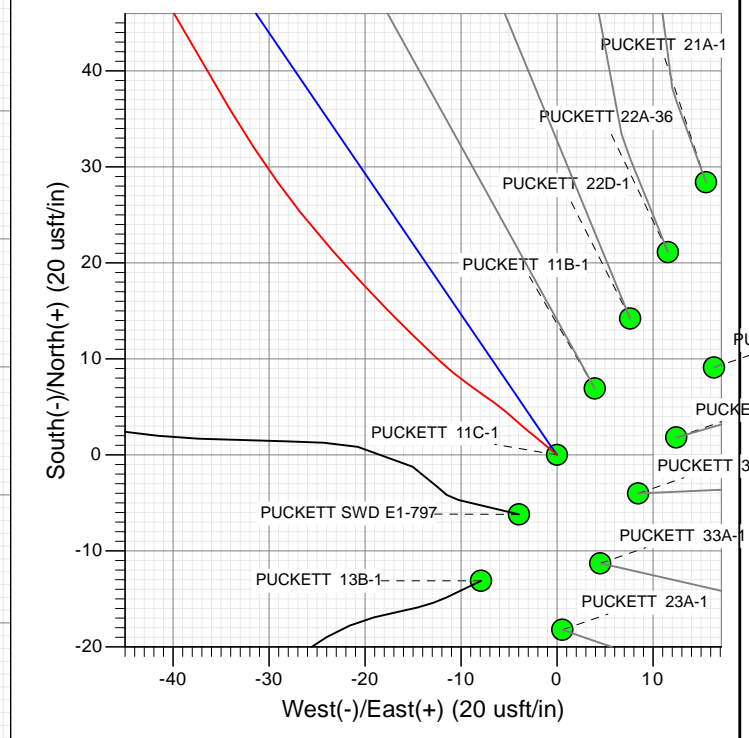
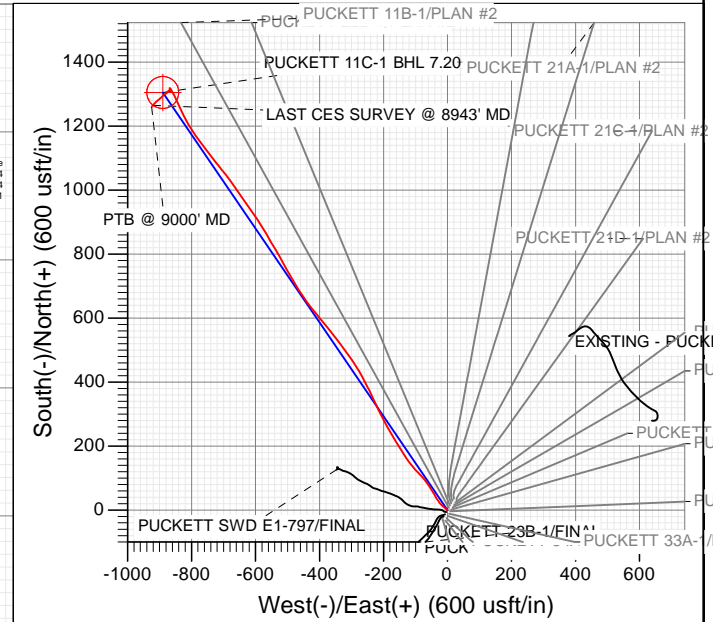
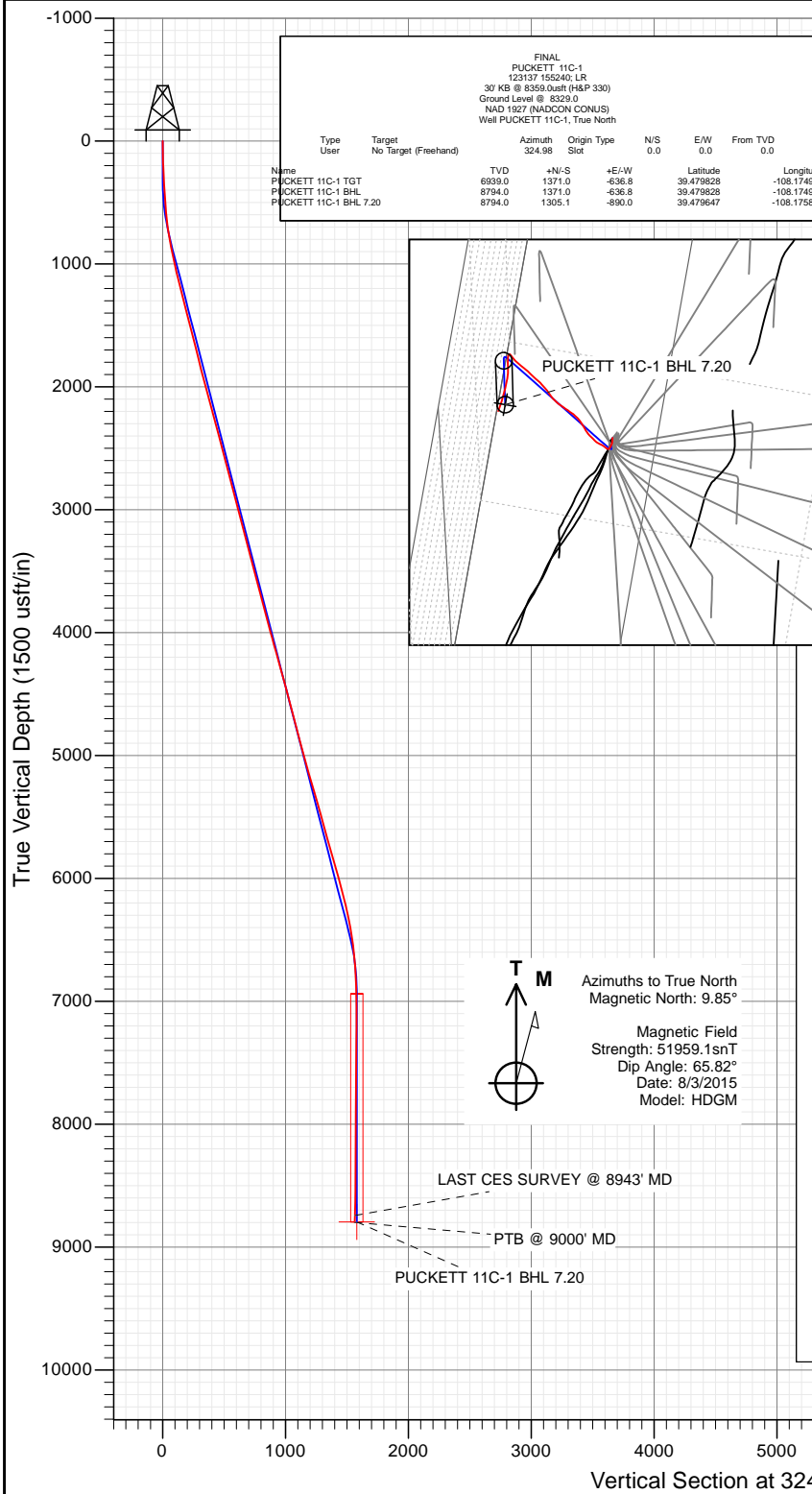




Project: Garfield County, CO  
 Site: S1-T7S-R97W (Mesa E1 797)  
 Well: PUCKETT 11C-1  
 Wellbore: OH  
 Design: FINAL



WELL DETAILS: PUCKETT 11C-1

Ground Level: 8329.0  
 Northing: 609370.33  
 Easting: 1245650.28  
 Latitude: 39.476064  
 Longitude: -108.172658



## Survey Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 11C-1
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Site:</b>	S1-T7S-R97W (Mesa E1 797)	<b>MD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Well:</b>	PUCKETT 11C-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

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

Site		S1-T7S-R97W (Mesa E1 797)			
Site Position:		Northing:	609,370.34 usft	Latitude:	39.476064
From:	Lat/Long	Easting:	1,245,650.28 usft	Longitude:	-108.172658
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 11C-1					
Well Position	+N/-S	0.0 usft	Northing:	609,370.33 usft	Latitude:	39.476064
	+E/-W	0.0 usft	Easting:	1,245,650.28 usft	Longitude:	-108.172658
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,329.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	8/3/2015	9.85	65.82	51,959

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	324.98	

<b>Survey Program</b>	<b>Date</b>	9/18/2015			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
178.0	9,000.0	Survey #1 (OH)	ISCWSA MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
178.0	2.00	309.90	178.0	2.0	-2.4	3.0	1.12	1.12		
209.0	2.20	308.20	208.9	2.7	-3.3	4.1	0.68	0.65		
239.0	2.60	312.50	238.9	3.5	-4.2	5.3	1.46	1.33		
269.0	2.70	310.50	268.9	4.4	-5.3	6.7	0.45	0.33		
300.0	3.20	306.60	299.8	5.4	-6.5	8.2	1.74	1.61		
331.0	3.30	304.30	330.8	6.5	-7.9	9.8	0.53	0.32		
361.0	3.60	306.20	360.7	7.5	-9.4	11.5	1.07	1.00		
392.0	3.40	308.90	391.7	8.6	-10.9	13.3	0.84	-0.65		
422.0	3.70	313.30	421.6	9.9	-12.3	15.1	1.35	1.00		
483.0	4.00	314.60	482.5	12.7	-15.3	19.2	0.51	0.49		
574.0	5.10	316.60	573.2	17.9	-20.3	26.3	1.22	1.21		
669.0	6.80	320.90	667.7	25.3	-26.7	36.1	1.85	1.79		

## Survey Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 11C-1
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Site:</b>	S1-T7S-R97W (Mesa E1 797)	<b>MD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Well:</b>	PUCKETT 11C-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
763.0	9.10	329.20	760.8	36.0	-34.1	49.0	2.73	2.45	
858.0	10.80	330.20	854.3	50.2	-42.3	65.4	1.80	1.79	
952.0	12.70	328.50	946.4	66.6	-52.1	84.5	2.05	2.02	
1,047.0	13.80	324.50	1,038.8	84.8	-64.1	106.2	1.51	1.16	
1,141.0	13.90	318.60	1,130.1	102.4	-78.1	128.7	1.51	0.11	
1,235.0	13.90	315.80	1,221.4	118.9	-93.5	151.0	0.72	0.00	
1,330.0	13.80	320.10	1,313.6	135.8	-108.7	173.6	1.09	-0.11	
1,425.0	13.90	324.30	1,405.8	153.8	-122.6	196.3	1.06	0.11	
1,519.0	14.70	326.90	1,496.9	172.9	-135.7	219.5	1.09	0.85	
1,614.0	14.90	328.60	1,588.8	193.5	-148.7	243.7	0.50	0.21	
1,709.0	14.50	330.50	1,680.7	214.2	-160.9	267.8	0.66	-0.42	
1,803.0	13.50	327.30	1,771.9	233.7	-172.6	290.4	1.34	-1.06	
1,898.0	14.50	328.00	1,864.1	253.1	-184.9	313.4	1.07	1.05	
1,993.0	15.40	333.00	1,955.8	274.5	-196.9	337.8	1.65	0.95	
2,087.0	15.20	334.60	2,046.5	296.7	-207.9	362.3	0.50	-0.21	
2,182.0	15.30	335.60	2,138.2	319.4	-218.4	386.9	0.30	0.11	
2,277.0	14.70	334.90	2,229.9	341.7	-228.7	411.1	0.66	-0.63	
2,371.0	14.30	333.20	2,320.9	362.9	-239.0	434.3	0.62	-0.43	
2,466.0	15.60	332.10	2,412.7	384.6	-250.3	458.6	1.40	1.37	
2,593.0	15.60	333.40	2,535.0	415.0	-265.9	492.4	0.28	0.00	
2,689.0	15.80	328.20	2,627.5	437.6	-278.6	518.3	1.48	0.21	
2,783.0	15.10	326.60	2,718.1	458.7	-292.0	543.3	0.87	-0.74	
2,878.0	14.00	324.90	2,810.0	478.5	-305.5	567.1	1.24	-1.16	
2,972.0	14.30	324.40	2,901.2	497.2	-318.8	590.1	0.34	0.32	
3,067.0	13.60	321.40	2,993.4	515.5	-332.6	613.0	1.06	-0.74	
3,162.0	14.20	324.30	3,085.6	533.7	-346.3	635.8	0.97	0.63	
3,256.0	15.60	320.70	3,176.4	552.8	-361.1	659.9	1.78	1.49	
3,351.0	14.90	320.50	3,268.1	572.1	-376.9	684.8	0.74	-0.74	
3,445.0	14.10	320.30	3,359.1	590.3	-391.9	708.3	0.85	-0.85	
3,539.0	15.60	322.50	3,449.9	609.1	-406.9	732.3	1.70	1.60	
3,634.0	14.30	319.50	3,541.7	628.2	-422.3	756.8	1.59	-1.37	
3,728.0	15.30	325.60	3,632.6	647.2	-436.9	780.7	1.97	1.06	
3,823.0	14.60	323.10	3,724.4	667.1	-451.1	805.2	1.00	-0.74	
3,917.0	14.80	328.60	3,815.3	686.9	-464.5	829.1	1.50	0.21	
4,012.0	14.50	327.80	3,907.2	707.3	-477.2	853.1	0.38	-0.32	
4,106.0	16.10	331.50	3,997.9	728.7	-489.7	877.8	1.99	1.70	
4,201.0	15.10	331.40	4,089.4	751.1	-501.9	903.1	1.05	-1.05	
4,295.0	16.10	330.80	4,179.9	773.3	-514.1	928.3	1.08	1.06	
4,390.0	15.90	330.00	4,271.3	796.0	-527.0	954.3	0.31	-0.21	
4,484.0	15.00	328.90	4,361.9	817.6	-539.7	979.3	1.01	-0.96	
4,578.0	14.50	330.60	4,452.8	838.3	-551.8	1,003.2	0.70	-0.53	
4,673.0	14.90	328.90	4,544.7	859.1	-564.0	1,027.2	0.62	0.42	
4,767.0	15.60	328.50	4,635.3	880.2	-576.8	1,051.9	0.75	0.74	
4,862.0	14.70	328.50	4,727.0	901.4	-589.8	1,076.6	0.95	-0.95	
4,957.0	14.40	326.10	4,819.0	921.5	-602.7	1,100.5	0.71	-0.32	
5,051.0	14.40	323.00	4,910.0	940.5	-616.2	1,123.8	0.82	0.00	
5,146.0	15.20	323.80	5,001.9	960.0	-630.7	1,148.1	0.87	0.84	
5,241.0	16.70	326.30	5,093.2	981.4	-645.6	1,174.2	1.74	1.58	
5,335.0	15.70	324.10	5,183.5	1,002.9	-660.6	1,200.4	1.25	-1.06	
5,430.0	16.50	325.40	5,274.8	1,024.4	-675.8	1,226.8	0.92	0.84	
5,524.0	16.20	322.10	5,365.0	1,045.8	-691.4	1,253.2	1.04	-0.32	
5,619.0	15.40	320.30	5,456.4	1,065.9	-707.6	1,279.0	0.99	-0.84	
5,713.0	16.20	323.10	5,546.8	1,086.0	-723.4	1,304.6	1.18	0.85	

## Survey Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 11C-1
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Site:</b>	S1-T7S-R97W (Mesa E1 797)	<b>MD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Well:</b>	PUCKETT 11C-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
5,808.0	15.30	321.20	5,638.3	1,106.4	-739.2	1,330.3	1.09	-0.95	
5,903.0	15.80	323.20	5,729.8	1,126.5	-754.8	1,355.7	0.77	0.53	
5,997.0	15.50	321.90	5,820.3	1,146.7	-770.3	1,381.1	0.49	-0.32	
6,092.0	15.60	325.70	5,911.8	1,167.2	-785.3	1,406.5	1.08	0.11	
6,186.0	16.00	329.30	6,002.3	1,188.8	-799.0	1,432.1	1.13	0.43	
6,281.0	15.50	328.50	6,093.7	1,210.9	-812.3	1,457.8	0.57	-0.53	
6,375.0	13.50	332.60	6,184.7	1,231.3	-824.0	1,481.2	2.39	-2.13	
6,470.0	12.60	336.70	6,277.3	1,250.7	-833.2	1,502.4	1.36	-0.95	
6,564.0	10.90	334.00	6,369.3	1,268.1	-841.1	1,521.2	1.90	-1.81	
6,659.0	8.70	336.40	6,462.9	1,282.7	-847.9	1,537.1	2.35	-2.32	
6,754.0	7.60	333.40	6,556.9	1,294.9	-853.6	1,550.4	1.24	-1.16	
6,848.0	5.50	330.60	6,650.3	1,304.4	-858.6	1,561.0	2.26	-2.23	
6,943.0	2.90	329.90	6,745.1	1,310.5	-862.1	1,567.9	2.74	-2.74	
7,037.0	2.20	333.50	6,839.0	1,314.1	-864.1	1,572.1	0.76	-0.74	
7,132.0	2.10	319.50	6,933.9	1,317.1	-866.0	1,575.6	0.56	-0.11	
7,226.0	1.50	279.50	7,027.9	1,318.6	-868.3	1,578.2	1.44	-0.64	
7,321.0	0.80	144.00	7,122.8	1,318.3	-869.2	1,578.4	2.26	-0.74	
7,415.0	1.00	115.40	7,216.8	1,317.4	-868.0	1,577.0	0.52	0.21	
7,510.0	1.00	162.20	7,311.8	1,316.3	-867.0	1,575.5	0.84	0.00	
7,604.0	0.90	207.70	7,405.8	1,314.8	-867.1	1,574.4	0.79	-0.11	
7,699.0	1.50	224.00	7,500.8	1,313.3	-868.3	1,573.8	0.72	0.63	
7,793.0	1.60	237.50	7,594.8	1,311.7	-870.3	1,573.6	0.40	0.11	
7,888.0	2.70	218.40	7,689.7	1,309.2	-872.8	1,573.1	1.37	1.16	
7,983.0	2.10	217.30	7,784.6	1,306.1	-875.3	1,571.9	0.63	-0.63	
8,077.0	2.60	229.30	7,878.5	1,303.3	-877.9	1,571.2	0.74	0.53	
8,172.0	3.40	245.90	7,973.4	1,300.8	-882.1	1,571.5	1.23	0.84	
8,267.0	2.70	227.00	8,068.3	1,298.1	-886.3	1,571.7	1.28	-0.74	
8,361.0	3.20	224.50	8,162.1	1,294.7	-889.8	1,570.9	0.55	0.53	
8,456.0	3.60	221.80	8,257.0	1,290.6	-893.6	1,569.7	0.45	0.42	
8,550.0	3.50	230.70	8,350.8	1,286.6	-897.8	1,568.9	0.60	-0.11	
8,645.0	3.80	232.20	8,445.6	1,282.8	-902.6	1,568.5	0.33	0.32	
8,739.0	4.40	229.80	8,539.4	1,278.6	-907.8	1,568.0	0.66	0.64	
8,834.0	5.40	222.50	8,634.0	1,272.9	-913.6	1,566.7	1.24	1.05	
8,928.0	6.10	218.70	8,727.5	1,265.8	-919.7	1,564.4	0.85	0.74	
8,943.0	6.10	218.70	8,742.4	1,264.5	-920.7	1,563.9	0.00	0.00	LAST CES SURVEY @ 8943' MD
9,000.0	6.10	218.70	8,799.1	1,259.8	-924.5	1,562.2	0.00	0.00	PTB @ 9000' MD

## Survey Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 11C-1
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Site:</b>	S1-T7S-R97W (Mesa E1 797)	<b>MD Reference:</b>	30' KB @ 8359.0usft (H&P 330)
<b>Well:</b>	PUCKETT 11C-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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 11C-1 BHL 7.	0.00	0.00	8,794.0	1,305.1	-890.0	610,701.02	1,244,799.05	39.479647	-108.175811
- actual wellpath misses target center by 56.0usft at 8988.9usft MD (8788.0 TVD, 1260.7 N, -923.7 E)									
- Circle (radius 50.0)									
PUCKETT 11C-1 BHL	0.00	0.00	8,794.0	1,371.0	-636.8	610,759.46	1,245,054.08	39.479828	-108.174914
- actual wellpath misses target center by 307.5usft at 8943.0usft MD (8742.4 TVD, 1264.5 N, -920.7 E)									
- Circle (radius 50.0)									
PUCKETT 11C-1 TGT	0.00	0.00	6,939.0	1,371.0	-636.8	610,759.46	1,245,054.08	39.479828	-108.174914
- actual wellpath misses target center by 235.5usft at 7132.3usft MD (6934.2 TVD, 1317.1 N, -866.0 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
8,943.0	8,742.4	1,264.5	-920.7	LAST CES SURVEY @ 8943' MD	
9,000.0	8,799.1	1,259.8	-924.5	PTB @ 9000' MD	

Checked By: _____	Approved By: _____	Date: _____
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