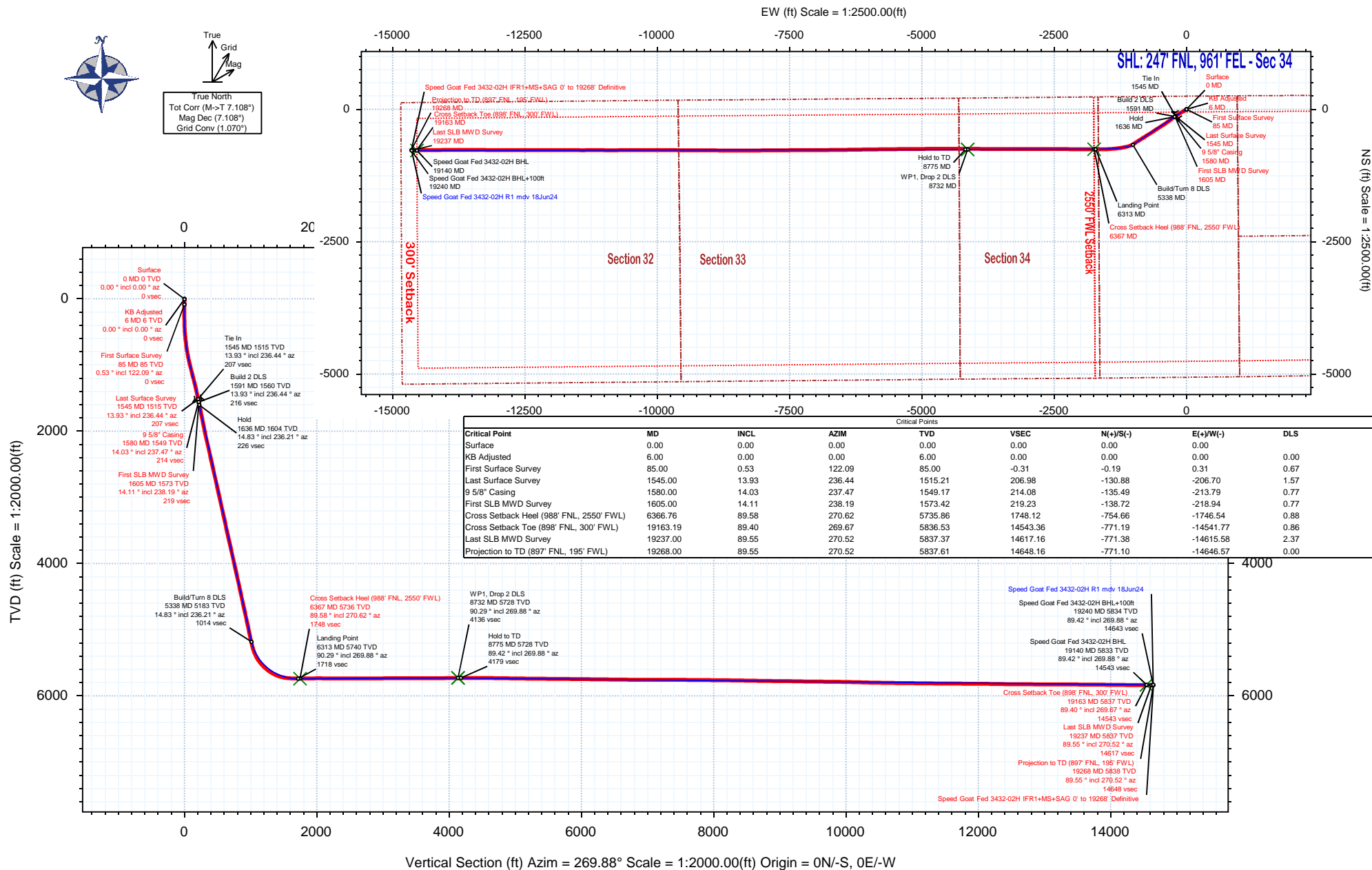


Borehole: Speed Goat Fed 3432-02H	Well: Speed Goat Fed 3432-02H	Field: CO, Weld County (NAD 83 NZ) - 2019	Structure: Verdad Resources 34-09N-58W (Speed Goat 3432-3435 Pad)
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Gravity & Magnetic Parameters				Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet				Miscellaneous			
Model: HDGM 2024	Dip: 66.844°	Date: 18-Jul-2024		Lat: N 40 42 51.48	Northing: 1507351.34ftUS	Grid Conv: 1.0701°		Slot: Speed Goat Fed 3432-02H	TVD Ref: RKB = 21ft(4743ft above Mean Sea Level)		
MagDec: 7.108°	FS: 51802.374nT	Gravity FS: 999.096mg (9.80665 Based)		Lon: W 103 50 37.65	Easting: 3459105.77ftUS	Scale Fact: 0.99998953		Plan: Speed Goat Fed 3432-02H IFR1+MS+SAG 0' to 19268' Definitive			





Speed Goat Fed 3432-02H IFR1+MS+SAG 0' to 19268' Definitive Survey

Geodetic Report

(Def Survey)



Report Date: July 29, 2024 - 08:18 AM
Client: Verdad Resources
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Verdad Resources 34-09N-58W (Speed Goat 3432-3435 Pad) / Speed Goat Fed 3432-02H
Well: Speed Goat Fed 3432-02H
Borehole: Speed Goat Fed 3432-02H
UWI / API#: Unknown / 05-123-52501
Survey Name: Speed Goat Fed 3432-02H IFR1+MS+SAG 0' to 19268' Definitive
Survey Date: May 08, 2024
Tort / AHD / DDI / ERD Ratio: 218.750 ° / 14861.463 ft / 7.031 / 2.546
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 42' 51.48364", W 103° 50' 37.65120"
Location Grid N/E Y/X: N 1507351.340 ftUS, E 3459105.770 ftUS
CRS Grid Convergence Angle: 1.0701 °
Grid Scale Factor: 0.99998953
Version / Patch: 2.10.836.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 269.880 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 21ft
TVD Reference Elevation: 4743.000 ft above Mean Sea Level
Seabed / Ground Elevation: 4722.000 ft above Mean Sea Level
Magnetic Declination: 7.108 °
Total Gravity Field Strength: 999.0960mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51802.374 nT
Magnetic Dip Angle: 66.844 °
Declination Date: July 18, 2024
Magnetic Declination Model: HDGM 2024
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 7.1076 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1507351.34	3459105.77	40.714301	-103.843792
KB Adjusted	6.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00	1507351.34	3459105.77	40.714301	-103.843792
First Surface Survey	85.00	0.53	122.09	85.00	-0.31	-0.19	0.31	0.67	1507351.15	3459106.08	40.714300	-103.843791
	176.00	0.48	43.52	176.00	-0.93	-0.14	0.93	0.70	1507351.22	3459106.70	40.714301	-103.843789
	267.00	0.70	330.13	266.99	-0.92	0.62	0.91	0.80	1507351.97	3459106.67	40.714303	-103.843789
	358.00	1.01	267.46	357.98	0.16	1.06	-0.16	1.02	1507352.40	3459105.59	40.714304	-103.843793
	448.00	3.60	231.16	447.91	3.16	-0.74	-3.16	3.17	1507350.54	3459102.63	40.714299	-103.843803
	537.00	5.58	239.60	536.62	9.08	-4.69	-9.07	2.34	1507346.49	3459096.79	40.714288	-103.843825
	627.00	7.95	233.80	625.99	17.89	-10.58	-17.86	2.74	1507340.43	3459088.11	40.714272	-103.843856
	716.00	9.62	235.47	713.94	29.00	-18.43	-28.96	1.90	1507332.37	3459077.16	40.714250	-103.843896
	806.00	11.07	237.40	802.47	42.49	-27.35	-42.43	1.66	1507323.21	3459063.86	40.714226	-103.843945
	895.00	13.18	241.10	889.48	58.59	-36.85	-58.52	2.53	1507313.40	3459047.95	40.714200	-103.844003
	984.00	15.69	241.01	975.67	78.03	-47.59	-77.93	2.82	1507302.30	3459028.74	40.714170	-103.844073
	1074.00	16.39	238.46	1062.16	99.52	-60.13	-99.40	1.10	1507289.36	3459007.52	40.714136	-103.844151
	1163.00	16.79	235.65	1147.46	120.87	-73.95	-120.71	1.01	1507275.14	3458986.46	40.714098	-103.844227
	1253.00	17.18	238.99	1233.54	143.02	-88.14	-142.84	1.17	1507260.55	3458964.61	40.714059	-103.844307
	1342.00	15.56	236.00	1318.93	164.21	-101.59	-164.00	2.05	1507246.71	3458943.70	40.714022	-103.844384
	1431.00	14.85	235.21	1404.81	183.50	-114.77	-183.26	0.83	1507233.17	3458924.69	40.713986	-103.844453
	1521.00	14.24	235.56	1491.93	202.13	-127.61	-201.86	0.68	1507219.99	3458906.33	40.713951	-103.844520
Last Surface Survey	1545.00	13.93	236.44	1515.21	206.98	-130.88	-206.70	1.57	1507216.63	3458901.55	40.713942	-103.844538
9 5/8" Casing	1580.00	14.03	237.47	1549.17	214.08	-135.49	-213.79	0.77	1507211.89	3458894.55	40.713929	-103.844563
First SLB MWD Survey	1605.00	14.11	238.19	1573.42	219.23	-138.72	-218.94	0.77	1507208.55	3458889.46	40.713920	-103.844582
	1694.00	13.95	237.66	1659.76	237.54	-150.18	-237.22	0.23	1507196.76	3458871.40	40.713899	-103.844648
	1784.00	13.85	233.28	1747.13	255.36	-162.42	-255.02	1.17	1507184.18	3458853.83	40.713855	-103.844712
	1874.00	14.58	231.37	1834.38	272.87	-175.94	-272.51	0.96	1507170.35	3458836.60	40.713818	-103.844775
	1963.00	14.56	231.87	1920.51	290.45	-189.84	-290.06	0.14	1507156.12	3458819.31	40.713780	-103.844838
	2053.00	14.41	231.97	2007.65	308.20	-203.72	-307.78	0.17	1507141.91	3458801.86	40.713742	-103.844902
	2142.00	15.38	232.60	2093.66	326.33	-217.71	-325.88	1.10	1507127.58	3458784.02	40.713703	-103.844967
	2232.00	15.54	235.43	2180.41	345.77	-231.80	-345.28	0.86	1507113.13	3458764.88	40.713665	-103.845038
	2322.00	15.74	235.33	2267.07	365.77	-245.59	-365.25	0.22	1507098.98	3458745.17	40.713627	-103.845110
	2411.00	15.74	233.96	2352.74	385.48	-259.56	-384.94	0.42	1507084.64	3458725.75	40.713589	-103.845181
	2500.00	15.36	236.10	2438.48	405.06	-273.23	-404.49	0.77	1507070.60	3458706.46	40.713551	-103.845251
	2590.00	14.54	235.52	2525.43	424.29	-286.28	-423.69	0.93	1507057.20	3458687.50	40.713515	-103.845320
	2679.00	14.64	236.16	2611.56	442.87	-298.87	-442.24	0.21	1507044.27	3458669.19	40.713481	-103.845387
	2769.00	15.58	238.40	2698.45	462.64	-311.53	-461.99	1.23	1507031.24	3458649.69	40.713446	-103.845458
	2859.00	14.93	236.88	2785.28	482.67	-324.20	-481.99	0.85	1507018.20	3458629.92	40.713411	-103.845531
	2948.00	14.50	237.80	2871.36	501.72	-336.40	-501.02	0.55	1507005.64	3458611.13	40.713378	-103.845599
	3038.00	15.04	238.06	2958.39	521.19	-348.58	-520.46	0.60	1506993.10	3458591.91	40.713344	-103.845669
	3127.00	14.50	237.59	3044.44	540.42	-360.67	-539.67	0.62	1506980.66	3458572.94	40.713311	-103.845739
	3217.00	15.03	237.23	3131.47	559.78	-373.02	-559.00	0.60	1506967.95	3458553.85	40.713277	-103.845808
	3307.00	14.73	237.18	3218.45	579.23	-385.54	-578.42	0.33	1506955.07	3458534.66	40.713243	-103.845878
	3396.00	14.98	236.86	3304.48	598.40	-397.96	-597.56	0.30	1506942.29	3458515.75	40.713209	-103.845947
	3486.00	14.61	233.75	3391.50	617.32	-411.03	-616.46	0.97	1506928.87	3458497.10	40.713173	-103.846016
	3575.00	14.46	234.94	3477.65	635.49	-424.05	-634.60	0.38	1506915.52	3458479.20	40.713137	-103.846081
	3665.00	14.98	237.59	3564.70	654.54	-436.74	-653.62	0.95	1506902.47	3458460.43	40.713102	-103.846150
	3755.00	14.99	238.44	3651.63	674.30	-449.07	-673.36	0.24	1506889.78	3458440.92	40.713068	-103.846221
	3844.00	14.66	239.70	3737.67	693.86	-460.77	-692.89	0.52	1506877.71	3458421.61	40.713036	-103.846291
	3934.00	14.94	237.90	3824.69	713.54	-472.68	-712.55	0.60	1506865.44	3458402.18	40.713004	-103.846362
	4023.00	14.90	238.34	3910.69	733.02	-484.79	-732.01	0.13	1506852.97	3458382.95	40.712970	-103.846432
	4113.00	14.72	237.49	3997.70	752.54	-497.00	-751.50	0.31	1506840.39	3458363.69	40.712937	-103.846503
	4202.00	14.74	236.27	4083.77	771.52	-509.37	-770.45	0.35	1506827.68	3458344.97	40.712903	-103.846571
	4292.00	14.42	236.56	4170.87	790.42	-521.90	-789.33	0.36	1506814.79	3458326.34	40.712868	-103.846639
	4381.00	14.72	238.88	4257.01	809.37	-533.85	-808.25	0.74	1506802.49	3458307.64	40.712836	-103.846707
	4471.00	14.66	237.75	4344.07	828.82	-545.84	-827.68	0.33	1506790.15	3458288.44	40.712803	-103.846778
	4560.00	14.31	238.16	4430.24	847.71	-557.65	-846.54	0.41	1506777.98	3458269.80	40.712770	-103.846846
	4649.00	14.06	239.58	4516.53	866.40	-568.93	-865.21	0.48	1506766.36	3458251.55	40.712739	-103.846913
	4738.00	14.84	238.19	4602.71	885.43	-580.41	-884.22	0.96	1506754.53	3458232.56	40.712708	-103.846981
	4828.00	14.46	238.97	4689.79	904.88	-592.28	-903.64	0.48	1506742.30	3458213.36	40.712675	-103.847052
	4917.00	14.36	235.26	4775.99	923.50	-604.29	-922.23	1.04	1506729.93	3458194.99	40.712642	-103.847119
	5007.00	14.67	236.17	4863.11	942.16	-617.00	-940.87	0.43	1506716.88	3458176.60	40.712607	-103.847186
	5096.00	13.77	236.52	4949.39	960.98	-629.12	-959.07	1.02	1506704.43	3458158.63	40.712574	-103.847251
	5185.00	13.95	235.96	5035.80	978.13	-640.96	-976.79	0.25	1506692.25	3458141.13	40.712542	-103.847315
	5275.00	14.36	236.13	5123.06	996.41	-653.26	-995.05	0.46	1506679.62	3458123.11	40.712508	-103.847381
	5365.00	15.80	238.70	5209.96	1016.18	-665.84	-1014.79	1.76	1506666.67	3458103.61	40.712473	-103.847452
	5454.00	18.25	244.94	5295.06	1039.19	-678.04	-1037.77	3.43	1506654.04	3458080.86	40.712440	-103.847535
	5544.00	25.98	251.78	5378.39	1070.75	-690.20	-1069.31	9.04	1506641.30	3458049.55	40.712407	-103.847649
	5633.00	34.16	255.32	5455.35	1113.54	-702.65	-1112.07	9.40	1506628.06	3458007.03	40.712372	-103.847803
	5723.00	42.69	257.59	5525.80	1167.92	-715.63	-1166.42	9.61	1506614.06	3457952.93	40.712337	-103.847999
	5812.00	48.98	260.16	5587.78	1230.56	-727.87	-1229.04	7.36	1506600.66	3457890.56	40.712303	-103.848225
	5902.00	57.08	263.34	5641.87	1301.68	-738.07	-1300.14	9.43	1506589.13	3457819.66	40.712275	-103.848482
	5992.00	66.18	265.53	5684.60	1380.43	-745.67	-1378.87	10.33	1506580.05	3457774.08	40.712254	-103.848766
	6081.00	75.71	266.74	5713.62	1464.28	-751.31	-1462.71	10.78	1506572.85	3457657.37	40.712239	-103.849068
	6171											

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Cross Setback												
Heel (98' FNL, 2550' FWL)	6366.76	89.58	270.62	5735.86	1748.12	-754.66	-1746.54	0.88	1506564.21	3457373.65	40.712229	-103.850092
6439.00	90.04	271.06	5736.10	1820.35	-753.60	-1818.77	0.88	1506563.92	3457301.41	40.712232	-103.850352	
6529.00	90.64	269.92	5735.57	1910.34	-752.83	-1908.77	1.43	1506563.01	3457211.42	40.712234	-103.850677	
6618.00	90.58	270.00	5734.62	1999.33	-752.89	-1997.76	0.11	1506561.28	3457122.44	40.712234	-103.850988	
6708.00	89.14	269.78	5734.84	2089.33	-753.06	-2087.76	1.62	1506559.43	3457032.47	40.712234	-103.851323	
6798.00	90.41	270.58	5735.20	2179.33	-752.78	-2177.76	1.67	1506558.03	3456942.48	40.712235	-103.851647	
6887.00	90.12	269.96	5734.78	2268.32	-752.36	-2266.75	0.77	1506556.79	3456853.49	40.712236	-103.851968	
6977.00	89.89	270.77	5734.78	2358.32	-751.79	-2356.75	0.94	1506555.68	3456763.50	40.712237	-103.852293	
7066.00	89.17	269.41	5735.51	2447.31	-751.65	-2445.74	1.73	1506554.16	3456674.52	40.712238	-103.852614	
7156.00	89.80	269.90	5736.32	2537.31	-752.19	-2535.74	0.89	1506551.93	3456584.54	40.712236	-103.852939	
7246.00	89.81	270.37	5736.62	2627.31	-751.98	-2625.74	0.52	1506550.47	3456494.57	40.712237	-103.853263	
7425.00	90.55	270.32	5736.06	2806.30	-750.90	-2804.73	0.41	1506548.20	3456315.59	40.712240	-103.853909	
7514.00	90.38	270.34	5735.34	2895.29	-750.39	-2893.73	0.19	1506547.05	3456226.60	40.712241	-103.854230	
7604.00	90.32	270.15	5734.79	2985.29	-750.00	-2983.72	0.22	1506545.75	3456136.61	40.712242	-103.854555	
7694.00	90.24	270.26	5734.35	3075.29	-749.68	-3073.72	0.15	1506544.40	3456046.62	40.712243	-103.854879	
7783.00	89.89	269.99	5734.25	3164.29	-749.49	-3162.72	0.50	1506542.93	3455957.64	40.712243	-103.855200	
7873.00	90.25	270.00	5734.14	3254.28	-749.49	-3252.72	0.40	1506541.24	3455867.65	40.712243	-103.855525	
7962.00	90.22	269.97	5733.77	3343.28	-749.52	-3341.72	0.05	1506539.55	3455778.67	40.712243	-103.855846	
8052.00	90.20	270.11	5733.44	3433.28	-749.45	-3431.72	0.16	1506537.94	3455688.69	40.712243	-103.856171	
8141.00	90.03	270.03	5733.26	3522.28	-749.34	-3520.72	0.21	1506536.38	3455599.70	40.712244	-103.856492	
8231.00	90.26	270.26	5733.04	3612.28	-749.12	-3610.72	0.36	1506534.93	3455509.72	40.712244	-103.856816	
8320.00	90.20	270.14	5732.68	3701.28	-748.81	-3699.72	0.15	1506533.58	3455420.73	40.712245	-103.857137	
8410.00	90.23	269.99	5732.34	3791.28	-748.70	-3789.72	0.17	1506532.00	3455330.74	40.712245	-103.857462	
8500.00	90.48	270.39	5731.78	3881.27	-748.41	-3879.72	0.52	1506530.62	3455240.76	40.712246	-103.857787	
8589.00	90.27	270.43	5731.20	3970.27	-747.77	-3968.71	0.24	1506529.59	3455151.77	40.712248	-103.858108	
8679.00	90.50	270.27	5730.60	4060.26	-747.22	-4058.71	0.31	1506528.46	3455061.78	40.712249	-103.858432	
8768.00	90.55	270.41	5729.78	4149.26	-746.69	-4147.70	0.17	1506527.33	3454972.79	40.712251	-103.858753	
8847.00	89.58	269.85	5729.58	4238.25	-746.29	-4237.70	0.63	1506524.39	3454793.82	40.712252	-103.859099	
9036.00	90.31	269.57	5729.66	4417.25	-745.96	-4415.70	1.15	1506523.05	3454704.83	40.712252	-103.859720	
9126.00	89.75	269.67	5729.61	4507.25	-745.77	-4505.70	1.18	1506521.56	3454614.84	40.712253	-103.860044	
9215.00	89.24	269.45	5730.40	4596.24	-746.45	-4594.69	0.62	1506519.22	3454525.85	40.712251	-103.860366	
9305.00	89.09	269.10	5731.71	4686.23	-747.59	-4684.67	0.42	1506516.40	3454435.94	40.712248	-103.860690	
9394.00	89.48	270.53	5732.82	4775.22	-747.88	-4773.66	1.67	1506514.45	3454346.97	40.712247	-103.861011	
9484.00	89.11	269.76	5733.93	4865.21	-747.65	-4863.65	0.95	1506512.99	3454256.99	40.712248	-103.861336	
9573.00	89.07	269.14	5735.34	4954.20	-748.51	-4952.64	0.70	1506510.48	3454168.04	40.712245	-103.861657	
9662.00	89.13	269.32	5736.74	5043.18	-749.70	-5041.62	0.21	1506507.62	3454079.09	40.712242	-103.861978	
9752.00	89.48	269.65	5737.83	5133.17	-750.51	-5131.61	0.53	1506505.13	3453989.14	40.712240	-103.862302	
9842.00	90.03	270.11	5738.22	5223.17	-750.70	-5221.61	0.80	1506503.26	3453899.16	40.712239	-103.862627	
9931.00	89.28	269.41	5738.75	5312.17	-751.07	-5310.60	1.15	1506501.23	3453810.19	40.712238	-103.862948	
10021.00	88.95	269.50	5740.14	5402.15	-751.93	-5400.59	0.38	1506498.69	3453720.23	40.712236	-103.863272	
10110.00	89.18	269.71	5741.60	5491.14	-752.54	-5489.57	0.35	1506496.42	3453631.23	40.712234	-103.863593	
10200.00	89.00	269.00	5743.02	5581.12	-753.55	-5579.56	0.81	1506493.72	3453541.33	40.712231	-103.863918	
10289.00	90.00	269.64	5743.80	5670.11	-754.61	-5668.55	1.33	1506491.00	3453452.38	40.712228	-103.864239	
10379.00	89.51	269.22	5744.19	5760.11	-755.51	-5758.54	0.72	1506488.43	3453362.42	40.712225	-103.864564	
10468.00	89.55	268.99	5744.92	5849.10	-756.90	-5847.53	0.26	1506485.38	3453273.47	40.712222	-103.864885	
10558.00	89.34	269.21	5745.79	5939.09	-758.31	-5937.53	0.34	1506482.28	3453183.53	40.712218	-103.865209	
10647.00	89.21	269.11	5746.91	6028.07	-759.61	-6026.49	0.18	1506479.32	3453094.59	40.712214	-103.865530	
10737.00	89.63	269.52	5747.83	6118.06	-760.69	-6116.48	0.65	1506476.56	3453004.64	40.712211	-103.865855	
10826.00	89.01	268.90	5748.88	6207.05	-761.92	-6205.47	0.99	1506473.67	3452915.69	40.712208	-103.866176	
10916.00	89.59	269.23	5749.98	6297.03	-763.39	-6295.45	0.74	1506470.52	3452825.76	40.712203	-103.866500	
11005.00	89.21	268.80	5750.91	6386.02	-764.92	-6384.43	0.64	1506467.33	3452736.82	40.712199	-103.866821	
11094.00	89.41	268.75	5751.98	6474.99	-766.82	-6473.40	0.23	1506463.77	3452647.90	40.712194	-103.867142	
11184.00	89.29	269.51	5753.01	6564.98	-768.18	-6563.39	0.85	1506460.72	3452557.96	40.712190	-103.867467	
11274.00	89.23	270.13	5754.17	6654.97	-768.47	-6653.38	0.69	1506458.76	3452467.99	40.712189	-103.867791	
11363.00	89.71	269.33	5754.99	6743.97	-768.89	-6742.37	1.05	1506456.68	3452379.02	40.712188	-103.868112	
11452.00	89.31	269.60	5755.75	6832.96	-769.72	-6831.36	0.54	1506454.18	3452290.06	40.712186	-103.868433	
11542.00	89.38	269.70	5756.78	6922.95	-770.27	-6921.36	0.14	1506451.95	3452200.09	40.712184	-103.868758	
11632.00	89.48	269.42	5757.68	7012.95	-770.96	-7011.35	0.33	1506449.58	3452110.13	40.712182	-103.869083	
11721.00	90.32	269.80	5757.83	7102.95	-771.56	-7100.35	1.04	1506447.31	3452021.16	40.712180	-103.869404	
11810.00	90.28	270.07	5757.37	7192.95	-771.67	-7189.34	0.31	1506445.55	3451932.18	40.712180	-103.869725	
11900.00	89.84	269.80	5757.27	7282.94	-771.77	-7279.34	0.57	1506443.77	3451842.20	40.712180	-103.870049	
11989.00	90.44	269.47	5757.05	7369.94	-772.33	-7368.34	0.77	1506441.54	3451753.23	40.712178	-103.870370	
12079.00	89.75	269.70	5756.91	7459.94	-772.99	-7458.34	0.81	1506439.21	3451663.26	40.712176	-103.870695	
12168.00	89.34	269.37	5757.61	7549.94	-773.71	-7547.33	0.59	1506436.82	3451574.30	40.712174	-103.871016	
12258.00	89.92	269.89	5758.19	7639.93	-774.29	-7637.33	0.87	1506434.56	3451484.33	40.712173	-103.871341	
12348.00	89.45	270.02	5758.69	7729.93	-774.76	-7727.33	0.54	1506432.81	3451394.35	40.712172	-103.871665	
12437.00	89.21	269.31	5759.73	7819.92	-774.88	-7816.32	0.84	1506430.63	3451305.38	40.712171	-103.871986	
12527.00	89.51	269.92	5760.73	7909.92	-775.49	-7906.31	0.76	1506428.34	3451215.42	40.712169	-103.872311	
12616.00	89.24	268.69	5761.70	7999.91	-776.56	-7995.30	1.41	1506425.60	3451126.47	40.712166	-103.872632	
12706.00	88.92	269.78	5763.15	8089.89	-777.77	-8085.28	1.26	1506422.72	3451036.53	40.712163	-103.872956	
12795.00	89.87	269.91	5764.09	8179.88	-778.01	-8174.27	1.08	1506420.82	3450947.56	40.712162	-103.873277	
12885.00	89.38	269.96	5764.68	8269.88	-778.11	-8264.27	0.55	1506419.03	3450857.57	40.712161	-103.873602	
12974.00	88.87	269.91	5766.04	8359.87	-778.21	-8353.26	0.58	1506417.27	3450768.61	40.712161	-103.873923	
13064.00	88.67	269.49	5767.97	8449.85	-778.68	-8443.23	0.52	1506415.12	3450678.66	40.712160	-103.874248	
13154.00	88.88	270.33	5769.89	8539.82	-778.82	-8533.21	0.96	1506413.30	3450588.70	40.712159	-103.874572	
13243.00	89.60	270.85	5771.07	8629.81	-777.91	-8622.20	1.00	1506412.55	3450499.71	40.712162	-103.874893	
13333.00	88.69	269.37	5772.42	8719.79	-777.73	-8712.19	1.93	1506411.04	3450409.74	40.712162	-103.875218	
13422.00	89.28	270.34	5773.99	8809.78	-777.96	-8801.17	1.28	1506409.16	3450320.77	40.712161	-103.875539	
13512.00	89.59	270.70	5774.88	8899.77	-777.14	-8891.16	0.53	150				

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	16057.00	89.54	270.28	5812.16	11437.38	-773.40	-11435.79	0.83	1506364.51	3447686.56	40.712171	-103.885042
	16147.00	89.51	270.09	5812.91	11527.38	-773.11	-11525.79	0.21	1506363.12	3447596.58	40.712172	-103.885367
	16236.00	90.02	270.76	5813.27	11616.37	-772.45	-11614.78	0.95	1506362.12	3447507.58	40.712173	-103.885688
	16326.00	89.21	269.40	5813.88	11706.37	-772.32	-11704.78	1.76	1506360.57	3447417.60	40.712174	-103.886012
	16416.00	89.27	269.97	5815.07	11796.36	-772.81	-11794.77	0.64	1506358.39	3447327.64	40.712172	-103.886337
	16505.00	90.14	270.52	5815.53	11885.36	-772.43	-11883.76	1.16	1506357.11	3447238.65	40.712173	-103.886658
	16595.00	89.09	269.99	5816.13	11975.35	-772.03	-11973.76	1.31	1506355.83	3447148.67	40.712174	-103.886983
	16684.00	90.03	270.26	5816.82	12064.35	-771.84	-12062.76	1.10	1506354.36	3447059.68	40.712174	-103.887304
	16774.00	88.90	270.22	5817.66	12154.34	-771.46	-12152.75	1.26	1506353.06	3446969.70	40.712175	-103.887628
	16863.00	89.09	269.46	5819.22	12243.32	-771.71	-12241.74	0.88	1506351.15	3446880.73	40.712174	-103.887949
	17042.00	89.35	269.78	5821.65	12422.31	-772.90	-12420.71	0.23	1506346.62	3446701.81	40.712171	-103.888595
	17132.00	89.08	269.79	5822.89	12512.30	-773.24	-12510.71	0.30	1506344.60	3446611.84	40.712170	-103.888919
	17221.00	89.72	270.32	5823.82	12601.29	-773.15	-12599.70	0.93	1506343.02	3446522.86	40.712170	-103.889240
	17311.00	89.89	270.47	5824.12	12691.29	-772.53	-12689.70	0.25	1506341.96	3446432.87	40.712172	-103.889565
	17400.00	89.73	270.69	5824.42	12780.28	-771.63	-12778.69	0.31	1506341.20	3446343.88	40.712174	-103.889886
	17490.00	89.25	269.62	5825.22	12870.27	-771.39	-12868.69	1.30	1506339.76	3446253.89	40.712175	-103.890211
	17580.00	89.94	270.11	5825.86	12960.27	-771.60	-12958.68	0.94	1506337.87	3446163.92	40.712174	-103.890535
	17669.00	90.08	270.80	5825.84	13049.27	-770.89	-13047.68	0.79	1506336.92	3446074.93	40.712176	-103.890859
	17759.00	89.34	270.29	5826.30	13139.26	-770.03	-13137.67	1.00	1506336.09	3445984.93	40.712178	-103.891181
	17848.00	90.21	270.74	5826.65	13228.25	-769.23	-13226.67	1.10	1506335.23	3445895.94	40.712180	-103.891502
	17938.00	89.53	270.18	5826.85	13318.24	-768.51	-13316.66	0.98	1506334.27	3445806.95	40.712182	-103.891827
	18027.00	89.81	270.46	5827.36	13407.24	-768.01	-13405.66	0.44	1506333.10	3445716.96	40.712183	-103.892148
	18117.00	89.51	270.40	5827.90	13497.23	-767.34	-13495.66	0.34	1506332.10	3445626.97	40.712185	-103.892472
	18206.00	88.91	270.28	5829.12	13586.22	-766.81	-13584.65	0.69	1506330.97	3445537.98	40.712186	-103.892793
	18296.00	90.03	270.60	5829.96	13676.21	-766.12	-13674.64	1.29	1506329.98	3445448.00	40.712188	-103.893118
	18386.00	89.51	269.53	5830.32	13766.21	-766.02	-13764.64	1.32	1506328.40	3445358.01	40.712188	-103.893442
	18475.00	89.63	269.69	5830.99	13855.21	-766.62	-13853.63	0.22	1506326.13	3445269.03	40.712186	-103.893763
	18565.00	89.59	269.43	5831.60	13945.20	-767.32	-13943.63	0.29	1506323.76	3445179.08	40.712184	-103.894088
	18654.00	89.04	268.99	5832.66	14034.19	-768.54	-14032.61	0.79	1506320.87	3445090.13	40.712181	-103.894409
	18744.00	89.75	269.56	5833.61	14124.18	-769.68	-14122.60	1.01	1506318.05	3445000.19	40.712177	-103.894734
	18833.00	89.13	269.87	5834.48	14213.17	-770.12	-14211.59	0.78	1506315.94	3444911.22	40.712176	-103.895055
	18923.00	89.87	269.70	5835.27	14303.17	-770.46	-14301.59	0.84	1506313.93	3444821.24	40.712175	-103.895379
	19013.00	89.63	269.79	5835.66	14393.17	-770.86	-14391.59	0.28	1506311.85	3444731.27	40.712174	-103.895704
	19102.00	89.80	270.01	5836.10	14482.17	-771.02	-14480.58	0.31	1506310.03	3444642.29	40.712173	-103.896025
Cross Setback Toe (898' FNL, 300' FWL)	19163.19	89.40	269.67	5836.53	14543.36	-771.19	-14541.77	0.86	1506308.71	3444581.12	40.712172	-103.896246
	19192.00	89.21	269.51	5836.88	14572.16	-771.39	-14570.58	0.86	1506307.97	3444552.32	40.712172	-103.896349
Last SLB MWD Survey Projection to TD (897' FNL, 195' FWL)	19237.00	89.55	270.52	5837.37	14617.16	-771.38	-14615.58	2.37	1506307.14	3444507.33	40.712172	-103.896512
	19268.00	89.55	270.52	5837.61	14648.16	-771.10	-14646.57	0.00	1506306.84	3444476.33	40.712173	-103.896624

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	6.000	1/98.425	13.500	9.625	A001Mb_MWD-Depth Only	Speed Goat Fed 3432-02H / Speed Goat Fed 3432-02H
	1	6.000	21.000	Act Stns	13.500	9.625	A001Mb_MWD-Depth Only	Speed Goat Fed 3432-02H / Speed Goat Fed 3432-02H
	1	21.000	1545.000	Act Stns	13.500	9.625	A001Mb_MWD	Speed Goat Fed 3432-02H / Speed Goat Fed 3432-02H
	1	1545.000	19268.000	Act Stns	8.500	5.500	A010Mb_MWD+IFR1+SAG+MS	Speed Goat Fed 3432-02H / Speed Goat Fed 3432-02H IFR1+MS+SAG 0' to 19268'

...Speed Goat Fed 3432-02H/Speed Goat Fed 3432-02H IFR1+MS+SAG 0' to 19268' Definitive