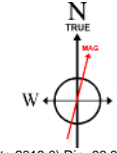


VERDAD OIL & GAS CORPORATION

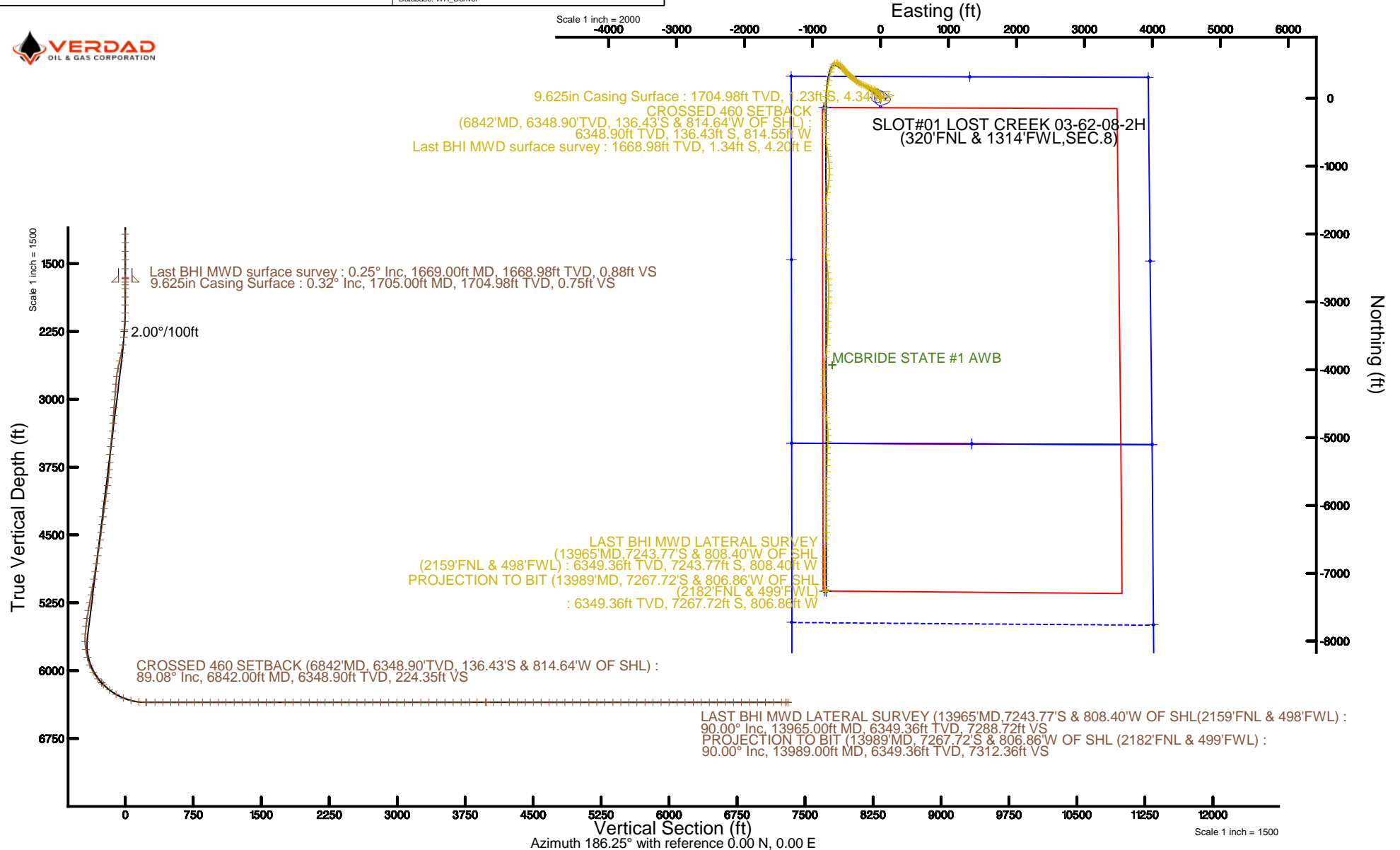
Location: COLORADO Slot: SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)
Field: WELD COUNTY (NAD83/TN) Well: LOST CREEK 03-62-08-2H
Facility: SEC.08-T3N-R62W Wellbore: LOST CREEK 03-62-08-2HPWB

Plot reference wellpath is LOST CREEK 03-62-08-2H (REV-E.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to XTREME 20 (16'RKB+4697'GL) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to XTREME 20 (16'RKB+4697'GL) (RKB)	North Reference: True north
XTREME 20 (16'RKB+4697'GL) (RKB) to Mean Sea Level: 4713 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdanm on 2017-06-26
	Database: WA_Denver



BGGM (1900.0 to 2018.0) Dip: 66.83° Field: 52381.1 nT
Magnetic North is 8.13 degrees East of True North (at 06-Jun-17)

To correct azimuth from Magnetic to True add 8.13 degrees





Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Cookdanm
Scale	0.999957	Report Generated	27-Jun-17 at 8:56:33 AM
Convergence at slot	0.75° East	Database/Source file	WA_Denver/LOST_CREEK_03-62-08-2H_AWB_awp.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.19	-0.02	3320289.97	1334863.35	40°14'48.876"N	104°21'09.173"W
Facility Reference Pt			3320289.98	1334863.54	40°14'48.878"N	104°21'09.173"W
Field Reference Pt			3242930.13	1254608.21	40°01'44.490"N	104°37'56.946"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 20 (16'RKB+4697'GL) (RKB) to Facility Vertical Datum	4713.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'RKB+4697'GL) (RKB) to Mean Sea Level	4713.00ft
Vertical Reference Pt	XTREME 20 (16'RKB+4697'GL) (RKB)	XTREME 20 (16'RKB+4697'GL) (RKB) to Mud Line at Slot (SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8))	4713.00ft
MD Reference Pt	XTREME 20 (16'RKB+4697'GL) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	186.25°

Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 2 of 9

REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL, SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	95.560	0.00	0.00	0.00	0.00	40°14'48.876"N	104°21'09.173"W	0.00	
16.00	0.000	95.560	16.00	0.00	0.00	0.00	40°14'48.876"N	104°21'09.173"W	0.00	
148.00	0.250	95.560	148.00	0.00	-0.03	0.29	40°14'48.876"N	104°21'09.169"W	0.19	
234.00	0.350	135.180	234.00	0.16	-0.23	0.66	40°14'48.874"N	104°21'09.165"W	0.26	
322.00	0.230	172.490	322.00	0.50	-0.60	0.87	40°14'48.870"N	104°21'09.162"W	0.25	
411.00	0.340	135.880	411.00	0.84	-0.96	1.08	40°14'48.866"N	104°21'09.159"W	0.23	
507.00	0.620	139.530	506.99	1.38	-1.56	1.61	40°14'48.861"N	104°21'09.152"W	0.29	
600.00	0.440	175.760	599.99	2.08	-2.30	1.97	40°14'48.853"N	104°21'09.148"W	0.40	
696.00	0.150	17.900	695.99	2.31	-2.55	2.03	40°14'48.851"N	104°21'09.147"W	0.61	
793.00	0.380	55.430	792.99	1.98	-2.25	2.34	40°14'48.854"N	104°21'09.143"W	0.29	
888.00	0.250	87.220	887.99	1.74	-2.06	2.80	40°14'48.856"N	104°21'09.137"W	0.22	
984.00	0.440	97.590	983.98	1.72	-2.10	3.38	40°14'48.855"N	104°21'09.129"W	0.21	
1080.00	0.430	66.390	1079.98	1.55	-2.00	4.07	40°14'48.856"N	104°21'09.120"W	0.24	
1175.00	0.170	356.940	1174.98	1.23	-1.72	4.39	40°14'48.859"N	104°21'09.116"W	0.42	
1270.00	0.140	338.860	1269.98	0.99	-1.47	4.34	40°14'48.861"N	104°21'09.117"W	0.06	
1366.00	0.070	289.540	1365.98	0.87	-1.34	4.25	40°14'48.863"N	104°21'09.118"W	0.11	
1461.00	0.120	171.710	1460.98	0.95	-1.42	4.20	40°14'48.862"N	104°21'09.119"W	0.17	
1557.00	0.000	8.140	1556.98	1.05	-1.52	4.22	40°14'48.861"N	104°21'09.119"W	0.12	
1653.00	0.170	343.840	1652.98	0.92	-1.38	4.18	40°14'48.862"N	104°21'09.119"W	0.18	
1669.00	0.250	61.950	1668.98	0.88	-1.34	4.20	40°14'48.863"N	104°21'09.119"W	1.70	Last BHI MWD surface survey
1736.00	0.400	30.630	1735.98	0.58	-1.07	4.45	40°14'48.865"N	104°21'09.116"W	0.34	
1781.00	0.460	20.130	1780.98	0.26	-0.77	4.59	40°14'48.868"N	104°21'09.114"W	0.22	
1870.00	0.600	10.520	1869.97	-0.55	0.03	4.80	40°14'48.876"N	104°21'09.111"W	0.19	
1959.00	0.690	13.160	1958.97	-1.54	1.01	5.01	40°14'48.886"N	104°21'09.108"W	0.11	
2048.00	0.590	16.400	2047.96	-2.53	1.97	5.26	40°14'48.895"N	104°21'09.105"W	0.12	
2137.00	1.600	14.760	2136.94	-4.21	3.61	5.71	40°14'48.912"N	104°21'09.099"W	1.14	
2226.00	3.400	343.720	2225.86	-7.87	7.34	5.28	40°14'48.949"N	104°21'09.105"W	2.46	
2315.00	7.720	331.160	2314.42	-15.21	15.12	1.66	40°14'49.025"N	104°21'09.152"W	5.01	
2403.00	10.840	335.510	2401.26	-27.16	27.83	-4.62	40°14'49.151"N	104°21'09.233"W	3.63	
2493.00	12.530	341.440	2489.40	-43.30	44.79	-11.24	40°14'49.319"N	104°21'09.318"W	2.30	

Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 3 of 9

REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2582.00	15.320	335.940	2575.78	-62.21	64.68	-19.11	40°14'49.515"N	104°21'09.419"W	3.47	
2671.00	15.080	323.480	2661.69	-80.87	84.72	-30.80	40°14'49.713"N	104°21'09.570"W	3.67	
2760.00	15.120	303.150	2747.67	-94.62	100.39	-47.42	40°14'49.868"N	104°21'09.784"W	5.92	
2849.00	15.020	292.080	2833.63	-103.02	111.07	-67.82	40°14'49.974"N	104°21'10.048"W	3.23	
2938.00	14.950	290.830	2919.60	-109.06	119.49	-89.24	40°14'50.057"N	104°21'10.324"W	0.37	
3027.00	14.870	297.340	3005.61	-116.05	128.82	-110.12	40°14'50.149"N	104°21'10.593"W	1.88	
3117.00	14.960	294.780	3092.58	-123.90	138.99	-130.92	40°14'50.249"N	104°21'10.861"W	0.74	
3206.00	14.960	289.980	3178.57	-130.28	147.73	-152.15	40°14'50.336"N	104°21'11.135"W	1.39	
3294.00	14.330	288.940	3263.71	-135.36	155.15	-173.12	40°14'50.409"N	104°21'11.406"W	0.78	
3384.00	14.040	301.760	3350.99	-142.51	164.51	-192.95	40°14'50.502"N	104°21'11.661"W	3.50	
3473.00	14.990	301.850	3437.15	-152.13	176.27	-211.90	40°14'50.618"N	104°21'11.906"W	1.07	
3562.00	15.000	294.400	3523.12	-160.69	187.10	-232.17	40°14'50.725"N	104°21'12.167"W	2.16	
3651.00	14.950	289.530	3609.10	-166.92	195.69	-253.48	40°14'50.810"N	104°21'12.442"W	1.41	
3740.00	14.200	288.400	3695.24	-171.85	202.98	-274.66	40°14'50.882"N	104°21'12.715"W	0.90	
3829.00	14.410	295.020	3781.49	-177.71	211.11	-295.05	40°14'50.962"N	104°21'12.978"W	1.85	
3918.00	14.490	303.100	3867.68	-186.30	221.87	-314.42	40°14'51.069"N	104°21'13.228"W	2.27	
4007.00	14.650	306.730	3953.82	-197.04	234.69	-332.76	40°14'51.195"N	104°21'13.464"W	1.04	
4096.00	14.460	309.530	4039.96	-208.84	248.49	-350.36	40°14'51.332"N	104°21'13.691"W	0.82	
4185.00	14.590	310.560	4126.12	-221.26	262.85	-367.44	40°14'51.473"N	104°21'13.912"W	0.32	
4274.00	14.450	309.410	4212.28	-233.65	277.19	-384.54	40°14'51.615"N	104°21'14.132"W	0.36	
4363.00	14.500	307.580	4298.45	-245.51	291.03	-401.95	40°14'51.752"N	104°21'14.357"W	0.52	
4452.00	14.430	306.070	4384.63	-256.82	304.36	-419.74	40°14'51.884"N	104°21'14.586"W	0.43	
4541.00	13.450	306.330	4471.01	-267.52	317.02	-437.04	40°14'52.009"N	104°21'14.809"W	1.10	
4630.00	13.700	309.170	4557.52	-278.43	329.81	-453.55	40°14'52.135"N	104°21'15.022"W	0.80	
4718.00	13.660	319.830	4643.04	-291.26	344.33	-468.34	40°14'52.279"N	104°21'15.213"W	2.86	
4807.00	13.750	320.650	4729.51	-305.91	360.54	-481.82	40°14'52.439"N	104°21'15.387"W	0.24	
4897.00	13.530	314.320	4816.97	-319.88	376.17	-496.14	40°14'52.593"N	104°21'15.571"W	1.68	
4986.00	13.640	312.440	4903.48	-332.50	390.53	-511.33	40°14'52.735"N	104°21'15.767"W	0.51	
5075.00	13.830	320.320	4989.95	-346.09	405.79	-525.87	40°14'52.886"N	104°21'15.955"W	2.11	
5164.00	13.950	321.420	5076.34	-361.10	422.37	-539.35	40°14'53.050"N	104°21'16.129"W	0.33	



Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 4 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL, SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5253.00	14.150	322.060	5162.68	-376.50	439.33	-552.73	40°14'53.217"N	104°21'16.301"W	0.28	
5342.00	14.510	322.860	5248.91	-392.40	456.80	-566.15	40°14'53.390"N	104°21'16.474"W	0.46	
5431.00	14.380	318.410	5335.10	-407.92	473.96	-580.22	40°14'53.560"N	104°21'16.656"W	1.26	
5520.00	14.550	309.940	5421.29	-421.54	489.40	-596.13	40°14'53.712"N	104°21'16.861"W	2.38	
5609.00	14.530	302.030	5507.45	-432.60	502.50	-614.16	40°14'53.842"N	104°21'17.094"W	2.23	
5698.00	14.600	298.430	5593.59	-441.69	513.76	-633.49	40°14'53.953"N	104°21'17.343"W	1.02	
5787.00	11.890	263.780	5680.35	-443.95	518.12	-652.51	40°14'53.996"N	104°21'17.588"W	9.26	
5876.00	13.140	233.270	5767.33	-435.06	511.06	-669.75	40°14'53.926"N	104°21'17.810"W	7.47	
5965.00	16.950	222.980	5853.27	-417.75	495.51	-686.71	40°14'53.773"N	104°21'18.029"W	5.21	
6055.00	23.180	210.610	5937.81	-391.06	470.64	-704.70	40°14'53.527"N	104°21'18.261"W	8.34	
6144.00	30.580	199.650	6017.19	-353.01	434.17	-721.26	40°14'53.166"N	104°21'18.475"W	9.98	
6233.00	38.980	193.420	6090.24	-303.10	385.52	-735.40	40°14'52.686"N	104°21'18.657"W	10.24	
6322.00	46.920	192.360	6155.34	-242.92	326.44	-748.88	40°14'52.102"N	104°21'18.831"W	8.96	
6411.00	53.010	193.330	6212.56	-175.26	260.04	-764.04	40°14'51.446"N	104°21'19.026"W	6.89	
6500.00	59.470	191.570	6261.99	-101.74	187.83	-779.95	40°14'50.732"N	104°21'19.231"W	7.44	
6589.00	67.580	188.380	6301.65	-22.31	109.43	-793.65	40°14'49.957"N	104°21'19.408"W	9.66	
6678.00	75.700	185.770	6329.66	62.07	25.68	-804.00	40°14'49.130"N	104°21'19.542"W	9.54	
6767.00	84.670	183.510	6344.82	149.63	-61.64	-811.07	40°14'48.267"N	104°21'19.633"W	10.38	
6842.00†	89.085	181.830	6348.90	224.35	-136.43	-814.55	40°14'47.528"N	104°21'19.678"W	6.30	CROSSED 460 SETBACK (6842'MD, 6348.90'TVD, 136.43'S & 814.64'W OF SHL)
6855.00	89.850	181.540	6349.02	237.31	-149.42	-814.93	40°14'47.399"N	104°21'19.682"W	6.30	
6945.00	90.000	179.750	6349.14	326.88	-239.41	-815.95	40°14'46.510"N	104°21'19.696"W	2.00	
7033.00	89.970	178.870	6349.17	414.23	-327.40	-814.89	40°14'45.640"N	104°21'19.682"W	1.00	
7122.00	89.940	178.650	6349.24	502.47	-416.38	-812.96	40°14'44.761"N	104°21'19.657"W	0.25	
7211.00	89.970	176.890	6349.31	590.49	-505.31	-809.50	40°14'43.882"N	104°21'19.612"W	1.98	
7300.00	89.880	174.470	6349.42	677.98	-594.05	-802.79	40°14'43.006"N	104°21'19.526"W	2.72	
7389.00	90.030	174.930	6349.49	765.17	-682.67	-794.57	40°14'42.130"N	104°21'19.420"W	0.54	
7478.00	89.940	170.250	6349.51	851.63	-770.90	-783.10	40°14'41.258"N	104°21'19.272"W	5.26	
7567.00	89.850	171.480	6349.68	937.44	-858.77	-768.97	40°14'40.390"N	104°21'19.089"W	1.39	
7656.00	90.000	175.020	6349.79	1024.14	-947.14	-758.51	40°14'39.516"N	104°21'18.955"W	3.98	
7745.00	89.880	177.390	6349.89	1111.77	-1035.94	-752.62	40°14'38.639"N	104°21'18.879"W	2.67	

Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 5 of 9

REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7834.00	90.120	181.920	6349.89	1200.15	-1124.92	-752.08	40°14'37.760"N	104°21'18.872"W	5.10	
7923.00	89.880	186.350	6349.89	1289.07	-1213.66	-758.50	40°14'36.883"N	104°21'18.954"W	4.98	
8012.00	89.970	188.700	6350.00	1378.04	-1301.89	-770.15	40°14'36.011"N	104°21'19.105"W	2.64	
8101.00	89.970	189.320	6350.05	1466.94	-1389.79	-784.09	40°14'35.142"N	104°21'19.284"W	0.70	
8190.00	90.090	187.170	6350.00	1555.88	-1477.87	-796.85	40°14'34.272"N	104°21'19.449"W	2.42	
8279.00	90.000	183.220	6349.93	1644.85	-1566.48	-804.91	40°14'33.396"N	104°21'19.553"W	4.44	
8397.00	90.000	181.340	6349.93	1762.56	-1684.38	-809.61	40°14'32.231"N	104°21'19.613"W	1.59	
8486.00	89.880	181.090	6350.03	1851.21	-1773.36	-811.49	40°14'31.352"N	104°21'19.637"W	0.31	
8576.00	90.060	179.990	6350.07	1940.77	-1863.36	-812.34	40°14'30.462"N	104°21'19.648"W	1.24	
8665.00	90.090	178.420	6349.96	2029.09	-1952.35	-811.11	40°14'29.583"N	104°21'19.632"W	1.76	
8754.00	89.850	179.560	6350.00	2117.37	-2041.33	-809.54	40°14'28.704"N	104°21'19.612"W	1.31	
8843.00	89.940	178.790	6350.17	2205.70	-2130.32	-808.26	40°14'27.824"N	104°21'19.596"W	0.87	
8932.00	90.030	176.210	6350.19	2293.65	-2219.23	-804.37	40°14'26.946"N	104°21'19.545"W	2.90	
9021.00	89.850	176.110	6350.28	2381.27	-2308.03	-798.41	40°14'26.068"N	104°21'19.469"W	0.23	
9110.00	90.000	176.180	6350.40	2468.89	-2396.83	-792.43	40°14'25.191"N	104°21'19.391"W	0.19	
9199.00	89.880	173.660	6350.49	2556.15	-2485.47	-784.55	40°14'24.315"N	104°21'19.290"W	2.83	
9288.00	90.060	174.700	6350.54	2643.18	-2574.01	-775.53	40°14'23.440"N	104°21'19.173"W	1.19	
9377.00	89.880	176.380	6350.59	2730.62	-2662.74	-768.61	40°14'22.563"N	104°21'19.084"W	1.90	
9466.00	89.970	178.170	6350.70	2818.53	-2751.63	-764.37	40°14'21.684"N	104°21'19.029"W	2.01	
9555.00	89.910	179.700	6350.80	2906.80	-2840.62	-762.72	40°14'20.805"N	104°21'19.008"W	1.72	
9644.00	89.850	181.600	6350.98	2995.37	-2929.61	-763.73	40°14'19.926"N	104°21'19.021"W	2.14	
9732.00	90.180	182.130	6350.96	3083.11	-3017.56	-766.59	40°14'19.057"N	104°21'19.058"W	0.71	
9821.00	90.060	182.650	6350.77	3171.91	-3106.48	-770.30	40°14'18.178"N	104°21'19.106"W	0.60	
9911.00	90.150	182.000	6350.61	3261.70	-3196.41	-773.96	40°14'17.289"N	104°21'19.153"W	0.73	
10000.00	90.250	180.120	6350.30	3350.33	-3285.39	-775.60	40°14'16.410"N	104°21'19.174"W	2.12	
10089.00	90.180	180.510	6349.96	3438.85	-3374.38	-776.09	40°14'15.531"N	104°21'19.180"W	0.45	
10178.00	90.250	183.250	6349.63	3527.58	-3463.33	-779.01	40°14'14.652"N	104°21'19.218"W	3.08	
10267.00	90.150	183.700	6349.32	3616.48	-3552.16	-784.41	40°14'13.774"N	104°21'19.287"W	0.52	
10356.00	90.150	182.940	6349.09	3705.36	-3641.01	-789.56	40°14'12.896"N	104°21'19.354"W	0.85	
10445.00	90.340	186.210	6348.71	3794.31	-3729.72	-796.66	40°14'12.019"N	104°21'19.445"W	3.68	

Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 6 of 9

REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320°FNL & 1314°FNL, SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10533.00	90.030	188.650	6348.42	3882.28	-3816.97	-808.04	40°14'11.157"N	104°21'19.592"W	2.79	
10622.00	89.970	186.490	6348.42	3971.25	-3905.19	-819.76	40°14'10.285"N	104°21'19.743"W	2.43	
10711.00	90.030	182.500	6348.42	4060.19	-3993.90	-826.73	40°14'09.409"N	104°21'19.833"W	4.48	
10800.00	89.910	181.240	6348.47	4148.93	-4082.85	-829.64	40°14'08.530"N	104°21'19.870"W	1.42	
10889.00	89.880	180.240	6348.63	4237.52	-4171.84	-830.79	40°14'07.650"N	104°21'19.885"W	1.12	
10978.00	89.880	178.440	6348.82	4325.87	-4260.83	-829.76	40°14'06.771"N	104°21'19.872"W	2.02	
11067.00	89.940	177.520	6348.96	4413.94	-4349.77	-826.63	40°14'05.892"N	104°21'19.831"W	1.04	
11156.00	90.060	177.870	6348.96	4501.95	-4438.70	-823.05	40°14'05.013"N	104°21'19.785"W	0.42	
11245.00	89.880	174.400	6349.00	4589.55	-4527.48	-817.05	40°14'04.136"N	104°21'19.708"W	3.90	
11334.00	89.880	173.200	6349.19	4676.45	-4615.96	-807.44	40°14'03.261"N	104°21'19.584"W	1.35	
11423.00	89.970	172.630	6349.31	4763.05	-4704.28	-796.46	40°14'02.389"N	104°21'19.442"W	0.65	
11512.00	89.850	173.320	6349.45	4849.67	-4792.61	-785.57	40°14'01.516"N	104°21'19.302"W	0.79	
11601.00	89.940	176.200	6349.61	4936.88	-4881.23	-777.45	40°14'00.640"N	104°21'19.197"W	3.24	
11690.00	89.880	179.720	6349.75	5024.93	-4970.16	-774.28	40°13'59.761"N	104°21'19.156"W	3.96	
11780.00	90.030	183.090	6349.82	5114.60	-5060.12	-776.49	40°13'58.872"N	104°21'19.185"W	3.75	
11868.00	90.000	182.450	6349.80	5202.43	-5148.02	-780.74	40°13'58.004"N	104°21'19.239"W	0.73	
11957.00	89.910	181.430	6349.87	5291.18	-5236.97	-783.75	40°13'57.125"N	104°21'19.278"W	1.15	
12046.00	90.060	181.340	6349.89	5379.86	-5325.94	-785.90	40°13'56.245"N	104°21'19.306"W	0.20	
12135.00	89.820	180.670	6349.98	5468.48	-5414.93	-787.46	40°13'55.366"N	104°21'19.326"W	0.80	
12224.00	89.970	181.040	6350.15	5557.09	-5503.92	-788.79	40°13'54.487"N	104°21'19.343"W	0.45	
12313.00	89.910	182.050	6350.24	5645.79	-5592.88	-791.19	40°13'53.608"N	104°21'19.374"W	1.14	
12402.00	90.000	181.670	6350.31	5734.53	-5681.83	-794.08	40°13'52.728"N	104°21'19.411"W	0.44	
12491.00	89.970	180.850	6350.33	5823.19	-5770.81	-796.04	40°13'51.849"N	104°21'19.436"W	0.92	
12580.00	90.090	179.630	6350.29	5911.70	-5859.81	-796.41	40°13'50.970"N	104°21'19.441"W	1.38	
12669.00	90.090	178.980	6350.15	6000.04	-5948.80	-795.33	40°13'50.090"N	104°21'19.427"W	0.73	
12758.00	90.030	180.450	6350.05	6088.46	-6037.80	-794.89	40°13'49.211"N	104°21'19.422"W	1.65	
12847.00	90.060	179.930	6349.98	6176.96	-6126.80	-795.18	40°13'48.331"N	104°21'19.425"W	0.59	
12936.00	90.060	180.280	6349.89	6265.45	-6215.80	-795.35	40°13'47.452"N	104°21'19.427"W	0.39	
13025.00	90.090	181.260	6349.77	6354.04	-6304.79	-796.54	40°13'46.572"N	104°21'19.443"W	1.10	
13114.00	90.030	181.480	6349.68	6442.72	-6393.76	-798.67	40°13'45.693"N	104°21'19.470"W	0.26	



Actual Wellpath Report

LOST CREEK 03-62-08-2H AWP

Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL, SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWP
Facility	SEC.08-T3N-R62W		

WELLPATH DATA (161 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS °/100ft	Comments
13203.00	89.970	181.490	6349.68	6531.41	-6482.73	-800.98	40°13'44.814"N	104°21'19.500"W	0.07	
13292.00	90.220	185.160	6349.53	6620.28	-6571.57	-806.14	40°13'43.936"N	104°21'19.566"W	4.13	
13382.00	90.120	185.410	6349.27	6710.26	-6661.19	-814.43	40°13'43.051"N	104°21'19.673"W	0.30	
13470.00	90.060	181.320	6349.13	6798.13	-6749.01	-819.59	40°13'42.183"N	104°21'19.740"W	4.65	
13559.00	89.970	179.800	6349.10	6886.69	-6838.01	-820.46	40°13'41.303"N	104°21'19.751"W	1.71	
13648.00	89.940	179.190	6349.17	6975.07	-6927.00	-819.68	40°13'40.424"N	104°21'19.741"W	0.69	
13737.00	90.030	178.620	6349.20	7063.34	-7015.99	-817.98	40°13'39.544"N	104°21'19.719"W	0.65	
13826.00	89.880	178.020	6349.27	7151.49	-7104.95	-815.37	40°13'38.665"N	104°21'19.685"W	0.69	
13915.00	90.000	176.850	6349.36	7239.43	-7193.86	-811.38	40°13'37.787"N	104°21'19.634"W	1.32	
13965.00	90.000	176.310	6349.36	7288.72	-7243.77	-808.40	40°13'37.294"N	104°21'19.595"W	1.08	LAST BHI MWD LATERAL SURVEY (13965'MD, 7243.77'S & 808.40'W OF SHL (2159'FNL & 498'FWL)
13989.00	90.000	176.310	6349.36	7312.36	-7267.72	-806.86	40°13'37.057"N	104°21'19.575"W	0.00	PROJECTION TO BIT (13989'MD, 7267.72'S & 806.86'W OF SHL (2182'FNL & 499'FWL)

HOLE & CASING SECTIONS - Ref Wellbore: LOST CREEK 03-62-08-2H AWP

Ref Wellpath: LOST CREEK 03-62-08-2H AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1705.00	1689.00	16.00	1704.98	0.00	0.00	-1.23	4.34
8.5in Open Hole	1705.00	13989.00	12284.00	1704.98	6349.36	-1.23	4.34	-7267.72	-806.86

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.08-T3N-R62W	0.00	0.00	0.00	3320289.97	1334863.35	40°14'48.876"N	104°21'09.173"W	polygon
SEC.08-T3N-R62W (460'SETBACK)	0.00	0.00	0.00	3320289.97	1334863.35	40°14'48.876"N	104°21'09.173"W	polygon
SEC.17-T3N-R62W	0.00	0.00	0.00	3320289.97	1334863.35	40°14'48.876"N	104°21'09.173"W	polygon
SEC.17-T3N-R62W (460'SETBACK)	0.00	0.00	0.00	3320289.97	1334863.35	40°14'48.876"N	104°21'09.173"W	polygon
E 1/4 COR. SEC. 17	4713.00	-7757.85	4014.08	3324403.91	1327158.44	40°13'32.210"N	104°20'17.423"W	point
E 1/4 COR. SEC. 8	4713.00	-2398.25	3966.59	3324287.08	1332516.74	40°14'25.174"N	104°20'18.024"W	point
N 1/4 COR. SEC. 8	4713.00	315.89	1312.29	3321598.00	1335196.18	40°14'51.997"N	104°20'52.249"W	point
N 1/4 COR. SEC. 17	4713.00	-5094.36	1343.29	3321699.00	1329787.03	40°13'58.534"N	104°20'51.853"W	point
NE COR. SEC. 17	4713.00	-5105.01	3994.39	3324349.89	1329810.69	40°13'58.426"N	104°20'17.671"W	point
NE COR. SEC. 8	4713.00	308.51	3938.80	3324224.27	1335222.79	40°14'51.922"N	104°20'18.377"W	point
NW COR. SEC. 17	4713.00	-5083.80	-1308.08	3319047.83	1329763.28	40°13'58.638"N	104°21'26.039"W	point
NW COR. SEC. 8	4713.00	323.90	-1314.49	3318971.45	1335170.20	40°14'52.076"N	104°21'26.125"W	point

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
S 1/4 COR. SEC 8	4713.00	-5094.36	1343.29	3321699.00	1329787.03	40°13'58.534"N	104°20'51.853"W	point
S 1/4 COR. SEC. 17	4713.00	-10385.11	1365.36	3321789.52	1324497.25	40°13'06.251"N	104°20'51.572"W	point
SE COR. SEC. 17	4713.00	-10410.68	4033.78	3324457.93	1324506.21	40°13'05.995"N	104°20'17.174"W	point
SE COR. SEC. 8	4713.00	-5105.01	3994.39	3324349.89	1329810.69	40°13'58.426"N	104°20'17.671"W	point
SW COR. SEC 8	4713.00	-5083.80	-1308.08	3319047.83	1329763.28	40°13'58.638"N	104°21'26.039"W	point
SW COR. SEC. 17	4713.00	-10359.61	-1303.33	3319120.85	1324488.21	40°13'06.503"N	104°21'25.974"W	point
W 1/4 COR. SEC. 17	4713.00	-7721.71	-1305.71	3319084.34	1327125.75	40°13'32.570"N	104°21'26.006"W	point
W 1/4 COR. SEC. 8	4713.00	-2379.95	-1311.29	3319009.64	1332466.74	40°14'25.357"N	104°21'26.082"W	point
LOST CREEK 03-62-08-2H BHL (2180'FNL & 480'FWL, SEC.17, REV-1)	6319.00	-7265.26	-826.24	3319557.84	1327588.34	40°13'37.081"N	104°21'19.825"W	point
LOST CREEK 03-62-08-2H LP (460'FNL & 480'FWL, SEC.8, REV-1)	6339.00	-137.33	-834.09	3319457.76	1334715.25	40°14'47.519"N	104°21'19.930"W	point
LOST CREEK 03-62-08-2H BHL (2180'FNL & 510'FWL, SEC.17, REV-3)	6350.00	-7265.26	-796.24	3319587.84	1327588.73	40°13'37.081"N	104°21'19.438"W	point
	6350.00	-137.33	-804.10	3319487.75	1334715.64	40°14'47.519"N	104°21'19.543"W	point

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LOST CREEK 03-62-08-2H LP (460'FNL & 510'FWL,SEC.8,REV-3)								

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LOST CREEK 03-62-08-2H BHL (2180'FNL & 510'FWL,SEC.17,REV-2)	6358.00	-7265.26	-796.24	3319587.84	1327588.73	40°13'37.081"N	104°21'19.438"W	point
LOST CREEK 03-62-08-2H LP (460'FNL & 510'FWL,SEC.8,REV-2)	6358.00	-137.33	-804.10	3319487.75	1334715.64	40°14'47.519"N	104°21'19.543"W	point



Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 8 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL,SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH COMPOSITION - Ref Wellbore: LOST CREEK 03-62-08-2H AWB Ref Wellpath: LOST CREEK 03-62-08-2H AWB_awp				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1669.00	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI/NAVITRAK (AXIAL) MWD 13.5"-<137-1658>	LOST CREEK 03-62-08-2H AWB
1669.00	13965.00	Custom BHI AutoTrak Curve (Axial Corr, Short spacing) (Rockies 0.03Gt model)	BHI/ATC (AXIAL) MWD 8.5"-<1736-13965>	LOST CREEK 03-62-08-2H AWB
13965.00	13989.00	Blind Drilling (std)	Projection to bit	LOST CREEK 03-62-08-2H AWB



Actual Wellpath Report

LOST CREEK 03-62-08-2H AWB_awp

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL, SEC.8)
Area	COLORADO	Well	LOST CREEK 03-62-08-2H
Field	WELD COUNTY (NAD83/TN)	Wellbore	LOST CREEK 03-62-08-2H AWB
Facility	SEC.08-T3N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1669.00	0.250	61.950	1668.98	Last BHI MWD surface survey
6842.00	89.085	181.830	6348.90	CROSSED 460 SETBACK (6842'MD, 6348.90'TVD, 136.43'S & 814.64'W OF SHL)
13965.00	90.000	176.310	6349.36	LAST BHI MWD LATERAL SURVEY (13965'MD, 7243.77'S & 808.40'W OF SHL (2159'FNL & 498'FWL)
13989.00	90.000	176.310	6349.36	PROJECTION TO BIT (13989'MD, 7267.72'S & 806.86'W OF SHL (2182'FNL & 499'FWL)

LOST_CREEK_03-62-08-2H_AWB_awp.las

~VERSION INFORMATION

VERS. 2.0 : CWLS LOG ASCII STANDARD-VERSION 2.0
 WRAP. NO : ASCII DATA SECTION CONTAINS ONE ROW PER WELLPATH STATION

~WELL INFORMATION

#MNEM	.UNITS	DATA	:DESCRIPTION
#----	.-----	----	:-----
STRT	.ft	0.00	:START MD
STOP	.ft	13989.00	:STOP MD
STEP	.ft	0.0	:STEP (non-uniform increment)
NULL	.	-999.99	:NULL
COMP	.	VERDAD OIL & GAS CORPORATION	:OPERATOR
WELL	.	LOST CREEK 03-62-08-2H	:WELL
FLD	.	WELD COUNTY (NAD83/TN)	:FIELD
LOC	.	COLORADO	:AREA (aka: Location)
CNTY	.	N/A	:COUNTY
STAT	.	N/A	:STATE
CTRY	.	N/A	:COUNTRY
SRVC	.	Baker Hughes	:CONTRACTOR
DATE	.	06/22/2017	:LOG REV DATE
API	.		:API NUMBER

~OTHER INFORMATION

#Software: wellArchitect(R) Version 5.0

#MNEM	.UNITS	DATA	:DESCRIPTION
#----	.-----	----	:-----
WPTYPE	.	ACTUAL WELLPATH	:WELLPATH TYPE
FACILITY	.	SEC.08-T3N-R62W	:FACILITY
SLOT	.	SLOT#01 LOST CREEK 03-62-08-2H (320'FNL & 1314'FWL, SEC.8)	:SLOT
WELLBORE	.	LOST CREEK 03-62-08-2H AWB	:WELLBORE
WELLPATH	.	LOST CREEK 03-62-08-2H AWB_awp	:WELLPATH
MDREFPT	.	XTREME 20 (16'RKB+4697'GL) (RKB)	:MD REFERENCE POINT
TVDREFPT	.	XTREME 20 (16'RKB+4697'GL) (RKB)	:TVD REFERENCE POINT
LCLREFPT	.	SLOT	:LOCAL COORDINATE REFERENCE PT
VSAZIMUTH	.deg	186.25	:VERTICAL SECTION AZIMUTH
VSORIGN	.ft	0.00	:VERTICAL SECTION ORIGIN NORTH
VSORIGE	.ft	0.00	:VERTICAL SECTION ORIGIN EAST

~CURVE (WELLPATH) INFORMATION

#MNEM	.UNITS	:DESCRIPTION
#----	.-----	:-----
DEPT	.ft	:MEASURED DEPTH
INC	.deg	:INCLINATION
AZI	.deg	:AZIMUTH

LOST_CREEK_03-62-08-2H_AWB_awp.las

TVD .ft :TRUE VERTICAL DEPTH
 SECT .ft :CROSS SECTION (CURTAIN/VERTICAL)
 LOCALN .ft :LOCAL NORTH
 LOCALE .ft :LOCAL EAST
 LAT .deg :LATITUDE
 LONG .deg :LONGITUDE
 DLS .deg/100ft :DOGLEG SEVERITY

~ASCII DATA

0.00	0.00	95.56	0.00	0.00	0.00	0.00	40.2469100	-104.3525481	0.00
16.00	0.00	95.56	16.00	0.00	0.00	0.00	40.2469100	-104.3525481	0.00
148.00	0.25	95.56	148.00	0.00	-0.03	0.29	40.2469099	-104.3525470	0.19
234.00	0.35	135.18	234.00	0.16	-0.23	0.66	40.2469094	-104.3525457	0.26
322.00	0.23	172.49	322.00	0.50	-0.60	0.87	40.2469084	-104.3525449	0.25
411.00	0.34	135.88	411.00	0.84	-0.96	1.08	40.2469074	-104.3525442	0.23
507.00	0.62	139.53	506.99	1.38	-1.56	1.61	40.2469057	-104.3525423	0.29
600.00	0.44	175.76	599.99	2.08	-2.30	1.97	40.2469037	-104.3525410	0.40
696.00	0.15	17.90	695.99	2.31	-2.55	2.03	40.2469030	-104.3525408	0.61
793.00	0.38	55.43	792.99	1.98	-2.25	2.34	40.2469038	-104.3525397	0.29
888.00	0.25	87.22	887.99	1.74	-2.06	2.80	40.2469043	-104.3525380	0.22
984.00	0.44	97.59	983.98	1.72	-2.10	3.38	40.2469042	-104.3525360	0.21
1080.00	0.43	66.39	1079.98	1.55	-2.00	4.07	40.2469045	-104.3525335	0.24
1175.00	0.17	356.94	1174.98	1.23	-1.72	4.39	40.2469053	-104.3525323	0.42
1270.00	0.14	338.86	1269.98	0.99	-1.47	4.34	40.2469060	-104.3525325	0.06
1366.00	0.07	289.54	1365.98	0.87	-1.34	4.25	40.2469063	-104.3525328	0.11
1461.00	0.12	171.71	1460.98	0.95	-1.42	4.20	40.2469061	-104.3525330	0.17
1557.00	0.00	8.14	1556.98	1.05	-1.52	4.22	40.2469058	-104.3525329	0.12
1653.00	0.17	343.84	1652.98	0.92	-1.38	4.18	40.2469062	-104.3525331	0.18
1669.00	0.25	61.95	1668.98	0.88	-1.34	4.20	40.2469063	-104.3525330	1.70
1736.00	0.40	30.63	1735.98	0.58	-1.07	4.45	40.2469071	-104.3525321	0.34
1781.00	0.46	20.13	1780.98	0.26	-0.77	4.59	40.2469079	-104.3525316	0.22
1870.00	0.60	10.52	1869.97	-0.55	0.03	4.80	40.2469101	-104.3525309	0.19
1959.00	0.69	13.16	1958.97	-1.54	1.01	5.01	40.2469128	-104.3525301	0.11
2048.00	0.59	16.40	2047.96	-2.53	1.97	5.26	40.2469154	-104.3525292	0.12
2137.00	1.60	14.76	2136.94	-4.21	3.61	5.71	40.2469199	-104.3525276	1.14
2226.00	3.40	343.72	2225.86	-7.87	7.34	5.28	40.2469302	-104.3525291	2.46
2315.00	7.72	331.16	2314.42	-15.21	15.12	1.66	40.2469515	-104.3525421	5.01
2403.00	10.84	335.51	2401.26	-27.16	27.83	-4.62	40.2469864	-104.3525646	3.63
2493.00	12.53	341.44	2489.40	-43.30	44.79	-11.24	40.2470329	-104.3525883	2.30
2582.00	15.32	335.94	2575.78	-62.21	64.68	-19.11	40.2470875	-104.3526165	3.47
2671.00	15.08	323.48	2661.69	-80.87	84.72	-30.80	40.2471426	-104.3526584	3.67
2760.00	15.12	303.15	2747.67	-94.62	100.39	-47.42	40.2471856	-104.3527179	5.92
2849.00	15.02	292.08	2833.63	-103.02	111.07	-67.82	40.2472149	-104.3527910	3.23
2938.00	14.95	290.83	2919.60	-109.06	119.49	-89.24	40.2472380	-104.3528677	0.37

LOST_CREEK_03-62-08-2H_AWB_awp.las

3027.00	14.87	297.34	3005.61	-116.05	128.82	-110.12	40.2472636	-104.3529425	1.88
3117.00	14.96	294.78	3092.58	-123.90	138.99	-130.92	40.2472915	-104.3530171	0.74
3206.00	14.96	289.98	3178.57	-130.28	147.73	-152.15	40.2473155	-104.3530931	1.39
3294.00	14.33	288.94	3263.71	-135.36	155.15	-173.12	40.2473359	-104.3531682	0.78
3384.00	14.04	301.76	3350.99	-142.51	164.51	-192.95	40.2473616	-104.3532392	3.50
3473.00	14.99	301.85	3437.15	-152.13	176.27	-211.90	40.2473938	-104.3533072	1.07
3562.00	15.00	294.40	3523.12	-160.69	187.10	-232.17	40.2474236	-104.3533798	2.16
3651.00	14.95	289.53	3609.10	-166.92	195.69	-253.48	40.2474472	-104.3534561	1.41
3740.00	14.20	288.40	3695.24	-171.85	202.98	-274.66	40.2474672	-104.3535320	0.90
3829.00	14.41	295.02	3781.49	-177.71	211.11	-295.05	40.2474895	-104.3536050	1.85
3918.00	14.49	303.10	3867.68	-186.30	221.87	-314.42	40.2475190	-104.3536744	2.27
4007.00	14.65	306.73	3953.82	-197.04	234.69	-332.76	40.2475542	-104.3537401	1.04
4096.00	14.46	309.53	4039.96	-208.84	248.49	-350.36	40.2475921	-104.3538031	0.82
4185.00	14.59	310.56	4126.12	-221.26	262.85	-367.44	40.2476315	-104.3538643	0.32
4274.00	14.45	309.41	4212.28	-233.65	277.19	-384.54	40.2476709	-104.3539256	0.36
4363.00	14.50	307.58	4298.45	-245.51	291.03	-401.95	40.2477089	-104.3539880	0.52
4452.00	14.43	306.07	4384.63	-256.82	304.36	-419.74	40.2477454	-104.3540517	0.43
4541.00	13.45	306.33	4471.01	-267.52	317.02	-437.04	40.2477802	-104.3541137	1.10
4630.00	13.70	309.17	4557.52	-278.43	329.81	-453.55	40.2478153	-104.3541728	0.80
4718.00	13.66	319.83	4643.04	-291.26	344.33	-468.34	40.2478552	-104.3542258	2.86
4807.00	13.75	320.65	4729.51	-305.91	360.54	-481.82	40.2478997	-104.3542741	0.24
4897.00	13.53	314.32	4816.97	-319.88	376.17	-496.14	40.2479426	-104.3543254	1.68
4986.00	13.64	312.44	4903.48	-332.50	390.53	-511.33	40.2479820	-104.3543798	0.51
5075.00	13.83	320.32	4989.95	-346.09	405.79	-525.87	40.2480239	-104.3544319	2.11
5164.00	13.95	321.42	5076.34	-361.10	422.37	-539.35	40.2480694	-104.3544802	0.33
5253.00	14.15	322.06	5162.68	-376.50	439.33	-552.73	40.2481159	-104.3545281	0.28
5342.00	14.51	322.86	5248.91	-392.40	456.80	-566.15	40.2481639	-104.3545762	0.46
5431.00	14.38	318.41	5335.10	-407.92	473.96	-580.22	40.2482110	-104.3546266	1.26
5520.00	14.55	309.94	5421.29	-421.54	489.40	-596.13	40.2482534	-104.3546836	2.38
5609.00	14.53	302.03	5507.45	-432.60	502.50	-614.16	40.2482893	-104.3547482	2.23
5698.00	14.60	298.43	5593.59	-441.69	513.76	-633.49	40.2483202	-104.3548175	1.02
5787.00	11.89	263.78	5680.35	-443.95	518.12	-652.51	40.2483322	-104.3548856	9.26
5876.00	13.14	233.27	5767.33	-435.06	511.06	-669.75	40.2483128	-104.3549473	7.47
5965.00	16.95	222.98	5853.27	-417.75	495.51	-686.71	40.2482701	-104.3550081	5.21
6055.00	23.18	210.61	5937.81	-391.06	470.64	-704.70	40.2482019	-104.3550725	8.34
6144.00	30.58	199.65	6017.19	-353.01	434.17	-721.26	40.2481017	-104.3551319	9.98
6233.00	38.98	193.42	6090.24	-303.10	385.52	-735.40	40.2479682	-104.3551825	10.24
6322.00	46.92	192.36	6155.34	-242.92	326.44	-748.88	40.2478060	-104.3552308	8.96
6411.00	53.01	193.33	6212.56	-175.26	260.04	-764.04	40.2476238	-104.3552851	6.89
6500.00	59.47	191.57	6261.99	-101.74	187.83	-779.95	40.2474255	-104.3553421	7.44
6589.00	67.58	188.38	6301.65	-22.31	109.43	-793.65	40.2472103	-104.3553912	9.66
6678.00	75.70	185.77	6329.66	62.07	25.68	-804.00	40.2469804	-104.3554282	9.54
6767.00	84.67	183.51	6344.82	149.63	-61.64	-811.07	40.2467408	-104.3554535	10.38
6855.00	89.85	181.54	6349.02	237.31	-149.42	-814.93	40.2464998	-104.3554674	6.30

LOST_CREEK_03-62-08-2H_AWB_arp.las									
6945.00	90.00	179.75	6349.14	326.88	-239.41	-815.95	40.2462528	-104.3554710	2.00
7033.00	89.97	178.87	6349.17	414.23	-327.40	-814.89	40.2460112	-104.3554672	1.00
7122.00	89.94	178.65	6349.24	502.47	-416.38	-812.96	40.2457670	-104.3554603	0.25
7211.00	89.97	176.89	6349.31	590.49	-505.31	-809.50	40.2455229	-104.3554478	1.98
7300.00	89.88	174.47	6349.42	677.98	-594.05	-802.79	40.2452793	-104.3554238	2.72
7389.00	90.03	174.93	6349.49	765.17	-682.67	-794.57	40.2450360	-104.3553944	0.54
7478.00	89.94	170.25	6349.51	851.63	-770.90	-783.10	40.2447939	-104.3553532	5.26
7567.00	89.85	171.48	6349.68	937.44	-858.77	-768.97	40.2445527	-104.3553026	1.39
7656.00	90.00	175.02	6349.79	1024.14	-947.14	-758.51	40.2443101	-104.3552651	3.98
7745.00	89.88	177.39	6349.89	1111.77	-1035.94	-752.62	40.2440663	-104.3552440	2.67
7834.00	90.12	181.92	6349.89	1200.15	-1124.92	-752.08	40.2438221	-104.3552421	5.10
7923.00	89.88	186.35	6349.89	1289.07	-1213.66	-758.50	40.2435785	-104.3552651	4.98
8012.00	89.97	188.70	6350.00	1378.04	-1301.89	-770.15	40.2433363	-104.3553068	2.64
8101.00	89.97	189.32	6350.05	1466.94	-1389.79	-784.09	40.2430950	-104.3553567	0.70
8190.00	90.09	187.17	6350.00	1555.88	-1477.87	-796.85	40.2428533	-104.3554024	2.42
8279.00	90.00	183.22	6349.93	1644.85	-1566.48	-804.91	40.2426100	-104.3554313	4.44
8397.00	90.00	181.34	6349.93	1762.56	-1684.38	-809.61	40.2422864	-104.3554481	1.59
8486.00	89.88	181.09	6350.03	1851.21	-1773.36	-811.49	40.2420421	-104.3554548	0.31
8576.00	90.06	179.99	6350.07	1940.77	-1863.36	-812.34	40.2417951	-104.3554579	1.24
8665.00	90.09	178.42	6349.96	2029.09	-1952.35	-811.11	40.2415508	-104.3554534	1.76
8754.00	89.85	179.56	6350.00	2117.37	-2041.33	-809.54	40.2413066	-104.3554478	1.31
8843.00	89.94	178.79	6350.17	2205.70	-2130.32	-808.26	40.2410623	-104.3554432	0.87
8932.00	90.03	176.21	6350.19	2293.65	-2219.23	-804.37	40.2408182	-104.3554293	2.90
9021.00	89.85	176.11	6350.28	2381.27	-2308.03	-798.41	40.2405745	-104.3554079	0.23
9110.00	90.00	176.18	6350.40	2468.89	-2396.83	-792.43	40.2403307	-104.3553865	0.19
9199.00	89.88	173.66	6350.49	2556.15	-2485.47	-784.55	40.2400874	-104.3553583	2.83
9288.00	90.06	174.70	6350.54	2643.18	-2574.01	-775.53	40.2398444	-104.3553259	1.19
9377.00	89.88	176.38	6350.59	2730.62	-2662.74	-768.61	40.2396008	-104.3553011	1.90
9466.00	89.97	178.17	6350.70	2818.53	-2751.63	-764.37	40.2393568	-104.3552860	2.01
9555.00	89.91	179.70	6350.80	2906.80	-2840.62	-762.72	40.2391126	-104.3552800	1.72
9644.00	89.85	181.60	6350.98	2995.37	-2929.61	-763.73	40.2388683	-104.3552836	2.14
9732.00	90.18	182.13	6350.96	3083.11	-3017.56	-766.59	40.2386268	-104.3552939	0.71
9821.00	90.06	182.65	6350.77	3171.91	-3106.48	-770.30	40.2383828	-104.3553072	0.60
9911.00	90.15	182.00	6350.61	3261.70	-3196.41	-773.96	40.2381359	-104.3553202	0.73
10000.00	90.25	180.12	6350.30	3350.33	-3285.39	-775.60	40.2378917	-104.3553261	2.12
10089.00	90.18	180.51	6349.96	3438.85	-3374.38	-776.09	40.2376474	-104.3553279	0.45
10178.00	90.25	183.25	6349.63	3527.58	-3463.33	-779.01	40.2374032	-104.3553383	3.08
10267.00	90.15	183.70	6349.32	3616.48	-3552.16	-784.41	40.2371594	-104.3553576	0.52
10356.00	90.15	182.94	6349.09	3705.36	-3641.01	-789.56	40.2369155	-104.3553761	0.85
10445.00	90.34	186.21	6348.71	3794.31	-3729.72	-796.66	40.2366720	-104.3554015	3.68
10533.00	90.03	188.65	6348.42	3882.28	-3816.97	-808.04	40.2364325	-104.3554422	2.79
10622.00	89.97	186.49	6348.42	3971.25	-3905.19	-819.76	40.2361903	-104.3554842	2.43
10711.00	90.03	182.50	6348.42	4060.19	-3993.90	-826.73	40.2359468	-104.3555092	4.48
10800.00	89.91	181.24	6348.47	4148.93	-4082.85	-829.64	40.2357026	-104.3555196	1.42

LOST_CREEK_03-62-08-2H_AWB_awp.las									
10889.00	89.88	180.24	6348.63	4237.52	-4171.84	-830.79	40.2354584	-104.3555237	1.12
10978.00	89.88	178.44	6348.82	4325.87	-4260.83	-829.76	40.2352141	-104.3555200	2.02
11067.00	89.94	177.52	6348.96	4413.94	-4349.77	-826.63	40.2349699	-104.3555087	1.04
11156.00	90.06	177.87	6348.96	4501.95	-4438.70	-823.05	40.2347258	-104.3554959	0.42
11245.00	89.88	174.40	6349.00	4589.55	-4527.48	-817.05	40.2344821	-104.3554744	3.90
11334.00	89.88	173.20	6349.19	4676.45	-4615.96	-807.44	40.2342393	-104.3554400	1.35
11423.00	89.97	172.63	6349.31	4763.05	-4704.28	-796.46	40.2339968	-104.3554007	0.65
11512.00	89.85	173.32	6349.45	4849.67	-4792.61	-785.57	40.2337544	-104.3553617	0.79
11601.00	89.94	176.20	6349.61	4936.88	-4881.23	-777.45	40.2335111	-104.3553325	3.24
11690.00	89.88	179.72	6349.75	5024.93	-4970.16	-774.28	40.2332670	-104.3553212	3.96
11780.00	90.03	183.09	6349.82	5114.60	-5060.12	-776.49	40.2330201	-104.3553291	3.75
11868.00	90.00	182.45	6349.80	5202.43	-5148.02	-780.74	40.2327788	-104.3553443	0.73
11957.00	89.91	181.43	6349.87	5291.18	-5236.97	-783.75	40.2325346	-104.3553551	1.15
12046.00	90.06	181.34	6349.89	5379.86	-5325.94	-785.90	40.2322904	-104.3553628	0.20
12135.00	89.82	180.67	6349.98	5468.48	-5414.93	-787.46	40.2320461	-104.3553684	0.80
12224.00	89.97	181.04	6350.15	5557.09	-5503.92	-788.79	40.2318019	-104.3553731	0.45
12313.00	89.91	182.05	6350.24	5645.79	-5592.88	-791.19	40.2315576	-104.3553817	1.14
12402.00	90.00	181.67	6350.31	5734.53	-5681.83	-794.08	40.2313135	-104.3553920	0.44
12491.00	89.97	180.85	6350.33	5823.19	-5770.81	-796.04	40.2310692	-104.3553990	0.92
12580.00	90.09	179.63	6350.29	5911.70	-5859.81	-796.41	40.2308249	-104.3554003	1.38
12669.00	90.09	178.98	6350.15	6000.04	-5948.80	-795.33	40.2305806	-104.3553965	0.73
12758.00	90.03	180.45	6350.05	6088.46	-6037.80	-794.89	40.2303364	-104.3553949	1.65
12847.00	90.06	179.93	6349.98	6176.96	-6126.80	-795.18	40.2300920	-104.3553959	0.59
12936.00	90.06	180.28	6349.89	6265.45	-6215.80	-795.35	40.2298477	-104.3553965	0.39
13025.00	90.09	181.26	6349.77	6354.04	-6304.79	-796.54	40.2296035	-104.3554008	1.10
13114.00	90.03	181.48	6349.68	6442.72	-6393.76	-798.67	40.2293592	-104.3554084	0.26
13203.00	89.97	181.49	6349.68	6531.41	-6482.73	-800.98	40.2291150	-104.3554166	0.07
13292.00	90.22	185.16	6349.53	6620.28	-6571.57	-806.14	40.2288712	-104.3554351	4.13
13382.00	90.12	185.41	6349.27	6710.26	-6661.19	-814.43	40.2286252	-104.3554648	0.30
13470.00	90.06	181.32	6349.13	6798.13	-6749.01	-819.59	40.2283841	-104.3554833	4.65
13559.00	89.97	179.80	6349.10	6886.69	-6838.01	-820.46	40.2281398	-104.3554864	1.71
13648.00	89.94	179.19	6349.17	6975.07	-6927.00	-819.68	40.2278955	-104.3554835	0.69
13737.00	90.03	178.62	6349.20	7063.34	-7015.99	-817.98	40.2276512	-104.3554774	0.65
13826.00	89.88	178.02	6349.27	7151.49	-7104.95	-815.37	40.2274070	-104.3554681	0.69
13915.00	90.00	176.85	6349.36	7239.43	-7193.86	-811.38	40.2271630	-104.3554538	1.32
13965.00	90.00	176.31	6349.36	7288.72	-7243.77	-808.40	40.2270260	-104.3554431	1.08
13989.00	90.00	176.31	6349.36	7312.36	-7267.72	-806.86	40.2269602	-104.3554376	0.00