



Mountain V Oil & Gas, Inc.

Upshur County, WV

Wygat Carr #1H

Wygat Carr #1H

As Drilled

Design: End of Well Report As Drilled

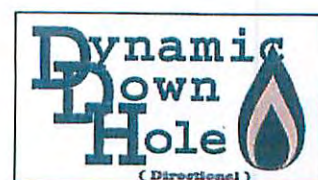
End of Well Survey Report

16 March, 2012

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APR 13 2016

WV Department of
Environmental Protection



04/22/2016



Project: Wygal Carr #1H
 Site: Upshur County, WV
 NAD 1927 (NADCON CONUS)
 West Virginia South 4702
 Ground Level: 2124 RKB: 2140
 ddhD 02-03-2012

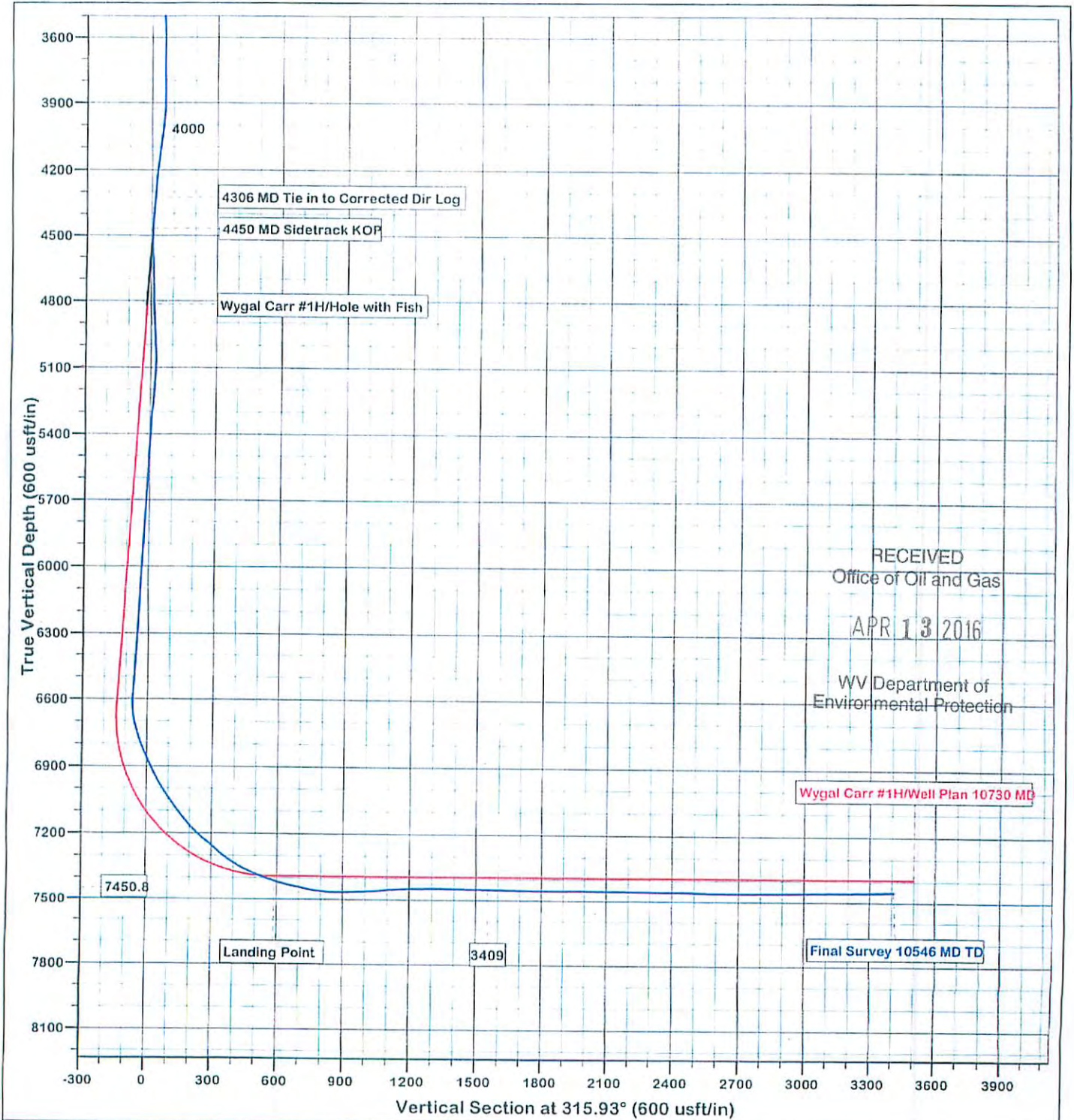


Azimuths to Grid North
 True North: -0.48°
 Magnetic North: -9.16°

Magnetic Field
 Strength: 52274.4snT
 Dip Angle: 66.61°
 Date: 03/01/2012
 Model: IGRF2010



Dynamic Down Hole Directional
 405 Garards Fort Rd
 Carmichaels, PA 15320
 Office: (724) 503-2288
 Fax: (724) 966-7254



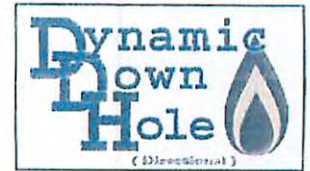
04/22/2016



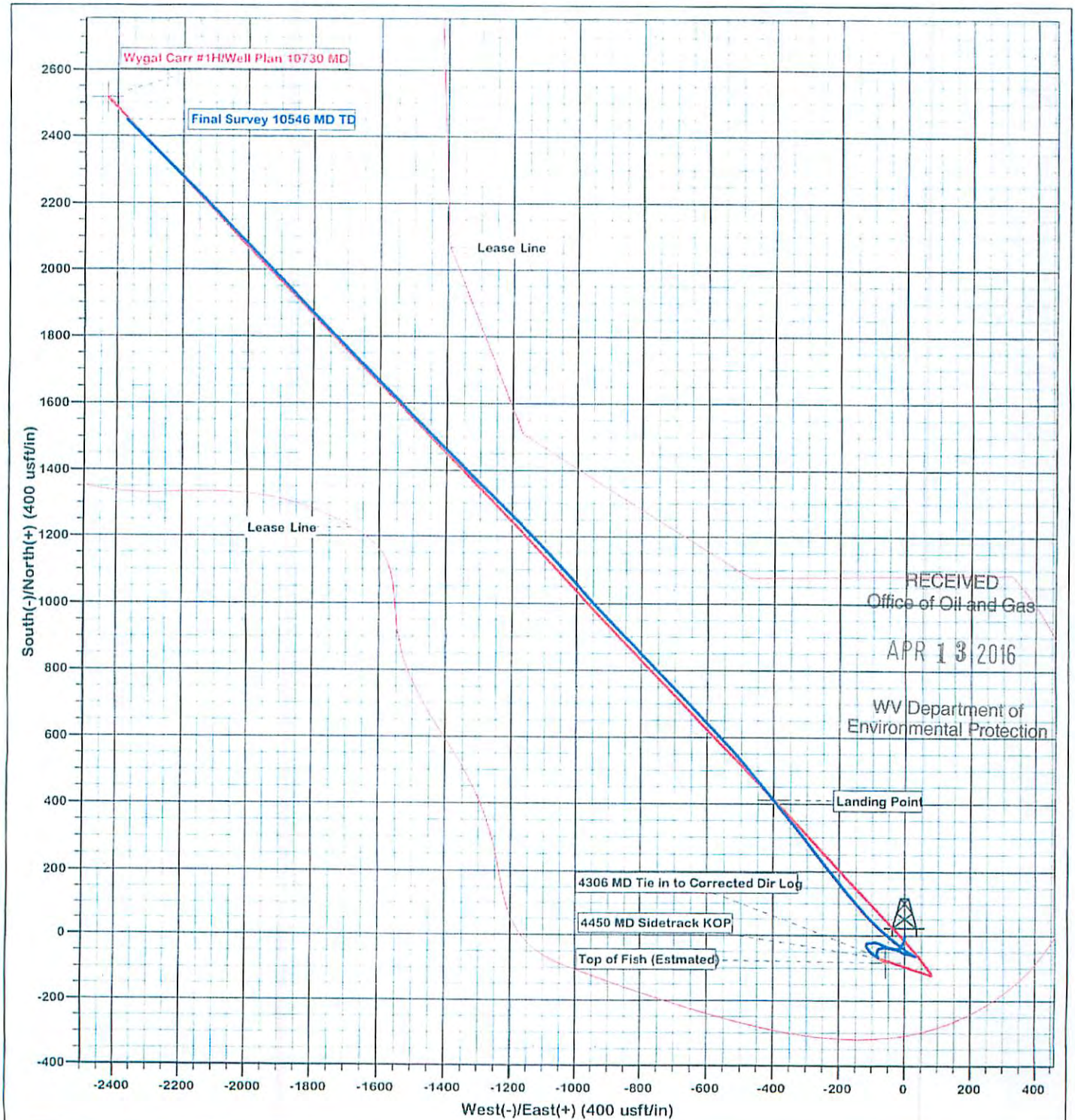
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Dynamic Down Hole Directional Survey Report - Geographic



Company: Mountain V Oil & Gas, Inc
Project: Upshur County, WV
Site: Wygal Carr #1H
Well: Wygal Carr #1H
Wellbore: As Drilled
Design: As Drilled

Local Co-ordinate Reference: Site Wygal Carr #1H
TVD Reference: wee @ 2140.0usft (Rig 44)
MD Reference: wee @ 2140.0usft (Rig 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 ddhDirectional

Project	Upshur County, WV		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia South 4702		

Site	Wygal Carr #1H				
Site Position:		Northing:	675,312.64 usft	Latitude:	38° 51' 6.981 N
From:	Map	Easting:	2,223,457.55 usft	Longitude:	80° 12' 55.398 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	Wygal Carr #1H					
Well Position	+N-S	0.0 usft	Northing:	675,312.64 usft	Latitude:	38° 51' 6.981 N
	+E-W	0.0 usft	Easting:	2,223,457.55 usft	Longitude:	80° 12' 55.398 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	16.0 usft	Ground Level:	2,124.0 usft

Wellbore	As Drilled				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/01/12	-8.68	66.61	52,274

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	4,322.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0		315.93

Survey Program	Date	03/16/12			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
22.0	4,322.0	Weatherford Directional Log (Gyro Survey)	Gyro		
4,350.0	10,546.0	Survey #1 (As Drilled)			

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Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	675,312.64	2,223,457.55	38° 51' 6.981 N	80° 12' 55.398 W	
22.0	0.00	0.00	22.0	0.0	0.0	675,312.64	2,223,457.55	38° 51' 6.981 N	80° 12' 55.398 W	
122.0	0.48	185.00	122.0	-0.4	0.0	675,312.23	2,223,457.52	38° 51' 6.977 N	80° 12' 55.398 W	
222.0	0.96	185.00	222.0	-1.7	-0.1	675,310.98	2,223,457.41	38° 51' 6.965 N	80° 12' 55.400 W	
322.0	1.43	185.00	322.0	-3.7	-0.3	675,308.90	2,223,457.23	38° 51' 6.944 N	80° 12' 55.402 W	
422.0	1.91	185.00	421.9	-6.7	-0.6	675,305.99	2,223,456.97	38° 51' 6.916 N	80° 12' 55.406 W	
522.0	2.20	187.38	521.9	-10.2	-1.0	675,302.42	2,223,456.58	38° 51' 6.880 N	80° 12' 55.411 W	
622.0	2.23	193.25	621.8	-14.0	-1.7	675,298.62	2,223,455.89	38° 51' 6.843 N	80° 12' 55.420 W	
722.0	2.28	198.94	721.7	-17.8	-2.8	675,294.85	2,223,454.79	38° 51' 6.806 N	80° 12' 55.435 W	
822.0	2.35	204.33	821.6	-21.5	-4.2	675,291.10	2,223,453.31	38° 51' 6.769 N	80° 12' 55.454 W	
922.0	2.20	207.50	921.6	-25.1	-6.0	675,287.53	2,223,451.57	38° 51' 6.734 N	80° 12' 55.476 W	

WV Department of
 Environmental Protection



Dynamic Down Hole Directional Survey Report - Geographic



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Local Co-ordinate Reference: Site Wygal Carr #1H
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 ddhDirectional

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,022.0	1.66	206.29	1,021.5	-28.1	-7.5	675,284.53	2,223,450.05	38° 51' 6.704 N	80° 12' 55.496 W
1,122.0	1.30	206.52	1,121.5	-30.4	-8.7	675,282.22	2,223,448.90	38° 51' 6.681 N	80° 12' 55.510 W
1,222.0	1.26	213.44	1,221.4	-32.4	-9.8	675,280.29	2,223,447.79	38° 51' 6.662 N	80° 12' 55.525 W
1,322.0	1.24	216.56	1,321.4	-34.1	-11.0	675,278.51	2,223,446.54	38° 51' 6.645 N	80° 12' 55.541 W
1,422.0	1.34	218.84	1,421.4	-35.9	-12.4	675,276.73	2,223,445.16	38° 51' 6.627 N	80° 12' 55.558 W
1,522.0	1.34	230.25	1,521.4	-37.6	-14.0	675,275.07	2,223,443.53	38° 51' 6.611 N	80° 12' 55.579 W
1,622.0	1.34	246.80	1,621.3	-38.8	-16.0	675,273.87	2,223,441.56	38° 51' 6.599 N	80° 12' 55.604 W
1,722.0	1.40	252.20	1,721.3	-39.6	-18.2	675,273.03	2,223,439.33	38° 51' 6.591 N	80° 12' 55.632 W
1,822.0	1.48	253.53	1,821.3	-40.4	-20.6	675,272.29	2,223,436.93	38° 51' 6.584 N	80° 12' 55.663 W
1,922.0	1.56	253.89	1,921.2	-41.1	-23.2	675,271.55	2,223,434.38	38° 51' 6.577 N	80° 12' 55.695 W
2,022.0	1.50	253.90	2,021.2	-41.8	-25.7	675,270.81	2,223,431.82	38° 51' 6.570 N	80° 12' 55.728 W
2,122.0	1.30	265.30	2,121.2	-42.3	-28.1	675,270.35	2,223,429.43	38° 51' 6.566 N	80° 12' 55.758 W
2,222.0	1.40	274.00	2,221.1	-42.3	-30.5	675,270.35	2,223,427.06	38° 51' 6.566 N	80° 12' 55.787 W
2,322.0	1.50	279.20	2,321.1	-42.0	-33.0	675,270.64	2,223,424.57	38° 51' 6.569 N	80° 12' 55.819 W
2,422.0	1.80	284.40	2,421.1	-41.4	-35.8	675,271.24	2,223,421.75	38° 51' 6.575 N	80° 12' 55.855 W
2,522.0	2.40	286.00	2,521.0	-40.4	-39.3	675,272.21	2,223,418.22	38° 51' 6.585 N	80° 12' 55.899 W
2,622.0	2.80	289.50	2,620.9	-39.0	-43.6	675,273.60	2,223,413.91	38° 51' 6.599 N	80° 12' 55.954 W
2,722.0	4.50	292.30	2,720.7	-36.7	-49.6	675,275.90	2,223,407.97	38° 51' 6.622 N	80° 12' 56.028 W
2,822.0	5.10	293.60	2,820.3	-33.5	-57.3	675,279.17	2,223,400.27	38° 51' 6.655 N	80° 12' 56.125 W
2,922.0	5.50	294.70	2,919.9	-29.7	-65.7	675,282.95	2,223,391.84	38° 51' 6.693 N	80° 12' 56.231 W
3,022.0	6.20	294.70	3,019.4	-25.4	-75.0	675,287.21	2,223,382.58	38° 51' 6.736 N	80° 12' 56.348 W
3,122.0	6.60	281.60	3,118.8	-22.0	-85.5	675,290.63	2,223,372.05	38° 51' 6.771 N	80° 12' 56.481 W
3,222.0	3.82	267.80	3,218.4	-21.0	-94.5	675,291.65	2,223,363.08	38° 51' 6.782 N	80° 12' 56.594 W
3,322.0	2.00	216.01	3,318.2	-22.5	-98.8	675,290.11	2,223,358.73	38° 51' 6.767 N	80° 12' 56.649 W
3,422.0	2.40	281.20	3,418.2	-23.5	-101.9	675,289.11	2,223,355.65	38° 51' 6.757 N	80° 12' 56.688 W
3,522.0	4.40	269.70	3,518.0	-23.1	-107.8	675,289.49	2,223,349.75	38° 51' 6.762 N	80° 12' 56.763 W
3,622.0	2.30	229.91	3,617.8	-24.5	-113.2	675,288.18	2,223,344.38	38° 51' 6.749 N	80° 12' 56.831 W
3,722.0	0.20	83.63	3,717.8	-25.7	-114.5	675,286.91	2,223,343.02	38° 51' 6.737 N	80° 12' 56.848 W
3,822.0	1.40	285.90	3,817.8	-25.4	-115.5	675,287.26	2,223,342.02	38° 51' 6.740 N	80° 12' 56.861 W
3,922.0	3.40	203.10	3,917.7	-27.8	-117.9	675,284.87	2,223,339.68	38° 51' 6.717 N	80° 12' 56.891 W
4,022.0	7.50	145.30	4,017.3	-35.9	-115.3	675,276.77	2,223,342.23	38° 51' 6.636 N	80° 12' 56.859 W
4,122.0	8.90	139.40	4,116.3	-47.1	-106.6	675,265.53	2,223,350.98	38° 51' 6.525 N	80° 12' 56.750 W
4,222.0	5.70	120.50	4,215.5	-55.5	-97.3	675,257.13	2,223,360.30	38° 51' 6.441 N	80° 12' 56.633 W
4,322.0	4.40	123.50	4,315.1	-60.2	-89.8	675,252.49	2,223,367.78	38° 51' 6.394 N	80° 12' 56.539 W
4,350.0	4.20	126.40	4,343.0	-61.4	-88.1	675,251.29	2,223,369.50	38° 51' 6.382 N	80° 12' 56.517 W
4,380.0	4.40	119.10	4,372.9	-62.6	-86.2	675,250.08	2,223,371.39	38° 51' 6.370 N	80° 12' 56.494 W
4,412.0	4.60	130.00	4,404.8	-64.0	-84.1	675,248.66	2,223,373.44	38° 51' 6.356 N	80° 12' 56.466 W
4,443.0	4.40	127.10	4,435.7	-65.5	-82.2	675,247.14	2,223,375.35	38° 51' 6.341 N	80° 12' 56.444 W
4,463.0	3.50	124.60	4,455.7	-66.3	-81.1	675,246.33	2,223,376.46	38° 51' 6.333 N	80° 12' 56.430 W
4,494.0	1.90	118.50	4,486.6	-67.1	-79.9	675,245.55	2,223,377.69	38° 51' 6.325 N	80° 12' 56.414 W
4,525.0	1.00	340.80	4,517.6	-67.1	-79.5	675,245.56	2,223,378.05	38° 51' 6.325 N	80° 12' 56.410 W
4,557.0	1.90	330.20	4,549.6	-66.4	-79.9	675,246.29	2,223,377.70	38° 51' 6.332 N	80° 12' 56.414 W
4,620.0	2.00	334.90	4,612.6	-64.5	-80.8	675,248.19	2,223,376.71	38° 51' 6.351 N	80° 12' 56.426 W
4,683.0	1.90	334.40	4,675.6	-62.5	-81.8	675,250.12	2,223,375.79	38° 51' 6.370 N	80° 12' 56.438 W
4,745.0	1.90	334.00	4,737.5	-60.7	-82.7	675,251.98	2,223,374.90	38° 51' 6.389 N	80° 12' 56.449 W
4,808.0	0.90	319.00	4,800.5	-59.4	-83.4	675,253.29	2,223,374.12	38° 51' 6.402 N	80° 12' 56.459 W
4,829.7	1.44	343.77	4,822.2	-59.0	-83.6	675,253.68	2,223,373.93	38° 51' 6.406 N	80° 12' 56.461 W
Top of Fish (Estimated)									
4,870.0	2.70	358.80	4,862.5	-57.5	-83.8	675,255.11	2,223,373.77	38° 51' 6.420 N	80° 12' 56.463 W
4,933.0	4.70	349.60	4,925.3	-53.5	-84.3	675,259.14	2,223,373.27	38° 51' 6.460 N	80° 12' 56.469 W
4,995.0	5.00	11.30	4,987.1	-48.4	-84.2	675,264.29	2,223,373.34	38° 51' 6.510 N	80° 12' 56.467 W
5,058.0	5.50	36.40	5,049.9	-43.2	-81.9	675,269.41	2,223,375.67	38° 51' 6.561 N	80° 12' 56.437 W
5,119.0	6.50	61.80	5,110.5	-39.3	-77.1	675,273.39	2,223,380.45	38° 51' 6.600 N	80° 12' 56.377 W
5,245.0	7.50	92.30	5,235.6	-36.2	-62.6	675,276.44	2,223,394.96	38° 51' 6.629 N	80° 12' 56.193 W
5,307.0	7.40	92.10	5,297.1	-36.5	-54.6	675,276.13	2,223,402.99	38° 51' 6.625 N	80° 12' 56.091 W

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,369.0	5.30	97.10	5,358.7	-37.0	-47.7	675,275.63	2,223,409.82	38° 51' 6.619 N	80° 12' 56.005 W
5,432.0	4.20	101.10	5,421.5	-37.8	-42.6	675,274.82	2,223,414.97	38° 51' 6.611 N	80° 12' 55.940 W
5,494.0	3.80	100.70	5,483.4	-38.6	-38.3	675,274.00	2,223,419.22	38° 51' 6.603 N	80° 12' 55.886 W
5,558.0	3.60	103.40	5,547.2	-39.5	-34.3	675,273.14	2,223,423.26	38° 51' 6.594 N	80° 12' 55.835 W
5,621.0	3.60	105.20	5,610.1	-40.5	-30.5	675,272.17	2,223,427.09	38° 51' 6.584 N	80° 12' 55.787 W
5,684.0	3.50	108.20	5,673.0	-41.6	-26.7	675,271.05	2,223,430.83	38° 51' 6.572 N	80° 12' 55.740 W
5,747.0	3.50	109.20	5,735.9	-42.8	-23.1	675,269.82	2,223,434.47	38° 51' 6.560 N	80° 12' 55.694 W
5,810.0	3.20	111.40	5,798.8	-44.1	-19.6	675,268.54	2,223,437.92	38° 51' 6.547 N	80° 12' 55.651 W
5,873.0	3.20	115.10	5,861.7	-45.5	-16.4	675,267.15	2,223,441.15	38° 51' 6.533 N	80° 12' 55.610 W
5,936.0	3.50	120.50	5,924.6	-47.2	-13.2	675,265.43	2,223,444.40	38° 51' 6.516 N	80° 12' 55.569 W
5,999.0	3.80	122.50	5,987.4	-49.3	-9.7	675,263.33	2,223,447.82	38° 51' 6.495 N	80° 12' 55.526 W
6,059.0	3.80	124.50	6,047.3	-51.5	-6.4	675,261.14	2,223,451.13	38° 51' 6.473 N	80° 12' 55.484 W
6,122.0	3.80	105.70	6,110.2	-53.3	-2.7	675,259.39	2,223,454.87	38° 51' 6.455 N	80° 12' 55.437 W
6,185.0	4.10	99.70	6,173.0	-54.2	1.5	675,258.45	2,223,459.09	38° 51' 6.446 N	80° 12' 55.384 W
6,249.0	4.20	97.90	6,236.8	-54.9	6.1	675,257.74	2,223,463.67	38° 51' 6.438 N	80° 12' 55.326 W
6,311.0	4.30	101.20	6,298.7	-55.7	10.6	675,256.98	2,223,468.20	38° 51' 6.430 N	80° 12' 55.269 W
6,374.0	4.20	102.20	6,361.5	-56.6	15.2	675,256.03	2,223,472.77	38° 51' 6.421 N	80° 12' 55.211 W
6,437.0	4.30	108.90	6,424.3	-57.9	19.7	675,254.78	2,223,477.26	38° 51' 6.408 N	80° 12' 55.155 W
6,501.0	4.40	111.30	6,488.1	-59.5	24.3	675,253.11	2,223,481.82	38° 51' 6.391 N	80° 12' 55.097 W
6,563.0	4.50	112.80	6,549.9	-61.3	28.7	675,251.30	2,223,486.28	38° 51' 6.373 N	80° 12' 55.041 W
6,595.0	4.10	112.90	6,581.9	-62.3	30.9	675,250.37	2,223,488.49	38° 51' 6.363 N	80° 12' 55.013 W
6,626.0	0.70	88.60	6,612.8	-62.7	32.1	675,249.94	2,223,489.70	38° 51' 6.359 N	80° 12' 54.998 W
6,658.0	5.80	302.10	6,644.8	-61.8	31.0	675,250.81	2,223,488.52	38° 51' 6.368 N	80° 12' 55.013 W
6,689.0	9.90	299.10	6,675.5	-59.7	27.3	675,252.94	2,223,484.87	38° 51' 6.389 N	80° 12' 55.059 W
6,720.0	13.30	301.40	6,705.8	-56.6	21.9	675,256.09	2,223,479.49	38° 51' 6.421 N	80° 12' 55.127 W
6,752.0	16.00	301.10	6,736.8	-52.4	15.0	675,260.29	2,223,472.57	38° 51' 6.463 N	80° 12' 55.214 W
6,784.0	19.40	302.00	6,767.3	-47.3	6.7	675,265.39	2,223,464.29	38° 51' 6.514 N	80° 12' 55.318 W
6,815.0	21.20	303.70	6,796.4	-41.4	-2.3	675,271.22	2,223,455.26	38° 51' 6.572 N	80° 12' 55.431 W
6,846.0	23.40	308.80	6,825.0	-34.5	-11.8	675,278.19	2,223,445.79	38° 51' 6.642 N	80° 12' 55.550 W
6,877.0	24.80	309.40	6,853.3	-25.5	-21.6	675,286.18	2,223,435.97	38° 51' 6.722 N	80° 12' 55.673 W
6,909.0	26.00	309.50	6,882.2	-17.7	-32.2	675,294.90	2,223,425.37	38° 51' 6.809 N	80° 12' 55.806 W
6,940.0	27.30	310.30	6,909.9	-8.8	-42.8	675,303.82	2,223,414.71	38° 51' 6.898 N	80° 12' 55.940 W
6,971.0	28.30	310.60	6,937.4	0.6	-53.8	675,313.20	2,223,403.71	38° 51' 6.991 N	80° 12' 56.078 W
7,003.0	30.00	311.10	6,965.3	10.8	-65.6	675,323.40	2,223,391.92	38° 51' 7.093 N	80° 12' 56.226 W
7,034.0	32.50	312.60	6,991.8	21.5	-77.6	675,334.13	2,223,379.95	38° 51' 7.200 N	80° 12' 56.376 W
7,066.0	34.30	314.40	7,018.5	33.6	-90.4	675,346.26	2,223,367.17	38° 51' 7.321 N	80° 12' 56.537 W
7,120.0	36.00	317.70	7,062.7	56.0	-111.9	675,368.65	2,223,345.62	38° 51' 7.544 N	80° 12' 56.807 W
7,151.0	36.60	319.40	7,087.7	69.6	-124.1	675,382.40	2,223,333.47	38° 51' 7.681 N	80° 12' 56.959 W
7,183.0	38.30	320.50	7,113.1	84.7	-136.6	675,397.30	2,223,320.96	38° 51' 7.830 N	80° 12' 57.115 W
7,214.0	40.20	321.20	7,137.1	99.9	-149.0	675,412.51	2,223,308.58	38° 51' 7.981 N	80° 12' 57.270 W
7,245.0	42.60	321.40	7,160.3	115.9	-161.8	675,428.51	2,223,295.76	38° 51' 8.140 N	80° 12' 57.430 W
7,276.0	45.60	321.40	7,182.6	132.7	-175.3	675,445.37	2,223,282.30	38° 51' 8.308 N	80° 12' 57.599 W
7,307.0	49.10	321.50	7,203.6	150.5	-189.5	675,463.19	2,223,268.10	38° 51' 8.485 N	80° 12' 57.776 W
7,338.0	49.80	321.40	7,223.7	169.0	-204.1	675,481.62	2,223,253.42	38° 51' 8.669 N	80° 12' 57.960 W
7,370.0	50.00	321.20	7,244.4	188.1	-219.4	675,500.72	2,223,238.11	38° 51' 8.859 N	80° 12' 58.151 W
7,401.0	50.10	320.90	7,264.3	206.6	-234.4	675,519.20	2,223,223.17	38° 51' 9.043 N	80° 12' 58.338 W
7,433.0	52.00	321.10	7,284.4	225.9	-250.0	675,538.54	2,223,207.51	38° 51' 9.235 N	80° 12' 58.534 W
7,464.0	54.10	321.40	7,303.0	245.2	-265.5	675,557.86	2,223,192.01	38° 51' 9.427 N	80° 12' 58.728 W
7,495.0	56.60	321.20	7,320.6	265.1	-281.5	675,577.76	2,223,176.05	38° 51' 9.625 N	80° 12' 58.927 W
7,527.0	59.50	321.30	7,337.6	285.3	-298.5	675,598.93	2,223,159.07	38° 51' 9.836 N	80° 12' 59.140 W
7,558.0	62.20	321.20	7,352.7	307.4	-315.4	675,620.05	2,223,142.12	38° 51' 10.046 N	80° 12' 59.352 W
7,588.0	64.70	321.10	7,366.1	328.3	-332.3	675,640.94	2,223,125.29	38° 51' 10.254 N	80° 12' 59.562 W
7,619.0	67.00	320.40	7,378.8	350.2	-350.2	675,662.85	2,223,107.39	38° 51' 10.472 N	80° 12' 59.786 W
7,650.0	69.10	320.30	7,390.3	372.3	-368.5	675,684.98	2,223,089.05	38° 51' 10.692 N	80° 13' 0.016 W
7,681.0	71.00	320.70	7,400.9	394.8	-387.0	675,707.47	2,223,070.52	38° 51' 10.916 N	80° 13' 0.246 W

APR 13 2016

04/22/2016



Dynamic Down Hole Directional Survey Report - Geographic



Company: Mountain V Oil & Gas Inc.
Project: Upshur County WV
Site: Wygal Carr #1H
Well: Wygal Carr #1H
Wellbore: As Drilled
Design: As Drilled

Local Co-ordinate Reference: Site Wygal Carr #1H
TVD Reference: wee @ 2140 Dusst (Rig 44)
MD Reference: wee @ 2140 Dusst (Rig 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000 1 ddhDirectional

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,696.7	71.39	320.45	7,406.0	-406.3	-396.5	675,718.98	2,223,061.05	38° 51' 11.031 N	80° 13' 0.366 W
Landing Point									
7,713.0	71.80	320.20	7,411.1	418.2	-406.3	675,730.85	2,223,051.20	38° 51' 11.149 N	80° 13' 0.489 W
7,744.0	74.30	320.00	7,420.2	-441.0	-425.4	675,753.60	2,223,032.18	38° 51' 11.375 N	80° 13' 0.727 W
7,775.0	76.50	320.30	7,428.0	464.0	-444.6	675,776.63	2,223,012.96	38° 51' 11.605 N	80° 13' 0.968 W
7,807.0	77.20	320.10	7,435.3	487.9	-464.5	675,800.57	2,222,993.02	38° 51' 11.843 N	80° 13' 1.217 W
7,837.0	77.50	320.30	7,441.8	510.4	-483.3	675,823.06	2,222,974.28	38° 51' 12.067 N	80° 13' 1.452 W
7,869.0	77.80	320.10	7,448.7	534.4	-503.3	675,847.07	2,222,954.27	38° 51' 12.306 N	80° 13' 1.702 W
7,900.0	79.60	318.70	7,454.7	557.5	-523.1	675,870.15	2,222,934.49	38° 51' 12.536 N	80° 13' 1.950 W
7,932.0	82.50	317.40	7,459.7	581.0	-544.2	675,893.66	2,222,913.36	38° 51' 12.770 N	80° 13' 2.214 W
7,963.0	85.40	316.90	7,463.0	603.6	-565.2	675,916.26	2,222,892.39	38° 51' 12.995 N	80° 13' 2.477 W
7,994.0	89.20	316.80	7,464.4	626.2	-586.3	675,938.84	2,222,871.22	38° 51' 13.220 N	80° 13' 2.742 W
8,025.0	90.70	316.60	7,464.5	648.8	-607.6	675,961.40	2,222,849.96	38° 51' 13.445 N	80° 13' 3.008 W
8,057.0	91.30	316.20	7,463.9	671.9	-629.7	675,984.57	2,222,827.90	38° 51' 13.675 N	80° 13' 3.285 W
8,088.0	92.10	315.90	7,463.0	694.2	-651.2	676,006.88	2,222,806.39	38° 51' 13.898 N	80° 13' 3.554 W
8,119.0	92.60	316.00	7,461.7	716.5	-672.7	676,029.14	2,222,784.86	38° 51' 14.120 N	80° 13' 3.824 W
8,151.0	93.50	315.90	7,460.0	739.5	-694.9	676,052.11	2,222,762.54	38° 51' 14.348 N	80° 13' 4.102 W
8,182.0	95.30	315.80	7,457.6	761.6	-716.4	676,074.29	2,222,741.11	38° 51' 14.569 N	80° 13' 4.372 W
8,213.0	95.60	316.00	7,454.7	783.8	-737.9	676,096.45	2,222,719.63	38° 51' 14.790 N	80° 13' 4.641 W
8,245.0	95.80	316.10	7,451.5	806.7	-760.0	676,119.37	2,222,697.54	38° 51' 15.019 N	80° 13' 4.918 W
8,276.0	92.60	316.00	7,449.3	829.0	-781.5	676,141.63	2,222,676.08	38° 51' 15.240 N	80° 13' 5.187 W
8,307.0	91.70	316.00	7,448.1	851.3	-803.0	676,163.91	2,222,654.56	38° 51' 15.463 N	80° 13' 5.457 W
8,339.0	90.90	315.80	7,447.4	874.2	-825.3	676,186.89	2,222,632.30	38° 51' 15.691 N	80° 13' 5.736 W
8,401.0	91.20	315.50	7,446.2	918.6	-868.6	676,231.21	2,222,588.87	38° 51' 16.133 N	80° 13' 6.279 W
8,463.0	89.20	316.20	7,446.0	963.1	-911.8	676,275.70	2,222,545.78	38° 51' 16.577 N	80° 13' 6.820 W
8,525.0	89.20	316.60	7,446.9	1,007.9	-954.5	676,320.59	2,222,503.03	38° 51' 17.024 N	80° 13' 7.355 W
8,587.0	89.90	317.20	7,447.4	1,053.2	-996.9	676,365.86	2,222,460.67	38° 51' 17.475 N	80° 13' 7.886 W
8,650.0	88.80	316.50	7,448.1	1,099.2	-1,040.0	676,411.82	2,222,417.59	38° 51' 17.932 N	80° 13' 8.426 W
8,714.0	89.00	315.80	7,449.3	1,145.3	-1,084.3	676,457.96	2,222,373.26	38° 51' 18.392 N	80° 13' 8.981 W
8,776.0	88.90	315.40	7,450.4	1,189.6	-1,127.7	676,502.25	2,222,329.89	38° 51' 18.834 N	80° 13' 9.525 W
8,837.0	89.20	315.10	7,451.5	1,232.9	-1,170.6	676,545.57	2,222,286.95	38° 51' 19.266 N	80° 13' 10.063 W
8,900.0	89.40	314.40	7,452.2	1,277.3	-1,215.3	676,589.92	2,222,242.21	38° 51' 19.708 N	80° 13' 10.624 W
8,960.0	89.90	314.50	7,452.6	1,319.3	-1,258.2	676,631.93	2,222,199.38	38° 51' 20.126 N	80° 13' 11.161 W
9,024.0	90.70	314.90	7,452.3	1,364.3	-1,303.7	676,676.95	2,222,153.89	38° 51' 20.575 N	80° 13' 11.731 W
9,084.0	89.50	314.70	7,452.1	1,406.6	-1,346.2	676,719.23	2,222,111.32	38° 51' 20.997 N	80° 13' 12.264 W
9,147.0	89.50	315.00	7,452.7	1,451.0	-1,390.9	676,763.65	2,222,066.65	38° 51' 21.439 N	80° 13' 12.824 W
9,210.0	90.20	315.10	7,452.9	1,495.6	-1,435.4	676,808.24	2,222,022.15	38° 51' 21.884 N	80° 13' 13.382 W
9,271.0	89.70	315.40	7,452.9	1,538.9	-1,478.4	676,851.56	2,221,979.20	38° 51' 22.316 N	80° 13' 13.920 W
9,334.0	88.70	315.20	7,453.8	1,583.7	-1,522.7	676,896.34	2,221,934.89	38° 51' 22.762 N	80° 13' 14.476 W
9,397.0	89.10	316.10	7,455.0	1,628.7	-1,566.7	676,941.38	2,221,890.86	38° 51' 23.211 N	80° 13' 15.027 W
9,460.0	89.40	316.00	7,455.8	1,674.1	-1,610.4	676,986.73	2,221,847.14	38° 51' 23.663 N	80° 13' 15.575 W
9,524.0	90.00	315.80	7,456.2	1,720.0	-1,654.9	677,032.69	2,221,802.60	38° 51' 24.121 N	80° 13' 16.133 W
9,587.0	88.50	315.80	7,457.0	1,765.2	-1,698.9	677,077.85	2,221,758.69	38° 51' 24.571 N	80° 13' 16.684 W
9,649.0	88.30	315.80	7,458.7	1,809.6	-1,742.1	677,122.28	2,221,715.48	38° 51' 25.013 N	80° 13' 17.225 W
9,712.0	88.70	316.10	7,460.4	1,854.9	-1,785.9	677,167.55	2,221,671.69	38° 51' 25.464 N	80° 13' 17.774 W
9,775.0	89.40	316.40	7,461.4	1,900.4	-1,829.4	677,213.05	2,221,628.13	38° 51' 25.918 N	80° 13' 18.320 W
9,837.0	89.80	316.20	7,461.8	1,945.2	-1,872.3	677,257.87	2,221,585.30	38° 51' 26.364 N	80° 13' 18.866 W
9,898.0	90.60	316.20	7,461.6	1,989.3	-1,914.5	677,301.90	2,221,543.08	38° 51' 26.803 N	80° 13' 19.385 W
9,960.0	91.30	316.70	7,460.6	2,034.2	-1,957.2	677,346.83	2,221,500.37	38° 51' 27.251 N	80° 13' 19.920 W
10,022.0	90.20	315.40	7,459.8	2,078.8	-2,000.2	677,391.46	2,221,457.34	38° 51' 27.695 N	80° 13' 20.460 W
10,084.0	90.60	315.00	7,459.4	2,122.8	-2,043.9	677,435.45	2,221,413.66	38° 51' 28.134 N	80° 13' 21.007 W
10,147.0	91.00	315.60	7,458.5	2,167.6	-2,088.2	677,480.23	2,221,369.35	38° 51' 28.580 N	80° 13' 21.563 W
10,209.0	91.50	315.60	7,457.1	2,211.9	-2,131.6	677,524.51	2,221,325.98	38° 51' 29.021 N	80° 13' 22.106 W
10,269.0	90.30	314.60	7,456.2	2,253.7	-2,173.2	677,566.30	2,221,284.34	38° 51' 29.438 N	80° 13' 22.628 W
10,330.0	90.40	314.30	7,455.8	2,297.1	-2,217.5	677,609.71	2,221,240.08	38° 51' 29.871 N	80° 13' 23.183 W



Dynamic Down Hole Directional Survey Report - Geographic



Company: Mountain V Oil & Gas, Inc
Project: Upshur County WV
Site: Wygal Carr #1H
Well: Wygal Carr #1H
Wellbore: As Drilled
Design: As Drilled

Local Co-ordinate Reference: Site Wygal Carr #1H
TVD Reference: wee @ 2140 Ousft (Rig 44)
MD Reference: wee @ 2140 Ousft (Rig 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 ddhDirectional

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,391.0	91.00	314.70	7,455.1	2,339.8	-2,261.0	677,652.47	2,221,196.58	38° 51' 30.297 N	80° 13' 23.728 W
10,451.0	91.40	314.80	7,453.8	2,382.1	-2,303.6	677,694.70	2,221,153.98	38° 51' 30.718 N	80° 13' 24.262 W
10,514.0	92.00	315.10	7,452.0	2,426.5	-2,348.1	677,739.19	2,221,109.41	38° 51' 31.161 N	80° 13' 24.821 W
10,546.0	92.10	315.00	7,450.8	2,449.2	-2,370.7	677,761.82	2,221,086.82	38° 51' 31.387 N	80° 13' 25.104 W

10546 MD TD - PBHL#1[WC#1H]

Target Name	- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top of Fish (Estimated)		0.00	0.00	4,823.0	-81.4	-57.7	675,231.24	2,223,399.85	38° 51' 6.182 N	80° 12' 56.136 W
	- actual wellpath misses target center by 34.3usft at 4829.7usft MD (4822.2 TVD, -59.0 N, -83.6 E)									
	- Point									
PBHL#1[WC#1H]		0.00	0.00	7,390.0	2,517.0	-2,432.0	677,829.64	2,221,025.56	38° 51' 32.062 N	80° 13' 25.871 W
	- actual wellpath misses target center by 109.8usft at 10546.0usft MD (7450.8 TVD, 2449.2 N, -2370.7 E)									
	- Point									
Landing Point		0.00	0.00	7,390.0	412.0	-398.1	675,724.64	2,223,059.45	38° 51' 11.087 N	80° 13' 0.386 W
	- actual wellpath misses target center by 17.0usft at 7696.7usft MD (7406.0 TVD, 406.3 N, -396.5 E)									
	- Point									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,546.0	7,450.8	2,449.2	-2,370.7	10546 MD TD

Checked By: _____ Approved By: _____ Date: _____

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 Office of Oil and Gas

 APR 13 2016

 WV Department of
 Environmental Protection

04/22/2016