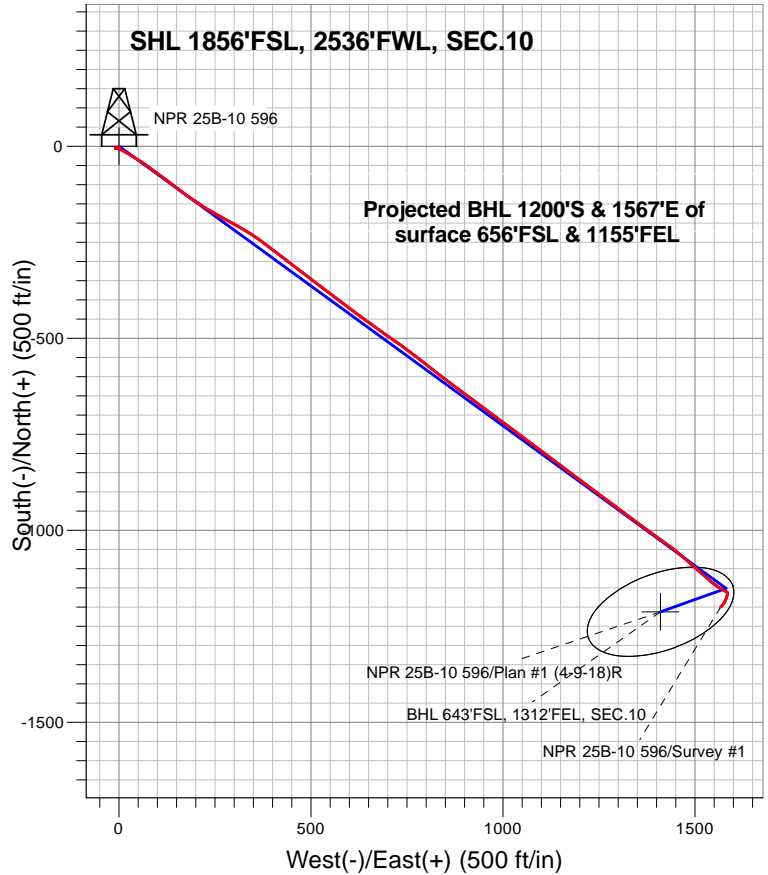


Caerus Oil and Gas LLC



LEGEND

- ✕ NPR 25B-10 596, NPR 25B-10 596 Wellbore #1, Plan #1 (4-9-18)R V0
- ▣ NPR 25B-10 596 Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7,496'MD & 7,103' TVD @ 475.45'VS
5.0 deg Inc 221.3 deg AZ

Project: SEC.10-T5S-R96W
 Site: K10 596 Pad Sec.10-T5S-R96W
 Well: NPR 25B-10 596
 Plan: NPR 25B-10 596 Wellbore #1



Caerus Oil and Gas LLC

SEC.10-T5S-R96W

K10 596 Pad Sec.10-T5S-R96W

NPR 25B-10 596

NPR 25B-10 596 Wellbore #1

Survey: Survey #1

Standard Survey Report

18 April, 2018

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 25B-10 596
Project:	SEC.10-T5S-R96W	TVD Reference:	WELL @ 6733.0ft (Original Well Elev)
Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 25B-10 596	North Reference:	True
Wellbore:	NPR 25B-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 25B-10 596 Wellbore #1	Database:	US_EDM

Project	SEC.10-T5S-R96W, Garfield County, CO		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		Using Well Reference Point
Map Zone:	Zone 12N (114 W to 108 W)		Using geodetic scale factor

Site		K10 596 Pad Sec.10-T5S-R96W			
Site Position:		Northing:	14,403,140.13 usft	Latitude:	39.627619
From:	Lat/Long	Easting:	2,441,439.81 usft	Longitude:	-108.155411
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	1.82 °

Well	NPR 25B-10 596					
Well Position	+N/-S	0.0 ft	Northing:	14,403,079.87 usft	Latitude:	39.627447
	+E/-W	0.0 ft	Easting:	2,441,516.99 usft	Longitude:	-108.155144
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	6,709.0 ft

Wellbore		NPR 25B-10 596 Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/9/2018	9.60	65.83	51,483

Design	NPR 25B-10 596 Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	130.69	

Survey Program		Date	4/18/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
389.0	7,496.0	Survey #1 (NPR 25B-10 596 Wellbore #1)	MWD	MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	239.00	1.0	0.0	0.0	0.0	0.36	0.36	0.00
SHL 1856'FSL, 2536'FWL, SEC.10									
389.0	1.40	239.00	389.0	-2.4	-4.1	-1.5	0.36	0.36	0.00
481.0	1.50	242.70	480.9	-3.6	-6.1	-2.3	0.15	0.11	4.02
574.0	1.70	249.70	573.9	-4.6	-8.5	-3.4	0.30	0.22	7.53
669.0	0.70	243.10	668.9	-5.4	-10.3	-4.3	1.06	-1.05	-6.95
763.0	1.80	85.80	762.9	-5.5	-9.4	-3.5	2.62	1.17	-167.34
857.0	4.10	99.50	856.7	-6.0	-4.6	0.4	2.54	2.45	14.57
952.0	6.20	111.20	951.3	-8.4	3.6	8.2	2.46	2.21	12.32
1,047.0	7.60	121.30	1,045.7	-13.5	13.7	19.2	1.94	1.47	10.63

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 25B-10 596
Project:	SEC.10-T5S-R96W	TVD Reference:	WELL @ 6733.0ft (Original Well Elev)
Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 25B-10 596	North Reference:	True
Wellbore:	NPR 25B-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 25B-10 596 Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,141.0	9.10	123.20	1,138.7	-20.8	25.2	32.7	1.62	1.60	2.02
1,236.0	10.70	119.50	1,232.2	-29.3	39.2	48.8	1.81	1.68	-3.89
1,330.0	14.00	122.30	1,324.1	-39.6	56.4	68.6	3.57	3.51	2.98
1,425.0	17.10	125.30	1,415.6	-53.8	77.5	93.9	3.37	3.26	3.16
1,519.0	19.60	127.50	1,504.8	-71.4	101.3	123.4	2.76	2.66	2.34
1,614.0	22.50	127.50	1,593.4	-92.2	128.4	157.5	3.05	3.05	0.00
1,709.0	25.20	126.40	1,680.3	-115.3	159.1	195.8	2.88	2.84	-1.16
1,803.0	27.10	124.70	1,764.7	-139.3	192.8	237.0	2.17	2.02	-1.81
1,898.0	25.50	122.00	1,849.9	-162.5	227.9	278.8	2.10	-1.68	-2.84
1,932.0	25.30	120.70	1,880.6	-170.1	240.4	293.2	1.74	-0.59	-3.82
2,029.0	23.80	118.50	1,968.8	-190.0	275.4	332.7	1.81	-1.55	-2.27
2,124.0	23.30	118.60	2,055.9	-208.2	308.8	369.8	0.53	-0.53	0.11
2,218.0	24.10	122.60	2,142.0	-227.4	341.3	407.0	1.91	0.85	4.26
2,312.0	24.70	126.80	2,227.6	-249.5	373.2	445.6	1.95	0.64	4.47
2,407.0	24.40	127.50	2,314.0	-273.3	404.6	485.0	0.44	-0.32	0.74
2,502.0	24.30	127.10	2,400.5	-297.1	435.8	524.1	0.20	-0.11	-0.42
2,596.0	24.50	127.50	2,486.1	-320.6	466.7	562.9	0.28	0.21	0.43
2,690.0	24.40	127.40	2,571.7	-344.3	497.6	601.7	0.12	-0.11	-0.11
2,785.0	23.20	127.40	2,658.6	-367.5	528.0	640.0	1.26	-1.26	0.00
2,880.0	22.30	127.10	2,746.2	-389.8	557.3	676.7	0.96	-0.95	-0.32
2,974.0	23.20	127.00	2,832.9	-411.7	586.3	712.9	0.96	0.96	-0.11
3,068.0	22.50	127.00	2,919.5	-433.7	615.4	749.4	0.74	-0.74	0.00
3,163.0	22.80	125.60	3,007.2	-455.3	644.9	785.8	0.65	0.32	-1.47
3,257.0	22.10	125.30	3,094.1	-476.1	674.1	821.6	0.75	-0.74	-0.32
3,352.0	22.60	124.90	3,182.0	-496.9	703.7	857.5	0.55	0.53	-0.42
3,446.0	23.00	126.30	3,268.6	-518.1	733.3	893.8	0.72	0.43	1.49
3,540.0	23.90	127.40	3,354.9	-540.5	763.2	931.1	1.06	0.96	1.17
3,634.0	23.50	128.00	3,440.9	-563.6	793.1	968.9	0.50	-0.43	0.64
3,729.0	22.90	127.50	3,528.2	-586.6	822.7	1,006.2	0.66	-0.63	-0.53
3,823.0	23.80	127.20	3,614.5	-609.2	852.3	1,043.4	0.97	0.96	-0.32
3,917.0	24.50	126.80	3,700.3	-632.3	883.1	1,081.8	0.76	0.74	-0.43
4,012.0	25.30	126.60	3,786.5	-656.2	915.1	1,121.7	0.85	0.84	-0.21
4,107.0	24.30	126.70	3,872.7	-680.0	947.1	1,161.5	1.05	-1.05	0.11
4,201.0	22.80	126.50	3,958.9	-702.4	977.2	1,198.9	1.60	-1.60	-0.21
4,296.0	23.30	125.80	4,046.3	-724.3	1,007.3	1,236.0	0.60	0.53	-0.74
4,390.0	24.00	127.10	4,132.4	-746.7	1,037.6	1,273.6	0.93	0.74	1.38
4,485.0	25.20	127.40	4,218.8	-770.7	1,069.1	1,313.1	1.27	1.26	0.32
4,579.0	24.60	127.40	4,304.0	-794.7	1,100.5	1,352.6	0.64	-0.64	0.00
4,674.0	23.40	126.90	4,390.8	-818.0	1,131.3	1,391.2	1.28	-1.26	-0.53
4,768.0	23.00	125.90	4,477.2	-840.0	1,161.1	1,428.1	0.60	-0.43	-1.06
4,863.0	23.30	127.20	4,564.6	-862.3	1,191.1	1,465.3	0.62	0.32	1.37
4,957.0	24.70	126.70	4,650.5	-885.2	1,221.7	1,503.5	1.50	1.49	-0.53
5,052.0	26.20	126.30	4,736.2	-909.5	1,254.5	1,544.2	1.59	1.58	-0.42

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 25B-10 596
Project:	SEC.10-T5S-R96W	TVD Reference:	WELL @ 6733.0ft (Original Well Elev)
Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 25B-10 596	North Reference:	True
Wellbore:	NPR 25B-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 25B-10 596 Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,147.0	25.90	126.90	4,821.6	-934.4	1,288.0	1,585.8	0.42	-0.32	0.63	
5,241.0	25.40	126.80	4,906.3	-958.8	1,320.5	1,626.4	0.53	-0.53	-0.11	
5,336.0	24.70	126.40	4,992.4	-982.8	1,352.8	1,666.5	0.76	-0.74	-0.42	
5,430.0	22.70	126.40	5,078.4	-1,005.2	1,383.3	1,704.2	2.13	-2.13	0.00	
5,525.0	23.20	125.30	5,165.9	-1,026.9	1,413.3	1,741.1	0.69	0.53	-1.16	
5,620.0	22.20	127.60	5,253.6	-1,048.7	1,442.8	1,777.7	1.41	-1.05	2.42	
5,714.0	20.80	131.10	5,341.0	-1,070.5	1,469.4	1,812.1	2.02	-1.49	3.72	
5,809.0	19.90	131.60	5,430.1	-1,092.3	1,494.2	1,845.1	0.96	-0.95	0.53	
5,903.0	16.80	131.40	5,519.3	-1,111.9	1,516.4	1,874.7	3.30	-3.30	-0.21	
5,998.0	13.90	131.40	5,610.9	-1,128.5	1,535.2	1,899.9	3.05	-3.05	0.00	
6,092.0	10.50	126.90	5,702.8	-1,141.1	1,550.6	1,919.7	3.75	-3.62	-4.79	
6,187.0	8.10	119.70	5,796.5	-1,149.7	1,563.3	1,934.9	2.80	-2.53	-7.58	
6,282.0	5.40	121.40	5,890.9	-1,155.3	1,572.9	1,945.9	2.85	-2.84	1.79	
6,376.0	3.10	117.30	5,984.6	-1,158.8	1,579.0	1,952.7	2.47	-2.45	-4.36	
6,471.0	1.60	121.60	6,079.5	-1,160.6	1,582.4	1,956.5	1.59	-1.58	4.53	
6,565.0	0.80	142.90	6,173.5	-1,161.9	1,583.9	1,958.5	0.96	-0.85	22.66	
6,660.0	0.40	139.20	6,268.5	-1,162.6	1,584.5	1,959.5	0.42	-0.42	-3.89	
6,754.0	0.30	126.10	6,362.5	-1,163.0	1,584.9	1,960.0	0.14	-0.11	-13.94	
6,849.0	0.70	202.80	6,457.5	-1,163.7	1,584.9	1,960.5	0.73	0.42	80.74	
6,943.0	1.80	196.70	6,551.5	-1,165.7	1,584.3	1,961.2	1.18	1.17	-6.49	
7,038.0	2.90	195.00	6,646.4	-1,169.4	1,583.2	1,962.9	1.16	1.16	-1.79	
7,133.0	4.00	196.20	6,741.2	-1,174.9	1,581.7	1,965.3	1.16	1.16	1.26	
7,227.0	4.70	201.90	6,834.9	-1,181.6	1,579.3	1,967.9	0.87	0.74	6.06	
Last Survey - 7227' MD										
7,322.0	4.40	213.20	6,929.6	-1,188.3	1,575.9	1,969.6	0.99	-0.32	11.89	
7,416.0	5.00	221.30	7,023.3	-1,194.4	1,571.2	1,970.0	0.95	0.64	8.62	
7,496.0	5.00	221.30	7,103.0	-1,199.6	1,566.6	1,970.0	0.00	0.00	0.00	
BHL 643'FSL, 1312'FEL, SEC.10										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 1856'FSL, 2536'FW	0.00	0.00	1.0	0.0	0.0	14,403,079.87	2,441,516.99	39.627447	-108.155144	
- hit/miss target										
- Shape										
- survey hits target center										
- Point										
BHL 643'FSL, 1312'FEL	0.00	0.00	9,525.0	-1,212.2	1,409.9	14,401,912.55	2,442,965.08	39.624119	-108.150139	
- survey misses target center by 2427.1ft at 7496.0ft MD (7103.0 TVD, -1199.6 N, 1566.6 E)										
- Ellipse (radii L200.0 W100.0 on 250.00 azi)										

Company:	Caerus Oil and Gas LLC	Local Co-ordinate Reference:	Well NPR 25B-10 596
Project:	SEC.10-T5S-R96W	TVD Reference:	WELL @ 6733.0ft (Original Well Elev)
Site:	K10 596 Pad Sec.10-T5S-R96W	MD Reference:	WELL @ 6733.0ft (Original Well Elev)
Well:	NPR 25B-10 596	North Reference:	True
Wellbore:	NPR 25B-10 596 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	NPR 25B-10 596 Wellbore #1	Database:	US_EDM

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,227.0	6,834.9	-1,181.6	1,579.3	Last Survey - 7227' MD

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------