Great Western

Well Name: **Tailholt FD 11-374HN**

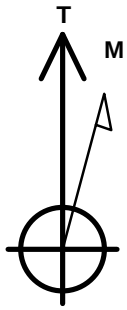
Surface Location: Tailholt FD Horizontal Pad Sec.11-T6N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4874.2

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1428645.69	3175758.35	40.508314	-104.867919	

RKB - 16.5' WELL @ 4890.7ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 241'FNL & 607'FWL	-0.3	0.0	0.0	Point
BHL 470'FSL & 1595'FWL	7113.7	-4663.2	979.6	Point
Landing Pt. 460'FNL & 1595'FWL	7148.7	-219.6	987.2	Point



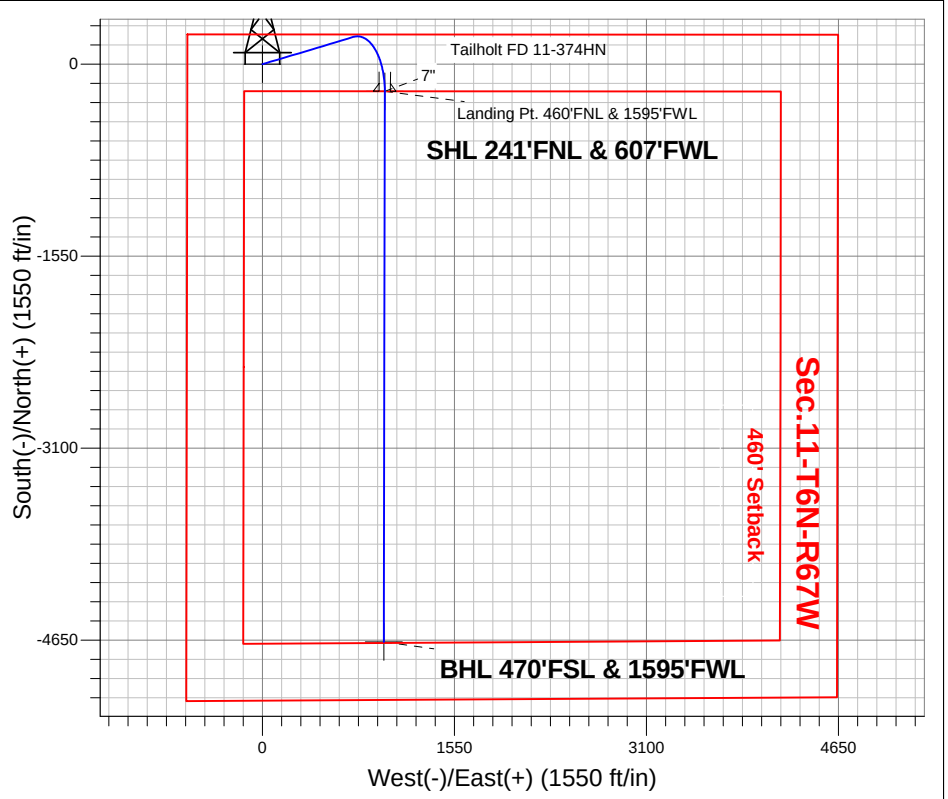
Azimuths to True North
Magnetic North: 8.68°

Magnetic Field
Strength: 52982.6snT
Dip Angle: 67.06°
Date: 4/18/2013
Model: IGRF2010

Tailholt FD Horizontal Pad Sec.11-T6N-R67W
Tailholt FD 11-374HN
Plan #4 (10-22-13)
14:56, October 22 2013

ANNOTATIONS

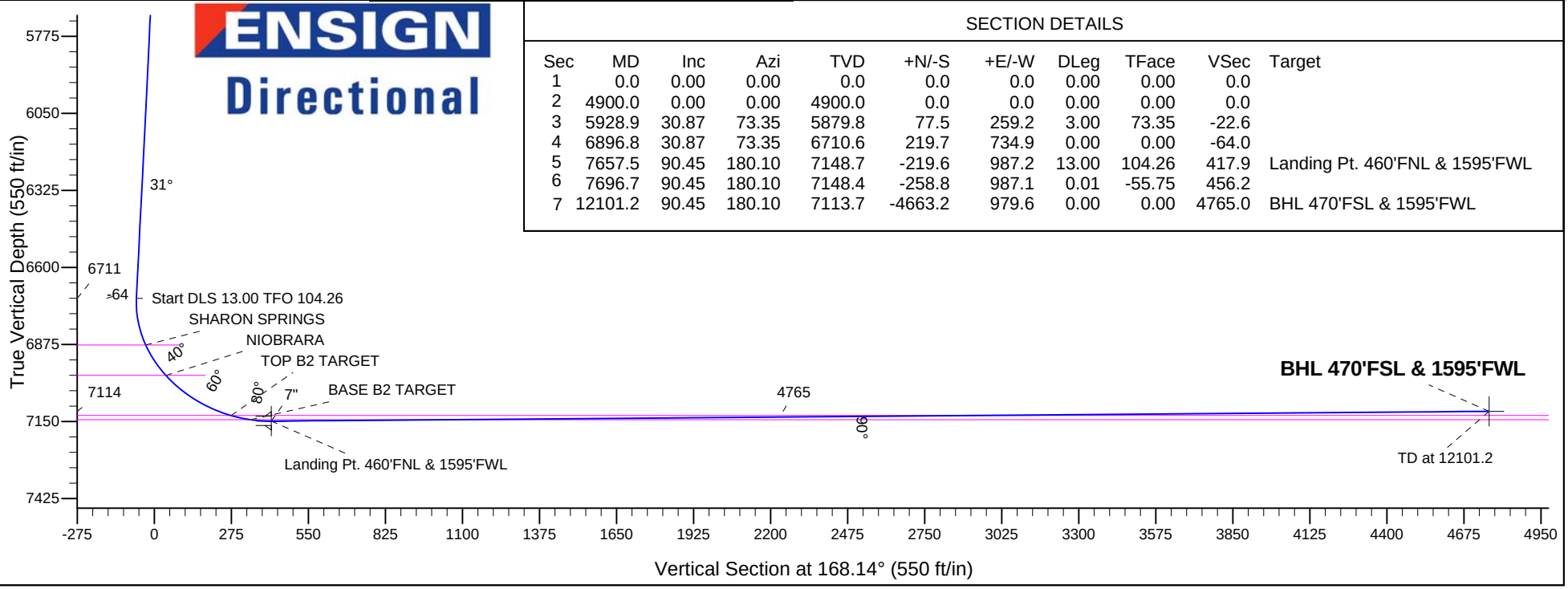
TVD	MD	Annotation
4900.0	4900.0	KOP - Start Build 3.00
6710.7	6896.8	Start DLS 13.00 TFO 104.26
7113.7	12101.2	TD at 12101.2



ENSIGN Directional

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4900.0	0.00	0.00	4900.0	0.0	0.0	0.00	0.00	0.0	
3	5928.9	30.87	73.35	5879.8	77.5	259.2	3.00	73.35	-22.6	
4	6896.8	30.87	73.35	6710.6	219.7	734.9	0.00	0.00	-64.0	
5	7657.5	90.45	180.10	7148.7	-219.6	987.2	13.00	104.26	417.9	Landing Pt. 460'FNL & 1595'FWL
6	7696.7	90.45	180.10	7148.4	-258.8	987.1	0.01	-55.75	456.2	
7	12101.2	90.45	180.10	7113.7	-4663.2	979.6	0.00	0.00	4765.0	BHL 470'FSL & 1595'FWL



Great Western

SEC.11-T6N-R67W
Tailholt FD Horizontal Pad Sec.11-T6N-R67W
Tailholt FD 11-374HN

Wellbore #1

Plan: Plan #4 (10-22-13)

Standard Planning Report

22 October, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Company:	Great Western	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Project:	SEC.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**North Reference:**	True
Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (10-22-13)		

Project SEC.11-T6N-R67W, Weld County, CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Tailholt FD Horizontal Pad Sec.11-T6N-R67W

Site Position:		**Northing:**	1,428,645.60 ft	**Latitude:**	40.508314
From:	Lat/Long	**Easting:**	3,175,738.05 ft	**Longitude:**	-104.867992
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.41 °

Well Tailholt FD 11-374HN

Well Position	**+N/-S**	-0.1 ft	**Northing:**	1,428,645.69 ft	**Latitude:**	40.508314
	+E/-W	20.3 ft	**Easting:**	3,175,758.35 ft	**Longitude:**	-104.867919
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,874.2 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/18/2013	8.68	67.06	52,983

Design Plan #4 (10-22-13)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	168.14

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	
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,928.9	30.87	73.35	5,879.8	77.5	259.2	3.00	3.00	0.00	73.35	
6,896.8	30.87	73.35	6,710.6	219.7	734.9	0.00	0.00	0.00	0.00	
7,657.5	90.45	180.10	7,148.7	-219.6	987.2	13.00	7.83	14.03	104.26	Landing Pt. 460'FN
7,696.7	90.45	180.10	7,148.4	-258.8	987.1	0.01	0.00	0.00	-55.75	
12,101.2	90.45	180.10	7,113.7	-4,663.2	979.6	0.00	0.00	0.00	0.00	BHL 470'FSL & 159

Database:	Landmark	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Company:	Great Western	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Project:	SEC.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**North Reference:**	True
Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (10-22-13)		

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)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 241'FNL & 607'FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,052.7	0.00	0.00	1,052.7	0.0	0.0	0.0	0.00	0.00	0.00
PIERRE									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,649.7	0.00	0.00	3,649.7	0.0	0.0	0.0	0.00	0.00	0.00
PARKMAN									
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,186.7	0.00	0.00	4,186.7	0.0	0.0	0.0	0.00	0.00	0.00
SUSSEX									
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00

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Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**North Reference:**	True
Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (10-22-13)		

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)	Turn Rate (°/100ft)
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,754.7	0.00	0.00	4,754.7	0.0	0.0	0.0	0.00	0.00	0.00
SHANNON									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 3.00									
5,000.0	3.00	73.35	5,000.0	0.7	2.5	-0.2	3.00	3.00	0.00
5,100.0	6.00	73.35	5,099.6	3.0	10.0	-0.9	3.00	3.00	0.00
5,200.0	9.00	73.35	5,198.8	6.7	22.5	-2.0	3.00	3.00	0.00
5,300.0	12.00	73.35	5,297.1	12.0	40.0	-3.5	3.00	3.00	0.00
5,400.0	15.00	73.35	5,394.3	18.6	62.3	-5.4	3.00	3.00	0.00
5,500.0	18.00	73.35	5,490.2	26.8	89.6	-7.8	3.00	3.00	0.00
5,600.0	21.00	73.35	5,584.4	36.3	121.5	-10.6	3.00	3.00	0.00
5,700.0	24.00	73.35	5,676.8	47.3	158.2	-13.8	3.00	3.00	0.00
5,800.0	27.00	73.35	5,767.1	59.6	199.4	-17.4	3.00	3.00	0.00
5,900.0	30.00	73.35	5,854.9	73.3	245.1	-21.3	3.00	3.00	0.00
5,928.9	30.87	73.35	5,879.8	77.5	259.2	-22.6	3.00	3.00	0.00
6,000.0	30.87	73.35	5,940.9	87.9	294.1	-25.6	0.00	0.00	0.00
6,100.0	30.87	73.35	6,026.7	102.6	343.3	-29.9	0.00	0.00	0.00
6,200.0	30.87	73.35	6,112.6	117.3	392.4	-34.2	0.00	0.00	0.00
6,300.0	30.87	73.35	6,198.4	132.0	441.6	-38.4	0.00	0.00	0.00
6,400.0	30.87	73.35	6,284.2	146.7	490.7	-42.7	0.00	0.00	0.00
6,500.0	30.87	73.35	6,370.1	161.4	539.9	-47.0	0.00	0.00	0.00
6,600.0	30.87	73.35	6,455.9	176.1	589.0	-51.3	0.00	0.00	0.00
6,700.0	30.87	73.35	6,541.7	190.8	638.2	-55.5	0.00	0.00	0.00
6,800.0	30.87	73.35	6,627.6	205.5	687.3	-59.8	0.00	0.00	0.00
6,896.8	30.87	73.35	6,710.7	219.7	734.9	-64.0	0.00	0.00	0.00
Start DLS 13.00 TFO 104.26									
6,900.0	30.77	74.15	6,713.4	220.2	736.5	-64.1	13.09	-3.15	24.81
7,000.0	30.20	99.91	6,800.0	222.9	786.1	-56.5	13.00	-0.56	25.76
7,090.2	33.83	121.07	6,876.7	205.9	830.1	-30.9	13.00	4.02	23.45
SHARON SPRINGS									
7,100.0	34.42	123.08	6,884.8	203.0	834.8	-27.1	13.00	6.02	20.54
7,200.0	41.98	140.29	6,963.5	161.7	880.0	22.7	13.00	7.57	17.21
7,230.5	44.71	144.47	6,985.7	145.1	892.8	41.5	13.00	8.95	13.74
NIOBRARA									
7,300.0	51.42	152.64	7,032.2	101.0	919.5	90.2	13.00	9.65	11.74
7,400.0	61.84	161.98	7,087.2	24.0	951.3	172.0	13.00	10.42	9.34
7,500.0	72.78	169.61	7,125.8	-65.3	973.6	264.0	13.00	10.94	7.63
7,510.3	73.92	170.33	7,128.7	-74.9	975.3	273.8	13.00	11.11	7.04
TOP B2 TARGET									
7,582.0	81.95	175.19	7,143.7	-144.5	984.1	343.7	13.00	11.19	6.77
BASE B2 TARGET									
7,600.0	83.97	176.37	7,145.9	-162.3	985.4	361.4	13.00	11.25	6.56
7,657.5	90.45	180.10	7,148.7	-219.6	987.2	417.9	13.00	11.27	6.48
7" - Landing Pt. 460'FNL & 1595'FWL									
7,696.7	90.45	180.10	7,148.4	-258.8	987.1	456.2	0.01	0.01	0.00
7,700.0	90.45	180.10	7,148.4	-262.1	987.1	459.5	0.00	0.00	0.00
7,800.0	90.45	180.10	7,147.6	-362.1	986.9	557.3	0.00	0.00	0.00
7,900.0	90.45	180.10	7,146.8	-462.1	986.8	655.1	0.00	0.00	0.00
8,000.0	90.45	180.10	7,146.0	-562.1	986.6	752.9	0.00	0.00	0.00
8,100.0	90.45	180.10	7,145.2	-662.1	986.4	850.8	0.00	0.00	0.00
8,200.0	90.45	180.10	7,144.4	-762.1	986.2	948.6	0.00	0.00	0.00

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Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**North Reference:**	True
Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (10-22-13)		

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)	Turn Rate (°/100ft)
8,300.0	90.45	180.10	7,143.6	-862.1	986.1	1,046.4	0.00	0.00	0.00
8,400.0	90.45	180.10	7,142.9	-962.1	985.9	1,144.2	0.00	0.00	0.00
8,500.0	90.45	180.10	7,142.1	-1,062.1	985.7	1,242.1	0.00	0.00	0.00
8,600.0	90.45	180.10	7,141.3	-1,162.1	985.6	1,339.9	0.00	0.00	0.00
8,700.0	90.45	180.10	7,140.5	-1,262.1	985.4	1,437.7	0.00	0.00	0.00
8,800.0	90.45	180.10	7,139.7	-1,362.1	985.2	1,535.5	0.00	0.00	0.00
8,900.0	90.45	180.10	7,138.9	-1,462.1	985.0	1,633.4	0.00	0.00	0.00
9,000.0	90.45	180.10	7,138.1	-1,562.1	984.9	1,731.2	0.00	0.00	0.00
9,100.0	90.45	180.10	7,137.3	-1,662.1	984.7	1,829.0	0.00	0.00	0.00
9,200.0	90.45	180.10	7,136.6	-1,762.1	984.5	1,926.8	0.00	0.00	0.00
9,300.0	90.45	180.10	7,135.8	-1,862.1	984.4	2,024.7	0.00	0.00	0.00
9,400.0	90.45	180.10	7,135.0	-1,962.1	984.2	2,122.5	0.00	0.00	0.00
9,500.0	90.45	180.10	7,134.2	-2,062.1	984.0	2,220.3	0.00	0.00	0.00
9,600.0	90.45	180.10	7,133.4	-2,162.1	983.8	2,318.1	0.00	0.00	0.00
9,700.0	90.45	180.10	7,132.6	-2,262.1	983.7	2,416.0	0.00	0.00	0.00
9,800.0	90.45	180.10	7,131.8	-2,362.1	983.5	2,513.8	0.00	0.00	0.00
9,900.0	90.45	180.10	7,131.0	-2,462.1	983.3	2,611.6	0.00	0.00	0.00
10,000.0	90.45	180.10	7,130.2	-2,562.1	983.2	2,709.4	0.00	0.00	0.00
10,100.0	90.45	180.10	7,129.5	-2,662.1	983.0	2,807.3	0.00	0.00	0.00
10,200.0	90.45	180.10	7,128.7	-2,762.0	982.8	2,905.1	0.00	0.00	0.00
10,300.0	90.45	180.10	7,127.9	-2,862.0	982.7	3,002.9	0.00	0.00	0.00
10,400.0	90.45	180.10	7,127.1	-2,962.0	982.5	3,100.7	0.00	0.00	0.00
10,500.0	90.45	180.10	7,126.3	-3,062.0	982.3	3,198.6	0.00	0.00	0.00
10,600.0	90.45	180.10	7,125.5	-3,162.0	982.1	3,296.4	0.00	0.00	0.00
10,700.0	90.45	180.10	7,124.7	-3,262.0	982.0	3,394.2	0.00	0.00	0.00
10,800.0	90.45	180.10	7,123.9	-3,362.0	981.8	3,492.1	0.00	0.00	0.00
10,900.0	90.45	180.10	7,123.2	-3,462.0	981.6	3,589.9	0.00	0.00	0.00
11,000.0	90.45	180.10	7,122.4	-3,562.0	981.5	3,687.7	0.00	0.00	0.00
11,100.0	90.45	180.10	7,121.6	-3,662.0	981.3	3,785.5	0.00	0.00	0.00
11,200.0	90.45	180.10	7,120.8	-3,762.0	981.1	3,883.4	0.00	0.00	0.00
11,300.0	90.45	180.10	7,120.0	-3,862.0	980.9	3,981.2	0.00	0.00	0.00
11,400.0	90.45	180.10	7,119.2	-3,962.0	980.8	4,079.0	0.00	0.00	0.00
11,500.0	90.45	180.10	7,118.4	-4,062.0	980.6	4,176.8	0.00	0.00	0.00
11,600.0	90.45	180.10	7,117.6	-4,162.0	980.4	4,274.7	0.00	0.00	0.00
11,700.0	90.45	180.10	7,116.9	-4,262.0	980.3	4,372.5	0.00	0.00	0.00
11,800.0	90.45	180.10	7,116.1	-4,362.0	980.1	4,470.3	0.00	0.00	0.00
11,900.0	90.45	180.10	7,115.3	-4,462.0	979.9	4,568.1	0.00	0.00	0.00
12,000.0	90.45	180.10	7,114.5	-4,562.0	979.7	4,666.0	0.00	0.00	0.00
12,100.0	90.45	180.10	7,113.7	-4,662.0	979.6	4,763.8	0.00	0.00	0.00
12,101.2	90.45	180.10	7,113.7	-4,663.2	979.6	4,765.0	0.00	0.00	0.00

TD at 12101.2 - BHL 470'FSL & 1595'FWL

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,657.5	7,148.7	7"	7	7-1/2

Database:	Landmark	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Company:	Great Western	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Project:	SEC.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**North Reference:**	True
Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (10-22-13)		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,052.7	1,052.7	PIERRE		0.00	
3,649.7	3,649.7	PARKMAN		0.00	
4,186.7	4,186.7	SUSSEX		0.00	
4,754.7	4,754.7	SHANNON		0.00	
7,090.2	6,876.7	SHARON SPRINGS		0.00	
7,230.5	6,985.7	NIOBRARA		0.00	
7,510.3	7,128.7	TOP B2 TARGET		0.00	
7,582.0	7,143.7	BASE B2 TARGET		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
4,900.0	4,900.0	0.0	0.0	KOP - Start Build 3.00
6,896.8	6,710.7	219.7	734.9	Start DLS 13.00 TFO 104.26
12,101.2	7,113.7	-4,663.2	979.6	TD at 12101.2

ENSIGN Directional

Great Western

SEC.11-T6N-R67W
Tailholt FD Horizontal Pad Sec.11-T6N-R67W
Tailholt FD 11-374HN

Wellbore #1
Plan #4 (10-22-13)

Anticollision Report

22 October, 2013

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Reference Plan #4 (10-22-13)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 10/22/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,101.2	Plan #4 (10-22-13) (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Tailholt FD Horizontal Pad Sec.11-T6N-R67W						
Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1	0.0	1.8	20.3	20.3	7,851.760	CC
Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1	3,500.0	3,502.0	26.5	11.2	1.730	ES
Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1	4,929.5	4,932.4	35.4	13.6	1.622	SF
Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13)	4,000.0	4,000.0	39.2	18.3	1.870	CC, ES, SF
Tailholt FD 11-373HC - Wellbore #1 - Plan #4 (10-22-13)	4,600.0	4,600.0	20.0	-4.1	0.830	Level 1, CC, ES, SF

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 100-NS-GYRO-MS, 7648-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.8	1.8	0.0	0.0	-90.08	0.0	-20.3	20.3	20.3	0.00	7,851.760	CC
100.0	100.0	101.8	101.8	0.1	0.1	-90.75	-0.3	-20.4	20.4	20.1	0.27	75.450	
200.0	200.0	201.8	201.8	0.4	0.4	-92.21	-0.8	-20.5	20.5	19.7	0.80	25.611	
300.0	300.0	301.7	301.7	0.7	0.7	-93.20	-1.2	-20.7	20.7	19.4	1.33	15.600	
400.0	400.0	401.8	401.7	0.9	0.9	-93.95	-1.4	-20.9	20.9	19.1	1.85	11.312	
500.0	500.0	501.7	501.7	1.2	1.2	-94.52	-1.7	-21.2	21.3	18.9	2.37	8.972	
600.0	600.0	601.6	601.6	1.5	1.4	-95.04	-1.9	-21.8	21.9	19.0	2.87	7.618	
700.0	700.0	701.5	701.5	1.7	1.7	-95.85	-2.3	-22.8	22.9	19.6	3.39	6.772	
800.0	800.0	801.4	801.3	2.0	1.9	-96.62	-2.8	-24.4	24.6	20.7	3.90	6.308	
900.0	900.0	901.3	901.3	2.3	2.2	-97.40	-3.4	-26.3	26.5	22.1	4.42	5.996	
1,000.0	1,000.0	1,001.2	1,001.1	2.5	2.4	-97.69	-3.8	-28.4	28.7	23.7	4.93	5.815	
1,100.0	1,100.0	1,101.0	1,100.9	2.8	2.7	-97.74	-4.2	-30.9	31.2	25.8	5.45	5.731	
1,200.0	1,200.0	1,201.0	1,200.8	3.1	2.9	-97.60	-4.5	-33.7	34.1	28.1	5.96	5.714	
1,300.0	1,300.0	1,301.1	1,300.9	3.3	3.2	-97.56	-4.8	-36.5	36.8	30.3	6.48	5.678	
1,400.0	1,400.0	1,401.8	1,401.6	3.6	3.4	-98.28	-5.5	-37.7	38.1	31.0	7.01	5.430	
1,500.0	1,500.0	1,501.9	1,501.7	3.8	3.7	-99.36	-6.3	-38.1	38.6	31.0	7.51	5.132	
1,600.0	1,600.0	1,602.3	1,602.1	4.1	3.8	-101.28	-7.4	-37.2	38.0	30.0	7.91	4.801	
1,700.0	1,700.0	1,702.4	1,702.1	4.4	3.9	-103.03	-8.4	-36.2	37.2	28.9	8.28	4.491	
1,800.0	1,800.0	1,802.4	1,802.1	4.6	3.9	-102.62	-7.9	-35.3	36.1	27.6	8.56	4.224	
1,900.0	1,900.0	1,902.1	1,901.9	4.9	3.9	-101.44	-7.0	-34.8	35.5	26.7	8.85	4.014	
1,988.4	1,988.4	1,990.4	1,990.2	5.1	4.0	-100.02	-6.2	-34.8	35.4	26.2	9.15	3.864	
2,000.0	2,000.0	2,002.0	2,001.8	5.2	4.0	-99.79	-6.0	-34.9	35.4	26.2	9.20	3.847	

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

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 100-NS-GYRO-MS, 7648-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,100.0	2,100.0	2,102.1	2,101.9	5.4	4.1	-97.86	-4.8	-35.1	35.4	25.8	9.57	3.699	
2,200.0	2,200.0	2,202.2	2,201.9	5.7	4.2	-96.48	-4.0	-34.8	35.0	25.1	9.92	3.530	
2,300.0	2,300.0	2,302.3	2,302.1	6.0	4.3	-95.34	-3.2	-34.4	34.6	24.3	10.28	3.363	
2,400.0	2,400.0	2,402.8	2,402.5	6.2	4.4	-94.27	-2.5	-33.1	33.2	22.5	10.63	3.120	
2,500.0	2,500.0	2,502.7	2,502.5	6.5	4.5	-93.28	-1.8	-30.9	31.0	20.0	10.99	2.818	
2,600.0	2,600.0	2,602.6	2,602.3	6.8	4.6	-92.13	-1.1	-29.1	29.1	17.7	11.37	2.558	
2,700.0	2,700.0	2,702.5	2,702.2	7.0	4.7	-90.93	-0.4	-27.5	27.5	15.7	11.76	2.337	
2,800.0	2,800.0	2,802.4	2,802.1	7.3	4.9	-89.85	0.1	-26.2	26.2	14.1	12.16	2.157	
2,900.0	2,900.0	2,902.3	2,901.9	7.6	5.0	-89.07	0.4	-25.5	25.5	12.9	12.57	2.027	
2,986.8	2,986.8	2,988.9	2,988.6	7.8	5.2	-89.35	0.3	-25.2	25.2	12.3	12.95	1.948	
3,000.0	3,000.0	3,002.1	3,001.8	7.8	5.2	-89.60	0.2	-25.2	25.2	12.2	13.01	1.940	
3,100.0	3,100.0	3,102.1	3,101.7	8.1	5.4	-91.80	-0.8	-25.4	25.4	11.9	13.46	1.887	
3,200.0	3,200.0	3,202.1	3,201.7	8.4	5.6	-93.50	-1.6	-25.6	25.7	11.8	13.93	1.845	
3,300.0	3,300.0	3,302.0	3,301.7	8.6	5.8	-94.96	-2.2	-25.9	26.0	11.6	14.40	1.808	
3,400.0	3,400.0	3,402.1	3,401.7	8.9	6.0	-96.70	-3.1	-26.1	26.3	11.4	14.87	1.767	
3,500.0	3,500.0	3,502.0	3,501.7	9.2	6.2	-98.51	-3.9	-26.3	26.5	11.2	15.35	1.730 ES	
3,600.0	3,600.0	3,601.9	3,601.5	9.4	6.4	-99.85	-4.7	-26.8	27.2	11.4	15.83	1.719	
3,700.0	3,700.0	3,701.8	3,701.4	9.7	6.6	-100.86	-5.3	-27.8	28.4	12.1	16.31	1.739	
3,800.0	3,800.0	3,801.5	3,801.1	10.0	6.8	-100.91	-5.7	-29.6	30.1	13.3	16.78	1.795	
3,900.0	3,900.0	3,901.4	3,901.0	10.2	7.0	-100.59	-6.0	-32.0	32.6	15.3	17.25	1.889	
4,000.0	4,000.0	4,001.8	4,001.4	10.5	7.2	-99.98	-6.0	-33.9	34.5	16.7	17.72	1.944	
4,100.0	4,100.0	4,102.0	4,101.6	10.8	7.4	-99.70	-5.9	-34.8	35.3	17.1	18.20	1.940	
4,200.0	4,200.0	4,201.9	4,201.5	11.0	7.6	-99.07	-5.7	-35.5	36.0	17.3	18.66	1.928	
4,300.0	4,300.0	4,301.6	4,301.2	11.3	7.9	-98.73	-5.7	-36.9	37.3	18.2	19.14	1.950	
4,400.0	4,400.0	4,401.8	4,401.3	11.5	8.1	-99.27	-6.2	-38.3	38.8	19.2	19.63	1.976	
4,500.0	4,500.0	4,502.1	4,501.7	11.8	8.3	-99.93	-6.9	-39.1	39.7	19.6	20.13	1.973	
4,600.0	4,600.0	4,602.5	4,602.1	12.1	8.5	-100.41	-7.2	-39.0	39.6	19.0	20.59	1.924	
4,700.0	4,700.0	4,702.9	4,702.4	12.3	8.6	-100.70	-7.1	-37.8	38.5	17.5	20.97	1.834	
4,800.0	4,800.0	4,802.8	4,802.3	12.6	8.7	-100.05	-6.5	-36.4	37.0	15.7	21.33	1.735	
4,900.0	4,900.0	4,902.8	4,902.3	12.9	8.8	-99.29	-5.7	-35.1	35.6	13.9	21.71	1.639	
4,929.5	4,929.5	4,932.4	4,931.9	12.9	8.9	-172.49	-5.6	-34.7	35.4	13.6	21.80	1.622 SF	
5,000.0	5,000.0	5,002.8	5,002.3	13.1	9.0	-172.97	-5.4	-33.6	36.6	14.6	22.01	1.665	
5,100.0	5,099.6	5,102.5	5,102.0	13.2	9.1	-174.52	-5.4	-32.2	43.0	20.8	22.21	1.938	
5,200.0	5,198.8	5,201.6	5,201.1	13.4	9.2	-176.28	-5.6	-31.0	55.0	32.6	22.37	2.456	
5,300.0	5,297.1	5,300.0	5,299.5	13.6	9.4	-177.71	-6.0	-30.0	72.2	49.8	22.49	3.213	
5,400.0	5,394.3	5,397.3	5,396.7	13.8	9.6	-178.62	-6.4	-29.1	94.8	72.3	22.55	4.206	
5,500.0	5,490.2	5,493.4	5,492.9	13.9	9.7	-179.10	-6.6	-28.4	122.6	100.0	22.55	5.437	
5,600.0	5,584.4	5,592.5	5,591.9	14.1	9.9	-179.26	-6.1	-26.9	154.5	132.0	22.48	6.871	
5,700.0	5,676.8	5,686.5	5,685.9	14.3	10.0	-178.99	-3.8	-23.6	189.0	166.6	22.34	8.460	
5,800.0	5,767.1	5,780.2	5,779.5	14.5	10.1	-178.64	-0.9	-20.2	228.0	205.9	22.14	10.298	
5,900.0	5,854.9	5,882.4	5,881.2	14.8	10.3	-177.39	7.0	-15.7	270.2	248.3	21.90	12.337	
6,000.0	5,940.9	5,979.9	5,977.7	15.0	10.4	-175.78	19.4	-8.2	311.9	289.9	22.06	14.140	
6,100.0	6,026.7	6,073.8	6,070.3	15.3	10.6	-174.49	32.4	0.2	352.6	330.2	22.40	15.743	
6,200.0	6,112.6	6,182.1	6,176.4	15.5	10.7	-172.89	50.6	12.0	391.2	368.4	22.78	17.175	
6,300.0	6,198.4	6,301.7	6,293.1	15.8	11.0	-171.98	68.3	31.2	425.6	402.4	23.18	18.358	
6,400.0	6,284.2	6,424.5	6,410.4	16.1	11.2	-170.59	92.2	57.9	453.6	430.0	23.62	19.205	
6,500.0	6,370.1	6,606.8	6,572.1	16.4	11.5	-165.92	153.2	114.7	470.0	445.8	24.28	19.359	
6,600.0	6,455.9	6,796.9	6,724.6	16.7	12.0	-161.64	214.9	208.6	466.4	441.3	25.04	18.625	
6,700.0	6,541.7	6,884.0	6,796.2	17.0	12.2	-162.41	221.0	257.4	458.0	432.6	25.40	18.031	
6,800.0	6,627.6	6,966.5	6,864.6	17.4	12.4	-165.47	208.4	301.7	451.7	426.1	25.65	17.614	
6,828.4	6,652.0	6,983.7	6,878.8	17.4	12.5	-166.54	203.9	310.1	451.3	425.6	25.71	17.556	
6,900.0	6,713.4	7,025.0	6,913.1	17.7	12.5	-169.47	190.5	328.8	454.2	428.3	25.86	17.562	

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

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 100-NS-GYRO-MS, 7648-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,000.0	6,800.0	7,075.0	6,954.4	18.0	12.6	163.88	169.8	348.0	467.0	440.6	26.37	17.707	
7,100.0	6,884.8	7,146.4	7,011.3	18.2	12.7	139.09	133.1	370.4	485.8	458.6	27.25	17.828	
7,200.0	6,963.5	7,233.0	7,073.4	18.4	12.9	120.83	77.8	394.3	504.6	476.4	28.22	17.881	
7,300.0	7,032.2	7,332.5	7,129.1	18.5	13.0	108.27	0.2	421.8	516.7	487.7	29.00	17.814	
7,400.0	7,087.2	7,400.0	7,161.6	18.6	13.1	101.32	-56.7	437.5	525.1	495.7	29.35	17.888	
7,500.0	7,125.8	7,470.9	7,185.3	18.7	13.2	97.21	-122.3	449.3	530.5	501.0	29.50	17.983	
7,600.0	7,145.9	7,551.1	7,199.6	18.7	14.4	95.52	-200.7	457.9	531.5	501.9	29.54	17.990	
7,700.0	7,148.4	7,648.0	7,202.6	18.8	16.0	95.75	-297.3	463.1	527.8	498.1	29.65	17.800	
7,800.0	7,147.6	7,728.5	7,198.0	18.9	16.1	95.34	-377.6	465.4	524.0	494.0	29.97	17.483	
7,900.0	7,146.8	7,828.3	7,192.0	19.1	16.1	94.79	-477.2	466.9	521.9	491.3	30.59	17.059	
8,000.0	7,146.0	7,918.1	7,185.6	19.2	16.2	94.18	-566.8	468.7	519.3	487.9	31.39	16.542	
8,068.2	7,145.5	7,981.0	7,182.7	19.4	16.2	93.92	-629.6	468.7	518.9	486.9	32.04	16.199	
8,100.0	7,145.2	8,006.0	7,182.1	19.4	16.3	93.87	-654.6	468.6	519.1	486.7	32.33	16.057	
8,200.0	7,144.4	8,089.7	7,181.8	19.7	16.3	93.88	-738.2	465.6	522.4	489.0	33.42	15.632	
8,300.0	7,143.6	8,198.0	7,180.4	20.0	17.2	93.80	-846.5	461.2	526.2	491.3	34.92	15.069	
8,400.0	7,142.9	8,293.7	7,178.2	20.3	18.4	93.61	-942.1	457.3	530.1	493.6	36.43	14.549	
8,500.0	7,142.1	8,404.1	7,172.3	20.6	19.8	93.05	-1,052.3	453.9	532.6	494.4	38.24	13.930	
8,600.0	7,141.3	8,502.4	7,168.1	21.0	21.2	92.68	-1,150.4	451.9	534.4	494.4	40.01	13.356	
8,700.0	7,140.5	8,614.2	7,161.2	21.4	22.9	92.02	-1,262.0	450.2	535.5	493.5	42.06	12.731	
8,707.0	7,140.4	8,620.5	7,160.8	21.4	22.9	91.98	-1,268.3	450.2	535.5	493.3	42.19	12.694	
8,800.0	7,139.7	8,711.2	7,154.5	21.8	24.3	91.39	-1,358.7	449.5	535.9	492.0	43.98	12.185	
8,900.0	7,138.9	8,817.1	7,147.2	22.2	25.9	90.69	-1,464.3	449.7	535.4	489.4	46.06	11.624	
8,915.0	7,138.8	8,828.9	7,146.6	22.3	26.1	90.65	-1,476.2	449.7	535.4	489.1	46.32	11.559	
9,000.0	7,138.1	8,902.8	7,144.3	22.7	27.3	90.46	-1,550.0	448.3	536.8	488.9	47.91	11.205	
9,100.0	7,137.3	9,000.4	7,141.9	23.2	28.8	90.28	-1,647.6	446.3	538.6	488.6	49.99	10.773	
9,200.0	7,136.6	9,112.4	7,140.4	23.8	30.6	90.22	-1,759.5	444.7	539.8	487.5	52.34	10.314	
9,300.0	7,135.8	9,197.4	7,141.1	24.3	31.9	90.36	-1,844.5	443.0	541.7	487.3	54.34	9.969	
9,400.0	7,135.0	9,292.2	7,140.5	24.9	33.5	90.37	-1,939.2	439.5	545.2	488.6	56.55	9.640	
9,500.0	7,134.2	9,395.1	7,139.0	25.5	35.2	90.30	-2,042.1	435.9	548.5	489.6	58.90	9.312	
9,600.0	7,133.4	9,504.4	7,140.4	26.1	37.0	90.53	-2,151.3	432.4	551.6	490.2	61.37	8.988	
9,700.0	7,132.6	9,629.6	7,141.8	26.7	39.1	90.79	-2,276.5	433.4	550.5	486.4	64.17	8.580	
9,800.0	7,131.8	9,730.0	7,141.9	27.4	40.8	90.88	-2,376.8	436.0	547.7	481.1	66.60	8.225	
9,900.0	7,131.0	9,825.4	7,136.6	28.0	42.5	90.40	-2,472.1	437.9	545.5	476.6	68.93	7.915	
10,000.0	7,130.2	9,922.9	7,131.1	28.7	44.1	89.91	-2,569.4	439.7	543.5	472.3	71.27	7.626	
10,100.0	7,129.5	10,016.5	7,128.4	29.4	45.7	89.70	-2,662.9	440.3	542.7	469.1	73.58	7.376	
10,114.8	7,129.3	10,029.5	7,128.3	29.5	45.9	89.70	-2,675.9	440.3	542.7	468.8	73.91	7.342	
10,200.0	7,128.7	10,108.4	7,127.7	30.1	47.3	89.70	-2,754.8	439.6	543.3	467.4	75.91	7.157	
10,300.0	7,127.9	10,205.7	7,128.8	30.8	49.0	89.90	-2,852.1	437.6	545.1	466.8	78.34	6.959	
10,400.0	7,127.1	10,311.8	7,131.0	31.6	50.8	90.22	-2,958.2	436.6	545.9	464.9	80.96	6.743	
10,500.0	7,126.3	10,424.3	7,132.2	32.3	52.8	90.43	-3,070.7	436.5	545.8	462.1	83.71	6.521	
10,574.9	7,125.7	10,489.6	7,133.4	32.9	53.9	90.62	-3,135.9	437.2	545.0	459.6	85.45	6.378	
10,600.0	7,125.5	10,510.2	7,133.6	33.0	54.3	90.65	-3,156.5	437.1	545.1	459.1	86.01	6.338	
10,700.0	7,124.7	10,611.6	7,133.4	33.8	56.1	90.72	-3,257.9	435.3	546.7	458.1	88.59	6.171	
10,800.0	7,123.9	10,707.6	7,133.7	34.6	57.8	90.83	-3,354.0	434.9	547.0	455.9	91.08	6.006	
10,900.0	7,123.2	10,805.9	7,131.1	35.3	59.5	90.63	-3,452.2	433.1	548.6	455.0	93.58	5.862	
11,000.0	7,122.4	10,904.6	7,128.7	36.1	61.2	90.46	-3,550.8	431.2	550.4	454.3	96.09	5.728	
11,100.0	7,121.6	11,007.0	7,125.7	36.9	63.0	90.23	-3,653.1	429.0	552.3	453.6	98.70	5.596	
11,200.0	7,120.8	11,119.6	7,124.8	37.7	65.0	90.23	-3,765.7	429.1	552.1	450.6	101.50	5.439	
11,224.7	7,120.6	11,140.4	7,124.8	37.9	65.3	90.25	-3,786.6	429.1	551.9	449.9	102.08	5.407	
11,300.0	7,120.0	11,213.0	7,124.2	38.5	66.6	90.24	-3,859.1	428.5	552.5	448.5	104.00	5.312	
11,366.5	7,119.5	11,278.6	7,124.1	39.0	67.8	90.29	-3,924.7	428.9	551.9	446.2	105.72	5.221	
11,400.0	7,119.2	11,304.7	7,123.8	39.3	68.3	90.28	-3,950.8	428.5	552.4	445.9	106.46	5.188	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 100-NS-GYRO-MS, 7648-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
11,500.0	7,118.4	11,405.3	7,119.2	40.1	70.0	89.88	-4,051.3	426.3	554.4	445.4	109.05	5.084	
11,600.0	7,117.6	11,516.6	7,111.7	40.9	72.0	89.20	-4,162.3	425.1	555.4	443.6	111.77	4.969	
11,700.0	7,116.9	11,624.5	7,107.4	41.7	73.9	88.84	-4,270.1	426.2	554.3	439.8	114.49	4.841	
11,800.0	7,116.1	11,733.0	7,103.7	42.5	75.8	88.54	-4,378.5	428.5	552.0	434.8	117.22	4.709	
11,900.0	7,115.3	11,832.7	7,105.7	43.4	77.6	88.83	-4,478.2	431.2	549.1	429.3	119.85	4.582	
12,000.0	7,114.5	11,934.1	7,109.0	44.2	79.4	89.24	-4,579.4	434.3	545.8	423.2	122.53	4.454	
12,074.3	7,113.9	11,990.0	7,111.0	44.8	80.4	89.50	-4,635.3	436.1	543.6	419.4	124.18	4.377	
12,100.0	7,113.7	11,990.0	7,111.0	45.0	80.4	89.50	-4,635.3	436.1	544.2	419.8	124.40	4.374	
12,101.2	7,113.7	11,990.0	7,111.0	45.0	80.4	89.50	-4,635.3	436.1	544.2	419.8	124.41	4.375	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13 — **Offset Site Error:** 0.0 ft

Survey Program: 0-NS-GYRO-MS — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	91.54	-1.1	39.2	39.2				
100.0	100.0	100.0	100.0	0.1	0.1	91.54	-1.1	39.2	39.2	39.0	0.27	147.761	
200.0	200.0	200.0	200.0	0.4	0.4	91.54	-1.1	39.2	39.2	38.4	0.80	49.254	
300.0	300.0	300.0	300.0	0.7	0.7	91.54	-1.1	39.2	39.2	37.9	1.33	29.552	
400.0	400.0	400.0	400.0	0.9	0.9	91.54	-1.1	39.2	39.2	37.4	1.86	21.109	
500.0	500.0	500.0	500.0	1.2	1.2	91.54	-1.1	39.2	39.2	36.8	2.39	16.418	
600.0	600.0	600.0	600.0	1.5	1.5	91.54	-1.1	39.2	39.2	36.3	2.92	13.433	
700.0	700.0	700.0	700.0	1.7	1.7	91.54	-1.1	39.2	39.2	35.8	3.45	11.366	
800.0	800.0	800.0	800.0	2.0	2.0	91.54	-1.1	39.2	39.2	35.2	3.98	9.851	
900.0	900.0	900.0	900.0	2.3	2.3	91.54	-1.1	39.2	39.2	34.7	4.51	8.692	
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	91.54	-1.1	39.2	39.2	34.2	5.04	7.777	
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	91.54	-1.1	39.2	39.2	33.6	5.57	7.036	
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	91.54	-1.1	39.2	39.2	33.1	6.11	6.424	
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	91.54	-1.1	39.2	39.2	32.6	6.64	5.910	
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	91.54	-1.1	39.2	39.2	32.1	7.17	5.473	
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	91.54	-1.1	39.2	39.2	31.5	7.70	5.095	
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	91.54	-1.1	39.2	39.2	31.0	8.23	4.766	
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	91.54	-1.1	39.2	39.2	30.5	8.76	4.478	
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	91.54	-1.1	39.2	39.2	29.9	9.29	4.222	
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	91.54	-1.1	39.2	39.2	29.4	9.82	3.994	
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	91.54	-1.1	39.2	39.2	28.9	10.35	3.789	
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	91.54	-1.1	39.2	39.2	28.3	10.88	3.604	
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	91.54	-1.1	39.2	39.2	27.8	11.41	3.436	
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	91.54	-1.1	39.2	39.2	27.3	11.95	3.284	
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	91.54	-1.1	39.2	39.2	26.7	12.48	3.144	
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	91.54	-1.1	39.2	39.2	26.2	13.01	3.016	
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	91.54	-1.1	39.2	39.2	25.7	13.54	2.897	
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	91.54	-1.1	39.2	39.2	25.2	14.07	2.788	
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	91.54	-1.1	39.2	39.2	24.6	14.60	2.687	
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	91.54	-1.1	39.2	39.2	24.1	15.13	2.592	
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	91.54	-1.1	39.2	39.2	23.6	15.66	2.504	
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	91.54	-1.1	39.2	39.2	23.0	16.19	2.422	
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	91.54	-1.1	39.2	39.2	22.5	16.72	2.345	
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	91.54	-1.1	39.2	39.2	22.0	17.25	2.273	
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	91.54	-1.1	39.2	39.2	21.4	17.78	2.205	
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	91.54	-1.1	39.2	39.2	20.9	18.32	2.141	
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	91.54	-1.1	39.2	39.2	20.4	18.85	2.081	
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	91.54	-1.1	39.2	39.2	19.8	19.38	2.024	
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	91.54	-1.1	39.2	39.2	19.3	19.91	1.970	
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	91.54	-1.1	39.2	39.2	18.8	20.44	1.919	
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	91.54	-1.1	39.2	39.2	18.3	20.97	1.870	CC, ES, SF
4,100.0	4,100.0	4,097.9	4,097.9	10.8	10.7	90.85	-0.6	41.7	41.7	20.3	21.44	1.947	
4,200.0	4,200.0	4,195.4	4,195.0	11.0	10.8	89.22	0.7	49.0	49.3	27.5	21.84	2.257	
4,300.0	4,300.0	4,291.8	4,290.7	11.3	11.0	87.40	2.8	61.1	61.9	39.6	22.25	2.782	
4,400.0	4,400.0	4,386.7	4,384.1	11.5	11.1	85.83	5.7	77.6	79.5	56.8	22.66	3.506	
4,500.0	4,500.0	4,479.8	4,474.7	11.8	11.3	84.62	9.3	98.3	101.9	78.8	23.08	4.414	
4,600.0	4,600.0	4,570.6	4,562.1	12.1	11.4	83.72	13.5	122.5	129.0	105.5	23.49	5.489	
4,700.0	4,700.0	4,658.8	4,645.8	12.3	11.6	83.05	18.3	150.0	160.6	136.7	23.91	6.714	
4,800.0	4,800.0	4,744.1	4,725.4	12.6	11.7	82.55	23.6	180.2	196.4	172.1	24.33	8.073	
4,900.0	4,900.0	4,826.5	4,800.9	12.9	11.9	82.18	29.2	212.6	236.4	211.6	24.76	9.548	
5,000.0	5,000.0	4,906.7	4,873.0	13.1	12.1	8.41	35.3	247.3	277.9	252.9	24.99	11.118	
5,100.0	5,099.6	4,985.7	4,942.5	13.2	12.3	8.17	41.7	284.3	318.4	293.2	25.20	12.636	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13 — **Offset Site Error:** 0.0 ft

Survey Program: 0-NS-GYRO-MS — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,198.8	5,073.3	5,018.2	13.4	12.5	8.07	49.3	327.8	357.2	331.8	25.37	14.082	
5,300.0	5,297.1	5,167.3	5,099.3	13.6	12.7	8.09	57.5	374.6	391.3	365.9	25.49	15.355	
5,400.0	5,394.3	5,262.9	5,181.8	13.8	13.0	8.21	65.8	422.2	420.6	395.0	25.56	16.456	
5,500.0	5,490.2	5,359.9	5,265.4	13.9	13.2	8.43	74.2	470.5	444.9	419.3	25.58	17.389	
5,600.0	5,584.4	5,458.0	5,350.0	14.1	13.5	8.73	82.8	519.4	464.1	438.5	25.56	18.159	
5,700.0	5,676.8	5,556.9	5,435.4	14.3	13.8	9.13	91.4	568.6	478.2	452.7	25.48	18.767	
5,800.0	5,767.1	5,656.3	5,521.2	14.5	14.2	9.62	100.0	618.2	487.3	461.9	25.36	19.215	
5,900.0	5,854.9	5,756.1	5,607.3	14.8	14.5	10.22	108.7	667.9	491.2	466.0	25.19	19.500	
6,000.0	5,940.9	5,855.9	5,693.4	15.0	14.8	10.92	117.4	717.6	491.4	466.0	25.44	19.318	
6,008.7	5,948.3	5,864.6	5,700.9	15.0	14.9	10.98	118.1	722.0	491.4	465.9	25.47	19.290	
6,100.0	6,026.7	5,955.7	5,779.5	15.3	15.2	11.63	126.1	767.3	491.4	465.6	25.87	18.995	
6,200.0	6,112.6	6,055.6	5,865.6	15.5	15.5	12.33	134.7	817.1	491.5	465.2	26.32	18.677	
6,300.0	6,198.4	6,155.4	5,951.7	15.8	15.9	13.03	143.4	866.8	491.7	464.9	26.78	18.365	
6,400.0	6,284.2	6,255.2	6,037.8	16.1	16.3	13.74	152.1	916.5	492.0	464.7	27.24	18.058	
6,500.0	6,370.1	6,355.0	6,123.9	16.4	16.6	14.44	160.8	966.2	492.3	464.6	27.72	17.757	
6,600.0	6,455.9	6,454.8	6,210.0	16.7	17.0	15.14	169.5	1,016.0	492.7	464.5	28.22	17.462	
6,700.0	6,541.7	6,554.6	6,296.2	17.0	17.4	15.84	178.1	1,065.7	493.2	464.5	28.72	17.173	
6,800.0	6,627.6	6,654.5	6,382.3	17.4	17.8	16.54	186.8	1,115.4	493.7	464.5	29.23	16.889	
6,900.0	6,713.4	6,754.3	6,468.4	17.7	18.2	16.55	195.5	1,165.1	494.4	464.6	29.75	16.614	
7,000.0	6,800.0	6,853.9	6,554.3	18.0	18.6	-6.43	204.2	1,214.8	494.4	464.3	30.08	16.439	
7,060.4	6,851.7	6,912.5	6,604.9	18.1	18.9	-20.64	209.3	1,244.0	494.3	464.0	30.29	16.316	
7,100.0	6,884.8	6,949.6	6,636.9	18.2	19.0	-29.22	212.5	1,262.4	494.4	463.9	30.51	16.207	
7,200.0	6,963.5	7,036.5	6,711.8	18.4	19.4	-47.25	220.0	1,305.7	498.0	466.7	31.27	15.927	
7,300.0	7,032.2	7,134.3	6,796.4	18.5	19.8	-61.11	219.7	1,354.5	508.9	476.6	32.27	15.769	
7,400.0	7,087.2	7,256.3	6,898.3	18.6	20.2	-71.97	189.5	1,413.5	526.0	492.9	33.12	15.883	
7,500.0	7,125.8	7,416.9	7,014.6	18.7	20.5	-80.95	103.0	1,480.8	545.8	512.4	33.47	16.310	
7,600.0	7,145.9	7,633.3	7,114.7	18.7	20.8	-87.36	-77.2	1,538.9	560.9	527.7	33.22	16.882	
7,700.0	7,148.4	7,821.6	7,134.5	18.8	21.0	-88.59	-263.0	1,550.6	563.7	530.6	33.08	17.040	
7,800.0	7,147.6	7,921.6	7,133.9	18.9	21.1	-88.61	-362.9	1,550.5	563.7	530.5	33.20	16.981	
7,900.0	7,146.8	8,021.6	7,133.3	19.1	21.3	-88.63	-462.9	1,550.3	563.7	530.3	33.41	16.871	
8,000.0	7,146.0	8,121.6	7,132.8	19.2	21.4	-88.66	-562.9	1,550.2	563.7	530.0	33.73	16.713	
8,100.0	7,145.2	8,221.6	7,132.2	19.4	21.7	-88.68	-662.9	1,550.0	563.7	529.6	34.14	16.512	
8,200.0	7,144.4	8,321.6	7,131.6	19.7	21.9	-88.70	-762.9	1,549.8	563.7	529.1	34.65	16.271	
8,300.0	7,143.6	8,421.6	7,131.1	20.0	22.2	-88.72	-862.9	1,549.7	563.7	528.5	35.24	15.997	
8,400.0	7,142.9	8,521.6	7,130.5	20.3	22.5	-88.75	-962.9	1,549.5	563.7	527.8	35.92	15.695	
8,500.0	7,142.1	8,621.6	7,130.0	20.6	22.8	-88.77	-1,062.9	1,549.4	563.8	527.1	36.68	15.371	
8,600.0	7,141.3	8,721.6	7,129.4	21.0	23.2	-88.79	-1,162.9	1,549.2	563.8	526.2	37.51	15.029	
8,700.0	7,140.5	8,821.6	7,128.8	21.4	23.6	-88.82	-1,262.9	1,549.0	563.8	525.4	38.41	14.676	
8,800.0	7,139.7	8,921.6	7,128.3	21.8	24.0	-88.84	-1,362.9	1,548.9	563.8	524.4	39.38	14.315	
8,900.0	7,138.9	9,021.6	7,127.7	22.2	24.5	-88.86	-1,462.9	1,548.7	563.8	523.4	40.41	13.950	
9,000.0	7,138.1	9,121.6	7,127.1	22.7	24.9	-88.88	-1,562.9	1,548.6	563.8	522.3	41.50	13.586	
9,100.0	7,137.3	9,221.6	7,126.6	23.2	25.4	-88.91	-1,662.9	1,548.4	563.8	521.2	42.64	13.223	
9,200.0	7,136.6	9,321.6	7,126.0	23.8	25.9	-88.93	-1,762.9	1,548.2	563.8	520.0	43.82	12.866	
9,300.0	7,135.8	9,421.6	7,125.5	24.3	26.5	-88.95	-1,862.9	1,548.1	563.8	518.8	45.05	12.515	
9,400.0	7,135.0	9,521.6	7,124.9	24.9	27.0	-88.97	-1,962.9	1,547.9	563.8	517.5	46.32	12.172	
9,500.0	7,134.2	9,621.6	7,124.3	25.5	27.6	-89.00	-2,062.9	1,547.8	563.8	516.2	47.63	11.838	
9,600.0	7,133.4	9,721.6	7,123.8	26.1	28.2	-89.02	-2,162.9	1,547.6	563.8	514.9	48.97	11.514	
9,700.0	7,132.6	9,821.6	7,123.2	26.7	28.8	-89.04	-2,262.9	1,547.4	563.8	513.5	50.34	11.200	
9,800.0	7,131.8	9,921.6	7,122.6	27.4	29.4	-89.07	-2,362.9	1,547.3	563.8	512.1	51.75	10.896	
9,900.0	7,131.0	10,021.6	7,122.1	28.0	30.1	-89.09	-2,462.9	1,547.1	563.9	510.7	53.18	10.604	
10,000.0	7,130.2	10,121.6	7,121.5	28.7	30.7	-89.11	-2,562.9	1,547.0	563.9	509.2	54.63	10.322	
10,100.0	7,129.5	10,221.6	7,120.9	29.4	31.4	-89.13	-2,662.9	1,546.8	563.9	507.8	56.11	10.050	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13

Offset Site Error: 0.0 ft

Survey Program: 0-NS-GYRO-MS

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	7,128.7	10,321.6	7,120.4	30.1	32.1	-89.16	-2,762.9	1,546.6	563.9	506.3	57.60	9.789	
10,300.0	7,127.9	10,421.6	7,119.8	30.8	32.7	-89.18	-2,862.9	1,546.5	563.9	504.8	59.12	9.538	
10,400.0	7,127.1	10,521.6	7,119.3	31.6	33.4	-89.20	-2,962.9	1,546.3	563.9	503.2	60.65	9.297	
10,500.0	7,126.3	10,621.6	7,118.7	32.3	34.2	-89.23	-3,062.9	1,546.2	563.9	501.7	62.21	9.065	
10,600.0	7,125.5	10,721.6	7,118.1	33.0	34.9	-89.25	-3,162.9	1,546.0	563.9	500.1	63.77	8.842	
10,700.0	7,124.7	10,821.6	7,117.6	33.8	35.6	-89.27	-3,262.9	1,545.8	563.9	498.6	65.35	8.629	
10,800.0	7,123.9	10,921.6	7,117.0	34.6	36.3	-89.29	-3,362.9	1,545.7	563.9	497.0	66.95	8.423	
10,900.0	7,123.2	11,021.6	7,116.4	35.3	37.1	-89.32	-3,462.9	1,545.5	563.9	495.4	68.56	8.226	
11,000.0	7,122.4	11,121.6	7,115.9	36.1	37.8	-89.34	-3,562.9	1,545.4	563.9	493.8	70.17	8.036	
11,100.0	7,121.6	11,221.6	7,115.3	36.9	38.6	-89.36	-3,662.9	1,545.2	564.0	492.1	71.80	7.854	
11,200.0	7,120.8	11,321.6	7,114.8	37.7	39.4	-89.39	-3,762.9	1,545.0	564.0	490.5	73.44	7.679	
11,300.0	7,120.0	11,421.6	7,114.2	38.5	40.1	-89.41	-3,862.9	1,544.9	564.0	488.9	75.09	7.511	
11,400.0	7,119.2	11,521.6	7,113.6	39.3	40.9	-89.43	-3,962.9	1,544.7	564.0	487.2	76.75	7.348	
11,500.0	7,118.4	11,621.6	7,113.1	40.1	41.7	-89.45	-4,062.9	1,544.6	564.0	485.6	78.41	7.193	
11,600.0	7,117.6	11,721.6	7,112.5	40.9	42.5	-89.48	-4,162.9	1,544.4	564.0	483.9	80.09	7.042	
11,700.0	7,116.9	11,821.6	7,111.9	41.7	43.3	-89.50	-4,262.9	1,544.2	564.0	482.2	81.77	6.898	
11,800.0	7,116.1	11,921.6	7,111.4	42.5	44.1	-89.52	-4,362.9	1,544.1	564.0	480.6	83.45	6.758	
11,900.0	7,115.3	12,021.6	7,110.8	43.4	44.9	-89.55	-4,462.9	1,543.9	564.0	478.9	85.15	6.624	
12,000.0	7,114.5	12,121.6	7,110.2	44.2	45.7	-89.57	-4,562.9	1,543.8	564.0	477.2	86.85	6.495	
12,059.1	7,114.0	12,180.7	7,109.9	44.7	46.2	-89.58	-4,622.0	1,543.7	564.0	476.2	87.85	6.420	
12,100.0	7,113.7	12,219.0	7,109.7	45.0	46.5	-89.59	-4,660.3	1,543.6	564.1	475.5	88.53	6.371	
12,101.2	7,113.7	12,219.0	7,109.7	45.0	46.5	-89.59	-4,660.3	1,543.6	564.1	475.5	88.54	6.371	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-373HC - Wellbore #1 - Plan #4 (10-22-13 — **Offset Site Error:** 0.0 ft

Survey Program: 0-NS-GYRO-MS — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	93.01	-1.1	20.0	20.0				
100.0	100.0	100.0	100.0	0.1	0.1	93.01	-1.1	20.0	20.0	19.8	0.27	75.530	
200.0	200.0	200.0	200.0	0.4	0.4	93.01	-1.1	20.0	20.0	19.3	0.80	25.177	
300.0	300.0	300.0	300.0	0.7	0.7	93.01	-1.1	20.0	20.0	18.7	1.33	15.106	
400.0	400.0	400.0	400.0	0.9	0.9	93.01	-1.1	20.0	20.0	18.2	1.86	10.790	
500.0	500.0	500.0	500.0	1.2	1.2	93.01	-1.1	20.0	20.0	17.7	2.39	8.392	
600.0	600.0	600.0	600.0	1.5	1.5	93.01	-1.1	20.0	20.0	17.1	2.92	6.866	
700.0	700.0	700.0	700.0	1.7	1.7	93.01	-1.1	20.0	20.0	16.6	3.45	5.810	
800.0	800.0	800.0	800.0	2.0	2.0	93.01	-1.1	20.0	20.0	16.1	3.98	5.035	
900.0	900.0	900.0	900.0	2.3	2.3	93.01	-1.1	20.0	20.0	15.5	4.51	4.443	
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	93.01	-1.1	20.0	20.0	15.0	5.04	3.975	
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	93.01	-1.1	20.0	20.0	14.5	5.57	3.597	
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	93.01	-1.1	20.0	20.0	13.9	6.11	3.284	
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	93.01	-1.1	20.0	20.0	13.4	6.64	3.021	
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	93.01	-1.1	20.0	20.0	12.9	7.17	2.797	
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	93.01	-1.1	20.0	20.0	12.4	7.70	2.604	
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	93.01	-1.1	20.0	20.0	11.8	8.23	2.436	
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	93.01	-1.1	20.0	20.0	11.3	8.76	2.289	
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	93.01	-1.1	20.0	20.0	10.8	9.29	2.158	
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	93.01	-1.1	20.0	20.0	10.2	9.82	2.041	
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	93.01	-1.1	20.0	20.0	9.7	10.35	1.937	
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	93.01	-1.1	20.0	20.0	9.2	10.88	1.842	
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	93.01	-1.1	20.0	20.0	8.6	11.41	1.757	
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	93.01	-1.1	20.0	20.0	8.1	11.95	1.678	
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	93.01	-1.1	20.0	20.0	7.6	12.48	1.607	
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	93.01	-1.1	20.0	20.0	7.0	13.01	1.541	
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	93.01	-1.1	20.0	20.0	6.5	13.54	1.481	Level 3
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	93.01	-1.1	20.0	20.0	6.0	14.07	1.425	Level 3
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	93.01	-1.1	20.0	20.0	5.4	14.60	1.373	Level 3
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	93.01	-1.1	20.0	20.0	4.9	15.13	1.325	Level 3
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	93.01	-1.1	20.0	20.0	4.4	15.66	1.280	Level 3
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	93.01	-1.1	20.0	20.0	3.9	16.19	1.238	Level 2
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	93.01	-1.1	20.0	20.0	3.3	16.72	1.199	Level 2
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	93.01	-1.1	20.0	20.0	2.8	17.25	1.162	Level 2
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	93.01	-1.1	20.0	20.0	2.3	17.78	1.127	Level 2
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	93.01	-1.1	20.0	20.0	1.7	18.32	1.095	Level 2
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	93.01	-1.1	20.0	20.0	1.2	18.85	1.064	Level 2
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	93.01	-1.1	20.0	20.0	0.7	19.38	1.035	Level 2
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	93.01	-1.1	20.0	20.0	0.1	19.91	1.007	Level 2
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	93.01	-1.1	20.0	20.0	-0.4	20.44	0.981	Level 1
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	93.01	-1.1	20.0	20.0	-0.9	20.97	0.956	Level 1
4,100.0	4,100.0	4,100.0	4,100.0	10.8	10.8	93.01	-1.1	20.0	20.0	-1.5	21.50	0.932	Level 1
4,200.0	4,200.0	4,200.0	4,200.0	11.0	11.0	93.01	-1.1	20.0	20.0	-2.0	22.03	0.910	Level 1
4,300.0	4,300.0	4,300.0	4,300.0	11.3	11.3	93.01	-1.1	20.0	20.0	-2.5	22.56	0.889	Level 1
4,400.0	4,400.0	4,400.0	4,400.0	11.5	11.5	93.01	-1.1	20.0	20.0	-3.0	23.09	0.868	Level 1
4,500.0	4,500.0	4,500.0	4,500.0	11.8	11.8	93.01	-1.1	20.0	20.0	-3.6	23.62	0.849	Level 1
4,600.0	4,600.0	4,600.0	4,600.0	12.1	12.1	93.01	-1.1	20.0	20.0	-4.1	24.16	0.830	Level 1, CC, ES, SF
4,700.0	4,700.0	4,698.9	4,698.9	12.3	12.3	91.34	-0.5	22.5	22.6	-2.1	24.62	0.916	Level 1
4,800.0	4,800.0	4,797.3	4,796.9	12.6	12.4	88.02	1.0	30.0	30.2	5.1	25.04	1.205	Level 2
4,900.0	4,900.0	4,894.6	4,893.5	12.9	12.6	85.12	3.6	42.2	42.9	17.4	25.45	1.685	
5,000.0	5,000.0	4,990.9	4,988.2	13.1	12.7	10.11	7.1	59.0	58.1	32.3	25.78	2.253	
5,100.0	5,099.6	5,086.5	5,081.3	13.2	12.9	9.47	11.6	80.3	73.2	47.2	25.99	2.815	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-373HC - Wellbore #1 - Plan #4 (10-22-13 — **Offset Site Error:** 0.0 ft

Survey Program: 0-NS-GYRO-MS — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,198.8	5,181.4	5,172.5	13.4	13.1	9.31	17.0	106.0	88.1	61.9	26.15	3.369	
5,300.0	5,297.1	5,275.6	5,261.6	13.6	13.2	9.42	23.2	135.8	102.8	76.5	26.23	3.917	
5,400.0	5,394.3	5,369.2	5,348.6	13.8	13.4	9.70	30.3	169.6	117.2	90.9	26.26	4.461	
5,500.0	5,490.2	5,462.2	5,433.2	13.9	13.6	10.08	38.2	207.3	131.3	105.1	26.23	5.005	
5,600.0	5,584.4	5,554.6	5,515.3	14.1	13.8	10.54	46.9	248.7	145.1	119.0	26.14	5.551	
5,700.0	5,676.8	5,647.4	5,595.7	14.3	14.0	11.06	56.4	294.1	158.5	132.5	25.99	6.100	
5,800.0	5,767.1	5,746.8	5,680.9	14.5	14.2	11.83	67.0	344.3	168.7	142.9	25.81	6.536	
5,900.0	5,854.9	5,846.6	5,766.4	14.8	14.5	12.90	77.5	394.6	173.8	148.2	25.59	6.791	
6,000.0	5,940.9	5,946.5	5,852.0	15.0	14.8	14.24	88.1	445.0	175.1	149.3	25.82	6.783	
6,100.0	6,026.7	6,046.4	5,937.6	15.3	15.0	15.59	98.7	495.4	176.4	150.1	26.26	6.717	
6,200.0	6,112.6	6,146.3	6,023.2	15.5	15.3	16.92	109.2	545.8	177.7	151.0	26.71	6.654	
6,300.0	6,198.4	6,246.2	6,108.8	15.8	15.6	18.22	119.8	596.3	179.2	152.0	27.18	6.592	
6,400.0	6,284.2	6,346.1	6,194.4	16.1	16.0	19.51	130.4	646.7	180.7	153.0	27.67	6.531	
6,500.0	6,370.1	6,446.0	6,280.0	16.4	16.3	20.77	141.0	697.1	182.3	154.1	28.17	6.471	
6,600.0	6,455.9	6,546.0	6,365.6	16.7	16.6	22.01	151.5	747.5	184.0	155.3	28.69	6.413	
6,700.0	6,541.7	6,645.9	6,451.2	17.0	17.0	23.23	162.1	797.9	185.8	156.6	29.23	6.356	
6,800.0	6,627.6	6,745.8	6,536.8	17.4	17.3	24.42	172.7	848.3	187.7	157.9	29.79	6.300	
6,900.0	6,713.4	6,845.7	6,622.5	17.7	17.7	24.91	183.2	898.7	189.6	159.3	30.35	6.248	
7,000.0	6,800.0	6,945.1	6,707.7	18.0	18.1	0.19	193.8	948.9	189.4	159.2	30.18	6.275	
7,084.1	6,871.6	7,025.7	6,776.7	18.2	18.4	-23.82	202.3	989.5	188.1	157.8	30.35	6.198	
7,100.0	6,884.8	7,040.3	6,789.2	18.2	18.4	-28.28	203.8	996.9	188.2	157.7	30.49	6.172	
7,200.0	6,963.5	7,126.2	6,862.8	18.4	18.7	-53.80	212.9	1,040.3	196.1	164.1	31.98	6.132	
7,300.0	7,032.2	7,207.2	6,932.3	18.5	19.0	-73.62	220.4	1,081.2	224.4	191.1	33.33	6.733	
7,400.0	7,087.2	7,315.8	7,025.3	18.6	19.4	-90.56	210.7	1,135.9	269.8	236.4	33.35	8.089	
7,500.0	7,125.8	7,469.7	7,147.6	18.7	19.8	-104.94	153.0	1,207.7	320.8	289.4	31.39	10.218	
7,600.0	7,145.9	7,718.7	7,288.5	18.7	20.1	-116.19	-30.6	1,290.1	361.3	333.1	28.23	12.800	
7,700.0	7,148.4	7,956.7	7,325.8	18.8	20.3	-118.69	-262.2	1,311.3	369.6	342.3	27.28	13.548	
7,800.0	7,147.6	8,056.7	7,326.0	18.9	20.4	-118.82	-362.2	1,311.2	370.1	342.9	27.25	13.582	
7,900.0	7,146.8	8,156.7	7,326.2	19.1	20.5	-118.96	-462.2	1,311.0	370.6	343.3	27.32	13.567	
8,000.0	7,146.0	8,256.7	7,326.5	19.2	20.7	-119.09	-562.2	1,310.9	371.1	343.7	27.49	13.503	
8,100.0	7,145.2	8,356.7	7,326.7	19.4	20.9	-119.23	-662.2	1,310.7	371.6	343.9	27.75	13.390	
8,200.0	7,144.4	8,456.7	7,326.9	19.7	21.1	-119.36	-762.2	1,310.6	372.2	344.0	28.12	13.235	
8,300.0	7,143.6	8,556.7	7,327.1	20.0	21.4	-119.50	-862.2	1,310.4	372.7	344.1	28.58	13.041	
8,400.0	7,142.9	8,656.7	7,327.4	20.3	21.7	-119.63	-962.2	1,310.3	373.2	344.1	29.12	12.815	
8,500.0	7,142.1	8,756.7	7,327.6	20.6	22.0	-119.76	-1,062.2	1,310.1	373.7	344.0	29.75	12.563	
8,600.0	7,141.3	8,856.7	7,327.8	21.0	22.3	-119.90	-1,162.2	1,310.0	374.2	343.8	30.45	12.290	
8,700.0	7,140.5	8,956.6	7,328.0	21.4	22.7	-120.03	-1,262.2	1,309.8	374.8	343.5	31.22	12.003	
8,800.0	7,139.7	9,056.6	7,328.3	21.8	23.1	-120.16	-1,362.2	1,309.7	375.3	343.2	32.06	11.705	
8,900.0	7,138.9	9,156.6	7,328.5	22.2	23.6	-120.29	-1,462.2	1,309.5	375.8	342.9	32.96	11.402	
9,000.0	7,138.1	9,256.6	7,328.7	22.7	24.0	-120.43	-1,562.1	1,309.4	376.3	342.4	33.91	11.098	
9,100.0	7,137.3	9,356.6	7,328.9	23.2	24.5	-120.56	-1,662.1	1,309.2	376.9	342.0	34.91	10.794	
9,200.0	7,136.6	9,456.6	7,329.2	23.8	25.0	-120.69	-1,762.1	1,309.1	377.4	341.4	35.96	10.495	
9,300.0	7,135.8	9,556.6	7,329.4	24.3	25.6	-120.82	-1,862.1	1,308.9	377.9	340.9	37.05	10.201	
9,400.0	7,135.0	9,656.6	7,329.6	24.9	26.1	-120.95	-1,962.1	1,308.8	378.5	340.3	38.17	9.915	
9,500.0	7,134.2	9,756.6	7,329.8	25.5	26.7	-121.08	-2,062.1	1,308.6	379.0	339.7	39.33	9.637	
9,600.0	7,133.4	9,856.6	7,330.1	26.1	27.3	-121.21	-2,162.1	1,308.5	379.6	339.0	40.52	9.368	
9,700.0	7,132.6	9,956.6	7,330.3	26.7	28.0	-121.34	-2,262.1	1,308.3	380.1	338.4	41.73	9.108	
9,800.0	7,131.8	10,056.6	7,330.5	27.4	28.6	-121.47	-2,362.1	1,308.2	380.6	337.7	42.97	8.858	
9,900.0	7,131.0	10,156.6	7,330.7	28.0	29.3	-121.59	-2,462.1	1,308.0	381.2	337.0	44.23	8.618	
10,000.0	7,130.2	10,256.6	7,331.0	28.7	29.9	-121.72	-2,562.1	1,307.9	381.7	336.2	45.51	8.387	
10,100.0	7,129.5	10,356.6	7,331.2	29.4	30.6	-121.85	-2,662.1	1,307.7	382.3	335.5	46.81	8.166	
10,200.0	7,128.7	10,456.6	7,331.4	30.1	31.3	-121.98	-2,762.1	1,307.6	382.8	334.7	48.13	7.954	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-373HC - Wellbore #1 - Plan #4 (10-22-13

Offset Site Error: 0.0 ft

Survey Program: 0-NS-GYRO-MS

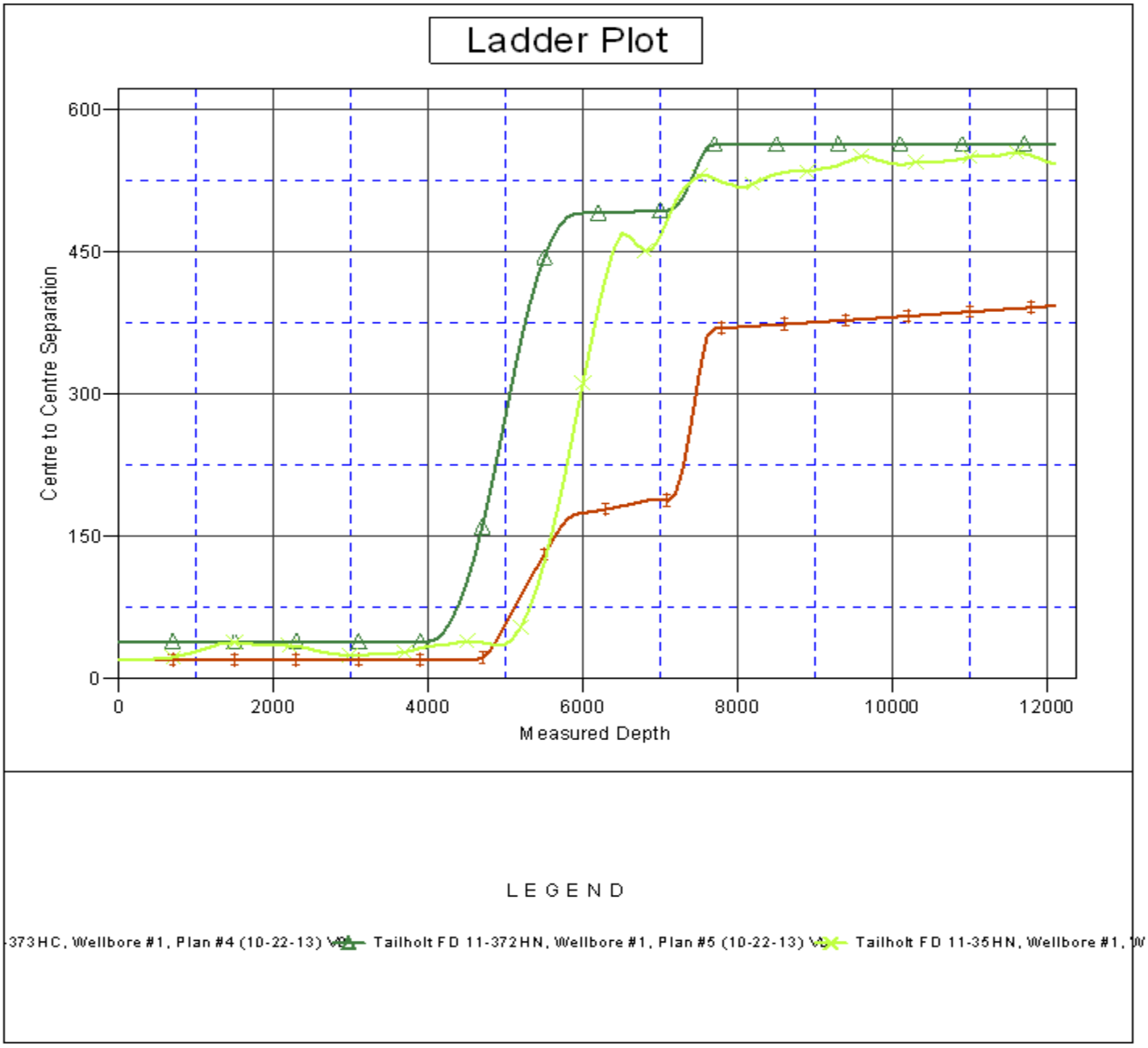
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	7,127.9	10,556.6	7,331.6	30.8	32.0	-122.10	-2,862.1	1,307.4	383.4	333.9	49.46	7.752	
10,400.0	7,127.1	10,656.6	7,331.9	31.6	32.7	-122.23	-2,962.1	1,307.3	384.0	333.1	50.80	7.558	
10,500.0	7,126.3	10,756.6	7,332.1	32.3	33.5	-122.36	-3,062.1	1,307.1	384.5	332.4	52.16	7.372	
10,600.0	7,125.5	10,856.5	7,332.3	33.0	34.2	-122.48	-3,162.1	1,307.0	385.1	331.5	53.52	7.195	
10,700.0	7,124.7	10,956.5	7,332.5	33.8	35.0	-122.61	-3,262.1	1,306.8	385.6	330.7	54.90	7.025	
10,800.0	7,123.9	11,056.5	7,332.8	34.6	35.7	-122.73	-3,362.0	1,306.7	386.2	329.9	56.28	6.862	
10,900.0	7,123.2	11,156.5	7,333.0	35.3	36.5	-122.86	-3,462.0	1,306.5	386.8	329.1	57.67	6.706	
11,000.0	7,122.4	11,256.5	7,333.2	36.1	37.3	-122.98	-3,562.0	1,306.4	387.3	328.3	59.07	6.557	
11,100.0	7,121.6	11,356.5	7,333.5	36.9	38.1	-123.10	-3,662.0	1,306.2	387.9	327.4	60.47	6.414	
11,200.0	7,120.8	11,456.5	7,333.7	37.7	38.9	-123.23	-3,762.0	1,306.1	388.5	326.6	61.88	6.278	
11,300.0	7,120.0	11,556.5	7,333.9	38.5	39.7	-123.35	-3,862.0	1,305.9	389.0	325.7	63.30	6.146	
11,400.0	7,119.2	11,656.5	7,334.1	39.3	40.5	-123.47	-3,962.0	1,305.8	389.6	324.9	64.71	6.020	
11,500.0	7,118.4	11,756.5	7,334.4	40.1	41.3	-123.60	-4,062.0	1,305.6	390.2	324.1	66.14	5.900	
11,600.0	7,117.6	11,856.5	7,334.6	40.9	42.1	-123.72	-4,162.0	1,305.4	390.8	323.2	67.56	5.784	
11,700.0	7,116.9	11,956.5	7,334.8	41.7	42.9	-123.84	-4,262.0	1,305.3	391.3	322.4	68.99	5.672	
11,800.0	7,116.1	12,056.5	7,335.0	42.5	43.7	-123.96	-4,362.0	1,305.1	391.9	321.5	70.42	5.565	
11,900.0	7,115.3	12,156.5	7,335.3	43.4	44.6	-124.08	-4,462.0	1,305.0	392.5	320.7	71.86	5.462	
12,000.0	7,114.5	12,256.5	7,335.5	44.2	45.4	-124.20	-4,562.0	1,304.8	393.1	319.8	73.29	5.363	
12,100.0	7,113.7	12,355.9	7,335.7	45.0	46.2	-124.32	-4,661.4	1,304.7	393.7	319.0	74.73	5.268	
12,101.2	7,113.7	12,355.9	7,335.7	45.0	46.2	-124.32	-4,661.4	1,304.7	393.7	319.0	74.73	5.268	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4890.7ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Tailholt FD 11-374HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



Company:	Great Western	**Local Co-ordinate Reference:**	Well Tailholt FD 11-374HN
Project:	SEC.11-T6N-R67W	**TVD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Reference Site:	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	**MD Reference:**	WELL @ 4890.7ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Tailholt FD 11-374HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #4 (10-22-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4890.7ft (RKB - 16.5')	Coordinates are relative to: Tailholt FD 11-374HN
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: 0.41°