



Enseco Survey Report

27 June, 2012

Wexpro Company

Moffat County, Colorado

Sec 15, T11N, R97W, 6 PM

Powder Wash Government #16

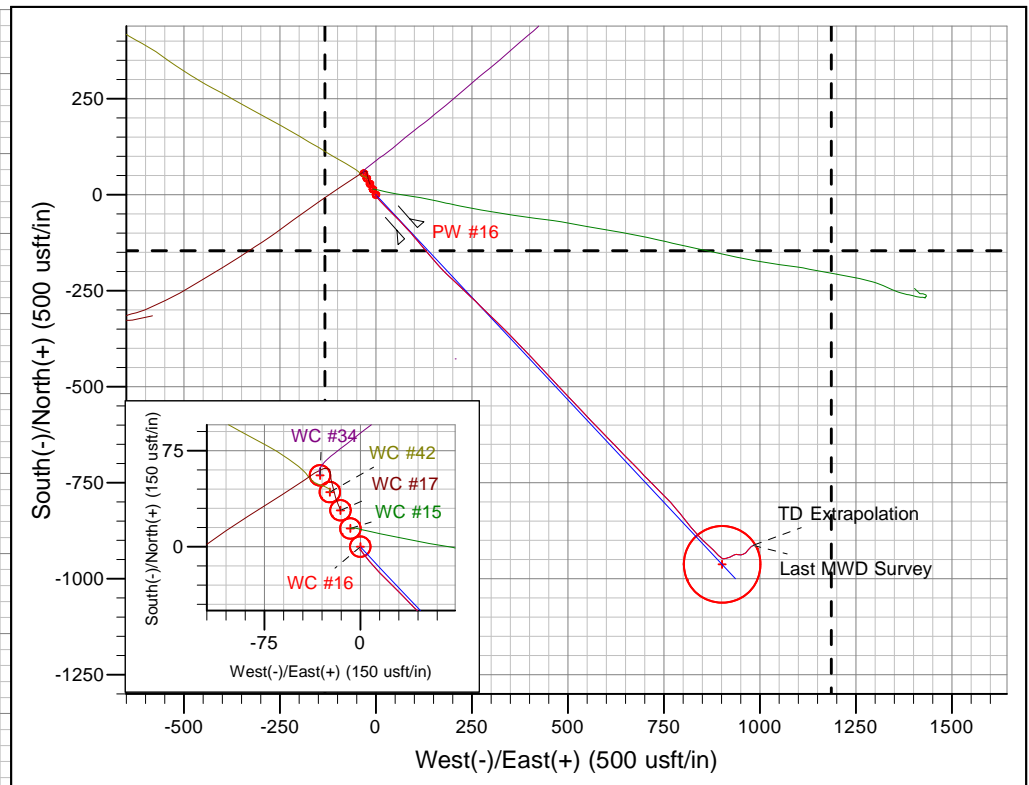
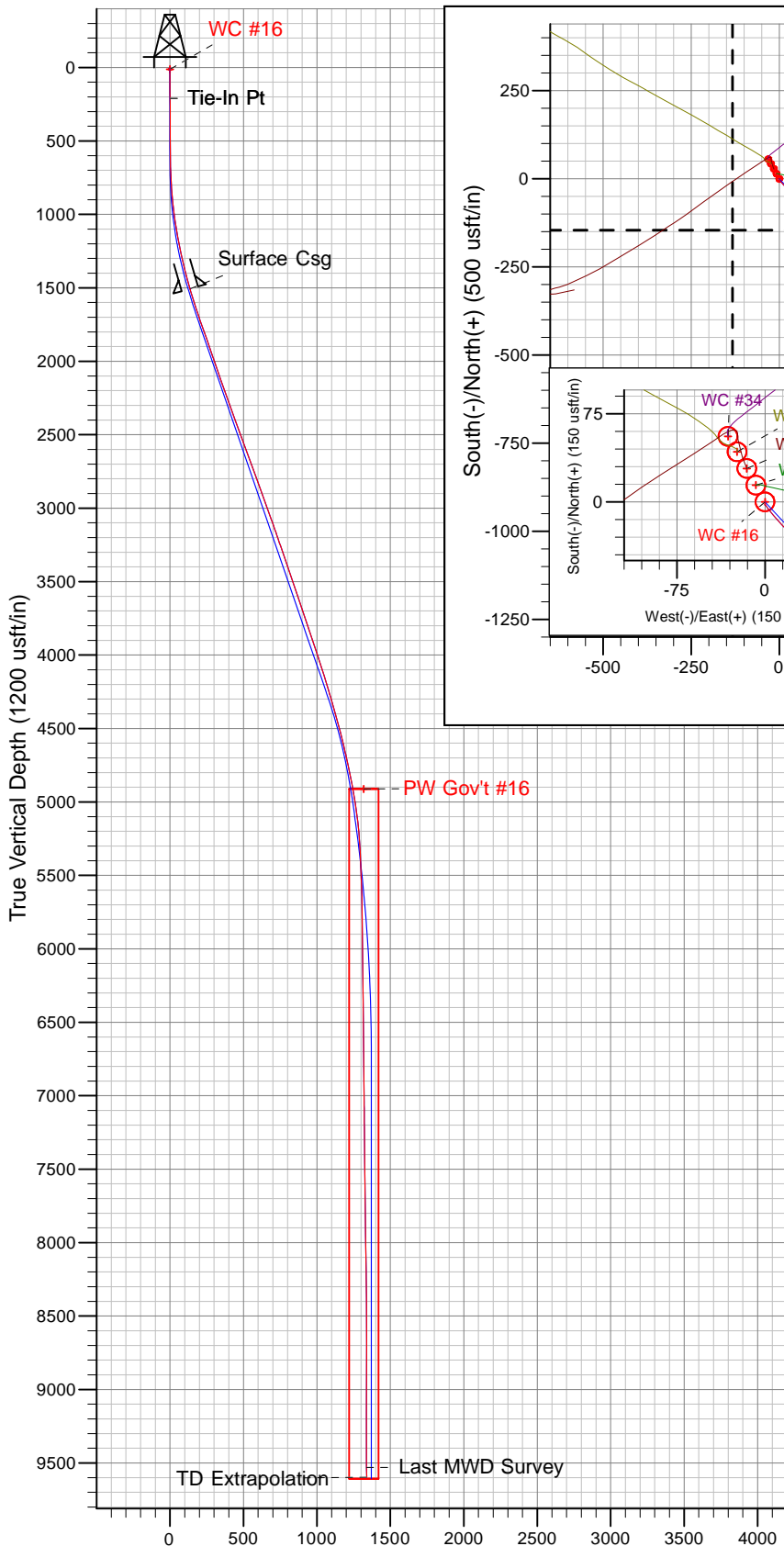
API #: 05-081-07627

Survey: Final Surveys to TD (9,795' MD)



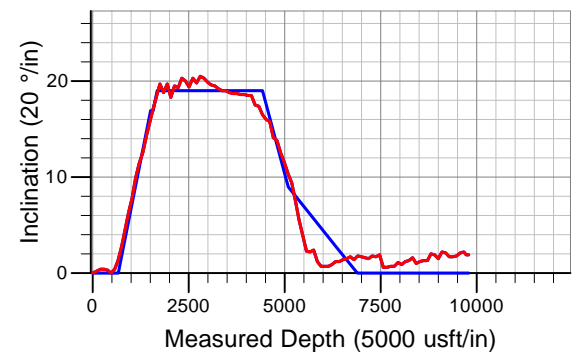


Wexpro Company
Project: Moffat County, Colorado
Site: Sec 15, T11N, R97W, 6 PM
Well: Powder Wash Government #16
Wellbore: API #: 05-081-07627
Design: Final Surveys (10555-159)



Ref Information: Well Center

Geodetic System: US State Plane 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 Northing: 1596012.10
 Easting: 2220966.95
 Latitude: 40° 56' 7.490 N
 Longitude: 108° 19' 11.590 W
 Ground Elevation: 7037.0
 KB Elevation: Field KB @ 7065.0usft (SST 88)



ANNOTATIONS

TVD	MD	Inc	Azi	V Sect	Annotation
210.0	210.0	0.40	168.90	0.6	Tie-In Pt
1507.1	1520.0	16.24	138.49	135.8	Surface Casing
9530.1	9727.0	1.90	56.80	1338.4	Last MWD Survey
9598.0	9795.0	1.90	56.80	1338.8	TD Extrapolation

Vertical Section at 136.86° (1200 usft/in)

Company:	Wexpro Company	Local Co-ordinate Reference:	Well Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level Elevation:	7,037.00usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Project	Moffat County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Sec 15, T11N, R97W, 6 PM		
Site Position:		Northing:	1,596,083.30 usft
From:	Map	Easting:	2,220,929.13usft
Position Uncertainty:	0.0usft	Slot Radius:	13-3/16"
		Latitude:	40° 56' 8.182 N
		Longitude:	108° 19' 12.112 W
		Grid Convergence:	-1.82°

Well	Powder Wash Government #16		
Well Position	+N/-S	-70.0 usft	Northing: 1,596,012.10 usft
	+E/-W	40.1 usft	Easting: 2,220,966.95 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	7,065.0 usft
		Latitude:	40° 56' 7.490 N
		Longitude:	108° 19' 11.590 W
		Ground Level:	7,037.0usft

Wellbore	API #: 05-081-07627				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	28-Oct-2010	10.77	66.87	53,035

Design:	Final Surveys (10555-159)			Survey Error Model:	Standard ISCWSA MWD Tool
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	136.86	

Company:	Wexpro Company	Local Co-ordinate Reference:	Well Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level Elevation:	7,037.00usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	7,065.00	0.0	0.0	0.0	0.00	0.00	0.00
Tie-In Pt										
210.0	0.40	168.90	210.0	6,855.00	-0.7	0.1	0.6	0.19	0.19	0.00
301.0	0.40	168.50	301.0	6,764.01	-1.3	0.3	1.2	0.00	0.00	-0.44
393.0	0.30	227.90	393.0	6,672.01	-1.8	0.2	1.4	0.39	-0.11	64.57
483.0	0.00	208.90	483.0	6,582.01	-2.0	0.0	1.4	0.33	-0.33	0.00
571.0	0.40	149.00	571.0	6,494.01	-2.2	0.1	1.7	0.45	0.45	0.00
665.0	1.30	148.10	665.0	6,400.02	-3.4	0.9	3.1	0.96	0.96	-0.96
756.0	2.80	141.40	755.9	6,309.08	-6.0	2.8	6.3	1.67	1.65	-7.36
847.0	4.60	142.40	846.7	6,218.28	-10.7	6.4	12.2	1.98	1.98	1.10
937.0	6.30	134.90	936.3	6,128.68	-17.0	12.1	20.7	2.04	1.89	-8.33
1,028.0	7.80	136.30	1,026.6	6,038.38	-25.0	19.9	31.9	1.66	1.65	1.54
1,120.0	9.90	135.70	1,117.5	5,947.48	-35.2	29.8	46.0	2.28	2.28	-0.65
1,215.0	11.40	134.80	1,210.9	5,854.12	-47.6	42.1	63.6	1.59	1.58	-0.95
1,311.0	12.60	136.40	1,304.8	5,760.22	-61.9	56.1	83.5	1.30	1.25	1.67
1,406.0	14.40	136.50	1,397.2	5,667.84	-78.0	71.4	105.7	1.89	1.89	0.11
Surface Casing										
1,520.0	16.24	138.49	1,507.1	5,557.89	-100.2	91.7	135.8	1.67	1.61	1.74
1,561.0	16.90	139.10	1,546.4	5,518.60	-109.0	99.4	147.5	1.67	1.62	1.49
1,657.0	18.30	140.70	1,637.9	5,427.10	-131.2	118.1	176.5	1.54	1.46	1.67
1,752.0	19.70	139.70	1,727.7	5,337.27	-155.0	137.9	207.3	1.51	1.47	-1.05
1,848.0	18.80	138.70	1,818.4	5,246.64	-178.9	158.5	239.0	1.00	-0.94	-1.04
1,943.0	19.70	135.10	1,908.0	5,156.95	-201.8	179.9	270.3	1.57	0.95	-3.79
2,038.0	18.30	132.60	1,997.9	5,067.13	-223.2	202.2	301.1	1.70	-1.47	-2.63
2,134.0	19.50	133.30	2,088.7	4,976.31	-244.4	225.0	332.2	1.27	1.25	0.73
2,229.0	19.30	133.40	2,178.3	4,886.70	-266.1	247.9	363.7	0.21	-0.21	0.11
2,325.0	20.30	134.60	2,268.6	4,796.38	-288.7	271.3	396.1	1.12	1.04	1.25
2,420.0	20.00	134.20	2,357.8	4,707.19	-311.5	294.7	428.8	0.35	-0.32	-0.42
2,515.0	19.40	133.40	2,447.2	4,617.75	-333.7	317.8	460.8	0.69	-0.63	-0.84
2,611.0	20.30	135.90	2,537.5	4,527.46	-356.6	341.0	493.4	1.29	0.94	2.60
2,706.0	19.80	134.90	2,626.8	4,438.22	-379.8	363.8	525.9	0.64	-0.53	-1.05
2,802.0	20.50	136.90	2,716.9	4,348.09	-403.6	386.8	559.0	1.02	0.73	2.08
2,897.0	20.30	136.80	2,806.0	4,259.05	-427.7	409.5	592.1	0.21	-0.21	-0.11
2,993.0	19.90	137.10	2,896.1	4,168.90	-451.8	432.0	625.1	0.43	-0.42	0.31
3,088.0	19.60	136.50	2,985.5	4,079.49	-475.2	454.0	657.2	0.38	-0.32	-0.63
3,183.0	19.50	137.10	3,075.0	3,989.96	-498.4	475.8	689.0	0.24	-0.11	0.63
3,279.0	19.20	137.10	3,165.6	3,899.39	-521.7	497.4	720.8	0.31	-0.31	0.00
3,374.0	19.00	136.20	3,255.4	3,809.62	-544.3	518.7	751.9	0.37	-0.21	-0.95
3,470.0	19.00	136.70	3,346.2	3,718.85	-567.0	540.3	783.1	0.17	0.00	0.52
3,565.0	18.80	136.20	3,436.0	3,628.97	-589.3	561.5	813.9	0.27	-0.21	-0.53
3,660.0	18.70	136.10	3,526.0	3,539.01	-611.3	582.6	844.4	0.11	-0.11	-0.11
3,756.0	18.70	136.10	3,616.9	3,448.08	-633.5	604.0	875.2	0.00	0.00	0.00
3,851.0	18.60	136.10	3,706.9	3,358.07	-655.4	625.0	905.6	0.11	-0.11	0.00
3,947.0	18.60	135.00	3,797.9	3,267.08	-677.2	646.5	936.2	0.37	0.00	-1.15
4,042.0	18.50	135.70	3,888.0	3,177.02	-698.7	667.7	966.4	0.26	-0.11	0.74
4,137.0	18.50	136.30	3,978.1	3,086.93	-720.4	688.7	996.6	0.20	0.00	0.63
4,232.0	17.50	134.90	4,068.4	2,996.58	-741.4	709.2	1,025.9	1.15	-1.05	-1.47
4,327.0	17.40	135.50	4,159.0	2,905.95	-761.6	729.3	1,054.4	0.22	-0.11	0.63
4,423.0	16.50	135.90	4,250.9	2,814.12	-781.6	748.8	1,082.4	0.95	-0.94	0.42
4,518.0	16.00	137.60	4,342.1	2,722.92	-801.0	767.0	1,108.9	0.73	-0.53	1.79
4,614.0	15.80	139.60	4,434.4	2,630.59	-820.7	784.4	1,135.2	0.61	-0.21	2.08
4,709.0	14.10	141.80	4,526.2	2,538.81	-839.7	800.0	1,159.7	1.89	-1.79	2.32

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Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,804.0	13.80	141.40	4,618.4	2,446.61	-857.6	814.2	1,182.5	0.33	-0.32	-0.42
4,900.0	12.50	138.80	4,711.9	2,353.13	-874.4	828.2	1,204.3	1.49	-1.35	-2.71
4,995.0	11.50	136.70	4,804.8	2,260.21	-889.0	841.4	1,224.0	1.15	-1.05	-2.21
5,091.0	10.30	133.20	4,899.1	2,165.94	-901.8	854.3	1,242.2	1.43	-1.25	-3.65
5,186.0	9.40	134.00	4,992.7	2,072.34	-913.0	866.0	1,258.4	0.96	-0.95	0.84
5,280.0	7.60	132.90	5,085.6	1,979.38	-922.6	876.1	1,272.3	1.92	-1.91	-1.17
5,376.0	5.50	136.00	5,181.0	1,884.01	-930.2	884.0	1,283.2	2.22	-2.19	3.23
5,471.0	3.90	138.90	5,275.7	1,789.33	-935.9	889.2	1,291.0	1.70	-1.68	3.05
5,566.0	2.30	127.90	5,370.5	1,694.47	-939.5	892.9	1,296.1	1.79	-1.68	-11.58
5,662.0	2.20	129.40	5,466.5	1,598.55	-941.9	895.8	1,299.8	0.12	-0.10	1.56
5,757.0	2.40	126.20	5,561.4	1,503.63	-944.2	898.8	1,303.6	0.25	0.21	-3.37
5,853.0	1.20	135.60	5,657.3	1,407.67	-946.1	901.2	1,306.6	1.28	-1.25	9.79
5,948.0	0.70	141.60	5,752.3	1,312.69	-947.3	902.2	1,308.2	0.54	-0.53	6.32
6,043.0	0.70	100.80	5,847.3	1,217.70	-947.9	903.1	1,309.2	0.51	0.00	-42.95
6,139.0	0.70	83.70	5,943.3	1,121.70	-947.9	904.3	1,310.0	0.22	0.00	-17.81
6,234.0	0.90	85.10	6,038.3	1,026.71	-947.8	905.6	1,310.8	0.21	0.21	1.47
6,330.0	1.20	86.30	6,134.3	930.73	-947.7	907.4	1,311.9	0.31	0.31	1.25
6,425.0	1.20	75.30	6,229.3	835.75	-947.3	909.3	1,313.0	0.24	0.00	-11.58
6,521.0	1.40	72.00	6,325.2	739.77	-946.7	911.4	1,314.0	0.22	0.21	-3.44
6,616.0	1.50	79.20	6,420.2	644.81	-946.1	913.7	1,315.2	0.22	0.11	7.58
6,711.0	1.70	73.50	6,515.2	549.84	-945.5	916.3	1,316.5	0.27	0.21	-6.00
6,807.0	1.40	68.40	6,611.1	453.88	-944.7	918.8	1,317.5	0.34	-0.31	-5.31
6,902.0	1.80	72.80	6,706.1	358.92	-943.8	921.3	1,318.6	0.44	0.42	4.63
6,998.0	1.70	64.60	6,802.0	262.96	-942.7	924.0	1,319.7	0.28	-0.10	-8.54
7,093.0	1.60	55.40	6,897.0	168.00	-941.4	926.4	1,320.3	0.30	-0.11	-9.68
7,188.0	1.50	61.40	6,992.0	73.04	-940.0	928.5	1,320.9	0.20	-0.11	6.32
7,284.0	1.80	67.60	7,087.9	-22.92	-938.9	931.0	1,321.7	0.36	0.31	6.46
7,379.0	1.70	68.60	7,182.9	-117.88	-937.8	933.7	1,322.8	0.11	-0.11	1.05
7,475.0	1.90	72.60	7,278.8	-213.83	-936.8	936.6	1,324.0	0.25	0.21	4.17
7,570.0	0.60	96.50	7,373.8	-308.81	-936.4	938.6	1,325.0	1.45	-1.37	25.16
7,666.0	0.60	85.60	7,469.8	-404.80	-936.4	939.6	1,325.7	0.12	0.00	-11.35
7,762.0	0.70	112.90	7,565.8	-500.80	-936.6	940.6	1,326.6	0.34	0.10	28.44
7,857.0	0.70	101.30	7,660.8	-595.79	-936.9	941.7	1,327.6	0.15	0.00	-12.21
7,953.0	1.10	96.30	7,756.8	-691.78	-937.1	943.2	1,328.8	0.42	0.42	-5.21
8,048.0	0.90	93.20	7,851.8	-786.76	-937.3	944.9	1,330.0	0.22	-0.21	-3.26
8,143.0	1.20	96.60	7,946.7	-881.74	-937.4	946.6	1,331.3	0.32	0.32	3.58
8,238.0	1.30	90.10	8,041.7	-976.72	-937.5	948.7	1,332.8	0.18	0.11	-6.84
8,334.0	1.60	90.10	8,137.7	-1,072.69	-937.5	951.1	1,334.5	0.31	0.31	0.00
8,429.0	1.00	68.60	8,232.7	-1,167.67	-937.2	953.2	1,335.7	0.80	-0.63	-22.63
8,525.0	1.20	73.10	8,328.6	-1,263.65	-936.6	954.9	1,336.4	0.23	0.21	4.69
8,620.0	1.30	58.50	8,423.6	-1,358.62	-935.8	956.8	1,337.1	0.35	0.11	-15.37
8,716.0	1.30	58.20	8,519.6	-1,454.60	-934.7	958.7	1,337.5	0.01	0.00	-0.31
8,811.0	2.00	74.80	8,614.6	-1,549.56	-933.6	961.2	1,338.5	0.88	0.74	17.47
8,906.0	1.90	44.60	8,709.5	-1,644.51	-932.1	963.9	1,339.2	1.07	-0.11	-31.79
9,002.0	1.50	36.20	8,805.5	-1,740.46	-929.9	965.7	1,338.9	0.49	-0.42	-8.75
9,098.0	2.20	32.70	8,901.4	-1,836.41	-927.4	967.5	1,338.2	0.74	0.73	-3.65
9,193.0	2.10	42.20	8,996.3	-1,931.35	-924.6	969.6	1,337.7	0.39	-0.11	10.00
9,288.0	1.70	39.90	9,091.3	-2,026.29	-922.2	971.7	1,337.3	0.43	-0.42	-2.42
9,384.0	1.70	45.70	9,187.3	-2,122.25	-920.1	973.6	1,337.1	0.18	0.00	6.04
9,479.0	1.80	47.30	9,282.2	-2,217.21	-918.1	975.7	1,337.1	0.12	0.11	1.68
9,574.0	2.10	50.90	9,377.2	-2,312.15	-916.0	978.2	1,337.3	0.34	0.32	3.79
9,670.0	2.20	63.40	9,473.1	-2,408.08	-914.1	981.2	1,337.9	0.50	0.10	13.02

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Last MWD Survey										
9,727.0	1.90	56.80	9,530.1	-2,465.08	-913.1	983.0	1,338.4	0.67	-0.53	-11.57
TD Extrapolation										
9,795.0	1.90	56.80	9,598.0	-2,533.01	-911.8	984.9	1,338.8	0.00	0.00	0.00

Casing Points				
MD (usft)	TVD (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,520.0	1,507.1	Surface Csg	0	0

Survey Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
210.0	210.0	-0.7	0.1	Tie-In Pt
1,520.0	1,507.1	-100.2	91.7	Surface Casing
9,727.0	9,530.1	-913.1	983.0	Last MWD Survey
9,795.0	9,598.0	-911.8	984.9	TD Extrapolation



Enseco Closure Report

27 June, 2012

Wexpro Company

Moffat County, Colorado

Sec 15, T11N, R97W, 6 PM

Powder Wash Government #16

API #: 05-081-07627

Survey: Final Surveys to TD (9,795' MD)



Company:	Wexpro Company	Local Co-ordinate Ref:	Well: Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level:	7,037.0 usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Project	Moffat County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Sec 15, T11N, R97W, 6 PM		
Site Position:		Northing:	1,596,083.30 usft
From:	Map	Easting:	2,220,929.13usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	40° 56' 8.182 N
		Longitude:	108° 19' 12.112 W
		Grid Convergence:	-1.82°

Well	Powder Wash Government #16		
Well Position	+N/-S	-70.0 usft	Northing: 1,596,012.10 usft
	+E/-W	40.1 usft	Easting: 2,220,966.95 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	7,065.0 usft
		Latitude:	40° 56' 7.490 N
		Longitude:	108° 19' 11.590 W
		Ground Level:	7,037.0 usft

Wellbore	API #: 05-081-07627				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	28-Oct-2010	10.77	66.87	53,035

Design	Final Surveys (10555-159)			Survey Error Model:	Standard ISCWSA MWD Tool
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	136.86	

Company:	Wexpro Company	Local Co-ordinate Ref:	Well: Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level:	7,037.0 usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Vertical Section (usft)	Closure Distance (usft)	Closure Azimuth (°)
0.0	0.00	0.00	0.0	7,065.00	0.0	0.0	0.00	0.00	0.0	0.00
Tie-In Pt										
210.0	0.40	168.90	210.0	6,855.00	-0.7	0.1	0.19	0.62	0.7	168.90
301.0	0.40	168.50	301.0	6,764.01	-1.3	0.3	0.00	1.16	1.4	168.81
393.0	0.30	227.90	393.0	6,672.01	-1.8	0.2	0.39	1.43	1.8	175.26
483.0	0.00	208.90	483.0	6,582.01	-2.0	0.0	0.33	1.43	2.0	180.69
571.0	0.40	149.00	571.0	6,494.01	-2.2	0.1	0.45	1.73	2.2	176.57
665.0	1.30	148.10	665.0	6,400.02	-3.4	0.9	0.96	3.09	3.5	165.80
756.0	2.80	141.40	755.9	6,309.08	-6.0	2.8	1.67	6.32	6.7	155.14
847.0	4.60	142.40	846.7	6,218.28	-10.7	6.4	1.98	12.17	12.4	148.99
937.0	6.30	134.90	936.3	6,128.68	-17.0	12.1	2.04	20.70	20.9	144.55
1,028.0	7.80	136.30	1,026.6	6,038.38	-25.0	19.9	1.66	31.86	32.0	141.46
1,120.0	9.90	135.70	1,117.5	5,947.48	-35.2	29.8	2.28	46.01	46.1	139.77
1,215.0	11.40	134.80	1,210.9	5,854.12	-47.6	42.1	1.59	63.56	63.6	138.52
1,311.0	12.60	136.40	1,304.8	5,760.22	-61.9	56.1	1.30	83.52	83.5	137.83
1,406.0	14.40	136.50	1,397.2	5,667.84	-78.0	71.4	1.89	105.69	105.7	137.54
Surface Casing										
1,520.0	16.24	138.49	1,507.1	5,557.89	-100.2	91.7	1.67	135.80	135.8	137.54
1,561.0	16.90	139.10	1,546.4	5,518.60	-109.0	99.4	1.67	147.48	147.5	137.64
1,657.0	18.30	140.70	1,637.9	5,427.10	-131.2	118.1	1.54	176.47	176.5	138.02
1,752.0	19.70	139.70	1,727.7	5,337.27	-155.0	137.9	1.51	207.34	207.4	138.34
1,848.0	18.80	138.70	1,818.4	5,246.64	-178.9	158.5	1.00	238.96	239.1	138.46
1,943.0	19.70	135.10	1,908.0	5,156.95	-201.8	179.9	1.57	270.27	270.4	138.27
2,038.0	18.30	132.60	1,997.9	5,067.13	-223.2	202.2	1.70	301.15	301.2	137.82
2,134.0	19.50	133.30	2,088.7	4,976.31	-244.4	225.0	1.27	332.17	332.2	137.37
2,229.0	19.30	133.40	2,178.3	4,886.70	-266.1	247.9	0.21	363.67	363.7	137.02
2,325.0	20.30	134.60	2,268.6	4,796.38	-288.7	271.3	1.12	396.14	396.1	136.77
2,420.0	20.00	134.20	2,357.8	4,707.19	-311.5	294.7	0.35	428.84	428.8	136.59
2,515.0	19.40	133.40	2,447.2	4,617.75	-333.7	317.8	0.69	460.82	460.8	136.40
2,611.0	20.30	135.90	2,537.5	4,527.46	-356.6	341.0	1.29	493.38	493.4	136.29
2,706.0	19.80	134.90	2,626.8	4,438.22	-379.8	363.8	0.64	525.94	526.0	136.23
2,802.0	20.50	136.90	2,716.9	4,348.09	-403.6	386.8	1.02	559.00	559.0	136.21
2,897.0	20.30	136.80	2,806.0	4,259.05	-427.7	409.5	0.21	592.12	592.1	136.25
2,993.0	19.90	137.10	2,896.1	4,168.90	-451.8	432.0	0.43	625.11	625.1	136.28
3,088.0	19.60	136.50	2,985.5	4,079.49	-475.2	454.0	0.38	657.21	657.2	136.31
3,183.0	19.50	137.10	3,075.0	3,989.96	-498.4	475.8	0.24	689.00	689.0	136.33
3,279.0	19.20	137.10	3,165.6	3,899.39	-521.7	497.4	0.31	720.81	720.8	136.37
3,374.0	19.00	136.20	3,255.4	3,809.62	-544.3	518.7	0.37	751.89	751.9	136.38
3,470.0	19.00	136.70	3,346.2	3,718.85	-567.0	540.3	0.17	783.14	783.2	136.38
3,565.0	18.80	136.20	3,436.0	3,628.97	-589.3	561.5	0.27	813.91	813.9	136.38
3,660.0	18.70	136.10	3,526.0	3,539.01	-611.3	582.6	0.11	844.45	844.5	136.38
3,756.0	18.70	136.10	3,616.9	3,448.08	-633.5	604.0	0.00	875.22	875.3	136.37
3,851.0	18.60	136.10	3,706.9	3,358.07	-655.4	625.0	0.11	905.60	905.6	136.36
3,947.0	18.60	135.00	3,797.9	3,267.08	-677.2	646.5	0.37	936.21	936.3	136.33
4,042.0	18.50	135.70	3,888.0	3,177.02	-698.7	667.7	0.26	966.42	966.5	136.30
4,137.0	18.50	136.30	3,978.1	3,086.93	-720.4	688.7	0.20	996.56	996.6	136.29
4,232.0	17.50	134.90	4,068.4	2,996.58	-741.4	709.2	1.15	1,025.91	1,026.0	136.27
4,327.0	17.40	135.50	4,159.0	2,905.95	-761.6	729.3	0.22	1,054.39	1,054.4	136.24
4,423.0	16.50	135.90	4,250.9	2,814.12	-781.6	748.8	0.95	1,082.37	1,082.4	136.23
4,518.0	16.00	137.60	4,342.1	2,722.92	-801.0	767.0	0.73	1,108.95	1,109.0	136.24
4,614.0	15.80	139.60	4,434.4	2,630.59	-820.7	784.4	0.61	1,135.23	1,135.3	136.30
4,709.0	14.10	141.80	4,526.2	2,538.81	-839.7	800.0	1.89	1,159.68	1,159.7	136.39

Company:	Wexpro Company	Local Co-ordinate Ref:	Well: Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level:	7,037.0 usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Vertical Section (usft)	Closure Distance (usft)	Closure Azimuth (°)
4,804.0	13.80	141.40	4,618.4	2,446.61	-857.6	814.2	0.33	1,182.50	1,182.5	136.49
4,900.0	12.50	138.80	4,711.9	2,353.13	-874.4	828.2	1.49	1,204.30	1,204.3	136.55
4,995.0	11.50	136.70	4,804.8	2,260.21	-889.0	841.4	1.15	1,224.05	1,224.1	136.57
5,091.0	10.30	133.20	4,899.1	2,165.94	-901.8	854.3	1.43	1,242.18	1,242.2	136.55
5,186.0	9.40	134.00	4,992.7	2,072.34	-913.0	866.0	0.96	1,258.41	1,258.4	136.51
5,280.0	7.60	132.90	5,085.6	1,979.38	-922.6	876.1	1.92	1,272.28	1,272.3	136.48
5,376.0	5.50	136.00	5,181.0	1,884.01	-930.2	884.0	2.22	1,283.21	1,283.2	136.46
5,471.0	3.90	138.90	5,275.7	1,789.33	-935.9	889.2	1.70	1,290.99	1,291.0	136.47
5,566.0	2.30	127.90	5,370.5	1,694.47	-939.5	892.9	1.79	1,296.10	1,296.1	136.46
5,662.0	2.20	129.40	5,466.5	1,598.55	-941.9	895.8	0.12	1,299.83	1,299.9	136.44
5,757.0	2.40	126.20	5,561.4	1,503.63	-944.2	898.8	0.25	1,303.60	1,303.6	136.41
5,853.0	1.20	135.60	5,657.3	1,407.67	-946.1	901.2	1.28	1,306.58	1,306.6	136.40
5,948.0	0.70	141.60	5,752.3	1,312.69	-947.3	902.2	0.54	1,308.15	1,308.2	136.40
6,043.0	0.70	100.80	5,847.3	1,217.70	-947.9	903.1	0.51	1,309.20	1,309.2	136.38
6,139.0	0.70	83.70	5,943.3	1,121.70	-947.9	904.3	0.22	1,310.02	1,310.1	136.35
6,234.0	0.90	85.10	6,038.3	1,026.71	-947.8	905.6	0.21	1,310.83	1,310.9	136.30
6,330.0	1.20	86.30	6,134.3	930.73	-947.7	907.4	0.31	1,311.94	1,312.0	136.24
6,425.0	1.20	75.30	6,229.3	835.75	-947.3	909.3	0.24	1,313.04	1,313.1	136.17
6,521.0	1.40	72.00	6,325.2	739.77	-946.7	911.4	0.22	1,314.02	1,314.1	136.09
6,616.0	1.50	79.20	6,420.2	644.81	-946.1	913.7	0.22	1,315.18	1,315.3	136.00
6,711.0	1.70	73.50	6,515.2	549.84	-945.5	916.3	0.27	1,316.48	1,316.7	135.90
6,807.0	1.40	68.40	6,611.1	453.88	-944.7	918.8	0.34	1,317.55	1,317.8	135.80
6,902.0	1.80	72.80	6,706.1	358.92	-943.8	921.3	0.44	1,318.62	1,318.9	135.69
6,998.0	1.70	64.60	6,802.0	262.96	-942.7	924.0	0.28	1,319.72	1,320.0	135.58
7,093.0	1.60	55.40	6,897.0	168.00	-941.4	926.4	0.30	1,320.34	1,320.7	135.46
7,188.0	1.50	61.40	6,992.0	73.04	-940.0	928.5	0.20	1,320.85	1,321.3	135.35
7,284.0	1.80	67.60	7,087.9	-22.92	-938.9	931.0	0.36	1,321.70	1,322.2	135.24
7,379.0	1.70	68.60	7,182.9	-117.88	-937.8	933.7	0.11	1,322.75	1,323.4	135.12
7,475.0	1.90	72.60	7,278.8	-213.83	-936.8	936.6	0.25	1,323.97	1,324.7	135.01
7,570.0	0.60	96.50	7,373.8	-308.81	-936.4	938.6	1.45	1,325.03	1,325.8	134.93
7,666.0	0.60	85.60	7,469.8	-404.80	-936.4	939.6	0.12	1,325.73	1,326.5	134.90
7,762.0	0.70	112.90	7,565.8	-500.80	-936.6	940.6	0.34	1,326.58	1,327.4	134.88
7,857.0	0.70	101.30	7,660.8	-595.79	-936.9	941.7	0.15	1,327.59	1,328.4	134.85
7,953.0	1.10	96.30	7,756.8	-691.78	-937.1	943.2	0.42	1,328.76	1,329.6	134.81
8,048.0	0.90	93.20	7,851.8	-786.76	-937.3	944.9	0.22	1,329.99	1,330.9	134.77
8,143.0	1.20	96.60	7,946.7	-881.74	-937.4	946.6	0.32	1,331.29	1,332.2	134.72
8,238.0	1.30	90.10	8,041.7	-976.72	-937.5	948.7	0.18	1,332.79	1,333.8	134.66
8,334.0	1.60	90.10	8,137.7	-1,072.69	-937.5	951.1	0.31	1,334.46	1,335.5	134.59
8,429.0	1.00	68.60	8,232.7	-1,167.67	-937.2	953.2	0.80	1,335.67	1,336.8	134.52
8,525.0	1.20	73.10	8,328.6	-1,263.65	-936.6	954.9	0.23	1,336.43	1,337.6	134.45
8,620.0	1.30	58.50	8,423.6	-1,358.62	-935.8	956.8	0.35	1,337.08	1,338.4	134.36
8,716.0	1.30	58.20	8,519.6	-1,454.60	-934.7	958.7	0.01	1,337.52	1,338.9	134.27
8,811.0	2.00	74.80	8,614.6	-1,549.56	-933.6	961.2	0.88	1,338.51	1,340.0	134.17
8,906.0	1.90	44.60	8,709.5	-1,644.51	-932.1	963.9	1.07	1,339.22	1,340.8	134.04
9,002.0	1.50	36.20	8,805.5	-1,740.46	-929.9	965.7	0.49	1,338.92	1,340.7	133.92
9,098.0	2.20	32.70	8,901.4	-1,836.41	-927.4	967.5	0.74	1,338.24	1,340.2	133.79
9,193.0	2.10	42.20	8,996.3	-1,931.35	-924.6	969.6	0.39	1,337.65	1,339.8	133.64
9,288.0	1.70	39.90	9,091.3	-2,026.29	-922.2	971.7	0.43	1,337.34	1,339.6	133.50
9,384.0	1.70	45.70	9,187.3	-2,122.25	-920.1	973.6	0.18	1,337.14	1,339.6	133.38
9,479.0	1.80	47.30	9,282.2	-2,217.21	-918.1	975.7	0.12	1,337.12	1,339.8	133.26
9,574.0	2.10	50.90	9,377.2	-2,312.15	-916.0	978.2	0.34	1,337.26	1,340.1	133.12
9,670.0	2.20	63.40	9,473.1	-2,408.08	-914.1	981.2	0.50	1,337.91	1,341.0	132.97

Company:	Wexpro Company	Local Co-ordinate Ref:	Well: Powder Wash Government #16
Project:	Moffat County, Colorado	Ground Level:	7,037.0 usft
Site:	Sec 15, T11N, R97W, 6 PM	Wellhead Elevation:	Field KB @ 7065.0usft (SST 88)
Well:	Powder Wash Government #16	North Reference:	True
Wellbore:	API #: 05-081-07627	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys (10555-159)	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Vertical Section (usft)	Closure Distance (usft)	Closure Azimuth (°)
Last MWD Survey										
9,727.0	1.90	56.80	9,530.1	-2,465.08	-913.1	983.0	0.67	1,338.38	1,341.6	132.89
TD Extrapolation										
9,795.0	1.90	56.80	9,598.0	-2,533.01	-911.8	984.9	0.00	1,338.77	1,342.1	132.79

Casing Points				
MD (usft)	TVD (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,520.0	1,507.1	Surface Csg	0	0

Survey Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
210.0	210.0	-0.7	0.1	Tie-In Pt
1,520.0	1,507.1	-100.2	91.7	Surface Casing
9,727.0	9,530.1	-913.1	983.0	Last MWD Survey
9,795.0	9,598.0	-911.8	984.9	TD Extrapolation