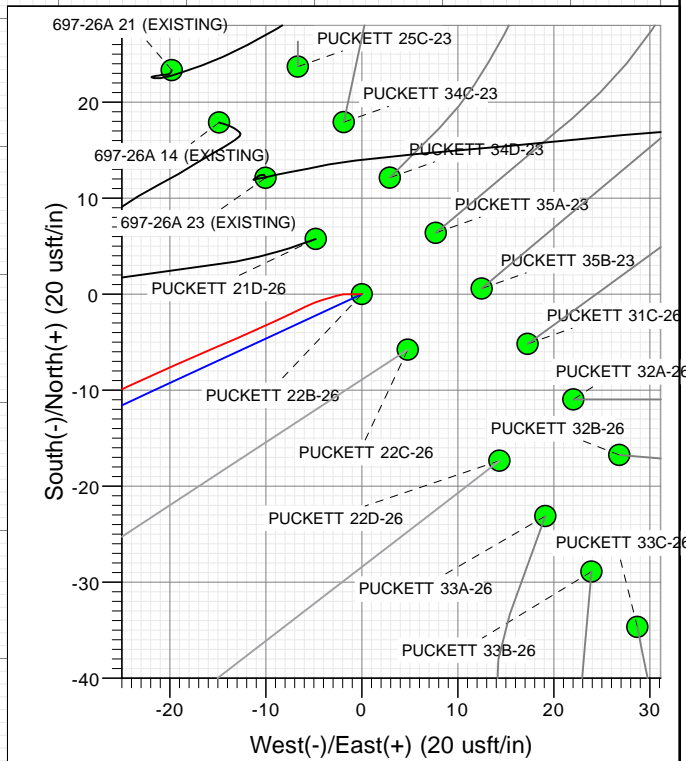
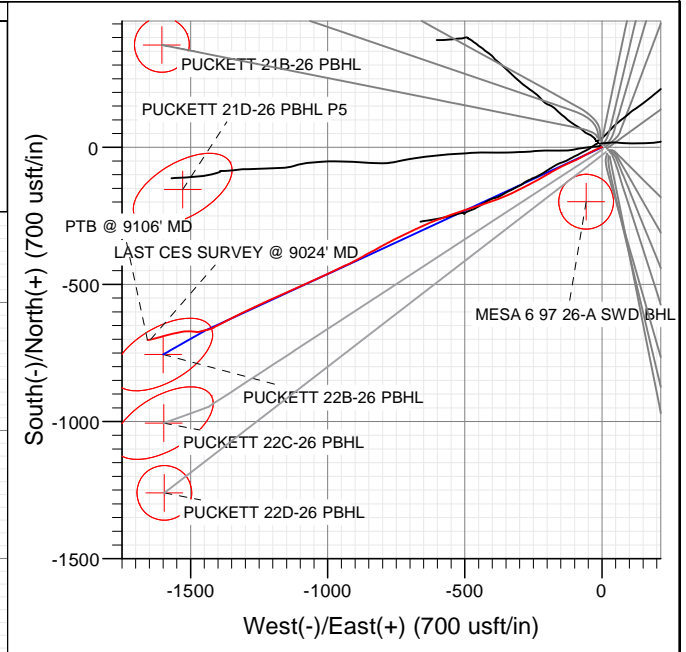
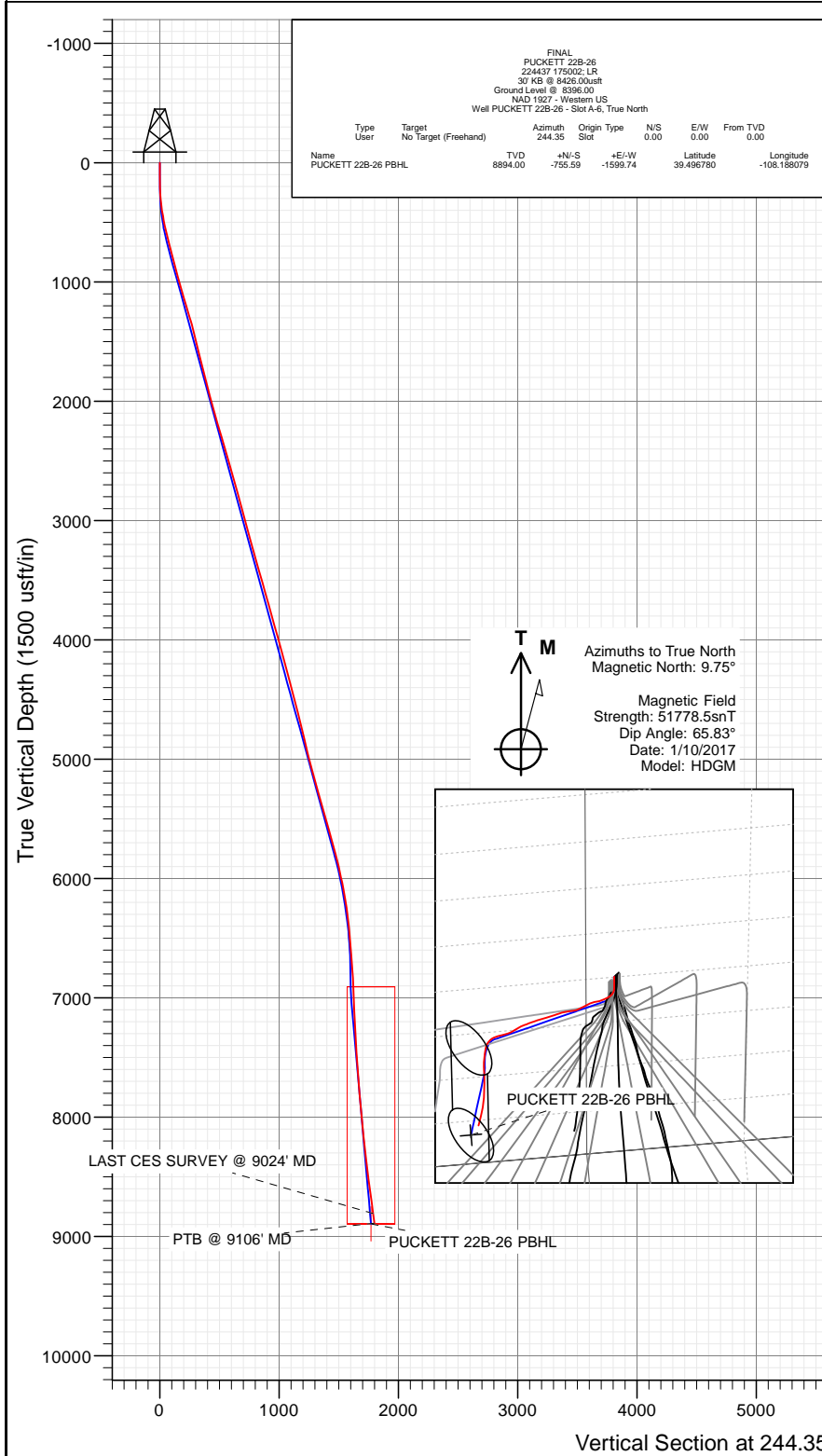




Project: Garfield County, CO (UTM 12N)
 Site: S26-T6S-R97W (697 26A)
 Well: PUCKETT 22B-26
 Wellbore: OH
 Design: FINAL



WELL DETAILS: PUCKETT 22B-26

+N/-S 0.00 +E/-W 0.00 Northing 14356005.28 Ground Level: 8396.00 Easting 2435305.31 Latitude 39.498854 Longitude -108.182412

A-6



Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 22B-26 - Slot A-6
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (697 26A)	MD Reference:	30' KB @ 8426.00usft
Well:	PUCKETT 22B-26	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		S26-T6S-R97W (697 26A)			
Site Position:		Northing:	14,356,905.20 usft	Latitude:	39.501458
From:	Map	Easting:	2,433,730.50 usft	Longitude:	-108.187888
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.79 °

Well	PUCKETT 22B-26 - Slot A-6					
Well Position	+N/-S	0.00 usft	Northing:	14,356,005.28 usft	Latitude:	39.498854
	+E/-W	0.00 usft	Easting:	2,435,305.31 usft	Longitude:	-108.182412
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,396.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/10/2017	9.75	65.83	51,779

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	244.35	

Survey Program	Date	1/16/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
208.00	9,106.00	Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM	

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	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
208.00	1.06	269.56	207.99	-0.01	-1.92	1.74	0.51	0.51		
238.00	1.93	251.27	237.98	-0.18	-2.68	2.49	3.27	2.90		
268.00	3.21	255.67	267.95	-0.55	-3.97	3.82	4.31	4.27		
299.00	4.48	243.36	298.88	-1.31	-5.90	5.88	4.86	4.10		
390.00	8.57	246.88	389.27	-5.56	-15.31	16.21	4.51	4.49		
481.00	11.07	244.51	478.93	-11.99	-29.44	31.72	2.78	2.75		
573.00	12.70	241.34	568.95	-20.64	-46.28	50.66	1.91	1.77		
668.00	14.46	240.81	661.29	-31.43	-65.80	72.93	1.86	1.85		
762.00	14.50	243.54	752.31	-42.40	-86.58	96.41	0.73	0.04		
857.00	15.07	247.41	844.17	-52.44	-108.63	120.63	1.20	0.60		
951.00	14.81	244.95	934.99	-62.23	-130.80	144.85	0.73	-0.28		
1,046.00	15.38	241.34	1,026.71	-73.41	-152.86	169.57	1.16	0.60		

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 22B-26 - Slot A-6
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (697 26A)	MD Reference:	30' KB @ 8426.00usft
Well:	PUCKETT 22B-26	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
1,140.00	17.36	242.57	1,116.90	-85.85	-176.24	196.04	2.14	2.11	
1,235.00	16.88	239.85	1,207.69	-99.31	-200.75	223.95	0.98	-0.51	
1,329.00	16.22	239.06	1,297.80	-112.91	-223.81	250.63	0.74	-0.70	
1,424.00	14.19	241.25	1,389.47	-125.33	-245.40	275.47	2.22	-2.14	
1,519.00	13.89	243.19	1,481.63	-136.08	-265.79	298.50	0.59	-0.32	
1,613.00	14.28	243.72	1,572.80	-146.30	-286.25	321.37	0.44	0.41	
1,708.00	14.28	242.40	1,664.87	-156.92	-307.14	344.80	0.34	0.00	
1,802.00	14.11	244.15	1,756.00	-167.28	-327.73	367.84	0.49	-0.18	
1,897.00	14.15	248.02	1,848.13	-176.68	-348.92	391.01	1.00	0.04	
1,991.00	14.85	248.55	1,939.13	-185.38	-370.78	414.49	0.76	0.74	
2,086.00	15.34	248.73	2,030.85	-194.39	-393.82	439.16	0.52	0.52	
2,181.00	16.61	251.19	2,122.18	-203.33	-418.39	465.17	1.51	1.34	
2,275.00	16.44	254.09	2,212.30	-211.31	-443.90	491.62	0.90	-0.18	
2,370.00	16.61	253.56	2,303.38	-218.84	-469.85	518.28	0.24	0.18	
2,451.00	16.08	251.89	2,381.10	-225.60	-491.61	540.82	0.87	-0.65	
2,599.00	16.48	249.34	2,523.17	-239.38	-530.74	582.06	0.55	0.27	
2,693.00	16.13	249.08	2,613.39	-248.74	-555.41	608.35	0.38	-0.37	
2,787.00	15.29	251.19	2,703.88	-257.40	-579.34	633.67	1.08	-0.89	
2,882.00	15.25	250.83	2,795.53	-265.54	-603.00	658.52	0.11	-0.04	
2,976.00	15.38	247.32	2,886.19	-274.41	-626.18	683.26	1.00	0.14	
3,071.00	15.38	245.82	2,977.79	-284.43	-649.29	708.43	0.42	0.00	
3,165.00	15.03	241.43	3,068.50	-295.36	-671.37	733.06	1.28	-0.37	
3,260.00	15.34	246.70	3,160.19	-306.23	-693.73	757.92	1.49	0.33	
3,354.00	16.04	246.62	3,250.68	-316.30	-717.07	783.32	0.75	0.74	
3,448.00	16.26	242.31	3,340.98	-327.57	-740.65	809.45	1.30	0.23	
3,543.00	15.86	241.43	3,432.27	-339.95	-763.82	835.71	0.49	-0.42	
3,637.00	15.51	241.34	3,522.77	-352.12	-786.13	861.09	0.37	-0.37	
3,732.00	15.56	240.99	3,614.30	-364.40	-808.42	886.49	0.11	0.05	
3,826.00	15.95	243.54	3,704.77	-376.27	-831.01	911.99	0.85	0.41	
3,921.00	15.82	240.90	3,796.14	-388.38	-854.01	937.97	0.77	-0.14	
4,015.00	15.73	240.29	3,886.60	-400.93	-876.27	963.47	0.20	-0.10	
4,109.00	15.47	242.31	3,977.14	-413.07	-898.44	988.71	0.64	-0.28	
4,204.00	14.99	245.21	4,068.80	-424.11	-920.81	1,013.65	0.95	-0.51	
4,298.00	15.25	245.47	4,159.55	-434.34	-943.10	1,038.17	0.29	0.28	
4,393.00	14.85	244.77	4,251.29	-444.71	-965.47	1,062.83	0.46	-0.42	
4,487.00	14.81	242.31	4,342.16	-455.43	-987.01	1,086.89	0.67	-0.04	
4,582.00	14.94	246.88	4,433.98	-465.88	-1,009.02	1,111.26	1.24	0.14	
4,676.00	14.24	246.18	4,524.95	-475.31	-1,030.74	1,134.92	0.77	-0.74	
4,771.00	14.33	244.24	4,617.01	-485.14	-1,052.02	1,158.35	0.51	0.09	
4,865.00	13.80	247.85	4,708.20	-494.42	-1,072.88	1,181.17	1.09	-0.56	
4,960.00	13.62	244.24	4,800.49	-503.55	-1,093.45	1,203.67	0.92	-0.19	
5,054.00	13.10	245.30	4,891.95	-512.81	-1,113.10	1,225.39	0.61	-0.55	
5,149.00	14.15	245.39	4,984.27	-522.15	-1,133.44	1,247.76	1.11	1.11	
5,244.00	15.03	244.86	5,076.21	-532.22	-1,155.14	1,271.69	0.94	0.93	
5,338.00	15.65	246.18	5,166.86	-542.51	-1,177.78	1,296.55	0.76	0.66	
5,433.00	15.86	245.03	5,258.29	-553.17	-1,201.27	1,322.34	0.40	0.22	
5,527.00	15.21	246.53	5,348.86	-563.50	-1,224.22	1,347.51	0.81	-0.69	
5,622.00	15.91	246.26	5,440.37	-573.71	-1,247.57	1,372.97	0.74	0.74	
5,716.00	16.17	247.14	5,530.71	-583.98	-1,271.43	1,398.92	0.38	0.28	
5,811.00	16.22	242.84	5,621.95	-595.18	-1,295.42	1,425.40	1.26	0.05	
5,905.00	15.16	241.34	5,712.44	-607.06	-1,317.89	1,450.80	1.21	-1.13	
6,000.00	14.68	244.24	5,804.24	-618.25	-1,339.63	1,475.24	0.93	-0.51	
6,094.00	13.01	243.80	5,895.51	-628.10	-1,359.85	1,497.73	1.78	-1.78	

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 22B-26 - Slot A-6
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (697 26A)	MD Reference:	30' KB @ 8426.00usft
Well:	PUCKETT 22B-26	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
6,189.00	12.22	242.57	5,988.21	-637.46	-1,378.37	1,518.48	0.88	-0.83	
6,283.00	10.72	240.11	6,080.33	-646.40	-1,394.78	1,537.14	1.68	-1.60	
6,378.00	9.76	243.45	6,173.82	-654.40	-1,409.65	1,554.00	1.19	-1.01	
6,472.00	7.65	246.62	6,266.73	-660.44	-1,422.52	1,568.22	2.30	-2.24	
6,567.00	5.76	256.37	6,361.08	-664.08	-1,432.96	1,579.20	2.32	-1.99	
6,661.00	5.63	257.87	6,454.62	-666.16	-1,442.05	1,588.30	0.21	-0.14	
6,756.00	5.36	255.32	6,549.18	-668.26	-1,450.90	1,597.19	0.38	-0.28	
6,851.00	4.66	258.31	6,643.82	-670.17	-1,458.97	1,605.29	0.79	-0.74	
6,945.00	4.31	253.65	6,737.53	-671.93	-1,466.10	1,612.48	0.54	-0.37	
7,040.00	3.25	262.44	6,832.32	-673.29	-1,472.19	1,618.56	1.27	-1.12	
7,134.00	2.29	270.26	6,926.21	-673.64	-1,476.71	1,622.79	1.10	-1.02	
7,228.00	2.64	285.46	7,020.13	-673.05	-1,480.68	1,626.11	0.79	0.37	
7,323.00	3.03	275.44	7,115.01	-672.23	-1,485.28	1,629.90	0.66	0.41	
7,417.00	3.21	273.42	7,208.87	-671.84	-1,490.38	1,634.33	0.22	0.19	
7,512.00	3.52	267.97	7,303.71	-671.78	-1,495.95	1,639.33	0.47	0.33	
7,606.00	3.69	271.49	7,397.52	-671.80	-1,501.86	1,644.66	0.30	0.18	
7,795.00	4.26	269.99	7,586.07	-671.65	-1,514.96	1,656.40	0.31	0.30	
7,984.00	5.27	263.93	7,774.41	-672.57	-1,530.61	1,670.91	0.60	0.53	
8,173.00	5.58	257.69	7,962.57	-675.44	-1,548.22	1,688.03	0.35	0.16	
8,363.00	6.20	252.59	8,151.56	-680.48	-1,567.04	1,707.17	0.43	0.33	
8,552.00	6.59	258.13	8,339.39	-685.77	-1,587.39	1,727.81	0.39	0.21	
8,741.00	7.56	253.12	8,526.95	-691.61	-1,609.90	1,750.63	0.61	0.51	
8,930.00	7.56	257.34	8,714.31	-697.94	-1,633.93	1,775.03	0.29	0.00	
9,024.00	7.82	256.81	8,807.46	-700.76	-1,646.19	1,787.30	0.29	0.28	LAST CES SURVEY @ 9024' MD
9,106.00	7.82	256.81	8,888.70	-703.30	-1,657.05	1,798.19	0.00	0.00	PTB @ 9106' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 22B-26 PBHL	0.00	0.00	8,894.00	-755.59	-1,599.74	14,355,200.00	2,433,730.00	39.496780	-108.188079
- hit/miss target									
- Shape									
- actual wellpath misses target center by 77.76usft at 9105.28usft MD (8887.99 TVD, -703.28 N, -1656.95 E)									
- Ellipse (radii L200.00 W100.00 on 240.00 azi)									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
9,024.00	8,807.46	-700.76	-1,646.19	LAST CES SURVEY @ 9024' MD	
9,106.00	8,888.70	-703.30	-1,657.05	PTB @ 9106' MD	

Checked By: _____	Approved By: _____	Date: _____
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