DB12-31-DC3	S,T
DC-4	6S	1E	32	NWNW	1018562.17 (12)	443942.11 (12)	3615 (14)	7/11/2012	22.94 (15)	2-inch PVC 0.010-slot 13	to 23	2-inch Sched 40 PVC 0 to 13 ft	no	Alluvial	Monitor	DB12-32-DC4	S,T
FALL RIVER																	
5	7S	1E	14	NENW	1035181	427284	3643	12/26/1975	2267, cement bridge plug 850, last measured 175	open hole 155	to 175	28# 8 5/8-inch 0 to 155 ft and 4-inch steel 0 to 155 ft	yes	Fall River	Stock	D-17, API 40 047 20065	A, B, D, E, downhole tool
6	7S	1E	14	NESE	1037218	425012	3671	Late 1950s	280 original 200 last measured	open hole 135	to 200	12-inch steel 0 to 135 ft	no	Fall River	Stock		A, E
7	7S	1E	23	NWNW	1033304	422417	3574	Late 1950s	200	UNK	UNK	6	no	Fall River	Domestic	D-27, R. Kenobbie	A, B
9	7S	1E	23	NENE	1038003	421806	3594	1960s	90	UNK	UNK	6-inch (Source A) 2-inch steel (Source E)	yes	Fall River	Stock	D-25	A, B, E
14	7S	1E	2	NWSW	1033700	434723	3672	UNK	470 (source A) 300 (source E)	UNK	UNK	4	historically yes, presently no	Fall River	Stock	D-5	A, B, E
17	7S	1E	12	SENW	1040223	431329	3789	1954	156	UNK	UNK	3	no	Fall River	Stock	D-13	A, B, C

Table 1. Current Wells within 2 Kilometers of Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Aquifer(2)	Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft below ground surface)	Depth to Top of Screen or Bottom of Casing (ft below ground surface)	Depth to Bottom of Screen or Bottom of Open Hole (ft below ground surface)	Casing Diameter (in) Casing Depth (ft below ground surface)					
18	7S	1E	9	SWSW	1022812	428960	3566	Late 1920s Early 1930s	527	UNK	UNK	4	yes	Fall River	Domestic	D-10, D. Andersen	A, B, E
37	7S	2E	18	NWSW	1045180.03(16)	423902.7611(16)	3689	UNK	145	open hole 93	to 145	5 1/2-inch 0 to 93 ft	no	Fall River	Stock		A, E, downhole tool
38	6S	1E	33	SWNW	1024328	442289	3634	11/12/1949	550	open hole 494	to 550	4-inch 0 to 494 ft	yes	Fall River	Stock	B-4	A, B, C, F
49	6S	1E	32	NWNW	1018932	444022	3628	1970s	540 (historically 600)	screen 475	to 540	4	yes	Fall River	Stock		A, E
107	6S	1E	18	SWNE	1017018	458158	3708	UNK	90	UNK	UNK	5	historically yes, presently unknown	Fall River	Domestic		A
111	6S	1E	17	NWNE	1022074	459586	3794	UNK	100	UNK	UNK	4	no	Fall River	Stock		A
112	6S	1E	16	SESE	1027864	455881	3831	UNK	120	UNK	UNK	4 1/2	no	Fall River	Stock		A
116	6S	1E	18	SENE	1017992	458111	3723	UNK	UNK	UNK	UNK	1	historically yes, presently unknown	Fall River	Stock		A
138	6S	1E	18	NENE	1017537	459030	3724	1977	100	UNK	UNK	UNK	historically yes, presently unknown	Fall River	Domestic		I
436	6S	1E	20	NWNE	1021603	454436	3737	8/18/1981	590	open hole 505	to 590	4-inch 10#/ft black iron 0 to 505 ft	no	Fall River	Monitor	D-3FR	C, K, M
610	6S	1E	29	SWNE	1021599	447969	3704	6/27/1978	680	1-inch 40# black iron torch slotted 630	to 672	1-inch 40#/ft black iron 0 to 630 ft	no	Fall River	Monitor	D-20FR, BPZ-21 FR	C, K, L
613	6S	1E	20	NWNE	1022125	453775	3738	8/14/1981	580, lithologic log to 600	open hole 504	to 580	4-inch 10#/ft black iron 0 to 504 ft	no	Fall River	Monitor	D-1FR	C, K, M
623	6S	1E	20	NENE	1022669	454299	3750	8/17/1981	580	open hole 503	to 580	4-inch 10#/ft black iron 0 to 503 ft	no	Fall River	Monitor	D-4FR	C, E, K, M
624	6S	1E	18	SENE	1017992(4)	458111(4)	3723(4)	7/30/1981	120	4-inch slotted PVC casing 90	to 115	4-inch 160# PVC 0 to 90 ft	historically yes, presently unknown	Fall River	Monitor	D-7FR	C, K, M
628	6S	1E	20	SESE	1022654	449402	3737	UNK	523	326	523	UNK	no	Fall River	Stock		GPS, downhole tool
631	6S	1E	26	NWNW	1034335	448992	3744	2/1998	80	5-inch steel 1/4 x 6 slots 30	to 70	5-inch 15.5#/ft steel 0 to 30 ft	no	Fall River	Stock		C
638	7S	1E	2	NENE	1038269	437976	3791	Before 1979	180	UNK	UNK	2	no	Fall River	Monitor	D-2	B
681	6S	1E	32	NENW	1020330	443725	3624	1/27/2008	600	3-inch PVC 0.020-slot 585	to 600	6-inch SDR21 0 to 585 ft 3-inch PVC 575 to 585 ft	yes	Fall River	Monitor	DB07-32-3C	C
683	6S	1E	29	NESW	1020209	446107	3669	3/4/2008	650	2-inch PVC 0.020-slot 635	to 650	4-inch SDR17 0 to 635 ft 2-inch PVC 625 to 635 ft	no	Fall River	Monitor	DB07-29-7	C
685	6S	1E	32	NWNE	1020687	443415	3626	2/4/2008	595	2-inch PVC 0.020-slot 580	to 595	4-inch SDR17 0 to 580 ft 2-inch PVC 570 to 580 ft	yes	Fall River	Monitor	DB07-32-4C	C
687	6S	1E	32	NENW	1020078	443730	3626	2/6/2008	605	2-inch PVC 0.020-slot 590	to 605	4-inch SDR17 0 to 590 ft 2-inch PVC 580 to 590 ft	yes	Fall River	Monitor	DB07-32-5	C
688	7S	1E	11	NESW	1035027	429974	3687	4/1/2008	255	3-inch PVC 0.020-slot 245	to 255	6-inch SDR17 0 to 245 ft 3-inch PVC 235 to 245 ft	no	Fall River	Monitor	DB08-11-17	C
691	6S	1E	32	NENW	1020366	443706	3626	3/10/2008	505	3-inch PVC 0.020-slot 490	to 505	6-inch SDR17 0 to 490 ft 3-inch PVC 480 to 490 ft	yes	Fall River	Monitor	DB08-32-9C	C
694	7S	1E	15	NWNW	1028717	426836	3600	3/22/2008	392	3-inch PVC 0.020-slot 377	to 392	6-inch SDR17 0 to 377 ft 3-inch PVC 367 to 377 ft	yes	Fall River	Monitor	DB08-15-3	C
695	6S	1E	32	SESE	1022385	439312	3594	3/20/2008	508	3-inch PVC 0.020-slot 493	to 508	6-inch SDR17 0 to 493 ft 3-inch PVC 483 to 493 ft	yes	Fall River	Monitor	DB08-32-13	C
698	7S	1E	2	NESW	1035946	436967	3739	3/25/2008	205	3-inch PVC 0.020-slot 180	to 205	6-inch SDR21 0 to 180 ft 3-inch PVC 170 to 180 ft	no	Fall River	Monitor	DB08-2-1	C
706	6S	1E	21	NENE	1028589	453276	3823.29(5)	12/5/2009	328	3-inch PVC 0.020-slot 284	to 314	6-inch SDR17 0 to 284 ft 3-inch PVC 274 to 284 ft	no	Fall River	Monitor	DB09-21-2	C
FUSON																	
614	6S	1E	20	NWNE	1022185	453769	3739	9/14/1981	620	open hole 609	to 620	4-inch 10#/ft black iron 0 to 609 ft	no	Fuson	Monitor	D-1FU	C, K, M
CHILSON																	
1	7S	1E	9	SESE	1027696	429227	3624	1950s	600	UNK	UNK	4	yes	Chilson	Stock	D-11	A, B
2	7S	1E	16	SESE	1026724	423922	3554	1930s Recompleted 11/17/1981	640 original 650 recompleted	4-inch slotted 10#/ft black iron 566 to 608	and 629 to 650	4-inch 10#/ft black iron 0 to 566 ft and 608 to 629 ft	yes	Chilson	Domestic	D-20, W. Peterson	A, B, C

Table 1. Current Wells within 2 Kilometers of Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Aquifer(2)	Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft below ground surface)	Depth to Top of Screen or Bottom of Casing (ft below ground surface)	Depth to Bottom of Screen or Bottom of Open Hole (ft below ground surface)	Casing Diameter (in) Casing Depth (ft below ground surface)					
3	7S	1E	22	SWNW	1028593	421104	3541	11/28/1970	2400, cement bridge plug 1030	open hole 367	to 1030	4 1/2-inch steel 0 to 389 suspended inside 8 5/8-inch 20# steel 0 to 367 ft	yes	Chilson	Stock	D-24, API 40 047 20045	A, B, D
12	7S	1E	4	SESE	1026978	434378	3541	Late 1960s	730 (source A) 805 (source B)	UNK	UNK	4 1/2	yes	Chilson	Stock	D-7	A, B
13	7S	1E	3	NWNW	1028360	438470	3673	1950s Recompleted 10/22/1980	625	open hole 580	to 625	5 1/2-inch 14# steel 0 to 580 ft	yes	Chilson	Domestic	D-6, K. Spencer	A, B, C
15	7S	1E	2	NENW	1035304	438317	3713	UNK	280 (source A) 495 (source B)	UNK	UNK	4	no	Chilson	Stock	D-3	A, B, E
16	7S	1E	1	NWSE	1041449.338(16)	434482.1091(16)	3869	Mid 1970s	330	UNK	UNK	4 1/2	no	Chilson	Domestic	D-1, C. Daniel	A, B
42	7S	1E	5	SWNE	1021144	436481	3596	1949 Rehabilitated 11/15/2009	Original 600 Current 580	4-inch PVC 0.25-slot 280	to 300 with open hole below to 580	4-inch PVC 0 to 280 ft 8-inch steel 0 to 220 ft reduced to 1 1/4-inch at surface	yes	Chilson	Domestic	D-8, L. Putnam	A, B, C
43	6S	1E	34	SWSE	1031123	439436	3672	UNK	350	UNK	UNK	4	historically yes until Triangle Mine dewatered then no, presently unknown	Chilson	Domestic	B-5, Spencer Homestead	A, B
50	41N	60W	28	SWNW	974693	446835	3677	1930s	609	UNK	UNK	4	yes	Chilson	Stock	50N	A
51	7S	1E	9	SENE	1027411	431487	3615	1890s	550	UNK	UNK	10	yes	Chilson	Stock	D-9	A, B
61	7S	1E	11	NWSE	1036832	429987	3740	UNK	525	UNK	UNK	5	no	Chilson	Stock	D-12	A, B
96	41N	60W	22	SWSW	1011630	451853	3664	UNK	560	UNK	UNK	5	yes	Chilson	Domestic	Dixon	A
102	6S	1E	18	SWNE	1016825	458312	3708	UNK	267	UNK	UNK	5	yes	Chilson	Domestic		A
109	6S	1E	17	NENW	1020801	459625	3835	UNK	220	UNK	UNK	UNK	no	Chilson	Domestic	Cook	A
110	6S	1E	17	NENE	1023777	459643	3817	UNK	240	UNK	UNK	6 1/2	no	Chilson	Stock		A
147	6S	1E	17	NESW	1020879	456566	3729	2/9/1982	750	open hole 650	to 750	4 1/2-inch 0.219-wall steel 0 to 650 ft	no	Chilson	Monitor	D-8LK, HAM-4	C, K
510	7S	1E	12	SESE	1042944.686(16)	428048.0785(16)	3759	6/12/1988	540	5-inch PVC 0.064-slot 300 to 340	and 480 to 520	5-inch PVC 0 to 300 ft and 340 to 480 ft	yes	Chilson	Stock		C
609	6S	1E	29	SWNE	1021735	447808	3702	6/26/1978	1000	1-inch 40# black iron torch slotted 903	to 966	1-inch 40#/ft black iron 0 to 903 ft	no	Chilson	Monitor	D-20LK, BPZ-20	C, K, L
611	6S	1E	20	NWNE	1021837	453958	3731	10/17/1981	815	8 5/8-inch 0.030-slot galvanized steel 695 to 730	and 755 to 800	20-inch steel 0 to 25 ft 10 3/4-inch steel 0 to 695 ft 8 5/8-inch steel 730 to 755 ft	no	Chilson	Monitor	D-PW	C, K, M
612	6S	1E	20	NWNE	1021757	454133	3732	8/14/1981	800	open hole 692	to 800	4-inch 10#/ft black iron 0 to 692 ft	no	Chilson	Monitor	D-2LK	C, K, M
615	6S	1E	20	NWNE	1022172	453708	3738	8/13/1981	800	open hole 712	to 800	4-inch 10#/ft black iron 0 to 712 ft	no	Chilson	Monitor	D-1LK	C, K, M, downhole tool
616	6S	1E	20	SWNE	1022135	453141	3745	9/15/1981	835	open hole 735	to 835	4-inch 10#/ft black iron 0 to 735 ft	no	Chilson	Monitor	D-5LK	C, K, M
617	6S	1E	20	NWNE	1021029	453586	3723	9/15/1981	810	open hole 715	to 810	4-inch 10#/ft black iron 0 to 715 ft	no	Chilson	Monitor	D-6LK	C, K, M
619	7S	1E	2	NWNW	1034738.736(16)	437071.3154(16)	3701	UNK	286	231	286	4	no	Chilson	Stock	D-4, Daniel West, MET	B, downhole tool
620	6S	1E	35	NWNW	1033951	443209	3731	UNK	UNK	UNK	UNK	UNK	no	Chilson	Stock		GPS
622	6S	1E	20	NENE	1022776	454033	3747	8/17/1981	780	open hole 714	to 780	4-inch 10#/ft black iron 0 to 714 ft	no	Chilson	Monitor	D-4LK	C, E, K, M
637	7S	1E	11	NESE	1038075	430320	3743	Fall 1976	UNK	UNK	UNK	2	no	Chilson	Monitor	BPZ-5	L, N
650	7S	1E	1	SESE	1043794.939(16)	433351.0905(16)	3820	UNK	196	146	196	4	no	Chilson	Stock		GPS, downhole tool
657	6S	1E	20	NWNE	1021637	454497	3740	8/18/1981	800	open hole 715	to 800	4-inch 10#/ft black iron 0 to 715 ft	no	Chilson	Monitor	D-3LK	C, K, M
680	7S	1E	11	NESW	1035078	429969	3688	12/19/2007	436	4.5-inch PVC 0.020-slot 426	to 436	6-inch SDR21 0 to 426 ft 4.5-inch PVC 406 to 426 ft	no	Chilson	Monitor	DB07-11-11C	C
682	7S	1E	11	SENW	1035136	431259	3720	2/21/2008	460	2-inch PVC 0.020-slot 450	to 460	4-inch SDR17 0 to 450 ft 2-inch PVC 440 to 450 ft	no	Chilson	Monitor	DB07-11-2	C
684	7S	1E	11	NESW	1035188	429745	3691	2/13/2008	423	2-inch PVC 0.020-slot 413	to 423	4-inch SDR17 0 to 413 ft 2-inch PVC 403 to 413 ft	no	Chilson	Monitor	DB07-11-14C	C
686	7S	1E	11	NESW	1034966	429751	3694	2/24/2008	428	2-inch PVC 0.020-slot 418	to 428	4-inch SDR17 0 to 418 ft 2-inch PVC 408 to 418	no	Chilson	Monitor	DB07-11-15	C
689	6S	1E	32	NENW	1020316	443789	3626	3/11/2008	730	3-inch PVC 0.020-slot 715	to 730	6-inch SDR17 0 to 715 ft 3-inch PVC 705 to 715 ft	yes	Chilson	Monitor	DB08-32-10	C

Table 1. Current Wells within 2 Kilometers of Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Aquifer(2)	Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft below ground surface)	Depth to Top of Screen or Bottom of Casing (ft below ground surface)	Depth to Bottom of Screen or Bottom of Open Hole (ft below ground surface)	Casing Diameter (in) Casing Depth (ft below ground surface)					
692	7S	1E	11	NESW	1035068	429999	3701	4/16/2008	335	3-inch PVC 0.020-slot 325	to 335	6-inch SDR17 0 to 325 ft 3-inch PVC 315 to 325 ft	no	Chilson	Monitor	DB08-11-19	C
696	7S	1E	15	NWNW	1028687	426946	3602	3/21/2008	587	3-inch PVC 0.020-slot 572	to 587	6-inch SDR17 0 to 572 ft 3-inch PVC 562 to 572 ft	yes	Chilson	Monitor	DB08-15-2	C
697	6S	1E	32	SESE	1022350	439347	3594	3/18/2008	682	3-inch PVC 0.020-slot 667	to 682	6-inch SDR17 0 to 667 ft 3-inch PVC 657 to 667 ft	yes	Chilson	Monitor	DB08-32-12	C
704(6)	7S	1E	5	SWNE	1020966	436647	3599	Original 4/29/2008 Perforated 2/4/2009	UNK	UNK	UNK	UNK	UNK	Chilson (Beginning 2/4/2009)	Domestic	L. Putnam 704 Unkpapa	P
705	6S	1E	21	NENE	1028624	453314	3825.53(5)	12/5/2009	Borehole TD 600 Cemented to 460	3-inch PVC 0.020-slot 428	to 458	6-inch SDR17 0 to 428 ft 3-inch PVC 418 to 428 ft	no	Chilson	Monitor	DB09-21-1	C
3026	7S	1E	1	SESE	1043749	433354	3822	3/26/2008	196	3-inch PVC 0.020-slot 166	to 196	6-inch SDR21 0 to 166 ft 3-inch PVC 156 to 166 ft	no	Chilson	Monitor	DB08-1-6	C
5002	41N	60W	28	SWSW	974687	446660	3681	1970s	639	UNK	UNK	6	yes	Chilson	Stock	WR P183561	A, H
7002	7S	1E	23	NWNW	1033333	421931	3571	1930s	500	UNK	UNK	5 1/2	yes	Chilson	Stock	D-26	A, B
INYAN KARA																	
40(7)	6S	1E	30	SWNW	1013415	447182	3635	About 1969	650 (680 for BY-1)	UNK	UNK	6	yes	Inyan Kara	Domestic	40S, 40U possibly BY-1	A, G C for BY-1
115	6S	1E	18	SENE	1017697	457640	3720	Original before 1977 Replaced 10/2/1984	360	4-inch PVC 1/64-slot 200 to 220	and 300 to 360	6-inch yellow mine 0 to 180 ft 4-inch PVC 160 to 200 ft 4-inch PVC 220 to 300 ft	yes	Inyan Kara	Domestic		A, C
668	7S	1E	15	NWNE	1031029	427450	3622	1/31/1977	574	10-inch stainless steel 280 to 335 (300 to 350 source E)	and 8-inch stainless steel 480 to 555 (495 to 550 source E)	10-inch steel 0 to 280 ft (0 to 300 ft source E) and 335 to 480 ft (350 to 495 ft source E)	yes	Inyan Kara	Stock	Burdock Well	C, E, L, O
4002	6S	1E	30	NWSW	1013414	446931	3621	1940s	700	UNK	UNK	6	yes	Inyan Kara	Domestic	40L	A, G
UNKPAPA																	
114	7S	2E	7	SESW	1045410	428653	3764	UNK	365	UNK	UNK	UNK	no	Unkpapa	Stock	E-2, Bennett Canyon Well	A, B, J
506	7S	2E	8	SWNW	1050129	430704	3936	UNK	470	UNK	UNK	UNK	no	Unkpapa	Stock	E-3	B
690	7S	1E	11	NESW	1035113	429971	3700	4/15/2008	631	3-inch PVC 0.020-slot 621	to 631	6-inch 18# 0 to 621 ft 3-inch PVC 611 to 621 ft	yes	Unkpapa	Monitor	DB08-11-18	C
693	6S	1E	32	NENW	1020329	443667	3626	3/8/2008	930	3-inch PVC 0.020-slot 910	to 930	6-inch 18# 0 to 910 ft 3-inch PVC 890 to 910 ft	yes	Unkpapa	Monitor	DB08-32-11	C
703	7S	1E	1	SWSE	1042294	434136	3877	4/18/2008	525	3-inch PVC 0.020-slot 475	to 525	6-inch 18# 0 to 475 ft 3-inch PVC 465 to 475 ft	no	Unkpapa	Domestic	C. Daniel DB08-1-7	C
704(6)	7S	1E	5	SWNE	1020966	436647	3599	4/29/2008	955	3-inch PVC 0.020-slot 915	to 955	6-inch 18# 0 to 915 ft 3-inch PVC 905 to 915 ft	yes	Unkpapa (Cemented to Chilson 1/28/2009)	Domestic	L. Putnam DB08-5-1	C
SUNDANCE																	
11	7S	1E	24	NWSW	Long. 103.952837	Lat. 43.425719	3566	Completed as Oil Test 10/6/1964 Completed as Water Well after 8/31/1967	2467, cement bridge plugs 420-600, 835-910, 1460-1525, 1640-1715, 2060-2135	open hole 487	UNK (TD Oil Test 2480)	8 5/8-inch 20# 0 to 487	yes	Sundance (and others?)	Stock	D-31 API 40 047 05090	A, B, D
662	7S	1E	11	SESW	1035381	428928	3679	7/26/1978	880	5 1/2-inch 14# torch slotted 666	to 780	5 1/2-inch 14# steel 0 to 666 ft	yes	Sundance	Monitor	Sundance Well	C, L, O
UNKNOWN																	
4	7S	1E	15	SESE	1032516	423080	3580	3/5/1965	2264, cement bridge plug 1645	open hole 971	to 1645	24# 8 5/8-inch 0 to 971 ft reduced to 3-inch at surface	yes	Unknown	Stock	D-19, API 40 047 05093	A, B, D
41	6S	1E	31	SWNE	1015385	442081	3611	UNK	UNK	UNK	UNK	6	yes	Unknown	Stock	B-3	A, B, G
106	6S	1E	18	NENE	1018099	459625	3724	UNK	196	open hole 160	to 196	7-inch steel 0 to 160 ft	yes	Unknown	Stock		A, E, downhole tool
113	7S	2E	6	NESW	1046437	434417	3844	UNK	40	UNK	UNK	UNK	no	Unknown	Stock	E-1, Bennett #2 Well	A, B, J
117	6S	1E	8	SWSE	1022177	460796	3923	UNK	UNK	UNK	UNK	6	No	Unknown	Stock		A
220	6S	1E	19	SENE	1017872	452334	3680	10/16/1984	900	historically 4-inch slotted PVC 780 to 800 and 840 to 880	presently 6-inch PVC screen 463 to 523, caved below	historically 6" yellow mine 0-520 ft and 4" PVC 500-780, 800-840 & 880-900 ft, presently 6" PVC 0-463 ft	yes	Unknown	Stock		C, E
270	6S	1E	19	NWSW	1014108	451942	3659	UNK	UNK	UNK	UNK	2-inch steel	yes	Unknown	Stock		GPS, E
618	7S	1E	2	SENE	1038099.328(16)	435929.2455(16)	3759	UNK	133	62	133	5	no	Unknown	Stock		GPS, downhole tool
639	7S	2E	7	SENW	1045704	430722	3771	UNK	UNK	UNK	UNK	UNK	no	Unknown	Stock		GPS

Table 1. Current Wells within 2 Kilometers of Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Aquifer(2)	Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft below ground surface)	Depth to Top of Screen or Bottom of Casing (ft below ground surface)	Depth to Bottom of Screen or Bottom of Open Hole (ft below ground surface)	Casing Diameter (in) Casing Depth (ft below ground surface)					
640	75	1E	12	SESE	1043029.097(16)	427971.0258(16)	3754	UNK	UNK	UNK	UNK	1	no	Unknown	Stock		GPS
642	75	1E	12	SESE	1042944.318(16)	428041.5258(16)	3757	UNK	33	open hole 12	to 33	5-inch steel 0 to 12	no	Unknown	Stock		GPS, E, downhole tool
645	75	1E	16	NENE	1027681	427998	3609	UNK	UNK	UNK	UNK	UNK	no	Unknown	Stock		GPS
656	65	1E	31	SENW	1014230	442000	3622	UNK	UNK	UNK	UNK	UNK	yes	Unknown	Stock		GPS
710	65	1E	17	NWNW	1019432(8)	459053(8)	3767(9)	Before 6/29/1951	376	UNK	UNK	UNK	historically yes, presently no	Unknown	Irrigation	WR 380-2, 149	Q, R

Notes:
(1) Surface elevations are based on a digital elevation model (DEM), except where noted. Accuracy is plus or minus 15 feet.
(2) Inyan Kara indicates screened interval is across Fall River and Chilson.
(3) Estimated from Powertech digital topographic map
(4) Coordinates and elevation for Hydro ID 116 used for Hydro ID 624 pending field verification
(5) Surveyed by Andersen Engineers, March 2011
(6) 704 was originally completed in the Unkpapa aquifer. It was recompleted 1/28/2009 in the Chilson aquifer.
(7) Hydro ID 40 possibly replaced by BY-1 (depth 680 ft and casing diameter 5.5 inches) on 3/4/1982
(8) Handheld GPS coordinates converted to South Dakota State Plane NAD 27, Powertech (USA) Inc., February 2012
(9) USGS 7.5 Minute Series (Topographic), Dewey Quadrangle, Wyoming-South Dakota, 1951
(10) As-built depths. Measured July 12-16, 2012 by Powertech (USA) Inc. during reconnaissance for upcoming development and sampling event
(11) As-built depths. Measured August 20-23, 2012 by Powertech (USA) Inc. during reconnaissance for upcoming survey.
(12) Survey by Andersen Engineers, August 2012
(13) Surveyed by Andersen Engineers, November 2012
(14) Surveyed top of casing minus measured stick-up
(15) Measured depth from top of casing minus measured stick-up
(16) Handheld GPS coordinates converted to South Dakota State Plane NAD 27, Powertech (USA) Inc., August 2009
UNK = Unknown

Sources:
A. Water Wells in Edgemont Project Area, Silver King Mines, May 1977, in letter from Keith Andersen, Silver King Mines, Inc., to John Hatch, South Dakota Water Rights Commission, January 12, 1979
B. Tennessee Valley Authority Draft Environmental Statement, 1979, Table 2.5.2-1
C. South Dakota Water Well Records - Notice of Well Construction Records, Artesian Well Repair Records, and Well Drillers Reports
D. South Dakota Oil and Gas Records
E. Dewey Burdock Groundwater Well Report for 2010 and 2011 Field Work Completed, M. Beshore, Powertech (USA) Inc., October 4, 2011
F. Responses to Nuclear Regulatory Commission Comments (Revision 1), C. Hocking , RESPEC, to M. Hollenbeck, Powertech (USA) Inc., July 22, 2010
G. Letter from SKM to TVA, Domestic and Livestock Wells Monitored During Dewey Pump Test, April 12, 1982
H. Wyoming Water Right Permit 183561, June 12, 2007
I. Additional Water Wells in Edgemont Project Area, Silver King Mines, Inc., Interoffice Correspondence, Andersen to Caywood, August 3, 1979
J. Forest Service Wells and Springs, in letter from Keith Andersen, Silver King Mines, Inc., to John Hatch, South Dakota Water Rights Commission, January 12, 1979
K. Hydrogeologic Investigations at Proposed Uranium Mine Near Dewey, South Dakota, Tennessee Valley Authority, WR28-2-520-128, J. Mark Boggs, October 1983
L. Coordinates, Elevations and Water Levels for Burdock Piezometers, in letter from Keith Andersen, Silver King Mines, Inc., to John Hatch, South Dakota Water Rights Commission, January 12, 1979
M. Baseline Water Quality and Water Level/Flow Rates, in letter from Keith Andersen, Silver King Mines, Inc., to Steve Stampfli, Office of Surface Mining, South Dakota Department of Water and Natural Resources, March 3, 1982
N. Burdock Mine Area Hydrology Status Report, Silver King Mines, Inc. Interoffice Correspondence from Keith Andersen to R.M. Caywood, December 18, 1978, included in letter from Keith Andersen to John Hatch, South Dakota Water Rights Commisssion, January 12, 1979
O. Analysis of Aquifer Tests conducted at the Proposed Burdock Uranium Mine Site, Burdock, South Dakota, Tennessee Valley Authority, WR28-1-520-109, J.M. Boggs and A.M. Jenkins, May 1980
P. Interoffice communication, Len Eakin, Powertech (USA) Inc., to Mike Beshore, Powertech (USA) Inc., May 9, 2011
Q. South Dakota Water Right 380-2
R. Letter from R.M. Caywood, Silver King Mines, Inc., to Clinton C. Smythe, Tennessee Valley Authority, regarding addition of Well No. 149 to monitoring program, May 12, 1980
S. Field notes, Powertech (USA) Inc., July 12 and 16, 2012
T. Letter report from American Engineering Testing, Inc. to Powertech (USA) Inc. titled "Well Completion Reports," July 18, 2012
U. Field notes, Powertech (USA) Inc., August 20 and 23, 2012
V. Letter report from American Engineering Testing, Inc. to Powertech (USA) Inc. titled "Well Completion Reports," November 5, 2012
W. Field notes, Powertech (USA) Inc., October 31, 2012

Table 2. Historical Wells Noted in Data Sources within 2 Kilometers but No Longer Present at Surface

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Former Aquifer	Previous Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft)	Depth to Top Screen (ft)	Depth to Bottom Screen (ft)	Casing Diameter (in)					
ALLUVIAL																	
502	6S	1E	27	NWSE	1030866.53 (12)	446360	3716	UNK	46	UNK	UNK	UNK	no	Alluvial	Unknown	B-2	B
621	6S	1E	27	NWSE	1031930	446397	3717	UNK	50	UNK	UNK	UNK	no	Alluvial	Unknown	B-1	B
FALL RIVER																	
646	7S	1E	15	SWNE	1031248	426409	3611	August 1977	293	251	293	1	yes	Fall River	Monitor	B-9FR	L, N, O
659	7S	1E	10	SWNE	1031876	431048	3651	Fall 1976	UNK	UNK	UNK	UNK	yes	Fall River	Monitor	B-6FR	O
664	7S	1E	10	SWSE	1030634	428338	3621	11/7/1978	360	315	360	4.5	yes	Fall River	Monitor	B-11FR	C, L, O
671	7S	1E	15	NWNE	1031016	427870	3623	10/18/1978	350	300	350	4.5	yes	Fall River	Monitor	B-10FR	C, L, O
672	7S	1E	15	NWNE	1030632	427480	3622	Fall 1976	376	334	376	4	yes	Fall River	Monitor	B-1FR	L, O
CHILSON																	
10	7S	1E	13	NENE	1043663.771(5)	427041.3601(5)	3736	1970s	200	UNK	UNK	UNK	no	Chilson	Stock	D-15	A, B
39	6S	1E	29	NENE	1022916	448656	3733	UNK	700	UNK	UNK	5	no	Chilson	Stock		A
48	6S	1E	19	SENW	1015295	453037	3663	Late 1960s	725	UNK	UNK	2 1/2	yes	Chilson	Stock		A
425	7S	1E	14	SENW	1034449	426208	3630	UNK	237	UNK	UNK	UNK	UNK	Chilson	Unknown		USGS
658	7S	1E	15	SWNE	1031234	426398	3611	August 1977	545	503	545	1	yes	Chilson	Monitor	B-9LAK	L, N, O
660	7S	1E	10	SWNE	1031822	431030	3652	Fall 1976	UNK	UNK	UNK	UNK	yes	Chilson	Monitor	B-6	O
661	7S	1E	12	NENW	1040977	431970	3694	Fall 1976	UNK	UNK	UNK	UNK	no	Chilson	Monitor	B-8	O
663	7S	1E	10	SWSE	1030659	428346	3621	11/7/1978	550	504	550	4.5	yes	Chilson	Monitor	B-11LAK	C, L, O
669	7S	1E	15	NWNE	1031005	427910	3622	10/25/1978	550	510	550	4.5	yes	Chilson	Monitor	B-10LAK	C, L, O
674	7S	1E	15	NWNE	1030555	427513	3621	11/6/1978	570	525	570	4.5	yes	Chilson	Monitor	B-2LAK	C, L, O
670	7S	1E	15	NWNE	1031065	427936	3623	10/19/1978	395	377	395	4.5	yes	Fuson	Monitor	B-10FU	C, L, O
673	7S	1E	15	NWNE	1030628	427511	3622	11/6/1978	420	400	420	4.5	no	Fuson	Monitor	B-1FU, B-2FU	C, L, O
UNKNOWN																	
634	6S	1E	34	NESE	1032502	440168	3689	UNK	UNK	UNK	UNK	UNK	no	Unknown	Unknown		GPS
OTHER																	
429	6S	1E	20	SENE	1023157	452953	3783	NA	800	NA	NA	NA	NA	Not a Well	NA		USGS, duplicates 615
431	6S	1E	20	SENE	1023157	452953	3783	NA	815	NA	NA	NA	NA	Not a Well	NA		USGS, duplicates 611
433	6S	1E	20	SENE	1023157	452953	3783	NA	835	NA	NA	NA	NA	Not a Well	NA		USGS, duplicates 616
432	6S	1E	20	SENE	1023157	452953	3783	NA	800	NA	NA	NA	NA	Not a Well	NA		USGS, duplicate 612
605(2)	7S	1E	10	SWSE	1031814	428484	3642	NA	NA	NA	NA	NA	NA	Not a Well(2)	NA		E
635(3)	7S	1E	14	NENW	1004085	427131	3643	NA	NA	NA	NA	NA	NA	Not a Well(3)	NA		E
651(4)	7S	1E	14	NWSE	1036009	424246	3600	NA	NA	NA	NA	NA	NA	Not a Well(4)	NA		E

Notes: (1) Surface elevations are based on a digital elevation model (DEM), except where noted. Accuracy is plus or minus 15 feet.
(2) Hydro ID 605 is not a well. It is a pipe from Hydro ID 668.
(3) Hydro ID 635 is not a well. It is a pipe from 5.
(4) Hydro ID 651 is not a well. It was historically a pipe from Hydro ID 6.
(5) Handheld GPS coordinates converted to South Dakota State Plane NAD 27, Powertech (USA) Inc., August 2009.
UNK = Unknown
NA = Not applicable, not a well

Table 3. Plugged and Abandoned Wells within 2 Kilometers of the Project Area

Hydro ID	Legal Location				SD State Plane NAD 27		NGVD29	Construction Summary					Flowing Artesian	Former Aquifer	Previous Use	Other Name	Source
	T.	R.	Sec.	Qtr. Qtr.	East (ft)	North (ft)	Surface Elevation(1) (ft)	Date Completed	Total Depth (ft)	Depth to Top Screen (ft)	Depth to Bottom Screen (ft)	Casing Diameter (in)					
FALL RIVER																	
665	7S	1E	11	SWSW	1030866.53 (12)	428901	3672	August 1977	252	210	252	1	no	Fall River	Monitor	B-7FR	L, N, O
---	6S	1E	19	SWSE	Long 104.042397	Lat 43.508820	3690	1/1/1931	405	0	0	UNK		Fall River	Oil Test	API 40 033 05219	D
---	6S	1E	19	SWSE	Long 104.042397	Lat 43.508820	3690	1/1/1932	420	0	0	UNK		Fall River	Oil Test	API 40 033 05221	D
CHILSON																	
666	7S	1E	11	SWSW	1033128	428870	3669	August 1977	441	399	441	1	no	Chilson	Monitor	B-7LAK	L, N, O
MINNELUSA																	
---	7S	1E	2	SESE	Long 103.958032	Lat 43.466062	3792	8/19/1964	2447	0	0	8 5/8-inch 0 to 142 ft		Minnelusa	Oil Test	API 40 047 05095	D
---	7S	1E	22	NWSE	Long 103.983142	Lat 43.429674	3522	12/24/1965	2400	0	0	14-inch 0 to 30 ft 8 5/8-inch 0 to 1125 ft		Minnelusa	Oil Test	API 40 047 05147	D
---	7S	1E	11	SWSE	Long 103.963826	Lat 43.451453	3679	12/22/1976	2250	0	0	8 5/8-inch 0 to 163 ft		Minnelusa	Oil Test	API 40 047 20071	D
---	7S	1E	21	NENE	Long 103.997735	Lat 43.433117	3533	4/7/1979	2500	0	0	8 5/8-inch 0 to 250 ft		Minnelusa	Oil Test	API 40 047 20074	D
---	7S	1E	15	SWSW	Long 103.991563	Lat 43.435870	3564	8/13/1979	2462	0	0	8 5/8-inch 0 to 660 ft		Minnelusa	Oil Test	API 40 047 20077	D
---	7S	1E	21	NENE	Long 103.996978	Lat 43.433064	3537	1/24/1980	2460	0	0	8 5/8-inch 0 to 800 ft		Minnelusa	Oil Test	API 40 047 20085	D
MADISON																	
---	7S	1E	21	NESE	Long 103.997224	Lat 43.425795	3526	2/22/1964	3057	0	0	8 5/8-inch 0 to 269 ft		Madison	Oil Test	API 40 047 05089	D
UNKNOWN																	
606	7S	1E	11	SWSW	1033713	428609	3668	UNK	UNK	UNK	UNK	UNK		Unknown	Unknown	D-16	B
636	7S	1E	11	NESW	1034774	429982	3698	UNK	UNK	UNK	UNK	7		Unknown	Unknown		GPS
652	7S	1E	2	NWSE	1036383.302(2)	434753.7379(2)	3748	UNK	UNK	UNK	UNK	UNK		Unknown	Unknown		GPS
653	7S	1E	22	NWNE	1030679	422487	3569	UNK	UNK	UNK	UNK	UNK		Unknown	Unknown		GPS
654	6S	1E	34	NWNE	1032372	443410	3687	UNK	UNK	UNK	UNK	8		Unknown	Unknown		GPS
655	6S	1E	34	NENE	1033454	443307	3719	UNK	UNK	UNK	UNK	12		Unknown	Unknown		GPS

Notes: (1) Land elevations based on Digital Elevation Model (DEM).
(2) Handheld GPS coordinates converted to South Dakota State Plane NAD 27, Powertech (USA) Inc., August 2009.
UNK = Unknown

SOURCE A

WATER WELLS IN EDGEMONT PROJECT AREA

(Silver King Mines, Inc., May 1977, in a letter from Keith Andersen, Silver King Mines, Inc., to John Hatch, South Dakota Water Rights Commission, January 12, 1979)

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WATER WELLS IN EDGEMONT PROJECT AREA

Well No.	Location
1	SE/4 SE/4 Sec. 9 T7S,R1E
2	SE/4 SE/4 Sec. 16 T7S,R1E
3	SW/4 NW/4 Sec. 22 T7S,R1E
4	SE/4 SE/4 Sec. 15 T7S,R1E
5	NE/4 NW/4 Sec. 14 T7S,R1E
6	NE/4 SE/4 Sec. 14 T7S,R1E
7	NW/4 NW/4 Sec. 23 T7S,R1E
8	NW/4 SE/4 Sec. 23 T7S,R1E
9	NE/4 NE/4 Sec. 23 T7S,R1E
10	NE/4 NE/4 Sec. 13 T7S,R1E
11	NW/4 SW/4 Sec. 24 T7S,R1E
12	SE/4 SE/4 Sec. 4 T7S,R1E
13	NW/4 NW/4 Sec. 3 T7S,R1E
14	NW/4 SW/4 Sec. 2 T7S,R1E
15	NW/4 NW/4 Sec. 2 T7S,R1E
16	NW/4 SE/4 Sec. 1 T7S,R1E
17	SE/4 NW/4 Sec. 12 T7S,R1E
18	NW/4 SW/4 Sec. 9 T7S,R1E
19	NW/4 NW/4 Sec. 18 T7S,R1E
20	NW/4 SW/4 Sec. 17 T7S,R1E
21	SW/4 NW/4 Sec. 19 T7S,R1E
22	NE/4 SW/4 Sec. 27 T40N, R60W
23	NW/4 NW/4 Sec. 29 T7S, R1E
24	NE/4 NW/4 Sec. 28 T7S,R1E
25	SE/4 NW/4 Sec. 27 T7S,R1E
26	SW/4 NE/4 Sec. 35 T7S,R1E
27	SE/4 SE/4 Sec. 33 T7S,R1E
28	NE/4 SW/4 Sec. 22 T8S,R2E
29	NE/4 NW/4 Sec. 16 T8S,R2E
30	SE/4 SE/4 Sec. 31 T7S,R2E
31	SW/4 NW/4 Sec. 31 T7S,R2E

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Well No.	Location			
32	SW/4	SW/4	Sec. 30	T7S,R2E
33	NW/4	SE/4	Sec. 25	T7S,R1E
34	NW/4	NW/4	Sec. 30	T7S,R2E
35	SW/4	NE/4	Sec. 19	T7S,R2E
36	NW/4	NE/4	Sec. 30	T7S,R2E
37	NW/4	SW/4	Sec. 18	T7S,R2E
38	SW/4	NW/4	Sec. 33	T6S,R1E
39	NE/4	NE/4	Sec. 29	T6S,R1E
40	NW/4	SW/4	Sec. 30	T6S,R1E
41	SW/4	NW/4	Sec. 31	T6S,R1E
42	SW/4	NE/4	Sec. 5	T7S,R1E
43	SE/4	SW/4	Sec. 34	T6S,R1E
44	NW/4	SE/4	Sec. 31	T7S,R2E
45	NW/4	NW/4	Sec. 5	T8S,R2E
46	SW/4	NE/4	Sec. 31	T7S,R2E
47	SW/4	SW/4	Sec. 32	T7S,R2E
48	SE/4	NW/4	Sec. 19	T6S,R1E
49	SW/4	SW/4	Sec. 29	T6S,R1E
50	SW/4	SW/4	Sec. 28	T41N,R60W
51	SW/4	NE/4	Sec. 9	T7S,R1E
52	NE/	SE/4	Sec. 30	T7S,R2E
53	SW/4	NE/4	Sec. 30	T7S,R2E
54	NE/4	SE/4	Sec. 25	T7S,R1E
55	NW/4	NE/4	Sec. 36	T7S,R1E
56	SE/4	SE/4	Sec. 32	T7S,R2E
57	NE/4	SE/4	Sec. 5	T8S,R2E
58	NW/4	NE/4	Sec. 31	T7S,R1E
59	NE/4	NW/4	Sec. 5	T8S,R2E
60	NE/4	SW/4	Sec. 33	T7S,R2E
61	NW/4	SE/4	Sec. 11	T7S,R1E
62	SW/4	SW/4	Sec. 25	T7S,R1E
63	SW/4	NW/4	Sec. 36	T7S,R1E

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Well No.	Location
64	SW/4 NE/4 Sec. 9 T8S,R2E
65	NW/4 NE/4 Sec. 9 T8S,R2E
66	NE/4 NW/4 Sec. 8 T8S,R2E
67	SE/4 NW/4 Sec. 8 T8S,R2E
68	NE/4 NE/4 Sec. 8 T8S,R2E
69	SW/4 SE/4 Sec. 25 T7S,R1E
70	SE/4 SW/4 Sec. 25 T7S,R1E
71	NW/4 SE/4 Sec. 6 T8S,R2E
72	NW/4 SE/4 Sec. 6 T8S,R2E
73	NE/4 SW/4 Sec. 6 T8S,R2E
74	NE/4 SW/4 Sec. 6 T8S,R2E
75	SW/4 SW/4 Sec. 17 T8S,R2E
76	SE/4 NW/4 Sec. 17 T8S,R2E
77	NW/4 NE/4 Sec. 17 T8S,R2E
78	NE/4 SE/4 Sec. 20 T8S,R2E
79	NE/4 SE/4 Sec. 27 T8S,R2E
80	SW/4 NW/4 Sec. 35 T8S,R2E
81	SW/4 NW/4 Sec. 14 T8S,R2E
82	SW/4 SW/4 Sec. 10 T8S,R2E
83	NE/4 SW/4 Sec. 14 T8S,R2E
84	SW/4 NW/4 Sec. 10 T8S,R2E
85	NE/4 SE/4 Sec. 28 T8S,R2E
86	NW/4 SW/4 Sec. 6 T8S,R2E
87	NW/4 NE/4 Sec. 1 T8S,R1E
88	NE/4 SE/4 Sec. 35 T7S,R1E
88	SE/4 SE/4 Sec. 35 T7S,R1E
89	NW/4 NE/4 Sec. 11 T8S,R1E
90	SE/4 NW/4 Sec. 23 T8S,R2E
91	SE/4 NW/4 Sec. 12 T8S,R2E
92	SE/4 SW/4 Sec. 23 T8S,R2E
93	SE/4 NE/4 Sec. 2 T8S,R2E
94	SW/4 SW/4 Sec. 34 T7S,R2E

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Well No.	Location			
95	SE/4		Sec. 25	T40N,R61W
96	SW/4	SW/4	Sec. 22	T41N,R60W
97	Not Located			
98	SW/4	NW/4	Sec. 17	T41N,R60W
99	NE/4	NE/4	Sec. 17	T41N,R60W
100	NW/4	SE/4	Sec. 7	T41N,R60W
101	SW/4	NE/4	Sec. 1	T41N,R61W
102	SW/4	NE/4	Sec. 18	T6S,R1E
103	NW/4	NW/4	Sec. 10	T41N,R60W
104	NW/4	SW/4	Sec. 10	T41N,R60W
105	SE/4	NW/4	Sec. 9	T41N,R60W
106	NE/4	NE/4	Sec. 18	T6S,R1E
107	SE/4	NE/4	Sec. 18	T6S,R1E
108	SE/4	NE/4	Sec. 18	T6S,R1E
109	NE/4	NW/4	Sec. 17	T6S,R1E
110	NE/4	NE/4	Sec. 17	T6S,R1E
111	NW/4	NE/4	Sec. 17	T6S,R1E
112	SE/4		Sec. 16	T6S,R1E
113	NE/4	SW/4	Sec. 6	T7S,R2E
114	NE/4	SW/4	Sec. 7	T7S,R2E
115	SE/4	NE/4	Sec. 18	T6S,R1E
116	SE/4	NE/4	Sec. 18	T6S,R1E
117	SW/4	SE/4	Sec. 8	T6S,R1E
118	NE/4	SE/4	Sec. 7	T6S,R1E
119	NW/4	NW/4	Sec. 8	T6S,R1E
120	NW/4	SW/4	Sec. 5	T6S,R1E
121	SW/4	SW/4	Sec. 31	T5S,R1E
122	NE/4	NW/4	Sec. 30	T5S,R1E
123	NE/4	NW/4	Sec. 21	T42N,R60W
124	NW/4	SW/4	Sec. 18	T5S,R1E
125	SW/4	SW/4	Sec. 6	T6S,R1E

Continued - Page 5

Well No.	Location
126	SE/4 SW/4 Sec. 16 T41N,R60W
127	SW/4 NE/4 Sec. 7 T41N,R60W
128	NW/4 SE/4 Sec. 1 T41N,R61W
129	Sec. 7 Sec. 5 T41N,R60W
130	
131	NW/4 SE/4 Sec. 4 T8S,R2E
132	NW/4 SE/4 Sec. 4 T8S,R2E
133	
134	SE/4 NW/4 Sec. 29 T40N,R60W

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
1	Peterson & Son Inc.	Stock	600	K 1	Flowing 1.1 gpm, stopped during test. Casing was cut off closer to ground & flow recovered to 1.3 gpm, 6 wks after test.
2	Peterson & Son Inc.	Domestic	640	K 1	Flowing est. 15 gpm.
3	Peterson & Son Inc.	Stock	Oil test		Flowing 3 gpm.
4.	Peterson & Son Inc.	Stock	Oil Test		Couldn't measure- broken out around casing. Also used by Glen Peterson for garden.
5.	Peterson & Son Inc.	Stock	Oil Test		Plugged at 850", possible Sundance flow. Flowing 6.6 gpm, slowed to 5 gpm during test
6.	Glen Peterson	Stock	280'	K f	SWL 11'2", Siphon Arrangement into tank.
7.	Glen Peterson " "	Domestic	500' 200"	K 1 K f	Flowing 4.25 gpm. Slowed to 3.6 during test SWL 12' 8"
8.	Leslie Coates " "	Domestic	500 240	K 1 K f	Flowing 4.2 gpm. Flow est. 1 gpm. Pumped to house.
9.	Leslie Coates	Stock	90 ?	K f	Flowing 2.5 gpm.
10	Leslie Coates	Stock	200	K 1	SWL 78' New well
11	Leslie Coates	Stock	Oil test		Flowing 5 gpm.
12	Leslie Coates	Stock	730'	K 1	Flowing 0.6 gpm, slowed to < 0.1 gpm during test. Recovered to 0.3 gpm after 6 weeks.
13	Miles Spencer	Domestic	500	K 1	Flowing 2.5 gpm., slowed to 1.2 gpm during test, Recovered to 2.0 gpm after 6 weeks.
14.	Earl Darrow	Stock	470	K 1	Barely flowing. Stopped during test. SWL recovered to 1.0 ft.
15	Earl Darrow	Stock	280	K 1	Pump jack, couldn't measure accurately SWL approximately 24'
16	Earl Darrow	Stock	330	K 1	New well, SWL 157' 7"
17	H. P. Heck	Stock	156	K f	Windmill, couldn't measure
18	Dick Andersen	Domestic	527	K f	Flowing 7.5 gpm.

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
19	Dick Andersen	Stock	740	K f	Pump jack, couldn't measure.
20	Edwin Andersen	Domestic	530	K f	Flowing 4.5 gpm.
21.	Tubbs Ranch	Stock	910	K f	Flowing 14 gpm.
22.	Coates, Andersen	Stock	800	K f	Pump jack, reported SWL 30'
23	Tubbs Ranch	Stock	600	K f	Flowing 0.8 gpm.
24	Tubbs Ranch	Domestic			Siphon arrangement, water level 23'
25	Tubbs Ranch	Stock			Windmill, couldn't measure, reported to barely flow.
26	Tubbs Ranch	Stock	350	K f	Windmill, couldn't measure, reported to barely flow.
27	Tubbs & Schultz	Stock	900	K 1	Submersible pump to pipeline. SWL 15'
28	Tubbs Ranch	Stock	300	K f	Will flow 20 gpm. H2S
29	B. Childers	Stock			Wild well, flowing est. 35 gpm. H2S around casing
30	Harold Dodson	Domestic	120	K f	Barely flows, pumped to house.
	" "	Stock	120	K f	Flows 0.75 gpm
31	F. A. Heck	Domestic	104	K f	Flows 1.3 gpm.
32	Tony Bryan	Domestic	90	K f	Pumped to house, couldn't measure, flow est. ½ gpm.
33	H. P. Heck	Domestic	96	K f	Piped into house, flowing reported 1.25 gpm
34	Tony Bryan	Stock	330	K 1	2 wells, one no flow & not used, one flows 1.5 gpm.
35	Tony Bryan	Stock	148	K 1	Pumped well, not visited.
36	Tony Bryan	Stock	255	K 1	Flowing 10 gpm.
37	Tony Bryan	Stock	145	K 1	Pumped well, not visited
38	Lloyd Putnam	Stock	550	K 1	Flowing 1.5 gpm.
39	Norris Darrow	Stock	700	K 1	Windmill, reported SWL 15'
40	Norris Darrow	Domestic	660	K 1	Two wells piped together, both flow, but couldn't measure
		Domestic	700	K 1	

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
1	Robert Bakewell	Domestic			Flows 12 gpm.
2	Lloyd Putnam	Domestic	600	K l	Flows est. 25 gpm.
3	Preston Richardson	Domestic	350	K l	Submersible pump, couldn't measure, stopped flowing when old Triangle mine dewatered.
4	Harold Dodson	Stock	130	K f	Will flow est. 40 gpm.
5	Harold Dodson	Stock	190	K f	Flows 3.1 gpm. H2S
6	Harold Dodson	Stock	Oil test	K f	Plugged at 140', but couldn't measure. Flowing around casing.
7	Harold Dodson	Stock	90	K f	SWL 10'
8	Norris Darrow	Stock	725	K l	Will flow est. 60 gpm.
9	Norris Darrow	Stock	600	K l	Flows 5 gpm.
50	Lloyd Putnam	Stock	609	K l	Flows 1.5 gpm., may be 2 wells piped together.
51	Burlington R.R.	Stock	550	K l	Flows 15.5 gpm., used by Leslie Coates.
52	Tony Bryan	Stock			Flows 2.8 gpm.
53	Tony Bryan	Stock			Windmill, couldn't measure.
54	Tony Bryan	Stock	90	K f	Flows 0.5 gpm.
55	Tony Bryan	Stock	92	K f	Flows 9 gpm.
56	Effie Gow	Domestic	300	K l	Broken out around casing, flowing
57	Effie Gow	Garden	270	K l	Couldn't measure, reported 100+ gpm. H2S Used by Rev. Brown to irrigate garden.
58	F. A. Heck	Stock	100+	K f	Flows 4 gpm.
59	F. A. Heck	Stock	118	K f	Flows 2.8 gpm H2S
60	F. A. Heck	Stock			Windmill, couldn't measure.
61	Earl Darrow	Stock	525	K l	Pumpjack, couldn't measure.
62	F. A. Heck	Stock			Couldn't measure, flowing est. 2 gpm into covered tank.

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
63	Tony Bryan	Stock	100+	K f	Flows 1.5 gpm.
64	Leonard McElhaney	Stock			Flows 5 gpm H2S, may flow more through big valve.
65	" "	?			2 wells, one windmill, SWL 15', neither apparently used.
66	" "	Stock			Valve at well head shut off except for small line to H. Dodson's stock tank. Reported by Keene as flowing 270 gpm. in 1970
67	Leonard McElhaney	Stock			Flows 25 gpm. H2S.
68	" "	Domestic	230	K l	Piped to house, couldn't measure.
		Stock	230	K l	Flows 6 gpm.
69	H. P. Heck	Stock	130	K f	Flows 1.2 gpm.
70	H. P. Heck	Stock	375	K f, K l	Flows 1.0 gpm.
71	Ed Benton	Domestic		K f	Pumped to house, reported to barely flow
72	Ed Benton	Stock	212	K f	Yard water, Flows 13 gpm H2S
73	Ed Benton	Stock	560	K l	Flows 1.6 gpm.
74	Ed Benton	Stock	305	K f	Casing rusted out, flows, couldn't measure
75	Ed Benton	Stock	430	K f	Windmill, reported to pump dry
76	Ed Benton	Stock	420	K f	Broken out around casing, est. 7 or 8 gpm.
77	Darrell Heldman	Stock	400	K f	Broken out around casing, est. 5 gpm.
78	" "	"	410	K f	Pump jack, Keene reports SWL 30'
79	B. Childers	Domestic	337	K f	Couldn't measure, pump set at 250'
80	" "	Stock	650	K l	Pump jack, Keene reports SWL 100'
81	" "	"	440	Kl	Flows 4 gpm, sl. H2S
82	" "	"	200	K f	Flows 9 gpm., H2S
83	" "	"	270	K f	Pump jack, couldn't measure.

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
84	Dick Miller	Stock	155	K f	Flows 0.25 gpm.
85	Tubbs Ranch	Domestic	415	K f	Pumped to house, Reported SWL 30'
86	Tubbs Ranch	Stock	360	K f	Pump jack, SWL reported 20'
87	Tubbs Ranch	Appears abandoned	380	K f	Plugged with wooden plug. Reported SWL 20'
88	Tubbs Ranch	Appears abandoned	320	K f	Two wells, one may be caved in, one SWL 10'
89	Porter & Benton	Pipeline	860	K 1	Submersible pump, runs extensive pipeline. SWL reported 5'
90	B. Childers	Stock	Oil test		SWL 1.0 '
91	Carl Reutter	Stock	150	K f	Windmill SWL 34'
92	Carl Reutter	Domestic	298	K f	Pumped to house, Keene reports SWL 132'
93	Bob Runge	Domestic	200	K 1	Two wells, couldn't measure, Keene reports SWL 80'
94	Bob Runge	Stock	200+	K 1	Flows 0.75 gpm.
95	Wayne Jackson	Pipeline	~~800~~ 860	K f	Barely flows, submersible pump to pipeline.
96	Billy Stearns	Domestic	560	K 1	Flows 4.8 gpm.
97	Billy Stearns	Stock		K 1	Uranium test cased to 200', hole reported to be caving below that & sealing off flow. Flows.
98	Billy Stearns	Stock	Oil test		Leaking around top of casing, flows est 2 g
99	Gerald Darrow	Domestic	420	K 1	Flows 2.2 gpm.
100	" "	Stock	530	K 1	Flows 150 gpm (by Hodson) apparently used to fill water trucks.
101	" "	Morresy Pipeline	665	K 1	Pipeline serves ranches west, submersible pump. Hodson reports flow 3 gpm.
102	Lloyd Darrow	Domestic	267	K 1	Will flow est. 100 gpm. Sells water
103	Lloyd Darrow	Stock	350	K 1	Flows 1.3 gpm.

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
104	Lloyd Darrow	Stock		K l	Jensen jack, reported SWL 6'
105	Lloyd Darrow	Stock		K l	Not visited, reported SWL 8 to 10'
106	Lloyd Darrow	Stock			Flows 3.5 gpm.
107	Earl Darrow	Domestic	90	K f	Pumped into house, flow est. 1 gpm.
108	Chet Taylor	Domestic	90	K f	Taylor lives here part of time. Info reported by Earl Darrow. Flow rep. 1 gpm
109	Vivian Cook	Domestic	220	Kl	Reported SWL 22'
110	Vivian Cook	Stock	240	K l	Reported SWL 30'
111	Vivian Cook	Not used	100	K f	Owner plans to develop, reported SWL 5'
112	Miles Spencer	Stock	120	K f	Windmill, couldn't measure.
113	Miles Spencer	Stock			Back up well for Spencer pipeline.
114	No info				Forest Service.
115	Bud Hollenbeck	Domestic		K f	Flows 3 gpm.
116	Bud Hollenbeck			K f	Flows 2.75 gpm. At Dewey Post Office.
117	Bud Hollenbeck	Stock Garden			Submersible Pump. SWL 27'
118	Bud Hollenbeck	Stock	Oil test		Flowing out of casing at ground level
119	Bud Hollenbeck	Stock			Submersible pump, reported SWL 6'
120	Forest Service	Stock			Pumpjack, couldn't measure.
121	Bud Hollenbeck	Stock	430	K l	Will Flow?? est. 100 gpm.
122	Bud Hollenbeck	Stock			Windmill, couldn't measure.
123	Bud Hollenbeck	Stock			Pump jack, couldn't measure.
124	Bud Hollenbeck	Stock			Not visited, reported windmill.
125	Bud Hollenbeck	Stock			Casing rusted off. Flows at ground level.
126	Francis Carr	Domestic		K l	Flows, couldn't measure.
127	Francis Carr	Stock	Oil test	K l	Casing rusted off, flows at ground level.

Water Wells in Edgemont Project Area

Map #	Owner	Use	Depth	Probable Aquifer	Remarks
128	Francis Carr	Stock	Oil test	K 1	Couldn't measure, est. 5 gpm.
129	There are several old oil tests in this area. The ones reported as being used are reported above. There appears to be some flow from some of these but the casings seem to be bad and all there is now are some marshy areas. Some use of water for stock from these is possible.				
130	Dick Miller	Domestic	155	K f	?
131	Dick Miller	Stock	110	K f	Flows 0.8 gpm
132	Dick Miller	Stock	300	K 1	Flows est. 2 gpm
133	Dick Miller	Stock	300	K 1	Not contacted. Information from Keene
134	Roberts & Daniels	Stock	860		

#	S.	to Electricity	Dia.	Condition	Setting, Capacity, Age, etc.	Use	Requirement	
1	S	300 ft.	4"	25 yrs. - fair	none			
2	D.S.I.	300 ft.	5"	45 yrs. - poor	none			casing rusted out - flowing around casing
3	S	1/2 mile	4"	10 yrs.	none			oil test open hole from top of F. R.
4	S.I.	700 ft.	3"	10 yrs. - poor	none			oil test flowing around casing
5	S	2 miles	5"	10 yrs. - fair	none			oil test - open hole from top of FR
6	S	1 mile	12"	20 yrs.	none			
7 FR	D	on site	6"	20 yrs.	jet pump at 25 ft.			
7 LAK	S.I.	" "	5½"	40 yrs. - poor	none			
8 FR	D.I.	on site		45 yrs. - poor	jet pump in basement			
8 LAK	S.I.	on site	6"	45 poor	none			
9	S	1 mile	6"	10 yrs.	none			
10	S	2 miles		2 yrs. - good	pump jack			
11	S	1/2 mile	8"	10 yrs.	none			oil test
12	S	2000 ft.	4½"	10 yrs. - poor	none			open hole from top FR
13	D.S.I.	on site	5"	20 yrs. - fair	none			
14	S	1/2 mile	4"	poor	none			first pump test stopped flow - well not used since flow stopped
15	S	on site	4"	fair	cylinder type			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
16	S	on site	4½	1 yr. - good	no pump installed yet			
17	S	2 miles	UNK.		windmill			
18	D.S.I.	on site	4"	48 yrs.	pressure pump			
19	S	1 mile	6"	16 yrs. - fair	pump jack			
20	D.S.I.	on site	6"	51 yrs. - poor	shallow well jet pump			casing rusted out - was repaired
21	S	1½ mile	7"	65 yrs.	none			oil test
22	S	on site	3"	10 yrs. - good	cylinder type			
23	S	1 mile	6"		none			
24	D.S.	on site	3"		none			
25	S	2 miles	4½"		windmill			
26	S	1 mile	5"		windmill			
27	S	on site	12"		submersible pump			serves pipeline
28	S	1/2 mile	6"	poor	none			
29	S	1/2 mile	5"	poor	none			casing rusted out
30	D.I.	on site	6"	24 yrs.	deep well jet pump set @ 80 ft			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
30	S	on site	6"	cleaned 1977 22 years	none			
31	D.S.I.	on site	5½"	28 yrs.	none			
32	D.S.I.	on site	6"		pump type unknown			
33	D.S.	on site	5"	32 yrs.	none			
34	S	1 mile	2½"		none			2 wells - one does not flow and is not used
35		2 miles	8	poor	windmill			
36	S	1½ mile	4"	poor	none			
37		2½ miles	5½	poor	cylinder type			
38	S	½ mile	4'	26 yrs.	none			
39	S	½ mile	5"	poor	windmill			
40	D.S.I.	on site	6"	8 yrs.	none			piped together
40	D.S.I.	on site	6"	31 yrs. poor	none			
41	D.S.I.	on site	6"		submersible			serves pipeline
42	D.S.I.	on site	5"	33 yrs. poor	none			casing rusted out and repaired
43	D	on site	4"	poor	submersible			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
44	S	1/2 mile	6"	20 yrs.	none			
45	S	on site	4"	8 yrs. poor	none			
46	D.S.	1/2 mile	6"	18 yrs. poor	none			oil test - leaking around casing
47	D.S.I.	on site	6"	18 yrs. fair	none			
48	S	on site	2½"	10 yr.	none			
49	S	1 mile	4"	3 yrs.	none			
50 N	S	2 miles	4"	40 yrs. poor	none.			
50 S	S	2 miles	6"	5 yrs. poor	none			surface casing only ?
51	S	1 mile	10"	80 yrs. poor	none			repaired 1930's ?
52	S	1/2 mile	2½"		none			
53	S	1 mile	6"		windmill			
54	S	1500 ft.	6"		none			
55	S	2000 ft.	6"		none			
56	D.S.I.	on site	3"	10 yrs. poor	submersible			leaking around casing
57	S.I.	1/2 mile	4"		none			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
58	S	100 ft.	6"		none			
59	S	1500 ft.	4"	poor	none			
60	S	1 mile	UNK.		windmill			
61	U	3 miles	5"		pump jack			
62	S	1½ mile	6"	1 yr. good	none			well replaced 1977
63	S	2000 ft.	5"		none			
64	S	1/2 mile	2½"	poor	none			
65	U	1/2 mile	6"	poor	none			
66	S	Approx. ½ mile	5"		none			
67	S	Approx. ½ mile	5"	poor	none			
68	D	on site	4"		none			
68	S.I.	on site	4"		none			
69	S	400 ft.	6"	18 yrs.	none			
70	S	2000 ft.	4"	7 yrs. poor	none			open hole from top Fall River
71	D	on site	5"		pump type unknown			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
72	S.I.	on site	6"	32 yrs. poor	none			
73	D.S.I.	on site	5"	2 yrs. good	submersible			
74	S	1/2 mile	5"	30 yrs. poor	none			casing rusted out
75	S	Approx. 1 mile	5"		windmill			pumps dry
76	S	Approx. 1½ mile	7"	18 yrs. poor	none			casing rusted out
77	S	Approx. 1½ Mile	5"	poor	none			casing rusted out
78	D.S.	on site	5"		cylinder			
79	D.S.I.	on site	6"		submersible set at 250'			
80	S	Approx. 3000 ft.	6"		cylinder			
81	S	Approx. 1½ mile	4"		none			
82	S	Approx. 1½ mile	4½"		none			
83	S	Approx. 1 mile	6"		cylinder			
84	S	Approx. 1 mile	2"		none			
85	D	on site						
86	S	1/2 mile	4"	poor	cylinder			stopped flowing when well #66 flowing uncontrolled about 1970

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
87	U	3/4 mile	4"	poor	none			same as 86
88	S.U.	1500 ft.	8"	poor	none			was used with pump jack in 1977 - not used in 1978
88	S	on site	6"		pump type unknown probably submersible			serues pipeline
89	D.S.	on site	6"	good	submersible			serues pipeline
90	S.U.	on site	6"		none			oil test
91	S	1 mile	5"		windmill			
92	D.S.I.	on site	4½"		submersible			
93	D.S.I.	on site	2"		submersible			
93	S.U.	on site	6"		none			
94	S	on site	5"		none			
95	D.S.I.	on site	10"		submersible			serues pipeline
96	D.S.I.	on site	5"		none			
97	S	1 mile	4"	poor	none			cased to 200"
98	S	2 miles	10'	poor	none			oil test
99	D.S.I.	on site	4"		none			

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
100	S		8"		none			
101	D S	on site	7"		submersible			serves extensive pipeline
102	DSI	on site	5"	fair	none			
103	S	1 mile	4"		none			
104	S	1 mile	4½"		Jensen jack			
105	S	3 miles	4"		pump jack			
106	S	1/2 mile	4"		none			
107	DSI	on site	5"	poor	none			
108	DSI	on site	6"	poor	none			
109	DSI	on site	6"		submersible - set @ 90'			
110	SI	on site	6¼"		submersible			
111	SU	200 ft.	4"		none			
112	S	1 mile	4½		windmill			
113	S	2 miles	UNK		windmill			
114	S U	3 miles	UNK		windmill			

D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
DSI	on site	3½"		jet pump			
U	on site	1"		none			
S.I.	on site	6"		submersible pump			
S	1500 ft.	9½	poor	none			oil test
S	on site	5"		submersible pump			
S	on site	2"		pump jack			
S	1½ mile	5"		none			
S	5 miles	7"		windmill			
S	4½ mile	6"		cylinder			
S	5 miles	4"		windmill			
S	1½ miles	6"	poor	none			casing rusted off
DST	on site	6½"		none			
S	2 miles	6"	poor	none			oil test - casing rusted off
S	2½ miles	2"	poor	none			oil test

Well #	D. S.	Distance to Electricity	Well Dia.	Age and Condition	Pump Information-Type Setting, Capacity, Age, etc.	Season of Use	Water Requirement	Remarks
130	U	on site	UNK		none			covered up by owner H_2S is not used
131	S	200 ft.	3"		none			
132	S.I.	on site	approx.5"		pump type unknown			
133	U	1500 ft.	6"		none			
134	S.U.	on site	1"		UNK			

SOURCE B

DRAFT ENVIRONMENTAL STATEMENT FOR EDGEMONT URANIUM MINE TABLE 2.5.2-1

(Tennessee Valley Authority, 1979)

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Table 2.5.2-1

Summary of Wells Within a Four-Mile (6.5 km.) Radius of the
TVA Burdock, No. 1 Shaft Site

Well No.: Based on the Federal system of township and range. Each township within the project area is assigned a letter in consecutive order beginning with "A" in the northeast corner and ending with "F" in the southern part. Similarly, wells are numbered in consecutive order within a township--for example: B-1, B-2, etc. Location: Number based on township, range, section, 1/4 section, and 1/4 section. Aquifer: Qa, Quaternary alluvial deposits; Kf, Cretaceous, Fall River Formation; Kl, Cretaceous, Lakota Formation; Jm, Jurassic, Morrison Formation; Js, Jurassic, Sundance Formation; Trs, Triassic, Spearfish Formation; Pmk, Permian, Minnekahta Limestone. Depth: Given in feet (ft.) and meters (m.) below land surface. Use Rate and Flow Rate: In gallons per minute (gpm) and liters per second (l/s). Elevation of Land Surface and Elevation of Water Surface: In feet (ft.) and meters (m.) above sea level. Superscript a indicates flow rate less than 1 gpm. Superscript b indicates estimated water surface elevations.

Well No.	Latitude	Longitude	Location	Aquifer	Depth (ft.)	Depth (m.)	Use Rate (gal/min)	Use Rate (l/s)	Flow Rate (gal/min)	Flow Rate (l/s)	Elevation Land Surf. (ft.)	Elevation Land Surf. (m.)	Elevation Water Surf. (ft.)	Elevation Water Surf. (m.)	Remarks
B-1	43°30'00"	103°58'57"	6-1-27Db	Qa	50	15	30	1.9	-	-	3715	1132	3700	1128	
B-2	43°29'58"	103°58'57"	6-1-27Db	Qa	46	14	30	1.9	-	-	3715	1132	3703[b]	1128	
B-3	43°29'16"	104°02'43"	6-1-31Bd	-	-	-	-	-	12	.8	3605	1099	3610[b]	1100	
B-4	43°29'09"	104°03'40"	6-1-33Bc	Kl	550	168	-	-	2	.1	3530	1076	3430[b]	1046	
B-5	43°28'51"	103°58'06"	6-1-34Bc	Kl	350	107	-	-	-	-	3662	1116	-	-	Flowed until Triangle mine dewatered. 1/3 h.p. pump.
B-1	43°28'35"	103°56'47"	7-1-1Bd	Kl	330	101	-	-	-	-	3975	1190	3747	1146	
B-2	43°28'32"	103°57'34"	7-1-2Aa	Kf	180	55	10	.6	-	-	3749	1143	-	-	Water contains iron.
B-3	43°28'36"	103°58'15"	7-1-2Bb	Kl	495	151	-	-	a	-	3705	1129	3705[b]	1129	Unused.
B-4	43°28'28"	103°58'20"	7-1-2Bc	Kl	280	85	6	.3	-	-	3658	1127	3674[b]	1120	Water contains iron.
B-5	43°28'01"	103°58'22"	7-1-2Cc	Kl	470	143	-	-	a	-	3679	1121	3697[b]	1122	Unused.
B-6	43°28'26"	103°59'42"	7-1-2Da	Kl	500	152	-	-	2	.1	3660	1116	3661[b]	1116	A.E.C. water analysis.
B-7	43°28'02"	104°00'02"	7-1-4Cd	Kl	805	245	-	-	1	.06	3645	1111	3646[b]	1111	
B-8	43°28'17"	104°01'19"	7-1-5Ac	Kl	600	183	-	-	25	1.6	3600	1097	3610[b]	1100	Flow rate in 1969, 30 gpm (1.8 l/s).
B-9	43°27'30"	103°58'52"	7-1-8Ad	Kl	590	168	-	-	16	1.0	3615	1102	3620[b]	1103	Water contains iron & sulphur.
B-10	43°27'03"	104°00'04"	7-1-8Cc	Kf	827	761	-	-	8	.5	1700	1128	3701[b]	1128	

TABLE 2.5.2-1 (continued)

Well No.	Latitude	Longitude	Location	Aquifer	Depth (ft.)	Depth (m)	[illegible] Rate (gal/min)	[illegible] Rate (l/s)	Flow Rate (gal/min)	Flow Rate (l/s)	Elevation Land Surf. (ft)	Elevation Land Surf. (m)	Elevation Water Surf. (ft)	Elevation Water Surf. (m)	Remarks
D-11	43°27'03"	103°59'46"	7-1-9Dd	Kl	600	183	-	-	1	.06	3624	1105	3631	1107	Water contains iron.
D-12	43°27'05"	103°57'47"	7-1-11Dc	Kl	525	160	-	-	-	-	3700	1128	-	-	A.E.C. water analysis.
D-13	43°28'25"	103°56'53"	7-1-12Dd	Kf	156	48	-	-	-	-	3750	1143	-	-	
D-14	43°27'04"	103°56'21"	7-1-12Dd	-	-	-	-	-	-	-	3830	1167	-	-	
D-15	43°26'55"	103°56'12"	7-1-13Aa	Kl	200	61	-	-	-	-	3740	1140	3662[b]	1116	
D-16	43°26'5[illegible]"	103°58'24"	7-1-14Bb	-	-	-	-	-	8	-	3675	1120	3675[b]	1120	
D-17	43°44'45"	103°58'25"	7-1-14Ba	Kl	850	259	-	-	7	.4	3630	1106	3634[b]	1108	Water contains iron.
D-18	43°25'23"	103°57'48"	7-1-14Db	Kl	280	85	1	.06	-	-	3610	1100	3598[b]	1097	
D-19	43°26'20"	103°58'43"	7-1-15Dd	-	2264	690	-	-	-	-	3576	1090	3580[b]	1091	
D-20	43°26'18"	103°59'58"	7-1-16Dd	Kl	640	195	-	-	16	.9	3565	1086	3566[b]	1085	A.E.C. water analysis.
D-21	43°26'16"	104°02'01"	7-1-17Cb	Kf	530	162	-	-	4	.3	3555	1084	3562[b]	1086	A.E.C. water analysis.
D-22	43°26'32"	104°03'06"	7-1-18Bc	Kf	740	226	-	-	-	-	3700	1128	-	-	
D-23	43°25'48"	104°03'12"	7-1-19Bc	Kf	910	277	-	-	18	.9	3580	1091	3585[b]	1093	
D-24	43°25'42"	103°59'31"	7-1-22Bc	-	2400	732	-	-	3	.2	3548	1081	3550[b]	1082	
D-25	43°25'50"	103°57'24"	7-1-23Aa	Kf	90	27	-	-	3	.2	3625	1105	3625[b]	1105	Flow rate 1969, 10 gpm (.6 l/s).
D-26	43°26'02"	103°58'26"	7-1-23Ba	Kl	500	152	-	-	5	.3	3574	1089	3574[b]	1089	
D-27	43°26'03"	103°58'29"	7-1-23Bb	Kf	200	61	3	.2	-	-	3574	1089	3561[b]	1085	
D-28	43°25'26"	103°57'48"	7-1-23Dc	Kl	500	152	-	-	5	.3	3542	1080	3542[b]	1080	Casing perforated in 10 ft (3 m.) intervals below elevations 3222 (982 m.) and 3384 (1031 m.).
D-29	43°25'27"	103°57'44"	7-1-23Dc	Kf	240	73	-	-	1	.06	3542	1080	3542[b]	1080	
D-30	43°25'24"	103°57'30"	7-1-23Dd	Js-PmK	1470	448	-	-	5	.3	3550	1082	3550[b]	1082	
D-31	43°25'32"	103°57'07"	7-1-24Cb	Js-PmK	2480	756	-	-	6	.4	3577	1090	3578[b]	1091	
D-32	43°24'28"	103°55'58"	7-1-25Ca	Kl	375	114	-	-	2	.1	3508	1069	3506[b]	1069	
D-33	43°24'43"	103°56'37"	7-1-25Db	Kf	96	29	-	-	1	.06	3510	1070	3510[b]	1070	
D-34	43°24'45"	103°56'29"	7-1-25Dd	Kf	90	28	-	-	1	.06	3528	1075	3528[b]	1075	

D-14 not in database

56

TABLE 2.5.2-1 (continued)

	Well No.	Latitude	Longitude	[illegible]	Aquifer	Depth (ft)	Depth (m)	Pump Rate (gal/min)	Pump Rate (l/s)	Flow Rate (gal/min)	Flow Rate (l/s)	Elevation Land Surf. (ft)	Elevation Land Surf. (m)	Elevation Water Surf. (ft)	Elevation Water Surf. (m)	Remarks
69	D-35	43°24'28"	103°56'38"	[illegible]-25Dc	Kf	130	40	-	-	1	.06	3510	1070	3510[b]	1070	
504	D-36	43°24'30"	103°56'2[illegible]"	[illegible]-25Dd	Kf	450	137	-	-	3	.2	3508	1069	3508[b]	1069	
505	D-37	43°24'42"	103°57'5[illegible]"	[illegible]-26Ca	Kl	260	79	-	-	2	.1	3530	1076	3530[b]	1076	
25	D-38	43°24'47"	103°59'27"	[illegible]-27Ac	Kf	350	107	-	-	-	-	3560	1085	3560[b]	1085	
29	D-39	43°25'01"	104°0[illegible]	[illegible]-28Da	Kf	600	183	-	-	-	-	3576	1090	3563[b]	1083	
23	D-40	43°25'01"	104°02'[illegible]	[illegible]-29Db	Kf	600	183	-	-	1	.06	3590	1094	3590[b]	1094	
27	D-41	43°23'30"	104°0[illegible]	[illegible]-33Dc	Kl	600	183	-	-	-	-	3670	1119	-	-	
26	D-42	43°24'05"	103°57'[illegible]	[illegible]-35Ac	Kf	350	107	-	-	1	.06	3545	1080	3546[b]	1081	
28	D-43	43°23'44"	103°57'[illegible]	[illegible]-35Ca	Kf	320	98	-	-	-	-	3565	1084	3545	1081	Slight flow in 1969; no flow in 1976.
8802	D-44	43°23'37"	103°57'2[illegible]"	[illegible]-35Dd	Kf	320	98	-	-	-	-	3565	1084	-	-	1960 Flow, 15 gpm (.9 l/s); no flow in 1976.
87	D-45	43°23'10"	103°56'[illegible]	[illegible]-36Aa	Kf	92	28	-	-	9	.6	3500	1067	3504[b]	1068	
63	D-46	43°23'55"	103°55'[illegible]	[illegible]-36Ca	Kf	100	30	-	-	1.5	.2	3535	1077	3536[b]	1078	
113	E-1	43°28'08"	103°5[illegible]	[illegible]-6Ca	-	40	12	-	-	-	-	3860	1177	-	-	
114	E-2	43°27'11"	103°55'[illegible]	[illegible]-7Dd	-	365	111	-	-	-	-	3755	1145	3475	1059	
506	E-3	43°27'32"	103°5[illegible]'43	[illegible]-8Dc	Js	470	143	-	-	-	-	3970	1210	-	-	Unused.
507	E-4	43°25'57"	103°55'[illegible]	[illegible]-2-19Ba	Kl	145	44	-	-	-	-	3640	1109	-	-	
35	E-5	43°25'38"	103°55'[illegible]	[illegible]-2-19Ca	Kl	148	45	-	-	-	-	3620	1103	-	-	Flow rate in 1969, 2 gpm (.1 l/s); no flow in 1976; unused.
508	E-6	43°25'15"	103°55'2[illegible]	[illegible]-2-19Dc	Kl	255	78	-	-	10	.6	3600	1097	3605[b]	1099	
E-7 not in database →	E-7	43°25'11"	103°55'[illegible]	[illegible]-2-32Aa	-	-	-	-	-	-	-	3600	1097	-	-	
36	E-8	43°26'13"	103°56'[illegible]	[illegible]-2-30Bb	Kf	330	101	-	-	2	.1	3530	1076	3530[b]	1076	
32	E-9	43°24'27"	103°55'[illegible]	[illegible]-2-30Cc	Kf	90	27	-	-	3	-	3522	1074	3522[b]	1074	
31	E-10	43°24'07"	103°55'52"	[illegible]-2-31Bc	Kf	104	32	-	-	1.3	.08	3485	1065	3500[b]	1067	

57

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SOURCE C

SOUTH DAKOTA WELL COMPLETION REPORTS

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Hydro ID 2

1 of 1

7-1-16

NOTICE OF WELL CONSTRUCTION

Fel Kun...

(1) WELL CONSTRUCTION

Location of well: SE 1/4 SE 1/4 ______ Section 16 Township 7S Range 1E

Well owner Peterson & Son, Inc. (Name) Edgemont, SD (Address)

Date well drilling completed 11-17-81 Purpose of well Domestic (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-380	Blk Sh
380-470	lB gy clst & ss
470-495	Gy ss & clst
495-565	Gy, rd-brn & gn clst
565-580	Gy ss
580-650	Gy clst

Attach sheet if more space is needed

Depth to top of water producing aquifer 555

Depth to static water level flowing

Name of producing aquifer (if known) Lakota

Total depth of drill hole 650

Depth to bottom of casing 650

Casing information: in the space below show kind, size, weight, length and diameter, etc., for production casing and surface casing, if placed.

4" blk iron 10#/ft

Screen information: in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

slotted 566-608
629-650

If a flowing well, flow of completed well 30 gpm

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ______ HP

Type of pump ______ Capacity of installed pump ______ gpm

Depth of pump placement ______ ft., Date of pump installation ______

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.400 of Chapter ... WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ______ ft., tube diameter ______ tube material ______.

______
Name of Pump Installation Contractor

DEC 1981

13 Recompletion

Salt River

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well: NW 1/4 NW 1/4 Section 3 Township 7S Range 1E

Well owner Kathryn Spencer (Name) Dewey Route, Edgemont, SD 57735 (Address)

Date well drilling completed 10-22-80 Purpose of well Domestic (domestic, irrigation, municipal, industrial, other)

WELL LOG

(Litho Log Footages) Location, top to bottom in feet	Description of layer
Ksc → 0-320	Dark gray shale
Kfu → 320-395	Gray mudstone with 10% gray siltstone
395-445	Gray mudstone with 5%-20% gray vfgss
Klf → 445-490	Green mudstone
490-520	AA w/10-30% G & GR Mt sist
520-545	Gray fgss
545-560	well cemented vf - fgss
560-575	Gray mudstone with 10% dark brown mudstone
575-590	AA with 10-20% gray vfgss
590-615	Gray fine grain sandstone
615-620	Green mudstone with <5% gray vfgss
620-625	Green mudstone with 50% brown-red mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 580 ft.

Depth to static water level flows ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 625 ft.

Depth to bottom of casing 580 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

5 1/2" 14 lbs/ft.

Random twenties

Screen information: In the space below show length of screen below bottom casing, diameter and kind of screen or casing perforations.

45 ft. open hole

If a flowing well, flow of completed well 1.00 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____, tube material _____.

_____
Name of Pump Installation Contractor

Hydro ID 38

Form W 4 3

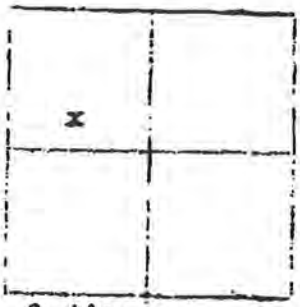
DRILLER'S FINAL REPORT

OFFICE OF STATE ENGINEER
Pierre, South Dakota

Well No. _____ (do not fill in)

CUSTER COUNTY

Location: SW NW Section 33 Twp. 6S Range 1E



Owner George Putnam Address Burdock, S. Dak.

Depth 494 Drawdown _____ Type Rig Used cable tool

Flow(gpm) _____ Pressure _____ Date Measured _____

Grd. Elev. _____ Water Level Below Ground Surface _____

Temperature _____ Character Water (soft, medium, hard)

Date Commenced _____ Date Completed 11/12/49

CASING DETAIL

Type	Size	Length	Depth
	4"	497	494

PERFORATIONS

Type	Size	Length	Depth

SCREEN

Type	Size	Length	Depth

Is there a seal between different size pipes? What kind?

WATER BEARING SANDS

From _____ To _____

From _____ To _____

SOURCE OF INFORMATION

PMA office, Fall River Co.

DRILLER'S LOG

From	To	

Bonded Driller Roy Boner (Signature)

Address Hot Springs, S. Dak.

PLEASE COMPLETE ENTIRE FORM

BY-1

1 of 1

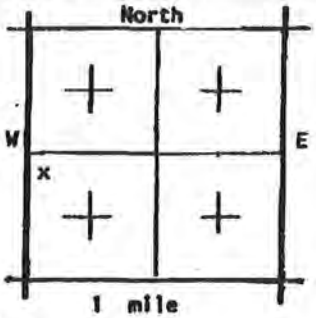
WELL DRILLERS REPORT
Division of Water Rights
Department of Water & Natural Resources

6/60

Well Owner:
Name Francis & Paul Jozwick
Address Casper, Wyoming

Well Location:

Mark location with an "X"



County Custer
NW ¼ NW ¼ SW ¼ Sec. 30 Twp. 6S Rg. 1E

Proposed Use:
☐ Domestic ☐ Municipal ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:
☒ Forward Rotary ☐ Bored ☐ Jetted
☐ Reverse Rotary ☐ Cable ☐ Other

Well Construction:
Diameter of Hole 7 7/8
Depth 680
Casing ☒ Steel ☐ Concrete
☐ Plastic ☐ Other
If other, specify

Was casing end left open — Yes
Was a well screen installed — No
Describe Well Screen
Diameter ____ Material ____
Slot size ____
Was well gravel packed — No
Was well grouted — Yes
Was water sample taken — No

Remarks: Cased w/14-5# 5 1/2" steel casing, Perforation completion.

Water Level Information:
Static water level ____ below land sur
If flowing: closed in pressure 28 PSI
rate of flow 2 GPM
Controlled by:
☒ Valve ☐ Reducers ☐ Other
If other; specify

Well Test Data:
☐ Pumped
☐ Bailed Describe:
☐ Other

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped
____ " " ____ " "
____ " " ____ " "

Well Log:

Formation	Depth From	Depth To
	0	15
Med. & dk gry sh	15	400
Dk gry sh	400	535
Intbd gry slst & clst	535	547
Gry-vfgr ss & clst	547	602
Clst	602	610
Vf,fgrss tr clst	610	673
Gry clst	673	680

(Use Back If Necessary)

Date Completed: March 4, 1982

Driller: Contract Rig by
Silver King Mines, Inc. — 406
Driller's or Firm's Name — License

Edgemont, SD 57735
Address

Signed By — Date

NOV 1982 DIVISION OF WATER RIGHTS Pierre, SD

POWERTECH (USA) INC.

Possibly Hydro ID 42

SD EForm - 1623 V1

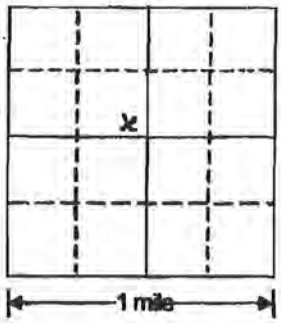
SOUTH DAKOTA WELL REHABILITATION REPORT

11-02

Location SE¼ NW¼ Sec 5 Twp 7S Rg 1E

County FALL River

Please mark well location with an "X"



Rehabilitation Completion Date 11-15-09

Well owner:

Name Putnam + Putnam, L.L.P.

Address 778 CEdar ST.

City, State, Zip Deway S.D. 57735-5011

Describe original construction if possible.
(Attach original log if available), DRilled 1949
WELL DRilled 580'
CASED 8" To 220'
Open HoLed To BoTTom

PROPOSED USE:
☒ Domestic ☐ Municipal ☒ Stock
☐ Irrigation ☐ Industrial

RECEIVED
JAN - 8 2010
WATER RIGHTS PROGRAM

Description of condition of well before rehabilitation:
CASing DeTeraTing Above and BeLow Ground

Description of rehabilitation work completed:
Swabbed Well For 310'. PuT 4" PVC Casing SoLid For 280' 30' of Screen
PuT ShaLe Packer aT 220' and TRimmy Line PResre Grouted BackTo SurFace
Reduced casing To 14" and PuT on Ball Valve To conTroL Well.

Recasing information: Material P.V.C. Diameter 4 Inches Depth 300 Feet

Describe screen or perforations .25 FacTory SLoTTed Screen Location From 280 To 300
From ____ To ____

Grout: ☒ YES ☐ NO Describe grouting procedure and grout PuT TrimMy Line To 220' to ShaLe Packer PResured 4/4 Boys CemenT Back To SurFace

Well Test Data: Specific capacity ____ Static water level FLowing

If a flowing well GPM 75 Shut in 10 PSI

This well rehabilitation was completed under license # 724 and this report is true and accurate.

Drilling firm: J+M DRilling

Signature of Licensed Representative: Jim McNamara

Signature of Well Owner: Lloyd Putnam

Date: 1-4-2010

1-4-10

115 Replacement

STATE OF SOUTH DAKOTA WELL DRILLERS REPORT

Location NW¼SE¼ Sec 18 Twp 6 S Rg 1 E

County: CUSTER

North / W / E / 1 mile

Please mark well location with an "X" — X (marked in the SE quarter of the section)

Well Completion Date Oct 2 1984

PROPOSED USE:
[X] Domestic [ ] Municipal [ ] Test Holes
[ ] Irrigation [ ] Industrial [X] Stock

Method of Drilling:
ROTARY MUD

WELL CONSTRUCTION: 6" TO 180'
Diameter of hole 4" inches Depth 360 feet
Casing: [ ] Steel [X] Plastic [ ] Other
Specify 6" YELLOW MINE / 4" SCH 40

Pipe Weight	Diameter	From	To
SCH 200 lb/ft	6 inches	0 feet	180 feet
SCH 40 lb/ft	4 inches	160 feet	360 feet

Was a well screen used? [X] Yes [ ] No
If Not Specify
Screen Type 4" PVC Slot Size 1/64"
Length 80' Diameter 4"
Was Casing left open end? [X] Yes [ ] No
Was a Packer or seal used? [X] Yes [ ] No
If so what material? RUBBER
Was well gravel packed? [ ] Yes [X] No
Was well grouted? [X] Yes [ ] No
Describe grouting procedure PUMPED 35 BAG MIX DOWN INSIDE & UP OUTSIDE
To what depth? 180 Feet
What was grouting material? TYPE II
If cement, how many sacks? 35
Location of packer(s) and screen or perforated pipe 20 ft SCREEN 200-220 PACKER 280 SCREEN 300-360
WAS WELL PLUGGED OR ABANDONED [ ] Yes [X] No
If so how and with what material?

Well Owner:
Name Bill HOLLENBECK
Address Beulah Rt Box 38 Edgemont S.D 57735

Well Log:

Formation	From	To
SHALE	0	80
FALL RIVER	80	220
FUSON	220	240
LAKOTA	240	360

STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 6 LBS PSI
GPM flow 65 through 6" inch pipe
Controlled by [X] Valve [ ] Reducers [ ] Other
If other; specify
Can well be completely shut off? YES

WELL TEST DATA: Inyan Kara
[ ] Pumped
[ ] Bailed Describe:
[ ] Other

Pumping Level Below Land Surface
ft. After Hrs. pumped
ft. After Hrs. pumped
ft. After Hrs. pumped GPM

NOV 1984 DIVISION OF WATER RIGHTS Pierre, SD

Remarks: THIS IS OFFSET TO OLD WELL THAT WAS LEAKING CEMENTED WELL SHUT. PUMPED 23 BAGS IN AT 160 FT.

This well was drilled under license # 415 and this report is true and accurate.

Drilling Firm: RABY DRILLING
Signed by: Russell P Raby
Date: Oct 18, 1984
ltr sent 12-6-84

WNR-836 4/82

HAM-4

PLEASE COMPLETE ENTIRE FORM

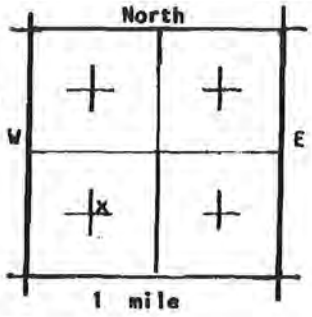
WELL DRILLERS REPORT
Division of Water Rights
Department of Water & Natural Resources

1 of 1

6/60

Well Owner:
Name Tennessee Valley Authority
Address

Well Location:



Mark location with an "X"

County Custer

SW ¼ NE ¼ SW ¼ Sec. 17 Twp. 6S Rg. 1E

Proposed Use:
☐ Domestic ☐ Municipal ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:
☒ Forward Rotary ☐ Bored ☐ Jetted
☐ Reverse Rotary ☐ Cable ☐ Other

Well Construction:
Diameter of Hole 6 1/8
Depth 750
Casing ☒ Steel ☐ Concrete
☐ Plastic ☐ Other
If other, specify

Was casing end left open Yes
Was a well screen installed No
Describe Well Screen
Diameter Material
Slot size
Was well gravel packed No
Was well grouted Yes
Was water sample taken No

Remarks: Cased w/.219 wall 4 1/2" steel casing.
Open hole completion.

Water Level Information:
Static water level 34' below land surface
If flowing: closed in pressure PSI
rate of flow GPM
Controlled by:
☐ Valve ☐ Reducers ☐ Other
If other; specify

Well Test Data:
☐ Pumped
☐ Bailed Describe:
☐ Other

Pumping Level Below Land Surface
ft. After Hrs. pumped GPM
" " " " "
" " " " "

Well Log:

Formation	Depth From	Depth To
Alluvium	0	33
Gry shale	33	403
Intbd gry sltst & sh	403	416
Intbd gry vfgr ss & clst	416	485
Br fgr ss	485	507
Gr & rd vfgrss & gry clst	507	550
Rd f,mgrss	550	576
Dr brn clst	576	585
Rd mgrss	585	596
Intbd gry, brn clst & gry slst	596	651
lt ortn f,mgr ss	561	693
brn clst	693	695
Gy f, m, cgr ss	695	742
gry clst	742	750

(Use Back if Necessary)

Date Completed: February 9, 1982

Driller:
Silver King Mines, Inc. — Driller's or Firm's Name
405 — License NO.
Edgemont, SD 57735 — Address

Signed By Date

STATE OF SOUTH DAKOTA WELL DRILLERS REPORT

Location SE ¼ NE ¼ Sec 19 Twp 6S Rg 1E

County: Custer

North / W / E / 1 mile

Please mark well location with an "X": X

Well Completion Date: Oct 16 1984

PROPOSED USE: Domestic / Municipal / Test Holes / Irrigation / Industrial / [X] Stock

Method of Drilling: Rotary mud

WELL CONSTRUCTION:

Diameter of hole 6" to 520, 4" to 900 inches Depth ____ feet

Casing: Steel / [X] Plastic / Other

Specify: 6" Vellum? make, 4" Sch 40 Screw

Pipe Weight	Diameter	From	To
____ lb/ft	6 inches	0 feet	520 feet
____ lb/ft	4 inches	500 feet	900 feet

Was a well screen used? [X] Yes / No

If Not Specify ____

Screen Type PVC Slot Size 1/64

Length 60' Diameter 4"

Was Casing left open end? [X] Yes / No

Was a Packer or seal used? [X] Yes / No

If so what material? Rubber

Was well gravel packed? Yes / [X] No

Was well grouted? [X] Yes / No

Describe grouting procedure: Pressure grout 6" pipe 0 to 520

To what depth? 520 Feet

What was grouting material? Type II Cement

If cement, how many sacks? 100

Location of packer(s) and screen or perforated pipe: Packer 780 Screen 780 to 800 + 840 – 880

WAS WELL PLUGGED OR ABANDONED / Yes / [X] No

If so how and with what material? ____

Well Owner: Moriece Neville Operation

Name: Bernard & Ludham Partners

Address: Box 567 Casper Wyo 82602

Well Log:

Formation	Depth From	Depth To
Shale	0	480
Fall River	480	600
Fuson	600	740
Lakota	740	885
Morrison	885	900

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 2 PSI

GPM flow 16 through 6" inch pipe

Controlled by [X] Valve / Reducers / Other

If other; specify ____

Can well be completely shut off? yes

WELL TEST DATA: Inyan Kara

Pumped / Bailed / Other Describe: ____

Stamp: NOV 1984 DIVISION OF WATER RIGHTS

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

Remarks: Note this is an offset to old well, old well was cemented & pumped 16 bags cement in 260 ft.

This well was drilled under license # 465 and this report is true and accurate.

Drilling Firm: Dean Drilling Signed by: Russell P. Daly

Date: Oct 18 1984

Ltr sent 12-6-84

WNR-836 4/82

Hydro ID 436

NOTICE OF WELL CONSTRUCTION

Custer

(1) WELL CONSTRUCTION

Location of well: NW 1/4 NE 1/4 Section 20 Township 6S Range 1E

Well owner: Tennessee Valley Authority (Name) (Address)

Date well drilling completed: 8-18-81 Purpose of well: Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-430	Blk sh
430-495	lt gy clst & ss
495-520	ln & brn ss
520-530	Gy & brn-gy clst
530-545	Rd-brn & tn ss
545-565	Rd-ppl clst
565-590	Pk, tn & brn ss

Attach sheet if more space is needed

Depth to top of water producing aquifer: 505 ft.

Depth to static water level: 21.0 ft.

Name of producing aquifer (if known): Fall River

Total depth of drill hole: 590 ft.

Depth to bottom of casing: 505 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 505-590

If a flowing well, flow of completed well: NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump: HP:

Type of pump: Capacity of installed pump: G.P.M.

Depth of pump placement: ft., Date of pump installation:

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.40B of Chapter 46:4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed: ft., tube diameter:

Tube material:

Name of Pump Installation Contractor

DEC 1981
DIVISION OF
WATER RIGHTS
Pierre, SD

SOUTH DAKOTA WATER WELL COMPLETION REPORT

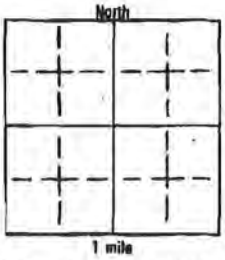
1 of 19-86

Hydro 10 510

Location SE ¼ SE ¼ Sec 12 Twp 7 Rg 1

County FALL RIVER

Please mark well location with an "X"



Well Completion Date JUNE 12 1988

PROPOSED USE:
☐ Domestic ☐ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☒ Stock

Method of Drilling: ROTARY AIR + MUD

CASING DATA:
☐ Steel ☑ Plastic ☐ Other
If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SCH 200 LB/FT	5 IN	0 FT	520 FT	7 7/8 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUT:
Was the well grouted? ☒ YES ☐ NO
To what depth? 280 Ft FEET
What is grouting material? CEMENT
If cement, number of sacks? 34 SACKS
Describe grouting procedure TREMI LINE

What was grout weight? 1 BAG 7 GAL LB/GAL

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 5 IN Length 80 FEET
Material PVC
Slot Size .064 Set From 300 Feet To 340 Feet
Slot Size .064 Set From 480 Feet To 520 Feet
Slot Size ____ Set From ____ Feet To ____ Feet
Other information

Was a packer or seal used? ☒ YES ☐ NO
If so, what material? NEOPRENE
Describe packer(s) and location? 5 X 8 PACKERS SET AT 280 + 300 FT TOP SCREEN 380 + 420 + 480 FT ABOVE BOTTOM SCREEN

Was well disinfected upon completion? ☐ YES ☐ NO
Explain
Bacteriological analysis ☐ YES ☐ NO
Laboratory sent to

Well Owner:
Name LESLIE COATS
Address Dewey Rt. Edgemont SD 57735

Well Log:

Formation	Depth From	Depth To
FALL RIVER	0	180
LAKOTA	180	530
MORRISON	530	540

JUN 1988 DIVISION OF WATER RIGHTS Pierre, SD

STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 2 PSI
GPM flow 5 GPM through 1 GAL 10 MIN inch pipe
Controlled by ☒ Valve ☐ Reducers ☐ Other
If other; specify
Can well be completely shut in? YES

WELL TEST DATA:
☐ Pumped AIR BAILED
☒ Bailed Describe: 10 GPM
☐ Other

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM

REMARKS:
3 GPM MEASURED AT 320
10 GPM MEASURED FROM 500 FT SAND.

This well was drilled under license # 415
And this report is true and accurate.
Drilling firm Roby Drilling + Exp
Signature of License Representative: Russell Roby
Signature of Well Owner:
Date 7-6-88

POWERTECH (USA) INC.

Hydro ID 609

(1) CONSTRUCTION

Location of well SW 1/4 NW 1/4 SE 1/4 Section 12 Township 05 Range 1E

Well owner Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 6-26-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-20	Brown Soil
20-530	Gray Shale
530-545	Gray Sandstone
545-620	Lt. Gray & Brown Mudstone & Siltstone
620-690	Lt. Gray Sandstone
690-720	Dark Gray Shale w/Light Gray Siltstone
720-740	Gray Sandstone
740-770	IB Dark Gray Shale, Gray-Green Mudstone
770-820	Gray Sandstone
820-840	Gray Shale
840-955	IB AA & Yellow-Brown Siltstone-Sandstone
955-975	Red & Yellow Sandstone
975-1000	Green w/Variegated Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 840 ft.

Depth to static water level ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 1000 ft.

Depth to bottom of casing 966 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

1" Schedual 40 Black Iron

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Torch Slotted 903-966

If a flowing well, flow of completed well G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump HP

Type of pump Capacity of installed pump G.P.M.

Depth of pump placement ft., Date of pump installation

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ft., tube diameter

Tube material

Name of Pump Installation Contractor

1978
WATER RIGHTS COMM.
Pierre, SD

Hydro ID 610

1 of 2

Section 23 Township 6 Range 1E

Well owner Tennessee Valley Authority, P.O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 6-27-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-20	Brown Sandy Soil
20-540	Gray Shale
540-605	Gray Siltstone
605-680	18 Gray Sandstone & Gray Shale

Attach sheet if more space is needed

Depth to top of water producing aquifer 605 ft

Depth to static water level ft

Name of producing aquifer (if known) Fall River

Total depth of drill hole 680 ft

Depth to bottom of casing 672 ft

Casing information in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used

1" Schedual 40 Black Iron

Screen information: in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Torch Slotted 630-672

If a flowing well, flow of completed well G.P.M

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump HP

Type of pump Capacity of installed pump G.P.M

Depth of pump placement ft, Date of pump installation

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ft., tube diameter

tube material

1976
WATER RIGHTS COMM
Pierre, SD

Name of Pump Installation Contractor

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well: SW 1/4 NW 1/4 NE Section 29 Township 6S Range 1E

Well owner: Tennessee Valley Authority (Name), P.O. Box 49, Edgemont, South Dakota (Address)

Date well drilling completed 6-27-78 Purpose of well: Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-20	Brown Sandy Soil
20-540	Gray Shale
540-605	Gray Siltstone
605-680	IB Gray Sandstone & Gray Shale

Attach sheet if more space is needed

Depth to top of water producing aquifer: 605 ft.

Depth to static water level: ft.

Name of producing aquifer (if known): Fall River

Total depth of drill hole: 680 ft.

Depth to bottom of casing: 672 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

1" Schedual 40 Black Iron

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Torch Slotted 630-672

If a flowing well, flow of completed well: G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump: HP

Type of pump: Capacity of installed pump: G.P.M.

Depth of pump placement: ft., Date of pump installation:

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ft., tube diameter, tube material:

Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 611

1 of 1 - 20

NOTICE OF WELL CONSTRUCTION

Custer

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 20 Township 65 Range 1E

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 10-17-81 Purpose of well Test (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-440	Dk brn-gy shale
440-500	Gy & brn mudstone
500-520	Lt red sandstone
520-565	Dk brn & gy-gn mdst
565-600	Red sandstone
600-625	Dk brn mdst-sltst
625-645	Dk brn mdst
645-690	Gy & brn mdst w/int'd rd sltst
690-725	Red ss w/orng cht
725-755	Red sltst
755-800	Red ss w/wht, orng & gy chert pbl cgl

Attach sheet if more space is needed

Depth to top of water producing aquifer 694 ft

Depth to static water level 34.2 ft

Name of producing aquifer (if known) Lakota

Total depth of drill hole 815 ft

Depth to bottom of casing 694 ft

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

0-25' 20" steel
0-695 10 3/4" steel
730-755 8 5/8" steel

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

695-730 8 5/8" Johnson Well
755-800 .030 Screen slot galvanized

If a flowing well, flow of completed well NA GPM

Forward Drilling Company
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump Pioneer 6" HP 50

Type of pump Submersible Capacity of installed pump 325 G.P.M.

Depth of pump placement 525 ft., Date of pump installation 12-2-81

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46:0, Rules WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed 525 ft., tube diameter 3/4"

tube material poly

DEC 1981
DIVISION OF WATER RIGHTS
Pierre, SD

Great West Pump, Inc.
Name of Pump Installation Contractor

Hydro ID 612

NOTICE OF WELL CONSTRUCTION

Custer

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 20 Township 6S Range 1E

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 8-14-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-425	Blk sh
425-495	LB gy clst & ss
495-505	Rd & brn ss
505-525	Gy clst
525-530	Rd & orng -brn clst
530-545	Brn & rd-brn ss
545-555	Gy & wht sltst w/fy-gn clst
555-585	Orng, rd & brn ss
585-610	Gy-wht sltst w/gn clst
610-640	Tn-gy ss
640-650	Gy clst & gy wht sltst
650-700	Gy & gn clst
700-730	Tn, orng & rd-brn ss
730-745	LB Gy ss & sltst
745-800	Tn-brn ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 692

Depth to static water level 26.6

Name of producing aquifer (if known) Lakota

Total depth of drill hole 800

Depth to bottom of casing 692

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk Iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 692-800

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46, Mississippi WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____

tube material _____.

_____
Name of Pump Installation Contractor

Hydro ID 613

NOTICE OF WELL CONSTRUCTION

Custer

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 20 Township 6S Range 1E

Well owner: Tennessee Valley Authority (Name) (Address)

Date well drilling completed: 8-14-81 Purpose of well: Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-430	Blk sh
430-510	lB gy clst & ss
510-600	Tn-gy & rd-brn ss w/ gy, gn & rd clst

Attach sheet if more space is needed

Depth to top of water producing aquifer: 504 ft.

Depth to static water level: 26.2 ft.

Name of producing aquifer (if known): Fall River

Total depth of drill hole: 580 ft.

Depth to bottom of casing: 504 ft.

Casing information: In the space below show kind, size, weight, length per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 504-580.

If a flowing well, flow of completed well: NA g.p.m.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump: _____ HP _____

Type of pump: _____ Capacity of installed pump: _____

Depth of pump placement: _____ ft., Date of pump installation: _____

(3) WATER SURFACE MEASURING TUBE

- On some wells an air-tight water surface measuring tube is required. See Section 46.6DB of Chapter ... WELL CONSTRUCTION STANDARDS.
- Show exact vertical length of water surface measuring tube, when installed: _____ ft. above land surface.

Tube material: _____

Name of Pump Installation Contractor

DEC 1981
DIVISION OF
WATER RIGHTS
PIERRE, SD

POWERTECH (USA) INC.

Hydro ID 614

6.1 of 2-20

NOTICE OF WELL CONSTRUCTION

Custer

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 20 Township 6S Range R1

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 9-14-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-440	Blk sh
440-505	IB gy clst & ss
505-565	RD & yw-brn ss w/rd-brn & gy clst
565-575	Rd-brn clst
575-600	Rd 7 rd-brn ss-siltstone
600-620	IB gy clst & ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 609 ft.

Depth to static water level 32.2 ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 620 ft.

Depth to bottom of casing 609 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 609-620

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 48.400 of Chapter 46:6, Minnesota WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____

tube material _____.

_____
Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 615

NOTICE OF WELL CONSTRUCTION

Custer

1 WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 20 Township 6S Range 1E

Well owner: Tennessee Valley Authority (Name) (Address)

Date well drilling completed: 8-13-81 Purpose of well: Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-435	Blk sh
435-505	Intbd gy clst, ss
505-525	Lt tn & brn ss
525-550	IB gy clst-ss
550-590	IB rd brn & gy sltst & clst
590-600	Rd & brn ss
600-620	IB gy-gn & rd-brn sltst & clst
620-645	Gy-wht sltst
645-685	IB gy-wht sltst & pk sltst
685-695	Pk & brn ss w/gy clst
695-800	Brn, orng, tn, pk, rd & yw ss

Attach sheet if more space is needed

Depth to top of water producing aquifer: 712 ft.

Depth to static water level: 39.7 ft.

Name of producing aquifer (if known): Lakota

Total depth of drill hole: 800 ft.

Depth to bottom of casing: 712 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screens below bottom of casing, diameter and kind of screen or casing perforations.

open hole 712-800

If a flowing well, flow of completed well: NA g.p.m.

Silver King Mines, Inc.

Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ______ HP ______

Type of pump ______ Capacity of installed pump ______ g.p.m.

Depth of pump placement ______ ft., Date of pump installation ______

(3) WATER SURFACE MEASURING TUBE

- On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter [illegible] WELL CONSTRUCTION STANDARDS.
- Show exact vertical length of water surface measuring tube, when installed ______ ft., [illegible]

tube material ______

DEC 1981 DIVISION OF WATER RIGHTS Pierre, SD

Name of Pump Installation Contractor

Hydro ID 616

NOTICE OF WELL CONSTRUCTION

~~Fall River~~
CUSTER

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 _____ Section 20 Township 6S Range R1

Well owner Tennessee Valley Authority
(Name) (Address)

Date well drilling completed 9-15-81 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-465	Blk sh
465-530	lB gy clst & ss
530-550	Rd & yw-brn ss
550-605	lB gn sltst & gn-gy clst
605-645	Gy clst w/gy-wht sltst
645-680	Gy ss
680-720	Gy w/gn clst
720-760	lB rd & yw-brn ss, gy sltst & rd-brn & brngy clst
760-835	Tn ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 735 ft.

Depth to static water level 45.8 ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 835 ft.

Depth to bottom of casing 735 ft.

Casing information: In the space below show kind, size, weight, length and diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 735-835

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

- On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46:6, Minimum WELL CONSTRUCTION STANDARDS.
- Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____

tube material _____.

DEC 1991
DIVISION OF WATER RIGHTS
Pierre, S.D.

Name of Pump Installation Contractor

Hydro ID 617

G-1-22 1 of 1

NOTICE OF WELL CONSTRUCTION

~~Gold Pine~~ Custer

(1) WELL CONSTRUCTION

Location of well: SW 1/4 NE 1/4 ____ Section 20 Township 6S Range 1E

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 9-15-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-450	Blk sh
450-520	lB gy clst & ss
520-555	Rd-brn & gy clst w/gy ss
555-570	Rd & brn ss
570-625	lB gy sltst & gy, gn & rd clst
625-655	Gy ss
655-740	lB gy slst w/gy-gn & brn clst
740-810	Tn, yw & rd-brn ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 715 ft.

Depth to static water level 21.4 ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 810 ft.

Depth to bottom of casing 715 ft.

Casing information: In the space below show kind, size, weight, length and diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 715-810

If a flowing well, flow of completed well NA g.p.m.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ____ HP ____

Type of pump ____ Capacity of installed pump ____ g.p.m.

Depth of pump placement ____ ft., Date of pump installation ____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 404, Kentucky WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ____ ft., tube diameter ____

tube material ____

Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 622

DWM-50

Custer

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well: NE 1/4 NE 1/4 _____ Section 20 Township 6S Range 1E

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 8-17-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-420	Blk sh
420-490	IB gy clst & ss
490-585	IB gy, pk & orng sltst & rd-brn & gn clst
585-615	Gy-gn & rd-brn clst
615-650	Gy-wht sltst
650-690	Gy & gn clst
690-735	Gy w/rd & ywbrn ss w/brn-gy clst
735-778+	Tn & yw-brn ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 714 ft.

Depth to static water level 49.7 ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 780 ft.

Depth to bottom of casing 714 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 714-780

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____, tube material _____.

Name of Pump Installation Contractor

Hydro ID 622 DWM-52 2 of 2

Control

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well: NE 1/4 NE 1/4 Section 20 Township 6S Range R1

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 8-17-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-420	Blk sh
420-500	IB gy clst & ss
500-580	Gy, rd & tn ss w/gy & brn clst

Attach sheet if more space is needed

Depth to top of water producing aquifer 503 ft.

Depth to static water level 34.2 ft.

Name of producing aquifer (if known) Fall River

Total depth of drill hole 580 ft.

Depth to bottom of casing 503 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 503-580

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft, Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____, tube material _____.

_____
Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 623

6. 1 of 1

NOTICE OF WELL CONSTRUCTION

~~Fall River~~ Custer

(1) WELL CONSTRUCTION

Location of well: NE 1/4 NE 1/4 ____ Section 4 Township 6S Range R1

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 8-17-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-420	Blk sh
420-500	LB gy clst & ss
500-580	Gy, rd & tn ss w/gy & brn clst

Attach sheet if more space is needed

Depth to top of water producing aquifer 503 ft.

Depth to static water level 34.2 ft.

Name of producing aquifer (if known) Fall River

Total depth of drill hole 580 ft.

Depth to bottom of casing 503 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4" blk Iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 503-580

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ____ HP ____

Type of pump ____ Capacity of installed pump ____ G.P.M.

Depth of pump placement ____ ft., Date of pump installation ____

(3) WATER SURFACE MEASURING TUBE

- On some wells an air-tight water surface measuring tube is required: See Section 46.4:08 of Chapter 46:4, MINIMUM WELL CONSTRUCTION STANDARDS.
- Show exact vertical length of water surface measuring tube, when installed ____ ft., tube diameter ____ tube material ____.

Name of Pump Installation Contractor

DEC 1-81
DIVISION OF WATER RIGHTS
Pierre, SD

Hydro ID 624

NOTICE OF WELL CONSTRUCTION

6-1-18 of 1

~~Fall River~~ Custer

(1) WELL CONSTRUCTION

Location of well: SE 1/4 NE 1/4 Section 18 Township 6S Range 1E

Well owner Earl Darrow (Name) Edgemont, SD (Address)

Date well drilling completed 7-30-81 Purpose of well Domestic (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-20	Wth brn & gy clst and sltst
20-25	Gy clst & ywtn bent
25-35	Gy clst & ss
35-55	Gy clst
55-60	Gy ss
60-65	Brn & gy clst
65-70	Gy ss
70-95	Gy, blk, rd & orng-brn clst
95-115	Rd, orgn-brn & ppl ss
115-120	Gy clst w/ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 90 ft.

Depth to static water level 0 ft.

Name of producing aquifer (if known) Fall River

Total depth of drill hole 120 ft.

Depth to bottom of casing 120 ft.

Casing information: in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

160# 4" PVC

Screen information: in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

slotted casing 90-115

If a flowing well, flow of completed well 0.2 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.409 of Chapter 46.4, Minimum WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____

tube material _____.

Name of Pump Installation Contractor

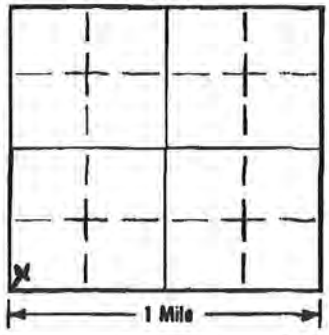
POWERTECH (USA) INC.
Hydro ID 631

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW ¼ SW ¼ Sec 23 Twp 65 Rg 1E
County Custer

Please mark well location with an "X"



Well Completion Date
Feb 98

Well Owner: Lloyd & John Putnam
Business Name: Putnam & Putnam
Address: RC 59 Box 22
Edgemont SD 57735

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand & Gravel	0	75
Shale	75	80

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ~~1~~ ft. from ~~BOA~~ Septic (identify source).

PROPOSED USE: NONE
☑ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING: Air Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other
If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
15.5 LB/FT	5 IN	0 FT	70 FT	7⅞ IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Cement	8	6gal lb./gal	0 ft.	30 ft.
		lb./gal	ft.	ft.

Describe grouting procedure: pumped

SCREEN: ☒ Perforated pipe ☐ Manufactured
Diameter 5 IN Length 40 FEET
Material Steel
Slot Size .016 Set From 30 Feet to 70 Feet
Other information

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? Rubber Packer @ 30ft
Describe packer(s) and location?

DISINFECTION: Was well disinfected upon completion?
☒ YES, How: Chlorinator
☐ NO, Why Not?

Laboratory sent to for water quality analysis

STATIC WATER LEVEL 20 Feet
If flowing: closed in pressure PSI
GPM flow through inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other
Reduced Flowrate GPM
Can well be completely shut in?

WELL TEST DATA:
☐ Pumped
☐ Bailed
☒ Other
Describe: Air Lift ~~150~~ 15-20 gpm

Pumping Level Below Land Surface
ft. After Hrs. pumped GPM
ft. After Hrs. pumped GPM
If pump installed, pump rate GPM

FEB 1999 WATER RIGHTS PROGRAM Pierre, SD

REMARKS

This well was drilled under license # 603
And this report is true and accurate.
Drilling firm: Custer Drilling
Signature of Licensed Representative:
Signature of Well Owner or Equitable Property Holder: Putnam & Putnam Partnership by John A Putnam
Date: 01.22.99

Hydro ID 857

NOTICE OF WELL CONSTRUCTION

CUSTER

WELL CONSTRUCTION

Location of well: NW 1/4 NE 1/4 Section 20 Township 6S Range 1E

Well owner Tennessee Valley Authority (Name) (Address)

Date well drilling completed 8-18-81 Purpose of well Observation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-430	Blk sh
430-500	lB gy clst & ss
500-550	Gy & rd-brn ss
550-580	Gy wht sltst w/gy-gn clst
580-595	Rd, orng & yw-brn & gy ss
595-605	Gy wht sltst & gy-gn clst
605-660	Gy ss w/gy sltst & gn clst
660-690	Gy wht sltst & gn clst
690-700	Gy w/orng ss
700-745	lB brn & gy, tr yw ss brn & gy clst
745-800	Brn-gy & rd ss

Attach sheet if more space is needed

Depth to top of water producing aquifer 715 ft.

Depth to static water level 42.4 ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 800 ft.

Depth to bottom of casing 715 ft.

Casing information: In the space below show kind, size, weight, tensile per diameter, etc., for production casing and surface casing, if used.

4" blk iron 10#/ft

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

open hole 715-800

If a flowing well, flow of completed well NA G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump _____ HP _____

Type of pump _____ Capacity of installed pump _____ G.P.M.

Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.409 of Chapter 46:4, Administrative WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____

tube material _____.

DEC 1-81
DIVISION OF WATER RIGHTS
Pierre, SD

Name of Pump Installation Contractor

Range

Well owner Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 1-26-78 Purpose of well Test
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Depth, top to bottom in feet	Description of layer
0-30	Brown & Grey Soil
30-95	Brown-Gray Mudstone, Siltstone
95-135	IB Lt. Gray Sandstone, and Gray Mudstone
135-205	Variegated Mudstone & Siltstone
205-280	Tan & Gray Sandstone
280-305	Gray & Green Mudstone
305-335	Gray Sandstone
335-400	IB Brown-Gray Mudstone, Gray Sandstone
400-665	Gray, Brown & Green Mudstones
665-780	IB Red-Brown Sandstone and Gray & Green Claystone
780-840	Black Shale & Gray-Green Claystone
840-880	Red Siltstone-Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 665 ft.

Depth to static water level + 240 ft.

Name of producing aquifer (if known) Sundance

Total depth of drill hole 880 ft.

Depth to bottom of casing 780 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

5½" 14# Steel Casing

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Torch Slotted 666-780

If a flowing well, flow of completed well 4 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ______ HP ______

Type of pump ______ Capacity of installed pump ______ G.P.M.

Depth of pump placement ______ ft, Date of pump installation ______

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ______ ft., tube diameter ______,

tube material ______

______
Name of Pump Installation Contractor

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WATER WELL CONSTRUCTION

Range 15

Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 11-7-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to bottom in feet	Description of layer
0-20	Weathered Brown Clay and Silt
20-250	Dark Gray Shale
250-375	Interbedded Gray Claystone, Lt. Gray Sandstone
375-410	Dark Gray Claystone
410-505	Lt. Gray-White Siltstone and Green Claystone
505-550	Red-Brown Sandstone w/Gray Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 504 ft.

Depth to static water level ft.

Name of producing aquifer (if known). Lakota

Total depth of drill hole 550 ft

Depth to bottom of casing 504 ft.

Casing information in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Schedual 40 Black Iron

Screen information in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 504-550

If a flowing well, flow of completed well est. 40 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump HP

Type of pump Capacity of installed pump G.P.M.

Depth of pump placement ft., Date of pump installation

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ft., tube diameter

Tube material

Name of Pump Installation Contractor

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Pierre, SD

...CONSTRUCTION

... Range 1

... owner: Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 11-/-78 Purpose of well: Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to bottom in feet	Description of layer
0-20	Weathered Brown Clay and Silt
20-250	Dark Gray Shale
250-360	Gray Sandstone w/Lt. Med. Gray Claystone & Lt. Gray Siltstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 315 ft.

Depth to static water level ... ft.

Name of producing aquifer (if known) Fall River

Total depth of drill hole 360 ft.

Depth to bottom of casing 315 ft.

Casing information in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Schedual 40 Black Iron

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 315-360

If a flowing well, flow of completed well est. 2 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ... HP ...

Type of pump ... Capacity of installed pump ... G.P.M.

Depth of pump placement ... ft, Date of pump installation ...

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ... ft., tube diameter ...

tube material ...

... 1978
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Pierre, SD

Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 668

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well NW 1/4 NE 1/4 Sect on 15 Township 7S Range 1E

Well owner Tennessee Valley Authority (Name) - Box 49 (Address) - Edgemont, South Dakota

Date well drilling completed 1-31-77 Purpose of well Test, Dewatering (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0 - 15	Alluvium & brn sh
15 - 240	Dk gy fissile sh
240 - 340	Dk gy sh, md gy clst
340 - 365	Md gy-gn clst
365 - 420	Wh-lt gy sltst-vfgrss
420 - 445	Lt gn & gy clst
445 - 475	AA w/tr lt gy & brn vf-fgrss
475 - 485	Gy fgrss
485 - 500	AA w/brn mdst
500 - 560	Pk & org calc cem vfgrss
560 - 574	Lt-dk gy mdst

Attach sheet if more space is needed

Depth to top of water producing aquifer 280, 480 ft.

Depth to static water level Flowing ft.

Name of producing aquifer (if known) Fall River, Lakota

Total depth of drill hole 574 ft.

Depth to bottom of casing 480 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

Schedule 40 Blk Iron 10" diameter
0 - 280
335 - 480

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Johnson Well Screen Stainless Steel .030 slot size
10" diam 280 - 335
8" diam 480 - 555

If a flowing well, flow of completed well 35 G.P.M.

Forward Drilling Co.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump Pioneer # P 300 34T 6" HP 50

Type of pump submersible Capacity of installed pump 300 G.P.M.

Depth of pump placement 455 ft., Date of pump installation Feb. 10, 1977

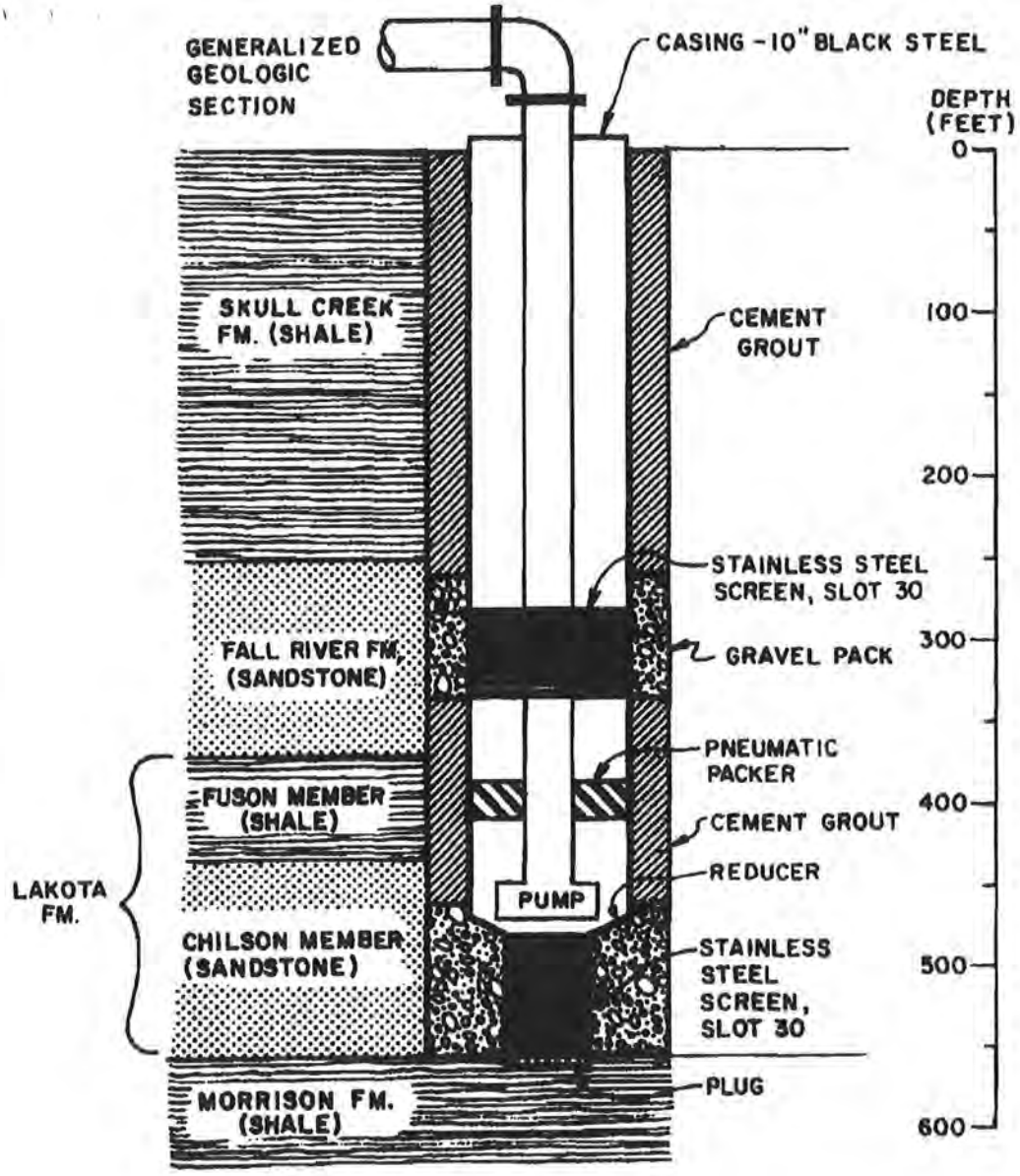
(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ____ ft., tube diameter ____.

tube material ____

Forward Drilling Co.
Name of Pump Installation Contractor



Source: Analysis of Aquifer Tests Conducted at the Proposed Burdock Uranium Mine Site, Burdock, South Dakota, WR-28-1-520-109, TVA, Boggs and Jenkins, May 1980.

Figure 2 : Burdock Well Profile

POWERTECH (USA) INC.

Hydro ID 669

NOTICE OF WELL CONSTRUCTION

... Township ... Range 1E

Well owner Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 10-25-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-25	Brown Weathered Shale
25-235	Gray Shale
235-265	AA with Lt. Gray Sandstone Siltstone
265-335	Brown Mudstone with Gray Sandstone & Gray-Green Mudstone
335-355	Gray Shale & Sandstone-Siltstone
355-370	Tan-Gray Siltstone
370-390	Gray & Green Shale
390-405	Dark Brown Mudstone
405-440	Lt, Green Claystone-Siltstone
440-475	White Siltstone, Sandstone
475-485	Green Mudstone
485-495	Tan Mudstone-Siltstone
495-510	Gray Sandstone, Brown Mudstone
510-550	Red-Brown SS

Attach sheet if more space is needed

Depth to top of water producing aquifer 510 ft.

Depth to static water level ... ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 550 ft.

Depth to bottom of casing 510 ft.

Casing information in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Black Iron Schedual 40

Screen information in the space below show length of screen below bottom casing, diameter and kind of screen or casing perforations.

Open Hole 510-550

If a flowing well, flow of completed well est. 35 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ... HP ...

Type of pump ... Capacity of installed pump ... G.P.M.

Depth of pump placement ... ft., Date of pump installation ...

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ... ft., tube diameter ...

Tube material ...

... Name of Pump Installation Contractor

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Pierre, SD

Hydro ID 670

NOTICE OF WELL CONSTRUCTION

FILED

Township ___ Range 1E

Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 10-19-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-20	Weathered Brown Clay & Silt
20-250	Dark Gray Shale
250-260	Interbedded Gray Clay-stone & Lt. Gray Sandstone
260-355	Gray Clay Stone
355-375	Lt. Gray-White Siltstone Gray Claystone
375-390	Gray & Green Shale
390-395	Dark Brown Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 377 ft.

Depth to static water level ___ ft.

Name of producing aquifer (if known) Lakota-Fuson

Total depth of drill hole 395 ft.

Depth to bottom of casing 377 ft.

Casing information in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Schedual 40 Black Iron

Screen information in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 377-395

If a flowing well, flow of completed well < 1 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ___ HP ___

Type of pump ___ Capacity of installed pump ___ G.P.M.

Depth of pump placement ___ ft., Date of pump installation ___

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ___ ft., tube diameter ___

tube material ___

Name of Pump Installation Contractor

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NOTICE OF WELL CONSTRUCTION

...CCILED

Owner's name: Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 10-18-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-10	Weathered Brown Clay & Silt
10-250	Dark Gray Shale
250-260	Interbedded Gray Claystone & Lt. Gray Sandstone
260-295	Med. & Lt. Gray Claystone
295-300	AA w/trace green & Red-Brown Claystone
300-335	Lt. Gray Sandstone, Medium & Lt. Gray Claystone
335-350	Gray-Green Mudstone, Gray Shale & Sandstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 300' ft.

Depth to static water level ft.

Name of producing aquifer (if known) Fall River

Total depth of drill hole 350 ft.

Depth to bottom of casing 300' ft.

Casing information: in the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used

4½" Schedual 40 Black Iron

Screen information: in the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 300-350

If a flowing well, flow of completed well est. 2 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ______ HP ______

Type of pump ______ Capacity of installed pump ______ G.P.M.

Depth of pump placement ______ ft, Date of pump installation ______

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ______ ft, tube diameter ______

tube material ______.

______
Name of Pump Installation Contractor

1978 ... WATER ... RIGHTS COMM... Pierre, SD

NOTICE OF WELL CONSTRUCTION

... Township 1 ... Range 1E

Well owner Tennessee Valley Authority, P. O. Box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 11-6-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-260	Dark Gray Shale
260-280	Gray Shale & Sandstone
280-350	Gray Sandstone-Siltstone
350-355	Dark Brown Shale
355-395	Gray Shale & Sandstone
395-420	Gray-Green Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 400 ft.

Depth to static water level ... ft.

Name of producing aquifer (if known) Lakota-Fuson

Total depth of drill hole 420 ft.

Depth to bottom of casing 400 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Schedual 40 Black Iron

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 400-420

If a flowing well, flow of completed well ... G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ... HP ...

Type of pump ... Capacity of installed pump ... G.P.M.

Depth of pump placement ... ft., Date of pump installation ...

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ... ft, tube diameter ...

tube material ...

Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 674

NOTICE OF WELL CONSTRUCTION

... Sec ... Township ... Range 11

We owner Tennessee Valley Authority, P. O. box 49, Edgemont, South Dakota
(Name) (Address)

Date well drilling completed 11-6-78 Purpose of well Observation
(domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-10	Orange-Brown Weathered Shale
10-270	Dark Gray-Black Shale
270-280	AA w/Lt. Gray Siltstone Sandstone
280-390	Interbedded Dark Gray Carb. mudstone, Gray & Tan Sandstone
390-430	Dark Brown Mudstone w/Green-Gray Claystone
430-455	Green w/Brown & Gray Claystone
455-470	Dark Brown-Gray Mudstone, trace Green Claystone; Tan Sandstone
470-500	Green Claystone w/White Lt. Tan Siltstone-Sandstone
500-525	Gray-Brown Mudstone w/Tan Sandstone
525-570	Gray Sandstone w/Gray-Brown Mudstone

Attach sheet if more space is needed

Depth to top of water producing aquifer 525 ft.

Depth to static water level ... ft.

Name of producing aquifer (if known) Lakota

Total depth of drill hole 570 ft.

Depth to bottom of casing 525 ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

4½" Schedual 40 Black Iron

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

Open Hole 525-570

If a flowing well, flow of completed well est. 35 G.P.M.

Silver King Mines, Inc.
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump ... HP ...

Type of pump ... Capacity of installed pump ... G.P.M.

Depth of pump placement ... ft., Date of pump installation ...

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed ... ft., tube diameter ...

tube material ...

Name of Pump Installation Contractor

POWERTECH (USA) INC.

Hydro ID 676

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 4 07-92

Location NE ¼ SW ¼ Sec 34 Twp 6S Rg 1E

County Custer

North

Please mark well location with an "X"

Long -103.986774 W

Lat 43.481733

E

1 Mile

Well Completion Date

9/26/2007

Well Owner: Powertech

Business Name: Same

Address: 145 N. Chicago Avenue, Suite C

Hot Springs, SD 57747

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes

☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

4¼ ID. HSA

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2 IN	2½ Above FT	12½ below FT	8½ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	~~ft.~~	~~ft.~~
____	____	____ lb./gal	1 ft.	9½ ft.

Describe grouting procedure ~~Pumped~~ Tremie pipe

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size 0.010 Set From 12½ Feet to 22½ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 2' Bentonite

Describe packer(s) and location? Above Sand Pack

DISINFECTION: Was well disinfected upon completion?

____ YES, How: _____

Laboratory sent to for water quality analysis

☒ NO, Why Not? Not for human or domestic use

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
See attached boring log		

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WATER RIGHTS PROGRAM

STATIC WATER LEVEL 17.65 Feet

If flowing: closed in pressure Not flowing PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped

☒ Bailed

☐ Other

Describe: Developed using a bailer. Well did not bail down.

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

REMARKS

Well Designation: DB-GW676

This well was drilled under license # 678

And this report is true and accurate.

Drilling firm American Engineering Testing, Inc

Signature of License Representative: Jon B. Hoehn

Signature of Well Owner or Equitable Property Holder:

X _____

Date: 11/2/07

AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

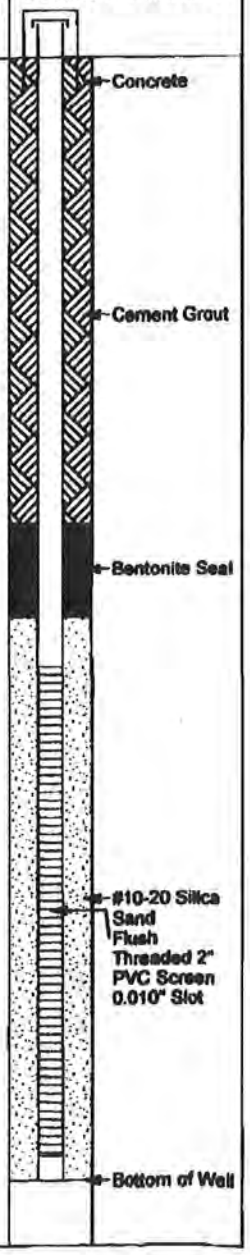
PROJECT NUMBER	18-02617	BORING/WELL NUMBER	B-4/DB-GW676
PROJECT NAME	Dewey Burdock Monitor Well Installation	DATE DRILLED	9/25/07
LOCATION	Burdock, South Dakota	CASING TYPE/DIAMETER	2" ID Schedule 40 PVC
DRILLING METHOD	4.25" ID HSA	SCREEN TYPE	2" ID Schedule 40 PVC Slotted 0.010"
SAMPLING METHOD	Continuous	PACKING TYPE	#10-20 Silica Sand
GROUND ELEVATION		GROUT TYPE	Cement
TOP OF CASING		DEPTH TO WATER	17.50
LOGGED BY	CH	GROUND WATER ELEVATION	

REMARKS: Well was completed with a 4" Pro Top

HNU (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
			CSTS 1			CS		**TOPSOIL** with organics, dark brown, dry
			CSTS 2		1			**SANDY SILT**, red, dry
					2			
					3			
			CSTS 3		4			
					5			
					6			
					7			
					8			
			CSTS 4		9			
					10			
					11			
					12			
			CSTS 5		13			**SILTY SANDY GRAVEL** with cobbles, red to brown, dry to moist
			CSTS 6		14			Same wet at 17.5 feet
					15			
					16			
					17			
					18			
			CSTS 7		19			Same saturated
					20			
					21			
					22			
					23			End of Boring

GW LEVEL

BORING ABANDONED



AET_ENVI 18-02617 MW.GPJ AET_ENVI.GDT 11/2/07

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
• GEOTECHNICAL
• MATERIALS
• ENVIRONMENTAL

January 11, 2008

Mr. Ken Buhler
Department of Environment and Natural Resources (DENR)
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

Subject: South Dakota Water Well Completion Reports
Wells Installed for Powertech
Burdock, South Dakota
AET No. 18-02617

Dear Mr. Buhler:

Enclosed please find the well completion reports for five groundwater monitoring wells, DB-GW675, DB-GW676, DB-GW677, DB-GW678 & DB-GW679 .The wells were completed to obtain information on the potential shallow groundwater impacts from previous uranium mining within the project area prior to initiating new uranium production activities within the Dewey-Burdock, South Dakota area. If you have any questions or need any additional information please contact me at (605) 388-0029.

Sincerely,

Clarke L. Knigge, CPRR
Environmental Scientist
Project Manager

CLK

attachments

pc: Mr. Cory Foreman, RESPEC

Y:\wp8\Environmental\Correspondence\18-02617 MW Completion Report.wpd

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B-4 DB-GW 676

6" ± TOPSOIL W/ ORGANICS - DK BROWN, DRY

TO 5' → SANDY SILT, RED, DRY

TO 10' → SILTY SAND, RED, DRY

SAME TO 13'

@ 13' → SILTY SANDY GRAVEL W/ COBBLES, RED TO BROWN, DRY TO MOIST

SAME TO 20'; WET @ 17.5'

Same to 22½' Sat.

POWERTECH (USA) INC.

Hydro ID 677

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 4 07-92

Location SW ¼ SW ¼ Sec 4 Twp 7S Rg 1E

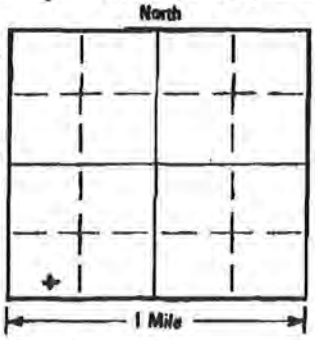
County Fall River

Please mark well location with an "X"

Long -104.0131

Lat 43.464791

Well Completion Date 9/25/2007



Well Owner: Powertech

Business Name: Same

Address: 145 N. Chicago Avenue, Suite C
Hot Springs, SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
See Attached Borehole Log		

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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from ____ (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: 4¼ HSA

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2 IN	2½ above FT	4 below FT	8½ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	____ ft.	____ ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Top 1' filled w/concrete

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 10 FEET
Material PVC
Slot Size 0.010 Set From 4 Feet to 14 Feet
Other information ____

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 2' Bentonite Plug
Describe packer(s) and location? Above Sand Pack

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? Not For Human or Domestic Animal use

Laboratory sent to for water quality analysis

STATIC WATER LEVEL ≈9 Feet
If flowing: closed in pressure Not flowing PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? ____

WELL TEST DATA:
☐ Pumped ☒ Bailed ☐ Other
Describe: Developed utilizing a bailer. Well did not bail down

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS
DB-GW677

This well was drilled under license # 678
And this report is true and accurate.
Drilling firm American Engineering Testing
Signature of License Representative: [signature]
Signature of Well Owner or Equivalent Property Holder: [signature]
Date: 11/2/07

AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 18-02617
PROJECT NAME Dewey Burdock Monitor Well Installation
LOCATION Burdock, South Dakota
DRILLING METHOD 4.25" ID HSA
SAMPLING METHOD Continuous
GROUND ELEVATION
TOP OF CASING
LOGGED BY CH
REMARKS Well was completed with a 4" Pro Top

BORING/WELL NUMBER B-2/DB-GW677
DATE DRILLED 9/25/07
CASING TYPE/DIAMETER 2" ID Schedule 40 PVC
SCREEN TYPE 2" ID Schedule 40 PVC Slotted 0.010"
PACKING TYPE #10-20 Silica Sand
GROUT TYPE Cement
DEPTH TO WATER 9.00
GROUND WATER ELEVATION

HNU (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	GW LEVEL
			CSTS 1		1	CL		SANDY SILT, medium grain, tan	
			CSTS 2		4			SANDY SILT	
			CSTS 3		6			SILTY SAND, poorly sorted	
			CSTS 4		7			SILTY SAND, tan	
			CSTS 5		9			SAND, very fine grained, tan, wet	▽
			CSTS 6		13			SHALE(Belle Fourche), dark gray, fissile	

Concrete
Bentonite Seal
#10-20 Silica Sand
Flush Threaded 2" PVC Screen 0.010" Slot
Bottom of Well

AET_BWI 18-02617 MW.GPJ AET_ENV.GDT 11/2/07

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
• GEOTECHNICAL
• MATERIALS
• ENVIRONMENTAL

January 11, 2008

Mr. Ken Buhler
Department of Environment and Natural Resources (DENR)
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

Subject: South Dakota Water Well Completion Reports
Wells Installed for Powertech
Burdock, South Dakota
AET No. 18-02617

Dear Mr. Buhler:

Enclosed please find the well completion reports for five groundwater monitoring wells, DB-GW675, DB-GW676, DB-GW677, DB-GW678 & DB-GW679 .The wells were completed to obtain information on the potential shallow groundwater impacts from previous uranium mining within the project area prior to initiating new uranium production activities within the Dewey-Burdock, South Dakota area. If you have any questions or need any additional information please contact me at (605) 388-0029.

Sincerely,

Clarke L. Knigge, CPRR
Environmental Scientist
Project Manager

CLK

attachments

pc: Mr. Cory Foreman, RESPEC

Y:\wp8\Environmental\Correspondence\18-02617 MW Completion Report.wpd

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DB-GW677

Location south of Putnam house

Construction Details

Total Depth	14.5'
Screen Inverval	4.5 – 14.5'
Sand pack	3 – 14.5'
Bentonite	1 – 3'
Cement	0 – 1'

Water Level ~9' below surface

Lithology

0 – 4 ft	med tan, sandy silt
4 – 6 ft	sandy silt
6 – 7.5 ft	cobbles in silty sand, poorly sorted
7.5 – 9 ft	tan, silty sand
9 – 12.5 ft	wet, tan, very fine grained sand
12.5 -14.5 ft	dark gray, fissile shale (Belle Fourche Fm)

POWERTECH (USA) INC.

Hydro ID 678

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location SW ¼ NE ¼ Sec 9 Twp 7S Rg 1E

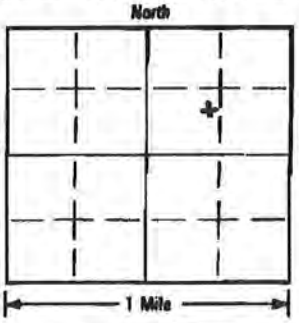
County Fall River

Please mark well location with an "X"

Long -104.001135

Lat 43.459121

Well Completion Date 9/25/2007



Well Owner: Powertech

Business Name: Same

Address: 145 N. Chicago Avenue, Suite C.
Hot Springs, SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
See Attached Log		

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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
4¼ ID HSA

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	2 IN	2½ above FT	4 below FT	8½ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
_____	_____	_____ lb./gal	_____ ft.	_____ ft.
_____	_____	_____ lb./gal	_____ ft.	_____ ft.

Describe grouting procedure: Top 1' filled w/Concrete

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 10 FEET
Material PVC
Slot Size 0.010 Set From 4 Feet to 14 Feet
Other information _____

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 2' Bentonite
Describe packer(s) and location? Above Sand Pack

DISINFECTION: Was well disinfected upon completion?
_____ YES, How: _____
X NO, Why Not? Well not used for human or domestic animal consump

Laboratory sent to for water quality analysis _____

STATIC WATER LEVEL ≈ 9.6 Feet
If flowing: closed in pressure Not flowing PSI
GPM flow _____ through _____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other _____
Reduced Flowrate _____ GPM
Can well be completely shut in? _____

WELL TEST DATA:
☐ Pumped
☒ Bailed
☐ Other
Describe: Developed using a bailer. Well did not bail down

Pumping Level Below Land Surface
_____ ft. After _____ Hrs. pumped _____ GPM
_____ ft. After _____ Hrs. pumped _____ GPM
If pump installed, pump rate _____ GPM

REMARKS
Well Designation DB - GW 678

This well was drilled under license # 678
And this report is true and accurate.
Drilling firm American Eng. Testing, Inc.
Signature of Licensed Representative: /Jon B. Hodson
Signature of Well Owner or Equitable Property Holder:
X _____
Date: 11/2/07

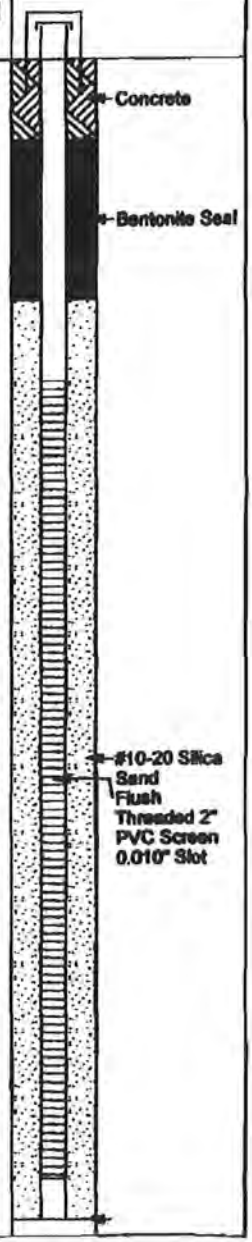
AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 18-02617
PROJECT NAME Dewey Burdock Monitor Well Installation
LOCATION Burdock, South Dakota
DRILLING METHOD 4.25" ID HSA
SAMPLING METHOD Continuous
GROUND ELEVATION
TOP OF CASING
LOGGED BY CH
REMARKS Well was completed with a 4" Pro Top

BORING/WELL NUMBER B-3/DB-GW678
DATE DRILLED 9/25/07
CASING TYPE/DIAMETER 2" ID Schedule 40 PVC
SCREEN TYPE 2" ID Schedule 40 PVC Slotted 0.010"
PACKING TYPE #10-20 Silica Sand
GROUT TYPE Cement
DEPTH TO WATER ~8.00
GROUND WATER ELEVATION

HNU (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	GW LEVEL
			CSTS 1		1			SILTY SAND, very fine grained, red	
					2				
					3				
			CSTS 2		4			SILTY SAND, very fine grained, red	
					5				
					6				
					7				
					8				
			CSTS 3		9			SILTY SAND, very fine grained with 1-inch beds of medium to course sand	
					10				
					11				
					12				
					13				
					14				



AET_BWI 18-02617 MW.GPJ AET_ENV.GDT 11/2/07

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
• GEOTECHNICAL
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• ENVIRONMENTAL

January 11, 2008

Mr. Ken Buhler
Department of Environment and Natural Resources (DENR)
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

Subject: South Dakota Water Well Completion Reports
Wells Installed for Powertech
Burdock, South Dakota
AET No. 18-02617

Dear Mr. Buhler:

Enclosed please find the well completion reports for five groundwater monitoring wells, DB-GW675, DB-GW676, DB-GW677, DB-GW678 & DB-GW679 .The wells were completed to obtain information on the potential shallow groundwater impacts from previous uranium mining within the project area prior to initiating new uranium production activities within the Dewey-Burdock, South Dakota area. If you have any questions or need any additional information please contact me at (605) 388-0029.

Sincerely,

Clarke L. Knigge, CPRR
Environmental Scientist
Project Manager

CLK

attachments

pc: Mr. Cory Foreman, RESPEC

Y:\wp8\Environmental\Correspondence\18-02617 MW Completion Report.wpd

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DB-GW678

Location along Pass Creek west of Burdock

Construction Details

Total Depth	14.5'
Screen Inverval	4.5 – 14.5'
Sand pack	3 – 14.5'
Bentonite	1 – 3'
Cement	0 – 1'

Water Level ~8' below surface

Lithology

0 – 9 ft	very fine grained, red, silty sand
9 – 14 ft	dominantly vfg silty sand with 1" beds of med to coarse sand (did not penetrate shale)

POWERTECH (USA) INC.

Hydro ID 679

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NW ¼ SE ¼ Sec 27 Twp 6S Rg 1E

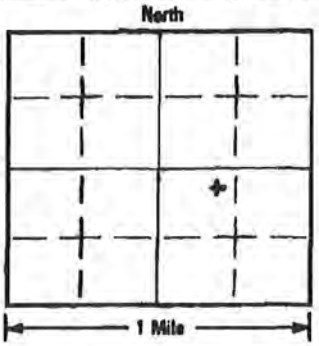
County Custer

Please mark well location with an "X"

Long -103.988091

Lat 43.499634

Well Completion Date 9/26/2007



Well Owner: Powertech

Business Name: Same

Address: 145 N. Chicago Avenue, Suite C
Hot Springs, SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
See attached boring log		

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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from ____ (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
4¼ ID HSA

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	2 IN	19 FT	39 FT	8¼ IN
____ LB/FT	2 IN	2½ above FT	19 below FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
		____ lb./gal	1 ft.	16 ft.
		____ lb./gal	____ ft.	____ ft.

Describe grouting procedure Tremie pipe placement

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 20 FEET
Material PVC
Slot Size 0.010 Set From 19 Feet to 39 Feet
Other information ____

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 2' Bentonite
Describe packer(s) and location? Above Sand Pack

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
K NO, Why Not? Well not used for human or domestic animals

Laboratory sent to for water quality analysis ____

STATIC WATER LEVEL 31.28 Feet
If flowing: closed in pressure Not flowing PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? ____

WELL TEST DATA:
☐ Pumped
☒ Bailed
☐ Other
Describe: Well developed using a bailer. Well did not bail down

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS
Well Designation: DB-GW679

This well was drilled under license # 678
And this report is true and accurate.
Drilling firm American Engineering Testing, Inc
Signature of Licensed Representative: Ken B. Hoar
Signature of Well Owner or Equitable Property Holder: x
Date: 11/14/07

80-51-1

AMERICAN ENGINEERING TESTING, INC.

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 18-02817
PROJECT NAME Dewey Burdock Monitor Well Installation
LOCATION Burdock, South Dakota
DRILLING METHOD 4.25" ID HSA
SAMPLING METHOD Continuous
GROUND ELEVATION
TOP OF CASING
LOGGED BY CH
REMARKS Well was completed with a 4" Pro Top

BORING/WELL NUMBER B-5/DB-GW679
DATE DRILLED 9/25/07
CASING TYPE/DIAMETER 2" ID Schedule 40 PVC
SCREEN TYPE 2" ID Schedule 40 PVC Slotted 0.010"
PACKING TYPE #10-20 Silica Sand
GROUT TYPE Cement
DEPTH TO WATER
GROUND WATER ELEVATION

HNU (ppm)	Blow Count	RECOVERY (inches)	SAMPLER TYPE	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	GW LEVEL
			CSTS 1		1			TOPSOIL, dark brown, dry	
			CSTS 2		2			SANDY SILT, red, dry	
					3				
			CSTS 3		4			SILTY SAND, red to tan, dry to moist	
					5				
					6				
					7				
					8				
			CSTS 4		9				
					10				
					11				
					12				
					13				
			CSTS 5		14				
					15				
					16				
			CSTS 6		17			SAND WITH GRAVEL, red moist	
					18			COBBLES, no recovery	
			CSTS 7		19			SILTY SAND TO SAND red to tan, moist	
			CSTS 8		20				
					21				
					22				
					23				
			CSTS 9		24			SAND with GRAVEL, red, moist	
					25				
					26				
			CSTS 10		27			SANDY LEAN CLAY, red moist	
					28				
			CSTS 11		29			SAND WITH GRAVEL, red moist 6 inch gray layer of sand at 30 feet	
					30				
					31				
					32				
					33				
			CSTS 12		34				
					35				
					36				
			CSTS 13		37			SHALE, black, moist	
					38				
					39				

BORING ABANDONED

- Concrete
- Cement Grout
- Bentonite Seal
- #10-20 Silica Sand Flush Threaded 2" PVC Screen 0.010" Slot
- Bottom of Well

AET_ENVI 18-02817 MW.GPJ AET_ENVI.GDT 11/2/07

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
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• ENVIRONMENTAL

January 11, 2008

Mr. Ken Buhler
Department of Environment and Natural Resources (DENR)
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

Subject: South Dakota Water Well Completion Reports
Wells Installed for Powertech
Burdock, South Dakota
AET No. 18-02617

Dear Mr. Buhler:

Enclosed please find the well completion reports for five groundwater monitoring wells, DB-GW675, DB-GW676, DB-GW677, DB-GW678 & DB-GW679 .The wells were completed to obtain information on the potential shallow groundwater impacts from previous uranium mining within the project area prior to initiating new uranium production activities within the Dewey-Burdock, South Dakota area. If you have any questions or need any additional information please contact me at (605) 388-0029.

Sincerely,

Clarke L. Knigge, CPRR
Environmental Scientist
Project Manager

CLK

attachments

pc: Mr. Cory Foreman, RESPEC

Y:\wpfl\Environmental\Correspondence\18-02617 MW Completion Report.wpd

B-5 Hydro ID 679B – GW679

6" Topsoil – Dk Brn, Dry

To 5' Sandy Silt, Red Dry

To 10' Silty Sand, Rd to Tan, Dry to moist

To 15 Same Red

To 17 Same

17-17½ Sand w/ Gravel, Red, moist

17½-18 Cobbles, no recovery

TO 25 Silty Sand to Sand, Rd to Tan, moist

T. 27 Sand w/ gravel, Red, moist

To 29 Sandy lean Clay, Red, wet,

To 30 Sand w/ gravel, Red, moist, 6" Gray layer of Sand.

To 35 Sand w/ gravel, Red, moist sat @ 34.

To 35½ Same

To 39 Shale, Dk Black, moist

COMPLETED BY: REVIEWED BY:

POWERTECH (USA) INC.

NE 1/4 SW 1/4

Hydro ID 680

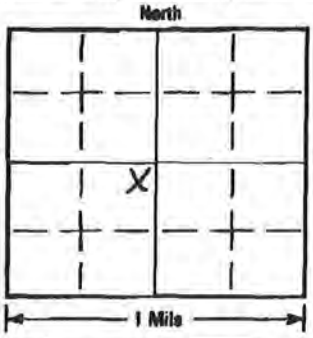
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 11 07-92

Location SW ¼ NW ¼ Sec 11 Twp 75 Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date 12-19-07

Well Owner: [redacted] Powertech

Business Name: Powertech USA Inc

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Sh	0'	122'
Fall River SS	122'	250'
Fuson Sh	250'	317'
Lakota SS	317'	436'

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE PRESENT (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 21 LB/FT	6 IN	0 FT	426 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	95.3	15.1 lb./gal	426 ft.	0 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 4½ IN Length 10 FEET
Material PVC
Slot Size .025 Set From 436 Feet to 426 Feet
Other information Set With K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" K Packer
Describe packer(s) and location? 1 Packer 406'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? NA

Laboratory sent to for water quality analysis
Respec

T-1408

STATIC WATER LEVEL 29 Feet
If flowing: closed in pressure NA PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? YES

WELL TEST DATA:
☐ Pumped Describe: Airlift AT 385'
☐ Bailed
☒ Other
Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped 240 cubic Feet GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS well DB-07-11-116
lithology attached.

RECEIVED
JAN 14 2008
WATER RIGHTS PROGRAM

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm Davis Drilling Inc
Signature of License Representative: Stan Davis
Signature of Well Owner or Equitable Property Holder: Frank Lahm Powertech (USA) Inc
Date: Dec 31 07

Hydro ID 680

PowerTech (USA) Inc.

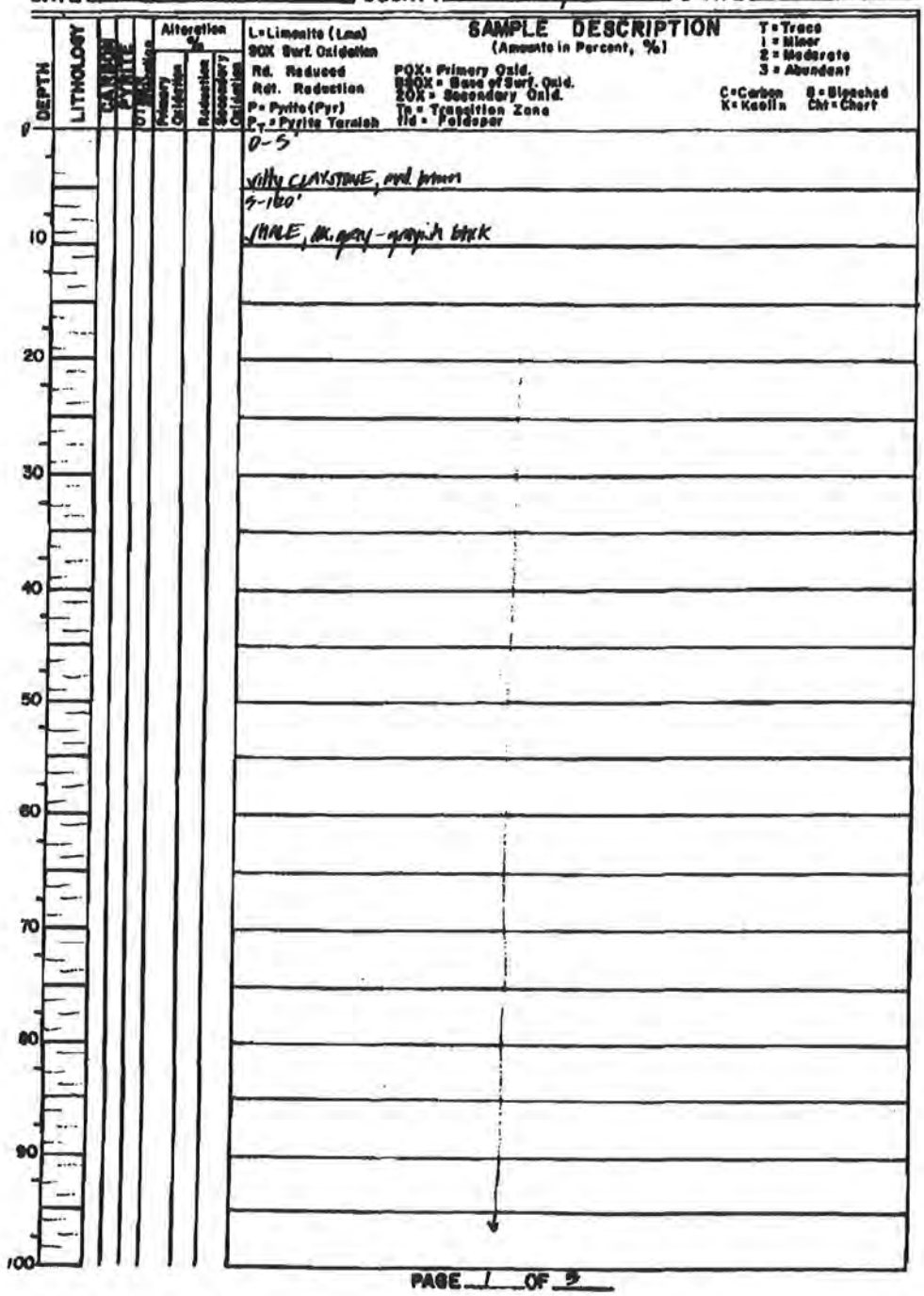
DRILLED WITH: AIR ☐ WATER ☒ HOLE NO. 0807-11-11C

T.D. 450' LOCATION: Section 11 T7S R1E 10'SE of 11-4C

BIT SIZE 6¼" h 3" reverse / 4½" bit

SAMPLE LOG BY LE LEASE: (PROJECT) Dewey Burdock

DATE 10/10/07 COUNTY Fall River County STATE SD



PAGE 1 OF 5

PowerTech (USA) Inc.

Hydro ID 680

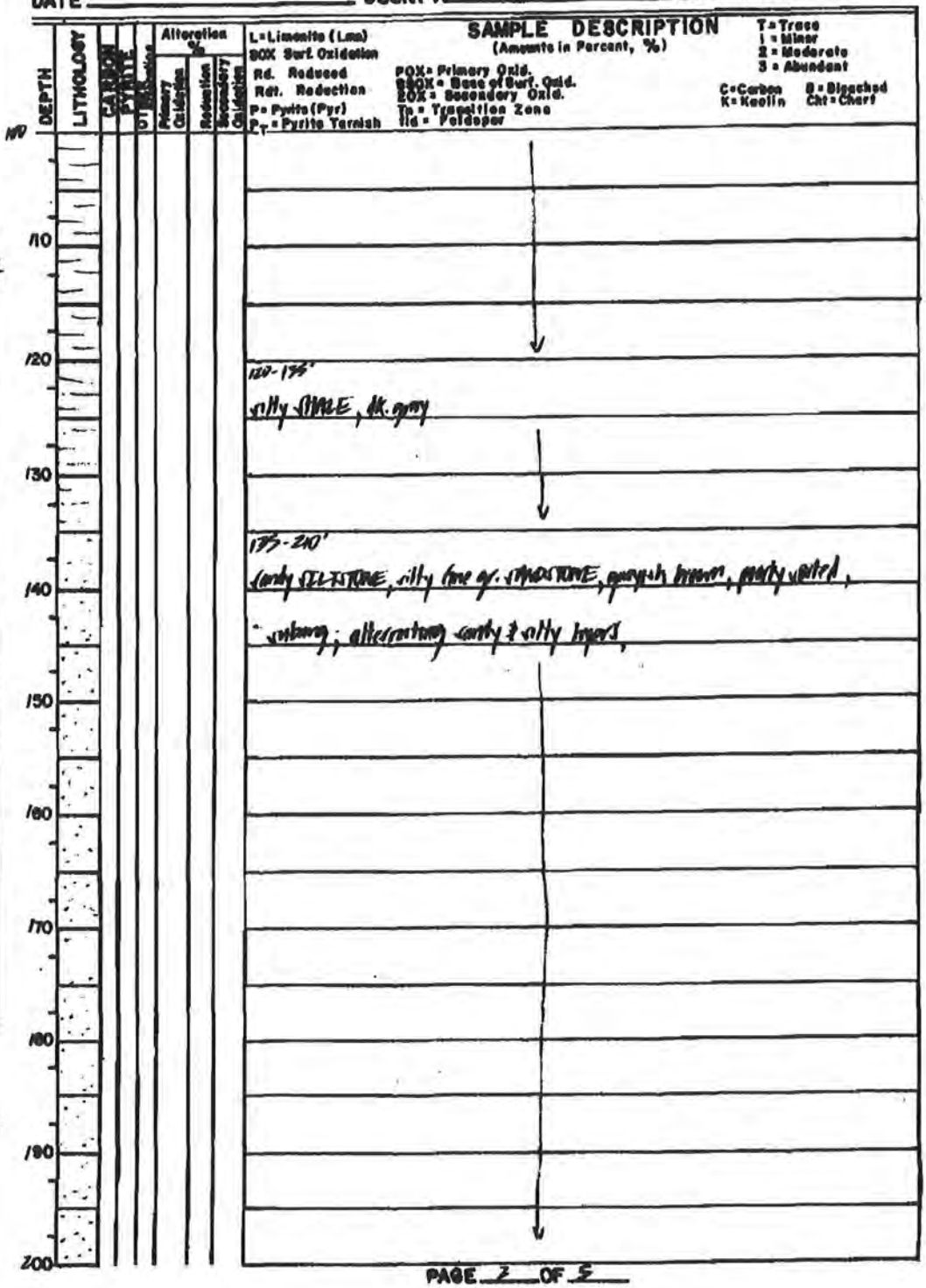
DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. DDH-11-115

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____



PAGE 2 OF 5

PowerTech (USA) Inc.

Hydro ID 680

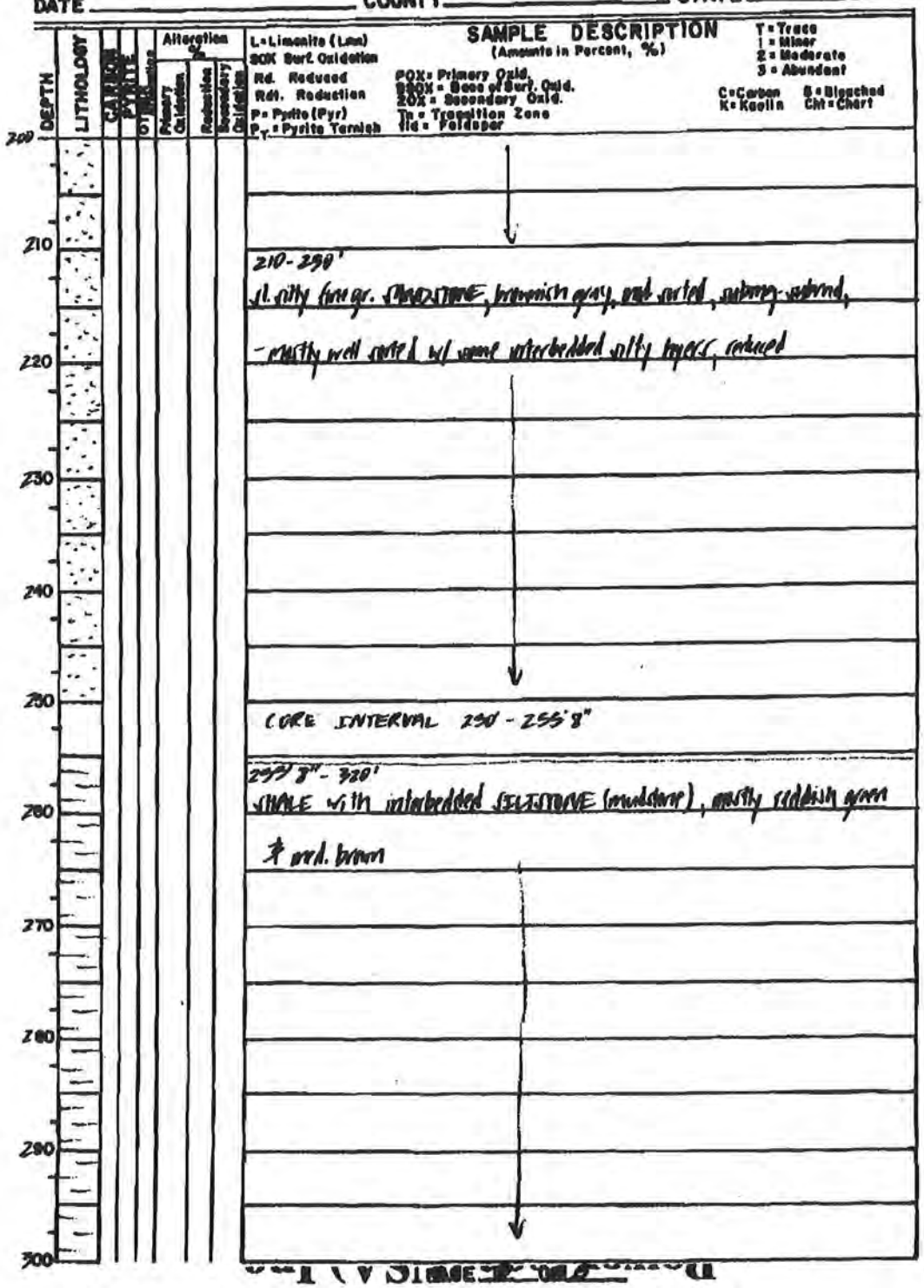
DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. 0807-11-11C

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____



PowerTech (USA) Inc.

Hydro ID 680

DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. 0807-11-11C

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____

DEPTH | LITHOLOGY | CARBON | PYRITE | Alteration % | Primary Oxidation | Reduction | Secondary Oxidation

L = Limonite (Lmn)
SOX Surf. Oxidation
Rd. Reduced
Rdt. Reduction
P = Pyrite (Pyr)
P_T = Pyrite Tarnish

SAMPLE DESCRIPTION
(Amounts in Percent, %)

POX = Primary Oxid.
BSOX = Base of Surf. Oxid.
SOX = Secondary Oxid.
Tn = Transition Zone
Fld = Feldspar

T = Trace
1 = Minor
2 = Moderate
3 = Abundant

C = Carbon
K = Kaolin
B = Bleached
Cht = Chert

320

310

320

320-340'
fine gr. SANDSTONE, lt. brown - grayish brown, well sorted, mg-subrnd, - more silty from 335-340' = mod. sorted, mostly reduced <5% ox.

330

340

350

360

360-410'
mostly SHALE with some silt interbeds, med. gray

370

380

390

400

PAGE 4 OF 5

PowerTech (USA) Inc.

Hydro ID 680

DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. 0607-11-11C

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____

DEPTH | LITHOLOGY | CARBON | PYRITE | OTHER | Alteration % | Primary Oxidation | Reduction | Secondary Oxidation

SAMPLE DESCRIPTION (Amounts in Percent, %)

L = Limonite (Lmn)
SOX Surf. Oxidation
Rd. Reduced
Rdt. Reduction
P = Pyrite (Pyr)
P_T = Pyrite Tarnish
POX = Primary Oxid.
SSOX = Base of Surf. Oxid.
ZOX = Secondary Oxid.
Tn = Transition Zone
Fld = Feldspar

T = Trace
1 = Minor
2 = Moderate
3 = Abundant
C = Carbon
K = Kaolin
B = Bleached
Chr = Chert

400
410
420
430
440
450
460
470
480
490
500

CORE INTERVAL 410'-420'

CORE INTERVAL 420-430'

CORE INTERVAL 430-440'

CORE INTERVAL 440'-451'

TD 450' END OF HOLE

PAGE 5 OF 5

POWERTECH (USA) INC.

Hydro ID 680

PowerTech (USA) Inc.

DRILLED WITH: AIR [ ] WATER [X] HOLE NO. DB07-11-11C

T.D. 450' LOCATION: Sec 11, T7S, R1E 10' SE of 11-4C

BIT SIZE 6¼" to 3" cored 4.5" bit

SAMPLE LOG BY JJ LEASE: (PROJECT) Dewey Burdock

DATE 10/09/07 COUNTY Fall River STATE SD

Column headings: DEPTH | LITHOLOGY | CARBON | PYRITE | OTHER Mineralization | Alteration %: Primary Oxidation, Reduction, Secondary Oxidation | SAMPLE DESCRIPTION (Amounts in Percent, %)

L = Limonite (Lmn); SOX Surf. Oxidation; Rd. Reduced; Rdt. Reduction; P = Pyrite (Pyr); P_T = Pyrite Tarnish; POX = Primary Oxid.; BSOX = Base of Surf. Oxid.; 2OX = Secondary Oxid.; Tn = Transition Zone; fld = Feldspar

T = Trace; 1 = Minor; 2 = Moderate; 3 = Abundant; C = Carbon; K = Kaolin; B = Bleached; Cht = Chert

Depth	Sample description
2500	Core interval starts @ 249,1" grey, fine-grained, subrounded, pyritic clean, well-sorted, trace silt, qtz ss. colorless qtz grains. Heavy pyrite @ 250,4" to 250,5.5"
	At 250,9" contact black + dark gray fissile shale + mudstone
2510	
2520	
2530	
2540	254,4" Increase in plastic clay content and decrease in fissility
2550	255,2" grades quickly back to fissile shale and mudstone.
	255,9" TD of core run.
2560	
2570	
2580	
2590	
2600	

CONFIDENTIAL

PAGE 1 OF CORE

Hydro ID 680

PowerTech (USA) Inc.

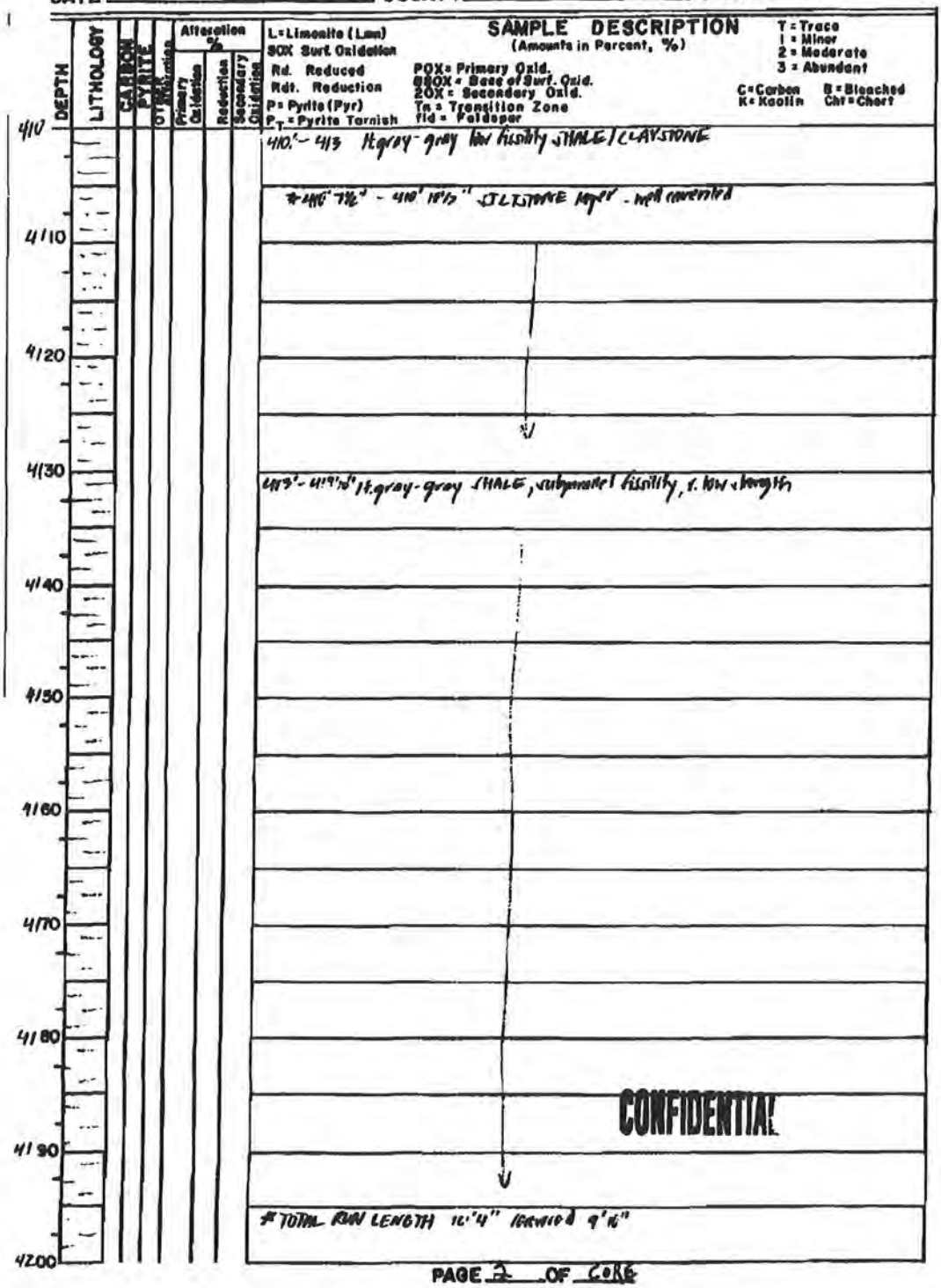
DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. DB07-11-11C

T.D. _____ LOCATION: _____

BIT SIZE 6 1/4"

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____



PAGE 2 OF CORE

PowerTech (USA) Inc.

Hydro ID 680

DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. D607-11-11C

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____

DEPTH | LITHOLOGY | CARBON | PYRITE | OTHER | Alteration % | Primary Oxidation | Reduction | Secondary Oxidation

L = Limonite (Lmn)
SOX Surf. Oxidation
Rd. Reduced
Rdt. Reduction
P = Pyrite (Pyr)
P_T = Pyrite Tarnish

POX = Primary Oxid.
SSOX = Base of Surf. Oxid.
SOX = Secondary Oxid.
Tn = Transition Zone
Fld = Feldspar

SAMPLE DESCRIPTION
(Amounts in Percent, %)

T = Trace
1 = Minor
2 = Moderate
3 = Abundant

C = Carbon
K = Kaolin
B = Bleached
Cht = Chert

4200

4200 - 4224' lt.gray-gray SHALE, subparallel fissility, v. low strength

4210

4220

← @ low angle slip plane 4221'1"
← @ 4222' 6" slip plane ~45°

4230

4240

4224 - 4300' sl silty, fine gr. SANDSTONE: lt.gray - lt.brownish gray, v.fine - well sorted, subang - subrounded, mostly subrounded, mostly well - cemented, mod. cemented 4225 - 4225'3" & 4226 - 4226'5.5", - ss/shale interbedded from 4224 - 4225'3", continuous carbon layers - from 4226 - 4226'5.5", scat. pyrite

4250

4260

4270

4280

4290

4300

CONFIDENTIAL

* TOTAL RUN LENGTH 16'7" recovered 16'0"

PAGE 3 OF CORE

PowerTech (USA) Inc.

DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. 0807-11-11C

T.D. ________ LOCATION: ________

BIT SIZE ________ ________

SAMPLE LOG BY ________ LEASE: (PROJECT) ________

DATE ________ COUNTY ________ STATE ________

DEPTH	LITHOLOGY	CARBON	PYRITE	OTHER Alteration	Alteration %: Primary Oxidation	Reduction	Secondary Oxidation	SAMPLE DESCRIPTION (Amounts in Percent, %)
								L=Limonite (Lmn); SOX Surf. Oxidation; Rd. Reduced; Rdt. Reduction; P= Pyrite (Pyr); P_T = Pyrite Tarnish; POX= Primary Oxid.; BSOX = Base of Surf. Oxid.; ZOX = Secondary Oxid.; Tz = Transition Zone; fld = Feldspar; T = Trace; 1 = Minor; 2 = Moderate; 3 = Abundant; C=Carbon; K=Kaolin; B = Bleached; Cht = Chert
430								430-431' SAMPLE WASHED AWAY
4310								431-432'6" v.sl. silty, fine gr. SANDSTONE, lt. gray - lt. brownish gray, - well-sorted, subang - subrnded, mostly subrnded, well-cemented, scat. pyrite
4320								
4330								432'6" - 438'5" silty, v. fine gr. SANDSTONE, lt. gray - lt. brownish gray, - mod. sorted, subang - subrnded, mod. cemented - poorly cemented, scat. pyrite, - thin, continuous, low angle carbon stringers 432'9" - 433'6"
4340								- calcite cement ? - will need to test w/ acid, coated qtz. grains -> - translucent "root beer" colored coating, low angle bedding evident by
4350								- alternating dk & lt. layers in sands. - 200 µR/hr 435-436', 40 µR/hr rest of sands
4360								
4370								
4380								* bottom 8" SAA, but mostly fine gr. SS; 438'5" - 440'0" SAMPLE WASHED AWAY
4390								
4400								

CONFIDENTIAL

PAGE 9 OF CORE

Hydro ID 680

PowerTech (USA) Inc.

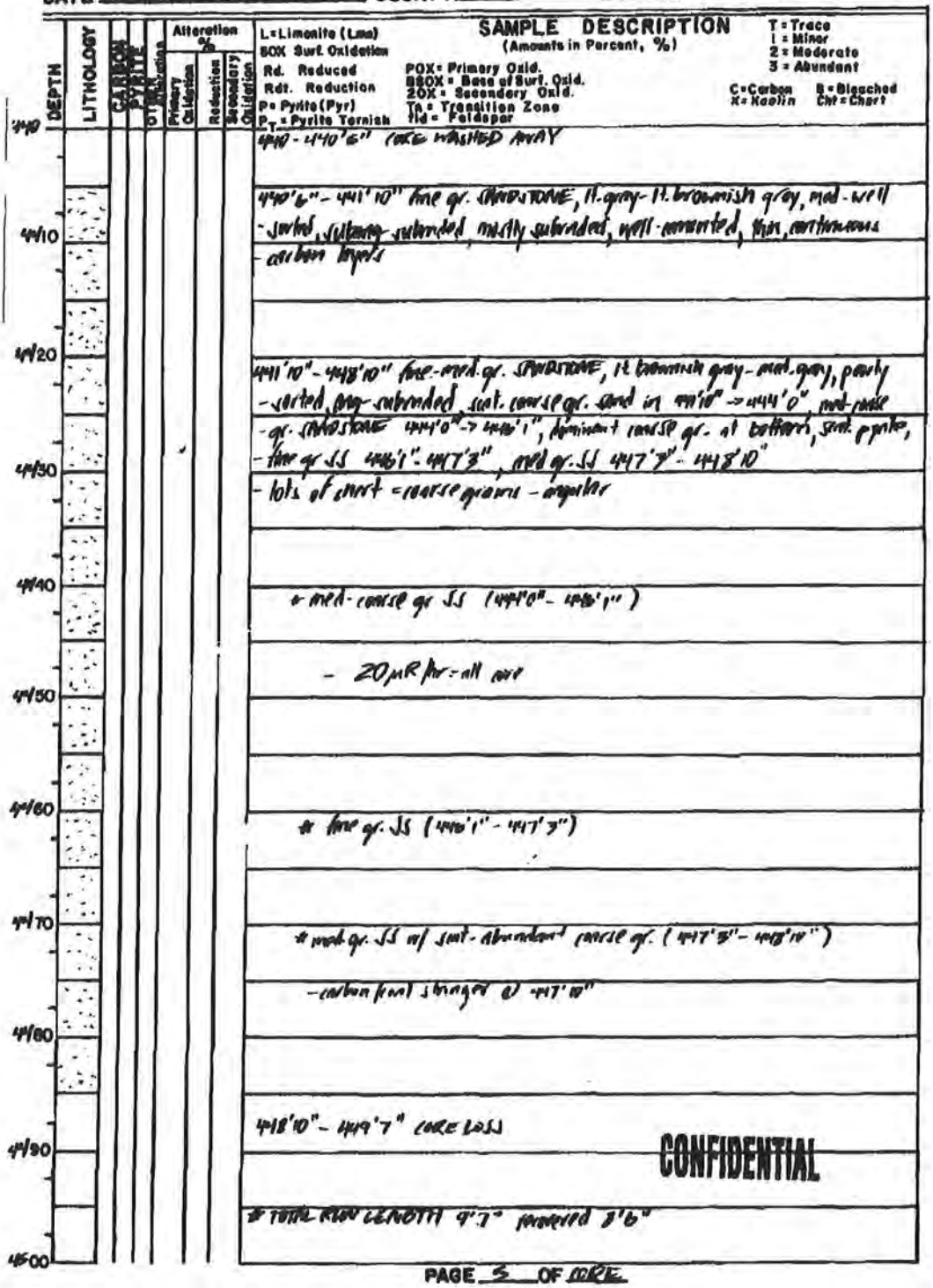
DRILLED WITH: AIR ☐ WATER ☐ HOLE NO. DDH 7-11-11C

T.D. _____ LOCATION: _____

BIT SIZE _____

SAMPLE LOG BY _____ LEASE: (PROJECT) _____

DATE _____ COUNTY _____ STATE _____



L = Limonite (Lmo)
BOX Surf. Oxidation
Rd. Reduction
Rdt. Reduction
P = Pyrite (Pyr)
P_T = Pyrite Tarnish

SAMPLE DESCRIPTION
(Amounts in Percent, %)

POX = Primary Oxid.
BBOX = Base of Surf. Oxid.
ZOX = Secondary Oxid.
Tn = Transition Zone
Fld = Feldspar

T = Trace
1 = Minor
2 = Moderate
3 = Abundant

C = Carbon
K = Kaolin
B = Bleached
Cht = Chert

4410 - 4410'6" (CORE WASHED AWAY

4410'6" - 441'10" fine gr. SANDSTONE, lt. gray - lt. brownish gray, mod - well - sorted, subang - subrounded, mostly subrounded, well - cemented, thin, continuous - carbon layers

4411'10" - 4418'10" fine - med. gr. SANDSTONE, lt brownish gray - med. gray, poorly - sorted, ang - subrounded, sat. coarse gr. sand in 4411'10" -> 4414'0", mod - poor - gr. SANDSTONE 4414'0" -> 4416'1", dominant coarse gr. at bottom, sat. pyrite, - fine gr. SS 4416'1" - 4417'3", med gr. SS 4417'3" - 4418'10" - lots of chert = coarse grains - angular

* med - coarse gr SS (4414'0" - 4416'1")

- 20 μR/hr - all core

* fine gr. SS (4416'1" - 4417'3")

* med gr. SS w/ sat - abundant coarse gr. (4417'3" - 4418'10")

- carbon band stronger @ 4417'10"

4418'10" - 4419'7" CORE LOSS

CONFIDENTIAL

* TOTAL RUN LENGTH 9'7" recovered 8'6"

PAGE 5 OF MORE

POWERTECH (USA) INC.

Hydro ID 681

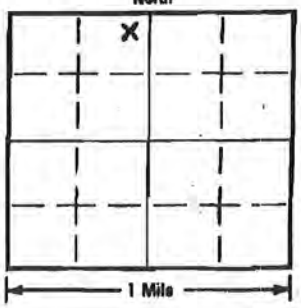
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ NW ¼ Sec 32 Twp 6S Rg 1E

County CUSTER

Please mark well location with an "X"



Well Completion Date 1-27-08

Well Owner: Powertech

Business Name: Powertech USA Inc

Address: P.O Box 773

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	470'
Fall River Sandstone	470'	585'

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 21 LB/FT	6 IN	0 FT	585 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	96	15.2 lb./gal	585 ft.	0 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure Pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 15 FEET
Material PVC
Slot Size .020 Set From 600 Feet to 585 Feet
Other information Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" K Packer
Describe packer(s) and location? Packer 575'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? NA

Laboratory sent to for water quality analysis
Results

STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 6.1 PSI
GPM flow 10 through 2 inch pipe
Controlled by ☑ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? YES

WELL TEST DATA:
☐ Pumped Describe: Air Lift At 575'
☐ Bailed
☑ Other
Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock 7-32-3C

RECEIVED
FEB 22 2008
WATER RIGHTS PROGRAM

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm DAVIS Drilling Inc
Signature of License Representative: Stan Davis
Signature of Well Owner or Equitable Property Holder: Powertech
Date: 2/13/08

POWERTECH (USA) INC.

Hydro ID 682

7S

SOUTH DAKOTA WATER WELL COMPLETION REPORT

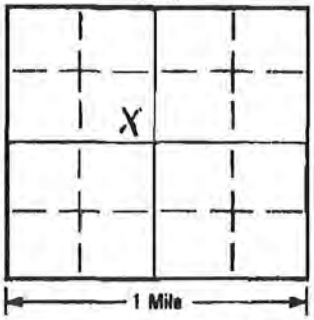
1 of 1

07-92

Location SE ¼ NW ¼ Sec 11 Twp 6S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date 2-21-08

Well Owner: Power Tech

Business Name: PowerTech USA Inc

Address: P.O. Box 723

Hot Springs SD 57747

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE PRESENT (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	4 IN	0 FT	450 FT	6¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	67	15.4 lb./gal	0 ft.	450 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure Pump

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size .020 Set From 460 Feet to 450 Feet

Other information Set K Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO

If so, what material? 4" K Packer

Describe packer(s) and location? Packer 440'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? N/A

Laboratory sent to for water quality analysis

Results

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	145
Fall River Sandstone	145	310
Fuson Shale	310	335
Lakota	335	460

STATIC WATER LEVEL 54.2 Feet

If flowing: closed in pressure ____ PSI

GPM flow ____ through ____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift at 435'

☐ Bailed

☑ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock

7-11-2

RECEIVED
MAR 24 2008
WATER RIGHTS PROGRAM

This well was drilled under license # 745

And this report is true and accurate

Drilling firm Davis Drilling Inc

Signature of License Representative: Stan Davis

Signature of Well Owner or Equitable Property Holder: PowerTech

Date: 3/5/08

POWERTECH (USA) INC.

Hydro ID 683

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NW¼ SE¼ Sec 29 Twp 65 Rg 1E

County CUSTER

Please mark well location with an "X"

NE1/4 SW1/4

Well Completion Date 3-4-08

Well Owner: Powe. Tech

Business Name: PowerTech USA INC

Address: P.O. Box 723

Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	530
Fall River S.S.	530	650

RECEIVED
MAR 24 2008
WATER RIGHTS PROGRAM

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE PRESENT (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe: ____

PIPE WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	4 IN	0 FT	635 FT	6¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	77	15.2 lb./gal	0 ft.	635 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: PUMP

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 15 FEET
Material PVC
Slot Size .020 Set From 650 Feet to 635 Feet
Other information: Set K Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO
If so, what material? 4" K Packer
Describe packer(s) and location? Packer 625'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? N/A

Laboratory sent to for water quality analysis: RESPEC

13-24

STATIC WATER LEVEL 81.9 Feet
If flowing: closed in pressure ____ PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? YES

WELL TEST DATA:
☐ Pumped
☐ Bailed
☒ Other
Describe: Air lift at 620'

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock 7-29-7

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm: Davis Drilling INC
Signature of License Representative: Stan Davis
Signature of Well Owner or Equitable Property Holder: PowerTech
Date: 3/19/08

POWERTECH (USA) INC.

Hydro ID 684

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ SW ¼ Sec 11 Twp 7S Rg 1E

County Fall River

Please mark well location with an "X"

North / W / E / X / 1 Mile

Well Completion Date: 2-13-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 723

Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	102'
Fall River Sandstone	102'	238'
Fuson Shale	238'	300'
Lakota Sandstone	300'	423'

RECEIVED
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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Project (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR17 LB/FT	4 IN	0 FT	413 FT	6¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	66	15.2 lb./gal	0 ft.	413 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 10 FEET
Material PVC
Slot Size .020 Set From 423 Feet to 413 Feet
Other information Lil K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 4" K Packer
Describe packer(s) and location? Packer 403'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? NA

Laboratory sent to for water quality analysis
Belpre

STATIC WATER LEVEL 28.8 Feet
If flowing: closed in pressure ____ PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Air lift at 400'
☐ Bailed
☒ Other
Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS DEWEY Bu-Sock 11-14 C

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm Davis Drilling Inc
Signature of License Representative: Stan Davis
Signature of Well Owner or Equitable Property Holder: Power Tech
Date: 2/7/08

POWERTECH (USA) INC.

Hydro ID 685

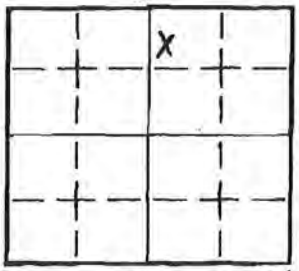
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NW ¼ NE ¼ Sec 32 Twp 6S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 2-4-08

Well Owner: Powertech

Business Name: Powertech USA Inc

Address: P.O. Box 723

Hot Springs SD 57747

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe: 0

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	4 IN	595 FT	580 FT	6 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	77	8.2 lb./gal	0 ft.	580 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 595 Feet to 580 Feet

Other information: Set K Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO

If so, what material? 4" K Packer

Describe packer(s) and location? Packer 570'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? NA

Laboratory sent to for water quality analysis: Reipes

WELL LOG: FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	473'
Fall River Sandstone	473'	595'

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STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 6 PSI

GPM flow 15 through 2 Inch pipe

Controlled by ☑ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift at 570'

☐ Bailed

☐ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock 32-4C

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm: Davis Drilling Inc

Signature of License Representative: Stan Davis

Signature of Well Owner or Equitable Property Holder: PowerTech

Date: 2/27/08

POWERTECH (USA) INC.

7S

Hydro ID 686

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 07-92

Location [redacted] ¼ [redacted] ¼ Sec [redacted] Twp 6S Rg 1E

County Fall River — NE SW 11 — North

Please mark well location with an "X"

W — E

1 Mile

Well Completion Date: 2-24-08

Well Owner: Power Tech

Business Name: Power-Tech USA Inc

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	120
[redacted] Fall River SS	120	255
Fuson Shale	255	315
Lakota Sand Stone	315	428

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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Presen (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	4 IN	0 FT	419 FT	6 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	70	15.7 lb./gal	0 ft.	418 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size .020 Set From 418 Feet to 428 Feet

Other information: Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 4" K Packer

Describe packer(s) and location? Packer 408'

DISINFECTION: Was well disinfected upon completion?

☐ YES, How: ____

☒ NO, Why Not? NA

Laboratory sent to for water quality analysis: RESPEC

STATIC WATER LEVEL 32.6 Feet

If flowing: closed in pressure ____ PSI

GPM flow ____ through ____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Airlift at 405'

☐ Bailed

☒ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock 7-11-15

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm: DAVIS Drilling Inc

Signature of License Representative: Stan Davis

Signature of Well Owner or Equitable Property Holder: PowerTech

Date: 3/5/08

POWERTECH (USA) INC.

Hydro ID 687

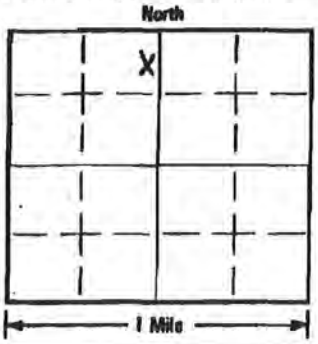
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ NW ¼ Sec 32 Twp 6S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date

2-6-08

Well Owner: Powertech

Business Name: Powertech USA Inc

Address: P.O. Box 723

Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	480'
Fall River Sandstone	480'	605'

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LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	4 IN	0 FT	590 FT	6 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	60	15.2 lb./gal	590 ft.	0 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 605 Feet to 590 Feet

Other information Sch K Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO

If so, what material? 4" K Packer

Describe packer(s) and location? Packer 580'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

✓ NO, Why Not? N/A

Laboratory sent to for water quality analysis

Rapid City

3-7-08

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 3 PSI

GPM flow 5 through 2 inch pipe

Controlled by ☑ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift at 580'

☐ Bailed

☒ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

REMARKS DEWEY Burdock 7-32-5

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm DAVIS Drilling INC

Signature of License Representative: Steve Davis

Signature of Well Owner or Equitable Property Holder: Powertech

Date: 2/27/08

POWERTECH (USA) INC.

Hydro ID 688 | 7S

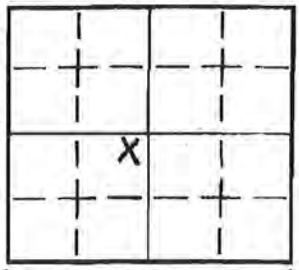
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ SW ¼ Sec 11 Twp 6S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date 4-1-08

Well Owner: Powe-Tech

Business Name: Powe-Tech USA Inc

Address: P.O. Box 723

Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek	0	128
Fall River	128	755

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE PRESENT (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud & Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	245 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CM1	45	15.3 lb./gal	0 ft.	245 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 10 FEET
Material PVC
Slot Size .020 Set From 245 Feet to 255 Feet
Other information: Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" x 3" K Packer
Describe packer(s) and location? Packer set at 235'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
X NO, Why Not? NA

Laboratory sent to for water quality analysis: Reipes

STATIC WATER LEVEL 39 Feet
If flowing: closed in pressure ____ PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Air lift at 230'
☐ Bailed
☐ Other

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Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS Dewey Burdock
8-11-17

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm: Davis Drilling
Signature of License Representative: Stan Davis
Signature of Well-Owner or Equitable Property Holder:
Date: 4/22/08

POWERTECH (USA) INC.

Hydro ID 689

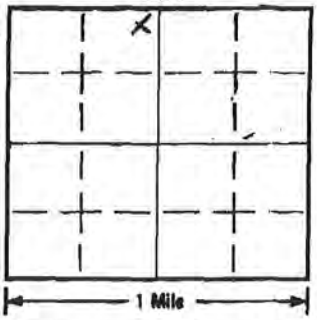
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ NW ¼ Sec 32 Twp 65 Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date: 3-11-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 727

Hot Springs S.D. 57747

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from None Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☑ Monitoring well

METHOD OF DRILLING: Mud & Rotary

CASING DATA: ☐ Steel ☑ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SR 17 LB/FT	6 IN	0 FT	715 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	86	15.2 lb./gal	0 ft.	715 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Pump

SCREEN: ☐ Perforated pipe ☑ Manufactured
Diameter 3 IN Length 15 FEET
Material PVC
Slot Size .020 Set From 730 Feet to 715 Feet
Other information: Sil k Packer

WAS A PACKER OR SEAL USED? ☐ YES ☐ NO
If so, what material? 6" k Packer
Describe packer(s) and location? Packer Set at 705'

DISINFECTION: Was well disinfected upon completion?
____ YES, How: ____
L NO, Why Not? NA

Laboratory sent to for water quality analysis: Pelpes

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	475
Fall River S.S	475	620
Fuson Shale	620	665
Lakota C.S	665	715

STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 23.5 PSI
GPM flow 45 through 2 inch pipe
Controlled by ☑ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Air lift at 700'
☐ Bailed
☑ Other
Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

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REMARKS
Dewey Burdock
8-32-10 → 7-32-10

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm: Davis Drilling Inc
Signature of License Representative: Shane Davis

Signature of Well-Owner or Equitable Property Holder: Powertech
Date: 3/18/08

POWERTECH (USA) INC.

7S

Hydro ID 690

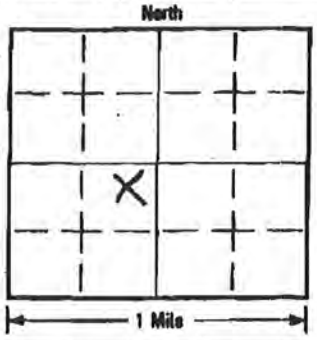
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ SW ¼ Sec 11 Twp 6S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date

4-15-08

Well Owner: Power Tech

Business Name: Power-Tech USA INC

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek	0	115
Fall River	115	245
Fuson	245	310
Lakota	310	455
Morrison	455	560
UNKPAPA	560	621

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud + Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
18 LB/FT	~~6~~ IN	0 FT	621 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Cmt	104	15.2 lb./gal	0 ft.	621 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure Pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3 IN Length 10 FEET

Material PVC

Slot Size .020 Set From 621 Feet to 631 Feet

Other information Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 6" X 3' K Packer

Describe packer(s) and location? Packer set at 611'

DISINFECTION: Was well disinfected upon completion?

____ YES. How: ____

X NO. Why Not? NA

Laboratory sent to for water quality analysis

Pump Test Report

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 41 PSI

GPM flow ¼ through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift 11 605'

☐ Bailed

☐ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

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REMARKS DEWEY Burdock

8-11-18

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm Davis Drilling

Signature of License Representative: Stan Davis

Signature of Well Owner or Equitable Property Holder: ____

Date: 5/5/08

POWERTECH (USA) INC.

Hydro ID 691

SOUTH DAKOTA WATER WELL COMPLETION REPORT

 07-92

Location NE ¼ NW ¼ Sec 32 Twp 6S Rg 1E

County Custer

Please mark well location with an "X"

North / W / E — 1 Mile

Well Completion Date 3-10-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 773 Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	TO
Skull Creek Shale	0	475
Fall River S.S	475	505

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from None Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
Mud Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	490 FT	8¾ IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	107	15.2 lb./gal	0 ft.	490 ft.
		lb./gal	ft.	ft.

Describe grouting procedure Pump

STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 6.5 PSI
GPM flow 6 through 2 inch pipe
Controlled by ☒ Valve ☐ Reducers ☐ Other
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Airlift at 475'
☐ Bailed
☒ Other

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

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SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 15 FEET
Material PVC
Slot Size .020 Set From 490 Feet to 505 Feet
Other information Set K Packer

REMARKS
DEWEY Burdock
8-32-9C

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" K Packer
Describe packer(s) and location? Packer set at 480'

DISINFECTION: Was well disinfected upon completion?
____ YES, How:
X NO, Why Not? NA

Laboratory sent to for water quality analysis
Respec

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm Davis Drilling Inc
Signature of License Representative: [signature]

Signature of Well Owner or Equitable Property Holder: PowerTech
Date: 3/7/08

3-1-08

POWERTECH (USA) INC.

7S

4-11-08

Hydro ID 692

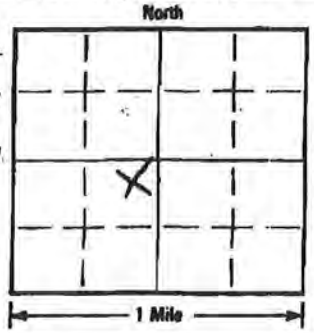
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ SW ¼ Sec 11 Twp 6S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date 4-16-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek	0	125
Fall River	125	250
Fuson	250	325
Lakota	325	335

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:
Mud & Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	325 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	58	15.2 lb./gal	0 ft.	325 ft.
		lb./gal	ft.	ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 10 FEET
Material PVC
Slot Size .020 Set From 325 Feet to 335 Feet
Other information SET K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" X 3" K Packer
Describe packer(s) and location? Packer Set at 315

DISINFECTION: Was well disinfected upon completion?
____ YES. How: ____
X NO. Why Not? NA

Laboratory sent to for water quality analysis
Respec

STATIC WATER LEVEL 39.6 Feet
If flowing: closed in pressure ____ PSI
GPM flow ____ through ____ inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Airlift at 310
☐ Bailed
☐ Other
Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS DEWEY Burdock
8-11-19

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm Davis Drilling
Signature of License Representative: [signature]

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Signature of Well Owner or Equitable Property Owner: [signature]
Date: 5/5/08

POWERTECH (USA) INC.

Hydro ID 693

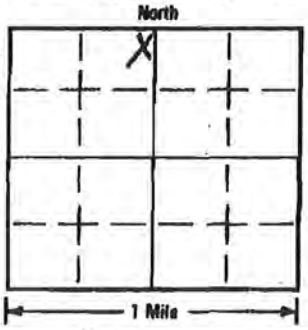
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NE ¼ NW ¼ Sec 32 Twp 6S Rg 1E

County CUSTER

Please mark well location with an "X"



Well Completion Date 3-8-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 723

Hot Springs S.D. 57747

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from None Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other
If other describe ____

PIPE WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
18 LB/FT	6 IN	0 FT	910 FT	8 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	219	15.7 lb./gal	0 ft.	910 ft.
		____ lb./gal	____ ft.	____ ft.

Describe grouting procedure Pump MUS cement

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 20 FEET
Material PVC
Slot Size .020 Set From 910 Feet to 930 Feet
Other information Set w Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" w Packer
Describe packer(s) and location? Packer set 890'

DISINFECTION: Was well disinfected upon completion?
☐ YES, How: ____
☒ NO, Why Not? N/A

Laboratory sent to for water quality analysis
Kespa

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Shull Creek Shale	0	475
Fall River S.S	475	620
Fuson Shale	620	670
Lakota S.S	670	765
Morrison Shale	765	865
UNKPAPA S.S	865	910

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STATIC WATER LEVEL 0 Feet
If flowing: closed in pressure 55 PSI
GPM flow 2 through 1 inch pipe
Controlled by ☑ Valve ☐ Reducers ☐ Other ____
Reduced Flowrate ____ GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped
☐ Bailed
☑ Other
Describe: Airlift at 845'

Pumping Level Below Land Surface
____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS
Dewey Burdock 8-32-11

This well was drilled under license # 745
And this report is true and accurate.
Drilling firm Davis Drilling Inc
Signature of License Representative: Stu Davis
Signature of Well Owner or Equitable Property Holder: PowerTech
Date: 3/18/08

POWERTECH (USA) INC.

Hydro ID 694

SOUTH DAKOTA WATER WELL COMPLETION REPORT

 07-92

Location NW ¼ NW ¼ Sec 15 Twp 7S Rg 1E

County Fall River

North

W | E

Please mark well location with an "X"

X

1 Mile

Well Completion Date 3-22-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 723 Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	295
Fall River S.S.	295	392

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud + Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	377 FT	8 3/4 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	59	15.2 lb./gal	0 ft	377 ft
		lb./gal	ft	ft

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 377 Feet to 392 Feet

Other information Set K Packer

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 7 PSI

GPM flow 2 through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift AT 360'
☐ Bailed
☐ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM
____ ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate ____ GPM

REMARKS DEWEY Burdock

8-15-3

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 6" x 4" K Packer 4" x 3" Bell

Describe packer(s) and location? Packer Set AT 367'

DISINFECTION: Was well disinfected upon completion?

____ YES, How:

X NO, Why Not? NA

Laboratory sent to for water quality analysis Kaspar

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm Davis Drilling

Signature of License Representative: [signature]

Signature of Well Owner or Equitable Property Holder: [signature]

Date: 4-1-08

POWERTECH (USA) INC.

SE — Hydro ID 695

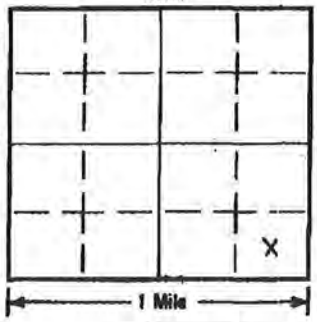
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 — 07-92

Location SW ¼ SE ¼ Sec. 32 Twp. 6S Rg. 1E

County: CUSTER

Please mark well location with an "X"



Well Completion Date: 3-20-08

Well Owner: Power Tech.

Business Name: Power Tech USA INC

Address: P.O. Box 723

Hot Springs SD 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	415
Fall River S.S	415	508

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from HOME Present (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: MUD & Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe: ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	493 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	106.4	15.1 lb./gal	0 ft.	493 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 493 Feet to 508 Feet

Other information: Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 6" x 4", K-Packer 4" X3" bell

Describe packer(s) and location? Packer Set at 488'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? N/A

Laboratory sent to for water quality analysis: Aberdeen

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 13 PSI

GPM flow 3 through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped ☐ Bailed ☐ Other

Describe: Air-lift AT 480'

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____

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REMARKS: Dewey Burdock

8-32-13

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm: Davis Drilling

Signature of License Representative: Stu Davis

Signature of Well Owner or Equitable Property Holder: [signature]

Date: 4-1-08

POWERTECH (USA) INC.

Hydro ID 696

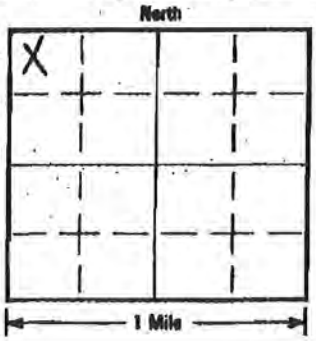
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NW¼ NW¼ Sec 15 Twp 7S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Data

3-21-08

Well Owner: Power Tech

Business Name: Power Tech USA Inc

Address: P.O. Box 723

Hot Springs S.D 57747

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE PRESENT (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Hole
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud & Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	572 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Cmt.	86	15.6 lb./gal	0 ft.	572 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 572 Feet to 587 Feet

Other information Set K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 6" X 4" K Packer 4" X 3" bell

Describe packer(s) and location? Packer set at 562'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? NA

Laboratory sent to for water quality analysis

Respec

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	295
Fall River S.S	295	425
Fuson Shale	425	475
Lakota	475	587

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 15 PSI

GPM flow 60 through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Airlift at 560

☐ Bailed

☐ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

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REMARKS Dewey Burdock

8-15-2

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm DAVIS Drilling

Signature of License Representative: Stan Davis

Signature of Well Owner or Equitable Property Holder:

Date: 4-1-08

POWERTECH (USA) INC.

4-2-08

SE Hydro ID 697

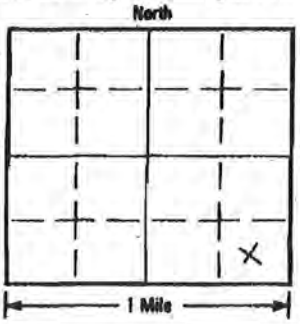
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location SW ¼ SE ¼ Sec 32 Twp 6S Rg 1E

County Custer

Please mark well location with an "X"



Well Completion Date 3-18-08

Well Owner: Power Tech

Business Name: Power Tech USA INC

Address: P.O. Box 723

Hot Springs SD 57747

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE Present (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud & Rotary

CASING DATA: ☐ Steel ☑ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 17 LB/FT	6 IN	0 FT	667 FT	8 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Gms	112	13.0 lb./gal	0 ft.	667 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Pump, Hand Mix, Gellyplug

SCREEN: ☐ Perforated pipe ☑ Manufactured

Diameter 3 IN Length 15 FEET

Material PVC

Slot Size .020 Set From 667 Feet to 682 Feet

Other information Set w Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO

If so, what material? 6" x 4" K Packer, 4" x 3" bell

Describe packer(s) and location? Packer Set at 657

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? NA

Laboratory sent to for water quality analysis: Rapid City

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	415
~~Fuson~~ Fall River	415	550
Fuson Shale	550	635
Lakota S.S.	635	682

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 40 PSI

GPM flow 30 through 2 inch pipe

Controlled by ☑ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Airlift at 650'

☐ Bailed

☐ Other

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

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WATER RIGHTS PROGRAM

REMARKS Dewey Burdock
8-32-12

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm Davis Drilling Inc

Signature of License Representative: Glo Davis

Signature of Well Owner or Equitable Property Holder: [signature]

Date: 4-1-08

POWERTECH (USA) INC.

Hydro ID 698

SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location SW ¼ NE ¼ Sec. 2 Twp. 7S Rg. 1E

County Fall River

Please mark well location with an "X"

Well Completion Date 3-25-08

Well Owner: Power Tech

Business Name: Power Tech USA INC.

Address: P.O. Box 723

Hot Springs S.D. 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek Shale	0	75
Fall River S.S.	75	205

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ____ ft. from NONE - Presidio (identify source).

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING: Mud & Rotary

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe ____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR 21 LB/FT	6 IN	0 FT	180 FT	8 3/4 IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Cmt	35	15.6 lb./gal	0 ft.	180 ft.
____	____	____ lb./gal	____ ft.	____ ft.

Describe grouting procedure pump

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3 IN Length 25 FEET

Material PVC

Slot Size .020 Set From 190 Feet to 205 Feet

Other information Sch K Packer

WAS A PACKER OR SEAL USED? ☑ YES ☐ NO

If so, what material? 6" x 3" K Packer

Describe packer(s) and location? Packer Set at 170'

DISINFECTION: Was well disinfected upon completion?

____ YES, How: ____

X NO, Why Not? N/A

Laboratory sent to for water quality analysis

Respec

5-1-08

STATIC WATER LEVEL 34.36 Feet

If flowing: closed in pressure ____ PSI

GPM flow ____ through ____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other ____

Reduced Flowrate ____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Pulled at 165'

☐ Bailed ____

☐ Other ____

Pumping Level Below Land Surface

____ ft. After ____ Hrs. pumped ____ GPM

____ ft. After ____ Hrs. pumped ____ GPM

If pump installed, pump rate ____ GPM

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WATER RIGHTS PROGRAM

REMARKS Dewey Burdock

8-2-1

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm DAVIS Drilling

Signature of License Representative: Steve Davis

Signature of Well Owner or Equitable Property Holder: ____

Date: 4/28/08

POWERTECH (USA) INC.

4/14-08

Hydro ID 703

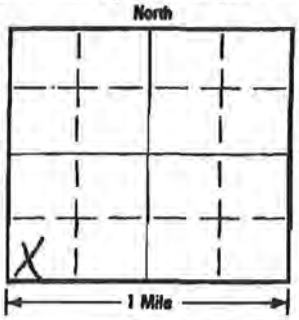
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location SW ¼ SW ¼ Sec 1 Twp 7S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date: 4-18-08

Well Owner: Power Tech

Business Name: Power-Tech USA Inc

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Fall River	0	100
Fuson	100	150
Lakota	150	305
Minnelusa	305	410
UNK PAPA	410	525

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 200 ft. from Septic Tank (identify source).

PROPOSED USE:
☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING: Mud & Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
18 LB/FT	6 IN	0 FT	475 FT	8¾ IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Cmt	82	15.3 lb./gal	0 ft.	475 ft.
		lb./gal	ft.	ft.

Describe grouting procedure: pump

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 3 IN Length 50 FEET
Material PVC
Slot Size .020 Set From 475 Feet to 525 Feet
Other information Slt K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO
If so, what material? 6" x 3" K Packer
Describe packer(s) and location? Packer Set At 465'

DISINFECTION: Was well disinfected upon completion?
YES, How:
X NO, Why Not? NA

Laboratory sent to for water quality analysis: Belpre

5-20-08

STATIC WATER LEVEL 110 Feet
If flowing: closed in pressure PSI
GPM flow through inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other
Reduced Flowrate GPM
Can well be completely shut in? Yes

WELL TEST DATA:
☐ Pumped Describe: Air lift at 410
☐ Bailed
☐ Other

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Pumping Level Below Land Surface
ft. After Hrs. pumped GPM
ft. After Hrs. pumped GPM
If pump installed, pump rate GPM

REMARKS DEWEY Burdock

8-1-7

This well was drilled under license # 746
And this report is true and accurate.
Drilling firm Davis Drilling Inc
Signature of License Representative: Steve Davis

Signature of Well Owner or Equitable Property Holder:

Date: 5/5/08

POWERTECH (USA) INC.

Hydro ID 704 Unkpapa

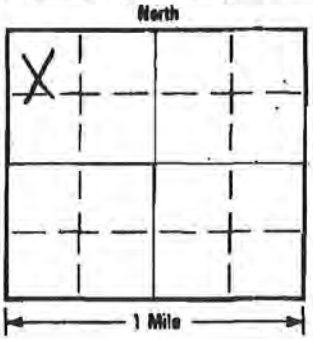
SOUTH DAKOTA WATER WELL COMPLETION REPORT

1 of 1 07-92

Location NW ¼ NW ¼ Sec 5 Twp 7S Rg 1E

County Fall River

Please mark well location with an "X"



Well Completion Date: 4-29-08

Well Owner: Power Tech

Business Name: Power Tech USA INC

Address: P.O. Box 723

Hot Springs S.D 57747

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Skull Creek	0	455
Fall River	455	600
Fuson	600	655
Lakota	655	735
Morrison	735	890
UNK PAPA	890	955

LOCATION:
Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from NONE PRESENT (identify source).

PROPOSED USE:
☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING: MUD & Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
14 LB/FT	6 IN	0 FT	915 FT	8¾ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
CMT	2003	153 lb./gal	0 ft.	915 ft.
		____ lb./gal	____ ft.	____ ft.

Describe grouting procedure: Mtd Cementing

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 3" IN Length 40 FEET

Material PVC

Slot Size .020 Set From 915 Feet to 955 Feet

Other information Slot K Packer

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? 3' 16" K Packer

Describe packer(s) and location? Packer Set 905

DISINFECTION: Was well disinfected upon completion?

☐ YES, How: _____

☒ NO, Why Not? NA

Laboratory sent to for water quality analysis: Respec

STATIC WATER LEVEL 0 Feet

If flowing: closed in pressure 42 PSI

GPM flow ½ through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? Yes

WELL TEST DATA:

☐ Pumped Describe: Air lift at 900'

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ ft. _____ hrs. pumped _____ GPM

_____ ft. _____ hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

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RECEIVED MAY 20 2008 WATER RIGHTS PROGRAM

REMARKS DEWEY Burdock

6-5-1

This well was drilled under license # 745

And this report is true and accurate.

Drilling firm DAVIS Drilling Inc

Signature of License Representative: Steve Davis

Signature of Well Owner or Equitable Property Holder: _____

Date: 5/08