



Chevron RBU

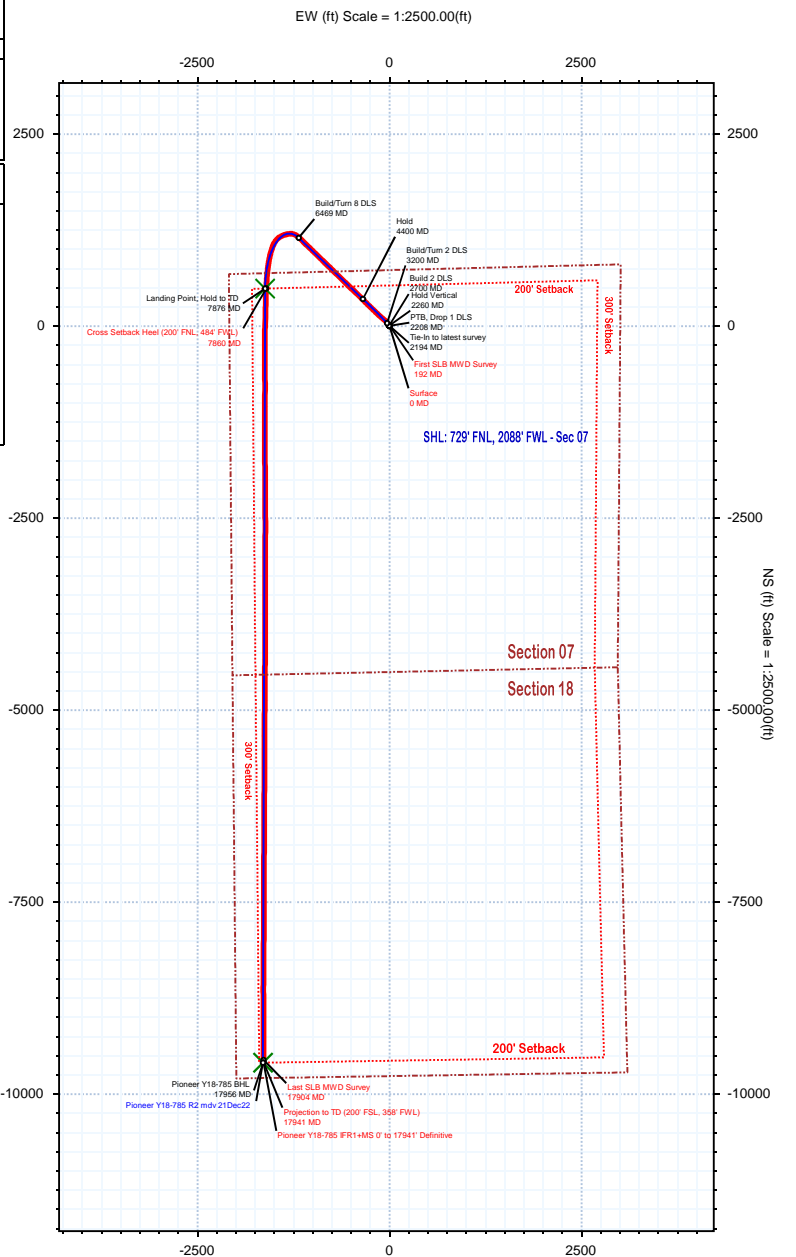
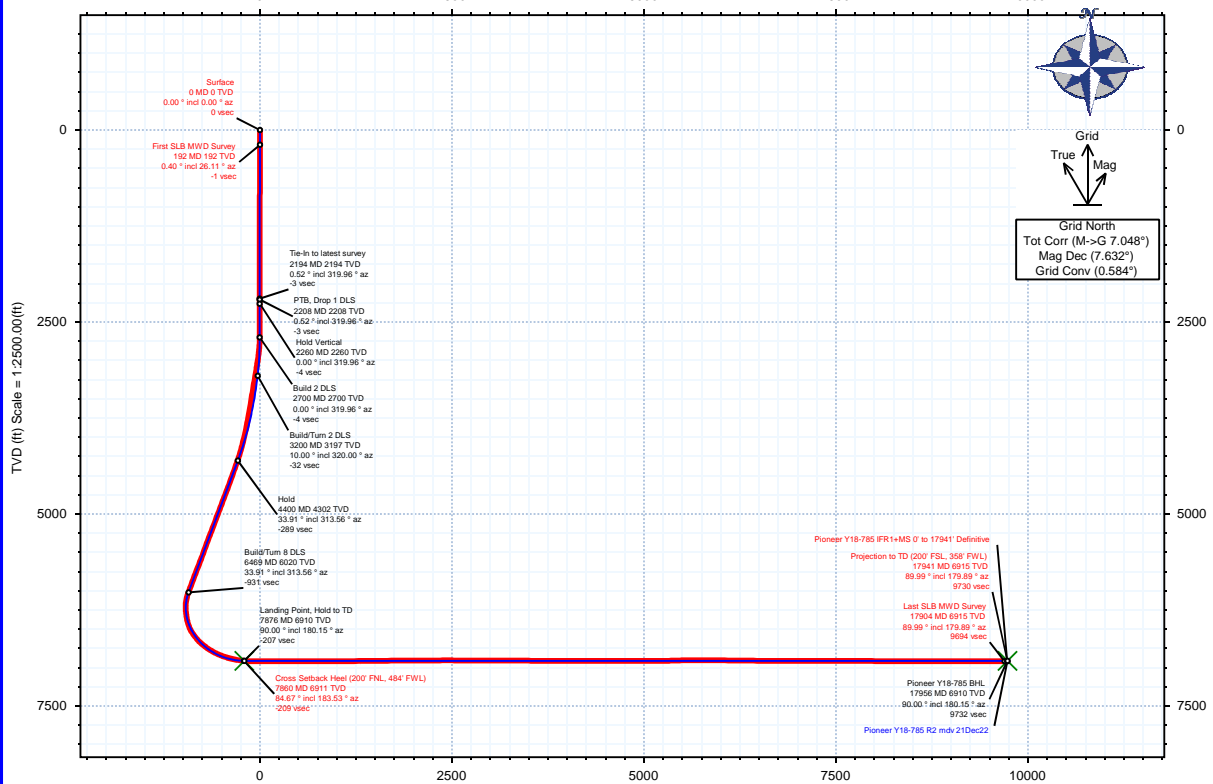


Borehole: Pioneer Y18-785	Well: Pioneer Y18-785	Field: CO, Weld County (NAD 83 NZ) - 2019	Structure: Chevron RBU 07-02N-64W (Y07-03 Pad)
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Gravity & Magnetic Parameters			Surface Location			NAD83 Colorado State Plane, Northern Zone, US Feet			Miscellaneous		
Model: IFR	Dip: 66.47°	Date: 28-Dec-2022	Lat: N 40 9 28.62	Northing: 1301673.55ftUS	Grid Conv: 0.5845°	Slot: Pioneer Y18-785	TVD Ref: KB 29ft(4915ft above MSL)				
MagDec: 7.632°	FS: 51710NT	Gravity FS: 999.005mgN (9.80665 Based)	Lon: W 104 35 43.61	Easting: 3252822.74ftUS	Scale Fact: 0.99995815	Plan: Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive					

Surface Location									
Northing: 1301673.5444975			Easting: 3252822.74082227			Latitude: N 40 9 28.62			Longitude: W 104 35 43.61
VSec Azimuth: 189.76									
Target Description	Grid Coord				Local Coord				
	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)	
DP 425S Pads Sec 07-18	N 40 9 29.51	W 104 35 43.59	1301763.53	3252822.66	4915.00	-88.67	89.99	-0.08	
DP 425S Pads Sec 07-18 - 200'NS<300'EW SB	N 40 9 28.53	W 104 35 33.78	1301672.96	3253585.28	4915.00	-128.64	-0.59	762.57	
Pioneer Y18-785 BHL	N 40 7 54.01	W 104 36 6.10	1292082.91	3251173.72	6910.00	9731.80	-9591.06	-1649.09	
Pioneer Y18-785 LP	N 40 9 33.61	W 104 36 4.43	1302162.11	3251200.55	6910.00	-206.63	488.59	-1622.26	

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
First SLB MWD Survey	192.00	0.40	26.11	192.00	-0.64	0.60	0.29	0.21
Cross Setback Heel (200' FNL, 484' FWL)	7860.32	84.67	183.53	6910.67	-209.41	489.00	-1608.19	6.36
Last SLB MWD Survey	17904.00	89.99	179.89	6914.73	9693.81	-9553.90	-1640.98	0.16
Projection to TD (200' FSL, 358' FWL)	17941.00	89.99	179.89	6914.73	9730.26	-9590.90	-1640.91	0.00





Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive Survey Geodetic Report



(Def Survey)

Report Date: January 03, 2023 - 11:20 AM
Client: Chevron RBU
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Chevron RBU 07-02N-64W (Y07-03 Pad) / Pioneer Y18-785
Well: Pioneer Y18-785
Borehole: Pioneer Y18-785
UWI / API#: Unknown / 05-123-48783
Survey Name: Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive
Survey Date: December 28, 2022
Tort / AHD / DDI / ERD Ratio: 222.050 ° / 12721.647 ft / 6.865 / 1.840
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 9' 28.61640", W 104° 35' 43.60560"
Location Grid N/E Y/X: N 1301673.545 ftUS, E 3252822.741 ftUS
CRS Grid Convergence Angle: 0.5845 °
Grid Scale Factor: 0.99995815
Version / Patch: 2.10.834.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 189.756 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 29ft
TVD Reference Elevation: 4915.000 ft above MSL
Seabed / Ground Elevation: 4886.000 ft above MSL
Magnetic Declination: 7.632 °
Total Gravity Field Strength: 999.0046mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51710.000 nT
Magnetic Dip Angle: 66.470 °
Declination Date: December 28, 2022
Magnetic Declination Model: IFR
North Reference: Grid North
Grid Convergence Used: 0.5845 °
Total Corr Mag North->Grid North: 7.0475 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	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	1301673.55	3252822.74	40.157949	-104.595446
First SLB MWD Survey	192.00	0.40	26.11	192.00	-0.64	0.60	0.29	0.21	1301674.15	3252823.04	40.157951	-104.595445
	283.00	0.50	243.20	283.00	-0.71	0.71	0.08	0.94	1301674.25	3252822.82	40.157951	-104.595446
	378.00	0.29	315.67	378.00	-0.61	0.69	-0.46	0.52	1301674.24	3252822.28	40.157951	-104.595448
	473.00	0.35	304.17	472.99	-0.87	1.03	-0.87	0.09	1301674.57	3252821.88	40.157952	-104.595449
	568.00	0.42	300.37	567.99	-1.11	1.37	-1.41	0.08	1301674.91	3252821.33	40.157953	-104.595451
	663.00	0.47	320.48	662.99	-1.49	1.84	-1.95	0.17	1301675.39	3252820.79	40.157954	-104.595453
	758.00	0.66	348.51	757.98	-2.25	2.68	-2.31	0.34	1301676.22	3252820.43	40.157956	-104.595454
	852.00	0.55	319.13	851.98	-3.03	3.55	-2.71	0.34	1301677.09	3252820.03	40.157959	-104.595456
	947.00	0.52	320.34	946.98	-3.61	4.22	-3.29	0.03	1301677.77	3252819.45	40.157961	-104.595458
	1042.00	0.25	340.46	1041.97	-4.07	4.75	-3.63	0.31	1301678.30	3252819.11	40.157962	-104.595459
	1136.00	0.41	296.53	1135.97	-4.34	5.09	-4.00	0.31	1301678.64	3252818.74	40.157963	-104.595460
	1231.00	0.28	317.94	1230.97	-4.58	5.42	-4.46	0.19	1301678.96	3252818.28	40.157964	-104.595462
	1326.00	0.18	316.40	1325.97	-4.81	5.70	-4.72	0.11	1301679.24	3252818.02	40.157965	-104.595463
	1421.00	0.21	92.06	1420.97	-4.93	5.80	-4.64	0.38	1301679.34	3252818.10	40.157965	-104.595462
	1516.00	0.18	220.70	1515.97	-4.82	5.68	-4.57	0.37	1301679.22	3252818.17	40.157965	-104.595462
	1611.00	0.23	166.12	1610.97	-4.52	5.38	-4.62	0.20	1301678.92	3252818.12	40.157964	-104.595462
	1705.00	0.05	205.85	1704.97	-4.31	5.16	-4.59	0.21	1301678.70	3252818.15	40.157963	-104.595462
	1800.00	0.04	154.86	1799.97	-4.24	5.09	-4.60	0.04	1301678.64	3252818.14	40.157963	-104.595462
	1895.00	0.12	333.79	1894.97	-4.29	5.15	-4.63	0.17	1301678.70	3252818.11	40.157963	-104.595462
	1990.00	0.33	239.70	1989.97	-4.20	5.10	-4.91	0.38	1301678.65	3252817.83	40.157963	-104.595463
	2084.00	1.00	244.92	2083.96	-3.55	4.62	-5.88	0.71	1301678.16	3252816.86	40.157962	-104.595467
	2179.00	0.27	322.12	2178.95	-3.23	4.44	-6.77	1.03	1301677.99	3252815.97	40.157961	-104.595470
	2194.00	0.52	319.96	2193.95	-3.30	4.52	-6.84	1.67	1301678.07	3252815.90	40.157962	-104.595470
	2269.00	0.13	11.62	2268.95	-3.60	4.87	-7.04	0.60	1301678.41	3252815.70	40.157963	-104.595471
	2364.00	0.25	341.83	2363.95	-3.90	5.17	-7.08	0.16	1301678.72	3252815.66	40.157963	-104.595471
	2459.00	0.21	140.27	2458.95	-3.97	5.23	-7.03	0.48	1301678.78	3252815.71	40.157964	-104.595471
	2554.00	0.12	10.00	2553.95	-3.95	5.20	-6.91	0.32	1301678.74	3252815.83	40.157963	-104.595471
	2648.00	0.27	281.92	2647.95	-4.06	5.34	-7.11	0.31	1301678.88	3252815.64	40.157964	-104.595471
	2743.00	1.93	331.76	2742.93	-5.33	6.80	-8.08	1.86	1301680.34	3252814.66	40.157968	-104.595475
	2838.00	6.35	329.31	2837.66	-10.59	12.73	-11.52	4.66	1301686.27	3252811.22	40.157984	-104.595487
	2933.00	10.17	325.49	2931.66	-20.60	24.16	-18.96	4.06	1301697.70	3252803.78	40.158016	-104.595513
	3028.00	12.77	323.07	3024.75	-33.81	39.47	-30.02	2.78	1301713.01	3252792.72	40.158058	-104.595552
	3122.00	15.82	316.76	3115.84	-48.65	57.11	-45.04	3.64	1301730.65	3252777.70	40.158107	-104.595605
	3217.00	17.55	310.27	3206.84	-63.72	75.80	-64.85	2.67	1301749.35	3252757.90	40.158159	-104.595675
	3312.00	17.41	312.07	3297.46	-78.59	94.59	-86.33	0.59	1301768.13	3252736.42	40.158211	-104.595751
	3407.00	17.66	310.52	3388.04	-93.56	113.47	-107.83	0.56	1301787.01	3252714.92	40.158263	-104.595828
	3501.00	17.71	311.97	3477.60	-108.47	132.30	-129.30	0.47	1301805.84	3252693.45	40.158316	-104.595904
	3596.00	17.49	313.55	3568.15	-124.12	151.79	-150.39	0.55	1301825.33	3252672.36	40.158370	-104.595978
	3691.00	17.53	313.31	3658.75	-139.96	171.44	-171.15	0.09	1301844.98	3252651.60	40.158424	-104.596052
	3786.00	17.60	313.40	3749.32	-155.83	191.13	-191.99	0.08	1301864.66	3252630.76	40.158479	-104.596126
	3881.00	18.60	314.56	3839.62	-172.43	211.63	-213.22	1.12	1301885.16	3252609.53	40.158536	-104.596201
	3975.00	20.35	314.58	3928.24	-190.33	233.62	-235.55	1.86	1301907.15	3252587.20	40.158597	-104.596280
	4070.00	24.22	313.86	4016.13	-210.69	258.72	-261.37	4.08	1301932.26	3252561.38	40.158666	-104.596372
	4165.00	24.16	314.55	4102.79	-232.71	285.87	-289.28	0.30	1301959.40	3252533.47	40.158742	-104.596470
	4260.00	26.63	314.78	4188.60	-256.03	314.51	-318.25	2.60	1301988.04	3252504.50	40.158821	-104.596573
	4354.00	29.70	314.79	4271.46	-281.49	345.76	-349.74	3.27	1302019.29	3252473.02	40.158908	-104.596685
	4449.00	32.78	314.03	4352.68	-309.49	380.22	-384.94	3.27	1302053.75	3252437.82	40.159003	-104.596809
	4544.00	32.35	314.02	4432.74	-338.29	415.76	-421.71	0.45	1302089.28	3252401.05	40.159102	-104.596939
	4639.00	32.28	314.13	4513.03	-366.92	451.08	-458.19	0.10	1302124.61	3252364.57	40.159200	-104.597069
	4733.00	33.41	313.31	4592.00	-395.39	486.31	-495.04	1.29	1302159.84	3252327.72	40.159298	-104.597199
	4828.00	33.34	314.25	4671.33	-424.64	522.47	-532.77	0.55	1302195.99	3252289.99	40.159398	-104.597333
	4923.00	34.33	314.51	4750.24	-454.69	559.47	-570.58	1.05	1302232.99	3252252.19	40.159501	-104.597467
	5018.00	33.78	313.85	4828.95	-484.77	596.54	-608.73	0.70	1302270.06	3252214.04	40.159603	-104.597602
	5113.00	33.73	314.50	4907.94	-514.60	633.33	-646.58	0.38	1302306.85	3252176.18	40.159705	-104.597736
	5207.00	33.45	314.04	4986.24	-544.07	669.63	-683.82	0.40	1302343.15	3252138.95	40.159806	-104.597868
	5302.00	33.78	313.87	5065.35	-573.63	706.13	-721.68	0.36	1302379.65	3252101.09	40.159907	-104.598002
	5397.00	34.00	314.26	5144.21	-603.49	742.97	-759.75	0.33	1302416.49	3252063.03	40.160010	-104.598137
	5492.00	34.12	314.11	5222.92	-633.57	780.06	-797.90	0.15	1302453.57	3252024.88	40.160112	-104.598272
	5588.00	33.74	314.54	5302.57	-663.97	817.50	-836.23	0.47	1302491.01	3251986.54	40.160216	-104.598408
	5681.00	32.89	314.53	5380.29	-693.11	853.32	-872.64	0.91	1302526.83	3251950.13	40.160316	-104.598537
	5776.00	32.52	313.64	5460.22	-722.06	889.03	-909.51	0.64	1302562.54	3251913.27	40.160415	-104.598667
	5871.00	33.50	314.12	5539.89	-751.09	924.91	-946.81	1.07	1302598.41	3251875.97	40.160514	-104.598800
	5965.00	34.21	314.53	5617.95	-780.81	961.50	-984.28	0.79	1302635.00	3251838.51	40.160616	-104.598932
	6060.00	34.23	314.27	5696.50	-811.18	998.88	-1022.45	0.16	1302672.38	3251800.34	40.160719	-104.599067
	6155.00	34.16	314.35	5775.08	-841.46	1036.18	-1060.65	0.09	1302709.68	3251762.14	40.160823	-104.599203
	6250.00	33.09	313.89	5854.19	-871.16	1072.80	-1098.41	1.16	1302746.30	3251724.38	40.160924	-104.599337
	6344.00	32.71	314.41	5933.11	-900.00	1108.36	-1135.05	0.50	1302781.86	3251687.74	40.161023	-104.599466
	6439.00	33.81	314.04	6012.55	-929.48	1144.70	-1172.39	1.18	1302818.20	3251650.41	40.161124	-104.599599
	6534.00	30.93	305.23	6092.82	-954.89	1177.18	-1211.36	5.81	1302850.68	3251611.43	40.161214	-104.599737
	6628.00	26.36	286.81	6175.46	-967.88	1197.20	-1251.17	10.53	1302870.70	3251571.63	40.161270	-104.599878
	6723.00	24.29	268.49	6261.45	-966.65	1202.80	-1290.96	8.50	1302876.29	3251531.84	40.161287	-104.600021
	6818.00	25.30	257.85	6347.74	-955.25	1198.01	-1330.35	4.81	1302871.50	3251492.44	40.161275	-104.600162
	6912.00	32.22	253.09	6430.10	-936.4							

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7386.00	58.09	193.89	6766.44	-655.46	932.46	-1555.09	6.86	1302605.96	3251267.72	40.160552	-104.600975	
	7481.00	63.61	189.77	6812.71	-572.60	851.30	-1572.01	6.93	1302524.80	3251250.80	40.160330	-104.601039	
	7575.00	70.01	187.54	6849.71	-486.27	765.92	-1584.96	7.15	1302439.43	3251237.85	40.160096	-104.601088	
	7670.00	75.65	185.65	6877.75	-395.68	675.79	-1595.36	6.23	1302349.31	3251227.45	40.159848	-104.601129	
	7765.00	79.89	183.28	6897.87	-303.26	583.26	-1602.57	5.09	1302256.78	3251220.24	40.159585	-104.601158	
	7860.00	84.65	183.54	6910.64	-209.73	489.31	-1608.17	5.02	1302162.84	3251214.64	40.159337	-104.601181	
Cross Setback Heel (200' FNL, 484' FWL)	7860.32	84.67	183.53	6910.67	-209.41	489.00	-1608.19	6.36	1302162.52	3251214.62	40.159336	-104.601181	
	7954.00	90.25	181.45	6914.82	-116.62	395.54	-1612.25	6.36	1302069.07	3251210.56	40.159080	-104.601199	
	8049.00	90.06	181.06	6914.57	-22.66	300.56	-1614.33	0.46	1301974.09	3251208.48	40.158819	-104.601210	
	8144.00	90.14	181.79	6914.40	71.33	205.59	-1616.70	0.77	1301879.13	3251206.12	40.158558	-104.601222	
	8333.00	90.13	181.66	6913.96	258.48	16.68	-1622.39	0.07	1301690.22	3251200.43	40.158040	-104.601249	
	8428.00	89.92	180.93	6913.92	352.45	-78.30	-1624.53	0.80	1301595.25	3251198.28	40.157779	-104.601260	
	8523.00	89.46	179.62	6914.43	446.14	-173.29	-1624.99	1.46	1301500.26	3251197.82	40.157519	-104.601266	
	8618.00	89.62	179.82	6915.19	539.69	-268.29	-1624.52	0.27	1301405.27	3251198.29	40.157258	-104.601267	
	8807.00	90.03	179.89	6915.77	725.87	-457.29	-1624.05	0.22	1301216.28	3251198.77	40.156739	-104.601272	
	8902.00	90.01	180.05	6915.74	819.49	-552.29	-1624.00	0.17	1301121.28	3251198.82	40.156478	-104.601276	
	8996.00	90.19	179.95	6915.57	912.13	-646.29	-1624.00	0.22	1301027.29	3251198.82	40.156220	-104.601279	
	9091.00	90.18	179.70	6915.27	1005.71	-741.28	-1623.71	0.26	1300932.29	3251199.11	40.155960	-104.601282	
	9186.00	90.36	180.16	6914.82	1099.31	-836.28	-1623.59	0.52	1300837.30	3251199.22	40.155699	-104.601285	
	9375.00	90.81	180.51	6912.89	1295.75	-1025.27	-1624.69	0.30	1300648.32	3251198.12	40.155180	-104.601295	
	9470.00	89.84	179.68	6912.35	1379.40	-1120.27	-1624.85	1.34	1300553.33	3251197.96	40.154919	-104.601299	
	9565.00	90.38	180.23	6912.17	1473.01	-1215.26	-1624.78	0.81	1300458.33	3251198.03	40.154659	-104.601303	
	9659.00	91.03	180.19	6911.01	1565.70	-1309.26	-1625.12	0.69	1300364.35	3251197.69	40.154401	-104.601307	
	9849.00	90.37	179.83	6908.69	1752.95	-1489.24	-1625.16	0.40	1300174.37	3251197.66	40.153879	-104.601314	
	9944.00	90.05	179.66	6908.34	1846.50	-1584.24	-1624.73	0.38	1300079.38	3251198.08	40.153618	-104.601316	
	10133.00	90.52	179.86	6907.40	2032.63	-1783.23	-1623.94	0.27	1299989.39	3251198.87	40.153100	-104.601320	
	10228.00	90.30	179.68	6906.72	2126.19	-1878.23	-1623.56	0.30	1299795.40	3251199.25	40.152839	-104.601322	
	10322.00	90.32	179.77	6906.21	2218.75	-1972.23	-1623.11	0.10	1299701.40	3251199.70	40.152578	-104.601324	
	10417.00	90.49	179.65	6905.54	2312.29	-2067.22	-1622.63	0.22	1299606.41	3251200.18	40.152320	-104.601326	
	10512.00	90.17	179.70	6904.99	2405.82	-2162.22	-1622.09	0.34	1299511.42	3251200.72	40.152059	-104.601327	
	10606.00	89.66	179.36	6905.13	2498.33	-2256.22	-1621.32	0.65	1299417.43	3251201.49	40.151801	-104.601328	
	10701.00	89.65	179.70	6905.70	2591.81	-2351.21	-1620.54	0.36	1299322.44	3251202.27	40.151540	-104.601329	
	10796.00	89.95	179.75	6906.04	2685.36	-2446.21	-1620.08	0.32	1299227.44	3251202.73	40.151280	-104.601330	
	10890.00	89.98	179.49	6906.09	2777.89	-2540.21	-1619.46	0.28	1299133.45	3251203.35	40.151022	-104.601332	
	10985.00	89.54	180.35	6906.49	2871.50	-2635.21	-1619.33	1.02	1299038.45	3251203.49	40.150761	-104.601335	
	11080.00	89.82	180.21	6907.02	2965.20	-2730.20	-1619.79	0.33	1298943.46	3251203.02	40.150500	-104.601340	
	11175.00	89.80	180.08	6907.34	3058.86	-2825.20	-1620.03	0.14	1298848.47	3251202.78	40.150239	-104.601344	
	11270.00	89.77	180.24	6907.69	3152.53	-2920.20	-1620.30	0.17	1298753.47	3251202.52	40.149979	-104.601348	
	11364.00	89.85	180.02	6908.01	3245.21	-3014.20	-1620.51	0.25	1298658.48	3251202.30	40.149721	-104.601353	
	11459.00	89.84	179.91	6908.26	3338.83	-3109.20	-1620.45	0.12	1298564.48	3251202.36	40.149460	-104.601356	
	11554.00	89.54	180.20	6908.78	3432.47	-3204.20	-1620.54	0.44	1298469.49	3251202.27	40.149199	-104.601360	
	11649.00	89.62	179.86	6909.47	3526.10	-3299.20	-1620.59	0.37	1298374.49	3251202.22	40.148938	-104.601363	
	11743.00	89.77	179.69	6909.97	3618.67	-3393.19	-1620.22	0.24	1298280.50	3251202.59	40.148680	-104.601365	
	11838.00	89.75	179.91	6910.37	3712.24	-3488.19	-1619.89	0.23	1298185.51	3251202.92	40.148420	-104.601367	
	11933.00	89.95	180.24	6910.62	3805.89	-3583.19	-1620.02	0.41	1298090.51	3251202.80	40.148159	-104.601371	
	12028.00	89.68	180.32	6910.93	3899.59	-3678.19	-1620.48	0.30	1297995.52	3251202.33	40.147898	-104.601376	
	12123.00	89.92	180.14	6911.26	3993.28	-3773.19	-1620.86	0.32	1297900.52	3251201.95	40.147637	-104.601381	
	12217.00	89.87	180.13	6911.43	4085.96	-3867.19	-1621.08	0.05	1297806.53	3251201.73	40.147379	-104.601385	
	12312.00	89.99	180.52	6911.55	4179.68	-3962.19	-1621.62	0.43	1297711.53	3251201.19	40.147119	-104.601391	
	12407.00	89.72	180.15	6911.79	4273.39	-4057.18	-1622.18	0.48	1297616.54	3251200.63	40.146858	-104.601396	
	12502.00	89.78	180.13	6912.20	4367.06	-4152.18	-1622.41	0.07	1297521.54	3251200.40	40.146597	-104.601401	
	12596.00	89.92	180.02	6912.45	4460.72	-4246.18	-1622.53	0.19	1297427.55	3251200.28	40.146339	-104.601404	
	12691.00	89.82	180.32	6912.66	4553.39	-4341.18	-1622.81	0.33	1297332.55	3251200.00	40.146078	-104.601409	
	12786.00	89.75	181.33	6913.02	4647.24	-4436.17	-1624.18	1.07	1297237.57	3251198.63	40.145818	-104.601417	
	12881.00	89.92	180.35	6913.29	4741.09	-4531.16	-1625.58	1.05	1297142.59	3251197.24	40.145557	-104.601426	
	12976.00	90.26	180.36	6913.14	4834.81	-4626.16	-1626.16	0.36	1297047.59	3251196.65	40.145296	-104.601431	
	13070.00	90.42	180.33	6912.59	4927.55	-4720.15	-1626.73	0.17	1296953.60	3251196.08	40.145038	-104.601437	
	13165.00	90.47	180.55	6911.85	5021.29	-4815.15	-1627.46	0.24	1296858.61	3251195.35	40.144777	-104.601443	
	13260.00	90.45	179.69	6911.09	5114.95	-4910.14	-1627.66	0.91	1296763.62	3251195.15	40.144517	-104.601447	
	13355.00	90.35	180.37	6910.42	5208.58	-5005.14	-1627.71	0.72	1296668.62	3251195.10	40.144256	-104.601450	
	13450.00	90.41	180.42	6909.79	5302.31	-5100.14	-1628.36	0.08	1296573.63	3251194.45	40.143995	-104.601456	
	13545.00	92.33	180.37	6907.52	5396.01	-5195.10	-1629.02	2.02	1296478.67	3251193.79	40.143735	-104.601462	
	13639.00	90.88	179.12	6904.89	5489.54	-5289.06	-1628.60	2.04	1296384.72	3251194.21	40.143477	-104.601464	
	13734.00	90.33	180.36	6903.89	5582.09	-5384.05	-1628.17	1.43	1296289.73	3251194.64	40.143216	-104.601466	
	13829.00	89.88	179.92	6903.71	5675.75	-5479.05	-1628.40	0.66	1296194.73	3251194.41	40.142955	-104.601470	
	13924.00	90.05	179.81	6903.77	5769.34	-5574.05	-1628.18	0.21	1296099.74	3251194.64	40.142694	-104.601473	
	14018.00	89.95	180.57	6903.77	5862.03	-5668.05	-1628.49	0.82	1296005.74	3251194.32	40.142436	-104.601477	
	14113.00	89.72	180.62	6904.04	5955.82	-5763.04	-1629.47	0.25	1295910.75	3251193.34	40.142176	-104.601484	
	14208.00	89.41	180.66	6904.76	6049.62	-5858.03	-1630.54	0.33	1295815.77	3251192.28	40.141915	-104.601491	
	14303.00	89.41	180.38	6905.74	6143.38	-5953.03	-1631.40	0.29	1295720.78	3251191.41	40.141654	-104.601498	
	14398.00	89.18	180.37	6906.91	6237.10	-6048.02	-1632.02	0.24	1295625.79	3251190.79	40.141393	-104.601504	
	14492.00	89.37	180.49	6908.10	6329.85	-6142.01	-1632.72	0.24	1295531.81	3251190.09	40.141136	-104.601510	
	14587.00	89.48	180.16	6909.05	6423.56	-6237.00	-1633.26	0.37	1295436.82	3251189.55	40.140875	-104.601515	
	14682.00	89.55	180.06	6909.86	6517.22	-6332.00	-1633.45	0.13	1295341.83	3251189.37	40.140614	-104.601519	
	14777.00	89.22	180.05	6910.88	6610.85	-6426.99	-1633.54	0.35	1295246.84	3251189.28	40.140353	-104.601523	
	14871.00	89.62	180.30	6911.83	6703.54	-6520.99	-1633.82	0.50	1295152.85	3251188.99	40.140095	-104.601527	
	14966.00	89.70	180.44	6912.39	6797.26	-6615.98	-1634.44	0.17	1295057.85	3251188.37	40		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Last SLB MWD Survey	17904.00	89.99	179.89	6914.73	9693.81	-9553.90	-1640.98	0.16	1292120.06	3251181.83	40.131770	-104.601663
Projection to TD (200' FSL, 358' FWL)	17941.00	89.99	179.89	6914.73	9730.26	-9590.90	-1640.91	0.00	1292083.06	3251181.90	40.131669	-104.601664

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% 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	29.000	1/98.425	13.500	9.625	A005Mb_MWD+IFR1-Depth Only	Pioneer Y18-785 / Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive
	1	29.000	29.000	Act Stns	13.500	9.625	A005Mb_MWD+IFR1-Depth Only	Pioneer Y18-785 / Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive
	1	29.000	2194.000	Act Stns	13.500	9.625	A005Mb_MWD+IFR1	Pioneer Y18-785 / Pioneer Y18-785 IFR1+MS 0' to 17941' Definitive
	1	2194.000	17941.000	Act Stns	8.500	5.500	A008Mb_MWD+IFR1+MS	Pioneer Y18-785 / Pioneer Y18-785 IFR1+MS 0' to 17941'