



Fawn 2833-01H MWD 0' to 19147' Definitive Survey Geodetic Report

(Def Survey)

Report Date: March 09, 2023 - 04:00 PM
Client: Verdad Resources
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Verdad Resources 22-01N-65W (Fawn 2833-2734 Pad) / Fawn 2833-01H
Well: Fawn 2833-01H
Borehole: Fawn 2833-01H
UWI / API#: Unknown / 05-123-51845
Survey Name: Fawn 2833-01H MWD 0' to 19147' Definitive
Survey Date: February 27, 2023
Tort / AHD / DDI / ERD Ratio: 370.070 ° / 14909.720 ft / 7.147 / 1.979
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 1' 49.17174", W 104° 39' 5.74818"
Location Grid N/E Y/X: N 1255030.140 ftUS, E 3237573.910 ftUS
CRS Grid Convergence Angle: 0.5482 °
Grid Scale Factor: 0.99996421
Version / Patch: 2.10.834.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.910 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: 21ft KB
TVD Reference Elevation: 5125.000 ft above MSL
Seabed / Ground Elevation: 5104.000 ft above MSL
Magnetic Declination: 7.827 °
Total Gravity Field Strength: 998.9848mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51532.958 nT
Magnetic Dip Angle: 66.205 °
Declination Date: February 27, 2023
Magnetic Declination Model: HDGM 2023
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 7.8273 °
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	1255030.14	3237573.91	40.030325	-104.651597
KB Adjusted	8.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	1255030.14	3237573.91	40.030325	-104.651597
First Surface Survey	88.00	0.40	235.75	88.00	0.16	-0.16	-0.23	0.50	1255029.98	3237573.68	40.030325	-104.651598
	179.00	0.22	211.32	179.00	0.48	-0.49	-0.58	0.24	1255029.65	3237573.33	40.030324	-104.651599
	271.00	0.83	277.85	270.99	0.54	-0.55	-1.34	0.84	1255029.58	3237572.58	40.030324	-104.651601
	362.00	2.07	279.08	361.96	0.19	-0.20	-3.61	1.36	1255029.91	3237570.30	40.030325	-104.651610
	452.00	3.60	278.90	451.85	-0.51	0.50	-8.01	1.70	1255030.56	3237565.90	40.030327	-104.651625
	541.00	5.49	278.55	540.57	-1.59	1.56	-14.98	2.12	1255031.56	3237558.92	40.030330	-104.651650
	631.00	9.01	268.36	629.84	-2.04	2.00	-26.29	4.15	1255031.89	3237547.61	40.030331	-104.651691
	722.00	10.99	269.41	719.45	-1.77	1.71	-42.08	2.18	1255031.45	3237531.81	40.030330	-104.651747
	812.00	12.35	265.72	807.59	-1.00	0.90	-60.26	1.72	1255030.47	3237513.65	40.030328	-104.651812
	902.00	13.32	267.92	895.34	0.07	-0.19	-80.22	1.21	1255029.18	3237493.70	40.030325	-104.651883
	992.00	15.03	270.20	982.60	0.37	-0.53	-102.25	2.00	1255028.63	3237471.67	40.030324	-104.651962
	1082.00	17.97	270.03	1068.88	0.28	-0.48	-127.81	3.27	1255028.44	3237446.11	40.030324	-104.652053
	1172.00	20.08	271.35	1153.96	-0.14	-0.11	-157.14	2.39	1255028.53	3237416.78	40.030325	-104.652158
	1262.00	22.15	270.73	1237.91	-0.77	0.47	-189.56	2.31	1255028.80	3237384.36	40.030327	-104.652274
	1352.00	24.57	270.03	1320.53	-1.05	0.70	-225.24	2.71	1255028.68	3237348.68	40.030327	-104.652401
	1442.00	25.53	269.24	1402.06	-0.86	0.45	-263.34	1.13	1255028.07	3237310.58	40.030327	-104.652537
	1532.00	23.51	269.06	1483.94	-0.37	-0.10	-300.69	2.25	1255027.16	3237273.25	40.030325	-104.652670
	1622.00	25.88	270.20	1565.71	-0.20	-0.33	-338.28	2.69	1255026.58	3237235.66	40.030325	-104.652805
	1712.00	23.64	269.59	1647.43	-0.20	-0.39	-375.98	2.50	1255026.15	3237197.97	40.030324	-104.652939
	1802.00	26.10	270.82	1729.08	-0.42	-0.23	-413.82	2.79	1255025.95	3237160.13	40.030325	-104.653074
	1892.00	24.57	271.08	1810.42	-1.11	0.40	-452.33	1.70	1255026.21	3237121.62	40.030327	-104.653212
	1982.00	26.85	269.94	1891.50	-1.51	0.73	-491.36	2.59	1255026.17	3237082.58	40.030327	-104.653351
	2072.00	25.66	270.56	1972.22	-1.74	0.90	-531.18	1.36	1255025.96	3237042.77	40.030328	-104.653494
	2162.00	23.33	269.85	2054.11	-1.94	1.05	-568.49	2.61	1255025.75	3237005.46	40.030328	-104.653627
	2252.00	24.04	269.76	2136.53	-1.87	0.92	-604.64	0.79	1255025.28	3236969.31	40.030328	-104.653756
	2342.00	25.75	269.15	2218.16	-1.57	0.56	-642.52	1.92	1255024.55	3236931.44	40.030327	-104.653891
Last Surface Survey	2409.00	25.14	269.68	2278.66	-1.32	0.26	-671.31	0.97	1255023.98	3236902.66	40.030326	-104.653994
9 5/8" Casing	2472.00	24.36	270.92	2335.88	-1.49	0.40	-697.68	1.49	1255023.86	3236876.29	40.030327	-104.654088
First SLB MWD Survey	2504.00	23.96	271.58	2365.08	-1.80	0.68	-710.77	1.49	1255024.02	3236863.19	40.030327	-104.654135
	2593.00	25.72	269.67	2445.84	-2.24	1.07	-748.15	2.17	1255024.05	3236825.81	40.030328	-104.654268
	2682.00	28.20	268.91	2525.16	-1.80	0.56	-788.50	2.81	1255023.15	3236785.48	40.030327	-104.654412
	2772.00	30.43	266.97	2603.64	-0.26	-1.05	-832.52	2.70	1255021.12	3236741.47	40.030323	-104.654570
	2861.00	32.25	264.97	2679.65	2.95	-4.33	-878.69	2.36	1255017.41	3236695.34	40.030314	-104.654734
	2951.00	33.84	265.91	2755.09	6.76	-8.22	-927.61	1.85	1255013.05	3236646.46	40.030303	-104.654909
	3040.00	36.17	268.44	2827.99	9.17	-10.70	-978.59	3.08	1255010.07	3236595.51	40.030296	-104.655091
	3130.00	38.75	268.96	2899.42	10.32	-11.94	-1033.31	2.89	1255008.32	3236540.80	40.030293	-104.655287
	3219.00	38.68	267.64	2968.86	11.88	-13.59	-1088.95	0.93	1255006.13	3236485.19	40.030288	-104.655485
	3308.00	38.63	270.41	3038.37	12.74	-14.54	-1144.52	1.94	1255004.66	3236429.63	40.030286	-104.655684
	3397.00	38.34	272.39	3108.04	11.30	-13.19	-1199.88	1.42	1255005.47	3236374.26	40.030289	-104.655881
	3487.00	38.84	271.58	3178.39	9.27	-11.25	-1255.98	0.78	1255006.88	3236318.14	40.030295	-104.656082
	3576.00	38.68	271.59	3247.79	7.64	-9.70	-1311.68	0.18	1255007.89	3236262.43	40.030299	-104.656281
	3666.00	38.77	271.23	3318.00	6.17	-8.32	-1367.97	0.27	1255008.74	3236206.14	40.030303	-104.656482
	3755.00	38.66	272.14	3387.45	4.44	-6.68	-1423.60	0.65	1255009.84	3236150.49	40.030307	-104.656680
	3845.00	37.78	269.73	3458.16	3.44	-5.76	-1479.27	1.92	1255010.23	3236094.82	40.030310	-104.656879
	3934.00	38.29	270.00	3528.25	3.48	-5.89	-1534.11	0.60	1255009.58	3236039.99	40.030309	-104.657075
	4024.00	38.48	270.63	3598.80	3.08	-5.57	-1589.99	0.48	1255009.35	3235984.11	40.030310	-104.657274
	4114.00	38.78	269.94	3669.12	2.71	-5.30	-1646.17	0.59	1255009.09	3235927.93	40.030311	-104.657475
	4203.00	38.17	269.93	3738.79	2.69	-5.36	-1701.54	0.69	1255008.50	3235872.57	40.030311	-104.657673
	4293.00	38.85	269.83	3809.22	2.72	-5.48	-1757.58	0.77	1255007.84	3235816.53	40.030310	-104.657873
	4382.00	38.60	269.65	3878.65	2.89	-5.74	-1813.25	0.31	1255007.06	3235760.86	40.030310	-104.658072
	4472.00	38.97	268.99	3948.81	3.47	-6.41	-1869.62	0.62	1255005.85	3235704.50	40.030308	-104.658273
	4561.00	38.74	268.38	4018.12	4.67	-7.69	-1925.44	0.51	1255004.03	3235648.70	40.030304	-104.658472
	4650.00	37.90	268.85	4087.94	5.92	-9.03	-1980.61	0.99	1255002.16	3235593.55	40.030300	-104.658669
	4740.00	38.28	269.27	4158.77	6.74	-9.94	-2036.13	0.51	1255000.73	3235538.03	40.030298	-104.658868
	4829.00	37.81	268.58	4228.86	7.68	-10.96	-2090.96	0.71	1254999.18	3235483.25	40.030295	-104.659063
	4919.00	38.68	269.37	4299.55	8.58	-11.95	-2146.66	1.11	1254997.65	3235427.54	40.030292	-104.659262
	5008.00	38.86	269.16	4368.94	9.21	-12.67	-2202.39	0.25	1254996.41	3235371.83	40.030290	-104.659461
	5098.00	38.75	269.78	4439.07	9.64	-13.18	-2258.79	0.45	1254995.35	3235315.44	40.030289	-104.659663
	5187.00	38.44	269.77	4508.63	9.77	-13.40	-2314.31	0.35	1254994.60	3235259.93	40.030288	-104.659861
	5277.00	38.79	269.43	4578.96	10.07	-13.79	-2370.47	0.46	1254993.67	3235203.77	40.030287	-104.660061
	5367.00	38.91	269.16	4649.05	10.67	-14.49	-2426.92	0.24	1254992.44	3235147.33	40.030285	-104.660263
	5456.00	38.93	269.64	4718.29	11.17	-15.07	-2482.83	0.34	1254991.32	3235091.43	40.030284	-104.660463
	5546.00	38.80	269.57	4788.51	11.47	-15.46	-2539.12	0.48	1254990.39	3235035.15	40.030283	-104.660664
	5635.00	38.86	270.69	4857.99	11.26	-15.34	-2594.74	0.88	1254989.98	3234979.53	40.030283	-104.660862
	5725.00	38.55	269.67	4928.23	10.99	-15.16	-2651.02	0.78	1254989.62	3234923.26	40.030283	-104.661063
	5814.00	38.82	269.79	4997.70	11.17	-15.42	-2706.64	0.31	1254988.83	3234867.64	40.030283	-104.661262
	5904.00	38.84	269.21	5067.81	11.57	-15.91	-2763.07	0.40	1254987.79	3234811.22	40.030281	-104.661463
	5993.00	38.77	269.86	5137.17	11.94	-16.37	-2818.85	0.46	1254986.80	3234755.46	40.030280	-104.661663
	6083.00	38.76	269.93	5207.34	11.96	-16.47	-2875.20	0.05	1254986.16	3234699.11	40.030280	-104.661864
	6172.00	38.84	270.29	5276.70	11.76	-16.37	-2930.97	0.27	1254985.73	3234643.34	40.030280	-104.662063
	6262.00	38.73	269.94	5346.85	11.56	-16.26	-2987.35	0.28	1254985.31	3234586.97	40.030280	-104.662264
	6351.00	38.68	270.14	5416.31	11.44	-16						

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6530.00	38.66	270.16	5555.89	11.61	-16.56	-3155.06	0.51	1254983.39	3234419.27	40.030279	-104.662863
	6619.00	38.60	270.14	5625.41	11.38	-16.42	-3210.62	0.06	1254983.01	3234363.71	40.030280	-104.663062
	6709.00	38.64	269.87	5695.73	11.28	-16.41	-3266.80	0.19	1254982.47	3234307.54	40.030280	-104.663262
	6799.00	38.81	268.79	5765.95	11.85	-17.07	-3323.09	0.77	1254981.28	3234251.26	40.030278	-104.663463
	6888.00	38.62	269.33	5835.39	12.68	-17.98	-3378.76	0.43	1254979.83	3234195.61	40.030275	-104.663662
	6977.00	38.61	269.62	5904.93	13.10	-18.50	-3434.30	0.20	1254978.79	3234140.08	40.030274	-104.663860
	7067.00	39.01	269.23	5975.06	13.58	-19.06	-3490.70	0.52	1254977.68	3234083.68	40.030272	-104.664062
	7157.00	38.45	268.55	6045.26	14.58	-20.15	-3547.00	0.78	1254976.06	3234027.40	40.030269	-104.664263
	7246.00	38.63	269.22	6114.88	15.57	-21.23	-3602.45	0.50	1254974.45	3233971.97	40.030266	-104.664461
	7336.00	38.45	268.76	6185.27	16.47	-22.22	-3658.51	0.37	1254972.92	3233915.92	40.030264	-104.664661
	7425.00	38.59	269.08	6254.91	17.43	-23.27	-3713.93	0.27	1254971.34	3233860.51	40.030261	-104.664859
	7515.00	38.24	269.05	6325.43	18.26	-24.18	-3769.84	0.39	1254969.90	3233804.62	40.030258	-104.665059
	7604.00	38.48	268.74	6395.21	19.24	-25.25	-3825.06	0.35	1254968.30	3233749.41	40.030255	-104.665256
	7694.00	37.91	268.47	6465.94	20.51	-26.61	-3880.70	0.66	1254966.41	3233693.79	40.030252	-104.665454
	7783.00	38.38	269.42	6535.94	21.43	-27.62	-3935.66	0.85	1254964.87	3233638.84	40.030249	-104.665651
	7873.00	37.56	269.34	6606.89	21.95	-28.21	-3991.03	0.92	1254963.75	3233583.49	40.030247	-104.665848
	7962.00	38.32	268.70	6677.08	22.80	-29.15	-4045.74	0.96	1254962.28	3233528.79	40.030245	-104.666044
	8051.00	38.15	269.21	6746.98	23.72	-30.16	-4100.81	0.40	1254960.75	3233473.73	40.030242	-104.666240
	8141.00	38.10	268.33	6817.78	24.82	-31.35	-4156.36	0.60	1254959.03	3233418.19	40.030238	-104.666439
	8230.00	38.34	269.15	6887.71	25.95	-32.56	-4211.41	0.63	1254957.29	3233363.16	40.030235	-104.666635
	8320.00	38.57	260.04	6958.24	31.13	-37.83	-4267.00	6.30	1254951.49	3233307.63	40.030221	-104.666834
	8409.00	39.78	251.06	7027.29	45.10	-51.88	-4321.31	6.51	1254936.92	3233253.46	40.030182	-104.667028
	8499.00	44.52	243.61	7094.04	68.41	-75.28	-4376.87	7.65	1254912.99	3233198.13	40.030118	-104.667226
	8588.00	47.73	233.89	7155.79	101.65	-108.61	-4431.51	8.65	1254879.15	3233143.81	40.030026	-104.667421
	8678.00	45.80	223.22	7217.53	144.77	-151.81	-4480.58	8.89	1254835.48	3233095.16	40.029908	-104.667596
	8767.00	51.12	213.91	7276.80	196.81	-203.91	-4521.83	9.84	1254782.99	3233054.40	40.029765	-104.667744
	8857.00	57.37	206.27	7329.22	259.93	-267.09	-4558.22	9.77	1254719.46	3233018.62	40.029591	-104.667874
	8946.00	61.16	200.41	7374.73	330.09	-337.30	-4588.43	7.08	1254648.97	3232989.09	40.029398	-104.667981
	9036.00	67.42	194.76	7413.77	407.31	-414.55	-4612.81	8.96	1254571.49	3232965.45	40.029186	-104.668068
	9126.00	73.33	189.31	7444.01	490.13	-497.40	-4630.39	8.70	1254488.48	3232948.66	40.028959	-104.668131
	9215.00	76.65	183.81	7467.07	575.47	-582.76	-4640.18	7.04	1254403.04	3232939.70	40.028725	-104.668166
	9305.00	82.71	180.25	7483.19	663.90	-671.19	-4643.28	7.78	1254314.58	3232937.43	40.028482	-104.668177
Cross Setback Heel (460' FNL, 2401' FEL)	9344.57	84.18	180.76	7487.71	703.20	-710.50	-4643.63	3.93	1254275.27	3232937.46	40.028374	-104.668178
	9394.00	86.02	181.39	7491.93	752.44	-759.74	-4644.55	3.93	1254226.03	3232937.01	40.028239	-104.668182
	9484.00	86.03	181.27	7498.17	842.20	-849.50	-4646.64	0.13	1254136.26	3232935.79	40.027992	-104.668189
	9573.00	86.07	179.97	7504.30	930.98	-938.28	-4647.60	1.46	1254047.48	3232935.67	40.027749	-104.668192
	9662.00	85.71	181.56	7510.69	1019.73	-1027.04	-4648.79	1.83	1253958.71	3232935.34	40.027505	-104.668196
	9751.00	86.03	182.54	7517.10	1108.44	-1115.75	-4651.96	1.15	1253869.98	3232933.01	40.027261	-104.668208
	9841.00	86.10	178.51	7523.27	1198.20	-1205.51	-4652.78	4.47	1253780.21	3232933.06	40.027015	-104.668211
	9930.00	86.02	178.94	7529.39	1286.97	-1294.28	-4650.79	0.49	1253691.47	3232935.89	40.026771	-104.668203
	10020.00	87.99	180.05	7534.09	1376.84	-1384.15	-4650.00	2.52	1253601.62	3232937.54	40.026525	-104.668201
	10109.00	91.22	179.83	7534.70	1465.83	-1473.13	-4649.91	3.64	1253512.64	3232938.48	40.026280	-104.668200
	10199.00	91.78	179.99	7532.34	1555.80	-1563.10	-4649.77	0.64	1253422.68	3232939.49	40.026033	-104.668200
	10288.00	91.82	178.84	7529.55	1644.75	-1652.05	-4648.86	1.29	1253333.75	3232941.24	40.025789	-104.668196
	10378.00	91.70	179.62	7526.78	1734.70	-1742.00	-4647.65	0.87	1253243.82	3232943.31	40.025542	-104.668192
	10467.00	91.82	176.74	7524.05	1823.61	-1830.91	-4644.83	3.23	1253154.95	3232946.99	40.025298	-104.668182
	10556.00	91.93	182.84	7521.13	1912.52	-1919.82	-4644.50	6.84	1253066.05	3232948.16	40.025054	-104.668181
	10646.00	91.98	179.79	7518.06	2002.43	-2009.73	-4646.56	3.38	1252976.13	3232946.96	40.024807	-104.668188
	10735.00	91.89	177.64	7515.06	2091.35	-2098.65	-4644.57	2.41	1252887.23	3232949.80	40.024563	-104.668181
	10825.00	91.79	178.77	7512.17	2181.27	-2188.56	-4641.76	1.26	1252797.36	3232953.47	40.024317	-104.668171
	10914.00	91.84	178.62	7509.35	2270.20	-2277.49	-4639.74	0.18	1252708.45	3232956.35	40.024072	-104.668163
	11004.00	91.84	181.33	7506.46	2360.15	-2367.44	-4639.70	3.01	1252618.51	3232957.25	40.023826	-104.668163
	11094.00	91.88	182.75	7503.54	2450.03	-2457.33	-4642.90	1.57	1252528.60	3232954.91	40.023579	-104.668175
	11183.00	91.75	182.84	7500.72	2538.88	-2546.18	-4647.24	0.19	1252439.71	3232951.42	40.023335	-104.668190
	11273.00	91.82	182.19	7497.92	2628.74	-2636.05	-4651.18	0.73	1252349.81	3232948.33	40.023088	-104.668204
	11362.00	91.88	181.22	7495.05	2717.65	-2724.96	-4653.83	1.09	1252260.88	3232946.54	40.022844	-104.668213
	11452.00	91.89	181.12	7492.09	2807.58	-2814.89	-4655.67	0.11	1252170.94	3232945.56	40.022597	-104.668220
	11542.00	92.13	181.00	7488.94	2897.50	-2904.82	-4657.33	0.29	1252081.00	3232944.76	40.022350	-104.668226
	11631.00	92.03	181.07	7485.71	2986.43	-2993.75	-4658.94	0.13	1251992.07	3232944.00	40.022106	-104.668231
	11721.00	90.33	180.06	7483.85	3076.40	-3083.72	-4659.82	2.20	1251902.09	3232943.98	40.021859	-104.668235
	11810.00	90.29	180.31	7483.37	3165.40	-3172.72	-4660.11	0.28	1251813.10	3232944.54	40.021615	-104.668235
	11900.00	90.25	179.25	7482.94	3255.39	-3262.72	-4659.76	1.18	1251723.11	3232945.75	40.021368	-104.668234
	11989.00	90.11	180.12	7482.66	3344.39	-3351.72	-4659.27	1.00	1251634.13	3232947.09	40.021124	-104.668232
	12079.00	90.58	180.63	7482.12	3434.39	-3441.71	-4659.86	0.77	1251544.14	3232947.36	40.020877	-104.668234
	12168.00	90.75	179.95	7481.09	3523.38	-3530.70	-4660.31	0.79	1251455.15	3232947.76	40.020632	-104.668236
	12258.00	90.87	179.88	7479.82	3613.37	-3620.69	-4660.18	0.16	1251365.16	3232948.75	40.020385	-104.668235
	12347.00	90.87	179.88	7478.47	3702.36	-3709.68	-4660.00	0.00	1251276.18	3232949.79	40.020141	-104.668235
	12437.00	90.91	180.29	7477.08	3792.35	-3799.67	-4660.14	0.45	1251186.20	3232950.51	40.019894	-104.668235
	12526.00	90.90	180.36	7475.67	3881.33	-3888.66	-4660.64	0.08	1251097.22	3232950.86	40.019650	-104.668237
	12616.00	90.86	179.40	7474.29	3971.32	-3978.65	-4660.45	1.06	1251007.24	3232951.91	40.019403	-104.668236
	12706.00	90.76	179.92	7473.01	4061.31	-4068.64	-4659.92	0.58	1250917.26	3232953.31	40.019156	-104.668234
	12795.00	90.83	180.17	7471.78	4150.30	-4157.63	-4659.99	0.30	1250828.28	3232954.09	40.018911	-104.668234
	12884.00	90.76	180.00	7470.54	4239.29	-4246.62	-4660.12	0.20	1250739.29	3232954.80	40.018667	-104.668235
	12974.00	90.78	179.60	7469.33	4329.29	-4336.61	-4659.81	0.45	1250649.31	3232955.98	40.018420	-104.668234
	13063.00	90.08	177.13	7468.65	4418.24	-4425.56	-4657.26	2.88	1250560.39	3232959.38	40.018176	-104.668224
	13153.00	90.09	176.26	7468.51	4508.10	-4515.41	-4652.07	0.97	1250470.80	3232965.43	40.017929	-104.668206
	13242.00	90.25	181.23	7468.24	4597.05	-4604.36	-4650.11	5.59	1250381.67	3232968.24	40.017685	-104.668199
	13332.00	89.87	180.08	7468.15	4687.04	-4694.36						

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	16015.00	89.70	183.84	7469.62	7369.00	-7376.33	-4656.08	0.41	1247609.89	3232988.79	40.010076	-104.668218
	16105.00	89.47	181.07	7470.27	7458.90	-7466.23	-4659.93	3.09	1247519.95	3232985.80	40.009829	-104.668232
	16195.00	89.82	179.72	7470.83	7548.90	-7556.23	-4660.55	1.54	1247429.96	3232986.04	40.009582	-104.668234
	16284.00	90.35	171.58	7470.70	7637.58	-7644.90	-4653.81	9.16	1247341.36	3232993.63	40.009338	-104.668210
	16373.00	88.92	179.23	7471.27	7726.23	-7733.54	-4646.69	8.74	1247252.79	3233001.60	40.009095	-104.668185
	16463.00	89.01	189.64	7472.89	7815.81	-7823.13	-4653.64	11.57	1247163.14	3232995.51	40.008849	-104.668209
	16552.00	89.27	192.80	7474.22	7903.06	-7910.41	-4670.95	3.56	1247075.70	3232979.03	40.008610	-104.668271
Start 10' from HL	16567.00	89.33	191.03	7474.41	7917.73	-7925.08	-4674.05	11.77	1247061.00	3232976.07	40.008569	-104.668282
	16642.00	89.62	182.21	7475.10	7992.14	-7999.51	-4682.69	11.77	1246986.50	3232968.14	40.008365	-104.668313
Closest Point to HL - .61ft away	16669.00	89.97	179.65	7475.19	8019.14	-8026.50	-4683.13	9.57	1246959.51	3232967.96	40.008291	-104.668314
	16732.00	90.80	173.68	7474.77	8082.00	-8089.36	-4679.47	9.57	1246896.68	3232972.22	40.008118	-104.668301
End 10' from HL	16789.00	90.92	171.73	7473.91	8138.54	-8145.89	-4672.23	3.44	1246840.23	3232980.00	40.007963	-104.668275
	16821.00	90.99	170.63	7473.37	8170.17	-8177.51	-4667.32	3.44	1246808.66	3232985.21	40.007876	-104.668258
	16910.00	90.69	171.37	7472.06	8258.08	-8265.40	-4653.40	0.90	1246720.91	3232999.98	40.007635	-104.668208
	17000.00	90.82	175.23	7470.87	8347.46	-8354.76	-4642.90	4.29	1246631.65	3233011.33	40.007390	-104.668171
	17090.00	91.06	179.06	7469.39	8437.33	-8444.62	-4638.42	4.27	1246541.85	3233016.67	40.007143	-104.668155
	17179.00	90.95	178.96	7467.84	8526.30	-8533.60	-4636.88	0.17	1246452.89	3233019.06	40.006899	-104.668149
	17269.00	90.85	178.80	7466.42	8616.28	-8623.57	-4635.12	0.21	1246362.95	3233021.68	40.006652	-104.668143
	17358.00	90.95	179.59	7465.02	8705.26	-8712.55	-4633.86	0.90	1246273.99	3233023.79	40.006408	-104.668138
	17448.00	90.96	181.14	7463.52	8795.24	-8802.53	-4634.44	1.73	1246184.01	3233024.07	40.006161	-104.668140
	17538.00	90.83	177.63	7462.11	8885.21	-8892.50	-4633.47	3.90	1246094.05	3233025.90	40.005914	-104.668137
	17627.00	90.66	176.52	7460.95	8974.09	-8981.38	-4628.93	1.26	1246005.23	3233031.29	40.005670	-104.668120
	17717.00	90.50	180.47	7460.04	9064.04	-9071.32	-4626.57	4.40	1245915.31	3233034.51	40.005423	-104.668112
	17806.00	90.75	181.42	7459.07	9153.02	-9160.30	-4628.05	1.10	1245826.33	3233033.89	40.005179	-104.668117
	17895.00	90.40	179.91	7458.17	9242.01	-9249.29	-4629.08	1.75	1245737.34	3233033.71	40.004934	-104.668121
	17985.00	90.52	178.97	7457.45	9332.00	-9339.28	-4628.20	1.05	1245647.36	3233035.45	40.004687	-104.668117
	18074.00	90.59	181.21	7456.59	9420.99	-9428.27	-4628.33	2.51	1245558.38	3233036.17	40.004443	-104.668118
	18163.00	90.21	179.80	7455.97	9509.98	-9517.26	-4629.11	1.64	1245469.38	3233036.24	40.004199	-104.668121
	18253.00	90.67	176.87	7455.28	9599.93	-9607.21	-4626.50	3.29	1245379.47	3233039.71	40.003952	-104.668111
	18343.00	91.22	177.01	7453.79	9689.80	-9697.07	-4621.69	0.64	1245289.66	3233045.37	40.003705	-104.668094
	18432.00	89.61	182.41	7453.14	9778.76	-9786.03	-4621.24	6.33	1245200.71	3233046.68	40.003461	-104.668092
	18521.00	89.66	178.81	7453.71	9867.74	-9875.01	-4622.19	4.04	1245111.73	3233046.58	40.003217	-104.668096
	18611.00	89.72	179.21	7454.19	9957.73	-9965.00	-4620.63	0.44	1245021.77	3233049.00	40.002970	-104.668090
	18700.00	89.98	178.91	7454.42	10046.72	-10053.98	-4619.17	0.44	1244932.80	3233051.31	40.002725	-104.668085
	18790.00	89.53	180.53	7454.80	10136.71	-10143.98	-4618.73	1.87	1244842.82	3233052.61	40.002478	-104.668083
	18879.00	89.16	179.86	7455.82	10225.70	-10232.97	-4619.04	0.86	1244753.83	3233053.16	40.002234	-104.668084
	18969.00	89.57	184.16	7456.82	10315.62	-10322.89	-4622.19	4.80	1244663.89	3233050.86	40.001987	-104.668095
Cross Setback Toe (460' FSL, 2400' FEL)	19035.87	89.37	183.12	7457.44	10382.34	-10389.62	-4626.44	1.58	1244597.13	3233047.25	40.001804	-104.668110
	19058.00	89.30	182.78	7457.70	10404.44	-10411.72	-4627.58	1.58	1244575.02	3233046.32	40.001743	-104.668115
Last SLB MWD Survey Projection to TD (349' FSL, 2405' FEL)	19116.00	89.39	182.47	7458.36	10462.37	-10469.66	-4630.24	0.56	1244517.06	3233044.22	40.001584	-104.668124
	19147.00	89.39	182.47	7458.69	10493.34	-10500.62	-4631.57	0.01	1244486.08	3233043.18	40.001499	-104.668129

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.01% Confidence 3.0000 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	8.000	1/98.425	13.500	9.625	A001Mb_MWD-Depth Only	Fawn 2833-01H / Fawn 2833-01H MWD 0' to 19147' Definitive
	1	8.000	21.000	Act Stns	13.500	9.625	A001Mb_MWD-Depth Only	Fawn 2833-01H / Fawn 2833-01H MWD 0' to 19147' Definitive
	1	21.000	2409.000	Act Stns	13.500	9.625	A001Mb_MWD	Fawn 2833-01H / Fawn 2833-01H MWD 0' to 19147' Definitive
	1	2409.000	19147.000	Act Stns	8.500	5.500	B001Mb_MWD+HRGM	Fawn 2833-01H / Fawn 2833-01H MWD 0' to 19147' Definitive