

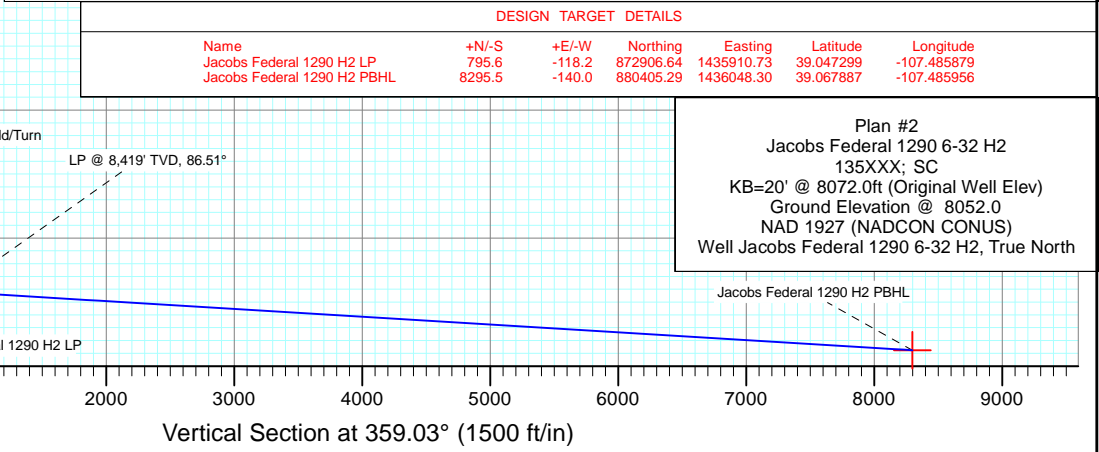
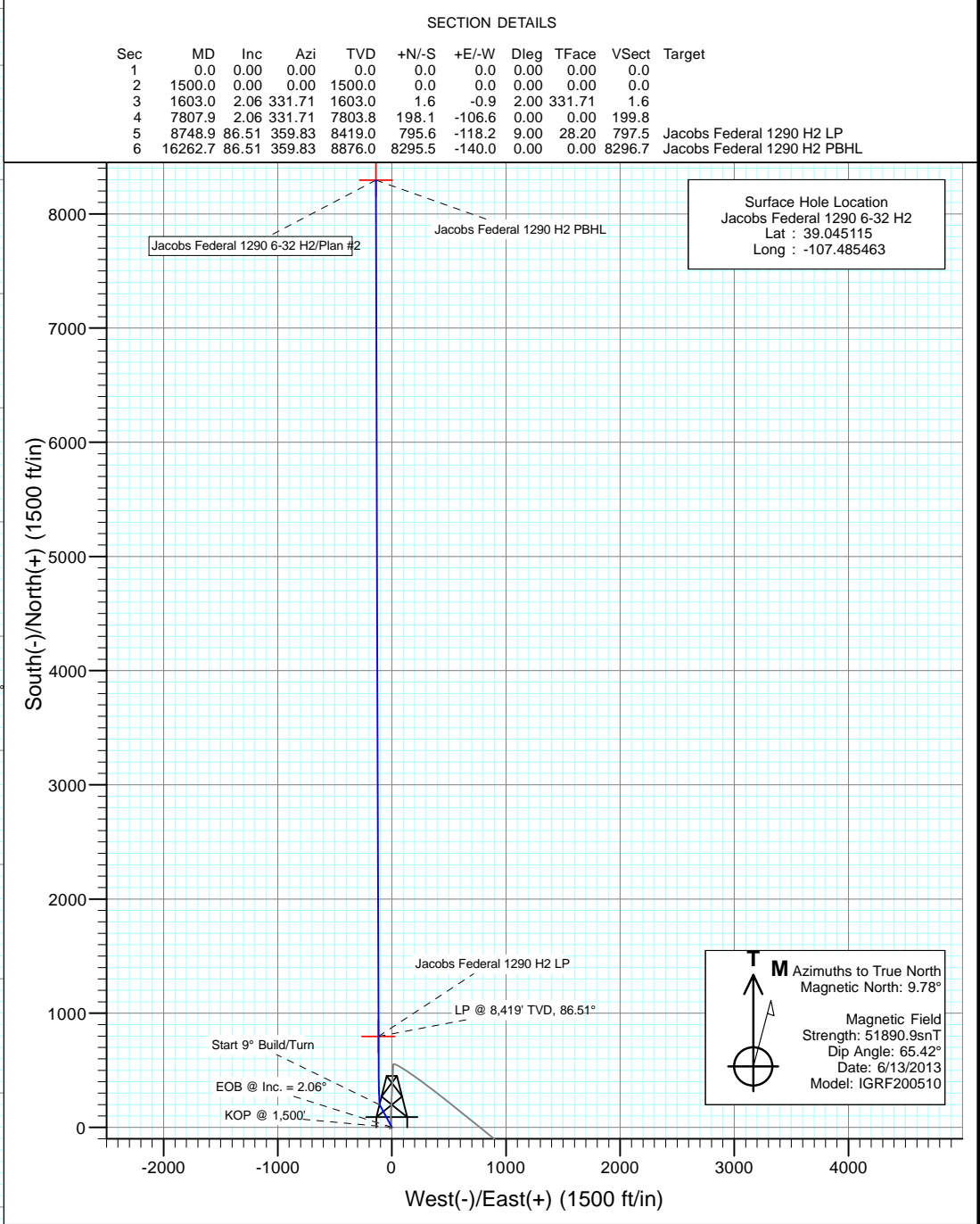
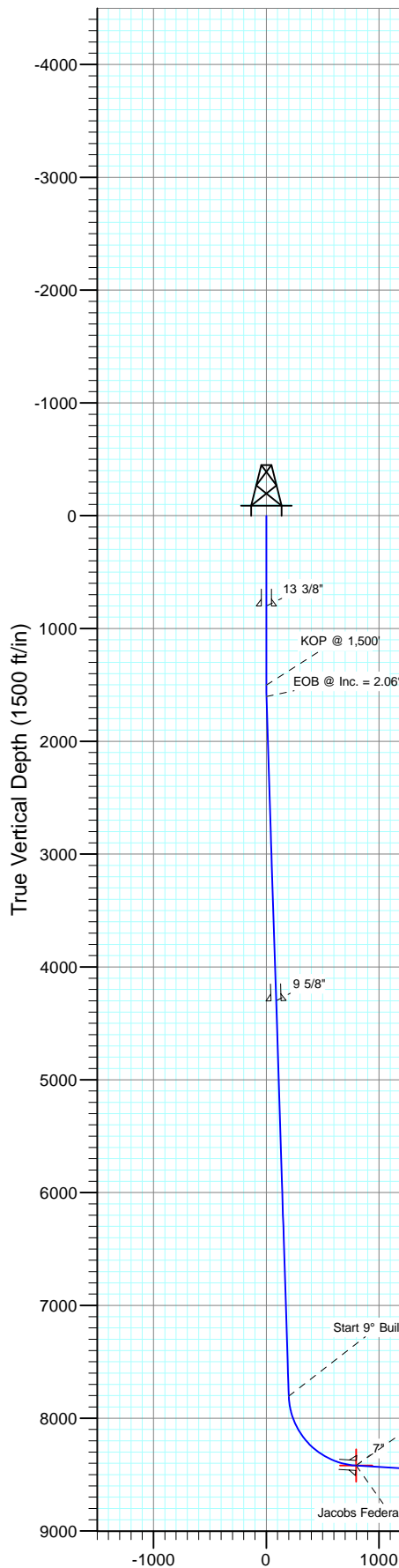


**GUNNISON ENERGY CORPORATION**

Project: Gunnison County, CO  
 Site: Jacobs Federal 1290 6-32  
 Well: Jacobs Federal 1290 6-32 H2  
 Wellbore: HZ  
 Design: Plan #2



**CATHEDRAL**



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1603.0	2.06	331.71	1603.0	1.6	-0.9	2.00	331.71	1.6	
4	7807.9	2.06	331.71	7803.8	198.1	-106.6	0.00	0.00	199.8	
5	8748.9	86.51	359.83	8419.0	795.6	-118.2	9.00	28.20	797.5	Jacobs Federal 1290 H2 LP
6	16262.7	86.51	359.83	8876.0	8295.5	-140.0	0.00	0.00	8296.7	Jacobs Federal 1290 H2 PBHL

Surface Hole Location  
 Jacobs Federal 1290 6-32 H2  
 Lat : 39.045115  
 Long : -107.485463

**M** Azimuths to True North  
 Magnetic North: 9.78°  
 Magnetic Field  
 Strength: 51890.9snT  
 Dip Angle: 65.42°  
 Date: 6/13/2013  
 Model: IGRF200510

#### DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Jacobs Federal 1290 H2 LP	795.6	-118.2	872906.64	1435910.73	39.047299	-107.485879
Jacobs Federal 1290 H2 PBHL	8295.5	-140.0	880405.29	1436048.30	39.067887	-107.485956

Plan #2  
 Jacobs Federal 1290 6-32 H2  
 135XXX; SC  
 KB=20' @ 8072.0ft (Original Well Elev)  
 Ground Elevation @ 8052.0  
 NAD 1927 (NADCON CONUS)  
 Well Jacobs Federal 1290 6-32 H2, True North

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site:</b>	Jacobs Federal 1290 6-32	<b>North Reference:</b>	True
<b>Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

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

Site		Jacobs Federal 1290 6-32			
Site Position:		Northing:	872,098.84 ft	Latitude:	39.045087
From:	Lat/Long	Easting:	1,435,996.98 ft	Longitude:	-107.485515
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.22 °

Well	Jacobs Federal 1290 6-32 H2					
Well Position	+N/-S	0.0 ft	Northing:	872,108.69 ft	Latitude:	39.045115
	+E/-W	0.0 ft	Easting:	1,436,011.96 ft	Longitude:	-107.485463
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,052.0 ft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	IGRF200510	6/13/2013	9.78	65.42	51,891

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	359.03

<b>Plan Sections</b>										
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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,603.0	2.06	331.71	1,603.0	1.6	-0.9	2.00	2.00	0.00	331.71	
7,807.9	2.06	331.71	7,803.8	198.1	-106.6	0.00	0.00	0.00	0.00	
8,748.9	86.51	359.83	8,419.0	795.6	-118.2	9.00	8.97	2.99	28.20	Jacobs Federal 1290
16,262.7	86.51	359.83	8,876.0	8,295.5	-140.0	0.00	0.00	0.00	0.00	Jacobs Federal 1290

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site:</b>	Jacobs Federal 1290 6-32	<b>North Reference:</b>	True
<b>Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

### 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	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	13 3/8"
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 1,500'
1,603.0	2.06	331.71	1,603.0	1.6	-0.9	1.6	2.00	2.00	EOB @ Inc. = 2.06°
1,700.0	2.06	331.71	1,699.9	4.7	-2.5	4.7	0.00	0.00	
1,800.0	2.06	331.71	1,799.9	7.9	-4.2	7.9	0.00	0.00	
1,900.0	2.06	331.71	1,899.8	11.0	-5.9	11.1	0.00	0.00	
2,000.0	2.06	331.71	1,999.7	14.2	-7.6	14.3	0.00	0.00	
2,100.0	2.06	331.71	2,099.7	17.4	-9.3	17.5	0.00	0.00	
2,200.0	2.06	331.71	2,199.6	20.5	-11.0	20.7	0.00	0.00	
2,300.0	2.06	331.71	2,299.5	23.7	-12.8	23.9	0.00	0.00	
2,400.0	2.06	331.71	2,399.5	26.9	-14.5	27.1	0.00	0.00	
2,500.0	2.06	331.71	2,499.4	30.0	-16.2	30.3	0.00	0.00	
2,600.0	2.06	331.71	2,599.3	33.2	-17.9	33.5	0.00	0.00	
2,700.0	2.06	331.71	2,699.3	36.4	-19.6	36.7	0.00	0.00	
2,800.0	2.06	331.71	2,799.2	39.5	-21.3	39.9	0.00	0.00	
2,900.0	2.06	331.71	2,899.1	42.7	-23.0	43.1	0.00	0.00	
3,000.0	2.06	331.71	2,999.1	45.9	-24.7	46.3	0.00	0.00	
3,100.0	2.06	331.71	3,099.0	49.0	-26.4	49.5	0.00	0.00	
3,200.0	2.06	331.71	3,198.9	52.2	-28.1	52.7	0.00	0.00	
3,300.0	2.06	331.71	3,298.9	55.4	-29.8	55.8	0.00	0.00	
3,400.0	2.06	331.71	3,398.8	58.5	-31.5	59.0	0.00	0.00	
3,500.0	2.06	331.71	3,498.8	61.7	-33.2	62.2	0.00	0.00	
3,600.0	2.06	331.71	3,598.7	64.9	-34.9	65.4	0.00	0.00	
3,700.0	2.06	331.71	3,698.6	68.0	-36.6	68.6	0.00	0.00	
3,800.0	2.06	331.71	3,798.6	71.2	-38.3	71.8	0.00	0.00	
3,900.0	2.06	331.71	3,898.5	74.3	-40.0	75.0	0.00	0.00	
4,000.0	2.06	331.71	3,998.4	77.5	-41.7	78.2	0.00	0.00	
4,100.0	2.06	331.71	4,098.4	80.7	-43.4	81.4	0.00	0.00	
4,200.0	2.06	331.71	4,198.3	83.8	-45.1	84.6	0.00	0.00	
4,300.0	2.06	331.71	4,298.2	87.0	-46.8	87.8	0.00	0.00	
4,301.8	2.06	331.71	4,300.0	87.1	-46.9	87.8	0.00	0.00	9 5/8"
4,400.0	2.06	331.71	4,398.2	90.2	-48.5	91.0	0.00	0.00	
4,500.0	2.06	331.71	4,498.1	93.3	-50.2	94.2	0.00	0.00	
4,600.0	2.06	331.71	4,598.0	96.5	-51.9	97.4	0.00	0.00	
4,700.0	2.06	331.71	4,698.0	99.7	-53.6	100.6	0.00	0.00	
4,800.0	2.06	331.71	4,797.9	102.8	-55.4	103.8	0.00	0.00	
4,900.0	2.06	331.71	4,897.8	106.0	-57.1	107.0	0.00	0.00	
5,000.0	2.06	331.71	4,997.8	109.2	-58.8	110.1	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site:</b>	Jacobs Federal 1290 6-32	<b>North Reference:</b>	True
<b>Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

### 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
5,100.0	2.06	331.71	5,097.7	112.3	-60.5	113.3	0.00	0.00	
5,200.0	2.06	331.71	5,197.7	115.5	-62.2	116.5	0.00	0.00	
5,300.0	2.06	331.71	5,297.6	118.7	-63.9	119.7	0.00	0.00	
5,400.0	2.06	331.71	5,397.5	121.8	-65.6	122.9	0.00	0.00	
5,500.0	2.06	331.71	5,497.5	125.0	-67.3	126.1	0.00	0.00	
5,600.0	2.06	331.71	5,597.4	128.2	-69.0	129.3	0.00	0.00	
5,700.0	2.06	331.71	5,697.3	131.3	-70.7	132.5	0.00	0.00	
5,800.0	2.06	331.71	5,797.3	134.5	-72.4	135.7	0.00	0.00	
5,900.0	2.06	331.71	5,897.2	137.7	-74.1	138.9	0.00	0.00	
6,000.0	2.06	331.71	5,997.1	140.8	-75.8	142.1	0.00	0.00	
6,100.0	2.06	331.71	6,097.1	144.0	-77.5	145.3	0.00	0.00	
6,200.0	2.06	331.71	6,197.0	147.2	-79.2	148.5	0.00	0.00	
6,300.0	2.06	331.71	6,296.9	150.3	-80.9	151.7	0.00	0.00	
6,400.0	2.06	331.71	6,396.9	153.5	-82.6	154.9	0.00	0.00	
6,500.0	2.06	331.71	6,496.8	156.7	-84.3	158.1	0.00	0.00	
6,600.0	2.06	331.71	6,596.7	159.8	-86.0	161.3	0.00	0.00	
6,700.0	2.06	331.71	6,696.7	163.0	-87.7	164.5	0.00	0.00	
6,800.0	2.06	331.71	6,796.6	166.2	-89.4	167.6	0.00	0.00	
6,900.0	2.06	331.71	6,896.6	169.3	-91.1	170.8	0.00	0.00	
7,000.0	2.06	331.71	6,996.5	172.5	-92.8	174.0	0.00	0.00	
7,100.0	2.06	331.71	7,096.4	175.7	-94.5	177.2	0.00	0.00	
7,200.0	2.06	331.71	7,196.4	178.8	-96.2	180.4	0.00	0.00	
7,300.0	2.06	331.71	7,296.3	182.0	-97.9	183.6	0.00	0.00	
7,400.0	2.06	331.71	7,396.2	185.2	-99.7	186.8	0.00	0.00	
7,500.0	2.06	331.71	7,496.2	188.3	-101.4	190.0	0.00	0.00	
7,600.0	2.06	331.71	7,596.1	191.5	-103.1	193.2	0.00	0.00	
7,700.0	2.06	331.71	7,696.0	194.7	-104.8	196.4	0.00	0.00	
7,807.9	2.06	331.71	7,803.8	198.1	-106.6	199.8	0.00	0.00	Start 9° Build/Turn
7,850.0	5.69	350.08	7,845.9	200.8	-107.3	202.6	9.00	8.62	
7,900.0	10.16	354.45	7,895.4	207.6	-108.2	209.4	9.00	8.93	
7,950.0	14.64	356.16	7,944.2	218.3	-109.0	220.1	9.00	8.97	
8,000.0	19.13	357.09	7,992.0	232.8	-109.9	234.6	9.00	8.98	
8,050.0	23.63	357.67	8,038.6	251.0	-110.7	252.9	9.00	8.99	
8,100.0	28.12	358.07	8,083.6	272.8	-111.5	274.7	9.00	8.99	
8,150.0	32.62	358.37	8,126.7	298.1	-112.3	299.9	9.00	8.99	
8,200.0	37.12	358.61	8,167.7	326.7	-113.0	328.5	9.00	9.00	
8,250.0	41.62	358.80	8,206.3	358.4	-113.7	360.2	9.00	9.00	
8,300.0	46.12	358.96	8,242.4	393.0	-114.4	394.9	9.00	9.00	
8,350.0	50.62	359.09	8,275.6	430.3	-115.1	432.2	9.00	9.00	
8,400.0	55.11	359.21	8,305.8	470.2	-115.6	472.1	9.00	9.00	
8,450.0	59.61	359.32	8,332.7	512.3	-116.2	514.2	9.00	9.00	
8,500.0	64.11	359.42	8,356.3	556.4	-116.7	558.3	9.00	9.00	
8,550.0	68.61	359.51	8,376.3	602.2	-117.1	604.0	9.00	9.00	
8,600.0	73.11	359.60	8,392.7	649.4	-117.5	651.3	9.00	9.00	
8,650.0	77.61	359.68	8,405.4	697.7	-117.8	699.6	9.00	9.00	
8,700.0	82.11	359.76	8,414.2	746.9	-118.0	748.8	9.00	9.00	
8,748.9	86.51	359.83	8,419.0	795.6	-118.2	797.5	9.00	9.00	LP @ 8,419' TVD, 86.51° - 7"
8,800.0	86.51	359.83	8,422.1	846.6	-118.3	848.5	0.01	0.01	
8,900.0	86.51	359.83	8,428.2	946.4	-118.6	948.3	0.00	0.00	
9,000.0	86.51	359.83	8,434.3	1,046.2	-118.9	1,048.1	0.00	0.00	
9,100.0	86.51	359.83	8,440.4	1,146.0	-119.2	1,147.9	0.00	0.00	
9,200.0	86.51	359.83	8,446.4	1,245.9	-119.5	1,247.7	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site:</b>	Jacobs Federal 1290 6-32	<b>North Reference:</b>	True
<b>Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

### 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
9,300.0	86.51	359.83	8,452.5	1,345.7	-119.8	1,347.5	0.00	0.00	
9,400.0	86.51	359.83	8,458.6	1,445.5	-120.1	1,447.3	0.00	0.00	
9,500.0	86.51	359.83	8,464.7	1,545.3	-120.4	1,547.1	0.00	0.00	
9,600.0	86.51	359.83	8,470.8	1,645.1	-120.6	1,646.9	0.00	0.00	
9,700.0	86.51	359.83	8,476.8	1,744.9	-120.9	1,746.7	0.00	0.00	
9,800.0	86.51	359.83	8,482.9	1,844.7	-121.2	1,846.5	0.00	0.00	
9,900.0	86.51	359.83	8,489.0	1,944.6	-121.5	1,946.3	0.00	0.00	
10,000.0	86.51	359.83	8,495.1	2,044.4	-121.8	2,046.1	0.00	0.00	
10,100.0	86.51	359.83	8,501.2	2,144.2	-122.1	2,145.9	0.00	0.00	
10,200.0	86.51	359.83	8,507.3	2,244.0	-122.4	2,245.7	0.00	0.00	
10,300.0	86.51	359.83	8,513.3	2,343.8	-122.7	2,345.5	0.00	0.00	
10,400.0	86.51	359.83	8,519.4	2,443.6	-123.0	2,445.4	0.00	0.00	
10,500.0	86.51	359.83	8,525.5	2,543.4	-123.3	2,545.2	0.00	0.00	
10,600.0	86.51	359.83	8,531.6	2,643.3	-123.6	2,645.0	0.00	0.00	
10,700.0	86.51	359.83	8,537.7	2,743.1	-123.8	2,744.8	0.00	0.00	
10,800.0	86.51	359.83	8,543.7	2,842.9	-124.1	2,844.6	0.00	0.00	
10,900.0	86.51	359.83	8,549.8	2,942.7	-124.4	2,944.4	0.00	0.00	
11,000.0	86.51	359.83	8,555.9	3,042.5	-124.7	3,044.2	0.00	0.00	
11,100.0	86.51	359.83	8,562.0	3,142.3	-125.0	3,144.0	0.00	0.00	
11,200.0	86.51	359.83	8,568.1	3,242.1	-125.3	3,243.8	0.00	0.00	
11,300.0	86.51	359.83	8,574.2	3,342.0	-125.6	3,343.6	0.00	0.00	
11,400.0	86.51	359.83	8,580.2	3,441.8	-125.9	3,443.4	0.00	0.00	
11,500.0	86.51	359.83	8,586.3	3,541.6	-126.2	3,543.2	0.00	0.00	
11,600.0	86.51	359.83	8,592.4	3,641.4	-126.5	3,643.0	0.00	0.00	
11,700.0	86.51	359.83	8,598.5	3,741.2	-126.8	3,742.8	0.00	0.00	
11,800.0	86.51	359.83	8,604.6	3,841.0	-127.0	3,842.6	0.00	0.00	
11,900.0	86.51	359.83	8,610.7	3,940.8	-127.3	3,942.4	0.00	0.00	
12,000.0	86.51	359.83	8,616.7	4,040.7	-127.6	4,042.2	0.00	0.00	
12,100.0	86.51	359.83	8,622.8	4,140.5	-127.9	4,142.0	0.00	0.00	
12,200.0	86.51	359.83	8,628.9	4,240.3	-128.2	4,241.8	0.00	0.00	
12,300.0	86.51	359.83	8,635.0	4,340.1	-128.5	4,341.7	0.00	0.00	
12,400.0	86.51	359.83	8,641.1	4,439.9	-128.8	4,441.5	0.00	0.00	
12,500.0	86.51	359.83	8,647.1	4,539.7	-129.1	4,541.3	0.00	0.00	
12,600.0	86.51	359.83	8,653.2	4,639.5	-129.4	4,641.1	0.00	0.00	
12,700.0	86.51	359.83	8,659.3	4,739.4	-129.7	4,740.9	0.00	0.00	
12,800.0	86.51	359.83	8,665.4	4,839.2	-129.9	4,840.7	0.00	0.00	
12,900.0	86.51	359.83	8,671.5	4,939.0	-130.2	4,940.5	0.00	0.00	
13,000.0	86.51	359.83	8,677.6	5,038.8	-130.5	5,040.3	0.00	0.00	
13,100.0	86.51	359.83	8,683.6	5,138.6	-130.8	5,140.1	0.00	0.00	
13,200.0	86.51	359.83	8,689.7	5,238.4	-131.1	5,239.9	0.00	0.00	
13,300.0	86.51	359.83	8,695.8	5,338.2	-131.4	5,339.7	0.00	0.00	
13,400.0	86.51	359.83	8,701.9	5,438.1	-131.7	5,439.5	0.00	0.00	
13,500.0	86.51	359.83	8,708.0	5,537.9	-132.0	5,539.3	0.00	0.00	
13,600.0	86.51	359.83	8,714.0	5,637.7	-132.3	5,639.1	0.00	0.00	
13,700.0	86.51	359.83	8,720.1	5,737.5	-132.6	5,738.9	0.00	0.00	
13,800.0	86.51	359.83	8,726.2	5,837.3	-132.9	5,838.7	0.00	0.00	
13,900.0	86.51	359.83	8,732.3	5,937.1	-133.1	5,938.5	0.00	0.00	
14,000.0	86.51	359.83	8,738.4	6,036.9	-133.4	6,038.3	0.00	0.00	
14,100.0	86.51	359.83	8,744.5	6,136.8	-133.7	6,138.1	0.00	0.00	
14,200.0	86.51	359.83	8,750.5	6,236.6	-134.0	6,237.9	0.00	0.00	
14,300.0	86.51	359.83	8,756.6	6,336.4	-134.3	6,337.8	0.00	0.00	
14,400.0	86.51	359.83	8,762.7	6,436.2	-134.6	6,437.6	0.00	0.00	

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** Gunnison Energy Corporation  
**Project:** Gunnison County, CO  
**Site:** Jacobs Federal 1290 6-32  
**Well:** Jacobs Federal 1290 6-32 H2  
**Wellbore:** HZ  
**Design:** Plan #2

**Local Co-ordinate Reference:** Well Jacobs Federal 1290 6-32 H2  
**TVD Reference:** KB=20' @ 8072.0ft (Original Well Elev)  
**MD Reference:** KB=20' @ 8072.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### 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
14,500.0	86.51	359.83	8,768.8	6,536.0	-134.9	6,537.4	0.00	0.00	
14,600.0	86.51	359.83	8,774.9	6,635.8	-135.2	6,637.2	0.00	0.00	
14,700.0	86.51	359.83	8,781.0	6,735.6	-135.5	6,737.0	0.00	0.00	
14,800.0	86.51	359.83	8,787.0	6,835.5	-135.8	6,836.8	0.00	0.00	
14,900.0	86.51	359.83	8,793.1	6,935.3	-136.0	6,936.6	0.00	0.00	
15,000.0	86.51	359.83	8,799.2	7,035.1	-136.3	7,036.4	0.00	0.00	
15,100.0	86.51	359.83	8,805.3	7,134.9	-136.6	7,136.2	0.00	0.00	
15,200.0	86.51	359.83	8,811.4	7,234.7	-136.9	7,236.0	0.00	0.00	
15,300.0	86.51	359.83	8,817.4	7,334.5	-137.2	7,335.8	0.00	0.00	
15,400.0	86.51	359.83	8,823.5	7,434.3	-137.5	7,435.6	0.00	0.00	
15,500.0	86.51	359.83	8,829.6	7,534.2	-137.8	7,535.4	0.00	0.00	
15,600.0	86.51	359.83	8,835.7	7,634.0	-138.1	7,635.2	0.00	0.00	
15,700.0	86.51	359.83	8,841.8	7,733.8	-138.4	7,735.0	0.00	0.00	
15,800.0	86.51	359.83	8,847.9	7,833.6	-138.7	7,834.8	0.00	0.00	
15,900.0	86.51	359.83	8,853.9	7,933.4	-139.0	7,934.6	0.00	0.00	
16,000.0	86.51	359.83	8,860.0	8,033.2	-139.2	8,034.4	0.00	0.00	
16,100.0	86.51	359.83	8,866.1	8,133.1	-139.5	8,134.2	0.00	0.00	
16,200.0	86.51	359.83	8,872.2	8,232.9	-139.8	8,234.1	0.00	0.00	
16,262.7	86.51	359.83	8,876.0	8,295.5	-140.0	8,296.7	0.00	0.00	TD @ 16,262.7' MD

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Jacobs Federal 1290 H2 - plan hits target center - Point	0.00	0.00	8,419.0	795.6	-118.2	872,906.64	1,435,910.73	39.047299	-107.485879
Jacobs Federal 1290 H2 - plan hits target center - Point	0.00	0.00	8,876.0	8,295.5	-140.0	880,405.29	1,436,048.30	39.067887	-107.485956

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
8,748.9	8,419.0	7"	7.000	8.500
800.0	800.0	13 3/8"	13.375	17.500
4,301.8	4,300.0	9 5/8"	9.625	12.250

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
1,500.0	1,500.0	0.0	0.0	KOP @ 1,500'
1,603.0	1,603.0	1.6	-0.9	EOB @ Inc. = 2.06°
7,807.9	7,803.8	198.1	-106.6	Start 9° Build/Turn
8,748.9	8,419.0	795.6	-118.2	LP @ 8,419' TVD, 86.51°
16,262.7	8,876.0	8,295.5	-140.0	TD @ 16,262.7' MD

# **Gunnison Energy Corporation**

**Gunnison County, CO**

**Jacobs Federal 1290 6-32**

**Jacobs Federal 1290 6-32 H2**

**HZ**

**Plan #2**

## **Anticollision Report**

**18 June, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Reference Site:</b>	Jacobs Federal 1290 6-32	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	0.0 to 1,800.0ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 300.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 6/18/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	16,262.5	Plan #2 (HZ)	MWD	MWD

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
Offset Well - Wellbore - Design						
Jacobs Federal 1290 6-32						
Jacobs Federal 1290 6-32 H1 - HZ - Plan #1	1,249.3	1,249.7	14.3	10.0	3.316	CC, ES, SF

Offset Design													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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-124.57	-10.2	-14.8	17.9						
100.0	100.0	100.0	100.0	0.1	0.1	-124.57	-10.2	-14.8	17.9	17.7	0.28	64.232			
200.0	200.0	200.0	200.0	0.3	0.3	-124.57	-10.2	-14.8	17.9	17.3	0.63	28.551			
300.0	300.0	300.0	300.0	0.5	0.5	-124.57	-10.2	-14.8	17.9	17.0	0.98	18.355			
400.0	400.0	400.0	400.0	0.7	0.7	-124.57	-10.2	-14.8	17.9	16.6	1.33	13.525			
500.0	500.0	500.0	500.0	0.8	0.8	-124.57	-10.2	-14.8	17.9	16.3	1.68	10.707			
600.0	600.0	600.0	600.0	1.0	1.0	-124.57	-10.2	-14.8	17.9	15.9	2.02	8.861			
700.0	700.0	700.0	700.0	1.2	1.2	-124.57	-10.2	-14.8	17.9	15.6	2.37	7.558			
800.0	800.0	800.0	800.0	1.4	1.4	-124.57	-10.2	-14.8	17.9	15.2	2.72	6.589			
900.0	900.0	900.0	900.0	1.5	1.5	-124.57	-10.2	-14.8	17.9	14.9	3.07	5.840			
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-124.57	-10.2	-14.8	17.9	14.5	3.42	5.244			
1,100.0	1,100.0	1,100.4	1,100.3	1.9	1.9	-119.84	-8.4	-14.7	16.9	13.2	3.77	4.491			
1,200.0	1,200.0	1,200.5	1,200.3	2.1	2.1	-102.42	-3.2	-14.4	14.8	10.7	4.13	3.583			
1,249.3	1,249.3	1,249.7	1,249.3	2.1	2.2	-87.28	0.7	-14.3	14.3	10.0	4.30	3.316	CC, ES, SF		
1,300.0	1,300.0	1,300.1	1,299.6	2.2	2.3	-70.34	5.0	-14.0	14.9	10.4	4.48	3.331			
1,400.0	1,400.0	1,399.8	1,398.9	2.4	2.5	-45.11	13.6	-13.6	19.3	14.5	4.82	4.000			
1,500.0	1,500.0	1,499.4	1,498.2	2.6	2.7	-30.84	22.2	-13.2	25.9	20.7	5.17	5.010			
1,600.0	1,600.0	1,599.1	1,597.5	2.8	2.9	5.94	30.7	-12.8	31.7	26.1	5.53	5.725			
1,700.0	1,699.9	1,699.0	1,697.0	2.9	3.1	12.33	39.3	-12.4	36.1	30.3	5.88	6.149			
1,800.0	1,799.9	1,798.8	1,796.4	3.1	3.3	17.26	47.9	-12.0	40.9	34.7	6.22	6.581			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



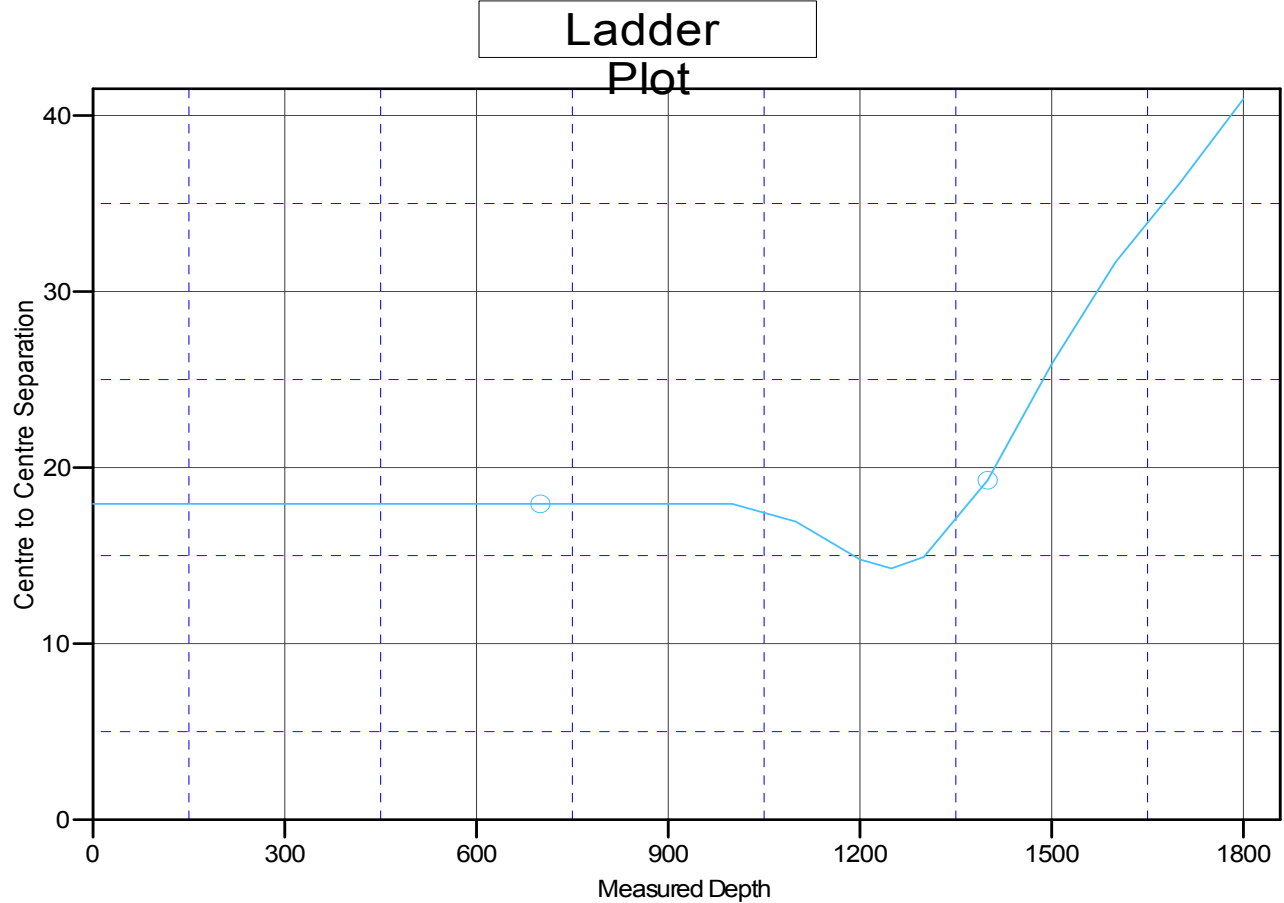
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Jacobs Federal 1290 6-32 H2
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Reference Site:</b>	Jacobs Federal 1290 6-32	<b>MD Reference:</b>	KB=20' @ 8072.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Jacobs Federal 1290 6-32 H2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB=20' @ 8072.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Jacobs Federal 1290 6-32 H2  
 Coordinate System is US State Plane 1927 (Exact solution), Colorado South 503  
 Grid Convergence at Surface is: -1.22°



### LEGEND

—○— Jacobs Federal 1290 6-32 H1,HZ,Plan#1 V0