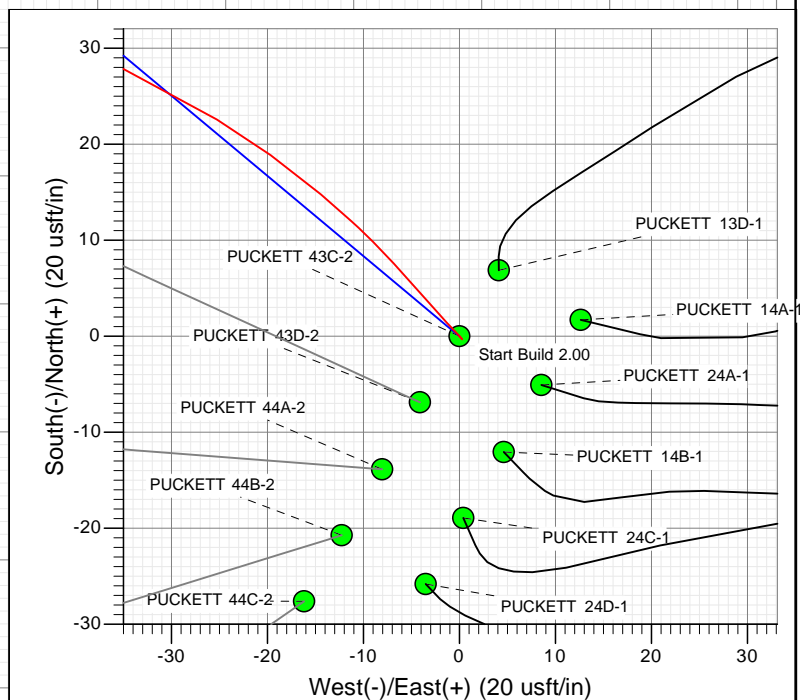
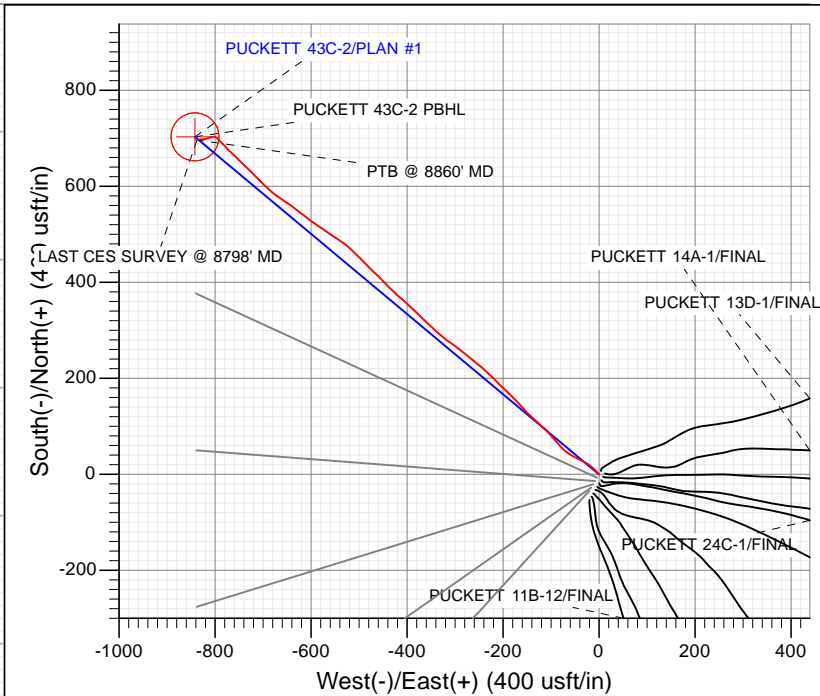
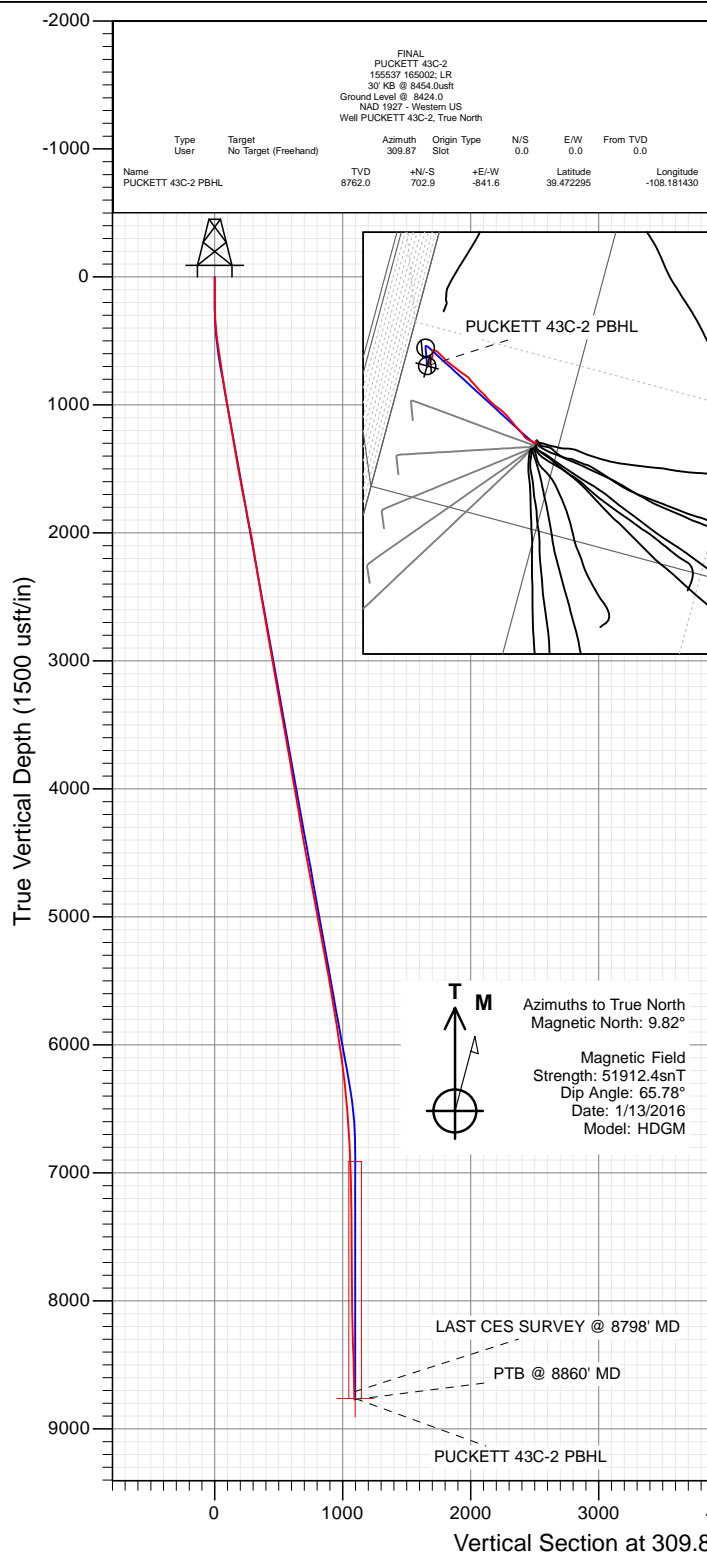




Project: Garfield County, CO (UTM 12N)
 Site: S2-T7S-R97W (P2)
 Well: PUCKETT 43C-2
 Wellbore: OH
 Design: FINAL



WELL DETAILS: PUCKETT 43C-2

Ground Level: 8424.0
 +N/-S 0.0 +E/-W 0.0 Northing 14345665.30 Easting 2436748.30 Latitude 39.470366 Longitude -108.178450



Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 43C-2
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8454.0usft
Site:	S2-T7S-R97W (P2)	MD Reference:	30' KB @ 8454.0usft
Well:	PUCKETT 43C-2	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Garfield County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site		S2-T7S-R97W (P2)			
Site Position:		Northing:	14,345,665.30 usft	Latitude:	39.470366
From:	Map	Easting:	2,436,748.30 usft	Longitude:	-108.178450
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 43C-2					
Well Position	+N/-S	0.0 usft	Northing:	14,345,665.30 usft	Latitude:	39.470366
	+E/-W	0.0 usft	Easting:	2,436,748.30 usft	Longitude:	-108.178450
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,424.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/13/2016	9.82	65.78	51,912

Design	FINAL				
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	309.87	

Survey Program	Date	1/19/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
167.0	8,860.0	Survey #1 (OH)	MWD	Geolink MWD	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
167.0	0.30	137.70	167.0	-0.3	0.3	-0.4	0.18	0.18		
228.0	0.80	320.20	228.0	-0.1	0.1	-0.2	1.80	0.82		
320.0	2.80	316.50	319.9	2.0	-1.8	2.7	2.18	2.17		
412.0	5.60	319.00	411.7	7.0	-6.3	9.4	3.05	3.04		
505.0	8.30	310.20	504.0	14.8	-14.4	20.6	3.11	2.90		
597.0	8.40	301.30	595.0	22.6	-25.2	33.8	1.41	0.11		
692.0	8.60	295.60	689.0	29.2	-37.6	47.6	0.91	0.21		
786.0	9.20	297.10	781.9	35.7	-50.6	61.7	0.68	0.64		
881.0	9.10	305.40	875.7	43.5	-63.5	76.6	1.39	-0.11		
976.0	9.30	313.20	969.4	53.1	-75.2	91.8	1.33	0.21		
1,070.0	10.50	319.20	1,062.0	64.8	-86.3	107.8	1.68	1.28		
1,165.0	10.70	319.30	1,155.4	78.0	-97.8	125.1	0.21	0.21		

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 43C-2
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8454.0usft
Site:	S2-T7S-R97W (P2)	MD Reference:	30' KB @ 8454.0usft
Well:	PUCKETT 43C-2	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,259.0	9.80	316.20	1,247.9	90.4	-109.0	141.6	1.12	-0.96	
1,354.0	9.60	311.60	1,341.6	101.5	-120.5	157.6	0.84	-0.21	
1,448.0	9.50	311.50	1,434.3	111.9	-132.2	173.2	0.11	-0.11	
1,543.0	9.70	313.00	1,527.9	122.5	-143.9	189.0	0.34	0.21	
1,637.0	10.90	317.70	1,620.4	134.5	-155.7	205.7	1.56	1.28	
1,732.0	11.90	319.20	1,713.5	148.6	-168.1	224.3	1.10	1.05	
1,826.0	11.30	314.40	1,805.6	162.3	-181.0	243.0	1.21	-0.64	
1,921.0	10.60	312.30	1,898.9	174.7	-194.1	261.0	0.85	-0.74	
2,016.0	11.30	313.90	1,992.2	187.1	-207.3	279.0	0.80	0.74	
2,110.0	9.90	315.60	2,084.5	199.2	-219.6	296.3	1.53	-1.49	
2,205.0	10.10	313.60	2,178.1	210.8	-231.3	312.7	0.42	0.21	
2,299.0	9.80	312.90	2,270.7	221.9	-243.2	328.9	0.34	-0.32	
2,393.0	8.70	310.00	2,363.5	231.9	-254.5	344.0	1.27	-1.17	
2,485.0	8.20	306.40	2,454.5	240.3	-265.1	357.5	0.79	-0.54	
2,599.0	10.30	307.90	2,567.0	251.4	-279.7	375.8	1.85	1.84	
2,693.0	9.80	308.60	2,659.5	261.6	-292.6	392.2	0.55	-0.53	
2,788.0	9.50	306.00	2,753.2	271.2	-305.2	408.1	0.56	-0.32	
2,883.0	9.50	304.60	2,846.9	280.3	-318.0	423.7	0.24	0.00	
2,977.0	9.70	311.70	2,939.6	289.9	-330.3	439.4	1.28	0.21	
3,072.0	10.70	313.90	3,033.1	301.4	-342.6	456.2	1.13	1.05	
3,167.0	9.50	310.80	3,126.6	312.6	-354.9	472.8	1.39	-1.26	
3,261.0	10.90	315.70	3,219.1	324.0	-367.0	489.4	1.75	1.49	
3,356.0	10.70	313.60	3,312.4	336.6	-379.7	507.2	0.46	-0.21	
3,450.0	10.10	313.30	3,404.9	348.2	-392.0	524.1	0.64	-0.64	
3,545.0	9.40	311.10	3,498.5	359.0	-403.9	540.2	0.83	-0.74	
3,639.0	8.70	310.60	3,591.3	368.7	-415.1	554.9	0.75	-0.74	
3,734.0	9.60	314.40	3,685.1	378.9	-426.2	570.0	1.14	0.95	
3,828.0	10.20	315.80	3,777.7	390.4	-437.6	586.1	0.69	0.64	
3,923.0	9.40	314.80	3,871.4	401.9	-449.0	602.2	0.86	-0.84	
4,018.0	9.70	313.30	3,965.0	412.8	-460.3	617.9	0.41	0.32	
4,112.0	10.50	315.00	4,057.6	424.3	-472.1	634.4	0.91	0.85	
4,207.0	9.70	315.80	4,151.1	436.2	-483.8	650.9	0.85	-0.84	
4,301.0	10.70	314.80	4,243.6	448.0	-495.5	667.5	1.08	1.06	
4,395.0	9.80	316.00	4,336.1	459.9	-507.3	684.2	0.98	-0.96	
4,490.0	9.80	312.10	4,429.7	471.1	-518.9	700.3	0.70	0.00	
4,584.0	10.50	303.60	4,522.3	481.3	-532.0	716.8	1.76	0.74	
4,679.0	9.50	304.50	4,615.8	490.5	-545.6	733.2	1.07	-1.05	
4,773.0	9.70	303.30	4,708.5	499.2	-558.7	748.8	0.30	0.21	
4,868.0	10.30	304.30	4,802.1	508.4	-572.4	765.2	0.66	0.63	
4,963.0	11.30	304.80	4,895.4	518.5	-587.0	782.9	1.06	1.05	
5,057.0	10.70	306.90	4,987.7	529.0	-601.6	800.8	0.77	-0.64	
5,152.0	10.50	308.50	5,081.0	539.7	-615.4	818.3	0.37	-0.21	
5,247.0	9.80	308.50	5,174.5	550.1	-628.5	835.0	0.74	-0.74	
5,341.0	10.80	304.70	5,267.0	560.1	-642.0	851.8	1.29	1.06	
5,435.0	10.80	304.50	5,359.4	570.1	-656.5	869.3	0.04	0.00	
5,530.0	10.60	304.50	5,452.7	580.1	-671.0	886.9	0.21	-0.21	
5,624.0	10.50	312.00	5,545.1	590.7	-684.5	904.0	1.46	-0.11	
5,719.0	9.50	314.00	5,638.7	602.0	-696.6	920.5	1.11	-1.05	
5,814.0	8.70	315.60	5,732.5	612.5	-707.3	935.5	0.88	-0.84	
5,908.0	8.70	315.10	5,825.4	622.7	-717.2	949.6	0.08	0.00	
6,003.0	8.20	314.10	5,919.4	632.5	-727.2	963.6	0.55	-0.53	
6,097.0	8.30	314.40	6,012.4	641.9	-736.8	977.0	0.12	0.11	
6,192.0	8.20	313.70	6,106.4	651.3	-746.6	990.6	0.15	-0.11	

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 43C-2
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8454.0usft
Site:	S2-T7S-R97W (P2)	MD Reference:	30' KB @ 8454.0usft
Well:	PUCKETT 43C-2	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,286.0	7.10	315.00	6,199.6	660.1	-755.6	1,003.1	1.18	-1.17	
6,381.0	5.70	314.60	6,294.0	667.6	-763.1	1,013.6	1.47	-1.47	
6,476.0	5.40	311.30	6,388.5	673.8	-769.8	1,022.8	0.46	-0.32	
6,570.0	4.30	317.30	6,482.2	679.3	-775.5	1,030.7	1.29	-1.17	
6,665.0	4.10	317.40	6,576.9	684.4	-780.3	1,037.6	0.21	-0.21	
6,759.0	4.10	316.60	6,670.7	689.4	-784.8	1,044.3	0.06	0.00	
6,854.0	4.30	315.60	6,765.5	694.4	-789.7	1,051.2	0.22	0.21	
6,948.0	3.30	313.60	6,859.2	698.8	-794.1	1,057.4	1.07	-1.06	
7,043.0	2.30	310.70	6,954.1	701.9	-797.5	1,062.0	1.06	-1.05	
7,138.0	1.20	277.30	7,049.1	703.2	-799.9	1,064.8	1.53	-1.16	
7,232.0	0.60	269.50	7,143.1	703.4	-801.4	1,066.0	0.65	-0.64	
7,327.0	0.40	255.60	7,238.1	703.3	-802.2	1,066.6	0.24	-0.21	
7,421.0	0.30	253.60	7,332.1	703.1	-802.8	1,066.9	0.11	-0.11	
7,516.0	0.40	279.20	7,427.1	703.1	-803.4	1,067.3	0.19	0.11	
7,610.0	0.50	261.80	7,521.1	703.1	-804.1	1,067.9	0.18	0.11	
7,705.0	0.90	260.00	7,616.1	702.9	-805.2	1,068.6	0.42	0.42	
7,799.0	1.10	257.70	7,710.0	702.6	-806.8	1,069.6	0.22	0.21	
7,894.0	1.20	255.40	7,805.0	702.2	-808.7	1,070.8	0.12	0.11	
7,988.0	1.60	249.10	7,899.0	701.4	-810.9	1,072.0	0.46	0.43	
8,083.0	1.80	250.90	7,994.0	700.5	-813.5	1,073.4	0.22	0.21	
8,178.0	2.00	255.50	8,088.9	699.6	-816.5	1,075.1	0.26	0.21	
8,272.0	2.20	256.20	8,182.8	698.7	-819.9	1,077.2	0.21	0.21	
8,367.0	2.10	270.00	8,277.8	698.3	-823.4	1,079.6	0.55	-0.11	
8,461.0	2.00	262.90	8,371.7	698.1	-826.7	1,082.0	0.29	-0.11	
8,556.0	1.80	261.10	8,466.7	697.7	-829.9	1,084.1	0.22	-0.21	
8,650.0	1.80	264.50	8,560.6	697.3	-832.8	1,086.2	0.11	0.00	
8,798.0	1.80	262.70	8,708.5	696.8	-837.4	1,089.4	0.04	0.00	LAST CES SURVEY @ 8798' MD
8,860.0	1.80	262.70	8,770.5	696.5	-839.3	1,090.7	0.00	0.00	PTB @ 8860' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 43C-2 PBHL	0.00	0.00	8,762.0	702.9	-841.6	14,346,341.50	2,435,885.10	39.472295	-108.181430
- hit/miss target									
- Shape									
- actual wellpath misses target center by 6.8usft at 8851.5usft MD (8762.1 TVD, 696.6 N, -839.1 E)									
- Circle (radius 50.0)									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
8,798.0	8,708.5	696.8	-837.4	LAST CES SURVEY @ 8798' MD
8,860.0	8,770.5	696.5	-839.3	PTB @ 8860' MD

Checked By: _____ Approved By: _____ Date: _____