

# Great Western

Well Name: **Cornish FH 08-399HN**

Surface Location: Cornish Pad Sec.8-T6N-R63W

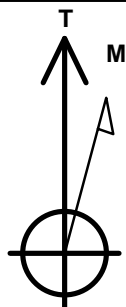
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4679.3

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1425704.31	3286566.98	40.497389	-104.469569	
RKB - 16.5' WELL @ 4695.8ft (RKB - 16.5')						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1332'FSL & 210'FWL	1.0	0.0	0.0	Point
BHL 1'FSL & 470'FEL	6480.8	-1256.5	4568.4	Point
Entry Pt. 1'FSL & 460'FWL	6480.8	-1327.9	243.4	Point



Azimuths to True North  
Magnetic North: 8.38°

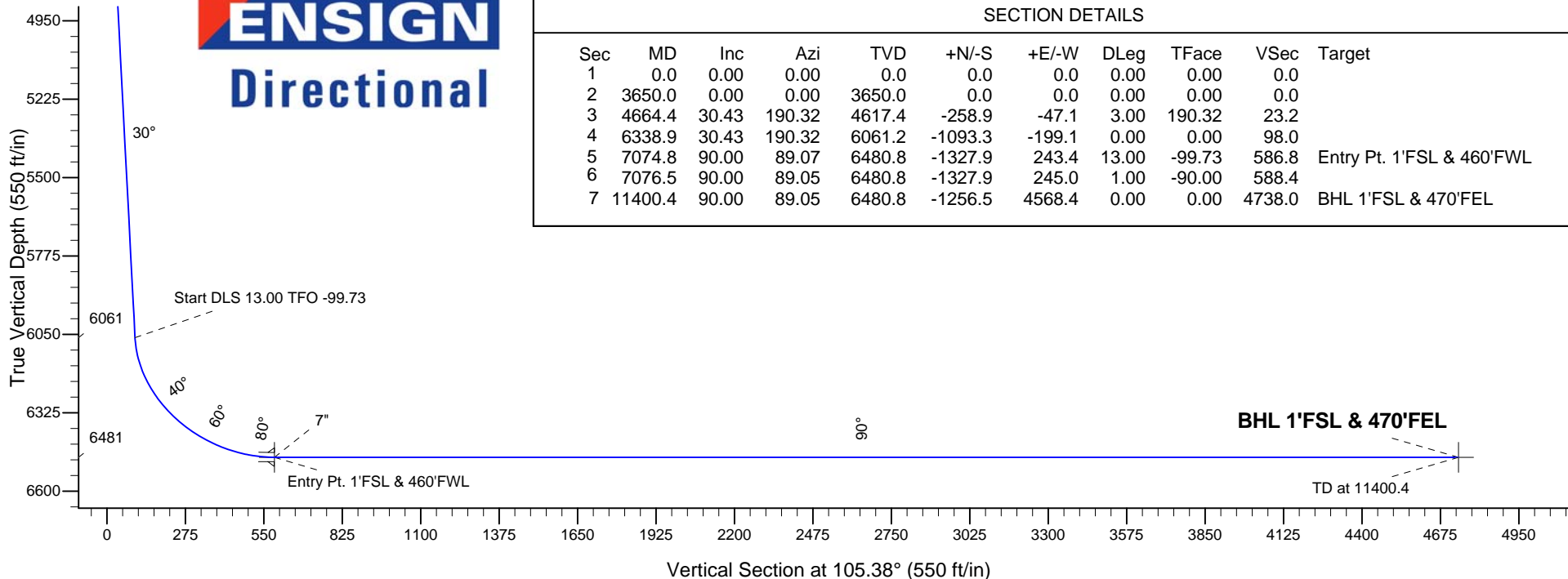
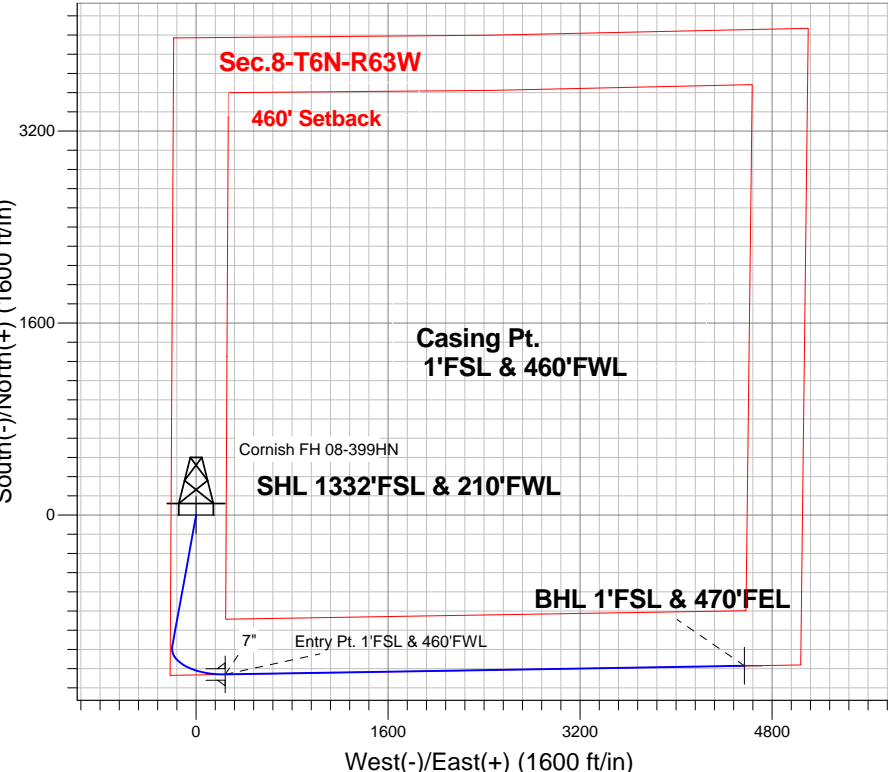
Magnetic Field  
Strength: 52958.0snT  
Dip Angle: 67.09°  
Date: 11/19/2013  
Model: IGRF2010

Cornish Pad Sec.8-T6N-R63W  
Cornish FH 08-399HN  
Plan #1 (11-19-13)  
9:24, November 21 2013

## ANNOTATIONS

TVD	MD	Annotation
3650.0	3650.0	KOP - Start Build 3.00
6061.2	6338.9	Start DLS 13.00 TFO -99.73
6480.8	11400.4	TD at 11400.4

South(-)/North(+) (1600 ft/in)



## 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	3650.0	0.00	0.00	3650.0	0.0	0.0	0.00	0.00	0.0	
3	4664.4	30.43	190.32	4617.4	-258.9	-47.1	3.00	190.32	23.2	
4	6338.9	30.43	190.32	6061.2	-1093.3	-199.1	0.00	0.00	98.0	
5	7074.8	90.00	89.07	6480.8	-1327.9	243.4	13.00	-99.73	586.8	Entry Pt. 1'FSL & 460'FWL
6	7076.5	90.00	89.05	6480.8	-1327.9	245.0	1.00	-90.00	588.4	
7	11400.4	90.00	89.05	6480.8	-1256.5	4568.4	0.00	0.00	4738.0	BHL 1'FSL & 470'FEL



## **Great Western**

**SEC.8-T6N-R63W**

**Cornish Pad Sec.8-T6N-R63W**

**Cornish FH 08-399HN**

**Wellbore #1**

**Plan: Plan #1 (11-19-13)**

## **Standard Planning Report**

**21 November, 2013**

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	
3,650.0	0.00	0.00	3,650.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,664.4	30.43	190.32	4,617.4	-258.9	-47.1	3.00	3.00	0.00	190.32	
6,338.9	30.43	190.32	6,061.2	-1,093.3	-199.1	0.00	0.00	0.00	0.00	
7,074.8	90.00	89.07	6,480.8	-1,327.9	243.4	13.00	8.09	-13.76	-99.73	Entry Pt. 1'FSL & 40'FSL
7,076.5	90.00	89.05	6,480.8	-1,327.9	245.0	1.00	0.00	-1.00	-90.00	
11,400.4	90.00	89.05	6,480.8	-1,256.5	4,568.4	0.00	0.00	0.00	0.00	BHL 1'FSL & 470'FSL

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Project:</b>	SEC.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Cornish FH 08-399HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-19-13)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 1332'FSL & 210'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
1,100.0	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
3,650.0	0.00	0.00	3,650.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 3.00									
3,700.0	1.50	190.32	3,700.0	-0.6	-0.1	0.1	3.00	3.00	0.00
3,800.0	4.50	190.32	3,799.8	-5.8	-1.1	0.5	3.00	3.00	0.00
3,900.0	7.50	190.32	3,899.3	-16.1	-2.9	1.4	3.00	3.00	0.00
4,000.0	10.50	190.32	3,998.0	-31.5	-5.7	2.8	3.00	3.00	0.00
4,100.0	13.50	190.32	4,095.8	-51.9	-9.5	4.7	3.00	3.00	0.00
4,200.0	16.50	190.32	4,192.4	-77.4	-14.1	6.9	3.00	3.00	0.00
4,300.0	19.50	190.32	4,287.5	-107.8	-19.6	9.7	3.00	3.00	0.00
4,400.0	22.50	190.32	4,380.9	-143.0	-26.0	12.8	3.00	3.00	0.00
4,500.0	25.50	190.32	4,472.2	-183.0	-33.3	16.4	3.00	3.00	0.00
4,600.0	28.50	190.32	4,561.3	-227.7	-41.5	20.4	3.00	3.00	0.00
4,664.4	30.43	190.32	4,617.4	-258.9	-47.1	23.2	3.00	3.00	0.00
4,700.0	30.43	190.32	4,648.1	-276.6	-50.4	24.8	0.00	0.00	0.00
4,800.0	30.43	190.32	4,734.3	-326.4	-59.4	29.3	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
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<b>Project:</b>	SEC.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Cornish FH 08-399HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-19-13)		

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)
4,900.0	30.43	190.32	4,820.5	-376.3	-68.5	33.7	0.00	0.00	0.00
5,000.0	30.43	190.32	4,906.7	-426.1	-77.6	38.2	0.00	0.00	0.00
5,100.0	30.43	190.32	4,993.0	-475.9	-86.7	42.7	0.00	0.00	0.00
5,200.0	30.43	190.32	5,079.2	-525.8	-95.7	47.1	0.00	0.00	0.00
5,300.0	30.43	190.32	5,165.4	-575.6	-104.8	51.6	0.00	0.00	0.00
5,400.0	30.43	190.32	5,251.6	-625.4	-113.9	56.1	0.00	0.00	0.00
5,500.0	30.43	190.32	5,337.9	-675.3	-123.0	60.5	0.00	0.00	0.00
5,600.0	30.43	190.32	5,424.1	-725.1	-132.0	65.0	0.00	0.00	0.00
5,700.0	30.43	190.32	5,510.3	-774.9	-141.1	69.4	0.00	0.00	0.00
5,800.0	30.43	190.32	5,596.5	-824.8	-150.2	73.9	0.00	0.00	0.00
5,900.0	30.43	190.32	5,682.7	-874.6	-159.3	78.4	0.00	0.00	0.00
6,000.0	30.43	190.32	5,769.0	-924.4	-168.3	82.8	0.00	0.00	0.00
6,100.0	30.43	190.32	5,855.2	-974.3	-177.4	87.3	0.00	0.00	0.00
6,200.0	30.43	190.32	5,941.4	-1,024.1	-186.5	91.8	0.00	0.00	0.00
6,300.0	30.43	190.32	6,027.6	-1,073.9	-195.5	96.2	0.00	0.00	0.00
6,338.9	30.43	190.32	6,061.2	-1,093.3	-199.1	98.0	0.00	0.00	0.00
Start DLS 13.00 TFO -99.73									
6,400.0	30.03	174.53	6,114.1	-1,123.8	-200.4	104.8	13.00	-0.66	-25.85
6,500.0	33.29	150.40	6,199.5	-1,172.8	-184.4	133.2	13.00	3.27	-24.13
6,600.0	40.26	131.94	6,279.8	-1,218.4	-146.6	181.7	13.00	6.97	-18.46
6,700.0	49.37	118.70	6,350.8	-1,258.4	-89.1	247.9	13.00	9.10	-13.24
6,800.0	59.60	108.82	6,408.9	-1,290.7	-14.6	328.2	13.00	10.24	-9.88
6,900.0	70.44	100.88	6,451.1	-1,313.6	72.8	418.6	13.00	10.84	-7.94
7,000.0	81.58	93.96	6,475.3	-1,326.0	168.9	514.4	13.00	11.14	-6.92
7,074.8	90.00	89.07	6,480.8	-1,327.9	243.4	586.8	12.99	11.25	-6.53
7" - Entry Pt. 1'FSL & 460'FWL									
7,076.5	90.00	89.05	6,480.8	-1,327.9	245.0	588.4	1.16	0.23	-1.14
7,100.0	90.00	89.05	6,480.8	-1,327.5	268.5	611.0	0.00	0.00	0.00
7,200.0	90.00	89.05	6,480.8	-1,325.9	368.5	706.9	0.00	0.00	0.00
7,300.0	90.00	89.05	6,480.8	-1,324.2	468.5	802.9	0.00	0.00	0.00
7,400.0	90.00	89.05	6,480.8	-1,322.6	568.5	898.9	0.00	0.00	0.00
7,500.0	90.00	89.05	6,480.8	-1,320.9	668.5	994.8	0.00	0.00	0.00
7,600.0	90.00	89.05	6,480.8	-1,319.3	768.5	1,090.8	0.00	0.00	0.00
7,700.0	90.00	89.05	6,480.8	-1,317.6	868.4	1,186.8	0.00	0.00	0.00
7,800.0	90.00	89.05	6,480.8	-1,315.9	968.4	1,282.7	0.00	0.00	0.00
7,900.0	90.00	89.05	6,480.8	-1,314.3	1,068.4	1,378.7	0.00	0.00	0.00
8,000.0	90.00	89.05	6,480.8	-1,312.6	1,168.4	1,474.7	0.00	0.00	0.00
8,100.0	90.00	89.05	6,480.8	-1,311.0	1,268.4	1,570.6	0.00	0.00	0.00
8,200.0	90.00	89.05	6,480.8	-1,309.3	1,368.4	1,666.6	0.00	0.00	0.00
8,300.0	90.00	89.05	6,480.8	-1,307.7	1,468.4	1,762.6	0.00	0.00	0.00
8,400.0	90.00	89.05	6,480.8	-1,306.0	1,568.4	1,858.5	0.00	0.00	0.00
8,500.0	90.00	89.05	6,480.8	-1,304.4	1,668.3	1,954.5	0.00	0.00	0.00
8,600.0	90.00	89.05	6,480.8	-1,302.7	1,768.3	2,050.5	0.00	0.00	0.00
8,700.0	90.00	89.05	6,480.8	-1,301.1	1,868.3	2,146.5	0.00	0.00	0.00
8,800.0	90.00	89.05	6,480.8	-1,299.4	1,968.3	2,242.4	0.00	0.00	0.00
8,900.0	90.00	89.05	6,480.8	-1,297.8	2,068.3	2,338.4	0.00	0.00	0.00
9,000.0	90.00	89.05	6,480.8	-1,296.1	2,168.3	2,434.4	0.00	0.00	0.00
9,100.0	90.00	89.05	6,480.8	-1,294.5	2,268.3	2,530.3	0.00	0.00	0.00
9,200.0	90.00	89.05	6,480.8	-1,292.8	2,368.2	2,626.3	0.00	0.00	0.00
9,300.0	90.00	89.05	6,480.8	-1,291.2	2,468.2	2,722.3	0.00	0.00	0.00
9,400.0	90.00	89.05	6,480.8	-1,289.5	2,568.2	2,818.2	0.00	0.00	0.00
9,500.0	90.00	89.05	6,480.8	-1,287.9	2,668.2	2,914.2	0.00	0.00	0.00
9,600.0	90.00	89.05	6,480.8	-1,286.2	2,768.2	3,010.2	0.00	0.00	0.00
9,700.0	90.00	89.05	6,480.8	-1,284.6	2,868.2	3,106.1	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Project:</b>	SEC.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Cornish FH 08-399HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-19-13)		

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)	
9,800.0	90.00	89.05	6,480.8	-1,282.9	2,968.2	3,202.1	0.00	0.00	0.00	
9,900.0	90.00	89.05	6,480.8	-1,281.3	3,068.1	3,298.1	0.00	0.00	0.00	
10,000.0	90.00	89.05	6,480.8	-1,279.6	3,168.1	3,394.0	0.00	0.00	0.00	
10,100.0	90.00	89.05	6,480.8	-1,278.0	3,268.1	3,490.0	0.00	0.00	0.00	
10,200.0	90.00	89.05	6,480.8	-1,276.3	3,368.1	3,586.0	0.00	0.00	0.00	
10,300.0	90.00	89.05	6,480.8	-1,274.6	3,468.1	3,681.9	0.00	0.00	0.00	
10,400.0	90.00	89.05	6,480.8	-1,273.0	3,568.1	3,777.9	0.00	0.00	0.00	
10,500.0	90.00	89.05	6,480.8	-1,271.3	3,668.1	3,873.9	0.00	0.00	0.00	
10,600.0	90.00	89.05	6,480.8	-1,269.7	3,768.1	3,969.9	0.00	0.00	0.00	
10,700.0	90.00	89.05	6,480.8	-1,268.0	3,868.0	4,065.8	0.00	0.00	0.00	
10,800.0	90.00	89.05	6,480.8	-1,266.4	3,968.0	4,161.8	0.00	0.00	0.00	
10,900.0	90.00	89.05	6,480.8	-1,264.7	4,068.0	4,257.8	0.00	0.00	0.00	
11,000.0	90.00	89.05	6,480.8	-1,263.1	4,168.0	4,353.7	0.00	0.00	0.00	
11,100.0	90.00	89.05	6,480.8	-1,261.4	4,268.0	4,449.7	0.00	0.00	0.00	
11,200.0	90.00	89.05	6,480.8	-1,259.8	4,368.0	4,545.7	0.00	0.00	0.00	
11,300.0	90.00	89.05	6,480.8	-1,258.1	4,468.0	4,641.6	0.00	0.00	0.00	
11,400.0	90.00	89.05	6,480.8	-1,256.5	4,567.9	4,737.6	0.00	0.00	0.00	
11,400.4	90.00	89.05	6,480.8	-1,256.5	4,568.3	4,738.0	0.00	0.00	0.00	
TD at 11400.4 - BHL 1'FSL & 470'FEL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,074.8	6,480.8	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
3,650.0	3,650.0	0.0	0.0	KOP - Start Build 3.00	
6,338.9	6,061.2	-1,093.3	-199.1	Start DLS 13.00 TFO -99.73	
11,400.4	6,480.8	-1,256.5	4,568.3	TD at 11400.4	



## **Great Western**

**SEC.8-T6N-R63W**

**Cornish Pad Sec.8-T6N-R63W**

**Cornish FH 08-399HN**

**Wellbore #1**

**Plan #1 (11-19-13)**

## **Anticollision Report**

**21 November, 2013**





<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	0.53	59.7	0.6	59.8	50.6	9.18	6.510		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	0.53	59.7	0.6	59.8	50.1	9.63	6.206		
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	0.53	59.7	0.6	59.8	49.7	10.08	5.929		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	0.53	59.7	0.6	59.8	49.2	10.53	5.676		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	0.53	59.7	0.6	59.8	48.8	10.98	5.444		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	0.53	59.7	0.6	59.8	48.3	11.43	5.229		
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	0.53	59.7	0.6	59.8	47.9	11.88	5.031		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	0.53	59.7	0.6	59.8	47.4	12.33	4.848		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	0.53	59.7	0.6	59.8	47.0	12.77	4.677		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	0.53	59.7	0.6	59.8	46.5	13.22	4.518		
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	0.53	59.7	0.6	59.8	46.1	13.67	4.370		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	0.53	59.7	0.6	59.8	45.6	14.12	4.231		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	0.53	59.7	0.6	59.8	45.2	14.57	4.100		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	0.53	59.7	0.6	59.8	44.7	15.02	3.977		
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	0.53	59.7	0.6	59.8	44.3	15.47	3.862		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	0.53	59.7	0.6	59.8	43.8	15.92	3.753 CC		
3,627.8	3,627.8	3,627.8	3,627.8	8.0	8.0	170.23	59.7	0.6	59.9	43.8	16.04	3.731 ES		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	170.32	59.7	0.6	60.4	44.0	16.35	3.694		
3,800.0	3,799.8	3,799.8	3,799.8	8.3	8.4	171.06	59.7	0.6	65.6	48.9	16.71	3.924		
3,900.0	3,899.3	3,899.3	3,899.3	8.5	8.6	172.24	59.7	0.6	75.9	58.9	17.02	4.459		
4,000.0	3,998.0	3,998.0	3,998.0	8.7	8.9	173.51	59.7	0.6	91.4	74.1	17.30	5.286		
4,100.0	4,095.8	4,095.8	4,095.8	8.9	9.1	174.66	59.7	0.6	112.1	94.6	17.53	6.396		
4,200.0	4,192.4	4,192.4	4,192.4	9.1	9.3	175.60	59.7	0.6	137.9	120.2	17.72	7.783		
4,300.0	4,287.5	4,287.5	4,287.5	9.4	9.5	176.34	59.7	0.6	168.7	150.9	17.87	9.445		
4,400.0	4,380.9	4,380.9	4,380.9	9.7	9.7	176.92	59.7	0.6	204.5	186.5	17.97	11.380		
4,500.0	4,472.2	4,472.2	4,472.2	10.1	9.9	177.37	59.7	0.6	245.1	227.1	18.04	13.590		
4,600.0	4,561.3	4,561.3	4,561.3	10.6	10.1	177.72	59.7	0.6	290.5	272.4	18.07	16.079		
4,700.0	4,648.1	4,648.1	4,648.1	11.1	10.3	178.02	59.7	0.6	340.2	322.0	18.21	18.677		
4,800.0	4,734.3	4,734.3	4,734.3	11.7	10.5	178.27	59.7	0.6	390.8	372.2	18.63	20.973		
4,900.0	4,820.5	4,820.5	4,820.5	12.4	10.7	178.47	59.7	0.6	441.5	422.4	19.07	23.152		
5,000.0	4,906.7	4,906.7	4,906.7	13.1	10.9	178.63	59.7	0.6	492.1	472.6	19.51	25.219		
5,100.0	4,993.0	4,993.0	4,993.0	13.8	11.1	178.76	59.7	0.6	542.7	522.8	19.97	27.179		
5,200.0	5,079.2	5,113.1	5,113.0	14.6	11.3	178.81	56.7	-0.8	591.1	570.6	20.47	28.877		
5,300.0	5,165.4	5,244.2	5,243.6	15.4	11.6	178.64	45.5	-5.8	633.8	612.8	20.97	30.219		
5,400.0	5,251.6	5,383.2	5,380.6	16.2	11.8	178.26	24.7	-15.0	670.2	648.7	21.51	31.160		
5,500.0	5,337.9	5,529.2	5,522.4	17.0	12.1	177.68	-6.8	-29.0	699.8	677.7	22.08	31.693		
5,600.0	5,424.1	5,680.8	5,666.5	17.9	12.5	176.89	-50.0	-48.2	722.2	699.5	22.69	31.825		
5,700.0	5,510.3	5,836.5	5,810.1	18.8	13.0	175.88	-105.0	-72.6	737.1	713.7	23.37	31.547		
5,800.0	5,596.5	5,994.3	5,950.0	19.6	13.6	174.62	-171.5	-102.2	744.3	720.2	24.11	30.874		
5,900.0	5,682.7	6,101.1	6,042.1	20.5	14.1	173.66	-220.8	-124.1	746.8	722.1	24.77	30.146		
6,000.0	5,769.0	6,200.3	6,127.7	21.4	14.7	172.77	-266.8	-144.5	749.5	724.0	25.46	29.440		
6,100.0	5,855.2	6,299.6	6,213.3	22.3	15.3	171.88	-312.7	-164.9	752.3	726.2	26.18	28.734		
6,200.0	5,941.4	6,398.9	6,298.9	23.2	15.9	171.00	-358.7	-185.3	755.4	728.4	26.95	28.032		
6,300.0	6,027.6	6,496.9	6,384.5	24.1	16.5	170.78	-404.5	-197.1	758.6	731.0	27.63	27.455		
6,400.0	6,114.1	6,592.2	6,468.1	25.0	17.0	-174.21	-448.9	-187.9	762.2	734.1	28.10	27.123		
6,500.0	6,199.5	6,684.4	6,545.7	25.7	17.4	-152.05	-489.8	-159.8	766.1	737.5	28.59	26.795		
6,600.0	6,279.8	6,775.0	6,615.4	26.4	17.7	-135.85	-526.2	-115.1	769.9	740.8	29.19	26.375		
6,700.0	6,350.8	6,862.3	6,673.6	26.9	18.0	-125.30	-556.3	-57.7	773.4	743.5	29.97	25.803		
6,800.0	6,408.9	6,950.0	6,721.1	27.4	18.3	-118.69	-580.4	11.8	776.3	745.3	31.03	25.017		
6,900.0	6,451.1	7,034.8	6,754.6	27.8	18.7	-114.79	-597.1	87.8	778.3	745.9	32.43	23.997		
7,000.0	6,475.3	7,120.3	6,774.8	28.2	19.2	-112.91	-606.5	170.1	779.3	745.1	34.22	22.777		
7,100.0	6,480.8	7,207.2	6,780.8	28.6	20.0	-112.64	-608.2	256.7	779.4	743.0	36.40	21.414		

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,200.0	6,480.8	7,307.2	6,780.8	29.1	21.4	-112.64	-606.6	356.6	779.4	740.0	39.37	19.796		
7,300.0	6,480.8	7,407.2	6,780.8	29.8	23.0	-112.64	-604.9	456.6	779.4	736.6	42.78	18.220		
7,400.0	6,480.8	7,507.2	6,780.8	30.8	24.9	-112.64	-603.3	556.6	779.4	732.9	46.52	16.755		
7,500.0	6,480.8	7,607.2	6,780.8	32.1	27.0	-112.64	-601.6	656.6	779.4	728.9	50.52	15.428		
7,600.0	6,480.8	7,707.2	6,780.8	33.6	29.2	-112.64	-600.0	756.6	779.4	724.7	54.72	14.243		
7,700.0	6,480.8	7,807.2	6,780.8	35.4	31.5	-112.64	-598.3	856.6	779.4	720.3	59.09	13.191		
7,800.0	6,480.8	7,907.2	6,780.8	37.4	33.9	-112.64	-596.7	956.6	779.4	715.8	63.58	12.259		
7,900.0	6,480.8	8,007.2	6,780.8	39.5	36.3	-112.64	-595.0	1,056.5	779.4	711.2	68.17	11.433		
8,000.0	6,480.8	8,107.2	6,780.8	41.7	38.8	-112.64	-593.4	1,156.5	779.4	706.6	72.84	10.700		
8,100.0	6,480.8	8,207.2	6,780.8	44.0	41.3	-112.64	-591.7	1,256.5	779.4	701.8	77.59	10.046		
8,200.0	6,480.8	8,307.2	6,780.8	46.3	43.9	-112.64	-590.1	1,356.5	779.4	697.0	82.39	9.460		
8,300.0	6,480.8	8,407.2	6,780.8	48.8	46.5	-112.64	-588.4	1,456.5	779.4	692.2	87.23	8.935		
8,400.0	6,480.8	8,507.2	6,780.8	51.2	49.1	-112.64	-586.8	1,556.5	779.4	687.3	92.12	8.461		
8,500.0	6,480.8	8,607.2	6,780.8	53.7	51.8	-112.64	-585.1	1,656.5	779.4	682.4	97.04	8.032		
8,600.0	6,480.8	8,707.2	6,780.8	56.3	54.4	-112.64	-583.5	1,756.5	779.4	677.4	101.98	7.642		
8,700.0	6,480.8	8,807.2	6,780.8	58.9	57.1	-112.64	-581.8	1,856.4	779.4	672.4	106.95	7.287		
8,800.0	6,480.8	8,907.2	6,780.8	61.4	59.8	-112.64	-580.2	1,956.4	779.4	667.4	111.95	6.962		
8,900.0	6,480.8	9,007.2	6,780.8	64.1	62.5	-112.64	-578.5	2,056.4	779.4	662.4	116.96	6.664		
9,000.0	6,480.8	9,107.2	6,780.8	66.7	65.2	-112.64	-576.9	2,156.4	779.4	657.4	121.99	6.389		
9,100.0	6,480.8	9,207.2	6,780.8	69.3	67.9	-112.64	-575.2	2,256.4	779.4	652.4	127.03	6.135		
9,200.0	6,480.8	9,307.2	6,780.8	72.0	70.6	-112.64	-573.6	2,356.4	779.4	647.3	132.09	5.901		
9,300.0	6,480.8	9,407.2	6,780.8	74.6	73.3	-112.64	-571.9	2,456.4	779.4	642.2	137.15	5.683		
9,400.0	6,480.8	9,507.2	6,780.8	77.3	76.0	-112.64	-570.3	2,556.3	779.4	637.2	142.23	5.480		
9,500.0	6,480.8	9,607.2	6,780.8	80.0	78.8	-112.64	-568.6	2,656.3	779.4	632.1	147.32	5.291		
9,600.0	6,480.8	9,707.2	6,780.8	82.7	81.5	-112.64	-567.0	2,756.3	779.4	627.0	152.41	5.114		
9,700.0	6,480.8	9,807.2	6,780.8	85.4	84.3	-112.64	-565.3	2,856.3	779.4	621.9	157.51	4.948		
9,800.0	6,480.8	9,907.2	6,780.8	88.1	87.0	-112.64	-563.7	2,956.3	779.4	616.8	162.62	4.793		
9,900.0	6,480.8	10,007.2	6,780.8	90.8	89.8	-112.64	-562.0	3,056.3	779.4	611.6	167.73	4.647		
10,000.0	6,480.8	10,107.2	6,780.8	93.6	92.5	-112.64	-560.4	3,156.3	779.4	606.5	172.85	4.509		
10,100.0	6,480.8	10,207.2	6,780.8	96.3	95.3	-112.64	-558.7	3,256.2	779.4	601.4	177.98	4.379		
10,200.0	6,480.8	10,307.2	6,780.8	99.0	98.0	-112.64	-557.1	3,356.2	779.4	596.3	183.11	4.256		
10,300.0	6,480.8	10,407.2	6,780.8	101.8	100.8	-112.64	-555.4	3,456.2	779.4	591.1	188.24	4.140		
10,400.0	6,480.8	10,507.2	6,780.8	104.5	103.6	-112.64	-553.8	3,556.2	779.4	586.0	193.38	4.030		
10,500.0	6,480.8	10,607.2	6,780.8	107.2	106.3	-112.64	-552.1	3,656.2	779.4	580.8	198.52	3.926		
10,600.0	6,480.8	10,707.2	6,780.8	110.0	109.1	-112.64	-550.5	3,756.2	779.4	575.7	203.66	3.827		
10,700.0	6,480.8	10,807.2	6,780.8	112.7	111.9	-112.64	-548.8	3,856.2	779.4	570.6	208.81	3.732		
10,800.0	6,480.8	10,907.2	6,780.8	115.5	114.6	-112.64	-547.2	3,956.2	779.4	565.4	213.96	3.643		
10,900.0	6,480.8	11,007.2	6,780.8	118.2	117.4	-112.64	-545.5	4,056.1	779.4	560.2	219.11	3.557		
11,000.0	6,480.8	11,107.2	6,780.8	121.0	120.2	-112.64	-543.9	4,156.1	779.4	555.1	224.27	3.475		
11,100.0	6,480.8	11,207.2	6,780.8	123.7	123.0	-112.64	-542.2	4,256.1	779.4	549.9	229.43	3.397		
11,200.0	6,480.8	11,307.2	6,780.8	126.5	125.8	-112.64	-540.6	4,356.1	779.4	544.8	234.59	3.322		
11,300.0	6,480.8	11,407.2	6,780.8	129.3	128.5	-112.64	-538.9	4,456.1	779.4	539.6	239.75	3.251		
11,400.0	6,480.8	11,507.2	6,780.8	132.0	131.3	-112.64	-537.3	4,556.1	779.4	534.4	244.91	3.182		
11,400.4	6,480.8	11,507.6	6,780.8	132.0	131.3	-112.64	-537.3	4,556.5	779.4	534.4	244.94	3.182 SF		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	1.09	29.1	0.6	29.2				
100.0	100.0	100.0	100.0	0.1	0.1	1.09	29.1	0.6	29.2	29.0	0.19	155.322	
200.0	200.0	200.0	200.0	0.3	0.3	1.09	29.1	0.6	29.2	28.5	0.64	45.747	
300.0	300.0	300.0	300.0	0.5	0.5	1.09	29.1	0.6	29.2	28.1	1.09	26.824	
400.0	400.0	400.0	400.0	0.8	0.8	1.09	29.1	0.6	29.2	27.6	1.54	18.975	
500.0	500.0	500.0	500.0	1.0	1.0	1.09	29.1	0.6	29.2	27.2	1.99	14.680	
600.0	600.0	600.0	600.0	1.2	1.2	1.09	29.1	0.6	29.2	26.7	2.44	11.970	
700.0	700.0	700.0	700.0	1.4	1.4	1.09	29.1	0.6	29.2	26.3	2.88	10.105	
800.0	800.0	800.0	800.0	1.7	1.7	1.09	29.1	0.6	29.2	25.8	3.33	8.742	
900.0	900.0	900.0	900.0	1.9	1.9	1.09	29.1	0.6	29.2	25.4	3.78	7.704	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	1.09	29.1	0.6	29.2	24.9	4.23	6.886	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	1.09	29.1	0.6	29.2	24.5	4.68	6.225	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	1.09	29.1	0.6	29.2	24.0	5.13	5.680	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	1.09	29.1	0.6	29.2	23.6	5.58	5.222	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	1.09	29.1	0.6	29.2	23.1	6.03	4.833	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	1.09	29.1	0.6	29.2	22.7	6.48	4.498	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	1.09	29.1	0.6	29.2	22.2	6.93	4.206	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	1.09	29.1	0.6	29.2	21.8	7.38	3.950	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	1.09	29.1	0.6	29.2	21.3	7.83	3.723	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	1.09	29.1	0.6	29.2	20.9	8.28	3.521	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	1.09	29.1	0.6	29.2	20.4	8.73	3.340	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	1.09	29.1	0.6	29.2	20.0	9.18	3.176	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	1.09	29.1	0.6	29.2	19.5	9.63	3.028	
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	1.09	29.1	0.6	29.2	19.1	10.08	2.893	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	1.09	29.1	0.6	29.2	18.6	10.53	2.769	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	1.09	29.1	0.6	29.2	18.2	10.98	2.656	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	1.09	29.1	0.6	29.2	17.7	11.43	2.551	
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	1.09	29.1	0.6	29.2	17.3	11.88	2.455	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	1.09	29.1	0.6	29.2	16.8	12.33	2.365	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	1.09	29.1	0.6	29.2	16.4	12.77	2.282	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	1.09	29.1	0.6	29.2	15.9	13.22	2.204	
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	1.09	29.1	0.6	29.2	15.5	13.67	2.132	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	1.09	29.1	0.6	29.2	15.0	14.12	2.064	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	1.09	29.1	0.6	29.2	14.6	14.57	2.000	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	1.09	29.1	0.6	29.2	14.1	15.02	1.941	
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	1.09	29.1	0.6	29.2	13.7	15.47	1.884	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	1.09	29.1	0.6	29.2	13.2	15.92	1.831 CC	
3,627.8	3,627.8	3,627.8	3,627.8	8.0	8.0	170.81	29.1	0.6	29.3	13.2	16.04	1.823 ES	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	170.97	29.1	0.6	29.8	13.4	16.35	1.822	
3,800.0	3,799.8	3,799.8	3,799.8	8.3	8.4	172.30	29.1	0.6	35.0	18.3	16.71	2.094	
3,900.0	3,899.3	3,899.3	3,899.3	8.5	8.6	174.03	29.1	0.6	45.4	28.3	17.02	2.665	
4,000.0	3,998.0	3,998.0	3,998.0	8.7	8.9	175.53	29.1	0.6	60.9	43.6	17.29	3.523	
4,100.0	4,095.8	4,095.8	4,095.8	8.9	9.1	176.63	29.1	0.6	81.7	64.2	17.53	4.660	
4,200.0	4,192.4	4,192.4	4,192.4	9.1	9.3	177.40	29.1	0.6	107.5	89.8	17.72	6.070	
4,300.0	4,287.5	4,287.5	4,287.5	9.4	9.5	177.95	29.1	0.6	138.4	120.5	17.86	7.748	
4,400.0	4,380.9	4,383.9	4,383.9	9.7	9.7	178.33	28.9	0.5	173.9	156.0	17.96	9.683	
4,500.0	4,472.2	4,487.3	4,487.2	10.1	9.9	178.47	24.4	-0.9	210.5	192.5	18.00	11.694	
4,600.0	4,561.3	4,593.0	4,592.3	10.6	10.1	178.41	14.4	-3.9	246.9	228.9	18.01	13.708	
4,700.0	4,648.1	4,701.3	4,699.3	11.1	10.3	178.22	-1.7	-8.7	282.7	264.6	18.16	15.572	
4,800.0	4,734.3	4,813.6	4,809.0	11.7	10.5	177.93	-24.5	-15.5	314.1	295.6	18.59	16.899	
4,900.0	4,820.5	4,929.9	4,921.0	12.4	10.7	177.52	-54.5	-24.5	339.9	320.9	19.06	17.837	
5,000.0	4,906.7	5,049.6	5,034.0	13.1	11.1	176.98	-92.2	-35.8	359.8	340.2	19.55	18.402	

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	4,993.0	5,171.7	5,146.6	13.8	11.5	176.31	-137.6	-49.4	373.4	353.4	20.08	18.594		
5,200.0	5,079.2	5,295.5	5,257.3	14.6	12.0	175.47	-190.5	-65.2	380.9	360.2	20.66	18.435		
5,300.0	5,165.4	5,406.1	5,353.5	15.4	12.5	174.59	-242.9	-80.9	383.0	361.7	21.25	18.024		
5,400.0	5,251.6	5,506.0	5,440.0	16.2	13.1	173.79	-290.7	-95.2	384.5	362.7	21.84	17.604		
5,500.0	5,337.9	5,605.8	5,526.4	17.0	13.7	172.99	-338.6	-109.5	386.1	363.7	22.47	17.184		
5,600.0	5,424.1	5,705.6	5,612.9	17.9	14.4	172.20	-386.4	-123.9	387.8	364.7	23.13	16.766		
5,700.0	5,510.3	5,805.5	5,699.3	18.8	15.1	171.41	-434.2	-138.2	389.6	365.8	23.83	16.351		
5,800.0	5,596.5	5,905.3	5,785.8	19.6	15.8	170.64	-482.1	-152.5	391.5	366.9	24.56	15.940		
5,900.0	5,682.7	6,005.2	5,872.2	20.5	16.5	169.87	-529.9	-166.8	393.4	368.1	25.32	15.535		
6,000.0	5,769.0	6,105.0	5,958.7	21.4	17.3	169.10	-577.8	-181.2	395.4	369.2	26.12	15.136		
6,100.0	5,855.2	6,205.1	6,045.4	22.3	18.1	168.36	-625.8	-195.4	397.4	370.5	26.95	14.746		
6,200.0	5,941.4	6,306.8	6,134.3	23.2	18.7	169.63	-674.7	-195.9	399.2	371.7	27.46	14.536		
6,300.0	6,027.6	6,400.0	6,214.0	24.1	19.3	173.65	-718.3	-176.0	402.0	374.4	27.59	14.568		
6,400.0	6,114.1	6,480.5	6,278.7	25.0	19.7	-166.98	-753.4	-143.7	409.3	381.3	28.00	14.615		
6,500.0	6,199.5	6,555.6	6,333.6	25.7	20.1	-140.70	-782.9	-102.0	420.4	391.2	29.20	14.398		
6,600.0	6,279.8	6,625.0	6,378.2	26.4	20.3	-121.03	-806.7	-54.5	433.2	402.5	30.67	14.122		
6,700.0	6,350.8	6,700.0	6,418.5	26.9	20.6	-107.38	-828.0	5.0	445.8	413.7	32.06	13.905		
6,800.0	6,408.9	6,764.8	6,445.8	27.4	20.9	-98.65	-842.1	61.9	456.6	423.7	32.97	13.851		
6,900.0	6,451.1	6,831.7	6,466.0	27.8	21.2	-93.23	-852.2	124.8	464.6	430.9	33.70	13.785		
7,000.0	6,475.3	6,900.0	6,477.9	28.2	21.5	-90.48	-857.6	191.8	468.9	434.4	34.56	13.568		
7,100.0	6,480.8	6,969.1	6,480.8	28.6	22.0	-90.00	-858.1	260.8	469.5	433.5	36.03	13.030		
7,200.0	6,480.8	7,069.1	6,480.8	29.1	22.9	-90.00	-856.4	360.8	469.5	430.2	39.28	11.953		
7,300.0	6,480.8	7,169.1	6,480.8	29.8	24.2	-90.00	-854.8	460.8	469.5	426.5	42.99	10.920		
7,400.0	6,480.8	7,269.1	6,480.8	30.8	25.9	-90.00	-853.1	560.7	469.5	422.4	47.09	9.971		
7,500.0	6,480.8	7,369.1	6,480.8	32.1	27.8	-90.00	-851.5	660.7	469.5	418.0	51.47	9.122		
7,600.0	6,480.8	7,469.1	6,480.8	33.6	29.9	-90.00	-849.8	760.7	469.5	413.4	56.07	8.373		
7,700.0	6,480.8	7,569.1	6,480.8	35.4	32.1	-90.00	-848.2	860.7	469.5	408.7	60.84	7.716		
7,800.0	6,480.8	7,669.1	6,480.8	37.4	34.4	-90.00	-846.5	960.7	469.5	403.7	65.75	7.141		
7,900.0	6,480.8	7,769.1	6,480.8	39.5	36.8	-90.00	-844.9	1,060.7	469.5	398.7	70.76	6.635		
8,000.0	6,480.8	7,869.1	6,480.8	41.7	39.2	-90.00	-843.2	1,160.7	469.5	393.6	75.86	6.189		
8,100.0	6,480.8	7,969.1	6,480.8	44.0	41.7	-90.00	-841.6	1,260.6	469.5	388.5	81.02	5.795		
8,200.0	6,480.8	8,069.1	6,480.8	46.3	44.3	-90.00	-839.9	1,360.6	469.5	383.3	86.24	5.444		
8,300.0	6,480.8	8,169.1	6,480.8	48.8	46.8	-90.00	-838.3	1,460.6	469.5	378.0	91.51	5.131		
8,400.0	6,480.8	8,269.1	6,480.8	51.2	49.4	-90.00	-836.6	1,560.6	469.5	372.7	96.81	4.850		
8,500.0	6,480.8	8,369.1	6,480.8	53.7	52.0	-90.00	-835.0	1,660.6	469.5	367.3	102.15	4.596		
8,600.0	6,480.8	8,469.1	6,480.8	56.3	54.7	-90.00	-833.3	1,760.6	469.5	362.0	107.52	4.367		
8,700.0	6,480.8	8,569.1	6,480.8	58.9	57.3	-90.00	-831.7	1,860.6	469.5	356.6	112.91	4.158		
8,800.0	6,480.8	8,669.1	6,480.8	61.4	60.0	-90.00	-830.0	1,960.5	469.5	351.2	118.32	3.968		
8,900.0	6,480.8	8,769.1	6,480.8	64.1	62.7	-90.00	-828.4	2,060.5	469.5	345.7	123.75	3.794		
9,000.0	6,480.8	8,869.1	6,480.8	66.7	65.4	-90.00	-826.7	2,160.5	469.5	340.3	129.19	3.634		
9,100.0	6,480.8	8,969.1	6,480.8	69.3	68.1	-90.00	-825.1	2,260.5	469.5	334.8	134.65	3.487		
9,200.0	6,480.8	9,069.1	6,480.8	72.0	70.8	-90.00	-823.4	2,360.5	469.5	329.4	140.12	3.351		
9,300.0	6,480.8	9,169.1	6,480.8	74.6	73.5	-90.00	-821.8	2,460.5	469.5	323.9	145.60	3.224		
9,400.0	6,480.8	9,269.1	6,480.8	77.3	76.2	-90.00	-820.1	2,560.5	469.5	318.4	151.09	3.107		
9,500.0	6,480.8	9,369.1	6,480.8	80.0	78.9	-90.00	-818.4	2,660.5	469.5	312.9	156.59	2.998		
9,600.0	6,480.8	9,469.1	6,480.8	82.7	81.7	-90.00	-816.8	2,760.4	469.5	307.4	162.10	2.896		
9,700.0	6,480.8	9,569.1	6,480.8	85.4	84.4	-90.00	-815.1	2,860.4	469.5	301.9	167.62	2.801		
9,800.0	6,480.8	9,669.1	6,480.8	88.1	87.1	-90.00	-813.5	2,960.4	469.5	296.3	173.14	2.712		
9,900.0	6,480.8	9,769.1	6,480.8	90.8	89.9	-90.00	-811.8	3,060.4	469.5	290.8	178.66	2.628		
10,000.0	6,480.8	9,869.1	6,480.8	93.6	92.6	-90.00	-810.2	3,160.4	469.5	285.3	184.20	2.549		
10,100.0	6,480.8	9,969.1	6,480.8	96.3	95.4	-90.00	-808.5	3,260.4	469.5	279.7	189.73	2.474		
10,200.0	6,480.8	10,069.1	6,480.8	99.0	98.2	-90.00	-806.9	3,360.4	469.5	274.2	195.27	2.404		

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

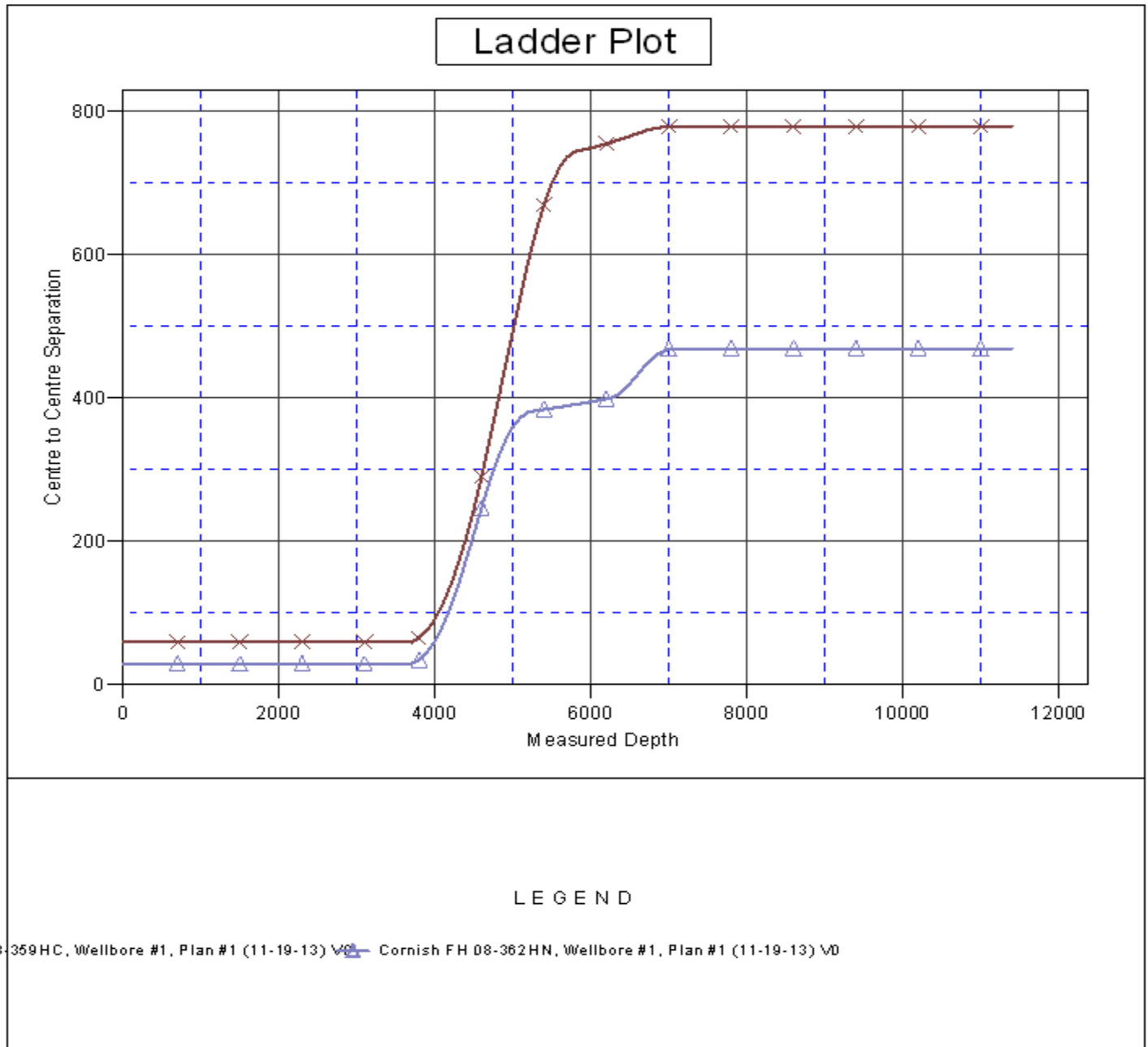
<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-362HN - Wellbore #1 - Plan #1 (11-19-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.0	6,480.8	10,169.1	6,480.8	101.8	100.9	-90.00	-805.2	3,460.3	469.5	268.7	200.82	2.338	
10,400.0	6,480.8	10,269.1	6,480.8	104.5	103.7	-90.00	-803.6	3,560.3	469.5	263.1	206.37	2.275	
10,500.0	6,480.8	10,369.1	6,480.8	107.2	106.4	-90.00	-801.9	3,660.3	469.5	257.5	211.92	2.215	
10,600.0	6,480.8	10,469.1	6,480.8	110.0	109.2	-90.00	-800.3	3,760.3	469.5	252.0	217.48	2.159	
10,700.0	6,480.8	10,569.1	6,480.8	112.7	112.0	-90.00	-798.6	3,860.3	469.5	246.4	223.03	2.105	
10,800.0	6,480.8	10,669.1	6,480.8	115.5	114.7	-90.00	-797.0	3,960.3	469.5	240.9	228.59	2.054	
10,900.0	6,480.8	10,769.1	6,480.8	118.2	117.5	-90.00	-795.3	4,060.3	469.5	235.3	234.16	2.005	
11,000.0	6,480.8	10,869.1	6,480.8	121.0	120.3	-90.00	-793.7	4,160.2	469.5	229.7	239.72	1.958	
11,100.0	6,480.8	10,969.1	6,480.8	123.7	123.1	-90.00	-792.0	4,260.2	469.5	224.2	245.29	1.914	
11,200.0	6,480.8	11,069.1	6,480.8	126.5	125.8	-90.00	-790.4	4,360.2	469.5	218.6	250.86	1.871	
11,300.0	6,480.8	11,169.1	6,480.8	129.3	128.6	-90.00	-788.7	4,460.2	469.5	213.0	256.43	1.831	
11,400.0	6,480.8	11,269.1	6,480.8	132.0	131.4	-90.00	-787.1	4,560.2	469.5	207.5	262.01	1.792	
11,400.4	6,480.8	11,269.5	6,480.8	132.0	131.4	-90.00	-787.1	4,560.6	469.5	207.4	262.03	1.792 SF	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Cornish FH 08-399HN
<b>Project:</b>	SEC.8-T6N-R63W	<b>TVD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Reference Site:</b>	Cornish Pad Sec.8-T6N-R63W	<b>MD Reference:</b>	WELL @ 4695.8ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cornish FH 08-399HN	<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>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (11-19-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4695.8ft (RKB - 16.5')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Cornish FH 08-399HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.67°



**Company:** Great Western  
**Project:** SEC.8-T6N-R63W  
**Reference Site:** Cornish Pad Sec.8-T6N-R63W  
**Site Error:** 0.0ft  
**Reference Well:** Cornish FH 08-399HN  
**Well Error:** 0.0ft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan #1 (11-19-13)

**Local Co-ordinate Reference:** Well Cornish FH 08-399HN  
**TVD Reference:** WELL @ 4695.8ft (RKB - 16.5')  
**MD Reference:** WELL @ 4695.8ft (RKB - 16.5')  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** Landmark  
**Offset TVD Reference:** Offset Datum

Reference Depths are relative to WELL @ 4695.8ft (RKB - 16.5')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Cornish FH 08-399HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
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