

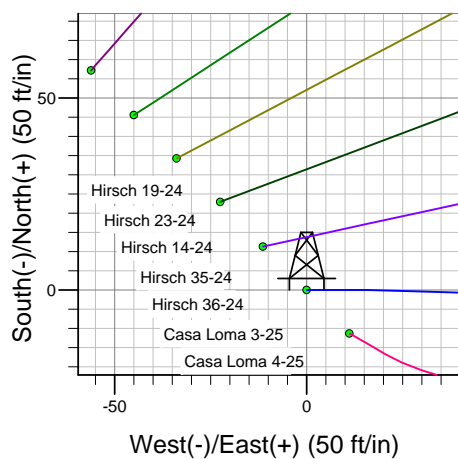
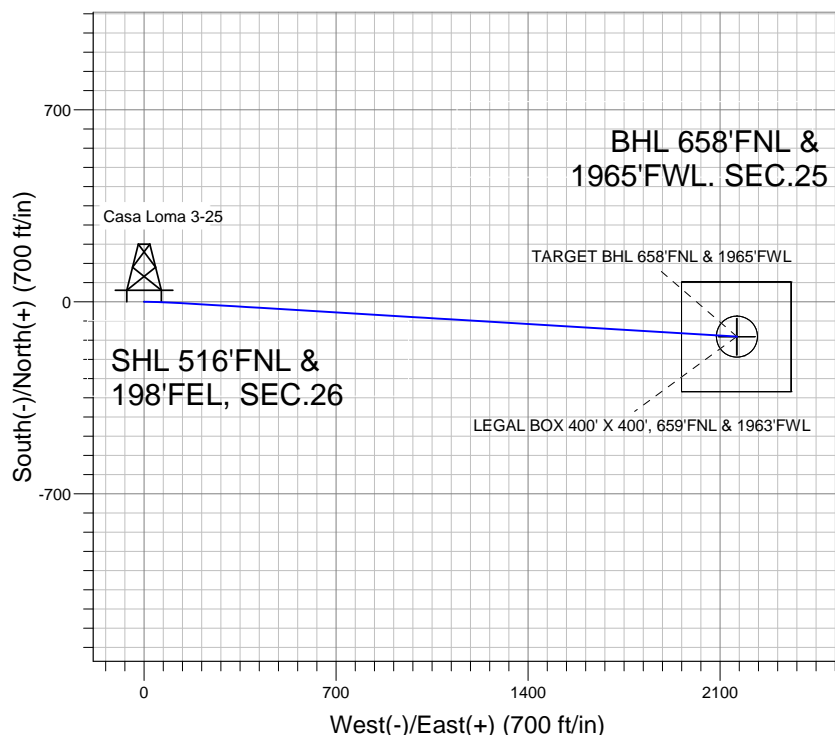
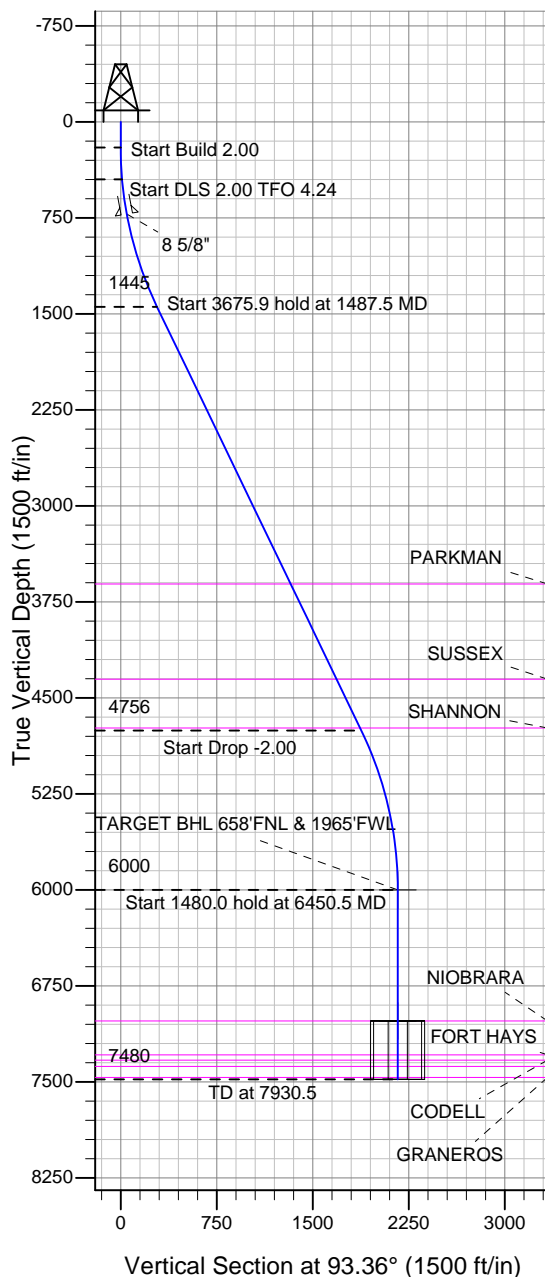
Well Name: Casa Loma 3-25

Surface Location: Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4953.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1444210.72	3180182.41	40.550950	-104.851600	
Original Well Elev WELL @ 4969.0ft (Original Well Elev)						

BAYSWATER EXPLORATION & PRODUCTION



Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W
Casa Loma 3-25
Plan #1 (7-10-12)
11:54, July 18 2012



Azimuths to True North
Magnetic North: 8.78°
Magnetic Field
Strength: 53087.2snT
Dip Angle: 67.12°
Date: 7/10/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 658'FNL & 1965'FWL	6000.0	-127.0	2161.2	40.550601	-104.843823	Point
LEGAL BOX 400' X 400', 659'FNL & 1963'FWL	7024.0	-128.0	2159.2	40.550598	-104.843830	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 658'FNL & 1965'FWL	7024.0	-127.0	2161.2	40.550601	-104.843823	Circle (Radius: 75.0)

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	450.0	5.00	90.00	449.7	0.0	10.9	2.00	90.00	10.9	
4	1487.5	25.74	93.45	1444.7	-13.7	284.0	2.00	4.24	284.3	
5	5163.5	25.74	93.45	4755.9	-109.9	1877.5	0.00	0.00	1880.7	
6	6450.5	0.00	0.00	6000.0	-127.0	2161.2	2.00	180.00	2165.0	TARGET BHL 658'FNL & 1965'FWL
7	7930.5	0.00	0.00	7480.0	-127.0	2161.2	0.00	0.00	2165.0	



BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W

Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W

Casa Loma 3-25

Wellbore #1

Plan: Plan #1 (7-10-12)

Standard Planning Report

18 July, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		

Project	SEC.26-T7N-R67W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W		
Site Position:		Northing:	1,444,301.16 ft
From:	Lat/Long	Easting:	3,180,091.71 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.551200
		Longitude:	-104.851924
		Grid Convergence:	0.42 °

Well	Casa Loma 3-25		
Well Position	+N/-S	-91.1 ft	Northing:
	+E/-W	90.0 ft	Easting:
Position Uncertainty		0.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/10/2012	8.78	67.12	53,087

Design	Plan #1 (7-10-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	93.36

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	5.00	90.00	449.7	0.0	10.9	2.00	2.00	0.00	90.00	
1,487.5	25.74	93.45	1,444.7	-13.7	284.0	2.00	2.00	0.33	4.24	
5,163.5	25.74	93.45	4,755.9	-109.9	1,877.5	0.00	0.00	0.00	0.00	
6,450.5	0.00	0.00	6,000.0	-127.0	2,161.2	2.00	-2.00	0.00	180.00	TARGET BHL 658'I
7,930.5	0.00	0.00	7,480.0	-127.0	2,161.2	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.80	90.00	240.0	0.0	0.3	0.3	2.00	2.00	0.00
280.0	1.60	90.00	280.0	0.0	1.1	1.1	2.00	2.00	0.00
320.0	2.40	90.00	320.0	0.0	2.5	2.5	2.00	2.00	0.00
360.0	3.20	90.00	359.9	0.0	4.5	4.5	2.00	2.00	0.00
400.0	4.00	90.00	399.8	0.0	7.0	7.0	2.00	2.00	0.00
440.0	4.80	90.00	439.7	0.0	10.0	10.0	2.00	2.00	0.00
450.0	5.00	90.00	449.7	0.0	10.9	10.9	2.00	2.00	0.00
480.0	5.60	90.45	479.6	0.0	13.7	13.6	2.00	2.00	1.51
520.0	6.40	90.93	519.3	-0.1	17.9	17.8	2.00	2.00	1.18
560.0	7.20	91.30	559.1	-0.2	22.6	22.6	2.00	2.00	0.92
600.0	7.99	91.59	598.7	-0.3	27.9	27.8	2.00	2.00	0.74
640.0	8.79	91.83	638.3	-0.5	33.7	33.7	2.00	2.00	0.61
680.0	9.59	92.04	677.8	-0.7	40.1	40.1	2.00	2.00	0.51
720.0	10.39	92.21	717.2	-0.9	47.0	47.0	2.00	2.00	0.43
722.9	10.45	92.22	720.0	-1.0	47.6	47.5	2.00	2.00	0.39
8 5/8"									
760.0	11.19	92.36	756.4	-1.2	54.5	54.5	2.00	2.00	0.37
800.0	11.99	92.48	795.6	-1.6	62.5	62.5	2.00	2.00	0.32
840.0	12.79	92.59	834.7	-2.0	71.1	71.1	2.00	2.00	0.28
880.0	13.59	92.69	873.6	-2.4	80.2	80.2	2.00	2.00	0.25
920.0	14.39	92.78	912.5	-2.8	89.9	89.9	2.00	2.00	0.22
960.0	15.19	92.86	951.1	-3.3	100.1	100.1	2.00	2.00	0.20
1,000.0	15.99	92.93	989.7	-3.9	110.8	110.9	2.00	2.00	0.18
1,040.0	16.79	93.00	1,028.0	-4.5	122.1	122.2	2.00	2.00	0.16
1,080.0	17.59	93.06	1,066.2	-5.1	133.9	134.0	2.00	2.00	0.15
1,120.0	18.39	93.11	1,104.3	-5.8	146.2	146.3	2.00	2.00	0.14
1,160.0	19.19	93.16	1,142.2	-6.5	159.1	159.2	2.00	2.00	0.12
1,200.0	19.99	93.21	1,179.8	-7.2	172.5	172.6	2.00	2.00	0.11
1,240.0	20.79	93.25	1,217.3	-8.0	186.4	186.6	2.00	2.00	0.11
1,280.0	21.59	93.29	1,254.6	-8.8	200.9	201.0	2.00	2.00	0.10
1,320.0	22.39	93.32	1,291.7	-9.7	215.8	216.0	2.00	2.00	0.09
1,360.0	23.19	93.36	1,328.6	-10.6	231.3	231.5	2.00	2.00	0.09
1,400.0	23.99	93.39	1,365.3	-11.5	247.2	247.5	2.00	2.00	0.08
1,440.0	24.79	93.42	1,401.7	-12.5	263.7	264.0	2.00	2.00	0.08
1,480.0	25.59	93.45	1,437.9	-13.5	280.7	281.0	2.00	2.00	0.07
1,487.5	25.74	93.45	1,444.7	-13.7	284.0	284.3	2.00	2.00	0.07
1,520.0	25.74	93.45	1,473.9	-14.6	298.1	298.4	0.00	0.00	0.00
1,560.0	25.74	93.45	1,509.9	-15.6	315.4	315.8	0.00	0.00	0.00
1,600.0	25.74	93.45	1,546.0	-16.7	332.7	333.1	0.00	0.00	0.00
1,640.0	25.74	93.45	1,582.0	-17.7	350.1	350.5	0.00	0.00	0.00
1,680.0	25.74	93.45	1,618.0	-18.8	367.4	367.9	0.00	0.00	0.00
1,720.0	25.74	93.45	1,654.1	-19.8	384.8	385.3	0.00	0.00	0.00
1,760.0	25.74	93.45	1,690.1	-20.9	402.1	402.6	0.00	0.00	0.00
1,800.0	25.74	93.45	1,726.1	-21.9	419.4	420.0	0.00	0.00	0.00
1,840.0	25.74	93.45	1,762.2	-22.9	436.8	437.4	0.00	0.00	0.00
1,880.0	25.74	93.45	1,798.2	-24.0	454.1	454.7	0.00	0.00	0.00
1,920.0	25.74	93.45	1,834.2	-25.0	471.5	472.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		

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)
1,960.0	25.74	93.45	1,870.3	-26.1	488.8	489.5	0.00	0.00	0.00
2,000.0	25.74	93.45	1,906.3	-27.1	506.1	506.9	0.00	0.00	0.00
2,040.0	25.74	93.45	1,942.3	-28.2	523.5	524.2	0.00	0.00	0.00
2,080.0	25.74	93.45	1,978.3	-29.2	540.8	541.6	0.00	0.00	0.00
2,120.0	25.74	93.45	2,014.4	-30.3	558.2	559.0	0.00	0.00	0.00
2,160.0	25.74	93.45	2,050.4	-31.3	575.5	576.3	0.00	0.00	0.00
2,200.0	25.74	93.45	2,086.4	-32.4	592.8	593.7	0.00	0.00	0.00
2,240.0	25.74	93.45	2,122.5	-33.4	610.2	611.1	0.00	0.00	0.00
2,280.0	25.74	93.45	2,158.5	-34.5	627.5	628.5	0.00	0.00	0.00
2,320.0	25.74	93.45	2,194.5	-35.5	644.9	645.8	0.00	0.00	0.00
2,360.0	25.74	93.45	2,230.6	-36.6	662.2	663.2	0.00	0.00	0.00
2,400.0	25.74	93.45	2,266.6	-37.6	679.5	680.6	0.00	0.00	0.00
2,440.0	25.74	93.45	2,302.6	-38.6	696.9	697.9	0.00	0.00	0.00
2,480.0	25.74	93.45	2,338.7	-39.7	714.2	715.3	0.00	0.00	0.00
2,520.0	25.74	93.45	2,374.7	-40.7	731.6	732.7	0.00	0.00	0.00
2,560.0	25.74	93.45	2,410.7	-41.8	748.9	750.1	0.00	0.00	0.00
2,600.0	25.74	93.45	2,446.8	-42.8	766.2	767.4	0.00	0.00	0.00
2,640.0	25.74	93.45	2,482.8	-43.9	783.6	784.8	0.00	0.00	0.00
2,680.0	25.74	93.45	2,518.8	-44.9	800.9	802.2	0.00	0.00	0.00
2,720.0	25.74	93.45	2,554.8	-46.0	818.3	819.5	0.00	0.00	0.00
2,760.0	25.74	93.45	2,590.9	-47.0	835.6	836.9	0.00	0.00	0.00
2,800.0	25.74	93.45	2,626.9	-48.1	852.9	854.3	0.00	0.00	0.00
2,840.0	25.74	93.45	2,662.9	-49.1	870.3	871.7	0.00	0.00	0.00
2,880.0	25.74	93.45	2,699.0	-50.2	887.6	889.0	0.00	0.00	0.00
2,920.0	25.74	93.45	2,735.0	-51.2	905.0	906.4	0.00	0.00	0.00
2,960.0	25.74	93.45	2,771.0	-52.3	922.3	923.8	0.00	0.00	0.00
3,000.0	25.74	93.45	2,807.1	-53.3	939.6	941.1	0.00	0.00	0.00
3,040.0	25.74	93.45	2,843.1	-54.3	957.0	958.5	0.00	0.00	0.00
3,080.0	25.74	93.45	2,879.1	-55.4	974.3	975.9	0.00	0.00	0.00
3,120.0	25.74	93.45	2,915.2	-56.4	991.7	993.3	0.00	0.00	0.00
3,160.0	25.74	93.45	2,951.2	-57.5	1,009.0	1,010.6	0.00	0.00	0.00
3,200.0	25.74	93.45	2,987.2	-58.5	1,026.3	1,028.0	0.00	0.00	0.00
3,240.0	25.74	93.45	3,023.2	-59.6	1,043.7	1,045.4	0.00	0.00	0.00
3,280.0	25.74	93.45	3,059.3	-60.6	1,061.0	1,062.7	0.00	0.00	0.00
3,320.0	25.74	93.45	3,095.3	-61.7	1,078.4	1,080.1	0.00	0.00	0.00
3,360.0	25.74	93.45	3,131.3	-62.7	1,095.7	1,097.5	0.00	0.00	0.00
3,400.0	25.74	93.45	3,167.4	-63.8	1,113.0	1,114.9	0.00	0.00	0.00
3,440.0	25.74	93.45	3,203.4	-64.8	1,130.4	1,132.2	0.00	0.00	0.00
3,480.0	25.74	93.45	3,239.4	-65.9	1,147.7	1,149.6	0.00	0.00	0.00
3,520.0	25.74	93.45	3,275.5	-66.9	1,165.1	1,167.0	0.00	0.00	0.00
3,560.0	25.74	93.45	3,311.5	-68.0	1,182.4	1,184.3	0.00	0.00	0.00
3,600.0	25.74	93.45	3,347.5	-69.0	1,199.7	1,201.7	0.00	0.00	0.00
3,640.0	25.74	93.45	3,383.6	-70.0	1,217.1	1,219.1	0.00	0.00	0.00
3,680.0	25.74	93.45	3,419.6	-71.1	1,234.4	1,236.5	0.00	0.00	0.00
3,720.0	25.74	93.45	3,455.6	-72.1	1,251.8	1,253.8	0.00	0.00	0.00
3,760.0	25.74	93.45	3,491.7	-73.2	1,269.1	1,271.2	0.00	0.00	0.00
3,800.0	25.74	93.45	3,527.7	-74.2	1,286.4	1,288.6	0.00	0.00	0.00
3,840.0	25.74	93.45	3,563.7	-75.3	1,303.8	1,305.9	0.00	0.00	0.00
3,880.0	25.74	93.45	3,599.7	-76.3	1,321.1	1,323.3	0.00	0.00	0.00
3,890.3	25.74	93.45	3,609.0	-76.6	1,325.6	1,327.8	0.00	0.00	0.00
PARKMAN									
3,920.0	25.74	93.45	3,635.8	-77.4	1,338.5	1,340.7	0.00	0.00	0.00
3,960.0	25.74	93.45	3,671.8	-78.4	1,355.8	1,358.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		

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)
4,000.0	25.74	93.45	3,707.8	-79.5	1,373.1	1,375.4	0.00	0.00	0.00
4,040.0	25.74	93.45	3,743.9	-80.5	1,390.5	1,392.8	0.00	0.00	0.00
4,080.0	25.74	93.45	3,779.9	-81.6	1,407.8	1,410.2	0.00	0.00	0.00
4,120.0	25.74	93.45	3,815.9	-82.6	1,425.2	1,427.5	0.00	0.00	0.00
4,160.0	25.74	93.45	3,852.0	-83.7	1,442.5	1,444.9	0.00	0.00	0.00
4,200.0	25.74	93.45	3,888.0	-84.7	1,459.8	1,462.3	0.00	0.00	0.00
4,240.0	25.74	93.45	3,924.0	-85.7	1,477.2	1,479.7	0.00	0.00	0.00
4,280.0	25.74	93.45	3,960.1	-86.8	1,494.5	1,497.0	0.00	0.00	0.00
4,320.0	25.74	93.45	3,996.1	-87.8	1,511.8	1,514.4	0.00	0.00	0.00
4,360.0	25.74	93.45	4,032.1	-88.9	1,529.2	1,531.8	0.00	0.00	0.00
4,400.0	25.74	93.45	4,068.1	-89.9	1,546.5	1,549.1	0.00	0.00	0.00
4,440.0	25.74	93.45	4,104.2	-91.0	1,563.9	1,566.5	0.00	0.00	0.00
4,480.0	25.74	93.45	4,140.2	-92.0	1,581.2	1,583.9	0.00	0.00	0.00
4,520.0	25.74	93.45	4,176.2	-93.1	1,598.5	1,601.3	0.00	0.00	0.00
4,560.0	25.74	93.45	4,212.3	-94.1	1,615.9	1,618.6	0.00	0.00	0.00
4,600.0	25.74	93.45	4,248.3	-95.2	1,633.2	1,636.0	0.00	0.00	0.00
4,640.0	25.74	93.45	4,284.3	-96.2	1,650.6	1,653.4	0.00	0.00	0.00
4,680.0	25.74	93.45	4,320.4	-97.3	1,667.9	1,670.7	0.00	0.00	0.00
4,717.3	25.74	93.45	4,354.0	-98.2	1,684.1	1,687.0	0.00	0.00	0.00
SUSSEX									
4,720.0	25.74	93.45	4,356.4	-98.3	1,685.2	1,688.1	0.00	0.00	0.00
4,760.0	25.74	93.45	4,392.4	-99.4	1,702.6	1,705.5	0.00	0.00	0.00
4,800.0	25.74	93.45	4,428.5	-100.4	1,719.9	1,722.9	0.00	0.00	0.00
4,840.0	25.74	93.45	4,464.5	-101.4	1,737.3	1,740.2	0.00	0.00	0.00
4,880.0	25.74	93.45	4,500.5	-102.5	1,754.6	1,757.6	0.00	0.00	0.00
4,920.0	25.74	93.45	4,536.6	-103.5	1,771.9	1,775.0	0.00	0.00	0.00
4,960.0	25.74	93.45	4,572.6	-104.6	1,789.3	1,792.3	0.00	0.00	0.00
5,000.0	25.74	93.45	4,608.6	-105.6	1,806.6	1,809.7	0.00	0.00	0.00
5,040.0	25.74	93.45	4,644.6	-106.7	1,824.0	1,827.1	0.00	0.00	0.00
5,080.0	25.74	93.45	4,680.7	-107.7	1,841.3	1,844.5	0.00	0.00	0.00
5,120.0	25.74	93.45	4,716.7	-108.8	1,858.6	1,861.8	0.00	0.00	0.00
5,139.2	25.74	93.45	4,734.0	-109.3	1,867.0	1,870.2	0.00	0.00	0.00
SHANNON									
5,160.0	25.74	93.45	4,752.7	-109.8	1,876.0	1,879.2	0.00	0.00	0.00
5,163.5	25.74	93.45	4,755.9	-109.9	1,877.5	1,880.7	0.00	0.00	0.00
5,200.0	25.01	93.45	4,788.9	-110.9	1,893.1	1,896.4	2.00	-2.00	0.00
5,240.0	24.21	93.45	4,825.2	-111.9	1,909.7	1,913.0	2.00	-2.00	0.00
5,280.0	23.41	93.45	4,861.8	-112.8	1,925.9	1,929.2	2.00	-2.00	0.00
5,320.0	22.61	93.45	4,898.6	-113.8	1,941.5	1,944.8	2.00	-2.00	0.00
5,360.0	21.81	93.45	4,935.7	-114.7	1,956.6	1,959.9	2.00	-2.00	0.00
5,400.0	21.01	93.45	4,972.9	-115.6	1,971.1	1,974.5	2.00	-2.00	0.00
5,440.0	20.21	93.45	5,010.4	-116.4	1,985.2	1,988.6	2.00	-2.00	0.00
5,480.0	19.41	93.45	5,048.0	-117.2	1,998.7	2,002.2	2.00	-2.00	0.00
5,520.0	18.61	93.45	5,085.8	-118.0	2,011.7	2,015.2	2.00	-2.00	0.00
5,560.0	17.81	93.45	5,123.8	-118.8	2,024.2	2,027.7	2.00	-2.00	0.00
5,600.0	17.01	93.45	5,162.0	-119.5	2,036.1	2,039.6	2.00	-2.00	0.00
5,640.0	16.21	93.45	5,200.3	-120.2	2,047.6	2,051.1	2.00	-2.00	0.00
5,680.0	15.41	93.45	5,238.8	-120.8	2,058.4	2,062.0	2.00	-2.00	0.00
5,720.0	14.61	93.45	5,277.4	-121.5	2,068.8	2,072.3	2.00	-2.00	0.00
5,760.0	13.81	93.45	5,316.2	-122.0	2,078.6	2,082.2	2.00	-2.00	0.00
5,800.0	13.01	93.45	5,355.1	-122.6	2,087.8	2,091.4	2.00	-2.00	0.00
5,840.0	12.21	93.45	5,394.1	-123.1	2,096.6	2,100.2	2.00	-2.00	0.00
5,880.0	11.41	93.45	5,433.3	-123.6	2,104.7	2,108.4	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		

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)
5,920.0	10.61	93.45	5,472.6	-124.1	2,112.3	2,116.0	2.00	-2.00	0.00
5,960.0	9.81	93.45	5,511.9	-124.5	2,119.4	2,123.1	2.00	-2.00	0.00
6,000.0	9.01	93.45	5,551.4	-124.9	2,126.0	2,129.6	2.00	-2.00	0.00
6,040.0	8.21	93.45	5,590.9	-125.3	2,131.9	2,135.6	2.00	-2.00	0.00
6,080.0	7.41	93.45	5,630.6	-125.6	2,137.4	2,141.0	2.00	-2.00	0.00
6,120.0	6.61	93.45	5,670.3	-125.9	2,142.2	2,145.9	2.00	-2.00	0.00
6,160.0	5.81	93.45	5,710.0	-126.2	2,146.5	2,150.2	2.00	-2.00	0.00
6,200.0	5.01	93.45	5,749.9	-126.4	2,150.3	2,154.0	2.00	-2.00	0.00
6,240.0	4.21	93.45	5,789.7	-126.6	2,153.5	2,157.2	2.00	-2.00	0.00
6,280.0	3.41	93.45	5,829.6	-126.7	2,156.2	2,159.9	2.00	-2.00	0.00
6,320.0	2.61	93.45	5,869.6	-126.9	2,158.3	2,162.0	2.00	-2.00	0.00
6,360.0	1.81	93.45	5,909.6	-127.0	2,159.8	2,163.5	2.00	-2.00	0.00
6,400.0	1.01	93.45	5,949.5	-127.0	2,160.8	2,164.5	2.00	-2.00	0.00
6,440.0	0.21	93.45	5,989.5	-127.0	2,161.2	2,164.9	2.00	-2.00	0.00
6,450.5	0.00	0.00	6,000.0	-127.0	2,161.2	2,165.0	2.00	-2.00	0.00
TARGET BHL 658'FNL & 1965'FWL									
6,480.0	0.00	0.00	6,029.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,520.0	0.00	0.00	6,069.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,560.0	0.00	0.00	6,109.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,149.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,640.0	0.00	0.00	6,189.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,680.0	0.00	0.00	6,229.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,720.0	0.00	0.00	6,269.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,760.0	0.00	0.00	6,309.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,349.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,840.0	0.00	0.00	6,389.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,880.0	0.00	0.00	6,429.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,920.0	0.00	0.00	6,469.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
6,960.0	0.00	0.00	6,509.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,549.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,040.0	0.00	0.00	6,589.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,080.0	0.00	0.00	6,629.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,120.0	0.00	0.00	6,669.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,160.0	0.00	0.00	6,709.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,200.0	0.00	0.00	6,749.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,240.0	0.00	0.00	6,789.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,280.0	0.00	0.00	6,829.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,320.0	0.00	0.00	6,869.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,360.0	0.00	0.00	6,909.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,400.0	0.00	0.00	6,949.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,440.0	0.00	0.00	6,989.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,474.5	0.00	0.00	7,024.0	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 400' X 400', 659'FNL & 1963'FWL - TARGET CIRCLE 658'FNL & 1965'FWL									
7,480.0	0.00	0.00	7,029.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,520.0	0.00	0.00	7,069.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,560.0	0.00	0.00	7,109.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,149.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,640.0	0.00	0.00	7,189.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,680.0	0.00	0.00	7,229.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,720.0	0.00	0.00	7,269.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
7,739.5	0.00	0.00	7,289.0	-127.0	2,161.2	2,165.0	0.00	0.00	0.00
FORT HAYS									
7,760.0	0.00	0.00	7,309.5	-127.0	2,161.2	2,165.0	0.00	0.00	0.00

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,890.3	3,609.0	PARKMAN		0.00	
	4,717.3	4,354.0	SUSSEX		0.00	
	5,139.2	4,734.0	SHANNON		0.00	
	7,474.5	7,024.0	NIOBRARA		0.00	
	7,739.5	7,289.0	FORT HAYS		0.00	
	7,779.5	7,329.0	CODELL		0.00	
	7,829.5	7,379.0	GREENHORN		0.00	
	7,914.5	7,464.0	GRANEROS		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 3-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-10-12)		



BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W

Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W

Casa Loma 3-25

Wellbore #1

Plan #1 (7-10-12)

Anticollision Report

18 July, 2012

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 3-25	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 (7-10-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Casa Loma 4-25 - Wellbore #1 - Plan #1 (7-13-12)												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	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,800.0	1,726.1	1,781.4	1,758.0	9.4	6.2	164.38	-55.6	260.4	165.5	155.8	9.72	17.016	
1,900.0	1,816.2	1,878.3	1,853.0	10.3	6.6	165.95	-58.2	279.4	189.9	179.6	10.28	18.465	
2,000.0	1,906.3	1,975.1	1,947.9	11.3	7.1	167.17	-60.8	298.4	214.4	203.5	10.86	19.744	
2,100.0	1,996.4	2,072.0	2,042.9	12.2	7.5	168.14	-63.4	317.4	238.9	227.5	11.44	20.877	
2,200.0	2,086.4	2,168.9	2,137.8	13.1	7.9	168.92	-66.0	336.4	263.5	251.5	12.04	21.887	
2,300.0	2,176.5	2,265.7	2,232.8	14.1	8.3	169.57	-68.7	355.3	288.2	275.6	12.64	22.793	
2,400.0	2,266.6	2,362.6	2,327.7	15.0	8.8	170.12	-71.3	374.3	312.9	299.6	13.25	23.608	
2,500.0	2,356.7	2,459.5	2,422.7	16.0	9.2	170.59	-73.9	393.3	337.6	323.7	13.87	24.346	
2,600.0	2,446.8	2,556.3	2,517.6	16.9	9.6	171.00	-76.5	412.3	362.3	347.8	14.48	25.017	
2,700.0	2,536.8	2,653.2	2,612.6	17.9	10.1	171.35	-79.1	431.3	387.1	372.0	15.10	25.628	
2,800.0	2,626.9	2,750.1	2,707.5	18.8	10.5	171.66	-81.7	450.3	411.8	396.1	15.73	26.189	
2,900.0	2,717.0	2,846.9	2,802.5	19.7	10.9	171.94	-84.3	469.3	436.6	420.2	16.35	26.703	
3,000.0	2,807.1	2,943.8	2,897.4	20.7	11.3	172.18	-87.0	488.3	461.4	444.4	16.98	27.178	
3,100.0	2,897.1	3,040.6	2,992.4	21.6	11.8	172.40	-89.6	507.2	486.1	468.5	17.60	27.617	
3,200.0	2,987.2	3,137.5	3,087.3	22.6	12.2	172.60	-92.2	526.2	510.9	492.7	18.23	28.024	
3,300.0	3,077.3	3,234.4	3,182.2	23.5	12.6	172.78	-94.8	545.2	535.7	516.9	18.86	28.403	
3,400.0	3,167.4	3,331.2	3,277.2	24.5	13.1	172.95	-97.4	564.2	560.5	541.0	19.49	28.756	
3,500.0	3,257.4	3,428.1	3,372.1	25.4	13.5	173.10	-100.0	583.2	585.3	565.2	20.12	29.085	
3,600.0	3,347.5	3,525.0	3,467.1	26.4	13.9	173.24	-102.6	602.2	610.1	589.4	20.76	29.394	
3,700.0	3,437.6	3,621.8	3,562.0	27.3	14.4	173.37	-105.3	621.2	634.9	613.5	21.39	29.683	
3,800.0	3,527.7	3,718.7	3,657.0	28.3	14.8	173.49	-107.9	640.2	659.7	637.7	22.02	29.955	
3,900.0	3,617.8	3,815.6	3,751.9	29.2	15.2	173.60	-110.5	659.1	684.6	661.9	22.66	30.211	
4,000.0	3,707.8	3,912.4	3,846.9	30.2	15.6	173.70	-113.1	678.1	709.4	686.1	23.29	30.453	
4,100.0	3,797.9	4,009.3	3,941.8	31.1	16.1	173.79	-115.7	697.1	734.2	710.3	23.93	30.681	
4,200.0	3,888.0	4,106.2	4,036.8	32.1	16.5	173.88	-118.3	716.1	759.0	734.4	24.57	30.897	
4,300.0	3,978.1	4,203.0	4,131.7	33.0	16.9	173.96	-120.9	735.1	783.8	758.6	25.20	31.101	
4,400.0	4,068.1	4,299.9	4,226.7	34.0	17.4	174.04	-123.5	754.1	808.6	782.8	25.84	31.295	
4,500.0	4,158.2	4,396.8	4,321.6	34.9	17.8	174.12	-126.2	773.1	833.5	807.0	26.48	31.480	
4,600.0	4,248.3	4,493.6	4,416.6	35.9	18.2	174.19	-128.8	792.1	858.3	831.2	27.11	31.655	
4,700.0	4,338.4	4,571.8	4,493.4	36.8	18.5	174.25	-130.8	806.8	884.0	856.3	27.68	31.931	
4,800.0	4,428.5	4,645.2	4,565.7	37.8	18.8	174.32	-132.4	818.7	912.0	883.8	28.22	32.324	
4,900.0	4,518.5	4,717.4	4,637.2	38.7	18.9	174.41	-133.8	828.6	942.5	913.8	28.73	32.806	
5,000.0	4,608.6	4,800.0	4,719.3	39.7	19.1	174.53	-135.1	837.8	975.4	946.2	29.25	33.348	
5,100.0	4,698.7	4,858.1	4,777.2	40.6	19.3	174.63	-135.8	842.9	1,010.4	980.7	29.72	33.997	
5,163.5	4,755.9	4,900.0	4,819.0	41.3	19.3	174.70	-136.2	845.8	1,033.9	1,003.8	30.03	34.432	
5,200.0	4,788.9	4,926.6	4,845.6	41.6	19.4	174.78	-136.4	847.4	1,047.5	1,017.3	30.23	34.652	
5,300.0	4,880.2	5,000.0	4,918.9	42.3	19.5	174.97	-136.8	850.3	1,084.3	1,053.5	30.74	35.272	
5,400.0	4,972.9	5,062.3	4,981.2	43.0	19.6	175.14	-136.9	851.4	1,119.9	1,088.7	31.19	35.907	
5,500.0	5,066.9	5,149.0	5,067.9	43.6	19.7	175.33	-137.0	851.5	1,154.0	1,122.3	31.63	36.487	
5,600.0	5,162.0	5,244.1	5,163.0	44.1	19.8	175.51	-137.0	851.5	1,184.8	1,152.8	32.03	36.990	
5,700.0	5,258.1	5,340.2	5,259.1	44.6	19.9	175.65	-137.0	851.5	1,212.3	1,179.9	32.39	37.426	
5,800.0	5,355.1	5,437.2	5,356.1	45.0	20.0	175.77	-137.0	851.5	1,236.4	1,203.7	32.71	37.799	
5,900.0	5,452.9	5,535.0	5,453.9	45.3	20.1	175.87	-137.0	851.5	1,257.2	1,224.2	32.99	38.113	
6,000.0	5,551.4	5,633.5	5,552.4	45.6	20.2	175.95	-137.0	851.5	1,274.5	1,241.3	33.21	38.373	
6,100.0	5,650.4	5,732.5	5,651.4	45.9	20.4	176.02	-137.0	851.5	1,288.4	1,255.0	33.40	38.580	
6,200.0	5,749.9	5,832.0	5,750.9	46.1	20.5	176.06	-137.0	851.5	1,298.9	1,265.3	33.53	38.736	
6,300.0	5,849.6	5,931.7	5,850.6	46.2	20.6	176.09	-137.0	851.5	1,305.8	1,272.2	33.62	38.843	
6,400.0	5,949.5	6,031.7	5,950.5	46.3	20.8	176.11	-137.0	851.5	1,309.3	1,275.7	33.66	38.902	
6,450.5	6,000.0	6,082.1	6,001.0	46.4	20.8	-90.43	-137.0	851.5	1,309.8	1,276.1	33.66	38.910	
6,500.0	6,049.5	6,131.7	6,050.5	46.4	20.9	-90.43	-137.0	851.5	1,309.8	1,276.0	33.81	38.734	
6,600.0	6,149.5	6,231.7	6,150.5	46.5	21.0	-90.43	-137.0	851.5	1,309.8	1,275.7	34.13	38.381	

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

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 3-25	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 (7-10-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Casa Loma 4-25 - Wellbore #1 - Plan #1 (7-13-12)													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	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
6,700.0	6,249.5	6,331.7	6,250.5	46.5	21.2	-90.43	-137.0	851.5	1,309.8	1,275.3	34.44	38.031		
6,800.0	6,349.5	6,431.7	6,350.5	46.6	21.3	-90.43	-137.0	851.5	1,309.8	1,275.0	34.76	37.684		
6,900.0	6,449.5	6,531.7	6,450.5	46.7	21.4	-90.43	-137.0	851.5	1,309.8	1,274.7	35.08	37.341		
7,000.0	6,549.5	6,631.7	6,550.5	46.7	21.6	-90.43	-137.0	851.5	1,309.8	1,274.4	35.40	37.001		
7,100.0	6,649.5	6,731.7	6,650.5	46.8	21.7	-90.43	-137.0	851.5	1,309.8	1,274.1	35.72	36.665		
7,200.0	6,749.5	6,831.7	6,750.5	46.9	21.9	-90.43	-137.0	851.5	1,309.8	1,273.7	36.05	36.332		
7,300.0	6,849.5	6,931.7	6,850.5	46.9	22.0	-90.43	-137.0	851.5	1,309.8	1,273.4	36.38	36.003		
7,400.0	6,949.5	7,031.7	6,950.5	47.0	22.2	-90.43	-137.0	851.5	1,309.8	1,273.1	36.71	35.677		
7,500.0	7,049.5	7,131.7	7,050.5	47.1	22.3	-90.43	-137.0	851.5	1,309.8	1,272.7	37.05	35.355		
7,600.0	7,149.5	7,231.7	7,150.5	47.1	22.4	-90.43	-137.0	851.5	1,309.8	1,272.4	37.38	35.037		
7,700.0	7,249.5	7,331.7	7,250.5	47.2	22.6	-90.43	-137.0	851.5	1,309.8	1,272.1	37.72	34.722		
7,800.0	7,349.5	7,431.7	7,350.5	47.3	22.7	-90.43	-137.0	851.5	1,309.8	1,271.7	38.06	34.411		
7,900.0	7,449.5	7,531.7	7,450.5	47.4	22.9	-90.43	-137.0	851.5	1,309.8	1,271.4	38.41	34.103		
7,900.9	7,450.4	7,532.6	7,451.4	47.4	22.9	-90.43	-137.0	851.5	1,309.8	1,271.4	38.41	34.100		
7,930.5	7,480.0	7,542.1	7,461.0	47.4	22.9	-90.43	-137.0	851.5	1,309.9	1,271.5	38.47	34.049		

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 3-25	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 (7-10-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Hirsch 36-24 - Wellbore #1 - Plan #1 (7-10-12)													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	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-45.23	-45.23	11.3	-11.4	16.0	16.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-45.23	-45.23	11.3	-11.4	16.0	15.8	0.22	71.401	
200.0	200.0	200.0	200.0	0.3	0.3	-45.23	-45.23	11.3	-11.4	16.0	15.4	0.67	23.800 CC	
300.0	300.0	300.3	300.3	0.6	0.6	-134.38	-134.38	11.7	-9.7	16.3	15.2	1.11	14.751 ES	
400.0	399.8	400.6	400.4	0.8	0.8	-132.02	-132.02	12.8	-4.5	17.2	15.7	1.55	11.122	
450.0	449.7	450.7	450.4	0.9	0.9	-130.40	-130.40	13.6	-0.7	17.9	16.1	1.79	10.020	
500.0	499.5	500.9	500.3	1.0	1.0	-129.22	-129.22	14.7	4.0	18.8	16.7	2.03	9.244	
600.0	598.7	601.1	599.8	1.3	1.3	-125.74	-125.74	17.3	16.0	21.2	18.6	2.58	8.226	
700.0	697.5	701.3	698.8	1.6	1.7	-121.74	-121.74	20.6	31.4	24.6	21.4	3.22	7.654	
800.0	795.6	801.4	797.0	2.0	2.0	-117.89	-117.89	24.7	50.1	29.1	25.1	3.97	7.326	
900.0	893.1	901.5	894.5	2.5	2.5	-114.52	-114.52	29.5	72.1	34.6	29.7	4.85	7.134	
1,000.0	989.7	1,001.5	991.0	3.0	3.0	-111.68	-111.68	35.0	97.4	41.1	35.3	5.86	7.020	
1,100.0	1,085.3	1,101.3	1,086.5	3.6	3.6	-109.33	-109.33	41.2	126.0	48.7	41.7	7.00	6.951	
1,200.0	1,179.8	1,201.0	1,180.8	4.2	4.2	-107.41	-107.41	48.1	157.8	57.2	48.9	8.29	6.905	
1,300.0	1,273.2	1,300.7	1,273.8	4.9	4.9	-105.82	-105.82	55.7	192.7	66.7	57.0	9.71	6.872	
1,400.0	1,365.3	1,400.1	1,365.3	5.7	5.7	-104.50	-104.50	63.9	230.7	77.2	66.0	11.29	6.844	
1,487.5	1,444.7	1,487.1	1,444.2	6.5	6.5	-103.52	-103.52	71.7	266.4	87.2	74.4	12.79	6.819	
1,500.0	1,455.9	1,499.4	1,455.3	6.6	6.6	-103.39	-103.39	72.8	271.7	88.7	75.7	13.01	6.817	
1,600.0	1,546.0	1,598.6	1,543.7	7.5	7.5	-101.42	-101.42	82.4	315.6	100.5	85.7	14.86	6.765	
1,700.0	1,636.1	1,697.6	1,630.6	8.5	8.5	-98.41	-98.41	92.5	362.0	112.8	96.0	16.80	6.714	
1,800.0	1,726.1	1,796.7	1,717.4	9.4	9.5	-95.85	-95.85	102.6	408.7	125.3	106.5	18.73	6.690	
1,900.0	1,816.2	1,895.7	1,804.2	10.3	10.5	-93.75	-93.75	112.7	455.3	138.0	117.3	20.64	6.684 SF	
2,000.0	1,906.3	1,994.8	1,891.0	11.3	11.5	-92.01	-92.01	122.9	502.0	150.9	128.3	22.55	6.690	
2,100.0	1,996.4	2,093.9	1,977.8	12.2	12.6	-90.55	-90.55	133.0	548.6	163.8	139.4	24.45	6.701	
2,200.0	2,086.4	2,192.9	2,064.6	13.1	13.6	-89.30	-89.30	143.2	595.3	176.9	150.6	26.34	6.717	
2,300.0	2,176.5	2,292.0	2,151.4	14.1	14.6	-88.22	-88.22	153.3	642.0	190.0	161.8	28.22	6.734	
2,400.0	2,266.6	2,391.1	2,238.2	15.0	15.7	-87.28	-87.28	163.4	688.6	203.2	173.1	30.10	6.751	
2,500.0	2,356.7	2,490.2	2,325.0	16.0	16.7	-86.45	-86.45	173.6	735.3	216.5	184.5	31.98	6.769	
2,600.0	2,446.8	2,589.2	2,411.8	16.9	17.7	-85.73	-85.73	183.7	781.9	229.8	195.9	33.85	6.787	
2,700.0	2,536.8	2,688.3	2,498.7	17.9	18.8	-85.08	-85.08	193.9	828.6	243.1	207.4	35.73	6.805	
2,800.0	2,626.9	2,787.4	2,585.5	18.8	19.8	-84.50	-84.50	204.0	875.2	256.4	218.8	37.59	6.821	
2,900.0	2,717.0	2,886.5	2,672.3	19.7	20.9	-83.97	-83.97	214.2	921.9	269.8	230.3	39.46	6.837	
3,000.0	2,807.1	2,985.5	2,759.1	20.7	21.9	-83.50	-83.50	224.3	968.6	283.2	241.9	41.33	6.853	
3,100.0	2,897.1	3,084.6	2,845.9	21.6	22.9	-83.07	-83.07	234.4	1,015.2	296.6	253.4	43.19	6.867	
3,200.0	2,987.2	3,183.7	2,932.7	22.6	24.0	-82.67	-82.67	244.6	1,061.9	310.0	265.0	45.05	6.881	
3,300.0	3,077.3	3,282.8	3,019.5	23.5	25.0	-82.31	-82.31	254.7	1,108.5	323.5	276.5	46.91	6.895	
3,400.0	3,167.4	3,381.8	3,106.3	24.5	26.1	-81.98	-81.98	264.9	1,155.2	336.9	288.1	48.77	6.907	
3,500.0	3,257.4	3,480.9	3,193.1	25.4	27.1	-81.67	-81.67	275.0	1,201.9	350.4	299.7	50.63	6.919	
3,600.0	3,347.5	3,580.0	3,279.9	26.4	28.2	-81.38	-81.38	285.1	1,248.5	363.8	311.3	52.49	6.931	
3,700.0	3,437.6	3,679.1	3,366.7	27.3	29.2	-81.12	-81.12	295.3	1,295.2	377.3	322.9	54.35	6.942	
3,800.0	3,527.7	3,778.1	3,453.5	28.3	30.3	-80.87	-80.87	305.4	1,341.8	390.8	334.6	56.21	6.952	
3,900.0	3,617.8	3,877.2	3,540.4	29.2	31.3	-80.64	-80.64	315.6	1,388.5	404.3	346.2	58.07	6.962	
4,000.0	3,707.8	3,976.3	3,627.2	30.2	32.3	-80.43	-80.43	325.7	1,435.2	417.8	357.8	59.92	6.971	
4,100.0	3,797.9	4,075.3	3,714.0	31.1	33.4	-80.23	-80.23	335.9	1,481.8	431.3	369.5	61.78	6.980	
4,200.0	3,888.0	4,174.4	3,800.8	32.1	34.4	-80.04	-80.04	346.0	1,528.5	444.8	381.1	63.64	6.989	
4,300.0	3,978.1	4,273.5	3,887.6	33.0	35.5	-79.86	-79.86	356.1	1,575.1	458.3	392.8	65.49	6.997	
4,400.0	4,068.1	4,372.6	3,974.4	34.0	36.5	-79.69	-79.69	366.3	1,621.8	471.8	404.4	67.35	7.005	
4,500.0	4,158.2	4,471.6	4,061.2	34.9	37.6	-79.54	-79.54	376.4	1,668.5	485.3	416.1	69.20	7.013	
4,600.0	4,248.3	4,570.7	4,148.0	35.9	38.6	-79.39	-79.39	386.6	1,715.1	498.8	427.8	71.06	7.020	
4,700.0	4,338.4	4,669.8	4,234.8	36.8	39.7	-79.24	-79.24	396.7	1,761.8	512.3	439.4	72.91	7.027	
4,800.0	4,428.5	4,768.9	4,321.6	37.8	40.7	-79.11	-79.11	406.8	1,808.4	525.9	451.1	74.77	7.033	

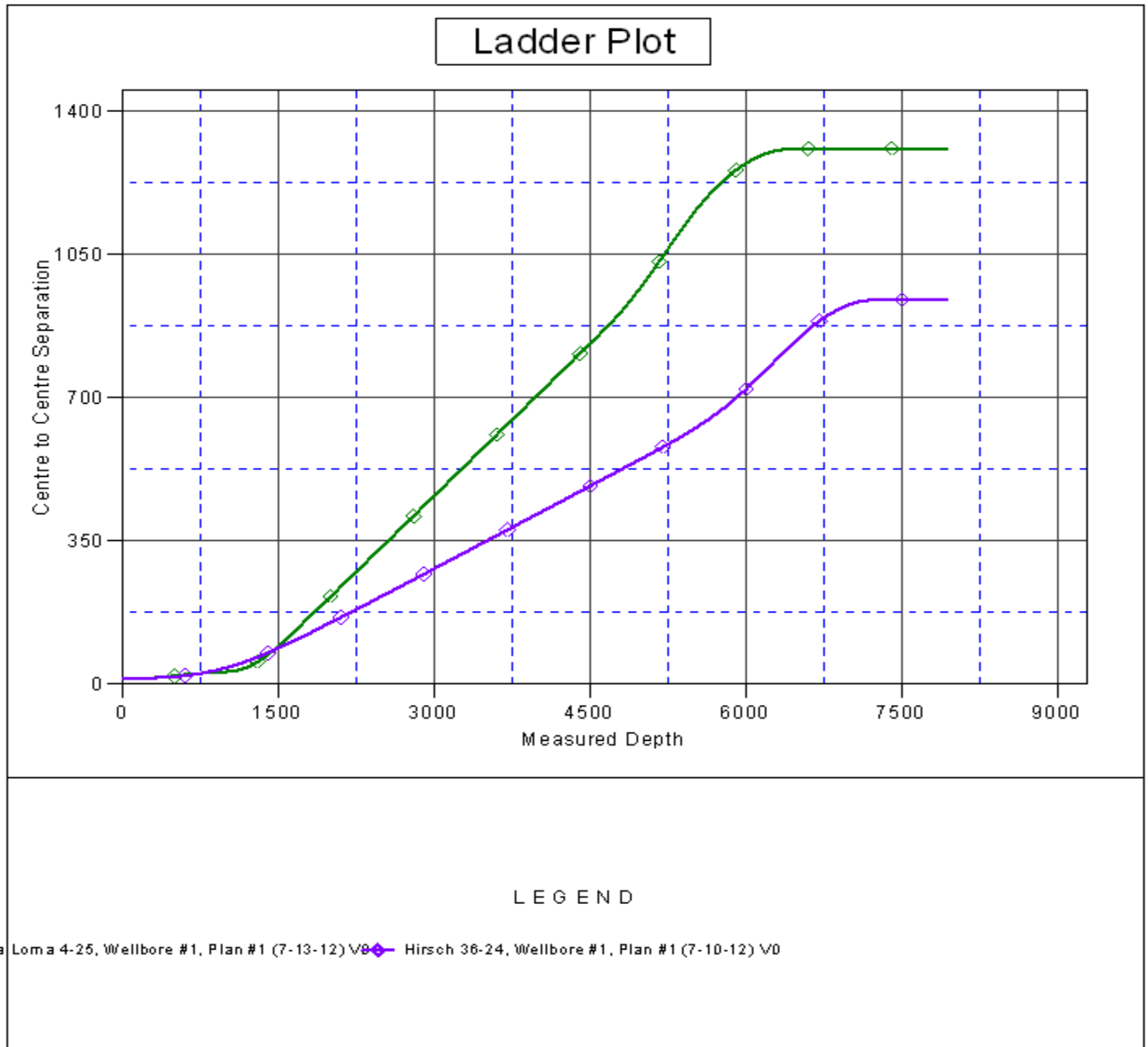
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 3-25	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 (7-10-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Hirsch 36-24 - Wellbore #1 - Plan #1 (7-10-12)												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation		Separation Factor
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
4,900.0	4,518.5	4,867.9	4,408.4	38.7	41.7	-78.98	417.0	1,855.1	539.4	462.8	76.62	7.040	
5,000.0	4,608.6	4,967.0	4,495.2	39.7	42.8	-78.86	427.1	1,901.8	552.9	474.5	78.48	7.046	
5,100.0	4,698.7	5,066.1	4,582.0	40.6	43.8	-78.74	437.3	1,948.4	566.5	486.1	80.33	7.052	
5,163.5	4,755.9	5,129.0	4,637.1	41.3	44.5	-78.67	443.7	1,978.0	575.1	493.5	81.51	7.055	
5,200.0	4,788.9	5,165.1	4,668.8	41.6	44.9	-78.71	447.4	1,995.1	580.0	497.9	82.16	7.060	
5,300.0	4,880.2	5,264.1	4,755.5	42.3	45.9	-78.60	457.5	2,041.7	594.2	510.4	83.75	7.095	
5,400.0	4,972.9	5,362.7	4,841.9	43.0	47.0	-78.19	467.6	2,088.1	609.1	523.9	85.15	7.152	
5,500.0	5,066.9	5,460.9	4,928.0	43.6	48.0	-77.53	477.7	2,134.3	624.8	538.4	86.37	7.234	
5,600.0	5,162.0	5,558.5	5,013.5	44.1	49.0	-76.63	487.7	2,180.3	641.5	554.1	87.38	7.341	
5,700.0	5,258.1	5,655.6	5,098.5	44.6	50.1	-75.54	497.6	2,226.0	659.3	571.1	88.19	7.476	
5,800.0	5,355.1	5,751.8	5,182.9	45.0	51.1	-74.27	507.5	2,271.4	678.5	589.7	88.80	7.641	
5,900.0	5,452.9	5,847.1	5,266.4	45.3	52.1	-72.86	517.2	2,316.3	699.2	610.0	89.20	7.839	
6,000.0	5,551.4	5,941.5	5,349.1	45.6	53.1	-71.35	526.9	2,360.7	721.7	632.3	89.39	8.074	
6,100.0	5,650.4	6,037.2	5,432.9	45.9	54.1	-69.71	536.7	2,405.7	746.2	656.8	89.36	8.350	
6,200.0	5,749.9	6,148.6	5,531.8	46.1	55.1	-67.78	547.5	2,455.8	771.4	682.4	88.95	8.672	
6,300.0	5,849.6	6,261.9	5,634.5	46.2	55.9	-65.93	557.8	2,502.9	796.5	708.1	88.35	9.015	
6,400.0	5,949.5	6,377.4	5,740.8	46.3	56.7	-64.16	567.3	2,546.7	821.3	733.7	87.60	9.375	
6,450.5	6,000.0	6,436.4	5,795.9	46.4	57.1	30.17	571.8	2,567.4	833.7	746.5	87.18	9.563	
6,500.0	6,049.5	6,495.1	5,851.1	46.4	57.4	31.20	576.1	2,587.0	845.6	759.0	86.61	9.763	
6,600.0	6,149.5	6,616.1	5,966.0	46.5	58.1	33.04	584.1	2,623.8	867.9	782.3	85.57	10.143	
6,700.0	6,249.5	6,740.3	6,085.6	46.5	58.7	34.59	591.2	2,656.6	887.7	803.1	84.67	10.485	
6,800.0	6,349.5	6,867.3	6,209.3	46.6	59.2	35.86	597.3	2,684.9	904.7	820.8	83.93	10.780	
6,900.0	6,449.5	6,996.8	6,336.5	46.7	59.6	36.86	602.4	2,708.1	918.7	835.3	83.37	11.019	
7,000.0	6,549.5	7,128.2	6,466.6	46.7	59.9	37.60	606.3	2,726.0	929.3	846.3	82.98	11.199	
7,100.0	6,649.5	7,261.0	6,598.9	46.8	60.1	38.09	608.9	2,738.1	936.5	853.7	82.77	11.314	
7,200.0	6,749.5	7,394.7	6,732.4	46.9	60.3	38.34	610.2	2,744.2	940.1	857.3	82.74	11.362	
7,300.0	6,849.5	7,511.8	6,849.5	46.9	60.3	38.37	610.4	2,745.0	940.5	857.7	82.87	11.350	
7,400.0	6,949.5	7,611.8	6,949.5	47.0	60.4	38.37	610.4	2,745.0	940.5	857.5	83.02	11.329	
7,500.0	7,049.5	7,711.8	7,049.5	47.1	60.4	38.37	610.4	2,745.0	940.5	857.4	83.17	11.308	
7,600.0	7,149.5	7,811.8	7,149.5	47.1	60.5	38.37	610.4	2,745.0	940.5	857.2	83.33	11.287	
7,700.0	7,249.5	7,911.8	7,249.5	47.2	60.6	38.37	610.4	2,745.0	940.5	857.1	83.49	11.266	
7,800.0	7,349.5	8,011.8	7,349.5	47.3	60.6	38.37	610.4	2,745.0	940.5	856.9	83.65	11.245	
7,900.0	7,449.5	8,111.8	7,449.5	47.4	60.7	38.37	610.4	2,745.0	940.5	856.7	83.81	11.223	
7,918.3	7,467.9	8,130.1	7,467.9	47.4	60.7	38.37	610.4	2,745.0	940.5	856.7	83.84	11.219	
7,930.5	7,480.0	8,137.3	7,475.0	47.4	60.7	38.37	610.4	2,745.0	940.6	856.7	83.85	11.217	

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4969.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4969.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 3-25	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 (7-10-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4969.0ft (Original Well Elev) Coordinates are relative to: Casa Loma 3-25
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: 0.42°



Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 3-25
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Reference Well:	Casa Loma 3-25	Survey Calculation Method:	Minimum Curvature
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