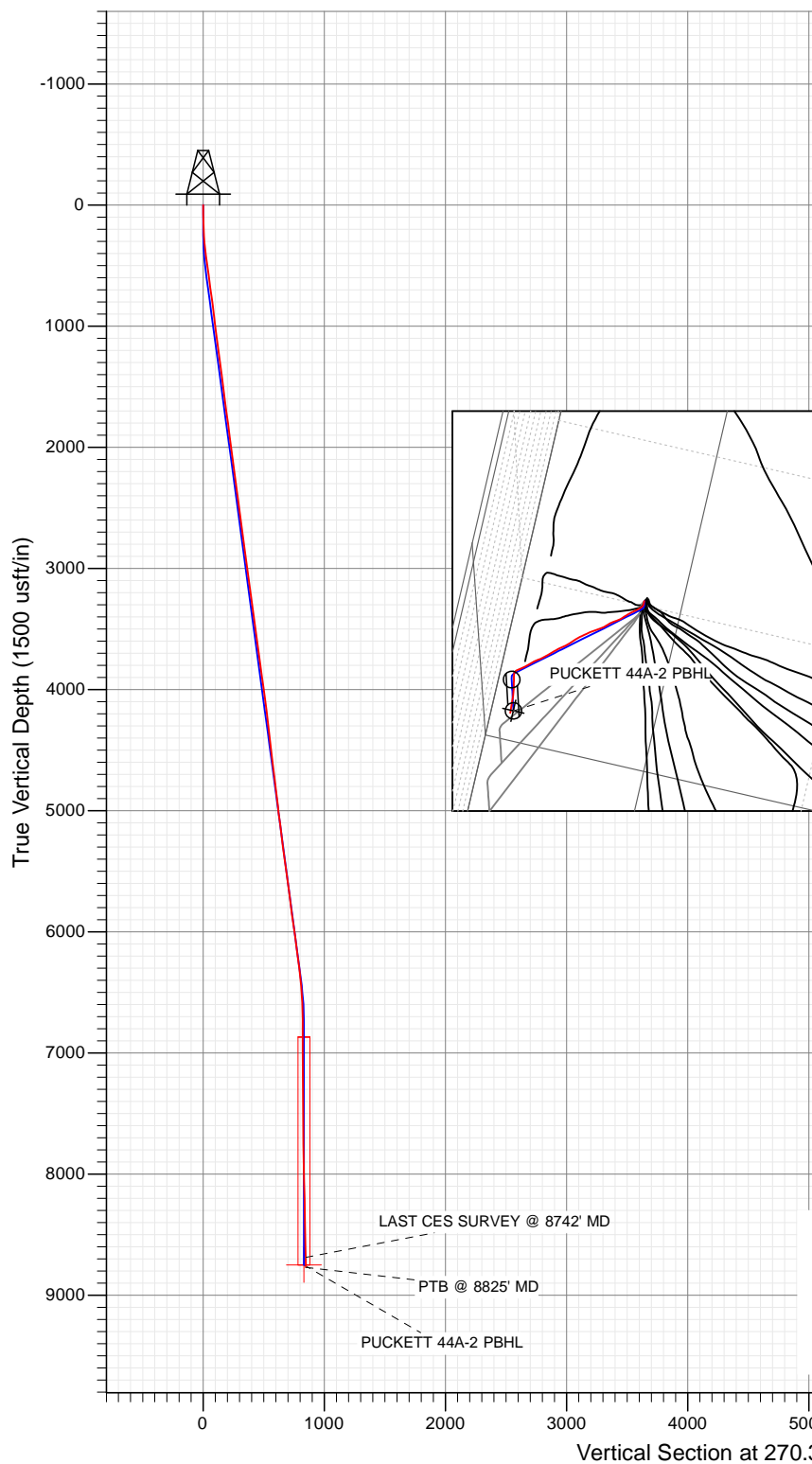


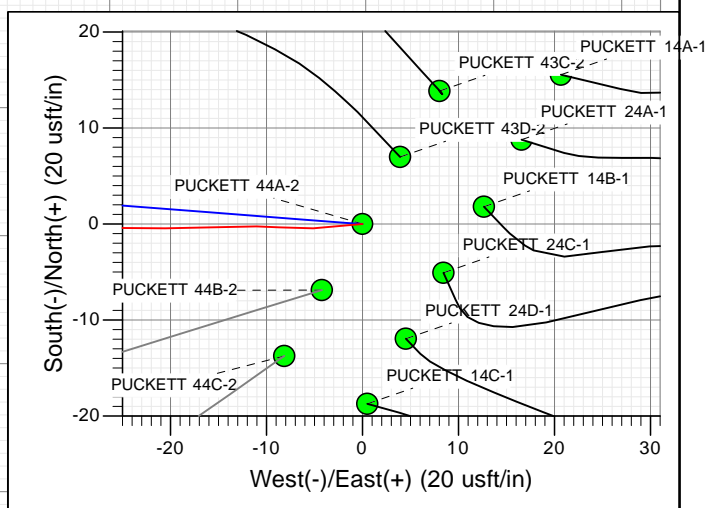
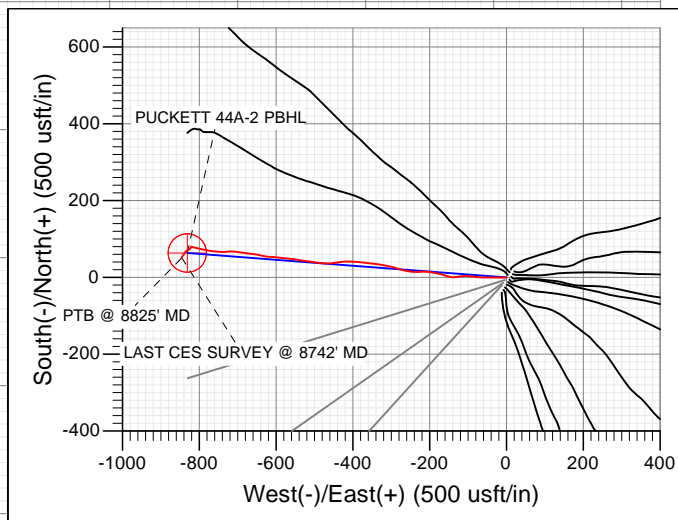


Project: Garfield County, CO (UTM 12N)
 Site: S2-T7S-R97W (P2)
 Well: PUCKETT 44A-2
 Wellbore: OH
 Design: FINAL



FINAL
 PUCKETT 44A-2
 155737 165004 LR
 30 KB @ 8454.0usft
 Ground Level @ 8424.0
 NAD 1927 - Western US
 Well PUCKETT 44A-2, True North

Type	Target	Target	Target	Origin	N/S	E/W	From
User	No	Target	Target	Type			TVD
Name							
PUCKETT 44A-2 PBHL				TVD	+N/-S	+E/-W	Latitude
				8749.0	63.8	-830.9	39.470503
							Longitude
							-108.181421



Azimuths to True North
 Magnetic North: 9.82°

Magnetic Field
 Strength: 51911.7snT
 Dip Angle: 65.78°
 Date: 1/15/2016
 Model: HDGM

CASING DETAILS

No casing data is available



WELL DETAILS: PUCKETT 44A-2

Ground Level:	8424.0
+N/-S	+E/-W
0.0	0.0
North	East
14345651.20	2436740.70
Latitude	Longitude
39.470328	-108.178479



Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 44A-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 44A-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 44A-2				
Well Position	+N/-S	0.0 usft	Northing:	14,345,651.20 usft	Latitude:	39.470328
	+E/-W	0.0 usft	Easting:	2,436,740.70 usft	Longitude:	-108.178479
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	1/15/2016	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	270.37	

Survey Program	Date	1/28/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
226.0	8,825.0	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		
226.0	2.60	265.00	225.9	-0.4	-5.1	5.1	1.15	1.15		
287.0	4.10	275.90	286.8	-0.3	-8.7	8.7	2.66	2.46		
318.0	4.60	268.90	317.7	-0.3	-11.0	11.0	2.35	1.61		
410.0	7.30	268.70	409.2	-0.5	-20.5	20.5	2.93	2.93		
503.0	8.30	271.90	501.4	-0.4	-33.2	33.1	1.17	1.08		
595.0	8.20	269.80	592.4	-0.2	-46.3	46.3	0.35	-0.11		
690.0	7.60	271.40	686.5	0.0	-59.4	59.4	0.67	-0.63		
784.0	7.80	275.50	779.7	0.7	-72.0	72.0	0.62	0.21		
879.0	6.80	278.20	873.9	2.1	-84.0	84.0	1.11	-1.05		
974.0	6.80	275.40	968.2	3.5	-95.1	95.1	0.35	0.00		
1,068.0	7.30	271.70	1,061.5	4.2	-106.6	106.7	0.72	0.53		
1,163.0	8.60	261.00	1,155.6	3.2	-119.7	119.7	2.07	1.37		

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 44A-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 44A-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
1,257.0	7.70	258.30	1,248.7	0.9	-132.8	132.8	1.04	-0.96	
1,352.0	7.30	282.10	1,342.9	0.8	-144.9	144.9	3.27	-0.42	
1,456.0	8.00	291.10	1,445.9	4.8	-158.1	158.2	1.33	0.67	
1,541.0	7.30	284.70	1,530.2	8.3	-168.9	168.9	1.30	-0.82	
1,635.0	7.00	279.10	1,623.5	10.8	-180.3	180.4	0.81	-0.32	
1,730.0	7.90	281.00	1,717.7	12.9	-192.4	192.5	0.98	0.95	
1,824.0	8.10	274.80	1,810.7	14.7	-205.4	205.5	0.94	0.21	
1,919.0	7.40	267.90	1,904.9	15.0	-218.2	218.3	1.22	-0.74	
2,014.0	7.30	266.90	1,999.1	14.5	-230.3	230.4	0.17	-0.11	
2,108.0	7.80	274.40	2,092.3	14.7	-242.6	242.7	1.17	0.53	
2,203.0	7.50	280.60	2,186.4	16.3	-255.1	255.2	0.92	-0.32	
2,297.0	7.70	282.90	2,279.6	18.8	-267.3	267.4	0.39	0.21	
2,391.0	7.60	286.40	2,372.8	22.0	-279.4	279.6	0.51	-0.11	
2,485.0	7.70	287.40	2,465.9	25.6	-291.4	291.5	0.18	0.11	
2,596.0	8.00	280.40	2,575.9	29.2	-306.1	306.3	0.90	0.27	
2,691.0	7.80	282.20	2,670.0	31.8	-318.9	319.1	0.33	-0.21	
2,785.0	7.50	278.80	2,763.2	34.1	-331.2	331.4	0.58	-0.32	
2,880.0	7.30	275.90	2,857.4	35.6	-343.3	343.5	0.45	-0.21	
2,974.0	8.30	275.40	2,950.5	36.9	-356.0	356.2	1.07	1.06	
3,069.0	7.50	279.30	3,044.6	38.5	-369.0	369.2	1.01	-0.84	
3,164.0	8.30	272.90	3,138.7	39.9	-381.9	382.2	1.25	0.84	
3,258.0	7.50	274.70	3,231.8	40.7	-394.8	395.1	0.89	-0.85	
3,353.0	7.10	276.80	3,326.0	41.9	-406.8	407.1	0.51	-0.42	
3,447.0	8.80	263.00	3,419.1	41.8	-419.7	420.0	2.71	1.81	
3,542.0	8.30	262.40	3,513.1	40.0	-433.7	434.0	0.53	-0.53	
3,637.0	7.80	263.10	3,607.1	38.3	-446.9	447.2	0.54	-0.53	
3,731.0	7.20	260.80	3,700.3	36.6	-459.1	459.3	0.71	-0.64	
3,825.0	6.90	275.70	3,793.6	36.2	-470.5	470.7	1.97	-0.32	
3,920.0	8.20	276.60	3,887.8	37.5	-482.9	483.2	1.37	1.37	
4,015.0	8.20	276.80	3,981.8	39.1	-496.4	496.6	0.03	0.00	
4,109.0	7.70	279.00	4,074.9	40.9	-509.3	509.5	0.62	-0.53	
4,204.0	7.20	279.10	4,169.1	42.8	-521.4	521.7	0.53	-0.53	
4,298.0	7.00	276.80	4,262.4	44.4	-532.9	533.2	0.37	-0.21	
4,393.0	6.30	279.70	4,356.8	46.0	-543.8	544.1	0.82	-0.74	
4,487.0	6.90	276.60	4,450.2	47.5	-554.5	554.8	0.74	0.64	
4,581.0	6.80	276.40	4,543.5	48.8	-565.6	565.9	0.11	-0.11	
4,676.0	6.30	277.20	4,637.9	50.1	-576.4	576.7	0.53	-0.53	
4,770.0	7.20	277.00	4,731.2	51.4	-587.4	587.7	0.96	0.96	
4,865.0	7.20	273.70	4,825.5	52.6	-599.2	599.5	0.44	0.00	
4,960.0	6.30	273.20	4,919.8	53.2	-610.4	610.7	0.95	-0.95	
5,054.0	7.40	278.20	5,013.1	54.4	-621.5	621.8	1.33	1.17	
5,149.0	7.50	280.30	5,107.3	56.4	-633.7	634.0	0.31	0.11	
5,244.0	7.00	281.10	5,201.6	58.6	-645.4	645.8	0.54	-0.53	
5,338.0	8.00	277.30	5,294.8	60.5	-657.5	657.9	1.19	1.06	
5,433.0	8.20	278.50	5,388.8	62.4	-670.8	671.2	0.28	0.21	
5,527.0	7.70	276.40	5,481.9	64.1	-683.7	684.1	0.62	-0.53	
5,622.0	7.60	278.30	5,576.1	65.7	-696.2	696.6	0.29	-0.11	
5,716.0	7.10	275.40	5,669.3	67.1	-708.2	708.6	0.66	-0.53	
5,811.0	7.00	268.50	5,763.6	67.5	-719.8	720.2	0.90	-0.11	
5,905.0	8.00	263.80	5,856.8	66.7	-732.0	732.4	1.25	1.06	
6,000.0	8.30	274.90	5,950.8	66.5	-745.4	745.9	1.68	0.32	
6,094.0	7.90	273.80	6,043.9	67.5	-758.6	759.1	0.46	-0.43	
6,189.0	7.60	281.80	6,138.0	69.3	-771.3	771.7	1.18	-0.32	

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 44A-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 44A-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
6,283.0	7.50	282.00	6,231.2	71.8	-783.4	783.8	0.11	-0.11	
6,378.0	6.90	280.60	6,325.4	74.1	-795.1	795.5	0.66	-0.63	
6,473.0	5.90	284.10	6,419.9	76.4	-805.4	805.9	1.13	-1.05	
6,567.0	3.50	284.40	6,513.5	78.3	-812.9	813.4	2.55	-2.55	
6,662.0	2.10	279.80	6,608.4	79.3	-817.4	817.9	1.49	-1.47	
6,756.0	0.80	312.70	6,702.4	80.0	-819.6	820.1	1.59	-1.38	
6,851.0	0.30	213.70	6,797.4	80.3	-820.2	820.7	0.94	-0.53	
6,945.0	0.80	169.80	6,891.4	79.4	-820.2	820.7	0.66	0.53	
7,040.0	0.70	221.30	6,986.4	78.3	-820.5	821.0	0.69	-0.11	
7,135.0	1.00	269.60	7,081.4	77.9	-821.7	822.2	0.79	0.32	
7,229.0	0.70	217.00	7,175.4	77.4	-822.9	823.4	0.85	-0.32	
7,324.0	0.60	210.30	7,270.3	76.5	-823.5	823.9	0.13	-0.11	
7,418.0	0.60	185.20	7,364.3	75.6	-823.8	824.2	0.28	0.00	
7,513.0	0.90	185.10	7,459.3	74.4	-823.9	824.3	0.32	0.32	
7,607.0	0.60	246.10	7,553.3	73.4	-824.4	824.8	0.86	-0.32	
7,702.0	0.70	254.50	7,648.3	73.1	-825.4	825.9	0.15	0.11	
7,891.0	1.10	252.50	7,837.3	72.2	-828.2	828.7	0.21	0.21	
8,080.0	1.80	236.00	8,026.2	70.0	-832.4	832.9	0.43	0.37	
8,269.0	1.80	210.60	8,215.1	65.8	-836.4	836.8	0.42	0.00	
8,458.0	2.00	218.70	8,404.0	60.7	-840.0	840.4	0.18	0.11	
8,647.0	2.20	205.10	8,592.9	54.8	-843.6	843.9	0.28	0.11	
8,742.0	2.20	214.60	8,687.8	51.7	-845.4	845.7	0.38	0.00	LAST CES SURVEY @ 8742' MD
8,825.0	2.20	214.60	8,770.8	49.0	-847.2	847.5	0.00	0.00	PTB @ 8825' MD

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PUCKETT 44A-2 PBHL	0.00	0.00	8,749.0	63.8	-830.9	14,345,688.90	2,435,908.20	39.470503	-108.181421
- actual wellpath misses target center by 21.1usft at 8802.4usft MD (8748.2 TVD, 49.8 N, -846.7 E)									
- Circle (radius 50.0)									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,742.0	8,687.8	51.7	-845.4	LAST CES SURVEY @ 8742' MD
8,825.0	8,770.8	49.0	-847.2	PTB @ 8825' MD

Checked By: _____ Approved By: _____ Date: _____