

Great Western

Well Name: **Taoka KF 01-028HC**

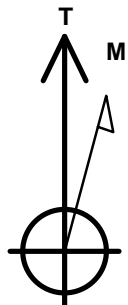
Surface Location: Taoka West Pad Sec.1-T1N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4959.7

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1270990.86	3247285.45	40.073878	-104.616350	
RKB - 16.5' WELL @ 4976.2ft (RKB - 16.5')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 240'FSL & 1474'FWL	1.0	0.0	0.0	Point
BHL 470'FNL & 2011'FWL	7207.2	4485.9	576.7	Point
Entry Pt. 460'FSL & 2022'FWL	7207.2	220.4	549.6	Point



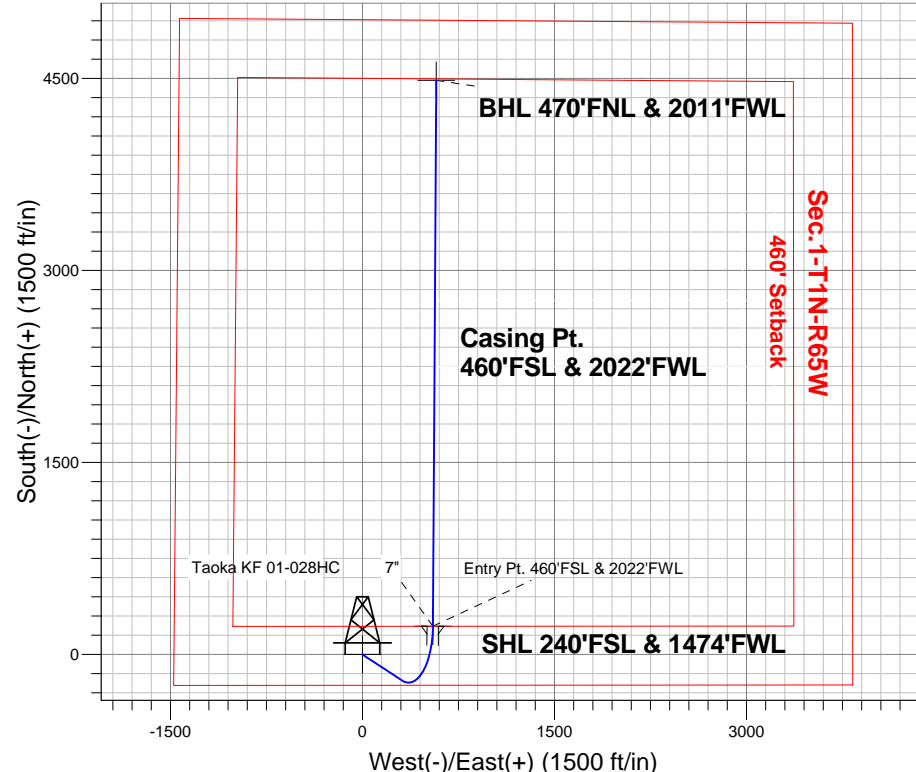
Azimuths to True North
Magnetic North: 8.43°

Magnetic Field
Strength: 52718.7snT
Dip Angle: 66.73°
Date: 11/18/2013
Model: IGRF2010

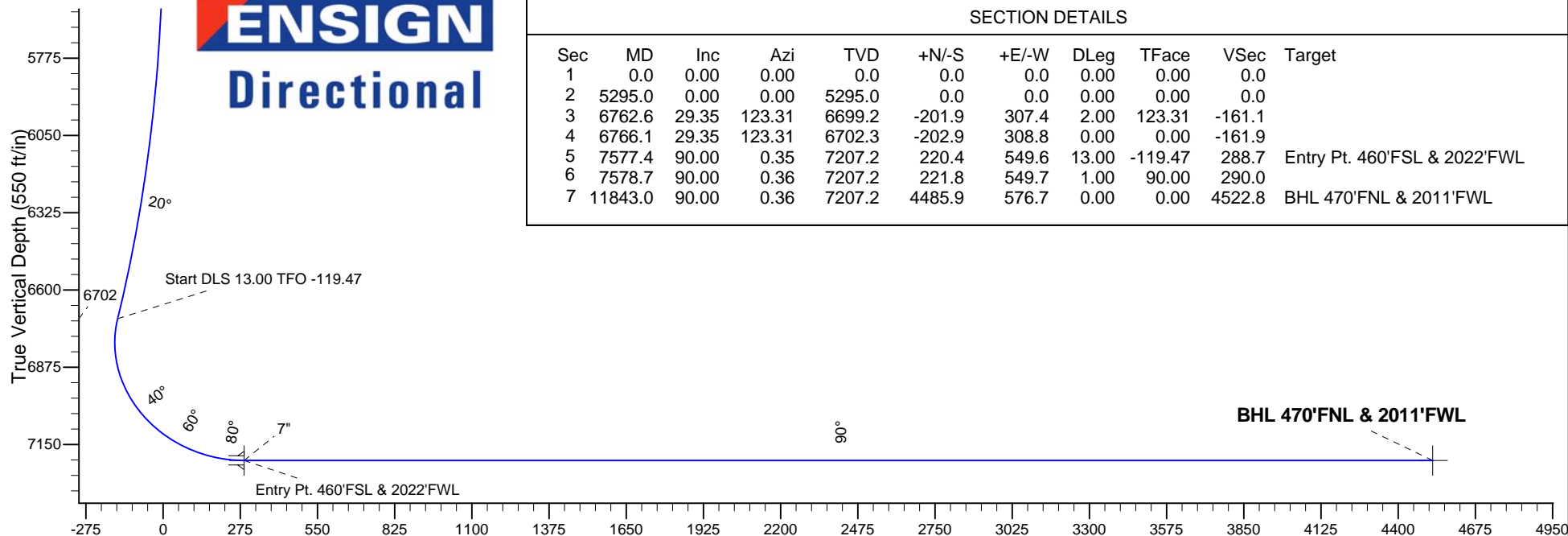
Taoka West Pad Sec.1-T1N-R65W
Taoka KF 01-028HC
Plan #1 (11-18-13)
12:56, November 19 2013

ANNOTATIONS

TVD	MD	Annotation
5295.0	5295.0	KOP - Start Build 2.00
6702.3	6766.1	Start DLS 13.00 TFO -119.47
7207.2	11843.0	TD at 11843.0



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	5295.0	0.00	0.00	5295.0	0.0	0.0	0.00	0.00	0.0	
3	6762.6	29.35	123.31	6699.2	-201.9	307.4	2.00	123.31	-161.1	
4	6766.1	29.35	123.31	6702.3	-202.9	308.8	0.00	0.00	-161.9	
5	7577.4	90.00	0.35	7207.2	220.4	549.6	13.00	-119.47	288.7	Entry Pt. 460'FSL & 2022'FWL
6	7578.7	90.00	0.36	7207.2	221.8	549.7	1.00	90.00	290.0	
7	11843.0	90.00	0.36	7207.2	4485.9	576.7	0.00	0.00	4522.8	BHL 470'FNL & 2011'FWL



Great Western

SEC.1-T1N-R65W

Taoka West Pad Sec.1-T1N-R65W

Taoka KF 01-028HC

Wellbore #1

Plan: Plan #1 (11-18-13)

Standard Planning Report

19 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	
5,295.0	0.00	0.00	5,295.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,762.6	29.35	123.31	6,699.2	-201.9	307.4	2.00	2.00	0.00	123.31	
6,766.1	29.35	123.31	6,702.3	-202.9	308.8	0.00	0.00	0.00	0.00	
7,577.4	90.00	0.35	7,207.2	220.4	549.6	13.00	7.48	-15.16	-119.47	Entry Pt. 460'FSL &
7,578.7	90.00	0.36	7,207.2	221.8	549.7	1.00	0.00	1.00	90.00	
11,843.0	90.00	0.36	7,207.2	4,485.9	576.7	0.00	0.00	0.00	0.00	BHL 470'FNL & 201

Database:	Landmark	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Company:	Great Western	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Project:	SEC.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site:	Taoka West Pad Sec.1-T1N-R65W	North Reference:	True
Well:	Taoka KF 01-028HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-18-13)		

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 240'FSL & 1474'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
3,700.0	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
4,200.0	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
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
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
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

COMPASS 2003.21 Build 46

Database:	Landmark	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Company:	Great Western	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Project:	SEC.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site:	Taoka West Pad Sec.1-T1N-R65W	North Reference:	True
Well:	Taoka KF 01-028HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-18-13)		

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)	
9,700.0	90.00	0.36	7,207.2	2,343.0	563.1	2,395.6	0.00	0.00	0.00	
9,800.0	90.00	0.36	7,207.2	2,443.0	563.7	2,494.9	0.00	0.00	0.00	
9,900.0	90.00	0.36	7,207.2	2,543.0	564.4	2,594.2	0.00	0.00	0.00	
10,000.0	90.00	0.36	7,207.2	2,643.0	565.0	2,693.4	0.00	0.00	0.00	
10,100.0	90.00	0.36	7,207.2	2,743.0	565.6	2,792.7	0.00	0.00	0.00	
10,200.0	90.00	0.36	7,207.2	2,843.0	566.3	2,892.0	0.00	0.00	0.00	
10,300.0	90.00	0.36	7,207.2	2,943.0	566.9	2,991.2	0.00	0.00	0.00	
10,400.0	90.00	0.36	7,207.2	3,043.0	567.5	3,090.5	0.00	0.00	0.00	
10,500.0	90.00	0.36	7,207.2	3,143.0	568.2	3,189.7	0.00	0.00	0.00	
10,600.0	90.00	0.36	7,207.2	3,243.0	568.8	3,289.0	0.00	0.00	0.00	
10,700.0	90.00	0.36	7,207.2	3,343.0	569.4	3,388.3	0.00	0.00	0.00	
10,800.0	90.00	0.36	7,207.2	3,443.0	570.1	3,487.5	0.00	0.00	0.00	
10,900.0	90.00	0.36	7,207.2	3,542.9	570.7	3,586.8	0.00	0.00	0.00	
11,000.0	90.00	0.36	7,207.2	3,642.9	571.3	3,686.1	0.00	0.00	0.00	
11,100.0	90.00	0.36	7,207.2	3,742.9	572.0	3,785.3	0.00	0.00	0.00	
11,200.0	90.00	0.36	7,207.2	3,842.9	572.6	3,884.6	0.00	0.00	0.00	
11,300.0	90.00	0.36	7,207.2	3,942.9	573.2	3,983.8	0.00	0.00	0.00	
11,400.0	90.00	0.36	7,207.2	4,042.9	573.9	4,083.1	0.00	0.00	0.00	
11,500.0	90.00	0.36	7,207.2	4,142.9	574.5	4,182.4	0.00	0.00	0.00	
11,600.0	90.00	0.36	7,207.2	4,242.9	575.1	4,281.6	0.00	0.00	0.00	
11,700.0	90.00	0.36	7,207.2	4,342.9	575.8	4,380.9	0.00	0.00	0.00	
11,800.0	90.00	0.36	7,207.2	4,442.9	576.4	4,480.2	0.00	0.00	0.00	
11,843.0	90.00	0.36	7,207.2	4,485.9	576.7	4,522.8	0.00	0.00	0.00	
BHL 470'FNL & 2011'FWL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
7,577.4	7,207.2	7"		7	7-1/2

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
5,295.0	5,295.0	0.0	0.0	KOP - Start Build 2.00	
6,766.1	6,702.3	-202.9	308.8	Start DLS 13.00 TFO -119.47	
11,843.0	7,207.2	4,485.9	576.7	TD at 11843.0	



Great Western

SEC.1-T1N-R65W

Taoka West Pad Sec.1-T1N-R65W

Taoka KF 01-028HC

Wellbore #1

Plan #1 (11-18-13)

Anticollision Report

19 November, 2013

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (11-18-13)		
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 11/18/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,842.4	Plan #1 (11-18-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Taoka West Pad Sec.1-T1N-R65W						
Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)	5,200.0	5,200.0	59.9	36.7	2.587	CC
Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)	5,300.0	5,300.0	59.9	36.3	2.538	ES, SF
Taoka KF 01-027HN - Wellbore #1 - Plan #1 (11-15-13)	5,200.0	5,200.0	30.2	7.1	1.306	Level 3, CC
Taoka KF 01-027HN - Wellbore #1 - Plan #1 (11-15-13)	5,300.0	5,300.0	30.2	6.6	1.281	Level 3, ES, SF
Taoka KF 01-029HN - Wellbore #1 - Plan #1 (11-18-13)	4,933.4	4,933.4	30.2	8.3	1.377	Level 3, CC, ES, SF

Offset Design												
Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)												
Survey Program: 0-MWD												
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
0.0	0.0	0.0	0.0	0.0	0.0	-90.03	0.0	-59.9	59.9			
100.0	100.0	100.0	100.0	0.1	0.1	-90.03	0.0	-59.9	59.9	59.7	0.22	266.456
200.0	200.0	200.0	200.0	0.3	0.3	-90.03	0.0	-59.9	59.9	59.2	0.67	88.819
300.0	300.0	300.0	300.0	0.6	0.6	-90.03	0.0	-59.9	59.9	58.8	1.12	53.291
400.0	400.0	400.0	400.0	0.8	0.8	-90.03	0.0	-59.9	59.9	58.3	1.57	38.065
500.0	500.0	500.0	500.0	1.0	1.0	-90.03	0.0	-59.9	59.9	57.9	2.02	29.606
600.0	600.0	600.0	600.0	1.2	1.2	-90.03	0.0	-59.9	59.9	57.4	2.47	24.223
700.0	700.0	700.0	700.0	1.5	1.5	-90.03	0.0	-59.9	59.9	57.0	2.92	20.497
800.0	800.0	800.0	800.0	1.7	1.7	-90.03	0.0	-59.9	59.9	56.5	3.37	17.764
900.0	900.0	900.0	900.0	1.9	1.9	-90.03	0.0	-59.9	59.9	56.1	3.82	15.674
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.03	0.0	-59.9	59.9	55.6	4.27	14.024
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.03	0.0	-59.9	59.9	55.2	4.72	12.688
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.03	0.0	-59.9	59.9	54.7	5.17	11.585
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.03	0.0	-59.9	59.9	54.3	5.62	10.658
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.03	0.0	-59.9	59.9	53.8	6.07	9.869
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.03	0.0	-59.9	59.9	53.4	6.52	9.188
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.03	0.0	-59.9	59.9	52.9	6.97	8.595
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-90.03	0.0	-59.9	59.9	52.5	7.42	8.074
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-90.03	0.0	-59.9	59.9	52.0	7.87	7.613
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-90.03	0.0	-59.9	59.9	51.6	8.32	7.202
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-90.03	0.0	-59.9	59.9	51.1	8.77	6.832
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-90.03	0.0	-59.9	59.9	50.7	9.22	6.499

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)													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		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-90.03	0.0	-59.9	59.9	50.2	9.66	6.197		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-90.03	0.0	-59.9	59.9	49.8	10.11	5.921		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-90.03	0.0	-59.9	59.9	49.3	10.56	5.669		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-90.03	0.0	-59.9	59.9	48.9	11.01	5.438		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-90.03	0.0	-59.9	59.9	48.4	11.46	5.225		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-90.03	0.0	-59.9	59.9	48.0	11.91	5.027		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-90.03	0.0	-59.9	59.9	47.5	12.36	4.845		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-90.03	0.0	-59.9	59.9	47.1	12.81	4.675		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-90.03	0.0	-59.9	59.9	46.6	13.26	4.516		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-90.03	0.0	-59.9	59.9	46.2	13.71	4.368		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-90.03	0.0	-59.9	59.9	45.7	14.16	4.229		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-90.03	0.0	-59.9	59.9	45.3	14.61	4.099		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-90.03	0.0	-59.9	59.9	44.8	15.06	3.977		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-90.03	0.0	-59.9	59.9	44.4	15.51	3.862		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-90.03	0.0	-59.9	59.9	43.9	15.96	3.753		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-90.03	0.0	-59.9	59.9	43.5	16.41	3.650		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-90.03	0.0	-59.9	59.9	43.0	16.86	3.553		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-90.03	0.0	-59.9	59.9	42.6	17.31	3.460		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-90.03	0.0	-59.9	59.9	42.1	17.76	3.373		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-90.03	0.0	-59.9	59.9	41.7	18.21	3.290		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-90.03	0.0	-59.9	59.9	41.2	18.66	3.210		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-90.03	0.0	-59.9	59.9	40.8	19.11	3.135		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-90.03	0.0	-59.9	59.9	40.3	19.55	3.063		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-90.03	0.0	-59.9	59.9	39.9	20.00	2.994		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-90.03	0.0	-59.9	59.9	39.4	20.45	2.928		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-90.03	0.0	-59.9	59.9	39.0	20.90	2.865		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-90.03	0.0	-59.9	59.9	38.5	21.35	2.805		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-90.03	0.0	-59.9	59.9	38.1	21.80	2.747		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-90.03	0.0	-59.9	59.9	37.6	22.25	2.691		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	-90.03	0.0	-59.9	59.9	37.2	22.70	2.638		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	-90.03	0.0	-59.9	59.9	36.7	23.15	2.587 CC		
5,264.9	5,264.9	5,264.9	5,264.9	11.7	11.7	146.69	0.0	-59.9	59.9	36.5	23.44	2.556		
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	146.67	0.0	-59.9	59.9	36.3	23.60	2.538 ES, SF		
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	147.63	0.0	-59.9	61.5	37.5	23.99	2.563		
5,500.0	5,499.8	5,499.8	5,499.8	12.2	12.2	150.10	0.0	-59.9	66.1	41.8	24.37	2.714		
5,600.0	5,599.4	5,599.4	5,599.4	12.4	12.5	153.46	0.0	-59.9	74.0	49.3	24.72	2.992		
5,700.0	5,698.7	5,698.7	5,698.7	12.5	12.7	157.08	0.0	-59.9	85.2	60.2	25.05	3.402		
5,800.0	5,797.4	5,794.8	5,794.8	12.8	12.9	159.23	-1.8	-61.2	100.9	75.5	25.32	3.984		
5,900.0	5,895.5	5,887.9	5,887.2	13.0	13.0	157.32	-10.6	-67.4	123.3	97.8	25.56	4.826		
6,000.0	5,992.9	5,977.2	5,974.5	13.2	13.2	153.34	-26.0	-78.3	153.1	127.3	25.80	5.933		
6,100.0	6,089.4	6,061.4	6,054.8	13.5	13.4	148.82	-46.4	-92.9	190.6	164.5	26.08	7.308		
6,200.0	6,185.0	6,139.7	6,127.2	13.8	13.6	144.50	-70.6	-110.0	235.8	209.4	26.38	8.938		
6,300.0	6,279.5	6,211.4	6,191.3	14.1	13.7	140.60	-96.9	-128.7	288.4	261.6	26.73	10.789		
6,400.0	6,372.8	6,287.9	6,257.6	14.5	14.0	136.98	-128.0	-150.8	346.6	319.5	27.14	12.771		
6,500.0	6,464.8	6,366.9	6,326.0	14.9	14.3	134.28	-160.1	-173.7	407.4	379.8	27.60	14.761		
6,600.0	6,555.3	6,446.3	6,395.0	15.4	14.6	132.34	-192.1	-196.7	470.2	442.1	28.10	16.736		
6,700.0	6,644.3	6,529.7	6,471.0	16.0	15.0	132.46	-214.8	-222.1	534.1	505.5	28.56	18.703		
6,800.0	6,732.1	6,606.8	6,543.7	16.6	15.3	145.67	-222.1	-246.2	599.5	571.0	28.54	21.005		
6,900.0	6,822.1	6,679.7	6,612.6	17.1	15.5	-174.25	-216.6	-269.0	667.9	639.6	28.32	23.586		
7,000.0	6,911.4	6,753.0	6,680.1	17.6	15.7	-137.46	-199.1	-291.2	735.9	706.8	29.14	25.253		
7,100.0	6,995.4	6,830.0	6,747.1	17.9	15.8	-111.70	-168.4	-313.1	799.9	769.6	30.29	26.406		
7,200.0	7,069.8	6,913.7	6,813.0	18.2	15.9	-95.33	-121.6	-334.5	856.7	825.8	30.99	27.649		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)												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
7,300.0	7,130.8	7,006.7	6,874.9	18.4	16.0	-85.22	-55.3	-354.5	903.7	872.6	31.09	29.063	
7,400.0	7,175.3	7,110.1	6,926.6	18.6	16.2	-79.26	32.4	-370.9	938.2	907.2	31.00	30.265	
7,500.0	7,201.1	7,222.6	6,959.2	18.9	16.6	-76.24	139.3	-380.9	958.2	926.9	31.27	30.640	
7,600.0	7,207.2	7,334.3	6,966.2	19.2	17.1	-75.50	250.5	-382.3	962.8	930.6	32.22	29.882	
7,700.0	7,207.2	7,434.3	6,966.2	19.6	17.8	-75.50	350.5	-381.5	962.6	929.1	33.52	28.717	
7,800.0	7,207.2	7,534.3	6,966.2	20.2	18.7	-75.50	450.5	-380.7	962.5	927.3	35.18	27.357	
7,900.0	7,207.2	7,634.3	6,966.2	21.1	19.7	-75.50	550.5	-379.9	962.3	925.1	37.14	25.908	
8,000.0	7,207.2	7,734.3	6,966.2	22.1	20.8	-75.49	650.5	-379.1	962.1	922.8	39.36	24.445	
8,100.0	7,207.2	7,834.3	6,966.2	23.2	22.1	-75.49	750.5	-378.3	962.0	920.2	41.79	23.019	
8,200.0	7,207.2	7,934.3	6,966.2	24.4	23.4	-75.49	850.5	-377.5	961.8	917.4	44.40	21.662	
8,300.0	7,207.2	8,034.3	6,966.2	25.7	24.8	-75.49	950.5	-376.7	961.6	914.5	47.16	20.391	
8,400.0	7,207.2	8,134.3	6,966.2	27.1	26.3	-75.48	1,050.5	-375.9	961.4	911.4	50.05	19.212	
8,500.0	7,207.2	8,234.3	6,966.2	28.5	27.8	-75.48	1,150.5	-375.1	961.3	908.2	53.04	18.125	
8,600.0	7,207.2	8,334.3	6,966.2	30.0	29.3	-75.48	1,250.5	-374.3	961.1	905.0	56.11	17.128	
8,700.0	7,207.2	8,434.3	6,966.2	31.6	31.0	-75.48	1,350.5	-373.4	960.9	901.7	59.26	16.215	
8,800.0	7,207.2	8,534.3	6,966.2	33.2	32.6	-75.47	1,450.5	-372.6	960.8	898.3	62.48	15.378	
8,900.0	7,207.2	8,634.3	6,966.2	34.8	34.3	-75.47	1,550.5	-371.8	960.6	894.9	65.75	14.611	
9,000.0	7,207.2	8,734.3	6,966.2	36.5	36.0	-75.47	1,650.5	-371.0	960.4	891.4	69.06	13.907	
9,100.0	7,207.2	8,834.3	6,966.2	38.1	37.7	-75.47	1,750.5	-370.2	960.3	887.9	72.42	13.261	
9,200.0	7,207.2	8,934.3	6,966.2	39.8	39.4	-75.46	1,850.5	-369.4	960.1	884.3	75.80	12.666	
9,300.0	7,207.2	9,034.3	6,966.2	41.5	41.1	-75.46	1,950.5	-368.6	959.9	880.7	79.22	12.117	
9,400.0	7,207.2	9,134.3	6,966.2	43.3	42.9	-75.46	2,050.5	-367.8	959.8	877.1	82.67	11.610	
9,500.0	7,207.2	9,234.3	6,966.2	45.0	44.7	-75.45	2,150.5	-367.0	959.6	873.5	86.14	11.141	
9,600.0	7,207.2	9,334.3	6,966.2	46.8	46.5	-75.45	2,250.5	-366.2	959.4	869.8	89.62	10.705	
9,700.0	7,207.2	9,434.3	6,966.2	48.5	48.3	-75.45	2,350.5	-365.4	959.3	866.1	93.13	10.300	
9,800.0	7,207.2	9,534.3	6,966.2	50.3	50.1	-75.45	2,450.5	-364.6	959.1	862.5	96.65	9.923	
9,900.0	7,207.2	9,634.3	6,966.2	52.1	51.9	-75.44	2,550.5	-363.8	958.9	858.8	100.19	9.571	
10,000.0	7,207.2	9,734.3	6,966.2	53.9	53.7	-75.44	2,650.5	-363.0	958.8	855.0	103.74	9.242	
10,100.0	7,207.2	9,834.3	6,966.2	55.7	55.5	-75.44	2,750.4	-362.2	958.6	851.3	107.30	8.934	
10,200.0	7,207.2	9,934.3	6,966.2	57.5	57.4	-75.44	2,850.4	-361.3	958.4	847.6	110.87	8.645	
10,300.0	7,207.2	10,034.3	6,966.2	59.4	59.2	-75.43	2,950.4	-360.5	958.3	843.8	114.45	8.373	
10,400.0	7,207.2	10,134.3	6,966.2	61.2	61.0	-75.43	3,050.4	-359.7	958.1	840.1	118.04	8.117	
10,500.0	7,207.2	10,234.3	6,966.2	63.0	62.9	-75.43	3,150.4	-358.9	957.9	836.3	121.64	7.875	
10,600.0	7,207.2	10,334.3	6,966.2	64.9	64.7	-75.43	3,250.4	-358.1	957.8	832.5	125.24	7.647	
10,700.0	7,207.2	10,434.3	6,966.2	66.7	66.6	-75.42	3,350.4	-357.3	957.6	828.8	128.86	7.432	
10,800.0	7,207.2	10,534.3	6,966.2	68.5	68.4	-75.42	3,450.4	-356.5	957.4	825.0	132.47	7.227	
10,900.0	7,207.2	10,634.3	6,966.2	70.4	70.3	-75.42	3,550.4	-355.7	957.3	821.2	136.10	7.034	
11,000.0	7,207.2	10,734.3	6,966.2	72.2	72.2	-75.42	3,650.4	-354.9	957.1	817.4	139.72	6.850	
11,100.0	7,207.2	10,834.3	6,966.2	74.1	74.0	-75.41	3,750.4	-354.1	956.9	813.6	143.36	6.675	
11,200.0	7,207.2	10,934.3	6,966.2	76.0	75.9	-75.41	3,850.4	-353.3	956.8	809.8	146.99	6.509	
11,300.0	7,207.2	11,034.3	6,966.2	77.8	77.8	-75.41	3,950.4	-352.5	956.6	806.0	150.63	6.350	
11,400.0	7,207.2	11,134.3	6,966.2	79.7	79.6	-75.41	4,050.4	-351.7	956.4	802.2	154.28	6.199	
11,500.0	7,207.2	11,234.3	6,966.2	81.5	81.5	-75.40	4,150.4	-350.9	956.3	798.3	157.93	6.055	
11,600.0	7,207.2	11,334.3	6,966.2	83.4	83.4	-75.40	4,250.4	-350.1	956.1	794.5	161.58	5.917	
11,700.0	7,207.2	11,434.3	6,966.2	85.3	85.3	-75.40	4,350.4	-349.2	955.9	790.7	165.23	5.785	
11,800.0	7,207.2	11,534.3	6,966.2	87.2	87.1	-75.40	4,450.4	-348.4	955.8	786.9	168.89	5.659	
11,843.0	7,207.2	11,576.7	6,966.2	87.8	87.9	-75.39	4,492.8	-348.1	955.7	785.4	170.30	5.612	

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-027HN - Wellbore #1 - Plan #1 (11-15-13)													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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-30.2	30.2					
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-30.2	30.2	30.0	0.22	134.473		
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-30.2	30.2	29.6	0.67	44.824		
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-30.2	30.2	29.1	1.12	26.895		
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-30.2	30.2	28.7	1.57	19.210		
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-30.2	30.2	28.2	2.02	14.941		
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-30.2	30.2	27.8	2.47	12.225		
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-30.2	30.2	27.3	2.92	10.344		
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-30.2	30.2	26.9	3.37	8.965		
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-30.2	30.2	26.4	3.82	7.910		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-30.2	30.2	26.0	4.27	7.078		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.98	0.0	-30.2	30.2	25.5	4.72	6.403		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.98	0.0	-30.2	30.2	25.1	5.17	5.847		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-89.98	0.0	-30.2	30.2	24.6	5.62	5.379		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-89.98	0.0	-30.2	30.2	24.2	6.07	4.980		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-89.98	0.0	-30.2	30.2	23.7	6.52	4.637		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-89.98	0.0	-30.2	30.2	23.3	6.97	4.338		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-89.98	0.0	-30.2	30.2	22.8	7.42	4.075		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-89.98	0.0	-30.2	30.2	22.4	7.87	3.842		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-89.98	0.0	-30.2	30.2	21.9	8.32	3.634		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-89.98	0.0	-30.2	30.2	21.5	8.77	3.448		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-89.98	0.0	-30.2	30.2	21.0	9.22	3.280		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-89.98	0.0	-30.2	30.2	20.6	9.66	3.127		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-89.98	0.0	-30.2	30.2	20.1	10.11	2.988		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-89.98	0.0	-30.2	30.2	19.7	10.56	2.861		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-89.98	0.0	-30.2	30.2	19.2	11.01	2.744		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-89.98	0.0	-30.2	30.2	18.8	11.46	2.637		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-89.98	0.0	-30.2	30.2	18.3	11.91	2.537		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-89.98	0.0	-30.2	30.2	17.9	12.36	2.445		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-89.98	0.0	-30.2	30.2	17.4	12.81	2.359		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-89.98	0.0	-30.2	30.2	17.0	13.26	2.279		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-89.98	0.0	-30.2	30.2	16.5	13.71	2.204		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-89.98	0.0	-30.2	30.2	16.1	14.16	2.134		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-89.98	0.0	-30.2	30.2	15.6	14.61	2.069		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-89.98	0.0	-30.2	30.2	15.2	15.06	2.007		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-89.98	0.0	-30.2	30.2	14.7	15.51	1.949		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-89.98	0.0	-30.2	30.2	14.3	15.96	1.894		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-89.98	0.0	-30.2	30.2	13.8	16.41	1.842		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-89.98	0.0	-30.2	30.2	13.4	16.86	1.793		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-89.98	0.0	-30.2	30.2	12.9	17.31	1.746		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-89.98	0.0	-30.2	30.2	12.5	17.76	1.702		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-89.98	0.0	-30.2	30.2	12.0	18.21	1.660		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-89.98	0.0	-30.2	30.2	11.6	18.66	1.620		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-89.98	0.0	-30.2	30.2	11.1	19.11	1.582		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-89.98	0.0	-30.2	30.2	10.7	19.55	1.546		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-89.98	0.0	-30.2	30.2	10.2	20.00	1.511		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-89.98	0.0	-30.2	30.2	9.8	20.45	1.478 Level 3		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-89.98	0.0	-30.2	30.2	9.3	20.90	1.446 Level 3		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-89.98	0.0	-30.2	30.2	8.9	21.35	1.416 Level 3		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-89.98	0.0	-30.2	30.2	8.4	21.80	1.386 Level 3		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-89.98	0.0	-30.2	30.2	8.0	22.25	1.358 Level 3		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	-89.98	0.0	-30.2	30.2	7.5	22.70	1.331 Level 3		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-027HN - Wellbore #1 - Plan #1 (11-15-13)													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		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	-89.98	0.0	-30.2	30.2	7.1	23.15	1.306	Level 3, CC	
5,264.9	5,264.9	5,264.9	5,264.9	11.7	11.7	146.76	0.0	-30.2	30.3	6.8	23.44	1.291	Level 3	
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	146.72	0.0	-30.2	30.2	6.6	23.60	1.281	Level 3, ES, SF	
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	148.60	0.0	-30.2	31.9	7.9	23.99	1.327	Level 3	
5,500.0	5,499.8	5,499.8	5,499.8	12.2	12.2	152.97	0.0	-30.2	36.6	12.2	24.37	1.501		
5,600.0	5,599.4	5,599.4	5,599.4	12.4	12.5	158.10	0.0	-30.2	44.7	20.0	24.72	1.808		
5,700.0	5,698.7	5,700.6	5,700.6	12.5	12.7	161.39	-1.7	-29.3	55.1	30.0	25.02	2.201		
5,800.0	5,797.4	5,803.1	5,802.7	12.8	12.9	160.14	-9.5	-25.1	64.2	38.9	25.28	2.538		
5,900.0	5,895.5	5,905.8	5,904.1	13.0	13.0	155.79	-23.8	-17.4	72.0	46.4	25.55	2.817		
6,000.0	5,992.9	6,008.3	6,003.8	13.2	13.2	149.13	-44.4	-6.3	79.2	53.3	25.86	3.063		
6,100.0	6,089.4	6,110.0	6,100.9	13.5	13.5	140.77	-71.0	8.1	87.1	60.8	26.28	3.313		
6,200.0	6,185.0	6,210.5	6,194.5	13.8	13.7	131.39	-103.1	25.5	96.9	70.0	26.86	3.605		
6,300.0	6,279.5	6,309.4	6,283.9	14.1	14.0	121.81	-140.3	45.6	109.8	82.2	27.63	3.974		
6,400.0	6,372.8	6,409.7	6,371.7	14.5	14.4	112.74	-182.9	68.8	126.5	98.0	28.56	4.430		
6,500.0	6,464.8	6,530.9	6,483.6	14.9	14.9	112.18	-215.9	99.9	135.7	106.3	29.40	4.615		
6,600.0	6,555.3	6,646.2	6,594.3	15.4	15.2	124.20	-216.9	130.8	132.5	102.9	29.57	4.481		
6,655.8	6,605.2	6,702.3	6,647.4	15.7	15.4	134.88	-206.5	145.7	130.7	101.5	29.13	4.486		
6,700.0	6,644.3	6,741.5	6,683.6	16.0	15.4	144.06	-195.1	155.9	132.6	104.1	28.56	4.644		
6,800.0	6,732.1	6,815.1	6,748.0	16.6	15.5	171.58	-165.1	174.1	156.4	128.8	27.56	5.673		
6,900.0	6,822.1	6,880.6	6,800.7	17.1	15.6	-144.53	-129.2	189.1	198.8	170.2	28.67	6.935		
7,000.0	6,911.4	6,943.4	6,845.8	17.6	15.6	-107.96	-87.6	202.0	245.3	215.1	30.20	8.122		
7,100.0	6,995.4	7,004.4	6,883.8	17.9	15.7	-83.98	-41.1	213.0	289.0	258.2	30.79	9.388		
7,200.0	7,069.8	7,064.2	6,914.6	18.2	15.7	-69.44	9.3	222.0	326.8	296.5	30.31	10.781		
7,300.0	7,130.8	7,125.0	6,939.0	18.4	15.8	-60.64	64.4	229.2	357.0	327.9	29.14	12.251		
7,400.0	7,175.3	7,182.0	6,954.9	18.6	16.0	-55.52	118.9	234.0	378.6	350.8	27.80	13.618		
7,500.0	7,201.1	7,240.3	6,964.1	18.9	16.2	-52.90	176.4	237.0	391.0	364.1	26.87	14.553		
7,600.0	7,207.2	7,309.2	6,966.2	19.2	16.6	-52.29	245.2	238.1	394.0	367.1	26.90	14.649		
7,700.0	7,207.2	7,409.2	6,966.2	19.6	17.3	-52.29	345.2	238.8	394.0	366.0	27.97	14.087		
7,800.0	7,207.2	7,509.2	6,966.2	20.2	18.2	-52.28	445.2	239.4	393.9	364.6	29.34	13.427		
7,900.0	7,207.2	7,609.2	6,966.2	21.1	19.2	-52.28	545.2	240.1	393.9	362.9	30.97	12.718		
8,000.0	7,207.2	7,709.2	6,966.2	22.1	20.3	-52.27	645.2	240.8	393.8	361.0	32.83	11.997		
8,100.0	7,207.2	7,809.2	6,966.2	23.2	21.6	-52.27	745.2	241.5	393.8	358.9	34.87	11.293		
8,200.0	7,207.2	7,909.2	6,966.2	24.4	22.9	-52.26	845.2	242.2	393.7	356.7	37.07	10.622		
8,300.0	7,207.2	8,009.2	6,966.2	25.7	24.3	-52.26	945.2	242.9	393.7	354.3	39.40	9.993		
8,400.0	7,207.2	8,109.2	6,966.2	27.1	25.8	-52.25	1,045.2	243.6	393.7	351.8	41.84	9.410		
8,500.0	7,207.2	8,209.2	6,966.2	28.5	27.4	-52.24	1,145.2	244.3	393.6	349.2	44.36	8.872		
8,600.0	7,207.2	8,309.2	6,966.2	30.0	28.9	-52.24	1,245.2	245.0	393.6	346.6	46.97	8.380		
8,700.0	7,207.2	8,409.2	6,966.2	31.6	30.6	-52.23	1,345.2	245.7	393.5	343.9	49.63	7.928		
8,800.0	7,207.2	8,509.2	6,966.2	33.2	32.2	-52.23	1,445.1	246.4	393.5	341.1	52.35	7.516		
8,900.0	7,207.2	8,609.2	6,966.2	34.8	33.9	-52.22	1,545.1	247.1	393.4	338.3	55.12	7.138		
9,000.0	7,207.2	8,709.2	6,966.2	36.5	35.6	-52.22	1,645.1	247.8	393.4	335.4	57.93	6.791		
9,100.0	7,207.2	8,809.2	6,966.2	38.1	37.3	-52.21	1,745.1	248.5	393.3	332.6	60.76	6.473		
9,200.0	7,207.2	8,909.2	6,966.2	39.8	39.1	-52.21	1,845.1	249.2	393.3	329.6	63.63	6.180		
9,300.0	7,207.2	9,009.2	6,966.2	41.5	40.8	-52.20	1,945.1	249.9	393.2	326.7	66.53	5.911		
9,400.0	7,207.2	9,109.2	6,966.2	43.3	42.6	-52.20	2,045.1	250.5	393.2	323.7	69.44	5.662		
9,500.0	7,207.2	9,209.2	6,966.2	45.0	44.4	-52.19	2,145.1	251.2	393.1	320.8	72.38	5.432		
9,600.0	7,207.2	9,309.2	6,966.2	46.8	46.1	-52.19	2,245.1	251.9	393.1	317.8	75.33	5.218		
9,700.0	7,207.2	9,409.2	6,966.2	48.5	48.0	-52.18	2,345.1	252.6	393.0	314.7	78.30	5.020		
9,800.0	7,207.2	9,509.2	6,966.2	50.3	49.8	-52.18	2,445.1	253.3	393.0	311.7	81.28	4.835		
9,900.0	7,207.2	9,609.2	6,966.2	52.1	51.6	-52.17	2,545.1	254.0	392.9	308.7	84.27	4.663		
10,000.0	7,207.2	9,709.2	6,966.2	53.9	53.4	-52.16	2,645.1	254.7	392.9	305.6	87.27	4.502		
10,100.0	7,207.2	9,809.2	6,966.2	55.7	55.2	-52.16	2,745.1	255.4	392.9	302.6	90.29	4.351		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-027HN - Wellbore #1 - Plan #1 (11-15-13)												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
10,200.0	7,207.2	9,909.2	6,966.2	57.5	57.1	-52.15	2,845.1	256.1	392.8	299.5	93.31	4.210	
10,300.0	7,207.2	10,009.2	6,966.2	59.4	58.9	-52.15	2,945.1	256.8	392.8	296.4	96.34	4.077	
10,400.0	7,207.2	10,109.2	6,966.2	61.2	60.8	-52.14	3,045.1	257.5	392.7	293.3	99.37	3.952	
10,500.0	7,207.2	10,209.2	6,966.2	63.0	62.6	-52.14	3,145.1	258.2	392.7	290.2	102.42	3.834	
10,600.0	7,207.2	10,309.2	6,966.2	64.9	64.5	-52.13	3,245.1	258.9	392.6	287.1	105.47	3.723	
10,700.0	7,207.2	10,409.2	6,966.2	66.7	66.3	-52.13	3,345.1	259.6	392.6	284.0	108.52	3.617	
10,800.0	7,207.2	10,509.2	6,966.2	68.5	68.2	-52.12	3,445.1	260.3	392.5	280.9	111.58	3.518	
10,900.0	7,207.2	10,609.2	6,966.2	70.4	70.0	-52.12	3,545.1	261.0	392.5	277.8	114.64	3.424	
11,000.0	7,207.2	10,709.2	6,966.2	72.2	71.9	-52.11	3,645.1	261.6	392.4	274.7	117.71	3.334	
11,100.0	7,207.2	10,809.2	6,966.2	74.1	73.8	-52.11	3,745.1	262.3	392.4	271.6	120.78	3.249	
11,200.0	7,207.2	10,909.2	6,966.2	76.0	75.6	-52.10	3,845.1	263.0	392.3	268.5	123.85	3.168	
11,300.0	7,207.2	11,009.2	6,966.2	77.8	77.5	-52.10	3,945.1	263.7	392.3	265.4	126.93	3.091	
11,400.0	7,207.2	11,109.2	6,966.2	79.7	79.4	-52.09	4,045.1	264.4	392.2	262.2	130.01	3.017	
11,500.0	7,207.2	11,209.2	6,966.2	81.5	81.3	-52.08	4,145.1	265.1	392.2	259.1	133.09	2.947	
11,600.0	7,207.2	11,309.2	6,966.2	83.4	83.1	-52.08	4,245.1	265.8	392.1	256.0	136.18	2.880	
11,700.0	7,207.2	11,409.2	6,966.2	85.3	85.0	-52.07	4,345.1	266.5	392.1	252.8	139.26	2.815	
11,800.0	7,207.2	11,509.2	6,966.2	87.2	86.9	-52.07	4,445.1	267.2	392.0	249.7	142.35	2.754	
11,842.8	7,207.2	11,551.9	6,966.2	87.8	87.7	-52.07	4,487.7	267.5	392.0	248.5	143.53	2.731	
11,843.0	7,207.2	11,551.9	6,966.2	87.8	87.7	-52.07	4,487.7	267.5	392.0	248.5	143.54	2.731	

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-029HN - Wellbore #1 - Plan #1 (11-18-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	90.02	0.0	30.2	30.2					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	30.2	30.2	30.0	0.22	134.473		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	30.2	30.2	29.6	0.67	44.824		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	30.2	30.2	29.1	1.12	26.895		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	30.2	30.2	28.7	1.57	19.210		
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	30.2	30.2	28.2	2.02	14.941		
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	30.2	30.2	27.8	2.47	12.225		
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	30.2	30.2	27.3	2.92	10.344		
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	30.2	30.2	26.9	3.37	8.965		
900.0	900.0	900.0	900.0	1.9	1.9	90.02	0.0	30.2	30.2	26.4	3.82	7.910		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.02	0.0	30.2	30.2	26.0	4.27	7.078		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.02	0.0	30.2	30.2	25.5	4.72	6.403		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.02	0.0	30.2	30.2	25.1	5.17	5.847		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.02	0.0	30.2	30.2	24.6	5.62	5.379		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.02	0.0	30.2	30.2	24.2	6.07	4.980		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.02	0.0	30.2	30.2	23.7	6.52	4.637		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.02	0.0	30.2	30.2	23.3	6.97	4.338		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.02	0.0	30.2	30.2	22.8	7.42	4.075		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.02	0.0	30.2	30.2	22.4	7.87	3.842		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.02	0.0	30.2	30.2	21.9	8.32	3.634		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.02	0.0	30.2	30.2	21.5	8.77	3.448		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.02	0.0	30.2	30.2	21.0	9.22	3.280		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.02	0.0	30.2	30.2	20.6	9.66	3.127		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.02	0.0	30.2	30.2	20.1	10.11	2.988		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.02	0.0	30.2	30.2	19.7	10.56	2.861		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.02	0.0	30.2	30.2	19.2	11.01	2.744		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.02	0.0	30.2	30.2	18.8	11.46	2.637		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.02	0.0	30.2	30.2	18.3	11.91	2.537		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.02	0.0	30.2	30.2	17.9	12.36	2.445		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.02	0.0	30.2	30.2	17.4	12.81	2.359		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.02	0.0	30.2	30.2	17.0	13.26	2.279		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.02	0.0	30.2	30.2	16.5	13.71	2.204		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.02	0.0	30.2	30.2	16.1	14.16	2.134		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.02	0.0	30.2	30.2	15.6	14.61	2.069		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.02	0.0	30.2	30.2	15.2	15.06	2.007		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.02	0.0	30.2	30.2	14.7	15.51	1.949		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.02	0.0	30.2	30.2	14.3	15.96	1.894		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.02	0.0	30.2	30.2	13.8	16.41	1.842		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.02	0.0	30.2	30.2	13.4	16.86	1.793		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.02	0.0	30.2	30.2	12.9	17.31	1.746		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.02	0.0	30.2	30.2	12.5	17.76	1.702		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.02	0.0	30.2	30.2	12.0	18.21	1.660		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	90.02	0.0	30.2	30.2	11.6	18.66	1.620		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	90.02	0.0	30.2	30.2	11.1	19.11	1.582		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	90.02	0.0	30.2	30.2	10.7	19.55	1.546		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	90.02	0.0	30.2	30.2	10.2	20.00	1.511		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	90.02	0.0	30.2	30.2	9.8	20.45	1.478 Level 3		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	90.02	0.0	30.2	30.2	9.3	20.90	1.446 Level 3		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	90.02	0.0	30.2	30.2	8.9	21.35	1.416 Level 3		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	90.02	0.0	30.2	30.2	8.4	21.80	1.386 Level 3		
4,933.4	4,933.4	4,933.4	4,933.4	11.0	11.0	90.02	0.0	30.2	30.2	8.3	21.95	1.377 Level 3, CC, ES, SF		
5,000.0	5,000.0	4,999.3	4,999.3	11.1	11.1	90.43	-0.2	30.8	30.8	8.6	22.24	1.386 Level 3		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-029HN - Wellbore #1 - Plan #1 (11-18-13)													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	5,100.0	5,097.5	5,097.4	11.4	11.3	93.19	-2.0	35.6	35.7	13.1	22.65	1.577		
5,200.0	5,200.0	5,195.0	5,194.3	11.6	11.5	96.91	-5.4	44.9	45.6	22.6	23.06	1.978		
5,300.0	5,300.0	5,291.2	5,289.4	11.8	11.7	-23.13	-10.5	58.7	60.6	37.2	23.46	2.583		
5,400.0	5,400.0	5,386.1	5,382.3	12.0	11.9	-21.04	-17.2	76.7	78.8	55.0	23.81	3.311		
5,500.0	5,499.8	5,479.8	5,473.0	12.2	12.1	-20.03	-25.3	98.7	98.7	74.6	24.14	4.090		
5,600.0	5,599.4	5,572.2	5,561.2	12.4	12.4	-19.59	-34.8	124.5	120.1	95.7	24.44	4.914		
5,700.0	5,698.7	5,663.3	5,646.8	12.5	12.7	-19.47	-45.6	153.8	143.0	118.2	24.73	5.781		
5,800.0	5,797.4	5,753.1	5,729.6	12.8	13.0	-19.54	-57.6	186.3	167.2	142.2	25.00	6.687		
5,900.0	5,895.5	5,841.5	5,809.5	13.0	13.4	-19.71	-70.7	221.9	192.7	167.5	25.26	7.630		
6,000.0	5,992.9	5,928.6	5,886.3	13.2	13.9	-19.93	-84.9	260.3	219.5	194.0	25.51	8.605		
6,100.0	6,089.4	6,020.7	5,965.9	13.5	14.4	-20.25	-101.0	303.8	246.7	220.9	25.76	9.575		
6,200.0	6,185.0	6,117.6	6,049.5	13.8	15.1	-20.75	-117.9	349.8	271.1	245.0	26.04	10.412		
6,300.0	6,279.5	6,215.3	6,133.7	14.1	15.8	-21.42	-135.0	396.2	292.3	266.0	26.32	11.105		
6,400.0	6,372.8	6,313.5	6,218.5	14.5	16.5	-22.24	-152.2	442.8	310.5	283.8	26.64	11.654		
6,500.0	6,464.8	6,412.1	6,303.6	14.9	17.3	-23.22	-169.5	489.6	325.5	298.5	27.00	12.058		
6,600.0	6,555.3	6,511.2	6,389.0	15.4	18.1	-24.37	-186.9	536.6	337.5	310.1	27.41	12.314		
6,700.0	6,644.3	6,610.4	6,474.5	16.0	19.0	-25.69	-204.3	583.8	346.6	318.7	27.90	12.420		
6,800.0	6,732.1	6,710.7	6,561.4	16.6	19.8	-20.50	-218.4	631.6	352.9	324.2	28.66	12.313		
6,900.0	6,822.1	6,809.2	6,647.3	17.1	20.6	2.64	-212.5	679.0	359.2	329.7	29.51	12.174		
7,000.0	6,911.4	6,904.8	6,727.6	17.6	21.1	24.29	-186.2	723.4	366.0	336.1	29.97	12.215		
7,100.0	6,995.4	6,997.9	6,799.1	17.9	21.6	37.85	-142.1	763.2	372.8	342.8	30.02	12.417		
7,200.0	7,069.8	7,089.0	6,859.7	18.2	22.0	45.12	-83.2	796.9	379.0	349.3	29.77	12.731		
7,300.0	7,130.8	7,178.7	6,907.7	18.4	22.3	48.90	-12.7	823.8	384.3	354.9	29.44	13.055		
7,400.0	7,175.3	7,267.2	6,941.9	18.6	22.5	50.83	66.5	843.2	388.2	358.9	29.32	13.239		
7,500.0	7,201.1	7,355.1	6,961.4	18.9	22.7	51.72	151.3	854.4	390.5	360.7	29.74	13.131		
7,600.0	7,207.2	7,445.2	6,966.2	19.2	22.8	51.94	241.1	857.6	391.0	360.2	30.75	12.713		
7,700.0	7,207.2	7,545.2	6,966.2	19.6	23.1	51.94	341.1	858.2	390.9	359.0	31.97	12.227		
7,800.0	7,207.2	7,645.2	6,966.2	20.2	23.4	51.94	441.1	858.8	390.9	357.5	33.47	11.680		
7,900.0	7,207.2	7,745.2	6,966.2	21.1	24.0	51.94	541.1	859.5	390.9	355.7	35.18	11.111		
8,000.0	7,207.2	7,845.2	6,966.2	22.1	24.6	51.94	641.1	860.1	390.9	353.8	37.09	10.540		
8,100.0	7,207.2	7,945.2	6,966.2	23.2	25.5	51.93	741.1	860.7	390.9	351.7	39.15	9.984		
8,200.0	7,207.2	8,045.2	6,966.2	24.4	26.4	51.93	841.1	861.3	390.9	349.5	41.35	9.452		
8,300.0	7,207.2	8,145.2	6,966.2	25.7	27.5	51.93	941.1	861.9	390.8	347.2	43.67	8.950		
8,400.0	7,207.2	8,245.2	6,966.2	27.1	28.7	51.93	1,041.1	862.5	390.8	344.7	46.08	8.481		
8,500.0	7,207.2	8,345.2	6,966.2	28.5	30.0	51.93	1,141.1	863.1	390.8	342.2	48.58	8.044		
8,600.0	7,207.2	8,445.2	6,966.2	30.0	31.4	51.92	1,241.1	863.8	390.8	339.6	51.16	7.639		
8,700.0	7,207.2	8,545.2	6,966.2	31.6	32.8	51.92	1,341.1	864.4	390.8	337.0	53.79	7.265		
8,800.0	7,207.2	8,645.2	6,966.2	33.2	34.3	51.92	1,441.1	865.0	390.8	334.3	56.47	6.919		
8,900.0	7,207.2	8,745.2	6,966.2	34.8	35.9	51.92	1,541.1	865.6	390.7	331.5	59.20	6.600		
9,000.0	7,207.2	8,845.2	6,966.2	36.5	37.5	51.92	1,641.1	866.2	390.7	328.8	61.97	6.305		
9,100.0	7,207.2	8,945.2	6,966.2	38.1	39.1	51.92	1,741.1	866.8	390.7	325.9	64.78	6.031		
9,200.0	7,207.2	9,045.2	6,966.2	39.8	40.7	51.91	1,841.1	867.4	390.7	323.1	67.61	5.778		
9,300.0	7,207.2	9,145.2	6,966.2	41.5	42.4	51.91	1,941.1	868.0	390.7	320.2	70.47	5.544		
9,400.0	7,207.2	9,245.2	6,966.2	43.3	44.1	51.91	2,041.1	868.7	390.7	317.3	73.36	5.325		
9,500.0	7,207.2	9,345.2	6,966.2	45.0	45.8	51.91	2,141.1	869.3	390.6	314.4	76.26	5.122		
9,600.0	7,207.2	9,445.2	6,966.2	46.8	47.5	51.91	2,241.1	869.9	390.6	311.4	79.19	4.933		
9,700.0	7,207.2	9,545.2	6,966.2	48.5	49.2	51.90	2,341.1	870.5	390.6	308.5	82.13	4.756		
9,800.0	7,207.2	9,645.2	6,966.2	50.3	51.0	51.90	2,441.1	871.1	390.6	305.5	85.08	4.591		
9,900.0	7,207.2	9,745.2	6,966.2	52.1	52.7	51.90	2,541.1	871.7	390.6	302.5	88.05	4.436		
10,000.0	7,207.2	9,845.2	6,966.2	53.9	54.5	51.90	2,641.1	872.3	390.6	299.5	91.03	4.291		
10,100.0	7,207.2	9,945.2	6,966.2	55.7	56.3	51.90	2,741.1	873.0	390.5	296.5	94.02	4.154		
10,200.0	7,207.2	10,045.2	6,966.2	57.5	58.1	51.89	2,841.1	873.6	390.5	293.5	97.02	4.025		

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

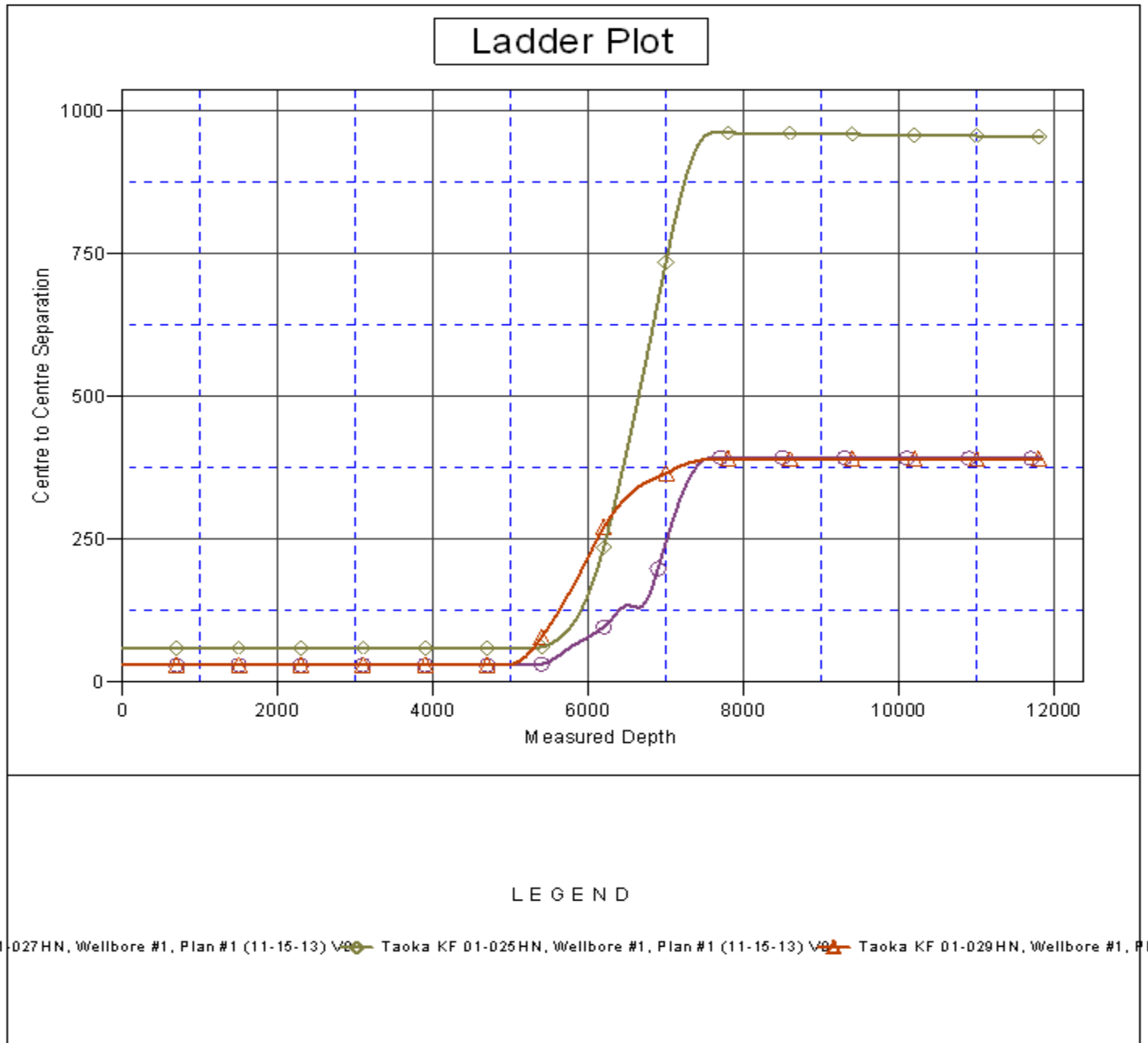
Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Taoka West Pad Sec.1-T1N-R65W - Taoka KF 01-029HN - Wellbore #1 - Plan #1 (11-18-13)												Offset Well Error:	0.0 ft
Survey Program: 0-MWD													
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
10,300.0	7,207.2	10,145.2	6,966.2	59.4	59.9	51.89	2,941.1	874.2	390.5	290.5	100.03	3.904	
10,400.0	7,207.2	10,245.2	6,966.2	61.2	61.7	51.89	3,041.1	874.8	390.5	287.5	103.04	3.790	
10,500.0	7,207.2	10,345.2	6,966.2	63.0	63.5	51.89	3,141.1	875.4	390.5	284.4	106.07	3.681	
10,600.0	7,207.2	10,445.2	6,966.2	64.9	65.3	51.89	3,241.1	876.0	390.5	281.4	109.10	3.579	
10,700.0	7,207.2	10,545.2	6,966.2	66.7	67.1	51.89	3,341.1	876.6	390.5	278.3	112.14	3.482	
10,800.0	7,207.2	10,645.2	6,966.2	68.5	69.0	51.88	3,441.1	877.3	390.4	275.3	115.18	3.390	
10,900.0	7,207.2	10,745.2	6,966.2	70.4	70.8	51.88	3,541.1	877.9	390.4	272.2	118.23	3.302	
11,000.0	7,207.2	10,845.2	6,966.2	72.2	72.6	51.88	3,641.1	878.5	390.4	269.1	121.28	3.219	
11,100.0	7,207.2	10,945.2	6,966.2	74.1	74.5	51.88	3,741.1	879.1	390.4	266.1	124.34	3.140	
11,200.0	7,207.2	11,045.2	6,966.2	76.0	76.3	51.88	3,841.1	879.7	390.4	263.0	127.40	3.064	
11,300.0	7,207.2	11,145.2	6,966.2	77.8	78.2	51.87	3,941.1	880.3	390.4	259.9	130.46	2.992	
11,400.0	7,207.2	11,245.2	6,966.2	79.7	80.0	51.87	4,041.1	880.9	390.3	256.8	133.53	2.923	
11,500.0	7,207.2	11,345.2	6,966.2	81.5	81.9	51.87	4,141.1	881.5	390.3	253.7	136.60	2.857	
11,600.0	7,207.2	11,445.2	6,966.2	83.4	83.7	51.87	4,241.1	882.2	390.3	250.6	139.68	2.794	
11,700.0	7,207.2	11,545.2	6,966.2	85.3	85.6	51.87	4,341.0	882.8	390.3	247.5	142.76	2.734	
11,800.0	7,207.2	11,645.2	6,966.2	87.2	87.5	51.87	4,441.0	883.4	390.3	244.4	145.84	2.676	
11,832.6	7,207.2	11,677.8	6,966.2	87.7	88.1	51.86	4,473.7	883.6	390.3	243.5	146.73	2.660	
11,843.0	7,207.2	11,687.9	6,966.2	87.8	88.3	51.86	4,483.7	883.6	390.3	243.3	147.01	2.655	

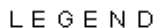
Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-028HC
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West Pad Sec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-028HC	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 #1 (11-18-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4976.2ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Taoka KF 01-028HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



Reference Depths are relative to WELL @ 4976.2ft (RKB - 16.5')	Coordinates are relative to: Taoka KF 01-028HC
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: 0.57°



01-027 HN, Wellbore #1, Plan #1 (11-15-13) V0 - Taoka KF 01-025 HN, Wellbore #1, Plan #1 (11-15-13) V0 - Taoka KF 01-029 HN, Wellbore #1, Plan #1 (11-15-13) V0