



Actual Wellpath Report

DIAMOND VALLEY EAST #13 ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#08 DIAMOND VALLEY EAST #13 (992'FSL & 155'FWL,SEC.23)
Area	COLORADO	Well	DIAMOND VALLEY EAST #13
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWP
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWP at 11575.00 MD

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Ingmjmr
Scale	0.999964	Report Generated	1/14/2015 at 9:03:09 AM
Convergence at slot	n/a	Database/Source file	Denver/DIAMOND_VALLEY_EAST_#13_ST01_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	178.52	2.78	3175339.88	1413930.33	40°28'04.548"N	104°52'11.280"W
Facility Reference Pt			3175338.36	1413751.81	40°28'02.784"N	104°52'11.316"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (RKB) to Facility Vertical Datum	4791.00ft
Horizontal Reference Pt	Slot	RIG (RKB) to Mean Sea Level	4791.00ft
Vertical Reference Pt	RIG (RKB)	RIG (RKB) to Mud Line at Slot (SLOT#08 DIAMOND VALLEY EAST #13 (992'FSL & 155'FWL,SEC.23))	4791.00ft
MD Reference Pt	RIG (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	279.52°



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWB
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWB at 11575.00 MD

WELLPATH DATA (60 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11575.00	89.630	271.350	7158.03	4690.37	1644.14	-4480.20	0.34	TIED ONTO OWB
11667.00	86.450	270.020	7161.17	4781.21	1645.24	-4572.12	3.75	FIRST BHI MWD SURVEY ST01
11759.00	85.500	268.640	7167.63	4871.53	1644.17	-4663.89	1.82	
11851.00	88.710	268.010	7172.28	4961.66	1641.48	-4755.72	3.56	
11943.00	89.600	267.370	7173.63	5051.69	1637.77	-4847.63	1.19	
12035.00	91.540	269.650	7172.72	5141.98	1635.38	-4939.58	3.25	
12127.00	91.660	272.940	7170.15	5232.99	1637.46	-5031.51	3.58	
12222.00	91.450	274.610	7167.57	5327.48	1643.71	-5126.27	1.77	
12318.00	91.080	275.140	7165.45	5423.14	1651.87	-5221.90	0.67	
12414.00	89.110	272.900	7165.29	5518.69	1658.60	-5317.65	3.11	
12510.00	89.570	272.670	7166.40	5614.02	1663.26	-5413.53	0.54	
12606.00	87.410	271.640	7168.93	5709.19	1666.87	-5509.42	2.49	
12702.00	87.600	270.450	7173.11	5804.05	1668.62	-5605.31	1.25	
12798.00	88.680	270.390	7176.22	5898.79	1669.32	-5701.26	1.13	
12893.00	89.600	270.330	7177.65	5992.57	1669.92	-5796.24	0.97	
12989.00	87.900	270.960	7179.74	6087.39	1671.00	-5892.21	1.89	
13085.00	88.830	271.150	7182.48	6182.31	1672.77	-5988.16	0.99	
13181.00	89.690	272.460	7183.72	6277.43	1675.79	-6084.10	1.63	
13277.00	91.320	272.420	7182.88	6372.69	1679.88	-6180.00	1.70	
13373.00	91.420	271.070	7180.58	6467.78	1682.80	-6275.93	1.41	
13469.00	89.940	270.090	7179.44	6562.60	1683.77	-6371.91	1.85	
13564.00	88.950	270.440	7180.36	6656.36	1684.21	-6466.91	1.11	
13660.00	90.000	270.510	7181.24	6751.16	1685.01	-6562.90	1.10	
13756.00	91.050	270.530	7180.36	6845.98	1685.88	-6658.89	1.09	
13852.00	88.640	270.150	7180.62	6940.74	1686.45	-6754.88	2.54	
13948.00	89.010	269.590	7182.59	7035.36	1686.23	-6850.86	0.70	
14044.00	89.970	269.660	7183.44	7129.93	1685.60	-6946.85	1.00	
14139.00	90.120	267.940	7183.37	7223.27	1683.61	-7041.83	1.82	
14235.00	88.030	268.960	7184.92	7317.47	1681.02	-7137.77	2.42	
14331.00	88.460	268.240	7187.86	7411.68	1678.67	-7233.70	0.87	



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Area	COLORADO	Well	DIAMOND VALLEY EAST #13
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWP
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWP at 11575.00 MD

WELLPATH DATA (60 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14427.00	89.260	268.250	7189.77	7505.81	1675.73	-7329.63	0.83	
14522.00	89.880	267.420	7190.48	7598.84	1672.14	-7424.56	1.09	
14618.00	90.800	267.890	7189.91	7692.79	1668.21	-7520.48	1.08	
14714.00	89.480	267.720	7189.68	7786.79	1664.54	-7616.40	1.39	
14810.00	87.930	268.570	7191.85	7880.88	1661.43	-7712.33	1.84	
14906.00	90.310	270.470	7193.32	7975.40	1660.63	-7808.30	3.17	
15002.00	91.330	270.470	7191.95	8070.19	1661.42	-7904.29	1.06	
15098.00	90.800	271.320	7190.16	8165.09	1662.91	-8000.26	1.04	
15194.00	89.450	271.450	7189.95	8260.12	1665.23	-8096.23	1.41	
15290.00	90.280	271.260	7190.18	8355.15	1667.50	-8192.20	0.89	
15385.00	91.110	271.350	7189.03	8449.17	1669.67	-8287.17	0.88	
15481.00	90.550	270.280	7187.64	8544.05	1671.03	-8383.14	1.26	
15577.00	89.070	270.980	7187.96	8638.89	1672.09	-8479.13	1.71	
15672.00	90.120	270.820	7188.63	8732.82	1673.58	-8574.12	1.12	
15768.00	88.370	270.780	7189.89	8827.70	1674.92	-8670.10	1.82	
15864.00	87.530	270.150	7193.33	8922.44	1675.70	-8766.03	1.09	
15959.00	88.030	269.540	7197.01	9016.02	1675.44	-8860.96	0.83	
16055.00	88.920	269.230	7199.56	9110.49	1674.41	-8956.92	0.98	
16151.00	89.480	269.110	7200.90	9204.92	1673.02	-9052.90	0.60	
16247.00	89.140	270.060	7202.06	9299.47	1672.33	-9148.89	1.05	
16343.00	89.510	269.350	7203.19	9394.06	1671.83	-9244.88	0.83	
16439.00	90.060	268.770	7203.55	9488.46	1670.26	-9340.86	0.83	
16534.00	89.630	270.910	7203.81	9582.10	1669.99	-9435.86	2.30	
16630.00	89.850	270.510	7204.24	9676.97	1671.18	-9531.85	0.48	
16726.00	90.250	269.620	7204.16	9771.67	1671.29	-9627.85	1.02	
16822.00	90.830	268.880	7203.25	9866.13	1670.03	-9723.83	0.98	
16918.00	89.260	270.820	7203.18	9960.75	1669.78	-9819.83	2.60	
17013.00	89.600	270.120	7204.12	10054.57	1670.56	-9914.82	0.82	
17058.00	90.220	269.450	7204.19	10098.92	1670.39	-9959.82	2.03	LAST BHI MWD SURVEY ST01
17123.00	90.220	269.450	7203.94	10162.92	1669.77	-10024.81	0.00	PROJECTION TO BIT ST01



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWP
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWP at 11575.00 MD

HOLE & CASING SECTIONS -

Ref Wellbore: DIAMOND VALLEY EAST #13 ST01 AWP

Ref Wellpath: DIAMOND VALLEY EAST #13 ST01 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	22.00	802.00	780.00	22.00	799.28	0.00	0.00	58.89	4.91
8.75in Open Hole	802.00	7743.00	6941.00	799.28	7157.30	58.89	4.91	1620.08	-649.93
7in Casing Intermediate	22.00	7728.00	7706.00	22.00	7157.31	0.00	0.00	1618.91	-634.97
6.125in Open Hole	7743.00	11575.00	3832.00	7157.30	7158.03	1620.08	-649.93	1644.14	-4480.20
6.125in Open Hole	11575.00	17123.00	5548.00	7158.03	7203.94	1644.14	-4480.20	1669.77	-10024.81



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Area	COLORADO	Well	DIAMOND VALLEY EAST #13
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWB
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWB at 11575.00 MD

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
S 1/2 SEC.21-T06N-R67W		0.00	-51.00	0.00	3175340.24	1413879.33	40°28'04.044"N	104°52'11.280"W	polygon
S 1/2 SEC.22-T06N-R67W		0.00	-51.00	0.00	3175340.24	1413879.33	40°28'04.044"N	104°52'11.280"W	polygon
DVE PAD HARDLINES(460'E/W)		6975.00	-51.00	0.00	3175340.24	1413879.33	40°28'04.044"N	104°52'11.280"W	polygon
DIAMOND VALLEY EAST #13 DRILLING CORRIDOR (60')		7155.00	0.00	0.00	3175339.88	1413930.33	40°28'04.548"N	104°52'11.280"W	polygon
DVE #13 ST01 TARGET 2		7160.00	1665.42	-4811.27	3170517.08	1415561.45	40°28'21.000"N	104°53'13.534"W	point
DVE #13 ST01 TARGET 3		7175.00	1670.31	-5911.26	3169417.12	1415558.52	40°28'21.046"N	104°53'27.767"W	point
DVE #13 ST01 TARGET 4		7183.00	1673.88	-6711.26	3168617.15	1415556.41	40°28'21.079"N	104°53'38.119"W	point
DVE #13 ST01 TARGET 5		7188.00	1676.99	-7411.25	3167917.18	1415554.54	40°28'21.108"N	104°53'47.176"W	point
DVE #13 ST01 TARGET 6		7190.00	1680.55	-8211.24	3167117.21	1415552.42	40°28'21.141"N	104°53'57.527"W	point
DVE #13 ST01 TARGET 7		7194.00	1684.11	-9011.26	3166317.22	1415550.29	40°28'21.173"N	104°54'07.879"W	point
DIAMOND VALLEY EAST #13 BHL ON PLAT REV-3 (2634'FSL & 460'FWL, SEC.21)		7197.00	1688.84	-10074.45	3165254.06	1415547.47	40°28'21.216"N	104°54'21.636"W	point

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
DVE #13 ST01 TARGET 8		7197.00	1686.78	-9611.23	3165717.27	1415548.70	40°28'21.197"N	104°54'15.642"W	point



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	DIAMOND VALLEY EAST #13 ST01 AWB
Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWB at 11575.00 MD

WELLPATH COMPOSITION -

Ref Wellbore: DIAMOND VALLEY EAST #13 ST01 AWB Ref Wellpath: DIAMOND VALLEY EAST #13 ST01 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	762.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 13.5" HOLE <360-762>	DIAMOND VALLEY EAST #13 AWB
762.00	7680.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 8.75" HOLE <911-7680>	DIAMOND VALLEY EAST #13 AWB
7680.00	11575.00	OnTrak (Standard)	BHI MWD/ONTRAK (STD) 6.125" HOLE <7827-16247>	DIAMOND VALLEY EAST #13 AWB
11575.00	17058.00	OnTrak (Standard)	BHI MWD/ONTRAK (STD) 6.125" HOLE <11667-17085>	DIAMOND VALLEY EAST #13 ST01 AWB
17058.00	17123.00	Blind Drilling (std)	Projection to bit	DIAMOND VALLEY EAST #13 ST01 AWB



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Facility	SEC.23-T06N-R67W	Sidetrack from	DIAMOND VALLEY EAST #13 AWB at 11575.00 MD

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
360.00	4.700	4.460	359.62	FIRST BHI MWD SURVEY
7704.00	89.606	274.145	7157.22	CROSSED 460' SETBACK
11575.00	89.630	271.350	7158.03	TIED ONTO OWB
11667.00	86.450	270.020	7161.17	FIRST BHI MWD SURVEY ST01
17058.00	90.220	269.450	7204.19	LAST BHI MWD SURVEY ST01
17123.00	90.220	269.450	7203.94	PROJECTION TO BIT ST01