

VERDAD RESOURCES



Location: COLORADO Slot: SLOT#01 ROHN 9-60-14A-23-1 (2010FSL&2519FEL,SEC.14)

Field: WELD COUNTY (NAD83/TN) Well: ROHN 9-60-14A-23-1

Facility: SEC.14-T09N-R60W Wellbore: ROHN 9-60-14A-23-1 PWB

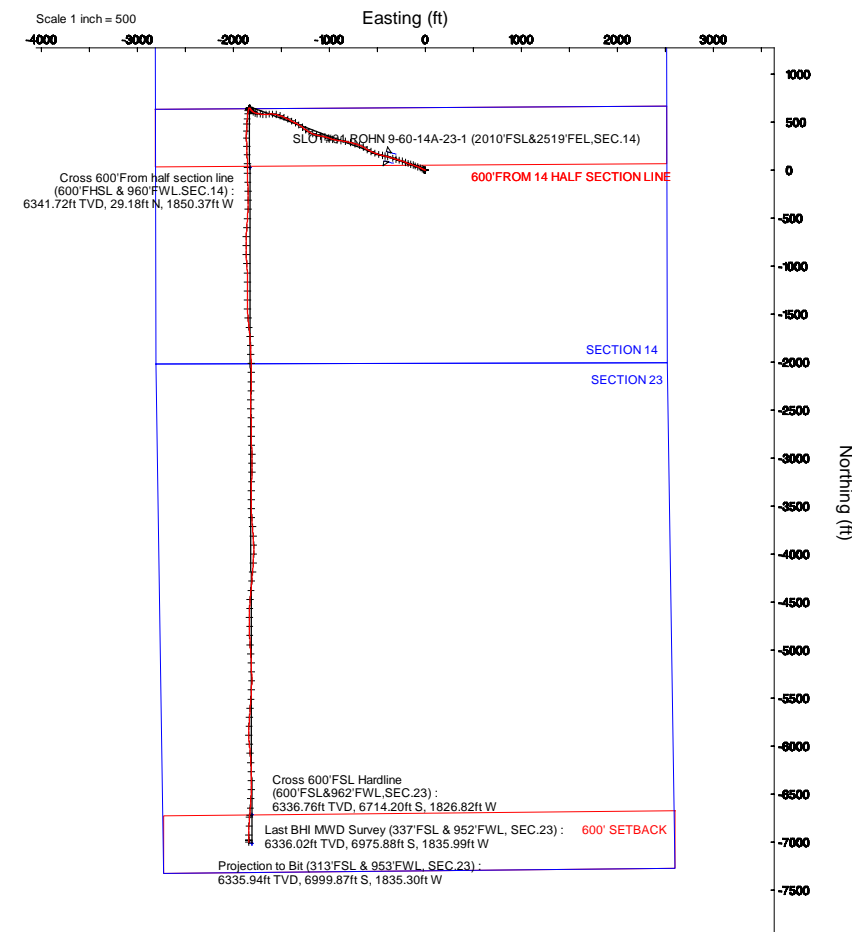
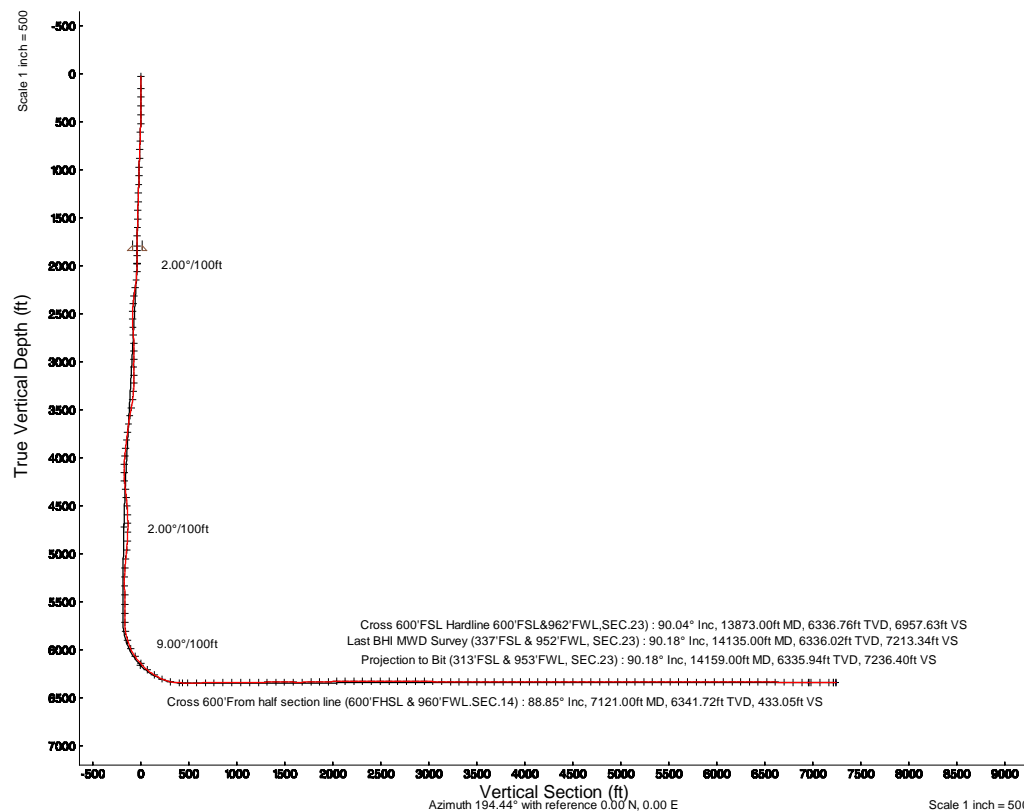
Plot reference wellpath is ROHN 9-60-14A-23-1 (REV-B.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (24KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to RIG (24KB) (RKB)	North Reference: True north
RIG (24KB) (RKB) to Mean Sea Level: 5011 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#01 ROHN 9-60-14A-23-1 (2010FSL&2519FEL,SEC.14)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: guenther on 2019-05-16
	Database: WA_DEN_Denver_Defn

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T09N-R60W			3399334.781	1518782.050	40°44'54.730"N	104°03'31.330"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#01 ROHN 9-60-14A-23-1 (2010FSL&2519FEL,SEC.14)	0.00	0.00	3399334.781	1518782.050	40°44'54.730"N	104°03'31.330"W
RIG (24KB) (RKB) to Ground level (At Slot: SLOT#01 ROHN 9-60-14A-23-1 (2010FSL&2519FEL,SEC.14))					5011ft	
Mean Sea Level to Ground level (At Slot: SLOT#01 ROHN 9-60-14A-23-1 (2010FSL&2519FEL,SEC.14))					0ft	
RIG (24KB) (RKB) to Mean Sea Level					5011ft	

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
24.00	1858.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		ROHN 9-60-14A-23-1 AWB
1858.00	1900.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		ROHN 9-60-14A-23-1 PWB
1900.00	14172.49	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		ROHN 9-60-14A-23-1 PWB





Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Guenaler
Scale	0.999995	Report Generated	5/16/2019 at 2:20:55 PM
Convergence at slot	0.94° East	Database/Source file	WA_DEN_Denver_Defn/ROHN_9-60-14A-23-1_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W
Facility Reference Pt			3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W
Field Reference Pt			3242930.13	1254608.21	40°01'44.490"N	104°37'56.946"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (24'KB) (RKB) to Facility Vertical Datum	5011.00ft
Horizontal Reference Pt	Slot	RIG (24'KB) (RKB) to Mean Sea Level	5011.00ft
Vertical Reference Pt	RIG (24'KB) (RKB)	RIG (24'KB) (RKB) to Ground Level at Slot (SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14))	5011.00ft
MD Reference Pt	RIG (24'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	194.44°



Actual Wellpath Report

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Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH DATA (154 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	337.790	0.00	0.00	0.00	0.00	40°44'54.730"N	104°03'31.330"W	0.00	
24.00	0.000	337.790	24.00	0.00	0.00	0.00	40°44'54.730"N	104°03'31.330"W	0.00	
149.00	0.060	337.790	149.00	-0.05	0.06	-0.02	40°44'54.731"N	104°03'31.330"W	0.05	
241.00	0.310	348.580	241.00	-0.32	0.35	-0.09	40°44'54.733"N	104°03'31.331"W	0.27	
332.00	0.830	311.350	331.99	-0.84	1.03	-0.64	40°44'54.740"N	104°03'31.338"W	0.67	
424.00	2.470	288.710	423.95	-1.28	2.10	-3.01	40°44'54.751"N	104°03'31.369"W	1.88	
516.00	4.600	303.520	515.78	-2.64	4.78	-7.97	40°44'54.777"N	104°03'31.434"W	2.50	
607.00	7.570	300.940	606.25	-5.53	9.87	-16.15	40°44'54.828"N	104°03'31.540"W	3.28	
699.00	11.500	295.140	696.97	-8.96	16.89	-29.66	40°44'54.897"N	104°03'31.715"W	4.39	
793.00	16.140	293.000	788.22	-12.65	25.98	-50.18	40°44'54.987"N	104°03'31.982"W	4.97	
888.00	17.770	290.880	879.09	-16.24	36.31	-75.88	40°44'55.089"N	104°03'32.316"W	1.83	
983.00	16.760	290.900	969.81	-19.41	46.36	-102.22	40°44'55.188"N	104°03'32.658"W	1.06	
1077.00	15.760	286.950	1060.05	-21.50	54.92	-127.10	40°44'55.273"N	104°03'32.981"W	1.59	
1171.00	16.310	289.500	1150.39	-23.22	63.04	-151.75	40°44'55.353"N	104°03'33.302"W	0.95	
1266.00	17.390	290.940	1241.31	-26.01	72.57	-177.58	40°44'55.447"N	104°03'33.637"W	1.22	
1360.00	19.480	291.280	1330.48	-29.47	83.28	-205.31	40°44'55.553"N	104°03'33.998"W	2.23	
1455.00	20.830	289.750	1419.67	-32.92	94.74	-235.97	40°44'55.666"N	104°03'34.396"W	1.53	
1550.00	21.030	286.820	1508.40	-35.19	105.38	-268.18	40°44'55.771"N	104°03'34.814"W	1.12	
1645.00	21.970	287.660	1596.79	-36.90	115.70	-301.44	40°44'55.873"N	104°03'35.246"W	1.04	
1739.00	25.830	286.050	1682.71	-38.47	126.70	-337.88	40°44'55.982"N	104°03'35.720"W	4.16	
1858.00	28.330	284.530	1788.66	-39.24	140.96	-390.14	40°44'56.123"N	104°03'36.399"W	2.18	
1975.00	26.420	284.430	1892.55	-39.28	154.41	-442.23	40°44'56.256"N	104°03'37.076"W	1.63	
2070.00	26.780	285.890	1977.50	-39.83	165.54	-483.28	40°44'56.366"N	104°03'37.609"W	0.79	
2164.00	27.470	291.120	2061.17	-42.89	179.15	-523.88	40°44'56.500"N	104°03'38.137"W	2.64	
2259.00	27.870	295.540	2145.32	-49.71	196.62	-564.36	40°44'56.673"N	104°03'38.663"W	2.20	
2353.00	28.590	300.750	2228.15	-60.26	217.59	-603.52	40°44'56.880"N	104°03'39.171"W	2.73	
2448.00	29.470	298.830	2311.21	-72.46	240.49	-643.52	40°44'57.106"N	104°03'39.691"W	1.35	
2542.00	31.300	293.100	2392.32	-81.89	261.22	-686.25	40°44'57.311"N	104°03'40.246"W	3.64	
2637.00	31.370	287.140	2473.48	-86.77	278.19	-732.59	40°44'57.479"N	104°03'40.848"W	3.26	
2732.00	31.350	283.260	2554.61	-87.43	291.15	-780.28	40°44'57.607"N	104°03'41.468"W	2.13	



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH DATA (154 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2826.00	30.760	279.160	2635.15	-84.72	300.59	-827.82	40°44'57.700"N	104°03'42.086"W	2.34	
2921.00	28.130	276.080	2717.87	-79.23	306.83	-874.08	40°44'57.762"N	104°03'42.687"W	3.19	
3016.00	28.240	280.220	2801.62	-74.32	313.19	-918.47	40°44'57.824"N	104°03'43.263"W	2.06	
3111.00	28.090	286.400	2885.38	-73.43	323.49	-962.06	40°44'57.926"N	104°03'43.830"W	3.07	
3205.00	28.070	289.070	2968.32	-75.98	336.97	-1004.19	40°44'58.059"N	104°03'44.377"W	1.34	
3300.00	27.390	282.810	3052.43	-77.16	349.12	-1046.63	40°44'58.179"N	104°03'44.929"W	3.15	
3395.00	27.190	279.950	3136.86	-74.85	357.71	-1089.32	40°44'58.264"N	104°03'45.483"W	1.40	
3489.00	27.190	286.440	3220.49	-73.92	367.51	-1131.08	40°44'58.361"N	104°03'46.026"W	3.15	
3584.00	26.920	292.720	3305.11	-77.78	381.96	-1171.74	40°44'58.504"N	104°03'46.554"W	3.02	
3679.00	25.340	299.490	3390.42	-86.16	400.28	-1209.29	40°44'58.685"N	104°03'47.042"W	3.55	
3774.00	26.750	307.810	3475.80	-99.92	423.40	-1243.89	40°44'58.913"N	104°03'47.492"W	4.12	
3868.00	27.500	306.040	3559.46	-116.31	449.14	-1278.15	40°44'59.168"N	104°03'47.937"W	1.17	
3963.00	27.380	299.750	3643.79	-130.15	472.89	-1314.86	40°44'59.402"N	104°03'48.414"W	3.05	
4058.00	27.090	297.420	3728.26	-140.78	493.69	-1353.03	40°44'59.608"N	104°03'48.910"W	1.16	
4152.00	27.220	297.570	3811.90	-150.48	513.49	-1391.08	40°44'59.803"N	104°03'49.404"W	0.16	
4247.00	27.310	296.910	3896.35	-160.12	533.41	-1429.77	40°45'00.000"N	104°03'49.907"W	0.33	
4342.00	27.300	293.800	3980.77	-168.37	552.07	-1469.14	40°45'00.185"N	104°03'50.418"W	1.50	
4436.00	27.220	290.260	4064.33	-174.06	568.21	-1509.04	40°45'00.344"N	104°03'50.937"W	1.73	
4531.00	26.050	283.170	4149.27	-175.81	580.49	-1549.74	40°45'00.465"N	104°03'51.466"W	3.56	
4626.00	22.940	273.380	4235.75	-171.79	586.34	-1588.56	40°45'00.523"N	104°03'51.970"W	5.37	
4720.00	20.640	264.530	4323.05	-162.63	585.84	-1623.36	40°45'00.518"N	104°03'52.422"W	4.26	
4815.00	20.100	266.570	4412.11	-151.93	583.27	-1656.32	40°45'00.493"N	104°03'52.850"W	0.94	
4910.00	20.270	273.890	4501.29	-143.90	583.41	-1689.04	40°45'00.494"N	104°03'53.276"W	2.66	
5004.00	18.150	277.450	4590.05	-139.14	586.41	-1719.80	40°45'00.524"N	104°03'53.675"W	2.58	
5099.00	16.010	282.300	4680.86	-136.85	591.12	-1747.28	40°45'00.570"N	104°03'54.032"W	2.70	
5193.00	14.250	292.010	4771.61	-137.90	598.22	-1770.68	40°45'00.640"N	104°03'54.336"W	3.28	
5288.00	11.940	302.730	4864.15	-142.52	607.92	-1789.79	40°45'00.736"N	104°03'54.585"W	3.52	
5382.00	10.040	313.130	4956.43	-149.51	618.78	-1803.95	40°45'00.844"N	104°03'54.769"W	2.91	
5477.00	8.450	324.970	5050.20	-158.02	630.16	-1814.00	40°45'00.956"N	104°03'54.899"W	2.60	
5572.00	6.640	327.540	5144.38	-166.31	640.51	-1820.96	40°45'01.058"N	104°03'54.990"W	1.94	



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5666.00	4.290	301.050	5237.96	-171.03	646.91	-1826.89	40°45'01.121"N	104°03'55.067"W	3.61	
5761.00	2.650	259.160	5332.79	-171.11	648.33	-1832.09	40°45'01.136"N	104°03'55.134"W	3.07	
5855.00	1.590	206.310	5426.74	-168.91	646.75	-1834.80	40°45'01.120"N	104°03'55.170"W	2.25	
5950.00	0.490	80.950	5521.72	-167.78	645.64	-1834.99	40°45'01.109"N	104°03'55.172"W	2.02	
6044.00	0.060	176.880	5615.72	-167.89	645.65	-1834.59	40°45'01.109"N	104°03'55.167"W	0.53	
6139.00	0.540	186.750	5710.72	-167.40	645.16	-1834.64	40°45'01.104"N	104°03'55.167"W	0.51	
6233.00	7.520	199.970	5804.43	-160.83	638.93	-1836.79	40°45'01.043"N	104°03'55.195"W	7.44	
6328.00	16.630	191.580	5897.24	-141.02	619.73	-1841.65	40°45'00.853"N	104°03'55.259"W	9.74	
6423.00	25.510	189.600	5985.80	-106.99	586.17	-1847.81	40°45'00.521"N	104°03'55.338"W	9.38	
6517.00	35.050	184.400	6066.89	-60.13	539.18	-1853.27	40°45'00.057"N	104°03'55.409"W	10.52	
6612.00	43.350	182.730	6140.45	-1.24	479.31	-1856.92	40°44'59.465"N	104°03'55.457"W	8.81	
6706.00	49.730	183.310	6205.08	65.61	411.21	-1860.53	40°44'58.792"N	104°03'55.504"W	6.80	
6801.00	59.470	178.240	6260.07	140.68	333.91	-1861.37	40°44'58.029"N	104°03'55.514"W	11.13	
6895.00	67.320	178.060	6302.13	221.29	249.98	-1858.65	40°44'57.199"N	104°03'55.479"W	8.35	
6990.00	78.730	177.130	6329.82	308.10	159.35	-1854.82	40°44'56.304"N	104°03'55.429"W	12.05	
7084.00	87.970	178.430	6340.69	397.46	66.15	-1851.22	40°44'55.383"N	104°03'55.382"W	9.93	
7121.00†	88.846	178.925	6341.72	433.05	29.18	-1850.37	40°44'55.018"N	104°03'55.371"W	2.72	Cross 600'From half section line (600'FHSL & 960'FWL.SEC.14)
7179.00	90.220	179.700	6342.19	489.04	-28.81	-1849.67	40°44'54.445"N	104°03'55.362"W	2.72	
7274.00	90.250	178.210	6341.81	580.59	-123.80	-1847.94	40°44'53.506"N	104°03'55.339"W	1.57	
7368.00	90.250	178.830	6341.40	670.98	-217.76	-1845.51	40°44'52.578"N	104°03'55.308"W	0.66	
7463.00	90.030	179.710	6341.16	762.67	-312.75	-1844.30	40°44'51.639"N	104°03'55.292"W	0.95	
7557.00	90.620	181.860	6340.63	854.01	-406.74	-1845.59	40°44'50.710"N	104°03'55.309"W	2.37	
7652.00	90.460	183.940	6339.73	947.08	-501.61	-1850.39	40°44'49.773"N	104°03'55.371"W	2.20	
7746.00	90.800	184.790	6338.70	1039.63	-595.33	-1857.55	40°44'48.847"N	104°03'55.464"W	0.97	
7841.00	90.830	182.570	6337.35	1132.94	-690.12	-1863.64	40°44'47.910"N	104°03'55.543"W	2.34	
7935.00	90.740	179.570	6336.06	1224.38	-784.08	-1865.40	40°44'46.982"N	104°03'55.566"W	3.19	
8030.00	90.860	177.900	6334.73	1315.82	-879.04	-1863.30	40°44'46.043"N	104°03'55.538"W	1.76	
8124.00	90.000	175.900	6334.03	1405.44	-972.90	-1858.22	40°44'45.116"N	104°03'55.472"W	2.32	
8219.00	90.000	178.280	6334.03	1496.12	-1067.77	-1853.40	40°44'44.179"N	104°03'55.409"W	2.51	
8314.00	89.080	179.980	6334.79	1587.74	-1162.75	-1851.95	40°44'43.240"N	104°03'55.391"W	2.03	



Actual Wellpath Report

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WELLPATH DATA (154 stations)										
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8408.00	90.620	181.060	6335.04	1678.97	-1256.74	-1852.81	40°44'42.311"N	104°03'55.402"W	2.00	
8503.00	90.680	178.680	6333.96	1770.91	-1351.73	-1852.59	40°44'41.373"N	104°03'55.399"W	2.51	
8597.00	91.570	178.210	6332.11	1861.25	-1445.67	-1850.04	40°44'40.445"N	104°03'55.365"W	1.07	
8692.00	91.940	174.860	6329.20	1951.60	-1540.44	-1844.30	40°44'39.508"N	104°03'55.291"W	3.55	
8787.00	90.550	173.240	6327.14	2040.62	-1634.90	-1834.46	40°44'38.575"N	104°03'55.163"W	2.25	
8881.00	90.490	175.950	6326.29	2129.03	-1728.47	-1825.61	40°44'37.650"N	104°03'55.048"W	2.88	
8976.00	90.090	177.630	6325.81	2219.55	-1823.32	-1820.29	40°44'36.713"N	104°03'54.979"W	1.82	
9070.00	90.150	177.290	6325.61	2309.46	-1917.23	-1816.12	40°44'35.785"N	104°03'54.924"W	0.37	
9165.00	90.030	178.500	6325.46	2400.52	-2012.16	-1812.63	40°44'34.847"N	104°03'54.879"W	1.28	
9259.00	90.060	179.750	6325.39	2491.19	-2106.15	-1811.20	40°44'33.918"N	104°03'54.860"W	1.33	
9354.00	90.030	181.000	6325.31	2583.34	-2201.14	-1811.82	40°44'32.980"N	104°03'54.868"W	1.32	
9449.00	90.120	181.510	6325.19	2675.83	-2296.12	-1813.90	40°44'32.041"N	104°03'54.895"W	0.55	
9543.00	89.600	180.650	6325.42	2767.29	-2390.10	-1815.67	40°44'31.113"N	104°03'54.918"W	1.07	
9638.00	89.380	179.280	6326.26	2859.27	-2485.10	-1815.61	40°44'30.174"N	104°03'54.917"W	1.46	
9732.00	89.350	178.610	6327.30	2949.85	-2579.07	-1813.88	40°44'29.245"N	104°03'54.895"W	0.71	
9827.00	89.480	178.930	6328.27	3041.32	-2674.05	-1811.84	40°44'28.307"N	104°03'54.868"W	0.36	
9921.00	89.720	178.470	6328.93	3131.79	-2768.02	-1809.71	40°44'27.378"N	104°03'54.840"W	0.55	
10016.00	89.630	178.930	6329.47	3223.23	-2862.99	-1807.55	40°44'26.440"N	104°03'54.812"W	0.49	
10110.00	89.570	179.250	6330.13	3313.87	-2956.98	-1806.06	40°44'25.511"N	104°03'54.793"W	0.35	
10205.00	89.480	179.820	6330.91	3405.67	-3051.97	-1805.29	40°44'24.573"N	104°03'54.783"W	0.61	
10299.00	89.600	180.770	6331.67	3496.82	-3145.97	-1805.77	40°44'23.644"N	104°03'54.789"W	1.02	
10394.00	89.690	181.860	6332.26	3589.34	-3240.94	-1807.95	40°44'22.705"N	104°03'54.817"W	1.15	
10489.00	90.310	181.970	6332.26	3682.08	-3335.89	-1811.13	40°44'21.767"N	104°03'54.858"W	0.66	
10583.00	90.220	180.110	6331.82	3773.52	-3429.86	-1812.84	40°44'20.839"N	104°03'54.880"W	1.98	
10678.00	90.150	177.900	6331.51	3865.09	-3524.84	-1811.19	40°44'19.900"N	104°03'54.859"W	2.33	
10773.00	90.030	176.450	6331.37	3955.80	-3619.73	-1806.50	40°44'18.963"N	104°03'54.798"W	1.53	
10867.00	90.120	175.140	6331.24	4044.87	-3713.47	-1799.61	40°44'18.036"N	104°03'54.708"W	1.40	
10962.00	89.850	175.720	6331.27	4134.69	-3808.17	-1792.04	40°44'17.101"N	104°03'54.610"W	0.67	
11056.00	89.940	178.350	6331.44	4224.38	-3902.03	-1787.18	40°44'16.173"N	104°03'54.546"W	2.80	
11151.00	89.970	181.460	6331.51	4316.33	-3997.02	-1787.02	40°44'15.235"N	104°03'54.544"W	3.27	



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11246.00	90.000	183.430	6331.54	4409.25	-4091.93	-1791.08	40°44'14.297"N	104°03'54.597"W	2.07	
11340.00	90.000	185.960	6331.54	4501.89	-4185.61	-1798.77	40°44'13.371"N	104°03'54.697"W	2.69	
11435.00	90.000	183.510	6331.54	4595.52	-4280.28	-1806.61	40°44'12.436"N	104°03'54.799"W	2.58	
11530.00	89.780	186.030	6331.72	4689.17	-4374.94	-1814.51	40°44'11.500"N	104°03'54.901"W	2.66	
11624.00	90.030	184.340	6331.88	4781.94	-4468.55	-1823.00	40°44'10.575"N	104°03'55.011"W	1.82	
11719.00	90.120	181.560	6331.75	4875.03	-4563.42	-1827.89	40°44'09.638"N	104°03'55.075"W	2.93	
11813.00	89.720	179.050	6331.88	4966.18	-4657.41	-1828.39	40°44'08.709"N	104°03'55.081"W	2.70	
11908.00	90.090	180.610	6332.04	5058.10	-4752.40	-1828.11	40°44'07.771"N	104°03'55.077"W	1.69	
12002.00	90.520	178.970	6331.54	5149.04	-4846.40	-1827.77	40°44'06.842"N	104°03'55.073"W	1.80	
12097.00	90.310	176.060	6330.85	5239.92	-4941.30	-1823.65	40°44'05.904"N	104°03'55.019"W	3.07	
12191.00	89.720	175.340	6330.83	5328.94	-5035.03	-1816.60	40°44'04.978"N	104°03'54.928"W	0.99	
12286.00	90.370	177.630	6330.75	5419.31	-5129.84	-1810.78	40°44'04.041"N	104°03'54.852"W	2.51	
12380.00	89.970	178.430	6330.48	5509.48	-5223.79	-1807.54	40°44'03.113"N	104°03'54.810"W	0.95	
12475.00	89.230	180.340	6331.14	5601.21	-5318.78	-1806.53	40°44'02.174"N	104°03'54.796"W	2.16	
12570.00	88.490	182.570	6333.03	5693.76	-5413.72	-1808.94	40°44'01.236"N	104°03'54.828"W	2.47	
12664.00	89.970	184.160	6334.29	5785.99	-5507.54	-1814.45	40°44'00.309"N	104°03'54.899"W	2.31	
12759.00	90.220	184.750	6334.13	5879.56	-5602.26	-1821.83	40°43'59.373"N	104°03'54.995"W	0.67	
12853.00	90.310	183.040	6333.70	5971.97	-5696.03	-1828.22	40°43'58.446"N	104°03'55.078"W	1.82	
12948.00	91.690	184.610	6332.04	6065.32	-5790.80	-1834.55	40°43'57.510"N	104°03'55.160"W	2.20	
13043.00	90.430	178.860	6330.28	6157.94	-5885.70	-1837.43	40°43'56.572"N	104°03'55.197"W	6.20	
13137.00	89.570	173.620	6330.28	6247.21	-5979.46	-1831.26	40°43'55.646"N	104°03'55.117"W	5.65	
13232.00	89.230	174.980	6331.28	6336.39	-6073.99	-1821.83	40°43'54.712"N	104°03'54.994"W	1.48	
13327.00	89.420	177.140	6332.40	6426.54	-6168.75	-1815.30	40°43'53.776"N	104°03'54.910"W	2.28	
13421.00	89.320	178.550	6333.43	6516.62	-6262.68	-1811.77	40°43'52.847"N	104°03'54.864"W	1.50	
13516.00	89.140	180.330	6334.71	6608.37	-6357.66	-1810.84	40°43'51.909"N	104°03'54.851"W	1.88	
13611.00	89.570	181.340	6335.78	6700.70	-6452.64	-1812.22	40°43'50.970"N	104°03'54.869"W	1.16	
13705.00	89.630	182.960	6336.43	6792.54	-6546.57	-1815.75	40°43'50.042"N	104°03'54.915"W	1.72	
13800.00	89.970	183.890	6336.76	6885.79	-6641.40	-1821.43	40°43'49.105"N	104°03'54.989"W	1.04	
13873.00†	90.040	184.589	6336.76	6957.63	-6714.20	-1826.82	40°43'48.386"N	104°03'55.059"W	0.96	Cross 600'FSL Hardline 600'FSL&962'FWL,SEC.23)
13894.00	90.060	184.790	6336.74	6978.33	-6735.13	-1828.54	40°43'48.179"N	104°03'55.081"W	0.96	



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH DATA (154 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13989.00	90.220	182.600	6336.51	7071.66	-6829.92	-1834.66	40°43'47.242"N	104°03'55.160"W	2.31	
14083.00	90.180	179.950	6336.18	7163.18	-6923.89	-1836.75	40°43'46.314"N	104°03'55.188"W	2.82	
14135.00	90.180	178.360	6336.02	7213.34	-6975.88	-1835.99	40°43'45.800"N	104°03'55.177"W	3.06	Last BHI MWD Survey (337'FSL & 952'FWL, SEC.23)
14159.00	90.180	178.360	6335.94	7236.40	-6999.87	-1835.30	40°43'45.563"N	104°03'55.169"W	0.00	Projection to Bit (313'FSL & 953'FWL, SEC.23)

HOLE & CASING SECTIONS - Ref Wellbore: ROHN 9-60-14A-23-1 AWB Ref Wellpath: ROHN 9-60-14A-23-1 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	24.00	1913.00	1889.00	24.00	1837.28	0.00	0.00	147.40	-415.04



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
ROHN 9-60-14A-23-1 SECTION 14	0.00	0.00	0.00	3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W	polygon
ROHN 9-60-14A-23-1 SECTION 23	0.00	0.00	0.00	3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W	polygon
ROHN 9-60-14A-23-1 BP1 (2010'FNL&2519'FEL,SEC.14)	6247.00	26.26	-1827.13	3397507.48	1518778.61	40°44'54.989"N	104°03'55.069"W	point
ROHN 9-60-14A-23-1 EPI (600'FSL&983'FWL,SEC.23)	6247.00	-6713.90	-1806.01	3397638.14	1512039.73	40°43'48.389"N	104°03'54.788"W	point
ROHN 9-60-14A-23-1 REV-1 BHL ON PLAT (300'FSL&983'FWL,SEC.23)	6247.00	-7013.38	-1805.48	3397643.54	1511740.30	40°43'45.430"N	104°03'54.781"W	point
ROHN 9-60-14A-23-1 REV-2 BHL ON PLAT (300'FSL&983'FWL,SEC.23)	6337.00	-7013.38	-1805.48	3397643.54	1511740.30	40°43'45.430"N	104°03'54.781"W	point
ROHN 9-60-14A-23-1 REV-2 EPI (600'FSL&983'FWL,SEC.23)	6337.26	-6713.90	-1806.01	3397638.14	1512039.73	40°43'48.389"N	104°03'54.788"W	point
ROHN 9-60-14A-23-1 REV-2 BP1 (2040'FSL& 983'FWL,SEC.14)	6343.00	26.26	-1827.13	3397507.48	1518778.61	40°44'54.989"N	104°03'55.069"W	point
ROHN 9-60-14A-23-1 600'FROM 14 HALF SECTION LINE	6500.00	0.00	0.00	3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W	polygon
ROHN 9-60-14A-23-1 SETBACK (300' FSL)	6500.00	0.00	0.00	3399334.78	1518782.05	40°44'54.730"N	104°03'31.330"W	polygon



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH COMPOSITION - Ref Wellbore: ROHN 9-60-14A-23-1 AWB Ref Wellpath: ROHN 9-60-14A-23-1 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	1858.00	BHI NaviTrak (Rotating+Axial Corr)	BHI NaviTrak (Rotating+Axial Corr) 13.5' Hole <149'-1858'>	ROHN 9-60-14A-23-1 AWB
1858.00	14135.00	BHI AutoTrak Curve (Short)	BHI/ATC 8.5" MWD Surveys (Short) <1975'-14135'>	ROHN 9-60-14A-23-1 AWB
14135.00	14159.00	Blind Drilling (std)	Projection to bit	ROHN 9-60-14A-23-1 AWB



Actual Wellpath Report

ROHN 9-60-14A-23-1 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#01 ROHN 9-60-14A-23-1 (2010'FSL&2519'FEL,SEC.14)
Area	COLORADO	Well	ROHN 9-60-14A-23-1
Field	WELD COUNTY (NAD83/TN)	Wellbore	ROHN 9-60-14A-23-1 AWB
Facility	SEC.14-T09N-R60W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
7121.00	88.846	178.925	6341.72	Cross 600'From half section line (600'FHSL & 960'FWL,SEC.14)	
13873.00	90.040	184.589	6336.76	Cross 600'FSL Hardline 600'FSL&962'FWL,SEC.23)	
14135.00	90.180	178.360	6336.02	Last BHI MWD Survey (337'FSL & 952'FWL, SEC.23)	
14159.00	90.180	178.360	6335.94	Projection to Bit (313'FSL & 953'FWL, SEC.23)	