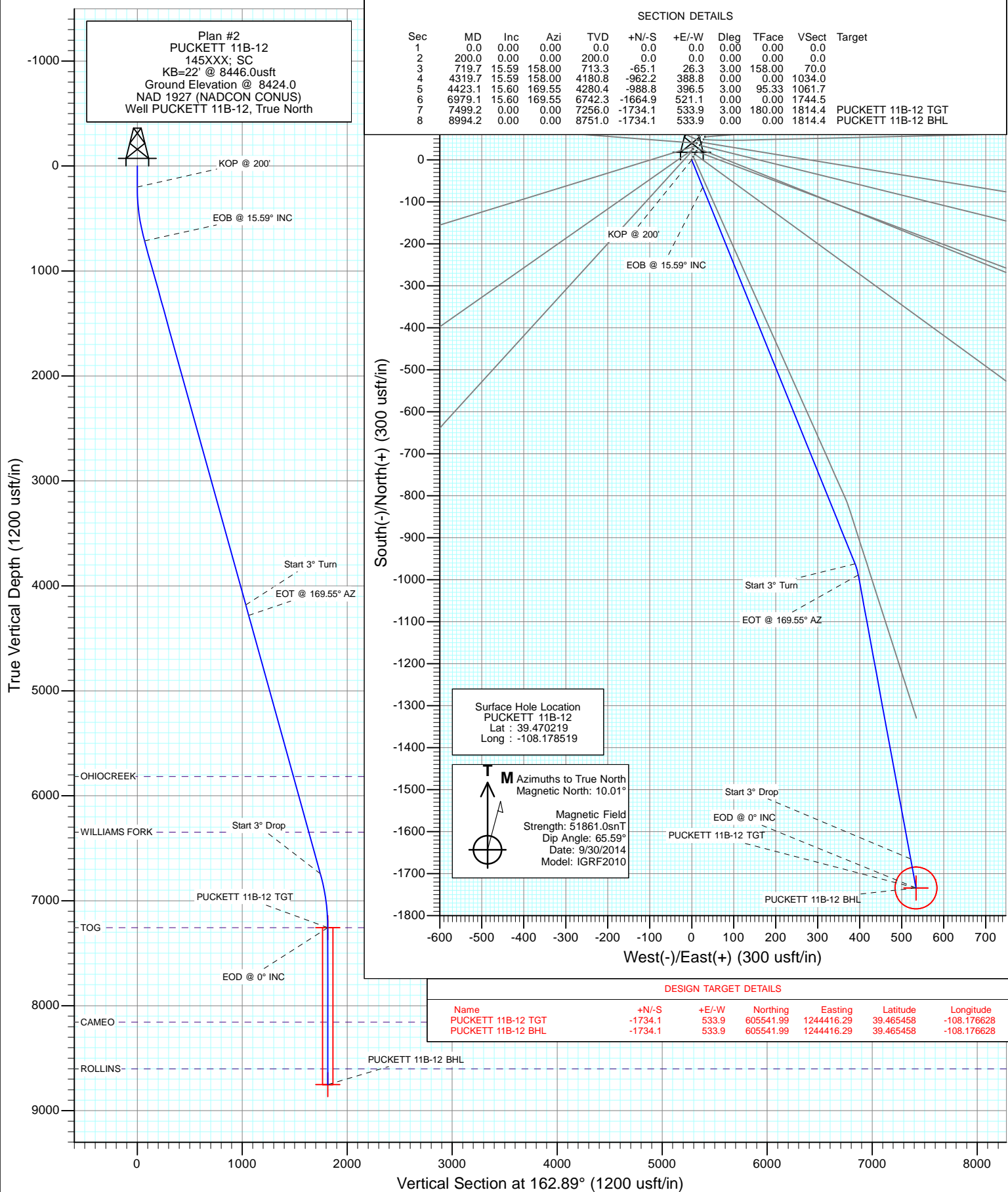
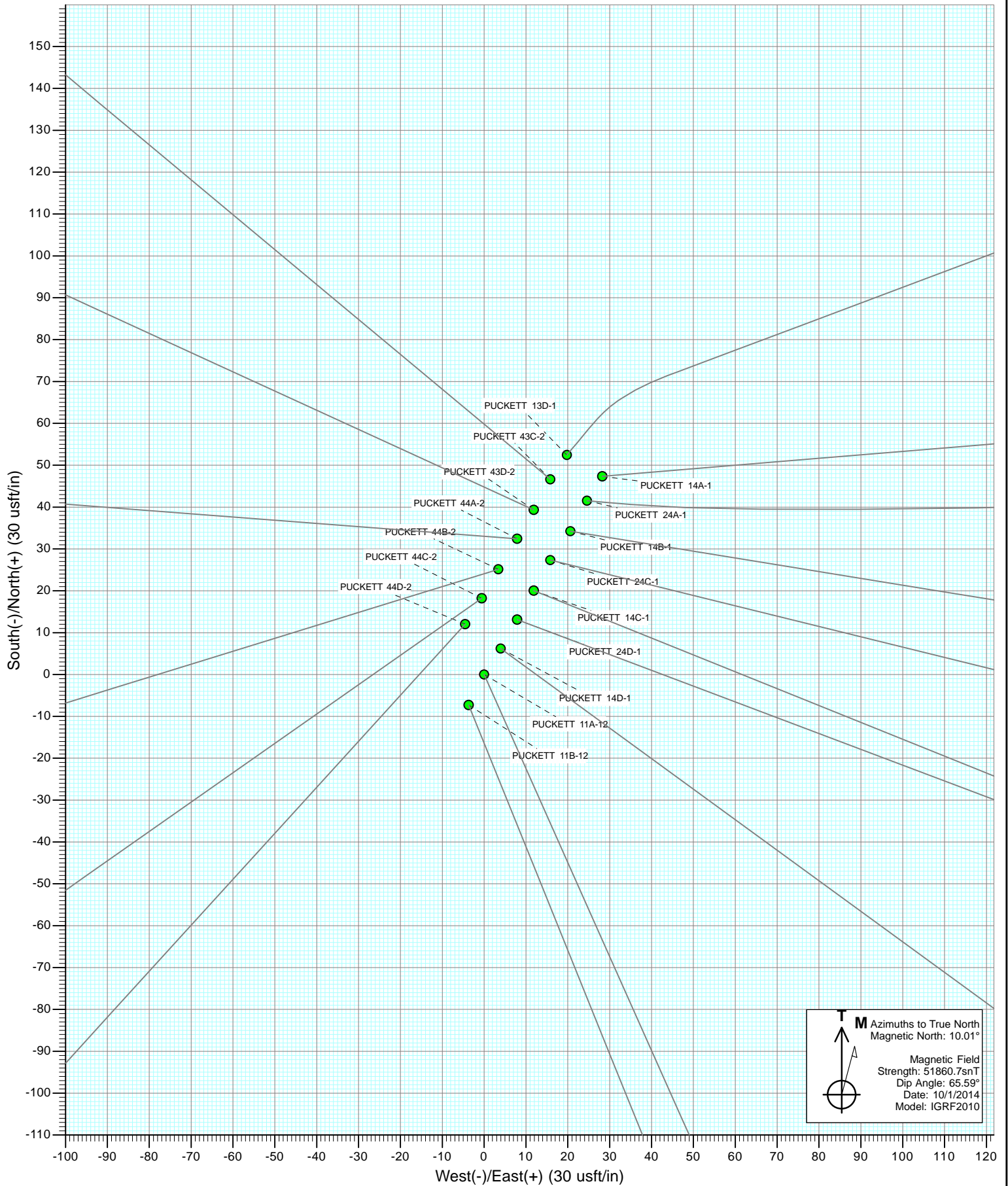
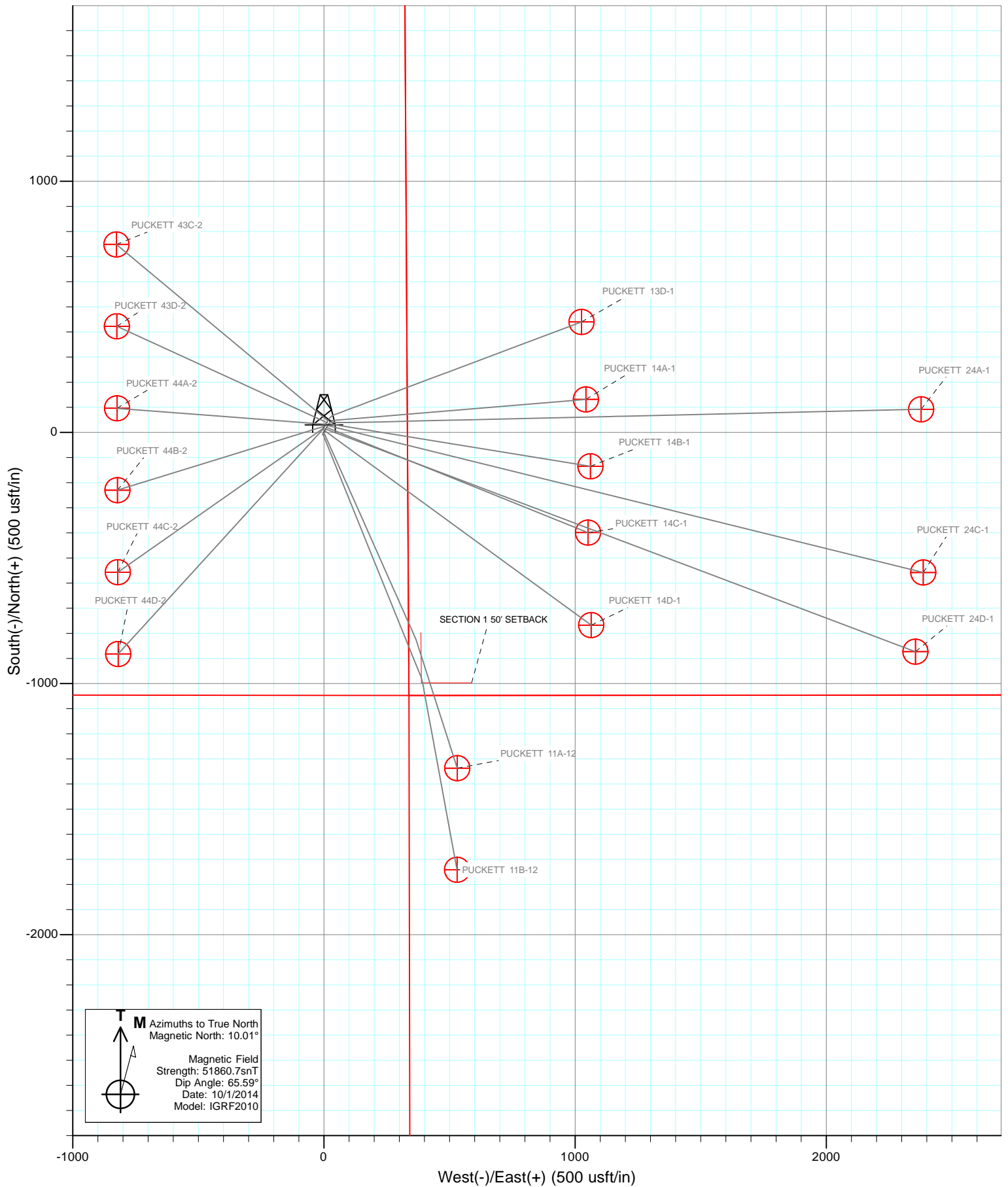




Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad P2)
Well: PUCKETT 11B-12
Wellbore: DD
Design: Plan #2







Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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

Site		S2-T7S-R97W (Puckett Pad P2)			
Site Position:		Northing:	607,291.06 usft	Latitude:	39.470219
From:	Lat/Long	Easting:	1,243,933.75 usft	Longitude:	-108.178519
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 11B-12					
Well Position	+N/-S	0.0 usft	Northing:	607,291.05 usft	Latitude:	39.470219
	+E/-W	0.0 usft	Easting:	1,243,933.75 usft	Longitude:	-108.178519
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,424.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/30/2014	10.01	65.59	51,861

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	162.89

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
719.7	15.59	158.00	713.3	-65.1	26.3	3.00	3.00	0.00	158.00	
4,319.7	15.59	158.00	4,180.8	-962.2	388.8	0.00	0.00	0.00	0.00	
4,423.1	15.60	169.55	4,280.4	-988.8	396.5	3.00	0.01	11.18	95.33	
6,979.1	15.60	169.55	6,742.3	-1,664.9	521.1	0.00	0.00	0.00	0.00	
7,499.2	0.00	0.00	7,256.0	-1,734.1	533.9	3.00	-3.00	0.00	180.00	PUCKETT 11B-12 TG
8,994.2	0.00	0.00	8,751.0	-1,734.1	533.9	0.00	0.00	0.00	0.00	PUCKETT 11B-12 BH

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	3.00	158.00	300.0	-2.4	1.0	2.6	3.00	3.00	
400.0	6.00	158.00	399.6	-9.7	3.9	10.4	3.00	3.00	
500.0	9.00	158.00	498.8	-21.8	8.8	23.4	3.00	3.00	
600.0	12.00	158.00	597.1	-38.7	15.6	41.6	3.00	3.00	
700.0	15.00	158.00	694.3	-60.3	24.4	64.8	3.00	3.00	
719.7	15.59	158.00	713.3	-65.1	26.3	70.0	3.00	3.00	EOB @ 15.59° INC
800.0	15.59	158.00	790.7	-85.2	34.4	91.5	0.00	0.00	
900.0	15.59	158.00	887.0	-110.1	44.5	118.3	0.00	0.00	
1,000.0	15.59	158.00	983.3	-135.0	54.5	145.1	0.00	0.00	
1,100.0	15.59	158.00	1,079.6	-159.9	64.6	171.9	0.00	0.00	
1,200.0	15.59	158.00	1,175.9	-184.8	74.7	198.6	0.00	0.00	
1,300.0	15.59	158.00	1,272.3	-209.8	84.7	225.4	0.00	0.00	
1,400.0	15.59	158.00	1,368.6	-234.7	94.8	252.2	0.00	0.00	
1,500.0	15.59	158.00	1,464.9	-259.6	104.9	279.0	0.00	0.00	
1,600.0	15.59	158.00	1,561.2	-284.5	115.0	305.7	0.00	0.00	
1,700.0	15.59	158.00	1,657.5	-309.4	125.0	332.5	0.00	0.00	
1,800.0	15.59	158.00	1,753.9	-334.3	135.1	359.3	0.00	0.00	
1,900.0	15.59	158.00	1,850.2	-359.3	145.2	386.1	0.00	0.00	
2,000.0	15.59	158.00	1,946.5	-384.2	155.2	412.8	0.00	0.00	
2,100.0	15.59	158.00	2,042.8	-409.1	165.3	439.6	0.00	0.00	
2,200.0	15.59	158.00	2,139.1	-434.0	175.4	466.4	0.00	0.00	
2,300.0	15.59	158.00	2,235.5	-458.9	185.4	493.2	0.00	0.00	
2,400.0	15.59	158.00	2,331.8	-483.9	195.5	520.0	0.00	0.00	
2,500.0	15.59	158.00	2,428.1	-508.8	205.6	546.7	0.00	0.00	
2,600.0	15.59	158.00	2,524.4	-533.7	215.6	573.5	0.00	0.00	
2,700.0	15.59	158.00	2,620.8	-558.6	225.7	600.3	0.00	0.00	
2,800.0	15.59	158.00	2,717.1	-583.5	235.8	627.1	0.00	0.00	
2,900.0	15.59	158.00	2,813.4	-608.4	245.8	653.8	0.00	0.00	
3,000.0	15.59	158.00	2,909.7	-633.4	255.9	680.6	0.00	0.00	
3,100.0	15.59	158.00	3,006.0	-658.3	266.0	707.4	0.00	0.00	
3,200.0	15.59	158.00	3,102.4	-683.2	276.0	734.2	0.00	0.00	
3,300.0	15.59	158.00	3,198.7	-708.1	286.1	761.0	0.00	0.00	
3,400.0	15.59	158.00	3,295.0	-733.0	296.2	787.7	0.00	0.00	
3,500.0	15.59	158.00	3,391.3	-758.0	306.2	814.5	0.00	0.00	
3,600.0	15.59	158.00	3,487.6	-782.9	316.3	841.3	0.00	0.00	
3,700.0	15.59	158.00	3,584.0	-807.8	326.4	868.1	0.00	0.00	
3,800.0	15.59	158.00	3,680.3	-832.7	336.4	894.8	0.00	0.00	
3,900.0	15.59	158.00	3,776.6	-857.6	346.5	921.6	0.00	0.00	
4,000.0	15.59	158.00	3,872.9	-882.5	356.6	948.4	0.00	0.00	
4,100.0	15.59	158.00	3,969.2	-907.5	366.6	975.2	0.00	0.00	
4,200.0	15.59	158.00	4,065.6	-932.4	376.7	1,002.0	0.00	0.00	
4,300.0	15.59	158.00	4,161.9	-957.3	386.8	1,028.7	0.00	0.00	
4,319.7	15.59	158.00	4,180.8	-962.2	388.8	1,034.0	0.00	0.00	Start 3° Turn
4,400.0	15.55	166.99	4,258.2	-982.7	395.2	1,055.5	3.00	-0.05	
4,423.1	15.60	169.55	4,280.4	-988.8	396.5	1,061.7	3.00	0.24	EOT @ 169.55° AZ
4,500.0	15.60	169.55	4,354.5	-1,009.1	400.2	1,082.2	0.00	0.00	
4,600.0	15.60	169.55	4,450.9	-1,035.6	405.1	1,108.9	0.00	0.00	
4,700.0	15.60	169.55	4,547.2	-1,062.0	410.0	1,135.6	0.00	0.00	
4,800.0	15.60	169.55	4,643.5	-1,088.5	414.9	1,162.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,900.0	15.60	169.55	4,739.8	-1,114.9	419.7	1,189.1	0.00	0.00	
5,000.0	15.60	169.55	4,836.1	-1,141.4	424.6	1,215.8	0.00	0.00	
5,100.0	15.60	169.55	4,932.4	-1,167.8	429.5	1,242.5	0.00	0.00	
5,200.0	15.60	169.55	5,028.8	-1,194.3	434.4	1,269.2	0.00	0.00	
5,300.0	15.60	169.55	5,125.1	-1,220.7	439.2	1,295.9	0.00	0.00	
5,400.0	15.60	169.55	5,221.4	-1,247.2	444.1	1,322.6	0.00	0.00	
5,500.0	15.60	169.55	5,317.7	-1,273.6	449.0	1,349.4	0.00	0.00	
5,600.0	15.60	169.55	5,414.0	-1,300.1	453.9	1,376.1	0.00	0.00	
5,700.0	15.60	169.55	5,510.3	-1,326.5	458.8	1,402.8	0.00	0.00	
5,800.0	15.60	169.55	5,606.6	-1,353.0	463.6	1,429.5	0.00	0.00	
5,900.0	15.60	169.55	5,703.0	-1,379.4	468.5	1,456.2	0.00	0.00	
6,000.0	15.60	169.55	5,799.3	-1,405.9	473.4	1,482.9	0.00	0.00	
6,017.4	15.60	169.55	5,816.0	-1,410.5	474.2	1,487.6	0.00	0.00	OHIOCREEK
6,100.0	15.60	169.55	5,895.6	-1,432.3	478.3	1,509.6	0.00	0.00	
6,200.0	15.60	169.55	5,991.9	-1,458.8	483.1	1,536.4	0.00	0.00	
6,300.0	15.60	169.55	6,088.2	-1,485.2	488.0	1,563.1	0.00	0.00	
6,400.0	15.60	169.55	6,184.5	-1,511.7	492.9	1,589.8	0.00	0.00	
6,500.0	15.60	169.55	6,280.8	-1,538.1	497.8	1,616.5	0.00	0.00	
6,567.6	15.60	169.55	6,346.0	-1,556.0	501.1	1,634.6	0.00	0.00	WILLIAMS FORK
6,600.0	15.60	169.55	6,377.2	-1,564.6	502.6	1,643.2	0.00	0.00	
6,700.0	15.60	169.55	6,473.5	-1,591.0	507.5	1,669.9	0.00	0.00	
6,800.0	15.60	169.55	6,569.8	-1,617.5	512.4	1,696.6	0.00	0.00	
6,900.0	15.60	169.55	6,666.1	-1,643.9	517.3	1,723.4	0.00	0.00	
6,979.1	15.60	169.55	6,742.3	-1,664.9	521.1	1,744.5	0.00	0.00	Start 3° Drop
7,000.0	14.98	169.55	6,762.5	-1,670.3	522.1	1,750.0	3.00	-3.00	
7,100.0	11.98	169.55	6,859.7	-1,693.2	526.3	1,773.1	3.00	-3.00	
7,200.0	8.98	169.55	6,958.0	-1,711.1	529.6	1,791.2	3.00	-3.00	
7,300.0	5.98	169.55	7,057.1	-1,723.9	532.0	1,804.1	3.00	-3.00	
7,400.0	2.98	169.55	7,156.8	-1,731.5	533.4	1,811.8	3.00	-3.00	
7,499.2	0.00	0.00	7,256.0	-1,734.1	533.9	1,814.4	3.00	-3.00	EOD @ 0° INC - TOG
7,600.0	0.00	0.00	7,356.8	-1,734.1	533.9	1,814.4	0.00	0.00	
7,700.0	0.00	0.00	7,456.8	-1,734.1	533.9	1,814.4	0.00	0.00	
7,800.0	0.00	0.00	7,556.8	-1,734.1	533.9	1,814.4	0.00	0.00	
7,900.0	0.00	0.00	7,656.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,000.0	0.00	0.00	7,756.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,100.0	0.00	0.00	7,856.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,200.0	0.00	0.00	7,956.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,300.0	0.00	0.00	8,056.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,399.2	0.00	0.00	8,156.0	-1,734.1	533.9	1,814.4	0.00	0.00	CAMEO
8,400.0	0.00	0.00	8,156.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,500.0	0.00	0.00	8,256.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,600.0	0.00	0.00	8,356.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,700.0	0.00	0.00	8,456.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,800.0	0.00	0.00	8,556.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,844.2	0.00	0.00	8,601.0	-1,734.1	533.9	1,814.4	0.00	0.00	ROLLINS
8,900.0	0.00	0.00	8,656.8	-1,734.1	533.9	1,814.4	0.00	0.00	
8,994.2	0.00	0.00	8,751.0	-1,734.1	533.9	1,814.4	0.00	0.00	TD @ 8,994.2' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PUCKETT 11B-12 TGT	0.00	0.00	7,256.0	-1,734.1	533.9	605,541.99	1,244,416.29	39.465458	-108.176628
- plan hits target center									
- Point									
PUCKETT 11B-12 BHL	0.00	0.00	8,751.0	-1,734.1	533.9	605,541.99	1,244,416.29	39.465458	-108.176628
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,017.4	5,816.0	OHIOCREEK				
6,567.6	6,346.0	WILLIAMS FORK				
7,499.2	7,256.0	TOG				
8,399.2	8,156.0	CAMEO				
8,844.2	8,601.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
719.7	713.3	-65.1	26.3	EOB @ 15.59° INC	
4,319.7	4,180.8	-962.2	388.8	Start 3° Turn	
4,423.1	4,280.4	-988.8	396.5	EOT @ 169.55° AZ	
6,979.1	6,742.3	-1,664.9	521.1	Start 3° Drop	
7,499.2	7,256.0	-1,734.1	533.9	EOD @ 0° INC	
8,994.2	8,751.0	-1,734.1	533.9	TD @ 8,994.2' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad P2)

PUCKETT 11B-12

DD

Plan #2

Anticollision Report

07 October, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 10/7/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	8,994.1	Plan #2 (DD)	ISCWSA MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 11A-12 - DD - Plan #2	200.0	200.0	8.2	7.5	13.067	CC, ES
PUCKETT 11A-12 - DD - Plan #2	700.0	702.2	19.7	16.3	5.670	SF
PUCKETT 13D-1 - DD - Plan #1	200.0	200.0	64.2	63.5	102.689	CC, ES
PUCKETT 13D-1 - DD - Plan #1	700.0	683.5	149.8	146.2	41.420	SF
PUCKETT 14A-1 - DD - Plan #1	200.0	200.0	63.3	62.6	101.257	CC, ES
PUCKETT 14A-1 - DD - Plan #1	700.0	690.9	118.5	115.0	33.880	SF
PUCKETT 14B-1 - DD - Plan #1	200.0	200.0	48.1	47.5	76.990	CC, ES
PUCKETT 14B-1 - DD - Plan #1	600.0	596.8	80.8	78.0	28.520	SF
PUCKETT 14C-1 - DD - Plan #1	200.0	200.0	31.4	30.8	50.300	CC, ES
PUCKETT 14C-1 - DD - Plan #1	600.0	598.9	61.8	59.0	21.843	SF
PUCKETT 14D-1 - DD - Plan #1	200.0	200.0	15.5	14.9	24.791	CC, ES
PUCKETT 14D-1 - DD - Plan #1	500.0	500.3	30.0	27.8	13.638	SF
PUCKETT 24A-1 - DD - Plan #1	200.0	200.0	56.4	55.8	90.242	CC, ES
PUCKETT 24A-1 - DD - Plan #1	700.0	688.4	115.8	112.2	32.217	SF
PUCKETT 24C-1 - DD - Plan #1	200.0	200.0	39.7	39.1	63.561	CC, ES
PUCKETT 24C-1 - DD - Plan #1	1,100.0	1,072.2	197.9	190.2	25.458	SF
PUCKETT 24D-1 - DD - Plan #1	200.0	200.0	23.5	22.8	37.545	CC, ES
PUCKETT 24D-1 - DD - Plan #1	500.0	498.3	41.9	39.8	19.147	SF
PUCKETT 43C-2 - DD - Plan #1	200.0	200.0	57.3	56.7	91.737	CC, ES
PUCKETT 43C-2 - DD - Plan #1	500.0	493.2	83.9	81.6	35.778	SF
PUCKETT 43D-2 - DD - Plan #1	200.0	200.0	49.1	48.5	78.655	CC, ES
PUCKETT 43D-2 - DD - Plan #1	500.0	496.3	71.7	69.4	30.951	SF
PUCKETT 44A-2 - DD - Plan #1	200.0	200.0	41.4	40.7	66.189	CC, ES
PUCKETT 44A-2 - DD - Plan #1	500.0	498.5	61.8	59.5	26.962	SF
PUCKETT 44B-2 - DD - Plan #1	200.0	200.0	33.2	32.6	53.101	CC, ES
PUCKETT 44B-2 - DD - Plan #1	500.0	499.6	52.7	50.4	22.787	SF
PUCKETT 44C-2 - DD - Plan #1	200.0	200.0	25.7	25.1	41.112	CC, ES
PUCKETT 44C-2 - DD - Plan #1	500.0	500.4	43.0	40.7	18.490	SF
PUCKETT 44D-2 - DD - Plan #1	200.0	200.0	19.3	18.7	30.939	CC, ES
PUCKETT 44D-2 - DD - Plan #1	400.0	400.8	25.2	23.5	14.821	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11A-12 - DD - Plan #2													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	26.71	7.3	3.7	8.2					
100.0	100.0	100.0	100.0	0.1	0.1	26.71	7.3	3.7	8.2	8.0	0.18	46.573		
200.0	200.0	200.0	200.0	0.3	0.3	26.71	7.3	3.7	8.2	7.5	0.62	13.067 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	-140.03	6.7	3.9	9.6	8.5	1.10	8.746		
400.0	399.6	400.6	400.4	0.7	0.7	-147.48	1.9	6.1	11.8	10.2	1.62	7.286		
500.0	498.8	501.1	500.4	1.0	1.0	-151.82	-7.8	10.4	14.2	12.0	2.20	6.451		
600.0	597.1	601.8	599.8	1.4	1.3	-154.28	-22.2	16.8	16.7	13.9	2.83	5.924		
700.0	694.3	702.2	698.1	1.8	1.7	-156.14	-41.0	25.2	19.7	16.3	3.48	5.670 SF		
800.0	790.7	802.0	795.6	2.4	2.1	-159.76	-60.4	33.8	25.2	21.2	4.01	6.289		
900.0	887.0	901.9	893.2	2.9	2.6	-162.14	-79.9	42.5	30.9	26.4	4.52	6.838		
1,000.0	983.3	1,001.7	990.7	3.4	3.0	-163.78	-99.3	51.1	36.6	31.6	5.04	7.268		
1,100.0	1,079.6	1,101.5	1,088.3	4.0	3.5	-164.98	-118.8	59.8	42.3	36.8	5.56	7.609		
1,200.0	1,175.9	1,201.4	1,185.8	4.5	3.9	-165.90	-138.2	68.4	48.1	42.0	6.10	7.883		
1,300.0	1,272.3	1,301.2	1,283.3	5.1	4.4	-166.62	-157.6	77.1	53.8	47.2	6.64	8.105		
1,400.0	1,368.6	1,401.0	1,380.9	5.7	4.8	-167.20	-177.1	85.8	59.6	52.4	7.19	8.289		
1,500.0	1,464.9	1,500.9	1,478.4	6.2	5.3	-167.68	-196.5	94.4	65.3	57.6	7.74	8.443		
1,600.0	1,561.2	1,600.7	1,575.9	6.8	5.8	-168.08	-216.0	103.1	71.1	62.8	8.29	8.573		
1,700.0	1,657.5	1,700.5	1,673.5	7.3	6.2	-168.42	-235.4	111.7	76.9	68.0	8.85	8.685		
1,800.0	1,753.9	1,800.4	1,771.0	7.9	6.7	-168.71	-254.9	120.4	82.6	73.2	9.41	8.781		
1,900.0	1,850.2	1,900.2	1,868.6	8.5	7.2	-168.96	-274.3	129.0	88.4	78.4	9.97	8.865		
2,000.0	1,946.5	2,000.0	1,966.1	9.0	7.6	-169.19	-293.8	137.7	94.2	83.6	10.54	8.938		
2,100.0	2,042.8	2,099.9	2,063.6	9.6	8.1	-169.39	-313.2	146.4	99.9	88.8	11.10	9.003		
2,200.0	2,139.1	2,199.7	2,161.2	10.1	8.5	-169.56	-332.6	155.0	105.7	94.0	11.67	9.061		
2,300.0	2,235.5	2,299.5	2,258.7	10.7	9.0	-169.72	-352.1	163.7	111.5	99.3	12.23	9.113		
2,400.0	2,331.8	2,399.4	2,356.2	11.3	9.5	-169.86	-371.5	172.3	117.3	104.5	12.80	9.160		
2,500.0	2,428.1	2,499.2	2,453.8	11.8	9.9	-169.99	-391.0	181.0	123.0	109.7	13.37	9.202		
2,600.0	2,524.4	2,599.0	2,551.3	12.4	10.4	-170.11	-410.4	189.6	128.8	114.9	13.94	9.240		
2,700.0	2,620.8	2,698.9	2,648.9	12.9	10.9	-170.22	-429.9	198.3	134.6	120.1	14.51	9.276		
2,800.0	2,717.1	2,798.7	2,746.4	13.5	11.3	-170.31	-449.3	207.0	140.4	125.3	15.08	9.308		
2,900.0	2,813.4	2,898.5	2,843.9	14.1	11.8	-170.40	-468.8	215.6	146.1	130.5	15.65	9.337		
3,000.0	2,909.7	2,998.4	2,941.5	14.6	12.3	-170.49	-488.2	224.3	151.9	135.7	16.22	9.365		
3,100.0	3,006.0	3,098.2	3,039.0	15.2	12.7	-170.57	-507.6	232.9	157.7	140.9	16.80	9.390		
3,200.0	3,102.4	3,198.0	3,136.5	15.8	13.2	-170.64	-527.1	241.6	163.5	146.1	17.37	9.414		
3,300.0	3,198.7	3,297.9	3,234.1	16.3	13.7	-170.71	-546.5	250.2	169.3	151.3	17.94	9.436		
3,400.0	3,295.0	3,397.7	3,331.6	16.9	14.1	-170.77	-566.0	258.9	175.0	156.5	18.51	9.456		
3,500.0	3,391.3	3,497.5	3,429.2	17.4	14.6	-170.83	-585.4	267.6	180.8	161.7	19.08	9.475		
3,600.0	3,487.6	3,597.4	3,526.7	18.0	15.1	-170.88	-604.9	276.2	186.6	166.9	19.66	9.493		
3,700.0	3,584.0	3,697.2	3,624.2	18.6	15.5	-170.93	-624.3	284.9	192.4	172.2	20.23	9.510		
3,800.0	3,680.3	3,797.0	3,721.8	19.1	16.0	-170.98	-643.8	293.5	198.2	177.4	20.80	9.526		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S2-T7S-R97W (Puckett Pad P2) - PUCKETT 13D-1 - DD - Plan #1		Offset Site Error:		0.0 usft
Survey Program:													0-ISCSWA MWD		Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis				Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	21.42	59.7	23.4	64.2								
100.0	100.0	100.0	100.0	0.1	0.1	21.42	59.7	23.4	64.2	64.0	0.18	365.994					
200.0	200.0	200.0	200.0	0.3	0.3	21.42	59.7	23.4	64.2	63.5	0.62	102.689	CC, ES				
300.0	300.0	297.6	297.5	0.5	0.5	-137.63	60.8	24.3	67.4	66.3	1.11	60.704					
400.0	399.6	393.4	393.2	0.7	0.8	-139.61	65.4	28.2	79.2	77.5	1.68	47.197					
500.0	498.8	490.2	489.4	1.0	1.0	-141.28	72.6	35.6	98.6	96.3	2.30	42.913					
600.0	597.1	587.4	585.7	1.4	1.3	-141.43	78.7	47.7	122.3	119.3	2.92	41.801					
700.0	694.3	683.5	680.6	1.8	1.6	-141.64	84.1	61.8	149.8	146.2	3.62	41.420	SF				
800.0	790.7	778.8	774.7	2.4	1.9	-142.75	89.3	75.9	180.1	175.8	4.24	42.457					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.28	54.6	31.9	63.3					
100.0	100.0	100.0	100.0	0.1	0.1	30.28	54.6	31.9	63.3	63.1	0.18	360.889		
200.0	200.0	200.0	200.0	0.3	0.3	30.28	54.6	31.9	63.3	62.6	0.62	101.257	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-129.51	54.6	31.9	64.9	63.8	1.09	59.345		
400.0	399.6	399.6	399.6	0.7	0.8	-134.34	54.6	31.9	70.2	68.5	1.62	43.280		
500.0	498.8	498.0	498.0	1.0	1.0	-140.39	54.7	32.5	80.1	77.9	2.21	36.205		
600.0	597.1	595.0	594.8	1.4	1.2	-144.18	55.1	37.4	96.3	93.5	2.83	33.988		
700.0	694.3	690.9	690.2	1.8	1.4	-145.77	55.9	47.0	118.5	115.0	3.50	33.880	SF	
800.0	790.7	786.4	784.7	2.4	1.7	-146.11	57.0	60.9	144.8	140.7	4.09	35.410		
900.0	887.0	882.8	880.0	2.9	2.0	-146.17	58.3	75.6	171.4	166.7	4.70	36.495		
1,000.0	983.3	979.2	975.3	3.4	2.3	-146.22	59.5	90.4	197.9	192.6	5.34	37.096		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14B-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	30.31	41.5	24.3	48.1					
100.0	100.0	100.0	100.0	0.1	0.1	30.31	41.5	24.3	48.1	47.9	0.18	274.401		
200.0	200.0	200.0	200.0	0.3	0.3	30.31	41.5	24.3	48.1	47.5	0.62	76.990 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-130.04	41.5	24.3	49.8	48.7	1.09	45.453		
400.0	399.6	399.6	399.6	0.7	0.8	-136.17	41.5	24.3	55.1	53.5	1.63	33.850		
500.0	498.8	498.4	498.4	1.0	1.0	-141.68	41.1	26.8	65.4	63.2	2.21	29.560		
600.0	597.1	596.8	596.5	1.4	1.2	-144.00	39.9	34.3	80.8	78.0	2.83	28.520 SF		
700.0	694.3	694.5	693.3	1.8	1.4	-144.21	37.9	46.6	100.7	97.2	3.51	28.708		
800.0	790.7	791.8	789.4	2.4	1.7	-144.10	35.4	61.8	123.7	119.5	4.13	29.928		
900.0	887.0	889.1	885.5	2.9	2.1	-144.10	33.0	77.0	146.7	141.9	4.78	30.702		
1,000.0	983.3	986.4	981.6	3.4	2.4	-144.10	30.5	92.1	169.7	164.3	5.46	31.100		
1,100.0	1,079.6	1,083.7	1,077.7	4.0	2.7	-144.10	28.1	107.3	192.8	186.6	6.16	31.294		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14C-1 - DD - Plan #1												Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	29.61	27.3	15.5	31.4				
100.0	100.0	100.0	100.0	0.1	0.1	29.61	27.3	15.5	31.4	31.3	0.18	179.273	
200.0	200.0	200.0	200.0	0.3	0.3	29.61	27.3	15.5	31.4	30.8	0.62	50.300 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-131.91	27.3	15.5	33.1	32.0	1.10	30.172	
400.0	399.6	399.7	399.7	0.7	0.8	-139.49	27.1	16.1	38.8	37.1	1.63	23.723	
500.0	498.8	499.4	499.3	1.0	1.0	-143.22	25.1	20.9	48.5	46.3	2.21	21.982	
600.0	597.1	598.9	598.2	1.4	1.2	-143.56	21.3	30.6	61.8	59.0	2.83	21.843 SF	
700.0	694.3	697.8	695.9	1.8	1.5	-142.29	15.6	44.6	78.6	75.1	3.53	22.283	
800.0	790.7	795.9	792.7	2.4	1.8	-142.12	9.5	59.8	98.0	93.8	4.19	23.381	
900.0	887.0	894.0	889.4	2.9	2.2	-142.09	3.4	75.0	117.5	112.6	4.88	24.087	
1,000.0	983.3	992.1	986.1	3.4	2.5	-142.06	-2.8	90.2	137.0	131.4	5.60	24.481	
1,100.0	1,079.6	1,090.2	1,082.8	4.0	2.9	-142.04	-8.9	105.4	156.5	150.2	6.33	24.706	
1,200.0	1,175.9	1,188.2	1,179.5	4.5	3.3	-142.03	-15.0	120.6	176.0	168.9	7.09	24.833	
1,300.0	1,272.3	1,286.3	1,276.2	5.1	3.6	-142.02	-21.1	135.8	195.5	187.6	7.85	24.909	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14D-1 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	29.48	13.5	7.6	15.5				
100.0	100.0	100.0	100.0	0.1	0.1	29.48	13.5	7.6	15.5	15.3	0.18	88.359	
200.0	200.0	200.0	200.0	0.3	0.3	29.48	13.5	7.6	15.5	14.9	0.62	24.791	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-135.31	13.5	7.6	17.2	16.1	1.10	15.628	
400.0	399.6	400.1	400.1	0.7	0.7	-142.86	11.9	9.7	22.4	20.8	1.64	13.702	
500.0	498.8	500.3	500.0	1.0	1.0	-143.80	7.3	16.1	30.0	27.8	2.20	13.638	SF
600.0	597.1	600.5	599.2	1.4	1.2	-141.69	-0.4	26.7	39.9	37.1	2.83	14.098	
700.0	694.3	700.3	697.4	1.8	1.6	-138.71	-11.0	41.2	52.2	48.6	3.56	14.672	
800.0	790.7	799.2	794.4	2.4	2.0	-137.89	-22.4	56.8	66.8	62.5	4.29	15.569	
900.0	887.0	898.1	891.4	2.9	2.4	-137.44	-33.7	72.4	81.4	76.4	5.05	16.119	
1,000.0	983.3	997.0	988.5	3.4	2.8	-137.13	-45.1	87.9	96.1	90.2	5.85	16.433	
1,100.0	1,079.6	1,095.9	1,085.5	4.0	3.2	-136.90	-56.4	103.5	110.7	104.1	6.66	16.619	
1,200.0	1,175.9	1,194.9	1,182.5	4.5	3.6	-136.73	-67.8	119.1	125.4	117.9	7.49	16.734	
1,300.0	1,272.3	1,293.8	1,279.5	5.1	4.0	-136.59	-79.1	134.6	140.0	131.7	8.33	16.807	
1,400.0	1,368.6	1,392.7	1,376.6	5.7	4.5	-136.48	-90.5	150.2	154.7	145.5	9.18	16.854	
1,500.0	1,464.9	1,491.6	1,473.6	6.2	4.9	-136.38	-101.8	165.8	169.3	159.3	10.03	16.885	
1,600.0	1,561.2	1,590.5	1,570.6	6.8	5.3	-136.31	-113.2	181.3	184.0	173.1	10.88	16.906	
1,700.0	1,657.5	1,689.5	1,667.6	7.3	5.7	-136.24	-124.5	196.9	198.6	186.9	11.74	16.919	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24A-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.04	48.8	28.2	56.4					
100.0	100.0	100.0	100.0	0.1	0.1	30.04	48.8	28.2	56.4	56.2	0.18	321.630		
200.0	200.0	200.0	200.0	0.3	0.3	30.04	48.8	28.2	56.4	55.8	0.62	90.242 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-129.96	48.8	28.2	58.0	56.9	1.09	53.027		
400.0	399.6	398.6	398.5	0.7	0.7	-133.04	48.6	30.8	64.2	62.6	1.61	39.886		
500.0	498.8	496.7	496.4	1.0	1.0	-134.51	47.9	38.3	75.8	73.6	2.19	34.606		
600.0	597.1	593.3	592.2	1.4	1.2	-134.75	47.2	50.6	92.9	90.0	2.85	32.631		
700.0	694.3	688.4	685.7	1.8	1.6	-134.30	46.8	67.4	115.8	112.2	3.59	32.217 SF		
800.0	790.7	781.7	776.6	2.4	1.9	-133.52	46.7	88.5	143.2	138.9	4.36	32.890		
900.0	887.0	873.5	865.0	2.9	2.4	-131.72	47.0	113.4	172.9	167.7	5.20	33.257		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24C-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.37	34.6	19.5	39.7					
100.0	100.0	100.0	100.0	0.1	0.1	29.37	34.6	19.5	39.7	39.5	0.18	226.538		
200.0	200.0	200.0	200.0	0.3	0.3	29.37	34.6	19.5	39.7	39.1	0.62	63.561	CC, ES	
300.0	300.0	299.7	299.7	0.5	0.5	-130.54	34.5	20.1	41.5	40.5	1.09	38.164		
400.0	399.6	399.0	398.8	0.7	0.7	-131.48	33.2	25.1	47.9	46.3	1.60	29.945		
500.0	498.8	497.8	497.1	1.0	1.0	-130.91	30.8	35.1	58.8	56.6	2.19	26.840		
600.0	597.1	595.8	593.9	1.4	1.3	-129.56	27.1	49.8	74.2	71.4	2.88	25.816		
700.0	694.3	692.7	688.7	1.8	1.7	-127.94	22.4	69.1	94.2	90.5	3.68	25.613		
800.0	790.7	788.4	781.3	2.4	2.1	-126.15	16.6	92.7	117.6	113.0	4.55	25.859		
900.0	887.0	883.0	871.5	2.9	2.7	-123.20	9.7	120.4	142.7	137.1	5.53	25.787		
1,000.0	983.3	976.7	959.3	3.4	3.3	-119.66	1.9	152.0	169.8	163.1	6.62	25.626		
1,100.0	1,079.6	1,072.2	1,048.4	4.0	4.0	-116.65	-6.4	185.5	197.9	190.2	7.78	25.458	SF	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.56	20.4	11.6	23.5					
100.0	100.0	100.0	100.0	0.1	0.1	29.56	20.4	11.6	23.5	23.3	0.18	133.816		
200.0	200.0	200.0	200.0	0.3	0.3	29.56	20.4	11.6	23.5	22.8	0.62	37.545 CC, ES		
300.0	300.0	299.8	299.7	0.5	0.5	-127.20	19.5	14.0	25.5	24.4	1.08	23.610		
400.0	399.6	399.3	398.9	0.7	0.8	-124.43	16.7	21.3	31.6	30.1	1.59	19.920		
500.0	498.8	498.3	497.0	1.0	1.0	-121.58	12.2	33.3	41.9	39.8	2.19	19.147 SF		
600.0	597.1	596.5	593.6	1.4	1.4	-119.26	5.9	49.9	56.4	53.5	2.91	19.356		
700.0	694.3	693.7	688.2	1.8	1.8	-117.48	-2.0	70.9	74.9	71.1	3.78	19.827		
800.0	790.7	789.9	780.5	2.4	2.4	-115.69	-11.5	96.1	96.6	91.9	4.75	20.342		
900.0	887.0	884.8	870.3	2.9	3.0	-112.50	-22.5	125.2	120.3	114.5	5.83	20.628		
1,000.0	983.3	980.6	959.5	3.4	3.6	-109.06	-34.7	157.6	145.8	138.8	6.98	20.881		
1,100.0	1,079.6	1,076.9	1,049.3	4.0	4.3	-106.57	-47.1	190.3	171.6	163.5	8.15	21.054		
1,200.0	1,175.9	1,173.3	1,139.1	4.5	5.1	-104.74	-59.4	223.1	197.7	188.4	9.33	21.199		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43C-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	19.87	53.9	19.5	57.3					
100.0	100.0	100.0	100.0	0.1	0.1	19.87	53.9	19.5	57.3	57.1	0.18	326.961		
200.0	200.0	200.0	200.0	0.3	0.3	19.87	53.9	19.5	57.3	56.7	0.62	91.737	CC, ES	
300.0	300.0	299.7	299.7	0.5	0.5	-139.92	54.0	19.4	59.4	58.2	1.11	53.462		
400.0	399.6	397.6	397.5	0.7	0.8	-147.02	56.4	16.5	67.3	65.7	1.68	40.154		
500.0	498.8	493.2	492.7	1.0	1.0	-156.73	61.9	9.9	83.9	81.6	2.35	35.778	SF	
600.0	597.1	585.1	583.7	1.4	1.3	-165.42	70.0	0.2	110.6	107.5	3.05	36.217		
700.0	694.3	677.7	675.1	1.8	1.6	-171.75	79.6	-11.3	145.7	141.9	3.74	38.936		
800.0	790.7	769.0	765.2	2.4	1.9	-175.82	89.0	-22.6	185.1	180.8	4.22	43.859		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43D-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	18.42	46.6	15.5	49.1					
100.0	100.0	100.0	100.0	0.1	0.1	18.42	46.6	15.5	49.1	49.0	0.18	280.336		
200.0	200.0	200.0	200.0	0.3	0.3	18.42	46.6	15.5	49.1	48.5	0.62	78.655 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-141.45	46.6	15.5	51.2	50.1	1.11	45.955		
400.0	399.6	399.1	399.1	0.7	0.8	-147.57	47.2	14.2	57.9	56.2	1.67	34.626		
500.0	498.8	496.3	496.1	1.0	1.0	-157.83	49.8	8.6	71.7	69.4	2.32	30.951 SF		
600.0	597.1	590.5	589.6	1.4	1.2	-167.81	54.3	-1.2	94.8	91.8	3.02	31.432		
700.0	694.3	684.5	682.8	1.8	1.5	-174.95	59.7	-12.9	126.2	122.5	3.70	34.094		
800.0	790.7	777.3	774.7	2.4	1.8	-179.34	64.9	-24.4	162.0	157.8	4.18	38.705		
900.0	887.0	870.0	866.6	2.9	2.1	177.85	70.2	-35.8	198.4	193.8	4.65	42.670		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44A-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	16.25	39.7	11.6	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	16.25	39.7	11.6	41.4	41.2	0.18	235.905		
200.0	200.0	200.0	200.0	0.3	0.3	16.25	39.7	11.6	41.4	40.7	0.62	66.189 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-143.85	39.7	11.6	43.4	42.3	1.12	38.884		
400.0	399.6	399.7	399.7	0.7	0.8	-149.24	39.7	11.4	50.0	48.3	1.68	29.826		
500.0	498.8	498.5	498.4	1.0	1.0	-158.87	40.0	7.6	61.8	59.5	2.29	26.962 SF		
600.0	597.1	594.9	594.5	1.4	1.2	-169.57	40.7	-1.0	81.1	78.2	2.97	27.358		
700.0	694.3	689.9	688.7	1.8	1.5	-177.91	41.6	-12.7	108.6	104.9	3.65	29.742		
800.0	790.7	784.0	782.1	2.4	1.7	177.11	42.5	-24.4	140.8	136.6	4.15	33.924		
900.0	887.0	878.1	875.4	2.9	2.0	173.98	43.4	-36.1	173.7	169.0	4.64	37.460		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44B-2 - DD - Plan #1		Offset Site Error:		0.0 usft
Survey Program:													0-ISWWSA MWD		Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	12.28	32.4	7.1	33.2								
100.0	100.0	100.0	100.0	0.1	0.1	12.28	32.4	7.1	33.2	33.0	0.18	189.259					
200.0	200.0	200.0	200.0	0.3	0.3	12.28	32.4	7.1	33.2	32.6	0.62	53.101	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	-148.07	32.4	7.1	35.4	34.3	1.12	31.480					
400.0	399.6	400.2	400.2	0.7	0.8	-155.55	32.0	5.6	41.7	40.0	1.69	24.742					
500.0	498.8	499.6	499.4	1.0	1.0	-168.12	30.1	-0.6	52.7	50.4	2.31	22.787	SF				
600.0	597.1	597.2	596.3	1.4	1.2	179.66	26.8	-11.3	70.8	67.8	2.99	23.677					
700.0	694.3	693.3	691.6	1.8	1.5	172.08	23.1	-23.0	96.0	92.4	3.67	26.147					
800.0	790.7	788.6	786.1	2.4	1.8	168.04	19.5	-34.7	125.5	121.3	4.20	29.858					
900.0	887.0	883.8	880.6	2.9	2.1	165.56	15.9	-46.3	155.5	150.7	4.74	32.796					
1,000.0	983.3	979.1	975.0	3.4	2.4	163.88	12.3	-58.0	185.6	180.3	5.31	34.941					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44C-2 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	6.94	25.5	3.1	25.7				
100.0	100.0	100.0	100.0	0.1	0.1	6.94	25.5	3.1	25.7	25.5	0.18	146.529	
200.0	200.0	200.0	200.0	0.3	0.3	6.94	25.5	3.1	25.7	25.1	0.62	41.112	CC, ES
300.0	300.0	300.2	300.2	0.5	0.5	-153.89	25.4	3.0	27.9	26.8	1.13	24.797	
400.0	399.6	400.7	400.7	0.7	0.7	-165.26	23.1	-0.3	33.1	31.4	1.69	19.614	
500.0	498.8	500.4	499.9	1.0	1.0	179.32	17.9	-7.8	43.0	40.7	2.33	18.490	SF
600.0	597.1	598.5	597.0	1.4	1.3	166.37	10.0	-18.9	59.8	56.7	3.01	19.875	
700.0	694.3	695.5	692.9	1.8	1.6	159.75	1.8	-30.7	83.0	79.3	3.72	22.337	
800.0	790.7	791.6	788.0	2.4	1.9	156.86	-6.3	-42.3	110.0	105.7	4.32	25.456	
900.0	887.0	887.8	883.1	2.9	2.2	155.17	-14.5	-53.9	137.2	132.3	4.94	27.756	
1,000.0	983.3	984.0	978.2	3.4	2.6	154.04	-22.7	-65.6	164.5	158.9	5.60	29.366	
1,100.0	1,079.6	1,080.1	1,073.3	4.0	2.9	153.22	-30.8	-77.2	191.9	185.6	6.29	30.531	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44D-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-2.51	19.3	-0.8	19.3					
100.0	100.0	100.0	100.0	0.1	0.1	-2.51	19.3	-0.8	19.3	19.2	0.18	110.268		
200.0	200.0	200.0	200.0	0.3	0.3	-2.51	19.3	-0.8	19.3	18.7	0.62	30.939 CC, ES		
300.0	300.0	300.5	300.5	0.5	0.5	-165.81	18.2	-1.9	20.8	19.7	1.13	18.515		
400.0	399.6	400.8	400.6	0.7	0.7	178.09	13.3	-6.3	25.2	23.5	1.70	14.821 SF		
500.0	498.8	500.3	499.4	1.0	1.0	160.85	4.7	-14.2	35.1	32.7	2.33	15.053		
600.0	597.1	598.6	596.3	1.4	1.3	148.79	-7.4	-25.2	51.4	48.4	3.02	17.032		
700.0	694.3	696.1	692.2	1.8	1.7	144.00	-20.3	-36.9	73.2	69.5	3.78	19.350		
800.0	790.7	793.0	787.5	2.4	2.1	142.84	-33.0	-48.5	98.0	93.5	4.51	21.744		
900.0	887.0	889.8	882.8	2.9	2.5	142.23	-45.8	-60.1	122.8	117.6	5.25	23.397		
1,000.0	983.3	986.7	978.1	3.4	2.8	141.83	-58.5	-71.7	147.7	141.7	6.02	24.520		
1,100.0	1,079.6	1,083.5	1,073.5	4.0	3.2	141.54	-71.3	-83.3	172.6	165.8	6.82	25.316		
1,200.0	1,175.9	1,180.4	1,168.8	4.5	3.6	141.33	-84.0	-94.9	197.5	189.8	7.62	25.908		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11B-12
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 11B-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=22' @ 8446.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 11B-12
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

