

VERDAD RESOURCES



Location: COLORADO Slot: SLOT#05 TIMBRO 9-59 8A-9-9(1736°FNL&475°FWL,SEC.08)

Field: WELD COUNTY (NAD83/TN) Well: TIMBRO 9-59 8A-9-9

Facility: SEC.08-T09N-R59W Wellbore: TIMBRO 9-59 8A-9-9 PWB

Plot reference wellpath is TIMBRO 9-59 8A-9-9 (REV-B.0) PWP

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	* = Wellpath was transformed from a different geoidic datum
True vertical depths are referenced to Surface Rig (6XB) (RKB)	North Reference: True north
Measured depths are referenced to Surface Rig (6XB) (RKB)	Scale: True distance
Surface Rig (6XB) (RKB) to Mean Sea Level: 5088 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#05 TIMBRO 9-59 8A-9-9(1736°FNL&475°FWL,SEC.08)): 0 feet	Created by: gunatler on 2019-03-12
Coordinates are in feet referenced to Slot	Database: WA_DEN_Demer_Defn

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T09N-R59W	3412704.278	1525987.120	40°46'03.731"N	104°00'36.076"W
Slot	Local N (ft)	Local E (ft)	Latitude	Longitude
SLOT#05 TIMBRO 9-59 8A-9-9(1736°FNL&475°FWL,SEC.08)	63.74	0.28	3412705.626	1525923.396
Surface Rig (6XB) (RKB) to Ground level (At Slot: SLOT#05 TIMBRO 9-59 8A-9-9(1736°FNL&475°FWL,SEC.08))			5088ft	
Mean Sea Level to Ground level (At Slot: SLOT#05 TIMBRO 9-59 8A-9-9(1736°FNL&475°FWL,SEC.08))			OR	
Surface Rig (6XB) (RKB) to Mean Sea Level			5088ft	

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	1828.00	7.350	238.510	1813.69	-144.34	-149.87	0.95	-143.57
Tangent/Projection	1907.00	7.350	238.510	1892.04	-149.62	-158.48	0.00	-151.96
End of 3D Arc (XS)	2147.25	11.648	225.115	2128.97	-174.77	-188.79	2.00	-181.16
End of Tangent (XS)	4144.46	11.648	225.115	4085.05	-459.32	-474.48	0.00	-454.45
Drop (XS)	4726.84	0.000	89.515	4663.43	-500.95	-516.27	2.00	-494.44
End of Tangent (XS)	5726.84	0.000	89.515	5663.43	-500.95	-516.27	0.00	-494.44
End of Build (J)	6734.48	90.688	89.515	6300.00	-495.50	127.96	9.00	148.98
End of Tangent (J)	16017.73	90.688	89.515	6188.60	-416.88	9410.21	0.00	9419.43
End of 3D Arc (J)	16019.62	90.688	89.553	6188.58	-416.86	9412.10	2.00	9421.32
End of Tangent (J)	16317.70	90.688	89.553	6185.00	-414.54	9710.15	0.00	9718.99

Targets

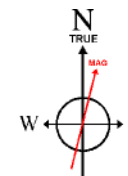
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TIMBRO 9-59 8A-9-2 SECTION 08	-4.00	63.74	-0.28		3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W
TIMBRO 9-59 8A-9-2 SECTION 09	-4.00	63.74	-0.28		3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W
TIMBRO 9-59 8A-9-9 Rev-2 TARGET BOTTOM HOLE (2232°FNL&300°FEL,SEC.08)	16317.70	6185.00	-414.54	9710.15	3422421.33	1525672.07	40°45'58.986"N	103°58'29.878"W
TIMBRO 9-59 8A-9-9 Rev-2 ENDING PROD. INTERVAL(2234°FNL&600°FEL,SEC.08)	16017.73	6188.60	-416.88	9410.21	3422121.47	1525664.69	40°45'58.964"N	103°58'33.776"W
TIMBRO 9-59 8A-9-9 BEG. PROD. INTERVAL(2232°FNL&600°FEL,SEC.08)	6734.48	6300.00	-495.50	127.96	3412841.89	1525430.12	40°45'58.255"N	104°00'34.409"W
TIMBRO 9-59 8A-9-9 BEG. PROD. INTERVAL(2232°FNL&600°FEL,SEC.08)		7000.00	-495.50	127.96	3412841.89	1525430.10	40°45'58.255"N	104°00'34.409"W
TIMBRO 9-59 8A-9-9 ENDING PROD. INTERVAL(2234°FNL&600°FEL,SEC.08)		7000.00	-416.88	9410.16	3422121.44	1525664.73	40°45'58.964"N	103°58'33.776"W
TIMBRO 9-59 8A-9-9 TARGET BOTTOM HOLE (2232°FNL&300°FEL,SEC.08)		7000.00	-414.54	9710.18	3422421.36	1525672.07	40°45'58.986"N	103°58'29.878"W

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16317.70	90.688	89.553	6185.00	-414.54	9710.15	3422421.33	1525672.07	40°45'58.986"N	103°58'29.878"W

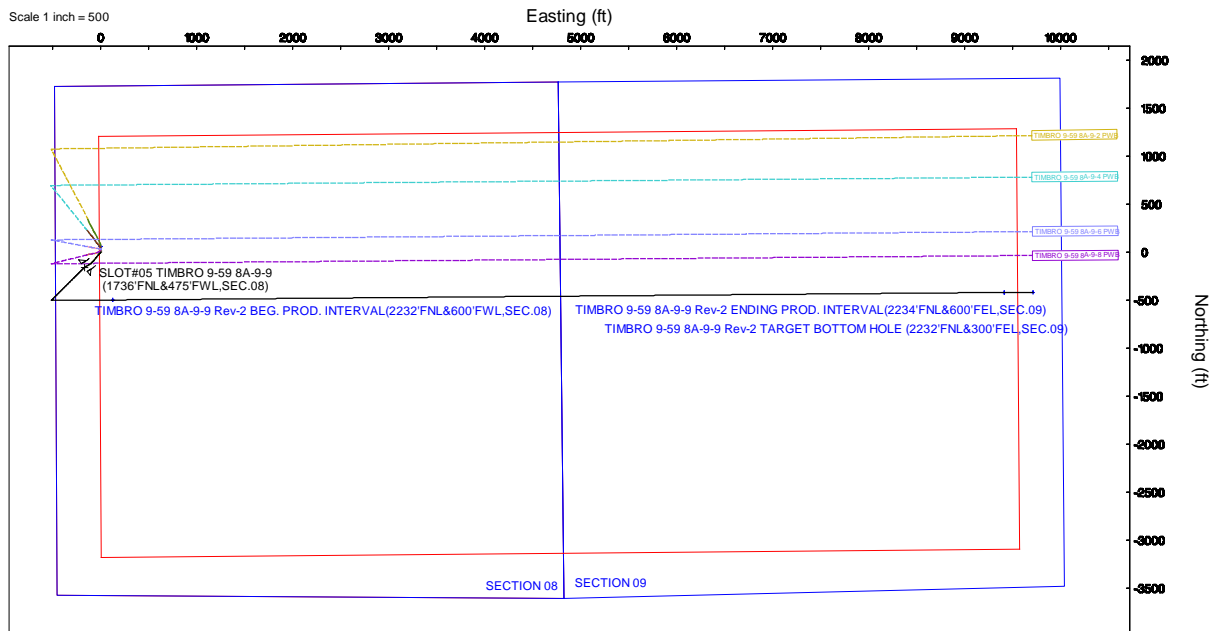
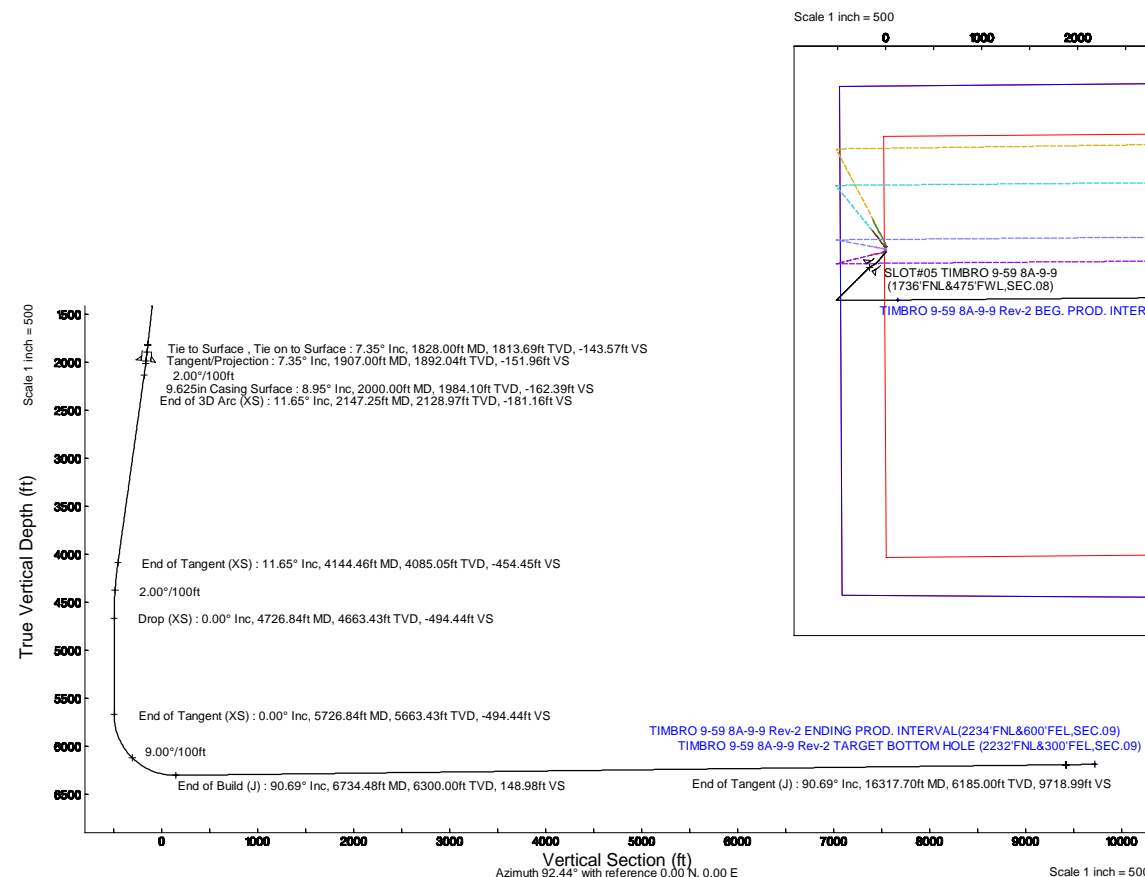
Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
6.00	1828.00	BHI NaviTrak	BHI NaviTrak		TIMBRO 9-59 8A-9-9 AWB
1828.00	16997.84	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		TIMBRO 9-59 8A-9-9 PWB



BGGM (1900.0 to 2020.0) Dip: 67.20° Field: 52499.2 nT
Magnetic North is 7.81 degrees East of True North (at 2/21/2019)

To correct azimuth from Magnetic to True add 7.81 degrees



Approval			
Baker Hughes Representatives			
Prepared by		Reviewed by	
Signature		Signature	
Position		Position	
Date		Date	
VERDAD RESOURCES Representative			
Approved by		Position	
Signature		Date	
Comment			



Planned Wellpath Report

TIMBRO 9-59 8A-9-9 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

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	0.999997	Report Generated	3/12/2019 at 3:25:45 PM
Convergence at slot	0.97° East	Database/Source file	WA_DEN_Denver_Defn/TIMBRO_9-59_8A-9-9__REV-B.0__PWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-63.74	0.28	3412705.63	1525923.40	40°46'03.101"N	104°00'36.072"W
Facility Reference Pt			3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W
Field Reference Pt			3242930.13	1254608.21	40°01'44.490"N	104°37'56.946"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Surface Rig (6'KB) (RKB) to Facility Vertical Datum	5088.00ft
Horizontal Reference Pt	Slot	Surface Rig (6'KB) (RKB) to Mean Sea Level	5088.00ft
Vertical Reference Pt	Surface Rig (6'KB) (RKB)	Surface Rig (6'KB) (RKB) to Ground Level at Slot (SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08))	5088.00ft
MD Reference Pt	Surface Rig (6'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	92.44°



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Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 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	148.750	0.00	0.00	0.00	0.00	40°46'03.101"N	104°00'36.072"W	0.00	
6.00	0.000	148.750	6.00	0.00	0.00	0.00	40°46'03.101"N	104°00'36.072"W	0.00	
89.00	0.630	148.750	89.00	0.25	-0.39	0.24	40°46'03.097"N	104°00'36.069"W	0.76	
179.00	0.740	193.040	178.99	0.42	-1.38	0.36	40°46'03.087"N	104°00'36.067"W	0.58	
266.00	2.030	217.830	265.97	-0.57	-3.14	-0.71	40°46'03.070"N	104°00'36.081"W	1.60	
358.00	4.640	230.640	357.80	-4.29	-6.79	-4.59	40°46'03.034"N	104°00'36.132"W	2.93	
448.00	6.240	229.940	447.39	-10.61	-12.25	-11.15	40°46'02.980"N	104°00'36.217"W	1.78	
538.00	6.860	225.720	536.81	-17.90	-19.15	-18.74	40°46'02.912"N	104°00'36.316"W	0.87	
628.00	8.270	220.080	626.02	-25.54	-27.85	-26.75	40°46'02.826"N	104°00'36.420"W	1.77	
718.00	9.070	217.240	714.99	-33.54	-38.45	-35.21	40°46'02.721"N	104°00'36.530"W	1.01	
808.00	8.890	219.460	803.89	-41.78	-49.47	-43.93	40°46'02.612"N	104°00'36.643"W	0.43	
898.00	8.660	218.300	892.84	-49.93	-60.16	-52.55	40°46'02.507"N	104°00'36.755"W	0.32	
988.00	8.670	218.750	981.81	-57.92	-70.77	-60.99	40°46'02.402"N	104°00'36.865"W	0.08	
1078.00	8.090	220.980	1070.85	-65.88	-80.84	-69.39	40°46'02.302"N	104°00'36.974"W	0.74	
1168.00	8.560	223.380	1159.90	-74.21	-90.49	-78.14	40°46'02.207"N	104°00'37.088"W	0.65	
1258.00	8.090	225.010	1248.95	-82.89	-99.83	-87.22	40°46'02.115"N	104°00'37.206"W	0.58	
1348.00	7.370	224.510	1338.13	-91.04	-108.43	-95.75	40°46'02.030"N	104°00'37.316"W	0.80	
1438.00	7.650	231.940	1427.36	-99.46	-116.24	-104.51	40°46'01.952"N	104°00'37.430"W	1.12	
1528.00	8.210	237.510	1516.50	-109.28	-123.38	-114.65	40°46'01.882"N	104°00'37.562"W	1.06	
1618.00	7.900	239.770	1605.62	-119.76	-129.95	-125.41	40°46'01.817"N	104°00'37.702"W	0.49	
1708.00	7.890	239.360	1694.76	-130.14	-136.21	-136.07	40°46'01.755"N	104°00'37.840"W	0.06	
1798.00	7.580	239.820	1783.95	-140.31	-142.34	-146.52	40°46'01.695"N	104°00'37.976"W	0.35	
1828.00	7.350	238.510	1813.69	-143.57	-144.34	-149.87	40°46'01.675"N	104°00'38.020"W	0.95	Tie On; Tie to Surface , Tie on to Surface
1907.00	7.350	238.510	1892.04	-151.96	-149.62	-158.48	40°46'01.623"N	104°00'38.132"W	0.00	Tangent/Projection
1928.00†	7.702	236.760	1912.86	-154.21	-151.09	-160.81	40°46'01.608"N	104°00'38.162"W	2.00	
2028.00†	9.454	230.257	2011.74	-165.74	-160.01	-172.73	40°46'01.520"N	104°00'38.317"W	2.00	
2128.00†	11.288	225.810	2110.10	-178.55	-172.09	-186.06	40°46'01.401"N	104°00'38.490"W	2.00	
2147.25	11.648	225.115	2128.97	-181.16	-174.77	-188.79	40°46'01.374"N	104°00'38.526"W	2.00	End of 3D Arc (XS)
2228.00†	11.648	225.115	2208.06	-192.21	-186.28	-200.34	40°46'01.260"N	104°00'38.676"W	0.00	
2328.00†	11.648	225.115	2306.00	-205.90	-200.53	-214.64	40°46'01.120"N	104°00'38.862"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
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Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
2428.00†	11.648	225.115	2403.94	-219.58	-214.77	-228.95	40°46'00.979"N	104°00'39.047"W	0.00		
2528.00†	11.648	225.115	2501.88	-233.26	-229.02	-243.25	40°46'00.838"N	104°00'39.233"W	0.00		
2628.00†	11.648	225.115	2599.82	-246.95	-243.27	-257.56	40°46'00.697"N	104°00'39.419"W	0.00		
2728.00†	11.648	225.115	2697.76	-260.63	-257.51	-271.86	40°46'00.556"N	104°00'39.605"W	0.00		
2828.00†	11.648	225.115	2795.70	-274.31	-271.76	-286.17	40°46'00.416"N	104°00'39.791"W	0.00		
2928.00†	11.648	225.115	2893.64	-288.00	-286.01	-300.47	40°46'00.275"N	104°00'39.977"W	0.00		
3028.00†	11.648	225.115	2991.58	-301.68	-300.26	-314.77	40°46'00.134"N	104°00'40.163"W	0.00		
3128.00†	11.648	225.115	3089.52	-315.37	-314.50	-329.08	40°45'59.993"N	104°00'40.349"W	0.00		
3228.00†	11.648	225.115	3187.46	-329.05	-328.75	-343.38	40°45'59.853"N	104°00'40.535"W	0.00		
3328.00†	11.648	225.115	3285.41	-342.73	-343.00	-357.69	40°45'59.712"N	104°00'40.721"W	0.00		
3428.00†	11.648	225.115	3383.35	-356.42	-357.25	-371.99	40°45'59.571"N	104°00'40.906"W	0.00		
3528.00†	11.648	225.115	3481.29	-370.10	-371.49	-386.30	40°45'59.430"N	104°00'41.092"W	0.00		
3628.00†	11.648	225.115	3579.23	-383.78	-385.74	-400.60	40°45'59.289"N	104°00'41.278"W	0.00		
3728.00†	11.648	225.115	3677.17	-397.47	-399.99	-414.91	40°45'59.149"N	104°00'41.464"W	0.00		
3828.00†	11.648	225.115	3775.11	-411.15	-414.24	-429.21	40°45'59.008"N	104°00'41.650"W	0.00		
3928.00†	11.648	225.115	3873.05	-424.84	-428.48	-443.51	40°45'58.867"N	104°00'41.836"W	0.00		
4028.00†	11.648	225.115	3970.99	-438.52	-442.73	-457.82	40°45'58.726"N	104°00'42.022"W	0.00		
4128.00†	11.648	225.115	4068.93	-452.20	-456.98	-472.12	40°45'58.586"N	104°00'42.208"W	0.00		
4144.46	11.648	225.115	4085.05	-454.45	-459.32	-474.48	40°45'58.562"N	104°00'42.238"W	0.00	End of Tangent (XS)	
4228.00†	9.977	225.115	4167.11	-465.08	-470.38	-485.58	40°45'58.453"N	104°00'42.383"W	2.00		
4328.00†	7.977	225.115	4265.88	-475.65	-481.39	-496.64	40°45'58.344"N	104°00'42.526"W	2.00		
4428.00†	5.977	225.115	4365.13	-483.88	-489.96	-505.24	40°45'58.260"N	104°00'42.638"W	2.00		
4528.00†	3.977	225.115	4464.75	-489.76	-496.08	-511.39	40°45'58.199"N	104°00'42.718"W	2.00		
4628.00†	1.977	225.115	4564.61	-493.28	-499.75	-515.07	40°45'58.163"N	104°00'42.766"W	2.00		
4726.84	0.000	89.515	4663.43	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	2.00	Drop (XS)	
4728.00†	0.000	89.515	4664.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00		
4828.00†	0.000	89.515	4764.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00		
4928.00†	0.000	89.515	4864.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00		
5028.00†	0.000	89.515	4964.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00		
5128.00†	0.000	89.515	5064.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00		



Planned Wellpath Report
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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5228.00†	0.000	89.515	5164.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	
5328.00†	0.000	89.515	5264.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	
5428.00†	0.000	89.515	5364.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	
5528.00†	0.000	89.515	5464.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	
5628.00†	0.000	89.515	5564.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	
5726.84	0.000	89.515	5663.43	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	0.00	End of Tangent (XS)
5728.00†	0.105	89.515	5664.59	-494.44	-500.95	-516.27	40°45'58.151"N	104°00'42.782"W	9.00	
5828.00†	9.105	89.515	5764.16	-486.43	-500.88	-508.25	40°45'58.152"N	104°00'42.677"W	9.00	
5928.00†	18.105	89.515	5861.26	-462.96	-500.69	-484.76	40°45'58.154"N	104°00'42.372"W	9.00	
6028.00†	27.105	89.515	5953.48	-424.61	-500.36	-446.36	40°45'58.157"N	104°00'41.873"W	9.00	
6128.00†	36.105	89.515	6038.56	-372.33	-499.92	-394.01	40°45'58.161"N	104°00'41.193"W	9.00	
6228.00†	45.105	89.515	6114.41	-307.40	-499.37	-329.00	40°45'58.167"N	104°00'40.348"W	9.00	
6328.00†	54.105	89.515	6179.15	-231.42	-498.72	-252.92	40°45'58.173"N	104°00'39.359"W	9.00	
6428.00†	63.105	89.515	6231.19	-146.26	-498.00	-167.65	40°45'58.180"N	104°00'38.251"W	9.00	
6528.00†	72.105	89.515	6269.25	-54.01	-497.22	-75.29	40°45'58.188"N	104°00'37.050"W	9.00	
6628.00†	81.105	89.515	6292.39	43.04	-496.39	21.89	40°45'58.196"N	104°00'35.788"W	9.00	
6728.00†	90.105	89.515	6300.04	142.51	-495.55	121.49	40°45'58.204"N	104°00'34.493"W	9.00	
6734.48	90.688	89.515	6300.00†	148.98	-495.50	127.96	40°45'58.205"N	104°00'34.409"W	9.00	End of Build (J)
6828.00†	90.688	89.515	6298.88	242.37	-494.70	221.48	40°45'58.213"N	104°00'33.194"W	0.00	
6928.00†	90.688	89.515	6297.68	342.24	-493.86	321.47	40°45'58.221"N	104°00'31.894"W	0.00	
7028.00†	90.688	89.515	6296.48	442.10	-493.01	421.45	40°45'58.230"N	104°00'30.595"W	0.00	
7128.00†	90.688	89.515	6295.28	541.96	-492.16	521.44	40°45'58.238"N	104°00'29.295"W	0.00	
7228.00†	90.688	89.515	6294.08	641.82	-491.32	621.43	40°45'58.246"N	104°00'27.996"W	0.00	
7328.00†	90.688	89.515	6292.88	741.69	-490.47	721.42	40°45'58.255"N	104°00'26.696"W	0.00	
7428.00†	90.688	89.515	6291.68	841.55	-489.62	821.41	40°45'58.263"N	104°00'25.397"W	0.00	
7528.00†	90.688	89.515	6290.48	941.41	-488.78	921.40	40°45'58.271"N	104°00'24.097"W	0.00	
7628.00†	90.688	89.515	6289.28	1041.27	-487.93	1021.39	40°45'58.280"N	104°00'22.798"W	0.00	
7728.00†	90.688	89.515	6288.08	1141.13	-487.08	1121.38	40°45'58.288"N	104°00'21.498"W	0.00	
7828.00†	90.688	89.515	6286.88	1241.00	-486.24	1221.37	40°45'58.296"N	104°00'20.199"W	0.00	
7928.00†	90.688	89.515	6285.68	1340.86	-485.39	1321.36	40°45'58.305"N	104°00'18.900"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8028.00†	90.688	89.515	6284.48	1440.72	-484.54	1421.35	40°45'58.313"N	104°00'17.600"W	0.00	
8128.00†	90.688	89.515	6283.28	1540.58	-483.69	1521.34	40°45'58.321"N	104°00'16.301"W	0.00	
8228.00†	90.688	89.515	6282.08	1640.44	-482.85	1621.33	40°45'58.329"N	104°00'15.001"W	0.00	
8328.00†	90.688	89.515	6280.88	1740.31	-482.00	1721.31	40°45'58.338"N	104°00'13.702"W	0.00	
8428.00†	90.688	89.515	6279.68	1840.17	-481.15	1821.30	40°45'58.346"N	104°00'12.402"W	0.00	
8528.00†	90.688	89.515	6278.48	1940.03	-480.31	1921.29	40°45'58.354"N	104°00'11.103"W	0.00	
8628.00†	90.688	89.515	6277.28	2039.89	-479.46	2021.28	40°45'58.363"N	104°00'09.803"W	0.00	
8728.00†	90.688	89.515	6276.08	2139.75	-478.61	2121.27	40°45'58.371"N	104°00'08.504"W	0.00	
8828.00†	90.688	89.515	6274.88	2239.62	-477.77	2221.26	40°45'58.379"N	104°00'07.204"W	0.00	
8928.00†	90.688	89.515	6273.68	2339.48	-476.92	2321.25	40°45'58.387"N	104°00'05.905"W	0.00	
9028.00†	90.688	89.515	6272.48	2439.34	-476.07	2421.24	40°45'58.396"N	104°00'04.605"W	0.00	
9128.00†	90.688	89.515	6271.28	2539.20	-475.23	2521.23	40°45'58.404"N	104°00'03.306"W	0.00	
9228.00†	90.688	89.515	6270.08	2639.07	-474.38	2621.22	40°45'58.412"N	104°00'02.006"W	0.00	
9328.00†	90.688	89.515	6268.88	2738.93	-473.53	2721.21	40°45'58.421"N	104°00'00.707"W	0.00	
9428.00†	90.688	89.515	6267.68	2838.79	-472.69	2821.20	40°45'58.429"N	103°59'59.408"W	0.00	
9528.00†	90.688	89.515	6266.48	2938.65	-471.84	2921.18	40°45'58.437"N	103°59'58.108"W	0.00	
9628.00†	90.688	89.515	6265.28	3038.51	-470.99	3021.17	40°45'58.445"N	103°59'56.809"W	0.00	
9728.00†	90.688	89.515	6264.08	3138.38	-470.14	3121.16	40°45'58.454"N	103°59'55.509"W	0.00	
9828.00†	90.688	89.515	6262.88	3238.24	-469.30	3221.15	40°45'58.462"N	103°59'54.210"W	0.00	
9928.00†	90.688	89.515	6261.68	3338.10	-468.45	3321.14	40°45'58.470"N	103°59'52.910"W	0.00	
10028.00†	90.688	89.515	6260.48	3437.96	-467.60	3421.13	40°45'58.478"N	103°59'51.611"W	0.00	
10128.00†	90.688	89.515	6259.28	3537.82	-466.76	3521.12	40°45'58.486"N	103°59'50.311"W	0.00	
10228.00†	90.688	89.515	6258.08	3637.69	-465.91	3621.11	40°45'58.495"N	103°59'49.012"W	0.00	
10328.00†	90.688	89.515	6256.88	3737.55	-465.06	3721.10	40°45'58.503"N	103°59'47.712"W	0.00	
10428.00†	90.688	89.515	6255.68	3837.41	-464.22	3821.09	40°45'58.511"N	103°59'46.413"W	0.00	
10528.00†	90.688	89.515	6254.48	3937.27	-463.37	3921.08	40°45'58.519"N	103°59'45.113"W	0.00	
10628.00†	90.688	89.515	6253.28	4037.13	-462.52	4021.07	40°45'58.528"N	103°59'43.814"W	0.00	
10728.00†	90.688	89.515	6252.08	4137.00	-461.68	4121.06	40°45'58.536"N	103°59'42.514"W	0.00	
10828.00†	90.688	89.515	6250.88	4236.86	-460.83	4221.04	40°45'58.544"N	103°59'41.215"W	0.00	
10928.00†	90.688	89.515	6249.68	4336.72	-459.98	4321.03	40°45'58.552"N	103°59'39.916"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11028.00†	90.688	89.515	6248.48	4436.58	-459.14	4421.02	40°45'58.560"N	103°59'38.616"W	0.00	
11128.00†	90.688	89.515	6247.28	4536.45	-458.29	4521.01	40°45'58.569"N	103°59'37.317"W	0.00	
11228.00†	90.688	89.515	6246.08	4636.31	-457.44	4621.00	40°45'58.577"N	103°59'36.017"W	0.00	
11328.00†	90.688	89.515	6244.88	4736.17	-456.59	4720.99	40°45'58.585"N	103°59'34.718"W	0.00	
11428.00†	90.688	89.515	6243.68	4836.03	-455.75	4820.98	40°45'58.593"N	103°59'33.418"W	0.00	
11528.00†	90.688	89.515	6242.48	4935.89	-454.90	4920.97	40°45'58.601"N	103°59'32.119"W	0.00	
11628.00†	90.688	89.515	6241.28	5035.76	-454.05	5020.96	40°45'58.609"N	103°59'30.819"W	0.00	
11728.00†	90.688	89.515	6240.08	5135.62	-453.21	5120.95	40°45'58.618"N	103°59'29.520"W	0.00	
11828.00†	90.688	89.515	6238.88	5235.48	-452.36	5220.94	40°45'58.626"N	103°59'28.220"W	0.00	
11928.00†	90.688	89.515	6237.68	5335.34	-451.51	5320.93	40°45'58.634"N	103°59'26.921"W	0.00	
12028.00†	90.688	89.515	6236.48	5435.20	-450.67	5420.92	40°45'58.642"N	103°59'25.621"W	0.00	
12128.00†	90.688	89.515	6235.28	5535.07	-449.82	5520.90	40°45'58.650"N	103°59'24.322"W	0.00	
12228.00†	90.688	89.515	6234.08	5634.93	-448.97	5620.89	40°45'58.658"N	103°59'23.022"W	0.00	
12328.00†	90.688	89.515	6232.88	5734.79	-448.13	5720.88	40°45'58.666"N	103°59'21.723"W	0.00	
12428.00†	90.688	89.515	6231.68	5834.65	-447.28	5820.87	40°45'58.675"N	103°59'20.424"W	0.00	
12528.00†	90.688	89.515	6230.48	5934.51	-446.43	5920.86	40°45'58.683"N	103°59'19.124"W	0.00	
12628.00†	90.688	89.515	6229.28	6034.38	-445.59	6020.85	40°45'58.691"N	103°59'17.825"W	0.00	
12728.00†	90.688	89.515	6228.08	6134.24	-444.74	6120.84	40°45'58.699"N	103°59'16.525"W	0.00	
12828.00†	90.688	89.515	6226.88	6234.10	-443.89	6220.83	40°45'58.707"N	103°59'15.226"W	0.00	
12928.00†	90.688	89.515	6225.68	6333.96	-443.05	6320.82	40°45'58.715"N	103°59'13.926"W	0.00	
13028.00†	90.688	89.515	6224.48	6433.83	-442.20	6420.81	40°45'58.723"N	103°59'12.627"W	0.00	
13128.00†	90.688	89.515	6223.28	6533.69	-441.35	6520.80	40°45'58.731"N	103°59'11.327"W	0.00	
13228.00†	90.688	89.515	6222.08	6633.55	-440.50	6620.79	40°45'58.740"N	103°59'10.028"W	0.00	
13328.00†	90.688	89.515	6220.88	6733.41	-439.66	6720.78	40°45'58.748"N	103°59'08.728"W	0.00	
13428.00†	90.688	89.515	6219.68	6833.27	-438.81	6820.76	40°45'58.756"N	103°59'07.429"W	0.00	
13528.00†	90.688	89.515	6218.48	6933.14	-437.96	6920.75	40°45'58.764"N	103°59'06.129"W	0.00	
13628.00†	90.688	89.515	6217.28	7033.00	-437.12	7020.74	40°45'58.772"N	103°59'04.830"W	0.00	
13728.00†	90.688	89.515	6216.08	7132.86	-436.27	7120.73	40°45'58.780"N	103°59'03.530"W	0.00	
13828.00†	90.688	89.515	6214.88	7232.72	-435.42	7220.72	40°45'58.788"N	103°59'02.231"W	0.00	
13928.00†	90.688	89.515	6213.68	7332.58	-434.58	7320.71	40°45'58.796"N	103°59'00.931"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (176 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14028.00†	90.688	89.515	6212.48	7432.45	-433.73	7420.70	40°45'58.804"N	103°58'59.632"W	0.00	
14128.00†	90.688	89.515	6211.28	7532.31	-432.88	7520.69	40°45'58.812"N	103°58'58.333"W	0.00	
14228.00†	90.688	89.515	6210.08	7632.17	-432.04	7620.68	40°45'58.820"N	103°58'57.033"W	0.00	
14328.00†	90.688	89.515	6208.88	7732.03	-431.19	7720.67	40°45'58.828"N	103°58'55.734"W	0.00	
14428.00†	90.688	89.515	6207.68	7831.89	-430.34	7820.66	40°45'58.836"N	103°58'54.434"W	0.00	
14528.00†	90.688	89.515	6206.48	7931.76	-429.50	7920.65	40°45'58.845"N	103°58'53.135"W	0.00	
14628.00†	90.688	89.515	6205.28	8031.62	-428.65	8020.63	40°45'58.853"N	103°58'51.835"W	0.00	
14728.00†	90.688	89.515	6204.08	8131.48	-427.80	8120.62	40°45'58.861"N	103°58'50.536"W	0.00	
14828.00†	90.688	89.515	6202.88	8231.34	-426.95	8220.61	40°45'58.869"N	103°58'49.236"W	0.00	
14928.00†	90.688	89.515	6201.68	8331.21	-426.11	8320.60	40°45'58.877"N	103°58'47.937"W	0.00	
15028.00†	90.688	89.515	6200.48	8431.07	-425.26	8420.59	40°45'58.885"N	103°58'46.637"W	0.00	
15128.00†	90.688	89.515	6199.28	8530.93	-424.41	8520.58	40°45'58.893"N	103°58'45.338"W	0.00	
15228.00†	90.688	89.515	6198.08	8630.79	-423.57	8620.57	40°45'58.901"N	103°58'44.038"W	0.00	
15328.00†	90.688	89.515	6196.88	8730.65	-422.72	8720.56	40°45'58.909"N	103°58'42.739"W	0.00	
15428.00†	90.688	89.515	6195.68	8830.52	-421.87	8820.55	40°45'58.917"N	103°58'41.439"W	0.00	
15528.00†	90.688	89.515	6194.48	8930.38	-421.03	8920.54	40°45'58.925"N	103°58'40.140"W	0.00	
15628.00†	90.688	89.515	6193.28	9030.24	-420.18	9020.53	40°45'58.933"N	103°58'38.840"W	0.00	
15728.00†	90.688	89.515	6192.08	9130.10	-419.33	9120.52	40°45'58.941"N	103°58'37.541"W	0.00	
15828.00†	90.688	89.515	6190.88	9229.96	-418.49	9220.51	40°45'58.949"N	103°58'36.241"W	0.00	
15928.00†	90.688	89.515	6189.68	9329.83	-417.64	9320.49	40°45'58.957"N	103°58'34.942"W	0.00	
16017.73	90.688	89.515	6188.60 ²	9419.43	-416.88	9410.21	40°45'58.964"N	103°58'33.776"W	0.00	End of Tangent (J)
16019.62	90.688	89.553	6188.58	9421.32	-416.86	9412.10	40°45'58.964"N	103°58'33.751"W	2.00	End of 3D Arc (J)
16028.00†	90.688	89.553	6188.48	9429.69	-416.80	9420.48	40°45'58.965"N	103°58'33.643"W	0.00	
16128.00†	90.688	89.553	6187.28	9529.55	-416.02	9520.47	40°45'58.972"N	103°58'32.343"W	0.00	
16228.00†	90.688	89.553	6186.08	9629.42	-415.24	9620.46	40°45'58.979"N	103°58'31.044"W	0.00	
16317.70	90.688	89.553	6185.00 ³	9718.99	-414.54	9710.15	40°45'58.986"N	103°58'29.878"W	0.00	End of Tangent (J)





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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

SURVEY PROGRAM - Ref Wellbore: TIMBRO 9-59 8A-9-9 PWB Ref Wellpath: TIMBRO 9-59 8A-9-9 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
6.00	1828.00	BHI NaviTrak (Rotating+Axial Corr)		TIMBRO 9-59 8A-9-9 AWB
1828.00	16997.84	BHI AutoTrak Curve (Short)		TIMBRO 9-59 8A-9-9 PWB



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REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#05 TIMBRO 9-59 8A-9-9(1736'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-9
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-9 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1828.00	7.350	238.510	1813.69	Tie to Surface , Tie on to Surface

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1828.00	7.350	238.510	1813.69	Tie On
1907.00	7.350	238.510	1892.04	Tangent/Projection
2147.25	11.648	225.115	2128.97	End of 3D Arc (XS)
4144.46	11.648	225.115	4085.05	End of Tangent (XS)
4726.84	0.000	89.515	4663.43	Drop (XS)
5726.84	0.000	89.515	5663.43	End of Tangent (XS)
6734.48	90.688	89.515	6300.00	End of Build (J)
16017.73	90.688	89.515	6188.60	End of Tangent (J)
16019.62	90.688	89.553	6188.58	End of 3D Arc (J)
16317.70	90.688	89.553	6185.00	End of Tangent (J)