

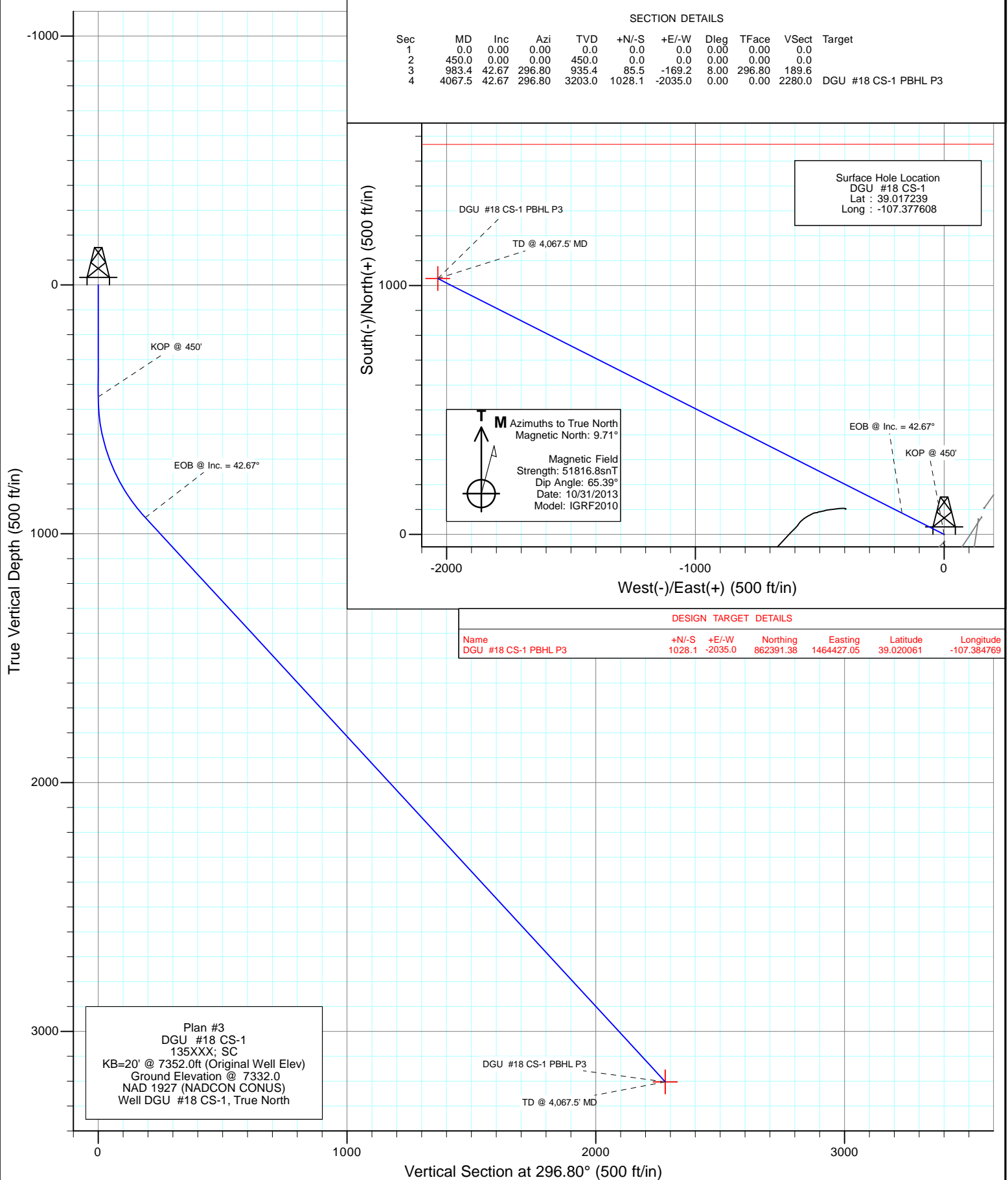


GUNNISON ENERGY CORPORATION

Project: Gunnison County, CO
Site: Deadman Gulch Unit
Well: DGU #18 CS-1
Wellbore: OH
Design: Plan #3



CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU #18 CS-1
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site:	Deadman Gulch Unit	North Reference:	True
Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Project	Gunnison County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado South 503		

Site		Deadman Gulch Unit			
Site Position:		Northing:	861,395.66 ft	Latitude:	39.017439
From:	Lat/Long	Easting:	1,466,432.79 ft	Longitude:	-107.377642
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.15 °

Well	DGU #18 CS-1					
Well Position	+N/-S	0.0 ft	Northing:	861,322.56 ft	Latitude:	39.017239
	+E/-W	0.0 ft	Easting:	1,466,440.99 ft	Longitude:	-107.377608
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,332.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	10/31/2013	9.71	65.39	51,817

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	296.80	

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
983.4	42.67	296.80	935.4	85.5	-169.2	8.00	8.00	-11.85	296.80	
4,067.5	42.67	296.80	3,203.0	1,028.1	-2,035.0	0.00	0.00	0.00	0.00	DGU #18 CS-1 PBHL

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Wellbore:	OH		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	KOP @ 450'
500.0	4.00	296.80	500.0	0.8	-1.6	1.7	8.00	8.00	
550.0	8.00	296.80	549.7	3.1	-6.2	7.0	8.00	8.00	
600.0	12.00	296.80	598.9	7.1	-14.0	15.7	8.00	8.00	
650.0	16.00	296.80	647.4	12.5	-24.8	27.7	8.00	8.00	
700.0	20.00	296.80	695.0	19.5	-38.6	43.2	8.00	8.00	
750.0	24.00	296.80	741.3	27.9	-55.3	61.9	8.00	8.00	
800.0	28.00	296.80	786.2	37.8	-74.8	83.8	8.00	8.00	
850.0	32.00	296.80	829.5	49.1	-97.1	108.8	8.00	8.00	
900.0	36.00	296.80	871.0	61.7	-122.1	136.8	8.00	8.00	
950.0	40.00	296.80	910.4	75.6	-149.6	167.6	8.00	8.00	
983.4	42.67	296.80	935.4	85.5	-169.2	189.6	8.00	8.00	EOB @ Inc. = 42.67°
1,000.0	42.67	296.80	947.6	90.6	-179.3	200.9	0.00	0.00	
1,100.0	42.67	296.80	1,021.2	121.1	-239.8	268.6	0.00	0.00	
1,200.0	42.67	296.80	1,094.7	151.7	-300.3	336.4	0.00	0.00	
1,300.0	42.67	296.80	1,168.2	182.3	-360.8	404.2	0.00	0.00	
1,400.0	42.67	296.80	1,241.7	212.8	-421.3	472.0	0.00	0.00	
1,500.0	42.67	296.80	1,315.3	243.4	-481.8	539.8	0.00	0.00	
1,600.0	42.67	296.80	1,388.8	274.0	-542.3	607.5	0.00	0.00	
1,700.0	42.67	296.80	1,462.3	304.5	-602.8	675.3	0.00	0.00	
1,800.0	42.67	296.80	1,535.8	335.1	-663.3	743.1	0.00	0.00	
1,900.0	42.67	296.80	1,609.4	365.7	-723.8	810.9	0.00	0.00	
2,000.0	42.67	296.80	1,682.9	396.2	-784.3	878.7	0.00	0.00	
2,100.0	42.67	296.80	1,756.4	426.8	-844.8	946.4	0.00	0.00	
2,200.0	42.67	296.80	1,829.9	457.3	-905.3	1,014.2	0.00	0.00	
2,300.0	42.67	296.80	1,903.5	487.9	-965.7	1,082.0	0.00	0.00	
2,400.0	42.67	296.80	1,977.0	518.5	-1,026.2	1,149.8	0.00	0.00	
2,500.0	42.67	296.80	2,050.5	549.0	-1,086.7	1,217.6	0.00	0.00	
2,600.0	42.67	296.80	2,124.0	579.6	-1,147.2	1,285.3	0.00	0.00	
2,700.0	42.67	296.80	2,197.6	610.2	-1,207.7	1,353.1	0.00	0.00	
2,800.0	42.67	296.80	2,271.1	640.7	-1,268.2	1,420.9	0.00	0.00	
2,900.0	42.67	296.80	2,344.6	671.3	-1,328.7	1,488.7	0.00	0.00	
3,000.0	42.67	296.80	2,418.1	701.9	-1,389.2	1,556.5	0.00	0.00	
3,100.0	42.67	296.80	2,491.7	732.4	-1,449.7	1,624.2	0.00	0.00	
3,200.0	42.67	296.80	2,565.2	763.0	-1,510.2	1,692.0	0.00	0.00	
3,300.0	42.67	296.80	2,638.7	793.6	-1,570.7	1,759.8	0.00	0.00	
3,400.0	42.67	296.80	2,712.2	824.1	-1,631.2	1,827.6	0.00	0.00	
3,500.0	42.67	296.80	2,785.8	854.7	-1,691.7	1,895.4	0.00	0.00	
3,600.0	42.67	296.80	2,859.3	885.2	-1,752.2	1,963.1	0.00	0.00	
3,700.0	42.67	296.80	2,932.8	915.8	-1,812.7	2,030.9	0.00	0.00	
3,800.0	42.67	296.80	3,006.3	946.4	-1,873.2	2,098.7	0.00	0.00	
3,900.0	42.67	296.80	3,079.9	976.9	-1,933.7	2,166.5	0.00	0.00	
4,000.0	42.67	296.80	3,153.4	1,007.5	-1,994.2	2,234.3	0.00	0.00	
4,067.5	42.67	296.80	3,203.0	1,028.1	-2,035.0	2,280.0	0.00	0.00	TD @ 4,067.5' MD

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Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site:	Deadman Gulch Unit	North Reference:	True
Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
DGU #18 CS-1 PBHL P	0.00	358.84	3,203.0	1,028.1	-2,035.0	862,391.38	1,464,427.05	39.020061	-107.384769
- plan hits target center									
- Point									
DMGU #18 CS-1 PBHL	0.00	358.84	3,057.0	920.7	-1,945.5	862,282.14	1,464,514.38	39.019766	-107.384454
- plan misses target center by 55.7ft at 3873.1ft MD (3060.1 TVD, 968.7 N, -1917.4 E)									
- Point									

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
450.0	450.0	0.0	0.0	KOP @ 450'	
983.4	935.4	85.5	-169.2	EOB @ Inc. = 42.67°	
4,067.5	3,203.0	1,028.1	-2,035.0	TD @ 4,067.5' MD	

Gunnison Energy Corporation

Gunnison County, CO

Deadman Gulch Unit

DGU #18 CS-1

OH

Plan #3

Anticollision Report

18 December, 2013

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU #18 CS-1
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	12/18/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	4,067.5	Plan #3 (OH)	MWD	MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Deadman Gulch Unit						
DGU #18 CS-2 - OH - Plan #2	400.0	400.0	29.5	28.2	22.234	CC, ES
DGU #18 CS-2 - OH - Plan #2	500.0	496.8	35.0	33.3	20.807	SF
Existing Hotchkiss Federal #18-2H - Existing - Existing	122.6	122.6	33.8	33.6	188.462	CC, ES
Existing Hotchkiss Federal #18-2H - Existing - Existing	500.0	499.1	39.0	38.1	46.422	SF
Existing Hotchkiss Federal 1289 #18-22D - Existing - Exi	1,355.0	1,206.3	112.3	103.0	12.045	CC, ES
Existing Hotchkiss Federal 1289 #18-22D - Existing - Exi	1,400.0	1,240.7	116.0	106.2	11.783	SF
DGU Hotchkiss Federal #1289 Pad						
DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #2	400.0	399.7	193.6	192.3	145.995	CC, ES
DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #2	900.0	870.7	287.3	283.5	76.104	SF
DGU Hotchkiss Fed 1289 #18-H4 - HZ - Plan #4	400.0	399.7	165.6	164.3	124.913	CC, ES
DGU Hotchkiss Fed 1289 #18-H4 - HZ - Plan #4	800.0	785.9	227.6	224.6	76.428	SF
DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3	400.0	399.7	150.9	149.6	113.836	CC, ES
DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3	800.0	785.9	214.2	211.2	72.679	SF

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Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Deadman Gulch Unit - DGU #18 CS-2 - OH - Plan #2												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	177.24	-29.5	1.4	29.5				
100.0	100.0	100.0	100.0	0.1	0.1	177.24	-29.5	1.4	29.5	29.2	0.28	105.612	
200.0	200.0	200.0	200.0	0.3	0.3	177.24	-29.5	1.4	29.5	28.9	0.63	46.939	
300.0	300.0	300.0	300.0	0.5	0.5	177.24	-29.5	1.4	29.5	28.5	0.98	30.175	
400.0	400.0	400.0	400.0	0.7	0.7	177.24	-29.5	1.4	29.5	28.2	1.33	22.234 CC, ES	
500.0	500.0	496.8	496.5	0.8	0.9	-113.49	-34.0	-3.3	35.0	33.3	1.68	20.807 SF	
600.0	598.9	590.5	588.2	1.1	1.1	-111.09	-46.8	-16.8	55.0	52.8	2.13	25.861	
700.0	695.0	678.1	671.2	1.5	1.6	-111.10	-66.2	-37.2	88.9	86.1	2.81	31.658	
800.0	786.2	758.0	743.3	2.2	2.2	-110.60	-89.8	-62.1	135.2	131.4	3.79	35.692	
900.0	871.0	829.2	804.0	3.2	2.9	-108.92	-115.4	-89.1	192.2	187.1	5.06	37.986	
1,000.0	947.6	891.9	854.1	4.5	3.6	-107.07	-141.3	-116.3	257.8	251.2	6.57	39.217	
1,100.0	1,021.2	950.0	897.5	5.8	4.4	-109.16	-167.9	-144.3	328.5	320.3	8.24	39.885	
1,200.0	1,094.7	1,001.9	933.5	7.2	5.1	-109.75	-193.6	-171.4	402.3	392.4	9.91	40.579	
1,300.0	1,168.2	1,064.1	974.4	8.6	6.0	-109.79	-225.9	-205.4	477.8	466.1	11.70	40.845	

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Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Deadman Gulch Unit - Existing Hotchkiss Federal #18-2H - Existing - Existing		Offset Site Error:		0.0 ft
Survey Program: 100-															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	-178.56	-33.9	-0.9	33.9								
100.0	100.0	100.0	100.0	0.1	0.0	-178.42	-33.8	-0.9	33.8	33.7	0.14	241.862					
122.6	122.6	122.6	122.6	0.2	0.0	-178.36	-33.8	-1.0	33.8	33.6	0.18	188.462	CC, ES				
200.0	200.0	199.8	199.8	0.3	0.0	-178.37	-34.0	-1.0	34.0	33.7	0.31	108.043					
300.0	300.0	299.7	299.7	0.5	0.0	-178.43	-34.7	-0.9	34.7	34.2	0.49	70.953					
400.0	400.0	399.3	399.3	0.7	0.0	-178.89	-36.1	-0.7	36.1	35.4	0.66	54.408					
500.0	500.0	499.1	499.1	0.8	0.0	-118.83	-38.1	-0.1	39.0	38.1	0.84	46.422	SF				
600.0	598.9	597.7	597.6	1.1	0.0	-132.89	-40.5	0.5	49.7	48.7	1.04	47.714					
700.0	695.0	693.2	693.1	1.5	0.0	-147.37	-43.0	1.1	74.0	72.7	1.27	58.403					
800.0	786.2	784.7	784.6	2.2	0.0	-156.80	-45.0	1.4	112.6	111.1	1.48	76.198					
900.0	871.0	868.3	868.2	3.2	0.0	-162.14	-46.7	1.5	164.4	162.7	1.68	97.702					
1,000.0	947.6	944.3	944.2	4.5	0.0	-165.43	-48.3	1.9	228.4	226.5	1.89	120.575					
1,100.0	1,021.2	1,018.2	1,018.0	5.8	0.0	-168.45	-49.8	2.0	296.1	294.0	2.09	141.778					
1,200.0	1,094.7	1,091.0	1,090.8	7.2	0.0	-170.32	-51.2	1.9	364.0	361.8	2.28	159.659					
1,300.0	1,168.2	1,163.9	1,163.7	8.6	0.0	-171.63	-52.6	2.0	432.2	429.7	2.47	175.096					

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Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Deadman Gulch Unit - Existing Hotchkiss Federal 1289 #18-22D - Existing - Existing													Offset Well Error:	0.0 ft
Survey Program: 92-														
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-75.49	102.4	-395.6	408.6					
100.0	100.0	95.0	95.0	0.1	0.0	-75.47	102.7	-396.1	409.2	409.1	0.14	2,926.568		
200.0	200.0	191.4	191.4	0.3	0.0	-75.44	103.3	-397.5	410.8	410.5	0.31	1,306.686		
300.0	300.0	284.5	284.5	0.5	0.0	-75.41	104.1	-400.0	413.6	413.2	0.49	846.088		
400.0	400.0	380.6	380.5	0.7	0.0	-75.44	104.9	-404.0	417.9	417.2	0.66	629.842		
500.0	500.0	481.6	481.3	0.8	0.0	-12.44	105.0	-408.7	420.6	419.8	0.84	502.636		
600.0	598.9	581.0	580.7	1.1	0.0	-13.22	104.7	-413.1	411.3	410.3	1.01	409.269		
700.0	695.0	676.0	675.5	1.5	0.0	-14.81	104.3	-417.7	389.0	387.8	1.18	329.413		
800.0	786.2	766.5	765.9	2.2	0.0	-17.55	103.8	-422.7	354.7	353.3	1.41	252.198		
900.0	871.0	852.7	852.0	3.2	0.0	-22.23	103.1	-428.0	309.3	307.5	1.80	171.879		
1,000.0	947.6	933.1	932.2	4.5	0.0	-29.85	102.6	-432.9	254.4	251.8	2.62	97.249		
1,100.0	1,021.2	1,010.8	1,009.8	5.8	0.0	-39.07	102.0	-437.3	198.8	194.9	3.92	50.653		
1,200.0	1,094.7	1,087.3	1,086.1	7.2	0.0	-53.06	101.4	-441.6	150.2	144.3	5.87	25.575		
1,300.0	1,168.2	1,164.2	1,162.9	8.6	0.0	-73.84	100.9	-445.7	117.8	109.5	8.26	14.263		
1,355.0	1,208.6	1,206.3	1,205.0	9.3	0.0	-87.46	100.6	-447.9	112.3	103.0	9.32	12.045 CC, ES		
1,400.0	1,241.7	1,240.7	1,239.3	10.0	0.0	-98.68	100.3	-449.6	116.0	106.2	9.85	11.783 SF		
1,500.0	1,315.3	1,316.8	1,315.3	11.3	0.0	-120.06	99.9	-453.1	146.4	136.5	9.89	14.795		
1,600.0	1,388.8	1,392.5	1,391.0	12.7	0.0	-134.75	99.4	-456.2	194.6	185.4	9.24	21.072		
1,700.0	1,462.3	1,468.2	1,466.6	14.1	0.0	-144.35	99.0	-459.2	250.7	242.2	8.56	29.300		
1,800.0	1,535.8	1,543.3	1,541.6	15.5	0.0	-150.72	98.7	-462.0	310.5	302.5	8.05	38.597		
1,900.0	1,609.4	1,618.1	1,616.4	16.9	0.0	-155.21	98.3	-464.6	372.4	364.7	7.68	48.468		
2,000.0	1,682.9	1,693.3	1,691.6	18.3	0.0	-158.51	97.9	-467.1	435.5	428.1	7.43	58.590		
2,100.0	1,756.4	1,769.6	1,767.9	19.7	0.0	-161.06	97.6	-469.6	499.2	491.9	7.26	68.761		

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU #18 CS-1
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	56.65	106.4	161.7	193.6					
100.0	100.0	99.7	99.7	0.1	0.1	56.65	106.4	161.7	193.6	193.3	0.28	694.231		
200.0	200.0	199.7	199.7	0.3	0.3	56.65	106.4	161.7	193.6	193.0	0.63	308.347		
300.0	300.0	299.7	299.7	0.5	0.5	56.65	106.4	161.7	193.6	192.6	0.98	198.164		
400.0	400.0	399.7	399.7	0.7	0.7	56.65	106.4	161.7	193.6	192.3	1.33	145.995 CC, ES		
428.2	428.2	427.9	427.9	0.7	0.7	119.91	106.4	161.7	193.7	192.3	1.42	135.973		
500.0	500.0	499.6	499.6	0.8	0.8	120.23	106.4	161.7	194.5	192.8	1.68	116.029		
600.0	598.9	598.6	598.6	1.1	1.0	123.12	106.4	161.7	201.8	199.8	2.06	97.962		
700.0	695.0	694.6	694.6	1.5	1.2	127.99	106.4	161.7	218.3	215.8	2.54	85.865		
800.0	786.2	785.9	785.9	2.2	1.3	133.46	106.4	161.7	246.3	243.2	3.13	78.793		
900.0	871.0	870.7	870.7	3.2	1.5	138.32	106.4	161.7	287.3	283.5	3.78	76.104 SF		
1,000.0	947.6	947.3	947.3	4.5	1.6	142.46	106.4	161.7	341.4	336.9	4.46	76.595		
1,100.0	1,021.2	1,020.9	1,020.9	5.8	1.7	147.97	106.4	161.7	401.8	396.8	4.98	80.696		
1,200.0	1,094.7	1,094.4	1,094.4	7.2	1.9	152.18	106.4	161.7	464.2	458.8	5.41	85.743		

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU #18 CS-1
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design											DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H4 - HZ - Plan #4			Offset Site Error:		0.0 ft
Survey Program:		0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)						
0.0	0.0	0.0	0.0	0.0	0.0	65.42	68.9	150.6	165.6							
100.0	100.0	99.7	99.7	0.1	0.1	65.42	68.9	150.6	165.6	165.3	0.28	593.995				
200.0	200.0	199.7	199.7	0.3	0.3	65.42	68.9	150.6	165.6	165.0	0.63	263.822				
300.0	300.0	299.7	299.7	0.5	0.5	65.42	68.9	150.6	165.6	164.6	0.98	169.549				
400.0	400.0	399.7	399.7	0.7	0.7	65.42	68.9	150.6	165.6	164.3	1.33	124.913	CC, ES			
428.1	428.1	427.8	427.8	0.7	0.7	128.69	68.9	150.6	165.8	164.4	1.42	116.412				
500.0	500.0	499.7	499.7	0.8	0.8	129.02	68.9	150.6	166.7	165.0	1.68	99.522				
600.0	598.9	598.6	598.6	1.1	1.0	131.98	68.9	150.6	175.8	173.8	2.05	85.900				
700.0	695.0	694.7	694.7	1.5	1.2	136.78	68.9	150.6	195.5	193.0	2.48	78.740				
800.0	786.2	785.9	785.9	2.2	1.3	141.94	68.9	150.6	227.6	224.6	2.98	76.428	SF			
900.0	871.0	870.7	870.7	3.2	1.5	146.33	68.9	150.6	272.8	269.3	3.50	77.857				
1,000.0	947.6	947.3	947.3	4.5	1.6	149.95	68.9	150.6	330.6	326.6	4.05	81.735				
1,100.0	1,021.2	1,020.9	1,020.9	5.8	1.7	154.68	68.9	150.6	393.9	389.4	4.47	88.061				
1,200.0	1,094.7	1,094.4	1,094.4	7.2	1.9	158.19	68.9	150.6	458.4	453.6	4.84	94.687				

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU #18 CS-1
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Reference Site:	Deadman Gulch Unit	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design												DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3		Offset Site Error:		0.0 ft			
Survey Program:				0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance												
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)									
0.0	0.0	0.0	0.0	0.0	0.0	66.21	60.9	138.1	150.9										
100.0	100.0	99.7	99.7	0.1	0.1	66.21	60.9	138.1	150.9	150.7	0.28	541.308							
200.0	200.0	199.7	199.7	0.3	0.3	66.21	60.9	138.1	150.9	150.3	0.63	240.425							
300.0	300.0	299.7	299.7	0.5	0.5	66.21	60.9	138.1	150.9	150.0	0.98	154.513							
400.0	400.0	399.7	399.7	0.7	0.7	66.21	60.9	138.1	150.9	149.6	1.33	113.836	CC, ES						
428.1	428.1	427.8	427.8	0.7	0.7	129.49	60.9	138.1	151.1	149.7	1.42	106.097							
500.0	500.0	499.6	499.6	0.8	0.8	129.85	60.9	138.1	152.1	150.4	1.68	90.769							
600.0	598.9	598.6	598.6	1.1	1.0	133.08	60.9	138.1	161.3	159.3	2.05	78.886							
700.0	695.0	694.6	694.6	1.5	1.2	138.24	60.9	138.1	181.5	179.0	2.47	73.375							
800.0	786.2	785.9	785.9	2.2	1.3	143.68	60.9	138.1	214.2	211.2	2.95	72.679	SF						
900.0	871.0	870.7	870.7	3.2	1.5	148.21	60.9	138.1	260.2	256.8	3.44	75.642							
1,000.0	947.6	947.3	947.3	4.5	1.6	151.87	60.9	138.1	318.8	314.8	3.94	80.924							
1,100.0	1,021.2	1,020.8	1,020.8	5.8	1.7	156.50	60.8	138.1	382.7	378.3	4.34	88.204							
1,200.0	1,094.7	1,093.5	1,093.5	7.2	1.9	160.07	59.4	137.9	447.8	443.1	4.67	95.935							

Cathedral Energy Services

Anticollision Report

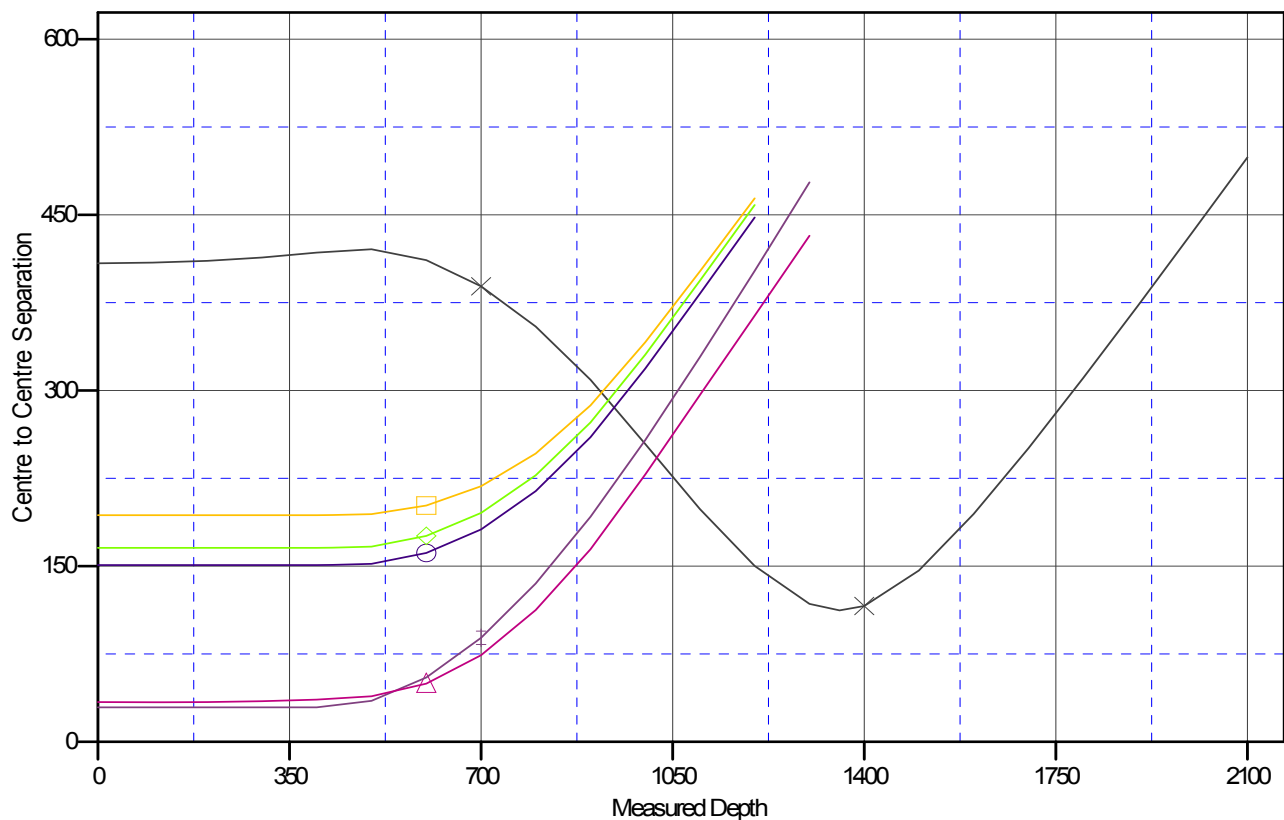
Company: Gunnison Energy Corporation
Project: Gunnison County, CO
Reference Site: Deadman Gulch Unit
Site Error: 0.0ft
Reference Well: DGU #18 CS-1
Well Error: 0.0ft
Reference Wellbore: OH
Reference Design: Plan #3

Local Co-ordinate Reference: Well DGU #18 CS-1
TVD Reference: KB=20' @ 7352.0ft (Original Well Elev)
MD Reference: KB=20' @ 7352.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=20' @ 7352.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: DGU #18 CS-1
 Coordinate System is US State Plane 1927 (Exact solution), Colorado South 503
 Grid Convergence at Surface is: -1.15°

Ladder Plot



LEGEND

Existing Federal 1289#18-22D, Existing, Existing V0
 Existing Hotchkiss Federal #18-2H, Existing, Existing V0
 DGU Hotchkiss Fed 1289#18-H5, HZ, Plan #2 V0
 DGU Hotchkiss Fed 1289#18-H3, HZ, Plan #2 V0
 DGU Hotchkiss Fed 1289#18-H4, HZ, Plan #2 V0

Gunnison Energy Corporation

Gunnison County, CO

Deadman Gulch Unit

DGU #18 CS-1

OH

Plan: Plan #3

Standard Planning Report - Geographic

18 December, 2013

Cathedral Energy Services

Planning Report - Geographic

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU #18 CS-1
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site:	Deadman Gulch Unit	North Reference:	True
Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Project	Gunnison County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado South 503		

Site		Deadman Gulch Unit			
Site Position:		Northing:	861,395.65 ft	Latitude:	39.017439
From:	Lat/Long	Easting:	1,466,432.79 ft	Longitude:	-107.377642
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.15 °

Well	DGU #18 CS-1					
Well Position	+N/-S	0.0 ft	Northing:	861,322.56 ft	Latitude:	39.017239
	+E/-W	0.0 ft	Easting:	1,466,440.99 ft	Longitude:	-107.377608
Position Uncertainty		0.0 ft	Wellhead Elevation:		Ground Level:	7,332.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/31/2013	9.71	65.39	51,817

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	296.80	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
983.4	42.67	296.80	935.4	85.5	-169.2	8.00	8.00	-11.85	296.80	
4,067.5	42.67	296.80	3,203.0	1,028.1	-2,035.0	0.00	0.00	0.00	0.00	DGU #18 CS-1 PBHI

Cathedral Energy Services

Planning Report - Geographic

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU #18 CS-1
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site:	Deadman Gulch Unit	North Reference:	True
Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
100.0	0.00	0.00	100.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
200.0	0.00	0.00	200.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
300.0	0.00	0.00	300.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
400.0	0.00	0.00	400.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
450.0	0.00	0.00	450.0	0.0	0.0	861,322.56	1,466,440.99	39.017239	-107.377608
KOP @ 450'									
500.0	4.00	296.80	500.0	0.8	-1.6	861,323.38	1,466,439.45	39.017241	-107.377614
550.0	8.00	296.80	549.7	3.1	-6.2	861,325.83	1,466,434.83	39.017248	-107.377630
600.0	12.00	296.80	598.9	7.1	-14.0	861,329.90	1,466,427.16	39.017258	-107.377657
650.0	16.00	296.80	647.4	12.5	-24.8	861,335.57	1,466,416.48	39.017273	-107.377695
700.0	20.00	296.80	695.0	19.5	-38.6	861,342.81	1,466,402.84	39.017292	-107.377744
750.0	24.00	296.80	741.3	27.9	-55.3	861,351.59	1,466,386.30	39.017316	-107.377803
800.0	28.00	296.80	786.2	37.8	-74.8	861,361.86	1,466,366.94	39.017343	-107.377872
850.0	32.00	296.80	829.5	49.1	-97.1	861,373.58	1,466,344.86	39.017374	-107.377950
900.0	36.00	296.80	871.0	61.7	-122.1	861,386.68	1,466,320.17	39.017408	-107.378038
950.0	40.00	296.80	910.4	75.6	-149.6	861,401.11	1,466,292.98	39.017446	-107.378135
983.4	42.67	296.80	935.4	85.5	-169.2	861,411.45	1,466,273.50	39.017474	-107.378204
EOB @ Inc. = 42.67°									
1,000.0	42.67	296.80	947.6	90.6	-179.3	861,416.73	1,466,263.56	39.017488	-107.378239
1,100.0	42.67	296.80	1,021.2	121.1	-239.8	861,448.50	1,466,203.69	39.017571	-107.378452
1,200.0	42.67	296.80	1,094.7	151.7	-300.3	861,480.27	1,466,143.82	39.017655	-107.378665
1,300.0	42.67	296.80	1,168.2	182.3	-360.8	861,512.05	1,466,083.95	39.017739	-107.378878
1,400.0	42.67	296.80	1,241.7	212.8	-421.3	861,543.82	1,466,024.08	39.017823	-107.379091
1,500.0	42.67	296.80	1,315.3	243.4	-481.8	861,575.60	1,465,964.21	39.017907	-107.379304
1,600.0	42.67	296.80	1,388.8	274.0	-542.3	861,607.37	1,465,904.34	39.017991	-107.379516
1,700.0	42.67	296.80	1,462.3	304.5	-602.8	861,639.14	1,465,844.47	39.018075	-107.379729
1,800.0	42.67	296.80	1,535.8	335.1	-663.3	861,670.92	1,465,784.60	39.018159	-107.379942
1,900.0	42.67	296.80	1,609.4	365.7	-723.8	861,702.69	1,465,724.73	39.018243	-107.380155
2,000.0	42.67	296.80	1,682.9	396.2	-784.3	861,734.47	1,465,664.85	39.018327	-107.380368
2,100.0	42.67	296.80	1,756.4	426.8	-844.8	861,766.24	1,465,604.98	39.018410	-107.380581
2,200.0	42.67	296.80	1,829.9	457.3	-905.3	861,798.01	1,465,545.11	39.018494	-107.380794
2,300.0	42.67	296.80	1,903.5	487.9	-965.7	861,829.79	1,465,485.24	39.018578	-107.381007
2,400.0	42.67	296.80	1,977.0	518.5	-1,026.2	861,861.56	1,465,425.37	39.018662	-107.381219
2,500.0	42.67	296.80	2,050.5	549.0	-1,086.7	861,893.34	1,465,365.50	39.018746	-107.381432
2,600.0	42.67	296.80	2,124.0	579.6	-1,147.2	861,925.11	1,465,305.63	39.018830	-107.381645
2,700.0	42.67	296.80	2,197.6	610.2	-1,207.7	861,956.88	1,465,245.76	39.018914	-107.381858
2,800.0	42.67	296.80	2,271.1	640.7	-1,268.2	861,988.66	1,465,185.89	39.018998	-107.382071
2,900.0	42.67	296.80	2,344.6	671.3	-1,328.7	862,020.43	1,465,126.02	39.019082	-107.382284
3,000.0	42.67	296.80	2,418.1	701.9	-1,389.2	862,052.20	1,465,066.15	39.019166	-107.382497
3,100.0	42.67	296.80	2,491.7	732.4	-1,449.7	862,083.98	1,465,006.28	39.019249	-107.382710
3,200.0	42.67	296.80	2,565.2	763.0	-1,510.2	862,115.75	1,464,946.41	39.019333	-107.382923
3,300.0	42.67	296.80	2,638.7	793.6	-1,570.7	862,147.53	1,464,886.54	39.019417	-107.383135
3,400.0	42.67	296.80	2,712.2	824.1	-1,631.2	862,179.30	1,464,826.67	39.019501	-107.383348
3,500.0	42.67	296.80	2,785.8	854.7	-1,691.7	862,211.07	1,464,766.80	39.019585	-107.383561
3,600.0	42.67	296.80	2,859.3	885.2	-1,752.2	862,242.85	1,464,706.93	39.019669	-107.383774
3,700.0	42.67	296.80	2,932.8	915.8	-1,812.7	862,274.62	1,464,647.06	39.019753	-107.383987
3,800.0	42.67	296.80	3,006.3	946.4	-1,873.2	862,306.40	1,464,587.19	39.019837	-107.384200
3,900.0	42.67	296.80	3,079.9	976.9	-1,933.7	862,338.17	1,464,527.31	39.019921	-107.384413
4,000.0	42.67	296.80	3,153.4	1,007.5	-1,994.2	862,369.94	1,464,467.44	39.020004	-107.384626
4,067.5	42.67	296.80	3,203.0	1,028.1	-2,035.0	862,391.38	1,464,427.05	39.020061	-107.384769
TD @ 4,067.5' MD									

Cathedral Energy Services

Planning Report - Geographic

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU #18 CS-1
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7352.0ft (Original Well Elev)
Site:	Deadman Gulch Unit	North Reference:	True
Well:	DGU #18 CS-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
DGU #18 CS-1 PBHL P	0.00	358.84	3,203.0	1,028.1	-2,035.0	862,391.38	1,464,427.05	39.020061	-107.384769
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
450.0	450.0	0.0	0.0	KOP @ 450'
983.4	935.4	85.5	-169.2	EOB @ Inc. = 42.67°
4,067.5	3,203.0	1,028.1	-2,035.0	TD @ 4,067.5' MD