

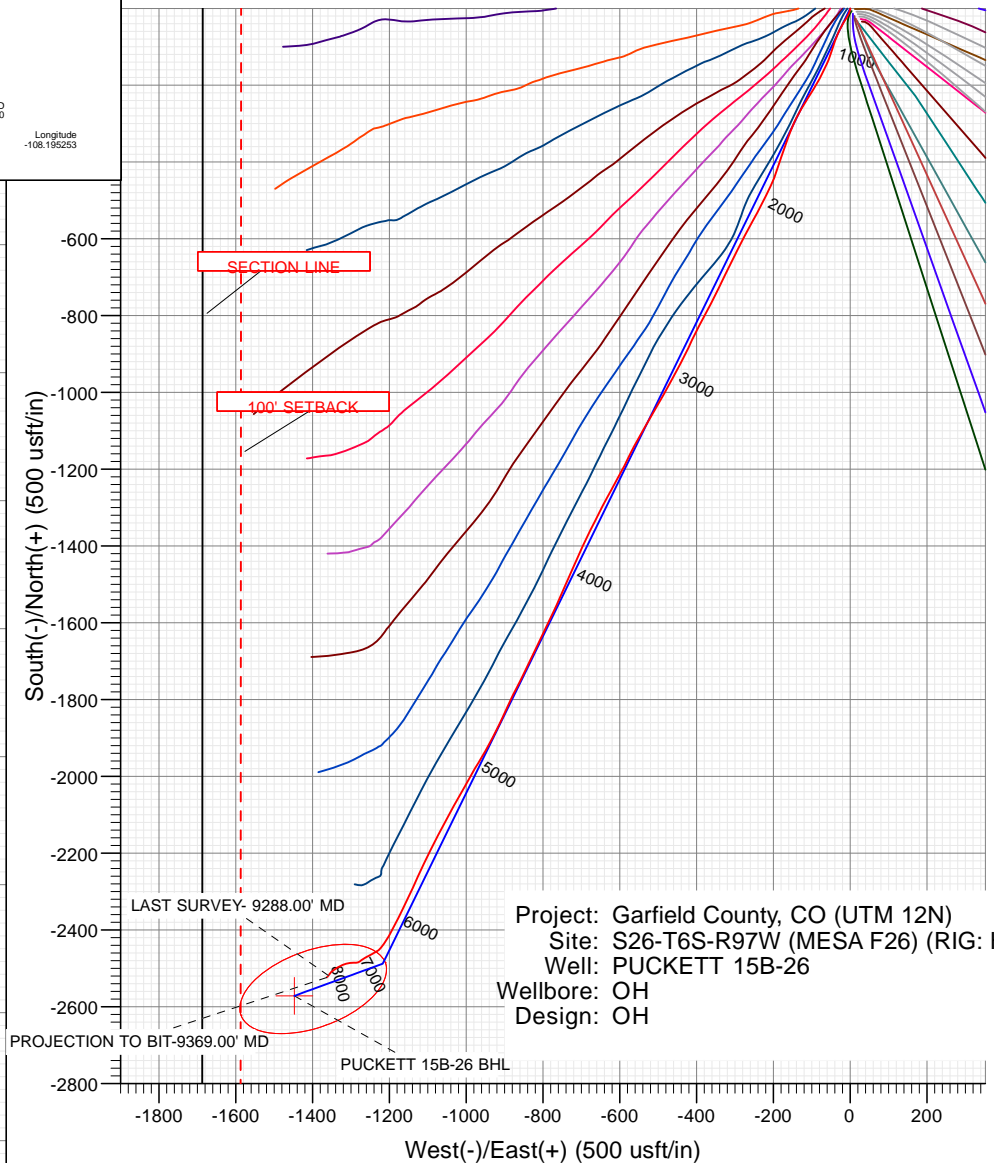
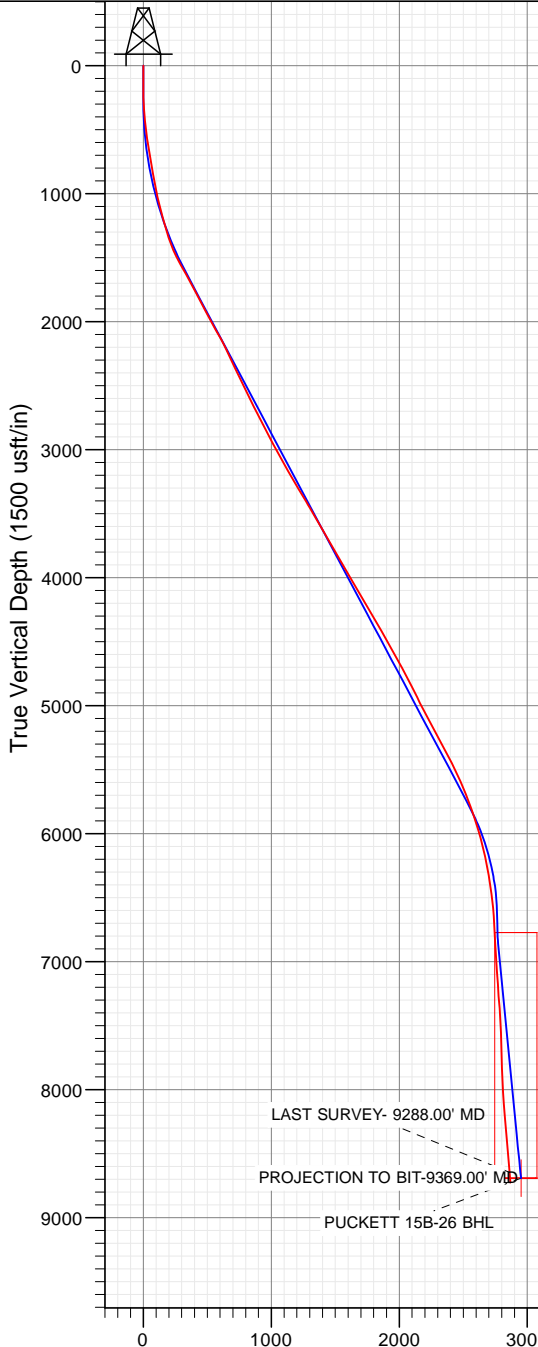


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	275.00	0.00	0.00	275.00	0.00	0.00	0.00	0.00	0.00	
3	1675.57	28.01	206.07	1620.44	-301.45	-147.50	2.00	206.07	335.04	
4	6381.44	28.01	206.07	5775.04	-2286.63	-1118.90	0.00	0.00	2541.48	
5	7315.16	0.00	0.00	6672.00	-2487.59	-1217.24	3.00	180.00	2764.85	
6	7560.31	7.35	250.00	6916.48	-2492.96	-1232.01	3.00	250.00	2776.77	
7	9349.55	7.35	250.00	8691.00	-2571.29	-1447.24	0.00	0.00	2950.60	PUCKETT 15B-26 BHL

OH
PUCKETT 15B-26
16XXX; LR
30' KB @ 8322.00ft
Ground Level @ 8322.00
NAD 1927 - Western US
Well PUCKETT 15B-26, True North

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
User	No Target (Freehand)	209.37	Slot	0.00	0.00	0.00
Name		TVD	+N/-S	+E/-W	Latitude	
PUCKETT 15B-26 BHL		8691.00	-2571.29	-1447.24	39.487867	



Project: Garfield County, CO (UTM 12N)
Site: S26-T6S-R97W (MESA F26) (RIG: HP 3)
Well: PUCKETT 15B-26
Wellbore: OH
Design: OH

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
5767.00	6372.34	OHIO_CREEK.MBL (TVD)
6001.00	6629.53	WILLIAMS_FORK.MBL (TVD)
6772.00	7415.20	TOP_GAS.MBL (TVD)
8041.00	8694.16	CAMEO.MBL (TVD)
8541.00	9198.31	ROLLINS.MBL (TVD)
8691.00	9349.55	TD.MBL (TVD)



Azimuths to True North
Magnetic North: 9.67°

Magnetic Field
Strength: 51633.0snT
Dip Angle: 65.77°
Date: 4/5/2018
Model: HDGM

Vertical Section at 209.37° (1500 usft/in)

WELL DETAILS: PUCKETT 15B-26

+N/-S	+E/-W	Northing	Ground Level:	8322.00	Latitude	Longitude
0.00	0.00	14354506.20	Easting	2433173.00	39.494924	-108.190127

CATHEDRAL



Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 15B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 15B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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 (MESA F26) (RIG: HP 330), Gravity = 0.9975g			
Site Position:		Northing:	14,354,512.70 usft	Latitude:	39.494943
From:	Map	Easting:	2,433,169.20 usft	Longitude:	-108.190140
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.79 °

Well		PUCKETT 15B-26				
Well Position	+N/-S	0.00 usft	Northing:	14,354,506.20 usft	Latitude:	39.494924
	+E/-W	0.00 usft	Easting:	2,433,173.00 usft	Longitude:	-108.190127
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,322.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/5/2018	9.67	65.77	51,633.00000000

Design	OH				
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	209.37	

Survey Program	Date	4/12/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
170.00	2,449.00	Survey #1 (OH)	INC+TREND	Inclinometer + known azi trend	
2,620.00	9,369.00	Survey #2 (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	
170.00	0.48	140.00	170.00	-0.55	0.46	0.25	0.28	0.28	
201.00	0.79	162.24	201.00	-0.85	0.61	0.44	1.26	1.00	
291.00	2.33	197.48	290.96	-3.18	0.25	2.65	1.94	1.71	
382.00	5.05	197.75	381.76	-8.76	-1.53	8.39	2.99	2.99	
472.00	6.46	209.52	471.31	-16.94	-5.23	17.33	2.04	1.57	
562.00	7.65	210.49	560.63	-26.51	-10.77	28.39	1.33	1.32	
656.00	9.19	211.90	653.61	-38.28	-17.91	42.14	1.65	1.64	
751.00	10.59	205.66	747.20	-52.59	-25.70	58.43	1.85	1.47	
845.00	10.50	204.95	839.61	-68.14	-33.05	75.59	0.17	-0.10	
939.00	10.72	198.45	932.01	-84.20	-39.43	92.72	1.29	0.23	
1,033.00	12.09	196.69	1,024.15	-101.92	-45.03	110.90	1.50	1.46	

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 15B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 15B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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
1,127.00	14.41	200.30	1,115.65	-122.32	-51.91	132.06	2.62	2.47	
1,222.00	15.78	203.90	1,207.37	-145.22	-61.25	156.59	1.75	1.44	
1,316.00	17.31	206.45	1,297.47	-169.43	-72.66	183.29	1.80	1.63	
1,410.00	19.47	209.79	1,386.67	-195.55	-86.67	212.92	2.56	2.30	
1,505.00	25.71	212.78	1,474.34	-226.65	-105.71	249.36	6.68	6.57	
1,599.00	30.28	209.96	1,557.32	-264.34	-128.60	293.44	5.06	4.86	
1,693.00	28.74	203.46	1,639.15	-305.62	-149.44	339.63	3.78	-1.64	
1,788.00	27.86	198.89	1,722.80	-347.58	-165.72	384.18	2.46	-0.93	
1,882.00	27.47	198.10	1,806.06	-388.97	-179.57	427.04	0.57	-0.41	
1,977.00	28.21	199.86	1,890.06	-430.91	-194.00	470.67	1.16	0.78	
2,071.00	29.44	206.01	1,972.43	-472.58	-211.68	515.66	3.41	1.31	
2,166.00	30.23	207.41	2,054.84	-514.79	-232.93	562.87	1.11	0.83	
2,260.00	27.55	208.73	2,137.14	-554.87	-254.28	608.26	2.93	-2.85	
2,354.00	25.75	207.94	2,221.15	-591.97	-274.30	650.42	1.95	-1.91	
2,449.00	25.23	207.33	2,306.90	-628.19	-293.26	691.28	0.61	-0.55	
2,620.00	25.31	205.66	2,461.54	-693.52	-325.82	764.18	0.42	0.05	
2,715.00	25.66	205.04	2,547.29	-730.46	-343.32	804.95	0.46	0.37	
2,809.00	27.11	208.03	2,631.50	-767.81	-362.00	846.67	2.09	1.54	
2,903.00	27.25	208.47	2,715.12	-805.63	-382.33	889.59	0.26	0.15	
2,997.00	27.55	206.01	2,798.58	-844.09	-402.12	932.81	1.25	0.32	
3,092.00	27.73	205.57	2,882.74	-883.77	-421.29	976.80	0.29	0.19	
3,186.00	27.77	207.15	2,965.93	-922.98	-440.73	1,020.50	0.78	0.04	
3,281.00	28.26	208.73	3,049.80	-962.40	-461.64	1,065.11	0.94	0.52	
3,375.00	29.44	210.14	3,132.13	-1,001.89	-483.93	1,110.46	1.45	1.26	
3,470.00	30.59	209.61	3,214.39	-1,043.10	-507.60	1,157.98	1.24	1.21	
3,564.00	30.41	209.88	3,295.38	-1,084.52	-531.27	1,205.69	0.24	-0.19	
3,659.00	31.25	209.35	3,376.96	-1,126.85	-555.33	1,254.37	0.93	0.88	
3,753.00	30.23	205.39	3,457.76	-1,169.48	-577.43	1,302.37	2.41	-1.09	
3,848.00	30.41	208.64	3,539.77	-1,212.19	-599.21	1,350.27	1.74	0.19	
3,942.00	29.88	209.08	3,621.06	-1,253.54	-621.99	1,397.47	0.61	-0.56	
4,037.00	30.45	207.24	3,703.19	-1,295.62	-644.51	1,445.19	1.14	0.60	
4,131.00	29.71	206.97	3,784.53	-1,337.56	-665.98	1,492.27	0.80	-0.79	
4,225.00	30.54	205.66	3,865.84	-1,379.85	-686.88	1,539.38	1.13	0.88	
4,320.00	30.76	203.81	3,947.57	-1,423.83	-707.14	1,587.64	1.02	0.23	
4,414.00	29.58	203.72	4,028.83	-1,467.07	-726.18	1,634.66	1.26	-1.26	
4,509.00	30.15	203.55	4,111.22	-1,510.40	-745.15	1,681.73	0.61	0.60	
4,603.00	30.76	204.34	4,192.25	-1,553.95	-764.49	1,729.16	0.78	0.65	
4,698.00	30.54	206.62	4,273.98	-1,597.66	-785.31	1,777.47	1.25	-0.23	
4,792.00	29.93	204.95	4,355.19	-1,640.27	-805.91	1,824.71	1.11	-0.65	
4,887.00	30.15	206.27	4,437.43	-1,683.16	-826.46	1,872.16	0.73	0.23	
4,981.00	29.80	204.95	4,518.86	-1,725.50	-846.77	1,919.02	0.79	-0.37	
5,076.00	28.92	207.77	4,601.66	-1,767.23	-867.43	1,965.52	1.72	-0.93	
5,170.00	28.30	204.51	4,684.19	-1,807.62	-887.26	2,010.45	1.79	-0.66	
5,265.00	27.60	205.31	4,768.11	-1,848.01	-906.01	2,054.84	0.84	-0.74	
5,359.00	26.72	206.18	4,851.74	-1,886.66	-924.65	2,097.66	1.03	-0.94	
5,453.00	26.72	209.35	4,935.71	-1,924.04	-944.33	2,139.89	1.52	0.00	
5,548.00	27.77	211.81	5,020.17	-1,961.47	-966.46	2,183.36	1.62	1.11	
5,642.00	28.30	209.08	5,103.14	-1,999.55	-988.84	2,227.53	1.48	0.56	
5,737.00	27.77	209.17	5,186.99	-2,038.56	-1,010.57	2,272.18	0.56	-0.56	
5,831.00	27.73	208.64	5,270.18	-2,076.87	-1,031.72	2,315.94	0.27	-0.04	
5,925.00	28.13	209.17	5,353.23	-2,115.42	-1,053.01	2,359.97	0.50	0.43	
6,020.00	27.11	207.24	5,437.41	-2,154.22	-1,073.83	2,404.00	1.43	-1.07	
6,114.00	25.75	206.01	5,521.58	-2,191.61	-1,092.59	2,445.79	1.56	-1.45	

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 15B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 15B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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
6,208.00	23.42	205.57	5,607.06	-2,226.82	-1,109.61	2,484.81	2.49	-2.48	
6,303.00	21.40	205.13	5,694.88	-2,259.55	-1,125.12	2,520.94	2.13	-2.13	
6,397.00	19.73	204.16	5,782.88	-2,289.55	-1,138.90	2,553.85	1.81	-1.78	
6,492.00	18.37	205.04	5,872.68	-2,317.75	-1,151.80	2,584.74	1.46	-1.43	
6,586.00	17.49	205.92	5,962.11	-2,343.87	-1,164.24	2,613.61	0.98	-0.94	
6,681.00	14.77	206.62	6,053.36	-2,367.54	-1,175.91	2,639.97	2.87	-2.86	
6,775.00	12.83	209.52	6,144.65	-2,387.34	-1,186.42	2,662.37	2.19	-2.06	
6,869.00	11.51	205.57	6,236.53	-2,404.88	-1,195.61	2,682.17	1.66	-1.40	
6,964.00	9.27	212.34	6,329.97	-2,419.90	-1,203.80	2,699.27	2.68	-2.36	
7,058.00	7.43	211.55	6,422.97	-2,431.47	-1,211.03	2,712.91	1.96	-1.96	
7,153.00	7.30	217.96	6,517.19	-2,441.47	-1,217.96	2,725.01	0.88	-0.14	
7,247.00	5.32	224.64	6,610.62	-2,449.28	-1,224.69	2,735.12	2.24	-2.11	
7,341.00	3.25	240.20	6,704.35	-2,453.70	-1,230.07	2,741.61	2.51	-2.20	
7,435.00	3.21	245.30	6,798.21	-2,456.13	-1,234.77	2,746.03	0.31	-0.04	
7,530.00	3.82	232.46	6,893.03	-2,459.17	-1,239.70	2,751.10	1.04	0.64	
7,624.00	4.09	242.92	6,986.80	-2,462.60	-1,245.16	2,756.77	0.82	0.29	
7,812.00	5.23	243.19	7,174.18	-2,469.52	-1,258.78	2,769.48	0.61	0.61	
7,907.00	4.61	236.95	7,268.83	-2,473.55	-1,265.85	2,776.46	0.86	-0.65	
8,001.00	4.13	227.54	7,362.56	-2,477.90	-1,271.51	2,783.02	0.92	-0.51	
8,190.00	3.34	253.56	7,551.17	-2,484.05	-1,281.81	2,793.44	0.98	-0.42	
8,378.00	2.94	274.47	7,738.89	-2,485.23	-1,291.87	2,799.40	0.64	-0.21	
8,565.00	4.40	262.79	7,925.51	-2,485.75	-1,303.77	2,805.69	0.87	0.78	
8,659.00	4.70	256.11	8,019.21	-2,487.13	-1,311.09	2,810.48	0.65	0.32	
8,753.00	5.14	247.14	8,112.87	-2,489.69	-1,318.70	2,816.45	0.94	0.47	
8,847.00	5.76	244.59	8,206.44	-2,493.35	-1,326.85	2,823.63	0.71	0.66	
9,036.00	5.49	234.66	8,394.53	-2,502.65	-1,342.79	2,839.55	0.53	-0.14	
9,288.00	4.75	216.56	8,645.54	-2,518.00	-1,358.84	2,860.80	0.70	-0.29	LAST SURVEY- 9288.00' MD
9,369.00	4.75	216.56	8,726.27	-2,523.39	-1,362.83	2,867.46	0.00	0.00	PROJECTION TO BIT-9369.00' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PUCKETT 15B-26 BHL	0.00	0.00	8,691.00	-2,571.29	-1,447.24	14,351,891.00	2,431,806.70	39.487867	-108.195253
- actual wellpath misses target center by 99.45usft at 9341.21usft MD (8698.57 TVD, -2521.54 N, -1361.46 E)									
- Ellipse (radii L200.00 W100.00 on 250.00 azi)									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
9,288.00	8,645.54	-2,518.00	-1,358.84	LAST SURVEY- 9288.00' MD
9,369.00	8,726.27	-2,523.39	-1,362.83	PROJECTION TO BIT-9369.00' MD

Checked By: _____ Approved By: _____ Date: _____