

# **GREAT WESTERN OPERATING COMPANY**

**ADAMS COUNTY  
SEC 21-T1S-R67W  
GUS LD 34-363HNX**

**OWB**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**07 December, 2021**

Project: ADAMS COUNTY  
Site: SEC 21-T1S-R67W  
Well: GUS LD 34-363HNX  
Wellbore: OWB  
Design: PROPOSAL 1

PROJECT DETAILS: ADAMS COUNTY  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level



Azimuths to True North  
Magnetic North: 7.84°  
Magnetic Field  
Strength: 51676.0nT  
Dip Angle: 66.27°  
Date: 9/21/2021  
Model: IGRF2020

WELL DETAILS: GUS LD 34-363HNX

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1226390.46	3172296.13	39.953185°N	104.885411°W	

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1516.95	36.51	94.90	1436.25	-32.03	373.40	3.00	94.90	153.07	
4	8370.87	36.51	94.90	6945.22	-380.54	4436.17	0.00	0.00	1818.48	
5	9460.33	90.00	180.12	7493.00	-1096.71	4838.70	8.00	86.15	2627.20	GUS 34-363HNX-LP
6	22078.74	90.00	180.12	7493.00	-13715.09	4811.99	0.00	0.00	14534.71	GUS 34-363HNX-BTM PERF
7	22080.15	90.00	180.15	7493.00	-13716.50	4811.98	2.00	90.00	14536.05	GUS 34-363HNX-PBHL
8	22178.92	90.00	180.15	7493.00	-13815.27	4811.73	0.00	0.00	14629.23	GUS 34-363HNX-PBHL

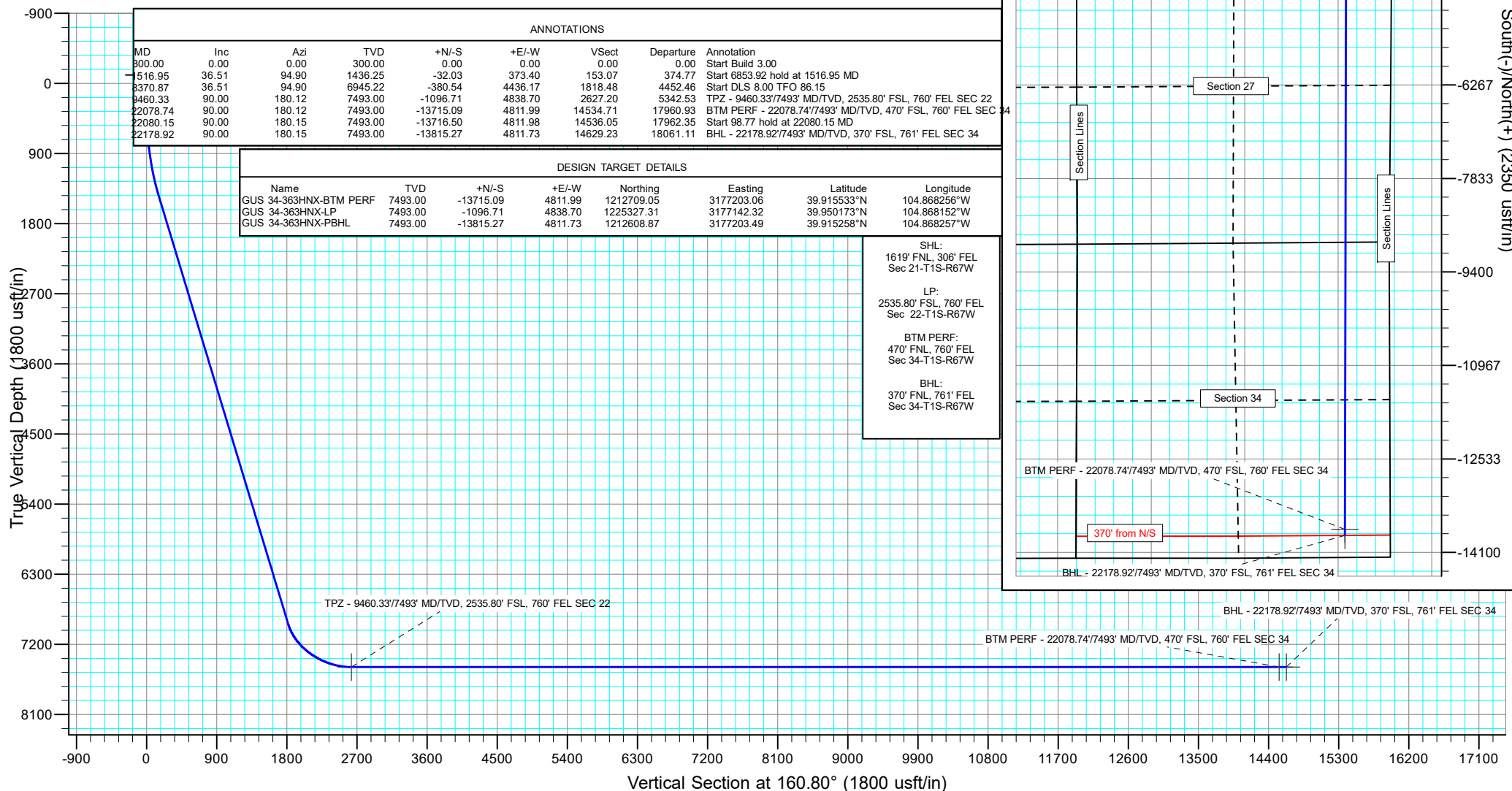
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	Start Build 3.00
1516.95	36.51	94.90	1436.25	-32.03	373.40	153.07	374.77	Start 6853.92 hold at 1516.95 MD
8370.87	36.51	94.90	6945.22	-380.54	4436.17	1818.48	4452.46	Start DLS 8.00 TFO 86.15
9460.33	90.00	180.12	7493.00	-1096.71	4838.70	2627.20	5342.53	TPZ - 9460.33/7493' MD/TVD, 2535.80' FSL, 760' FEL SEC 22
22078.74	90.00	180.12	7493.00	-13715.09	4811.99	14534.71	17960.93	BTM PERF - 22078.74/7493' MD/TVD, 470' FSL, 760' FEL SEC 34
22080.15	90.00	180.15	7493.00	-13716.50	4811.98	14536.05	17962.35	Start 98.77 hold at 22080.15 MD
22178.92	90.00	180.15	7493.00	-13815.27	4811.73	14629.23	18061.11	BHL - 22178.92/7493' MD/TVD, 370' FSL, 761' FEL SEC 34

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
GUS 34-363HNX-BTM PERF	7493.00	-13715.09	4811.99	1212709.05	3177203.06	39.915533°N	104.868256°W
GUS 34-363HNX-LP	7493.00	-1096.71	4838.70	1225327.31	3177142.32	39.950173°N	104.868152°W
GUS 34-363HNX-PBHL	7493.00	-13815.27	4811.73	1212608.87	3177203.49	39.915258°N	104.868257°W

SHL:  
1619' FNL, 306' FEL  
Sec 21-T1S-R67W  
LP:  
2535.80' FSL, 760' FEL  
Sec 22-T1S-R67W  
BTM PERF:  
470' FNL, 760' FEL  
Sec 34-T1S-R67W  
BHL:  
370' FNL, 761' FEL  
Sec 34-T1S-R67W



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNNX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNNX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	ADAMS COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		SEC 21-T1S-R67W				
Site Position:		Northing:	1,228,012.10	usft	Latitude:	39.957631°N
From:	Lat/Long	Easting:	3,172,590.18	usft	Longitude:	104.884322°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well		GUS LD 34-363HNNX				
Well Position	+N/-S	0.00 usft	Northing:	1,226,390.46 usft	Latitude:	39.953185°N
	+E/-W	0.00 usft	Easting:	3,172,296.13 usft	Longitude:	104.885411°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,124.00 usft
Grid Convergence:		0.40 °				

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	9/21/2021	7.84	66.27	51,676.03319621

<b>Design</b>	PROPOSAL 1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	160.80	

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/7/2021			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	22,178.92	PROPOSAL 1 (OWB)	MWD	
				OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,516.95	36.51	94.90	1,436.25	-32.03	373.40	3.00	3.00	0.00	94.90	
8,370.87	36.51	94.90	6,945.22	-380.54	4,436.17	0.00	0.00	0.00	0.00	
9,460.33	90.00	180.12	7,493.00	-1,096.71	4,838.70	8.00	4.91	7.82	86.15	GUS 34-363HNNX-LP
22,078.74	90.00	180.12	7,493.00	-13,715.09	4,811.99	0.00	0.00	0.00	0.00	GUS 34-363HNNX-BT
22,080.15	90.00	180.15	7,493.00	-13,716.51	4,811.98	2.00	0.00	2.00	90.00	GUS 34-363HNNX-PB
22,178.92	90.00	180.15	7,493.00	-13,815.27	4,811.73	0.00	0.00	0.00	0.00	GUS 34-363HNNX-PB

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.00									
400.00	3.00	94.90	399.95	-0.22	2.61	1.07	3.00	3.00	0.00
500.00	6.00	94.90	499.63	-0.89	10.42	4.27	3.00	3.00	0.00
600.00	9.00	94.90	598.77	-2.01	23.43	9.60	3.00	3.00	0.00
700.00	12.00	94.90	697.08	-3.57	41.58	17.05	3.00	3.00	0.00
800.00	15.00	94.90	794.31	-5.56	64.84	26.58	3.00	3.00	0.00
900.00	18.00	94.90	890.18	-7.99	93.13	38.18	3.00	3.00	0.00
1,000.00	21.00	94.90	984.43	-10.84	126.39	51.81	3.00	3.00	0.00
1,100.00	24.00	94.90	1,076.81	-14.11	164.51	67.44	3.00	3.00	0.00
1,200.00	27.00	94.90	1,167.06	-17.79	207.40	85.02	3.00	3.00	0.00
1,300.00	30.00	94.90	1,254.93	-21.87	254.94	104.50	3.00	3.00	0.00
1,400.00	33.00	94.90	1,340.18	-26.33	306.99	125.84	3.00	3.00	0.00
1,500.00	36.00	94.90	1,422.59	-31.17	363.42	148.97	3.00	3.00	0.00
1,516.95	36.51	94.90	1,436.25	-32.03	373.40	153.07	3.00	3.00	0.00
Start 6853.92 hold at 1516.95 MD									
1,600.00	36.51	94.90	1,503.01	-36.25	422.63	173.25	0.00	0.00	0.00
1,700.00	36.51	94.90	1,583.39	-41.34	481.91	197.54	0.00	0.00	0.00
1,800.00	36.51	94.90	1,663.76	-46.42	541.19	221.84	0.00	0.00	0.00
1,900.00	36.51	94.90	1,744.14	-51.51	600.46	246.14	0.00	0.00	0.00
2,000.00	36.51	94.90	1,824.52	-56.59	659.74	270.44	0.00	0.00	0.00
2,100.00	36.51	94.90	1,904.89	-61.68	719.02	294.74	0.00	0.00	0.00
2,200.00	36.51	94.90	1,985.27	-66.76	778.29	319.04	0.00	0.00	0.00
2,300.00	36.51	94.90	2,065.65	-71.85	837.57	343.34	0.00	0.00	0.00
2,400.00	36.51	94.90	2,146.02	-76.93	896.84	367.64	0.00	0.00	0.00
2,500.00	36.51	94.90	2,226.40	-82.02	956.12	391.93	0.00	0.00	0.00
2,600.00	36.51	94.90	2,306.78	-87.10	1,015.40	416.23	0.00	0.00	0.00
2,700.00	36.51	94.90	2,387.15	-92.19	1,074.67	440.53	0.00	0.00	0.00
2,800.00	36.51	94.90	2,467.53	-97.27	1,133.95	464.83	0.00	0.00	0.00
2,900.00	36.51	94.90	2,547.91	-102.36	1,193.23	489.13	0.00	0.00	0.00
3,000.00	36.51	94.90	2,628.28	-107.44	1,252.50	513.43	0.00	0.00	0.00
3,100.00	36.51	94.90	2,708.66	-112.53	1,311.78	537.73	0.00	0.00	0.00
3,200.00	36.51	94.90	2,789.04	-117.61	1,371.06	562.03	0.00	0.00	0.00
3,300.00	36.51	94.90	2,869.41	-122.70	1,430.33	586.32	0.00	0.00	0.00
3,400.00	36.51	94.90	2,949.79	-127.78	1,489.61	610.62	0.00	0.00	0.00
3,500.00	36.51	94.90	3,030.17	-132.87	1,548.89	634.92	0.00	0.00	0.00
3,600.00	36.51	94.90	3,110.55	-137.95	1,608.16	659.22	0.00	0.00	0.00
3,700.00	36.51	94.90	3,190.92	-143.04	1,667.44	683.52	0.00	0.00	0.00
3,800.00	36.51	94.90	3,271.30	-148.12	1,726.72	707.82	0.00	0.00	0.00
3,900.00	36.51	94.90	3,351.68	-153.21	1,785.99	732.12	0.00	0.00	0.00
4,000.00	36.51	94.90	3,432.05	-158.29	1,845.27	756.42	0.00	0.00	0.00
4,100.00	36.51	94.90	3,512.43	-163.38	1,904.55	780.71	0.00	0.00	0.00
4,200.00	36.51	94.90	3,592.81	-168.46	1,963.82	805.01	0.00	0.00	0.00
4,300.00	36.51	94.90	3,673.18	-173.55	2,023.10	829.31	0.00	0.00	0.00
4,400.00	36.51	94.90	3,753.56	-178.63	2,082.38	853.61	0.00	0.00	0.00
4,500.00	36.51	94.90	3,833.94	-183.72	2,141.65	877.91	0.00	0.00	0.00
4,600.00	36.51	94.90	3,914.31	-188.80	2,200.93	902.21	0.00	0.00	0.00
4,700.00	36.51	94.90	3,994.69	-193.89	2,260.20	926.51	0.00	0.00	0.00
4,800.00	36.51	94.90	4,075.07	-198.97	2,319.48	950.80	0.00	0.00	0.00
4,900.00	36.51	94.90	4,155.44	-204.06	2,378.76	975.10	0.00	0.00	0.00
5,000.00	36.51	94.90	4,235.82	-209.14	2,438.03	999.40	0.00	0.00	0.00
5,100.00	36.51	94.90	4,316.20	-214.23	2,497.31	1,023.70	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HXX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HXX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	36.51	94.90	4,396.58	-219.31	2,556.59	1,048.00	0.00	0.00	0.00
5,300.00	36.51	94.90	4,476.95	-224.39	2,615.86	1,072.30	0.00	0.00	0.00
5,400.00	36.51	94.90	4,557.33	-229.48	2,675.14	1,096.60	0.00	0.00	0.00
5,500.00	36.51	94.90	4,637.71	-234.56	2,734.42	1,120.90	0.00	0.00	0.00
5,600.00	36.51	94.90	4,718.08	-239.65	2,793.69	1,145.19	0.00	0.00	0.00
5,700.00	36.51	94.90	4,798.46	-244.73	2,852.97	1,169.49	0.00	0.00	0.00
5,800.00	36.51	94.90	4,878.84	-249.82	2,912.25	1,193.79	0.00	0.00	0.00
5,900.00	36.51	94.90	4,959.21	-254.90	2,971.52	1,218.09	0.00	0.00	0.00
6,000.00	36.51	94.90	5,039.59	-259.99	3,030.80	1,242.39	0.00	0.00	0.00
6,100.00	36.51	94.90	5,119.97	-265.07	3,090.08	1,266.69	0.00	0.00	0.00
6,200.00	36.51	94.90	5,200.34	-270.16	3,149.35	1,290.99	0.00	0.00	0.00
6,300.00	36.51	94.90	5,280.72	-275.24	3,208.63	1,315.29	0.00	0.00	0.00
6,400.00	36.51	94.90	5,361.10	-280.33	3,267.91	1,339.58	0.00	0.00	0.00
6,500.00	36.51	94.90	5,441.47	-285.41	3,327.18	1,363.88	0.00	0.00	0.00
6,600.00	36.51	94.90	5,521.85	-290.50	3,386.46	1,388.18	0.00	0.00	0.00
6,700.00	36.51	94.90	5,602.23	-295.58	3,445.74	1,412.48	0.00	0.00	0.00
6,800.00	36.51	94.90	5,682.60	-300.67	3,505.01	1,436.78	0.00	0.00	0.00
6,900.00	36.51	94.90	5,762.98	-305.75	3,564.29	1,461.08	0.00	0.00	0.00
7,000.00	36.51	94.90	5,843.36	-310.84	3,623.56	1,485.38	0.00	0.00	0.00
7,100.00	36.51	94.90	5,923.74	-315.92	3,682.84	1,509.67	0.00	0.00	0.00
7,200.00	36.51	94.90	6,004.11	-321.01	3,742.12	1,533.97	0.00	0.00	0.00
7,300.00	36.51	94.90	6,084.49	-326.09	3,801.39	1,558.27	0.00	0.00	0.00
7,400.00	36.51	94.90	6,164.87	-331.18	3,860.67	1,582.57	0.00	0.00	0.00
7,500.00	36.51	94.90	6,245.24	-336.26	3,919.95	1,606.87	0.00	0.00	0.00
7,600.00	36.51	94.90	6,325.62	-341.35	3,979.22	1,631.17	0.00	0.00	0.00
7,700.00	36.51	94.90	6,406.00	-346.43	4,038.50	1,655.47	0.00	0.00	0.00
7,800.00	36.51	94.90	6,486.37	-351.52	4,097.78	1,679.77	0.00	0.00	0.00
7,900.00	36.51	94.90	6,566.75	-356.60	4,157.05	1,704.06	0.00	0.00	0.00
8,000.00	36.51	94.90	6,647.13	-361.69	4,216.33	1,728.36	0.00	0.00	0.00
8,100.00	36.51	94.90	6,727.50	-366.77	4,275.61	1,752.66	0.00	0.00	0.00
8,200.00	36.51	94.90	6,807.88	-371.86	4,334.88	1,776.96	0.00	0.00	0.00
8,300.00	36.51	94.90	6,888.26	-376.94	4,394.16	1,801.26	0.00	0.00	0.00
8,370.87	36.51	94.90	6,945.22	-380.54	4,436.17	1,818.48	0.00	0.00	0.00
Start DLS 8.00 TFO 86.15									
8,400.00	36.73	98.79	6,968.60	-382.62	4,453.41	1,826.11	8.00	0.75	13.35
8,450.00	37.40	105.34	7,008.52	-388.92	4,482.84	1,841.74	8.00	1.33	13.09
8,500.00	38.41	111.64	7,047.99	-398.67	4,511.93	1,860.52	8.00	2.03	12.60
8,550.00	39.75	117.62	7,086.81	-411.82	4,540.54	1,882.34	8.00	2.67	11.97
8,600.00	41.37	123.25	7,124.81	-428.29	4,568.54	1,907.11	8.00	3.25	11.25
8,650.00	43.25	128.49	7,161.80	-448.02	4,595.78	1,934.70	8.00	3.76	10.49
8,700.00	45.36	133.36	7,197.59	-470.91	4,622.13	1,964.98	8.00	4.21	9.74
8,750.00	47.65	137.88	7,232.01	-496.84	4,647.46	1,997.80	8.00	4.59	9.03
8,800.00	50.12	142.07	7,264.89	-525.68	4,671.66	2,033.00	8.00	4.92	8.37
8,850.00	52.72	145.96	7,296.08	-557.31	4,694.59	2,070.41	8.00	5.20	7.78
8,900.00	55.44	149.58	7,325.42	-591.56	4,716.16	2,109.85	8.00	5.44	7.25
8,950.00	58.26	152.97	7,352.77	-628.27	4,736.26	2,151.12	8.00	5.64	6.78
9,000.00	61.16	156.16	7,377.99	-667.25	4,754.78	2,194.03	8.00	5.81	6.37
9,050.00	64.13	159.17	7,400.96	-708.32	4,771.64	2,238.36	8.00	5.95	6.02
9,100.00	67.17	162.03	7,421.58	-751.28	4,786.75	2,283.90	8.00	6.07	5.72
9,150.00	70.25	164.77	7,439.73	-795.92	4,800.05	2,330.43	8.00	6.17	5.47
9,200.00	73.37	167.40	7,455.34	-842.02	4,811.46	2,377.72	8.00	6.25	5.26
9,250.00	76.53	169.94	7,468.32	-889.35	4,820.94	2,425.53	8.00	6.31	5.09
9,300.00	79.71	172.42	7,478.62	-937.69	4,828.43	2,473.65	8.00	6.36	4.96
9,350.00	82.91	174.85	7,486.17	-986.81	4,833.90	2,521.83	8.00	6.40	4.86

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.00	86.12	177.25	7,490.96	-1,036.45	4,837.32	2,569.83	8.00	6.42	4.79
9,450.00	89.33	179.63	7,492.94	-1,086.38	4,838.68	2,617.43	8.00	6.43	4.76
9,460.33	90.00	180.12	7,493.00	-1,096.71	4,838.70	2,627.20	8.00	6.44	4.75
Start 12618.41 hold at 9460.33 MD									
9,500.00	90.00	180.12	7,493.00	-1,136.38	4,838.62	2,664.63	0.00	0.00	0.00
9,600.00	90.00	180.12	7,493.00	-1,236.38	4,838.41	2,759.00	0.00	0.00	0.00
9,700.00	90.00	180.12	7,493.00	-1,336.38	4,838.20	2,853.36	0.00	0.00	0.00
9,800.00	90.00	180.12	7,493.00	-1,436.38	4,837.98	2,947.73	0.00	0.00	0.00
9,900.00	90.00	180.12	7,493.00	-1,536.38	4,837.77	3,042.10	0.00	0.00	0.00
10,000.00	90.00	180.12	7,493.00	-1,636.38	4,837.56	3,136.46	0.00	0.00	0.00
10,100.00	90.00	180.12	7,493.00	-1,736.38	4,837.35	3,230.83	0.00	0.00	0.00
10,200.00	90.00	180.12	7,493.00	-1,836.38	4,837.14	3,325.20	0.00	0.00	0.00
10,300.00	90.00	180.12	7,493.00	-1,936.38	4,836.93	3,419.56	0.00	0.00	0.00
10,400.00	90.00	180.12	7,493.00	-2,036.38	4,836.71	3,513.93	0.00	0.00	0.00
10,500.00	90.00	180.12	7,493.00	-2,136.38	4,836.50	3,608.29	0.00	0.00	0.00
10,600.00	90.00	180.12	7,493.00	-2,236.38	4,836.29	3,702.66	0.00	0.00	0.00
10,700.00	90.00	180.12	7,493.00	-2,336.38	4,836.08	3,797.03	0.00	0.00	0.00
10,800.00	90.00	180.12	7,493.00	-2,436.38	4,835.87	3,891.39	0.00	0.00	0.00
10,900.00	90.00	180.12	7,493.00	-2,536.38	4,835.66	3,985.76	0.00	0.00	0.00
11,000.00	90.00	180.12	7,493.00	-2,636.38	4,835.44	4,080.13	0.00	0.00	0.00
11,100.00	90.00	180.12	7,493.00	-2,736.38	4,835.23	4,174.49	0.00	0.00	0.00
11,200.00	90.00	180.12	7,493.00	-2,836.38	4,835.02	4,268.86	0.00	0.00	0.00
11,300.00	90.00	180.12	7,493.00	-2,936.38	4,834.81	4,363.22	0.00	0.00	0.00
11,400.00	90.00	180.12	7,493.00	-3,036.38	4,834.60	4,457.59	0.00	0.00	0.00
11,500.00	90.00	180.12	7,493.00	-3,136.38	4,834.39	4,551.96	0.00	0.00	0.00
11,600.00	90.00	180.12	7,493.00	-3,236.38	4,834.17	4,646.32	0.00	0.00	0.00
11,700.00	90.00	180.12	7,493.00	-3,336.38	4,833.96	4,740.69	0.00	0.00	0.00
11,800.00	90.00	180.12	7,493.00	-3,436.38	4,833.75	4,835.06	0.00	0.00	0.00
11,900.00	90.00	180.12	7,493.00	-3,536.38	4,833.54	4,929.42	0.00	0.00	0.00
12,000.00	90.00	180.12	7,493.00	-3,636.37	4,833.33	5,023.79	0.00	0.00	0.00
12,100.00	90.00	180.12	7,493.00	-3,736.37	4,833.12	5,118.15	0.00	0.00	0.00
12,200.00	90.00	180.12	7,493.00	-3,836.37	4,832.90	5,212.52	0.00	0.00	0.00
12,300.00	90.00	180.12	7,493.00	-3,936.37	4,832.69	5,306.89	0.00	0.00	0.00
12,400.00	90.00	180.12	7,493.00	-4,036.37	4,832.48	5,401.25	0.00	0.00	0.00
12,500.00	90.00	180.12	7,493.00	-4,136.37	4,832.27	5,495.62	0.00	0.00	0.00
12,600.00	90.00	180.12	7,493.00	-4,236.37	4,832.06	5,589.99	0.00	0.00	0.00
12,700.00	90.00	180.12	7,493.00	-4,336.37	4,831.85	5,684.35	0.00	0.00	0.00
12,800.00	90.00	180.12	7,493.00	-4,436.37	4,831.63	5,778.72	0.00	0.00	0.00
12,900.00	90.00	180.12	7,493.00	-4,536.37	4,831.42	5,873.08	0.00	0.00	0.00
13,000.00	90.00	180.12	7,493.00	-4,636.37	4,831.21	5,967.45	0.00	0.00	0.00
13,100.00	90.00	180.12	7,493.00	-4,736.37	4,831.00	6,061.82	0.00	0.00	0.00
13,200.00	90.00	180.12	7,493.00	-4,836.37	4,830.79	6,156.18	0.00	0.00	0.00
13,300.00	90.00	180.12	7,493.00	-4,936.37	4,830.58	6,250.55	0.00	0.00	0.00
13,400.00	90.00	180.12	7,493.00	-5,036.37	4,830.36	6,344.91	0.00	0.00	0.00
13,500.00	90.00	180.12	7,493.00	-5,136.37	4,830.15	6,439.28	0.00	0.00	0.00
13,600.00	90.00	180.12	7,493.00	-5,236.37	4,829.94	6,533.65	0.00	0.00	0.00
13,700.00	90.00	180.12	7,493.00	-5,336.37	4,829.73	6,628.01	0.00	0.00	0.00
13,800.00	90.00	180.12	7,493.00	-5,436.37	4,829.52	6,722.38	0.00	0.00	0.00
13,900.00	90.00	180.12	7,493.00	-5,536.37	4,829.31	6,816.75	0.00	0.00	0.00
14,000.00	90.00	180.12	7,493.00	-5,636.37	4,829.09	6,911.11	0.00	0.00	0.00
14,100.00	90.00	180.12	7,493.00	-5,736.37	4,828.88	7,005.48	0.00	0.00	0.00
14,200.00	90.00	180.12	7,493.00	-5,836.37	4,828.67	7,099.84	0.00	0.00	0.00
14,300.00	90.00	180.12	7,493.00	-5,936.37	4,828.46	7,194.21	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
14,400.00	90.00	180.12	7,493.00	-6,036.37	4,828.25	7,288.58	0.00	0.00	0.00	
14,500.00	90.00	180.12	7,493.00	-6,136.37	4,828.04	7,382.94	0.00	0.00	0.00	
14,600.00	90.00	180.12	7,493.00	-6,236.37	4,827.82	7,477.31	0.00	0.00	0.00	
14,700.00	90.00	180.12	7,493.00	-6,336.37	4,827.61	7,571.68	0.00	0.00	0.00	
14,800.00	90.00	180.12	7,493.00	-6,436.37	4,827.40	7,666.04	0.00	0.00	0.00	
14,900.00	90.00	180.12	7,493.00	-6,536.37	4,827.19	7,760.41	0.00	0.00	0.00	
15,000.00	90.00	180.12	7,493.00	-6,636.37	4,826.98	7,854.77	0.00	0.00	0.00	
15,100.00	90.00	180.12	7,493.00	-6,736.37	4,826.77	7,949.14	0.00	0.00	0.00	
15,200.00	90.00	180.12	7,493.00	-6,836.37	4,826.55	8,043.51	0.00	0.00	0.00	
15,300.00	90.00	180.12	7,493.00	-6,936.37	4,826.34	8,137.87	0.00	0.00	0.00	
15,400.00	90.00	180.12	7,493.00	-7,036.37	4,826.13	8,232.24	0.00	0.00	0.00	
15,500.00	90.00	180.12	7,493.00	-7,136.37	4,825.92	8,326.61	0.00	0.00	0.00	
15,600.00	90.00	180.12	7,493.00	-7,236.37	4,825.71	8,420.97	0.00	0.00	0.00	
15,700.00	90.00	180.12	7,493.00	-7,336.37	4,825.50	8,515.34	0.00	0.00	0.00	
15,800.00	90.00	180.12	7,493.00	-7,436.37	4,825.28	8,609.70	0.00	0.00	0.00	
15,900.00	90.00	180.12	7,493.00	-7,536.37	4,825.07	8,704.07	0.00	0.00	0.00	
16,000.00	90.00	180.12	7,493.00	-7,636.37	4,824.86	8,798.44	0.00	0.00	0.00	
16,100.00	90.00	180.12	7,493.00	-7,736.37	4,824.65	8,892.80	0.00	0.00	0.00	
16,200.00	90.00	180.12	7,493.00	-7,836.37	4,824.44	8,987.17	0.00	0.00	0.00	
16,300.00	90.00	180.12	7,493.00	-7,936.37	4,824.23	9,081.54	0.00	0.00	0.00	
16,400.00	90.00	180.12	7,493.00	-8,036.37	4,824.01	9,175.90	0.00	0.00	0.00	
16,500.00	90.00	180.12	7,493.00	-8,136.36	4,823.80	9,270.27	0.00	0.00	0.00	
16,600.00	90.00	180.12	7,493.00	-8,236.36	4,823.59	9,364.63	0.00	0.00	0.00	
16,700.00	90.00	180.12	7,493.00	-8,336.36	4,823.38	9,459.00	0.00	0.00	0.00	
16,800.00	90.00	180.12	7,493.00	-8,436.36	4,823.17	9,553.37	0.00	0.00	0.00	
16,900.00	90.00	180.12	7,493.00	-8,536.36	4,822.96	9,647.73	0.00	0.00	0.00	
17,000.00	90.00	180.12	7,493.00	-8,636.36	4,822.74	9,742.10	0.00	0.00	0.00	
17,100.00	90.00	180.12	7,493.00	-8,736.36	4,822.53	9,836.47	0.00	0.00	0.00	
17,200.00	90.00	180.12	7,493.00	-8,836.36	4,822.32	9,930.83	0.00	0.00	0.00	
17,300.00	90.00	180.12	7,493.00	-8,936.36	4,822.11	10,025.20	0.00	0.00	0.00	
17,400.00	90.00	180.12	7,493.00	-9,036.36	4,821.90	10,119.56	0.00	0.00	0.00	
17,500.00	90.00	180.12	7,493.00	-9,136.36	4,821.68	10,213.93	0.00	0.00	0.00	
17,600.00	90.00	180.12	7,493.00	-9,236.36	4,821.47	10,308.30	0.00	0.00	0.00	
17,700.00	90.00	180.12	7,493.00	-9,336.36	4,821.26	10,402.66	0.00	0.00	0.00	
17,800.00	90.00	180.12	7,493.00	-9,436.36	4,821.05	10,497.03	0.00	0.00	0.00	
17,900.00	90.00	180.12	7,493.00	-9,536.36	4,820.84	10,591.40	0.00	0.00	0.00	
18,000.00	90.00	180.12	7,493.00	-9,636.36	4,820.63	10,685.76	0.00	0.00	0.00	
18,100.00	90.00	180.12	7,493.00	-9,736.36	4,820.41	10,780.13	0.00	0.00	0.00	
18,200.00	90.00	180.12	7,493.00	-9,836.36	4,820.20	10,874.49	0.00	0.00	0.00	
18,300.00	90.00	180.12	7,493.00	-9,936.36	4,819.99	10,968.86	0.00	0.00	0.00	
18,400.00	90.00	180.12	7,493.00	-10,036.36	4,819.78	11,063.23	0.00	0.00	0.00	
18,500.00	90.00	180.12	7,493.00	-10,136.36	4,819.57	11,157.59	0.00	0.00	0.00	
18,600.00	90.00	180.12	7,493.00	-10,236.36	4,819.36	11,251.96	0.00	0.00	0.00	
18,700.00	90.00	180.12	7,493.00	-10,336.36	4,819.14	11,346.33	0.00	0.00	0.00	
18,800.00	90.00	180.12	7,493.00	-10,436.36	4,818.93	11,440.69	0.00	0.00	0.00	
18,900.00	90.00	180.12	7,493.00	-10,536.36	4,818.72	11,535.06	0.00	0.00	0.00	
19,000.00	90.00	180.12	7,493.00	-10,636.36	4,818.51	11,629.42	0.00	0.00	0.00	
19,100.00	90.00	180.12	7,493.00	-10,736.36	4,818.30	11,723.79	0.00	0.00	0.00	
19,200.00	90.00	180.12	7,493.00	-10,836.36	4,818.09	11,818.16	0.00	0.00	0.00	
19,300.00	90.00	180.12	7,493.00	-10,936.36	4,817.87	11,912.52	0.00	0.00	0.00	
19,400.00	90.00	180.12	7,493.00	-11,036.36	4,817.66	12,006.89	0.00	0.00	0.00	
19,500.00	90.00	180.12	7,493.00	-11,136.36	4,817.45	12,101.25	0.00	0.00	0.00	
19,600.00	90.00	180.12	7,493.00	-11,236.36	4,817.24	12,195.62	0.00	0.00	0.00	
19,700.00	90.00	180.12	7,493.00	-11,336.36	4,817.03	12,289.99	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNN
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
19,800.00	90.00	180.12	7,493.00	-11,436.36	4,816.82	12,384.35	0.00	0.00	0.00	
19,900.00	90.00	180.12	7,493.00	-11,536.36	4,816.60	12,478.72	0.00	0.00	0.00	
20,000.00	90.00	180.12	7,493.00	-11,636.36	4,816.39	12,573.09	0.00	0.00	0.00	
20,100.00	90.00	180.12	7,493.00	-11,736.36	4,816.18	12,667.45	0.00	0.00	0.00	
20,200.00	90.00	180.12	7,493.00	-11,836.36	4,815.97	12,761.82	0.00	0.00	0.00	
20,300.00	90.00	180.12	7,493.00	-11,936.36	4,815.76	12,856.18	0.00	0.00	0.00	
20,400.00	90.00	180.12	7,493.00	-12,036.36	4,815.55	12,950.55	0.00	0.00	0.00	
20,500.00	90.00	180.12	7,493.00	-12,136.36	4,815.33	13,044.92	0.00	0.00	0.00	
20,600.00	90.00	180.12	7,493.00	-12,236.36	4,815.12	13,139.28	0.00	0.00	0.00	
20,700.00	90.00	180.12	7,493.00	-12,336.36	4,814.91	13,233.65	0.00	0.00	0.00	
20,800.00	90.00	180.12	7,493.00	-12,436.36	4,814.70	13,328.02	0.00	0.00	0.00	
20,900.00	90.00	180.12	7,493.00	-12,536.36	4,814.49	13,422.38	0.00	0.00	0.00	
21,000.00	90.00	180.12	7,493.00	-12,636.35	4,814.28	13,516.75	0.00	0.00	0.00	
21,100.00	90.00	180.12	7,493.00	-12,736.35	4,814.06	13,611.11	0.00	0.00	0.00	
21,200.00	90.00	180.12	7,493.00	-12,836.35	4,813.85	13,705.48	0.00	0.00	0.00	
21,300.00	90.00	180.12	7,493.00	-12,936.35	4,813.64	13,799.85	0.00	0.00	0.00	
21,400.00	90.00	180.12	7,493.00	-13,036.35	4,813.43	13,894.21	0.00	0.00	0.00	
21,500.00	90.00	180.12	7,493.00	-13,136.35	4,813.22	13,988.58	0.00	0.00	0.00	
21,600.00	90.00	180.12	7,493.00	-13,236.35	4,813.01	14,082.95	0.00	0.00	0.00	
21,700.00	90.00	180.12	7,493.00	-13,336.35	4,812.79	14,177.31	0.00	0.00	0.00	
21,800.00	90.00	180.12	7,493.00	-13,436.35	4,812.58	14,271.68	0.00	0.00	0.00	
21,900.00	90.00	180.12	7,493.00	-13,536.35	4,812.37	14,366.04	0.00	0.00	0.00	
22,000.00	90.00	180.12	7,493.00	-13,636.35	4,812.16	14,460.41	0.00	0.00	0.00	
22,078.74	90.00	180.12	7,493.00	-13,715.09	4,811.99	14,534.71	0.00	0.00	0.00	
Start DLS 2.00 TFO 90.00										
22,080.15	90.00	180.15	7,493.00	-13,716.51	4,811.98	14,536.05	2.00	0.00	2.00	
Start 98.77 hold at 22080.15 MD										
22,100.00	90.00	180.15	7,493.00	-13,736.35	4,811.93	14,554.77	0.00	0.00	0.00	
22,178.92	90.00	180.15	7,493.00	-13,815.27	4,811.73	14,629.23	0.00	0.00	0.00	
TD at 22178.92										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude		
GUS 34-363HNN-PBHL - plan hits target center - Point	0.00	0.00	7,493.00	-13,815.27	4,811.73	1,212,608.87	3,177,203.49	39.915258°N 104.868257°W		
GUS 34-363HNN-BTM F - plan hits target center - Point	0.00	0.00	7,493.00	-13,715.09	4,811.99	1,212,709.05	3,177,203.06	39.915533°N 104.868256°W		
GUS 34-363HNN-LP - plan hits target center - Point	0.00	0.00	7,493.00	-1,096.71	4,838.70	1,225,327.31	3,177,142.32	39.950173°N 104.868152°W		



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GUS LD 34-363HNX
<b>Company:</b>	GREAT WESTERN OPERATING COMPANY	<b>TVD Reference:</b>	KB 20' @ 5144.00usft
<b>Project:</b>	ADAMS COUNTY	<b>MD Reference:</b>	KB 20' @ 5144.00usft
<b>Site:</b>	SEC 21-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	GUS LD 34-363HNX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.00	300.00	0.00	0.00	Start Build 3.00
1,516.95	1,436.25	-32.03	373.40	Start 6853.92 hold at 1516.95 MD
8,370.87	6,945.22	-380.54	4,436.17	Start DLS 8.00 TFO 86.15
9,460.33	7,493.00	-1,096.71	4,838.70	Start 12618.41 hold at 9460.33 MD
22,078.74	7,493.00	-13,715.09	4,811.99	Start DLS 2.00 TFO 90.00
22,080.15	7,493.00	-13,716.51	4,811.98	Start 98.77 hold at 22080.15 MD
22,178.92	7,493.00	-13,815.27	4,811.73	TD at 22178.92