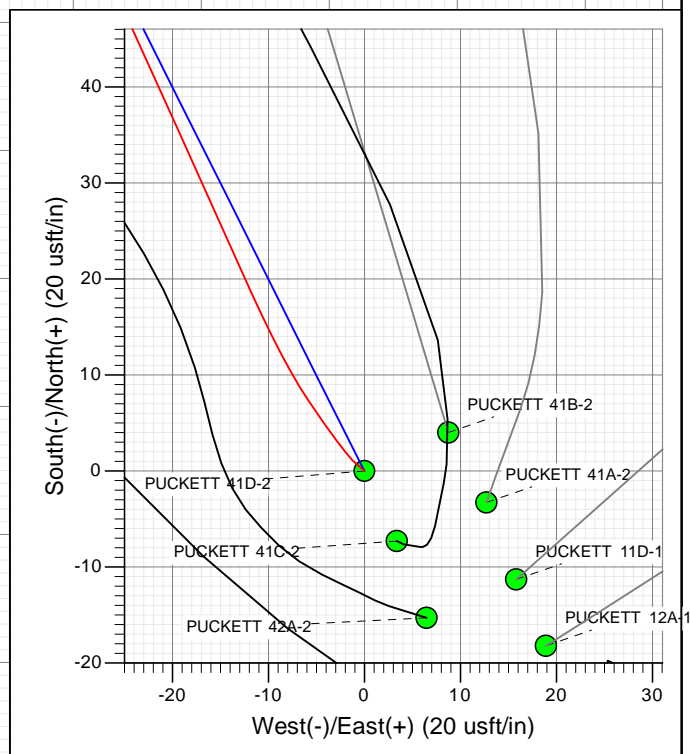
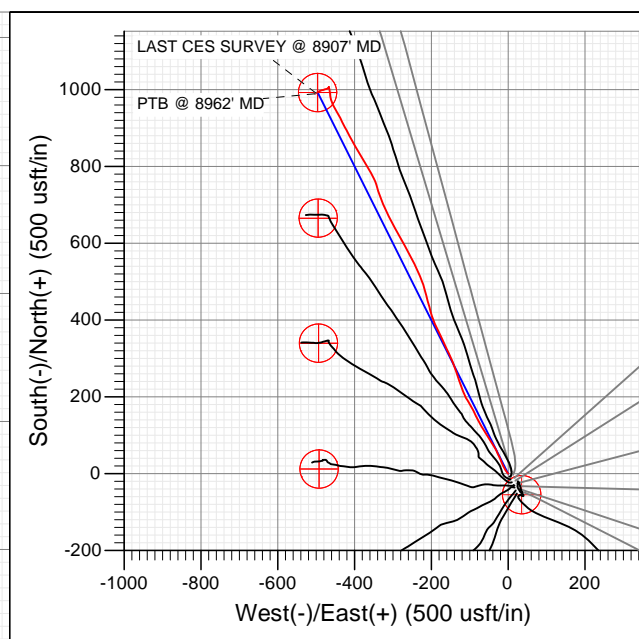
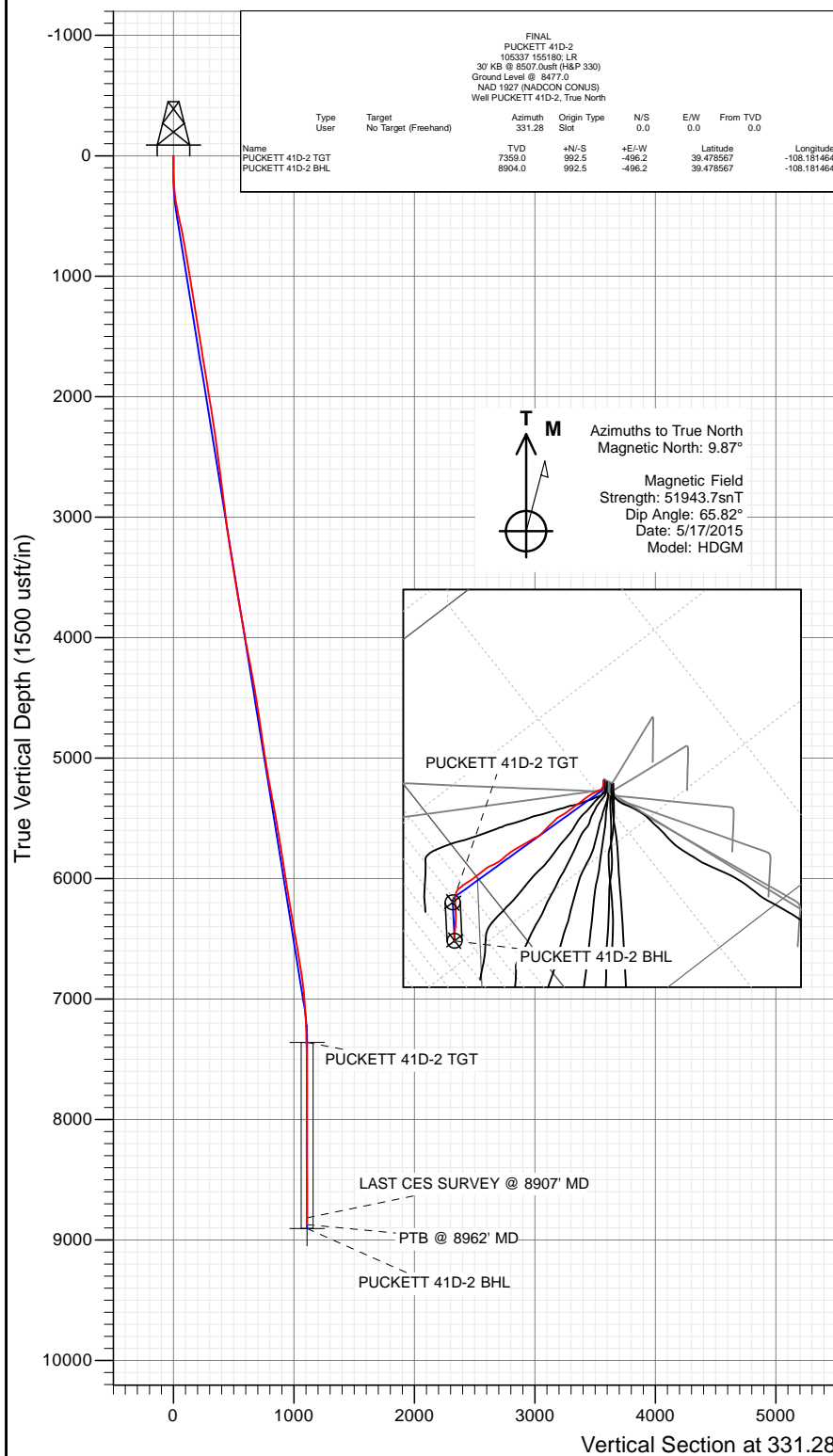




Project: Garfield County, CO
 Site: S2-T7S-R97W (Mesa H2)
 Well: PUCKETT 41D-2
 Wellbore: DD
 Design: FINAL



WELL DETAILS: PUCKETT 41D-2

Ground Level: 8477.0
 +N/-S 0.0 +E/-W 0.0 Northing 609348.11 Easting 1243659.20 Latitude 39.475842 Longitude -108.179706



Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41D-2
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 41D-2	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Garfield County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site		S2-T7S-R97W (Mesa H2)			
Site Position:		Northing:	609,295.74 usft	Latitude:	39.475700
From:	Lat/Long	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 41D-2					
Well Position	+N/-S	0.0 usft	Northing:	609,348.11 usft	Latitude:	39.475842
	+E/-W	0.0 usft	Easting:	1,243,659.20 usft	Longitude:	-108.179706
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,477.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/17/2015	9.87	65.82	51,944

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	331.28	

Survey Program	Date	5/26/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
152.0	8,962.0	Survey #1 (DD)	ISCWSA MWD	MWD - Standard	

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		
152.0	0.80	311.50	152.0	0.7	-0.8	1.0	0.53	0.53		
183.0	1.60	315.50	183.0	1.2	-1.3	1.6	2.59	2.58		
306.0	5.50	325.90	305.7	7.3	-5.8	9.1	3.20	3.17		
398.0	10.50	335.30	396.8	18.5	-11.7	21.9	5.60	5.43		
490.0	11.80	336.20	487.1	34.8	-19.0	39.6	1.43	1.41		
581.0	12.70	335.00	576.0	52.3	-27.0	58.9	1.03	0.99		
676.0	10.90	330.20	669.0	69.6	-35.9	78.3	2.16	-1.89		
770.0	10.10	327.50	761.4	84.3	-44.8	95.4	1.00	-0.85		
865.0	9.50	322.70	855.0	97.5	-54.0	111.5	1.07	-0.63		
959.0	9.60	330.30	947.7	110.5	-62.6	127.0	1.34	0.11		
1,054.0	9.10	332.80	1,041.5	124.1	-69.9	142.4	0.68	-0.53		
1,148.0	9.20	331.00	1,134.3	137.3	-77.0	157.4	0.32	0.11		

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41D-2
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 41D-2	North Reference:	True
Wellbore:	DD	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
1,242.0	8.90	335.20	1,227.1	150.4	-83.7	172.1	0.77	-0.32	
1,337.0	9.10	333.40	1,320.9	163.8	-90.1	187.0	0.36	0.21	
1,432.0	9.60	328.20	1,414.7	177.3	-97.6	202.4	1.03	0.53	
1,527.0	9.50	328.00	1,508.4	190.6	-106.0	218.1	0.11	-0.11	
1,621.0	8.50	336.00	1,601.2	203.6	-112.9	232.8	1.70	-1.06	
1,715.0	8.90	341.00	1,694.1	216.8	-118.1	246.9	0.91	0.43	
1,810.0	9.70	337.70	1,787.9	231.1	-123.5	262.1	1.01	0.84	
1,904.0	8.90	342.50	1,880.6	245.4	-128.7	277.1	1.18	-0.85	
1,999.0	9.00	341.80	1,974.5	259.5	-133.3	291.6	0.16	0.11	
2,093.0	10.10	340.80	2,067.2	274.2	-138.3	306.9	1.18	1.17	
2,188.0	9.50	338.30	2,160.8	289.4	-143.9	322.9	0.77	-0.63	
2,282.0	7.60	335.10	2,253.7	302.2	-149.4	336.8	2.08	-2.02	
2,377.0	7.30	335.90	2,347.9	313.5	-154.5	349.1	0.33	-0.32	
2,460.0	7.70	334.40	2,430.2	323.3	-159.1	359.9	0.54	0.48	
2,595.0	7.50	334.30	2,564.0	339.4	-166.8	377.8	0.15	-0.15	
2,689.0	7.50	336.20	2,657.2	350.5	-171.9	390.0	0.26	0.00	
2,783.0	7.30	334.80	2,750.5	361.5	-176.9	402.1	0.29	-0.21	
2,878.0	7.30	332.90	2,844.7	372.4	-182.3	414.1	0.25	0.00	
2,973.0	6.90	333.80	2,939.0	382.9	-187.5	425.9	0.44	-0.42	
3,067.0	6.50	336.60	3,032.3	392.8	-192.1	436.8	0.55	-0.43	
3,162.0	8.00	341.80	3,126.6	404.0	-196.3	448.7	1.72	1.58	
3,256.0	9.80	344.00	3,219.4	417.9	-200.6	462.9	1.95	1.91	
3,351.0	9.80	345.10	3,313.0	433.5	-204.9	478.6	0.20	0.00	
3,445.0	9.80	344.50	3,405.7	449.0	-209.1	494.2	0.11	0.00	
3,540.0	9.40	344.40	3,499.3	464.2	-213.3	509.6	0.42	-0.42	
3,635.0	9.10	344.40	3,593.1	478.9	-217.4	524.5	0.32	-0.32	
3,729.0	8.70	343.10	3,686.0	492.9	-221.5	538.7	0.48	-0.43	
3,824.0	10.60	336.80	3,779.6	507.8	-227.0	554.4	2.29	2.00	
3,918.0	10.50	337.70	3,872.0	523.7	-233.7	571.5	0.21	-0.11	
4,013.0	9.80	337.00	3,965.5	539.1	-240.1	588.2	0.75	-0.74	
4,107.0	11.10	330.10	4,058.0	554.3	-247.8	605.2	1.92	1.38	
4,202.0	10.60	331.10	4,151.3	569.9	-256.5	623.1	0.56	-0.53	
4,297.0	10.50	331.20	4,244.7	585.1	-264.9	640.5	0.11	-0.11	
4,391.0	10.10	330.90	4,337.2	599.8	-273.1	657.3	0.43	-0.43	
4,486.0	9.50	331.70	4,430.8	614.0	-280.8	673.4	0.65	-0.63	
4,580.0	9.20	331.20	4,523.5	627.4	-288.1	688.7	0.33	-0.32	
4,675.0	8.90	333.30	4,617.3	640.7	-295.1	703.7	0.47	-0.32	
4,770.0	8.50	332.10	4,711.3	653.4	-301.7	718.0	0.46	-0.42	
4,864.0	7.60	331.30	4,804.3	665.0	-307.9	731.2	0.96	-0.96	
4,959.0	8.60	329.90	4,898.4	676.7	-314.5	744.6	1.07	1.05	
5,053.0	9.30	338.90	4,991.2	689.8	-320.8	759.1	1.66	0.74	
5,148.0	8.80	338.20	5,085.1	703.8	-326.2	773.9	0.54	-0.53	
5,242.0	11.00	341.00	5,177.6	718.9	-331.8	789.9	2.40	2.34	
5,337.0	11.00	340.90	5,270.9	736.0	-337.7	807.8	0.02	0.00	
5,431.0	10.50	341.80	5,363.3	752.7	-343.3	825.1	0.56	-0.53	
5,526.0	10.50	334.00	5,456.7	768.7	-349.8	842.2	1.50	0.00	
5,620.0	9.80	332.30	5,549.2	783.4	-357.3	858.8	0.81	-0.74	
5,715.0	9.40	329.80	5,642.9	797.3	-365.0	874.6	0.61	-0.42	
5,809.0	8.90	329.30	5,735.7	810.2	-372.5	889.5	0.54	-0.53	
5,904.0	8.50	327.00	5,829.6	822.4	-380.1	903.9	0.56	-0.42	
5,999.0	8.30	326.30	5,923.6	834.0	-387.8	917.7	0.24	-0.21	
6,093.0	9.70	332.60	6,016.4	846.7	-395.2	932.4	1.82	1.49	
6,188.0	10.00	332.20	6,110.0	861.1	-402.7	948.6	0.32	0.32	

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41D-2
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 41D-2	North Reference:	True
Wellbore:	DD	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
6,282.0	9.60	331.80	6,202.6	875.2	-410.2	964.6	0.43	-0.43	
6,377.0	9.10	329.50	6,296.4	888.7	-417.8	980.1	0.66	-0.53	
6,471.0	10.10	334.00	6,389.0	902.5	-425.1	995.7	1.33	1.06	
6,565.0	9.80	332.10	6,481.6	916.9	-432.5	1,012.0	0.47	-0.32	
6,660.0	9.50	332.30	6,575.3	931.0	-439.9	1,027.9	0.32	-0.32	
6,754.0	9.10	331.40	6,668.1	944.4	-447.1	1,043.1	0.45	-0.43	
6,849.0	8.90	330.40	6,761.9	957.4	-454.3	1,057.9	0.27	-0.21	
6,943.0	7.70	340.80	6,854.9	969.7	-460.0	1,071.4	2.04	-1.28	
7,038.0	5.90	350.10	6,949.2	980.5	-462.9	1,082.3	2.22	-1.89	
7,133.0	3.90	358.10	7,043.9	988.5	-463.9	1,089.8	2.22	-2.11	
7,227.0	3.90	351.20	7,137.7	994.9	-464.5	1,095.7	0.50	0.00	
7,322.0	2.60	350.80	7,232.5	1,000.2	-465.3	1,100.8	1.37	-1.37	
7,416.0	0.90	339.40	7,326.5	1,003.0	-465.9	1,103.5	1.84	-1.81	
7,511.0	1.10	325.00	7,421.5	1,004.5	-466.7	1,105.1	0.34	0.21	
7,605.0	0.50	323.30	7,515.4	1,005.5	-467.4	1,106.4	0.64	-0.64	
7,700.0	0.40	70.00	7,610.4	1,006.0	-467.4	1,106.8	0.76	-0.11	
7,794.0	0.50	25.30	7,704.4	1,006.5	-466.9	1,107.0	0.38	0.11	
7,889.0	0.40	55.10	7,799.4	1,007.0	-466.4	1,107.3	0.26	-0.11	
7,983.0	0.80	211.60	7,893.4	1,006.7	-466.5	1,107.0	1.25	0.43	
8,078.0	0.90	221.40	7,988.4	1,005.5	-467.4	1,106.4	0.19	0.11	
8,172.0	1.30	228.90	8,082.4	1,004.3	-468.7	1,105.9	0.45	0.43	
8,267.0	1.80	237.90	8,177.4	1,002.8	-470.7	1,105.6	0.58	0.53	
8,361.0	2.00	254.70	8,271.3	1,001.6	-473.6	1,105.9	0.63	0.21	
8,455.0	2.40	254.00	8,365.2	1,000.6	-477.0	1,106.7	0.43	0.43	
8,550.0	2.70	252.60	8,460.2	999.4	-481.1	1,107.6	0.32	0.32	
8,644.0	3.10	255.50	8,554.0	998.1	-485.7	1,108.7	0.45	0.43	
8,739.0	3.40	240.00	8,648.9	996.0	-490.6	1,109.2	0.97	0.32	
8,833.0	3.90	243.00	8,742.7	993.2	-495.8	1,109.3	0.57	0.53	
8,907.0	3.90	241.50	8,816.5	990.8	-500.3	1,109.3	0.14	0.00	LAST CES SURVEY @ 8907' MD
8,962.0	3.90	241.50	8,871.4	989.0	-503.6	1,109.4	0.00	0.00	PTB @ 8962' MD

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 41D-2
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 41D-2	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 41D-2 BHL	0.00	0.00	8,904.0	992.5	-496.2	610,354.86	1,243,192.44	39.478567	-108.181464
- actual wellpath misses target center by 33.6usft at 8962.0usft MD (8871.4 TVD, 989.0 N, -503.6 E)									
- Circle (radius 50.0)									
PUCKETT 41D-2 TGT	0.00	0.00	7,359.0	992.5	-496.2	610,354.86	1,243,192.44	39.478567	-108.181464
- actual wellpath misses target center by 32.1usft at 7448.6usft MD (7359.1 TVD, 1003.5 N, -466.1 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)	Comment	
8,907.0	8,816.5	990.8	-500.3	LAST CES SURVEY @ 8907' MD	
8,962.0	8,871.4	989.0	-503.6	PTB @ 8962' MD	

Checked By: _____	Approved By: _____	Date: _____
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