ENSIGN Directional

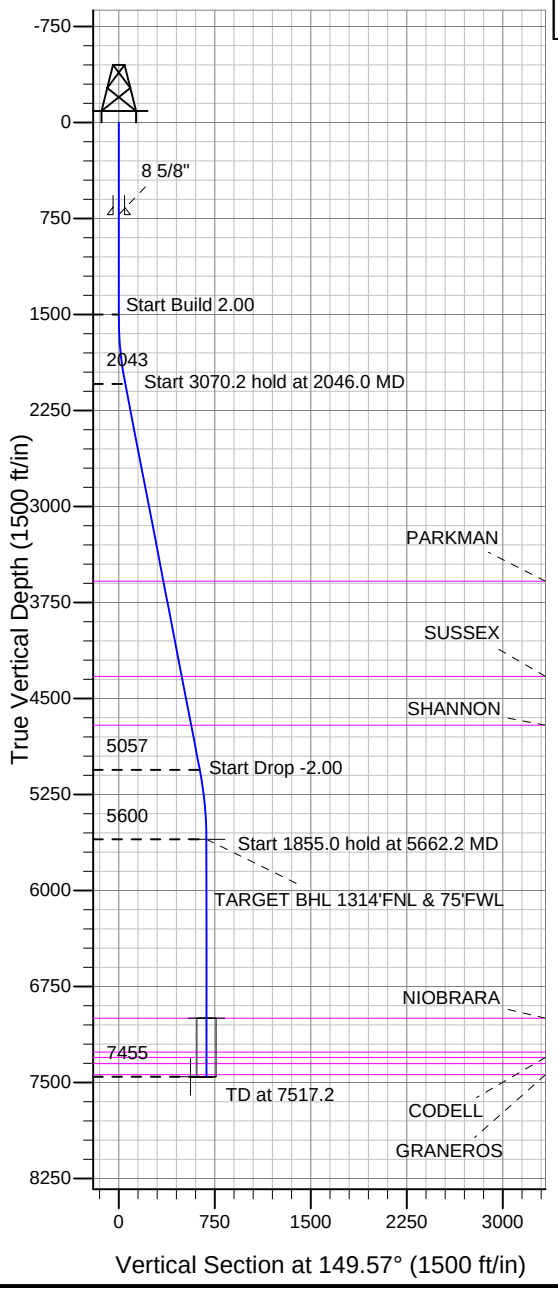
Well Name: Casa Loma 31-25

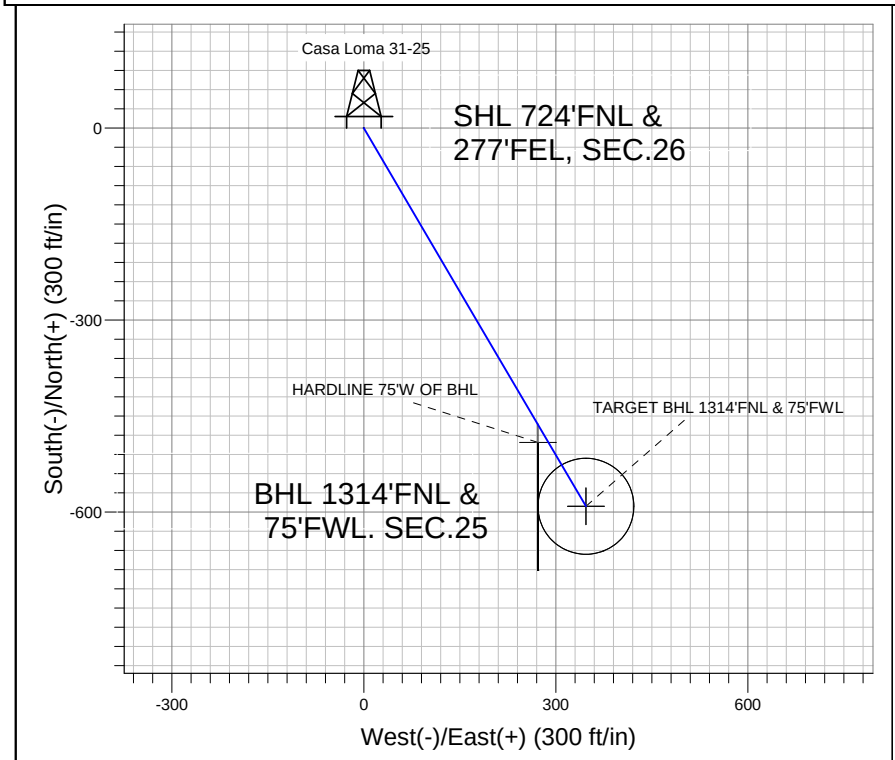
Surface Location: Casa Loma 8 Pad Sec.26-T7N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4952.0

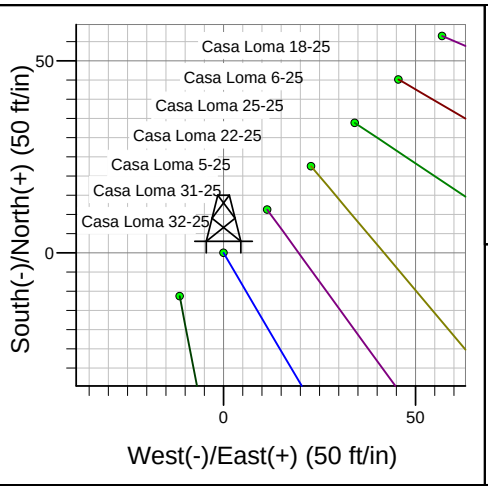
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1444002.49	3180102.78	40.550380	-104.851892	

Original Well Elev WELL @ 4968.0ft (Original Well Elev)

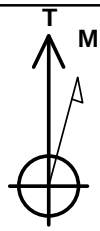
BAYSWATER EXPLORATION & PRODUCTION







Casa Loma 8 Pad Sec.26-T7N-R67W
Casa Loma 31-25
Plan #1 (7-16-12)
12:13, July 23 2012



Azimuths to True North
Magnetic North: 8.78°

Magnetic Field
Strength: 53085.1snT
Dip Angle: 67.12°
Date: 7/16/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1314'FNL & 75'FWL	5600.0	-590.9	347.1	40.548758	-104.850643	Point
TARGET CIRCLE 1314'FNL & 75'FWL	6998.0	-590.9	347.1	40.548758	-104.850643	Circle (Radius: 75.0)
HARDLINE 75'W OF BHL	7455.0	-490.9	272.1	40.549033	-104.850913	Polygon

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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2046.0	10.92	149.57	2042.7	-44.7	26.3	2.00	149.57	51.9	
4	5116.2	10.92	149.57	5057.3	-546.2	320.8	0.00	0.00	633.5	
5	5662.2	0.00	0.00	5600.0	-590.9	347.1	2.00	180.00	685.3	TARGET BHL 1314'FNL & 75'FWL
6	7517.2	0.00	0.00	7455.0	-590.9	347.1	0.00	0.00	685.3	

BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W
Casa Loma 8 Pad Sec.26-T7N-R67W
Casa Loma 31-25

Wellbore #1

Plan: Plan #1 (7-16-12)

Standard Planning Report

23 July, 2012

Database:	Landmark	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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 Casa Loma 8 Pad Sec.26-T7N-R67W

Site Position:		**Northing:**	1,444,013.87 ft	**Latitude:**	40.550411
From:	Lat/Long	**Easting:**	3,180,114.09 ft	**Longitude:**	-104.851851
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.42 °

Well Casa Loma 31-25

Well Position	**+N/-S**	-11.3 ft	**Northing:**	1,444,002.49 ft	**Latitude:**	40.550380
	+E/-W	-11.4 ft	**Easting:**	3,180,102.78 ft	**Longitude:**	-104.851892
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,952.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/16/2012	8.78	67.12	53,085

Design Plan #1 (7-16-12)

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	149.57

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,046.0	10.92	149.57	2,042.7	-44.7	26.3	2.00	2.00	0.00	149.57	
5,116.2	10.92	149.57	5,057.3	-546.2	320.8	0.00	0.00	0.00	0.00	
5,662.2	0.00	0.00	5,600.0	-590.9	347.1	2.00	-2.00	0.00	180.00	TARGET BHL 1314
7,517.2	0.00	0.00	7,455.0	-590.9	347.1	0.00	0.00	0.00	0.00	

Database:	Landmark	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
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Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	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
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	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
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	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
1,520.0	0.40	149.57	1,520.0	-0.1	0.0	0.1	2.00	2.00	0.00
1,560.0	1.20	149.57	1,560.0	-0.5	0.3	0.6	2.00	2.00	0.00
1,600.0	2.00	149.57	1,600.0	-1.5	0.9	1.7	2.00	2.00	0.00
1,640.0	2.80	149.57	1,639.9	-2.9	1.7	3.4	2.00	2.00	0.00
1,680.0	3.60	149.57	1,679.9	-4.9	2.9	5.7	2.00	2.00	0.00
1,720.0	4.40	149.57	1,719.8	-7.3	4.3	8.4	2.00	2.00	0.00
1,760.0	5.20	149.57	1,759.6	-10.2	6.0	11.8	2.00	2.00	0.00
1,800.0	6.00	149.57	1,799.5	-13.5	7.9	15.7	2.00	2.00	0.00
1,840.0	6.80	149.57	1,839.2	-17.4	10.2	20.2	2.00	2.00	0.00
1,880.0	7.60	149.57	1,878.9	-21.7	12.7	25.2	2.00	2.00	0.00
1,920.0	8.40	149.57	1,918.5	-26.5	15.6	30.7	2.00	2.00	0.00
1,960.0	9.20	149.57	1,958.0	-31.8	18.7	36.9	2.00	2.00	0.00
2,000.0	10.00	149.57	1,997.5	-37.5	22.0	43.5	2.00	2.00	0.00

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Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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)
2,040.0	10.80	149.57	2,036.8	-43.8	25.7	50.7	2.00	2.00	0.00
2,046.0	10.92	149.57	2,042.7	-44.7	26.3	51.9	2.00	2.00	0.00
2,080.0	10.92	149.57	2,076.1	-50.3	29.5	58.3	0.00	0.00	0.00
2,120.0	10.92	149.57	2,115.4	-56.8	33.4	65.9	0.00	0.00	0.00
2,160.0	10.92	149.57	2,154.6	-63.3	37.2	73.5	0.00	0.00	0.00
2,200.0	10.92	149.57	2,193.9	-69.9	41.0	81.0	0.00	0.00	0.00
2,240.0	10.92	149.57	2,233.2	-76.4	44.9	88.6	0.00	0.00	0.00
2,280.0	10.92	149.57	2,272.5	-82.9	48.7	96.2	0.00	0.00	0.00
2,320.0	10.92	149.57	2,311.7	-89.5	52.6	103.8	0.00	0.00	0.00
2,360.0	10.92	149.57	2,351.0	-96.0	56.4	111.4	0.00	0.00	0.00
2,400.0	10.92	149.57	2,390.3	-102.5	60.2	118.9	0.00	0.00	0.00
2,440.0	10.92	149.57	2,429.6	-109.1	64.1	126.5	0.00	0.00	0.00
2,480.0	10.92	149.57	2,468.8	-115.6	67.9	134.1	0.00	0.00	0.00
2,520.0	10.92	149.57	2,508.1	-122.1	71.7	141.7	0.00	0.00	0.00
2,560.0	10.92	149.57	2,547.4	-128.7	75.6	149.2	0.00	0.00	0.00
2,600.0	10.92	149.57	2,586.7	-135.2	79.4	156.8	0.00	0.00	0.00
2,640.0	10.92	149.57	2,625.9	-141.7	83.3	164.4	0.00	0.00	0.00
2,680.0	10.92	149.57	2,665.2	-148.3	87.1	172.0	0.00	0.00	0.00
2,720.0	10.92	149.57	2,704.5	-154.8	90.9	179.5	0.00	0.00	0.00
2,760.0	10.92	149.57	2,743.8	-161.3	94.8	187.1	0.00	0.00	0.00
2,800.0	10.92	149.57	2,783.0	-167.9	98.6	194.7	0.00	0.00	0.00
2,840.0	10.92	149.57	2,822.3	-174.4	102.5	202.3	0.00	0.00	0.00
2,880.0	10.92	149.57	2,861.6	-180.9	106.3	209.9	0.00	0.00	0.00
2,920.0	10.92	149.57	2,900.9	-187.5	110.1	217.4	0.00	0.00	0.00
2,960.0	10.92	149.57	2,940.2	-194.0	114.0	225.0	0.00	0.00	0.00
3,000.0	10.92	149.57	2,979.4	-200.5	117.8	232.6	0.00	0.00	0.00
3,040.0	10.92	149.57	3,018.7	-207.1	121.6	240.2	0.00	0.00	0.00
3,080.0	10.92	149.57	3,058.0	-213.6	125.5	247.7	0.00	0.00	0.00
3,120.0	10.92	149.57	3,097.3	-220.1	129.3	255.3	0.00	0.00	0.00
3,160.0	10.92	149.57	3,136.5	-226.7	133.2	262.9	0.00	0.00	0.00
3,200.0	10.92	149.57	3,175.8	-233.2	137.0	270.5	0.00	0.00	0.00
3,240.0	10.92	149.57	3,215.1	-239.7	140.8	278.0	0.00	0.00	0.00
3,280.0	10.92	149.57	3,254.4	-246.3	144.7	285.6	0.00	0.00	0.00
3,320.0	10.92	149.57	3,293.6	-252.8	148.5	293.2	0.00	0.00	0.00
3,360.0	10.92	149.57	3,332.9	-259.3	152.3	300.8	0.00	0.00	0.00
3,400.0	10.92	149.57	3,372.2	-265.9	156.2	308.4	0.00	0.00	0.00
3,440.0	10.92	149.57	3,411.5	-272.4	160.0	315.9	0.00	0.00	0.00
3,480.0	10.92	149.57	3,450.7	-278.9	163.9	323.5	0.00	0.00	0.00
3,520.0	10.92	149.57	3,490.0	-285.5	167.7	331.1	0.00	0.00	0.00
3,560.0	10.92	149.57	3,529.3	-292.0	171.5	338.7	0.00	0.00	0.00
3,600.0	10.92	149.57	3,568.6	-298.5	175.4	346.2	0.00	0.00	0.00
3,614.7	10.92	149.57	3,583.0	-300.9	176.8	349.0	0.00	0.00	0.00
PARKMAN									
3,640.0	10.92	149.57	3,607.8	-305.1	179.2	353.8	0.00	0.00	0.00
3,680.0	10.92	149.57	3,647.1	-311.6	183.0	361.4	0.00	0.00	0.00
3,720.0	10.92	149.57	3,686.4	-318.1	186.9	369.0	0.00	0.00	0.00
3,760.0	10.92	149.57	3,725.7	-324.7	190.7	376.6	0.00	0.00	0.00
3,800.0	10.92	149.57	3,764.9	-331.2	194.6	384.1	0.00	0.00	0.00
3,840.0	10.92	149.57	3,804.2	-337.7	198.4	391.7	0.00	0.00	0.00
3,880.0	10.92	149.57	3,843.5	-344.3	202.2	399.3	0.00	0.00	0.00
3,920.0	10.92	149.57	3,882.8	-350.8	206.1	406.9	0.00	0.00	0.00
3,960.0	10.92	149.57	3,922.0	-357.3	209.9	414.4	0.00	0.00	0.00
4,000.0	10.92	149.57	3,961.3	-363.9	213.7	422.0	0.00	0.00	0.00

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Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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)
4,040.0	10.92	149.57	4,000.6	-370.4	217.6	429.6	0.00	0.00	0.00
4,080.0	10.92	149.57	4,039.9	-376.9	221.4	437.2	0.00	0.00	0.00
4,120.0	10.92	149.57	4,079.2	-383.5	225.3	444.7	0.00	0.00	0.00
4,160.0	10.92	149.57	4,118.4	-390.0	229.1	452.3	0.00	0.00	0.00
4,200.0	10.92	149.57	4,157.7	-396.5	232.9	459.9	0.00	0.00	0.00
4,240.0	10.92	149.57	4,197.0	-403.1	236.8	467.5	0.00	0.00	0.00
4,280.0	10.92	149.57	4,236.3	-409.6	240.6	475.1	0.00	0.00	0.00
4,320.0	10.92	149.57	4,275.5	-416.1	244.4	482.6	0.00	0.00	0.00
4,360.0	10.92	149.57	4,314.8	-422.7	248.3	490.2	0.00	0.00	0.00
4,373.4	10.92	149.57	4,328.0	-424.9	249.6	492.8	0.00	0.00	0.00
SUSSEX									
4,400.0	10.92	149.57	4,354.1	-429.2	252.1	497.8	0.00	0.00	0.00
4,440.0	10.92	149.57	4,393.4	-435.7	256.0	505.4	0.00	0.00	0.00
4,480.0	10.92	149.57	4,432.6	-442.3	259.8	512.9	0.00	0.00	0.00
4,520.0	10.92	149.57	4,471.9	-448.8	263.6	520.5	0.00	0.00	0.00
4,560.0	10.92	149.57	4,511.2	-455.3	267.5	528.1	0.00	0.00	0.00
4,600.0	10.92	149.57	4,550.5	-461.9	271.3	535.7	0.00	0.00	0.00
4,640.0	10.92	149.57	4,589.7	-468.4	275.1	543.2	0.00	0.00	0.00
4,680.0	10.92	149.57	4,629.0	-474.9	279.0	550.8	0.00	0.00	0.00
4,720.0	10.92	149.57	4,668.3	-481.5	282.8	558.4	0.00	0.00	0.00
4,760.0	10.92	149.57	4,707.6	-488.0	286.7	566.0	0.00	0.00	0.00
4,760.4	10.92	149.57	4,708.0	-488.1	286.7	566.1	0.00	0.00	0.00
SHANNON									
4,800.0	10.92	149.57	4,746.8	-494.5	290.5	573.6	0.00	0.00	0.00
4,840.0	10.92	149.57	4,786.1	-501.1	294.3	581.1	0.00	0.00	0.00
4,880.0	10.92	149.57	4,825.4	-507.6	298.2	588.7	0.00	0.00	0.00
4,920.0	10.92	149.57	4,864.7	-514.1	302.0	596.3	0.00	0.00	0.00
4,960.0	10.92	149.57	4,903.9	-520.7	305.8	603.9	0.00	0.00	0.00
5,000.0	10.92	149.57	4,943.2	-527.2	309.7	611.4	0.00	0.00	0.00
5,040.0	10.92	149.57	4,982.5	-533.7	313.5	619.0	0.00	0.00	0.00
5,080.0	10.92	149.57	5,021.8	-540.3	317.4	626.6	0.00	0.00	0.00
5,116.2	10.92	149.57	5,057.3	-546.2	320.8	633.5	0.00	0.00	0.00
5,120.0	10.84	149.57	5,061.0	-546.8	321.2	634.2	2.00	-2.00	0.00
5,160.0	10.04	149.57	5,100.4	-553.1	324.9	641.4	2.00	-2.00	0.00
5,200.0	9.24	149.57	5,139.8	-558.8	328.3	648.1	2.00	-2.00	0.00
5,240.0	8.44	149.57	5,179.3	-564.1	331.4	654.3	2.00	-2.00	0.00
5,280.0	7.64	149.57	5,218.9	-569.0	334.2	659.9	2.00	-2.00	0.00
5,320.0	6.84	149.57	5,258.6	-573.3	336.8	664.9	2.00	-2.00	0.00
5,360.0	6.04	149.57	5,298.4	-577.2	339.0	669.4	2.00	-2.00	0.00
5,400.0	5.24	149.57	5,338.2	-580.6	341.0	673.3	2.00	-2.00	0.00
5,440.0	4.44	149.57	5,378.0	-583.5	342.7	676.7	2.00	-2.00	0.00
5,480.0	3.64	149.57	5,417.9	-585.9	344.2	679.5	2.00	-2.00	0.00
5,520.0	2.84	149.57	5,457.9	-587.9	345.3	681.8	2.00	-2.00	0.00
5,560.0	2.04	149.57	5,497.8	-589.3	346.2	683.5	2.00	-2.00	0.00
5,600.0	1.24	149.57	5,537.8	-590.3	346.8	684.6	2.00	-2.00	0.00
5,640.0	0.44	149.57	5,577.8	-590.8	347.1	685.2	2.00	-2.00	0.00
5,662.2	0.00	0.00	5,600.0	-590.9	347.1	685.3	2.00	-2.00	-674.18
TARGET BHL 1314'FNL & 75'FWL									
5,680.0	0.00	0.00	5,617.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,720.0	0.00	0.00	5,657.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,760.0	0.00	0.00	5,697.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,737.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,840.0	0.00	0.00	5,777.8	-590.9	347.1	685.3	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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)
5,880.0	0.00	0.00	5,817.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,920.0	0.00	0.00	5,857.8	-590.9	347.1	685.3	0.00	0.00	0.00
5,960.0	0.00	0.00	5,897.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,937.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,040.0	0.00	0.00	5,977.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,080.0	0.00	0.00	6,017.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,120.0	0.00	0.00	6,057.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,160.0	0.00	0.00	6,097.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,137.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,240.0	0.00	0.00	6,177.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,280.0	0.00	0.00	6,217.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,320.0	0.00	0.00	6,257.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,360.0	0.00	0.00	6,297.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,337.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,440.0	0.00	0.00	6,377.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,480.0	0.00	0.00	6,417.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,520.0	0.00	0.00	6,457.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,560.0	0.00	0.00	6,497.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,537.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,640.0	0.00	0.00	6,577.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,680.0	0.00	0.00	6,617.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,720.0	0.00	0.00	6,657.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,760.0	0.00	0.00	6,697.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,737.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,840.0	0.00	0.00	6,777.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,880.0	0.00	0.00	6,817.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,920.0	0.00	0.00	6,857.8	-590.9	347.1	685.3	0.00	0.00	0.00
6,960.0	0.00	0.00	6,897.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,937.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,040.0	0.00	0.00	6,977.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,060.2	0.00	0.00	6,998.0	-590.9	347.1	685.3	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1314'FNL & 75'FWL									
7,080.0	0.00	0.00	7,017.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,120.0	0.00	0.00	7,057.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,160.0	0.00	0.00	7,097.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,137.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,240.0	0.00	0.00	7,177.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,280.0	0.00	0.00	7,217.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,320.0	0.00	0.00	7,257.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,325.2	0.00	0.00	7,263.0	-590.9	347.1	685.3	0.00	0.00	0.00
FORT HAYS									
7,360.0	0.00	0.00	7,297.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,365.2	0.00	0.00	7,303.0	-590.9	347.1	685.3	0.00	0.00	0.00
CODELL									
7,400.0	0.00	0.00	7,337.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,415.2	0.00	0.00	7,353.0	-590.9	347.1	685.3	0.00	0.00	0.00
GREENHORN									
7,440.0	0.00	0.00	7,377.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,480.0	0.00	0.00	7,417.8	-590.9	347.1	685.3	0.00	0.00	0.00
7,500.2	0.00	0.00	7,438.0	-590.9	347.1	685.3	0.00	0.00	0.00
GRANEROS									
7,517.2	0.00	0.00	7,455.0	-590.9	347.1	685.3	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**North Reference:**	True
Well:	Casa Loma 31-25	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-16-12)		

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)
HARDLINE 75'W OF BHL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET CIRCLE 131	0.00	0.00	6,998.0	-590.9	347.1	1,443,414.14	3,180,454.19	40.548758	-104.850643
- plan hits target center									
- Circle (radius 75.0)									
TARGET BHL 1314'F	0.00	0.00	5,600.0	-590.9	347.1	1,443,414.14	3,180,454.19	40.548758	-104.850643
- plan hits target center									
- Point									
HARDLINE 75'W OF	0.00	0.00	7,455.0	-490.9	272.1	1,443,513.60	3,180,378.45	40.549033	-104.850913
- plan misses target center by 125.0ft at 7517.2ft MD (7455.0 TVD, -590.9 N, 347.1 E)									
- Polygon									
Point 1			7,455.0	0.0	0.0	1,443,513.60	3,180,378.45		
Point 2			7,455.0	-200.0	0.0	1,443,313.61	3,180,379.91		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
720.0	720.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,614.7	3,583.0	PARKMAN		0.00	
4,373.4	4,328.0	SUSSEX		0.00	
4,760.4	4,708.0	SHANNON		0.00	
7,060.2	6,998.0	NIOBRARA		0.00	
7,325.2	7,263.0	FORT HAYS		0.00	
7,365.2	7,303.0	CODELL		0.00	
7,415.2	7,353.0	GREENHORN		0.00	
7,500.2	7,438.0	GRANEROS		0.00	

ENSIGN Directional

BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W
Casa Loma 8 Pad Sec.26-T7N-R67W
Casa Loma 31-25

Wellbore #1
Plan #1 (7-16-12)

Anticollision Report

23 July, 2012

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (7-16-12)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 7/23/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,517.2	Plan #1 (7-16-12) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Casa Loma 8 Pad Sec.26-T7N-R67W						
Casa Loma 32-25 - Wellbore #1 - Plan #1 (7-16-12)	200.0	200.0	16.0	15.4	23.792	CC, ES
Casa Loma 32-25 - Wellbore #1 - Plan #1 (7-16-12)	400.0	399.1	20.7	19.2	13.543	SF
Casa Loma 5-25 - Wellbore #1 - Plan #1 (7-10-12)	318.3	318.3	15.9	14.7	13.401	CC, ES
Casa Loma 5-25 - Wellbore #1 - Plan #1 (7-10-12)	500.0	499.2	20.7	18.7	10.356	SF

Offset Design Casa Loma 8 Pad Sec.26-T7N-R67W - Casa Loma 32-25 - Wellbore #1 - Plan #1 (7-16-12) **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-134.75	-11.3	-11.4	16.0	16.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-134.75	-11.3	-11.4	16.0	15.8	0.22	71.376	
200.0	200.0	200.0	200.0	0.3	0.3	-134.75	-11.3	-11.4	16.0	15.4	0.67	23.792	CC, ES
300.0	300.0	299.6	299.6	0.6	0.5	-139.58	-13.0	-11.1	17.1	16.0	1.10	15.528	
400.0	400.0	399.1	398.9	0.8	0.7	-150.83	-18.1	-10.1	20.7	19.2	1.53	13.543	SF
500.0	500.0	498.0	497.4	1.0	1.0	-162.26	-26.5	-8.5	27.9	25.9	1.99	14.015	
600.0	600.0	596.2	594.9	1.2	1.3	-170.71	-38.2	-6.2	39.0	36.5	2.48	15.738	
700.0	700.0	693.5	691.1	1.5	1.6	-176.31	-52.9	-3.4	53.8	50.8	2.98	18.061	
800.0	800.0	789.7	785.5	1.7	2.0	-179.99	-70.7	0.0	72.2	68.7	3.49	20.646	
900.0	900.0	884.5	878.0	1.9	2.4	177.54	-91.2	3.9	93.9	89.9	4.03	23.323	
1,000.0	1,000.0	977.8	968.3	2.1	2.8	175.82	-114.4	8.4	119.0	114.4	4.58	26.001	
1,100.0	1,100.0	1,069.5	1,056.2	2.4	3.4	174.59	-139.9	13.3	147.2	142.0	5.14	28.636	
1,200.0	1,200.0	1,159.3	1,141.5	2.6	3.9	173.68	-167.6	18.6	178.5	172.7	5.72	31.203	
1,300.0	1,300.0	1,247.3	1,224.1	2.8	4.5	172.99	-197.2	24.2	212.7	206.4	6.31	33.693	
1,400.0	1,400.0	1,336.2	1,306.7	3.0	5.1	172.45	-229.5	30.4	249.6	242.6	6.93	36.015	
1,500.0	1,500.0	1,428.9	1,392.7	3.3	5.8	172.02	-263.6	37.0	286.9	279.4	7.56	37.944	
1,600.0	1,600.0	1,522.3	1,479.3	3.5	6.5	21.95	-297.9	43.5	322.8	315.6	7.24	44.565	
1,700.0	1,699.8	1,616.7	1,566.9	3.6	7.2	21.75	-332.6	50.2	355.7	348.0	7.71	46.104	
1,800.0	1,799.5	1,712.2	1,655.4	3.8	7.9	21.77	-367.7	56.9	385.4	377.2	8.20	46.998	
1,900.0	1,898.7	1,808.5	1,744.7	4.0	8.6	21.97	-403.1	63.7	412.1	403.4	8.70	47.352	
2,000.0	1,997.5	1,905.6	1,834.7	4.3	9.3	22.32	-438.8	70.5	435.7	426.5	9.22	47.250	
2,046.0	2,042.7	1,950.4	1,876.3	4.4	9.7	22.53	-455.2	73.7	445.5	436.0	9.46	47.067	

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

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Casa Loma 8 Pad Sec.26-T7N-R67W - Casa Loma 32-25 - Wellbore #1 - Plan #1 (7-16-12)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,100.0	2,095.7	2,003.3	1,925.3	4.5	10.1	22.87	-474.7	77.4	456.6	446.8	9.76	46.778	
2,200.0	2,193.9	2,101.0	2,015.9	4.8	10.8	23.46	-510.6	84.3	477.2	466.9	10.32	46.246	
2,300.0	2,292.1	2,198.7	2,106.6	5.1	11.5	24.00	-546.5	91.2	497.9	487.0	10.89	45.721	
2,400.0	2,390.3	2,296.5	2,197.2	5.5	12.3	24.50	-582.4	98.1	518.7	507.2	11.47	45.209	
2,500.0	2,488.5	2,394.2	2,287.8	5.8	13.0	24.96	-618.4	105.0	539.4	527.3	12.06	44.712	
2,600.0	2,586.7	2,491.9	2,378.5	6.2	13.7	25.39	-654.3	111.8	560.2	547.5	12.66	44.233	
2,700.0	2,684.9	2,589.7	2,469.1	6.5	14.5	25.79	-690.2	118.7	581.0	567.7	13.27	43.773	
2,800.0	2,783.0	2,687.4	2,559.7	6.9	15.2	26.15	-726.1	125.6	601.9	588.0	13.89	43.333	
2,900.0	2,881.2	2,785.1	2,650.4	7.3	15.9	26.50	-762.0	132.5	622.7	608.2	14.51	42.911	
3,000.0	2,979.4	2,882.9	2,741.0	7.7	16.7	26.82	-798.0	139.4	643.6	628.5	15.14	42.509	
3,100.0	3,077.6	2,980.6	2,831.6	8.1	17.4	27.12	-833.9	146.3	664.5	648.7	15.77	42.125	
3,200.0	3,175.8	3,078.3	2,922.2	8.4	18.2	27.40	-869.8	153.2	685.4	669.0	16.41	41.760	
3,300.0	3,274.0	3,176.1	3,012.9	8.8	18.9	27.67	-905.7	160.0	706.4	689.3	17.06	41.412	
3,400.0	3,372.2	3,273.8	3,103.5	9.2	19.6	27.92	-941.7	166.9	727.3	709.6	17.70	41.080	
3,500.0	3,470.4	3,371.5	3,194.1	9.6	20.4	28.16	-977.6	173.8	748.3	729.9	18.36	40.763	
3,600.0	3,568.6	3,469.3	3,284.8	10.1	21.1	28.38	-1,013.5	180.7	769.2	750.2	19.01	40.462	
3,700.0	3,666.8	3,567.0	3,375.4	10.5	21.8	28.59	-1,049.4	187.6	790.2	770.6	19.67	40.175	
3,800.0	3,764.9	3,664.7	3,466.0	10.9	22.6	28.80	-1,085.4	194.5	811.2	790.9	20.33	39.901	
3,900.0	3,863.1	3,762.4	3,556.7	11.3	23.3	28.99	-1,121.3	201.4	832.2	811.2	20.99	39.639	
4,000.0	3,961.3	3,860.2	3,647.3	11.7	24.1	29.17	-1,157.2	208.2	853.2	831.6	21.66	39.389	
4,100.0	4,059.5	3,957.9	3,737.9	12.1	24.8	29.34	-1,193.1	215.1	874.2	851.9	22.33	39.151	
4,200.0	4,157.7	4,055.6	3,828.6	12.5	25.5	29.51	-1,229.0	222.0	895.3	872.3	23.00	38.923	
4,300.0	4,255.9	4,153.4	3,919.2	12.9	26.3	29.66	-1,265.0	228.9	916.3	892.6	23.67	38.705	
4,400.0	4,354.1	4,251.1	4,009.8	13.4	27.0	29.81	-1,300.9	235.8	937.3	913.0	24.35	38.496	
4,500.0	4,452.3	4,348.8	4,100.4	13.8	27.8	29.96	-1,336.8	242.7	958.4	933.4	25.03	38.296	
4,600.0	4,550.5	4,446.6	4,191.1	14.2	28.5	30.09	-1,372.7	249.6	979.4	953.7	25.70	38.104	
4,700.0	4,648.6	4,544.3	4,281.7	14.6	29.2	30.23	-1,408.7	256.4	1,000.5	974.1	26.38	37.920	
4,800.0	4,746.8	4,642.0	4,372.3	15.0	30.0	30.35	-1,444.6	263.3	1,021.6	994.5	27.07	37.744	
4,900.0	4,845.0	4,739.8	4,463.0	15.5	30.7	30.47	-1,480.5	270.2	1,042.6	1,014.9	27.75	37.574	
5,000.0	4,943.2	4,837.5	4,553.6	15.9	31.5	30.59	-1,516.4	277.1	1,063.7	1,035.3	28.43	37.411	
5,100.0	5,041.4	4,935.2	4,644.2	16.3	32.2	30.70	-1,552.4	284.0	1,084.8	1,055.6	29.12	37.255	
5,116.2	5,057.3	4,951.1	4,658.9	16.4	32.3	30.72	-1,558.2	285.1	1,088.2	1,058.9	29.23	37.230	
5,200.0	5,139.8	5,032.8	4,734.7	16.7	32.9	30.97	-1,588.2	290.8	1,106.9	1,077.1	29.75	37.210	
5,300.0	5,238.8	5,129.6	4,824.4	16.9	33.7	31.22	-1,623.8	297.7	1,131.8	1,101.5	30.29	37.362	
5,400.0	5,338.2	5,286.0	4,971.0	17.2	34.5	31.35	-1,677.6	308.0	1,157.3	1,126.4	30.92	37.430	
5,500.0	5,437.9	5,448.0	5,125.6	17.4	35.3	31.40	-1,724.9	317.0	1,180.3	1,148.9	31.44	37.539	
5,600.0	5,537.8	5,613.0	5,285.6	17.6	35.9	31.38	-1,764.1	324.6	1,200.8	1,168.9	31.87	37.675	
5,662.2	5,600.0	5,717.0	5,387.6	17.6	36.2	-179.10	-1,784.2	328.4	1,212.2	1,180.1	32.09	37.773	
5,700.0	5,637.8	5,780.8	5,450.5	17.7	36.4	-179.21	-1,794.8	330.4	1,218.4	1,186.2	32.26	37.767	
5,800.0	5,737.8	5,951.5	5,619.8	17.8	36.8	-179.41	-1,816.1	334.5	1,230.9	1,198.2	32.70	37.648	
5,900.0	5,837.8	6,124.3	5,792.1	18.0	37.0	-179.52	-1,827.6	336.7	1,237.6	1,204.5	33.11	37.380	
6,000.0	5,937.8	6,270.0	5,937.8	18.1	37.1	-179.54	-1,829.6	337.1	1,238.7	1,205.3	33.47	37.011	
6,100.0	6,037.8	6,370.0	6,037.8	18.2	37.2	-179.54	-1,829.6	337.1	1,238.7	1,205.0	33.77	36.685	
6,200.0	6,137.8	6,470.0	6,137.8	18.4	37.3	-179.54	-1,829.6	337.1	1,238.7	1,204.7	34.06	36.364	
6,300.0	6,237.8	6,570.0	6,237.8	18.5	37.3	-179.54	-1,829.6	337.1	1,238.7	1,204.4	34.37	36.046	
6,400.0	6,337.8	6,670.0	6,337.8	18.7	37.4	-179.54	-1,829.6	337.1	1,238.7	1,204.1	34.67	35.730	
6,500.0	6,437.8	6,770.0	6,437.8	18.8	37.5	-179.54	-1,829.6	337.1	1,238.7	1,203.8	34.98	35.416	
6,600.0	6,537.8	6,870.0	6,537.8	19.0	37.5	-179.54	-1,829.6	337.1	1,238.7	1,203.4	35.29	35.105	
6,700.0	6,637.8	6,970.0	6,637.8	19.1	37.6	-179.54	-1,829.6	337.1	1,238.7	1,203.1	35.60	34.796	
6,800.0	6,737.8	7,070.0	6,737.8	19.3	37.7	-179.54	-1,829.6	337.1	1,238.7	1,202.8	35.92	34.491	
6,900.0	6,837.8	7,170.0	6,837.8	19.4	37.7	-179.54	-1,829.6	337.1	1,238.7	1,202.5	36.23	34.188	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Casa Loma 8 Pad Sec.26-T7N-R67W - Casa Loma 32-25 - Wellbore #1 - Plan #1 (7-16-12)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,000.0	6,937.8	7,270.0	6,937.8	19.6	37.8	-179.54	-1,829.6	337.1	1,238.7	1,202.2	36.55	33.887	
7,100.0	7,037.8	7,370.0	7,037.8	19.7	37.9	-179.54	-1,829.6	337.1	1,238.7	1,201.9	36.88	33.590	
7,200.0	7,137.8	7,470.0	7,137.8	19.9	37.9	-179.54	-1,829.6	337.1	1,238.7	1,201.5	37.20	33.296	
7,300.0	7,237.8	7,570.0	7,237.8	20.0	38.0	-179.54	-1,829.6	337.1	1,238.7	1,201.2	37.53	33.004	
7,400.0	7,337.8	7,670.0	7,337.8	20.2	38.1	-179.54	-1,829.6	337.1	1,238.7	1,200.9	37.86	32.716	
7,500.0	7,437.8	7,770.0	7,437.8	20.3	38.2	-179.54	-1,829.6	337.1	1,238.7	1,200.5	38.20	32.431	
7,517.2	7,455.0	7,787.2	7,455.0	20.4	38.2	-179.54	-1,829.6	337.1	1,238.7	1,200.5	38.25	32.382	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Casa Loma 8 Pad Sec.26-T7N-R67W - Casa Loma 5-25 - Wellbore #1 - Plan #1 (7-10-12)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	45.26	11.3	11.4	16.0	16.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	45.26	11.3	11.4	16.0	15.8	0.22	71.364	
200.0	200.0	200.0	200.0	0.3	0.3	45.26	11.3	11.4	16.0	15.4	0.67	23.788	
300.0	300.0	300.0	300.0	0.6	0.5	51.51	9.9	12.4	15.9	14.8	1.10	14.384	
318.3	318.3	318.3	318.3	0.6	0.6	54.02	9.3	12.8	15.9	14.7	1.18	13.401	CC, ES
400.0	400.0	399.8	399.7	0.8	0.8	69.95	5.7	15.5	16.5	14.9	1.54	10.711	
500.0	500.0	499.2	498.6	1.0	1.0	93.73	-1.3	20.6	20.7	18.7	1.99	10.356	SF
600.0	600.0	597.8	596.5	1.2	1.3	111.78	-11.0	27.6	29.9	27.5	2.45	12.205	
700.0	700.0	695.4	693.0	1.5	1.6	122.55	-23.3	36.5	43.9	40.9	2.92	15.030	
800.0	800.0	791.9	787.7	1.7	2.0	128.86	-38.0	47.2	61.8	58.4	3.40	18.169	
900.0	900.0	887.1	880.5	1.9	2.4	132.76	-55.1	59.6	83.4	79.5	3.91	21.347	
1,000.0	1,000.0	980.8	971.1	2.1	2.9	135.30	-74.3	73.5	108.4	104.0	4.43	24.454	
1,100.0	1,100.0	1,072.7	1,059.3	2.4	3.4	137.04	-95.5	88.9	136.6	131.7	4.98	27.443	
1,200.0	1,200.0	1,165.5	1,147.4	2.6	4.0	138.31	-118.8	105.8	167.6	162.0	5.55	30.202	
1,300.0	1,300.0	1,260.4	1,237.5	2.8	4.6	139.21	-143.0	123.4	199.0	192.8	6.13	32.467	
1,400.0	1,400.0	1,355.3	1,327.6	3.0	5.2	139.87	-167.2	141.0	230.4	223.7	6.72	34.300	
1,500.0	1,500.0	1,450.2	1,417.7	3.3	5.8	140.37	-191.4	158.5	261.8	254.5	7.31	35.806	
1,600.0	1,600.0	1,545.7	1,508.3	3.5	6.4	-8.77	-215.7	176.2	291.6	284.4	7.26	40.154	
1,700.0	1,699.8	1,642.1	1,599.8	3.6	7.1	-8.51	-240.3	194.0	318.1	310.4	7.72	41.186	
1,800.0	1,799.5	1,739.3	1,692.1	3.8	7.7	-8.37	-265.1	212.0	341.3	333.1	8.20	41.640	
1,900.0	1,898.7	1,837.4	1,785.1	4.0	8.3	-8.34	-290.1	230.2	361.1	352.4	8.68	41.615	
2,000.0	1,997.5	1,936.0	1,878.7	4.3	9.0	-8.40	-315.3	248.4	377.5	368.3	9.16	41.189	
2,046.0	2,042.7	1,981.5	1,921.9	4.4	9.3	-8.45	-326.9	256.8	383.9	374.5	9.39	40.876	
2,100.0	2,095.7	2,035.1	1,972.8	4.5	9.7	-8.54	-340.5	266.8	390.9	381.3	9.67	40.436	
2,200.0	2,193.9	2,134.2	2,066.9	4.8	10.3	-8.70	-365.8	285.1	404.1	393.9	10.19	39.661	
2,300.0	2,292.1	2,233.3	2,160.9	5.1	11.0	-8.84	-391.1	303.4	417.2	406.5	10.71	38.936	
2,400.0	2,390.3	2,332.5	2,255.0	5.5	11.6	-8.98	-416.3	321.8	430.3	419.1	11.25	38.258	
2,500.0	2,488.5	2,431.6	2,349.1	5.8	12.3	-9.11	-441.6	340.1	443.4	431.6	11.79	37.624	
2,600.0	2,586.7	2,530.7	2,443.2	6.2	12.9	-9.23	-466.9	358.5	456.6	444.2	12.33	37.031	
2,700.0	2,684.9	2,629.9	2,537.3	6.5	13.6	-9.35	-492.1	376.8	469.7	456.8	12.88	36.476	
2,800.0	2,783.0	2,729.0	2,631.4	6.9	14.3	-9.46	-517.4	395.2	482.8	469.4	13.43	35.956	
2,900.0	2,881.2	2,828.1	2,725.4	7.3	14.9	-9.56	-542.7	413.5	496.0	482.0	13.98	35.468	
3,000.0	2,979.4	2,927.3	2,819.5	7.7	15.6	-9.66	-567.9	431.8	509.1	494.6	14.54	35.011	
3,100.0	3,077.6	3,026.4	2,913.6	8.1	16.2	-9.76	-593.2	450.2	522.2	507.1	15.10	34.580	
3,200.0	3,175.8	3,125.5	3,007.7	8.4	16.9	-9.84	-618.5	468.5	535.4	519.7	15.67	34.176	
3,300.0	3,274.0	3,224.6	3,101.8	8.8	17.5	-9.93	-643.8	486.9	548.5	532.3	16.23	33.794	
3,400.0	3,372.2	3,323.8	3,195.9	9.2	18.2	-10.01	-669.0	505.2	561.6	544.9	16.80	33.435	
3,500.0	3,470.4	3,422.9	3,289.9	9.6	18.9	-10.09	-694.3	523.6	574.8	557.4	17.37	33.095	
3,600.0	3,568.6	3,522.0	3,384.0	10.1	19.5	-10.16	-719.6	541.9	587.9	570.0	17.94	32.774	
3,700.0	3,666.8	3,621.2	3,478.1	10.5	20.2	-10.23	-744.8	560.3	601.1	582.6	18.51	32.469	
3,800.0	3,764.9	3,720.3	3,572.2	10.9	20.8	-10.30	-770.1	578.6	614.2	595.1	19.09	32.181	
3,900.0	3,863.1	3,819.4	3,666.3	11.3	21.5	-10.36	-795.4	596.9	627.4	607.7	19.66	31.908	
4,000.0	3,961.3	3,918.6	3,760.4	11.7	22.2	-10.42	-820.6	615.3	640.5	620.3	20.24	31.648	
4,100.0	4,059.5	4,017.7	3,854.4	12.1	22.8	-10.48	-845.9	633.6	653.7	632.8	20.82	31.400	
4,200.0	4,157.7	4,116.8	3,948.5	12.5	23.5	-10.54	-871.2	652.0	666.8	645.4	21.40	31.165	
4,300.0	4,255.9	4,215.9	4,042.6	12.9	24.1	-10.59	-896.5	670.3	680.0	658.0	21.98	30.941	
4,400.0	4,354.1	4,315.1	4,136.7	13.4	24.8	-10.65	-921.7	688.7	693.1	670.5	22.56	30.727	
4,500.0	4,452.3	4,414.2	4,230.8	13.8	25.5	-10.70	-947.0	707.0	706.3	683.1	23.14	30.522	
4,600.0	4,550.5	4,513.3	4,324.8	14.2	26.1	-10.75	-972.3	725.3	719.4	695.7	23.72	30.327	
4,700.0	4,648.6	4,612.5	4,418.9	14.6	26.8	-10.79	-997.5	743.7	732.6	708.2	24.31	30.140	
4,800.0	4,746.8	4,711.6	4,513.0	15.0	27.4	-10.84	-1,022.8	762.0	745.7	720.8	24.89	29.961	

Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Casa Loma 8 Pad Sec.26-T7N-R67W - Casa Loma 5-25 - Wellbore #1 - Plan #1 (7-10-12)

Offset Site Error: 0.0 ft

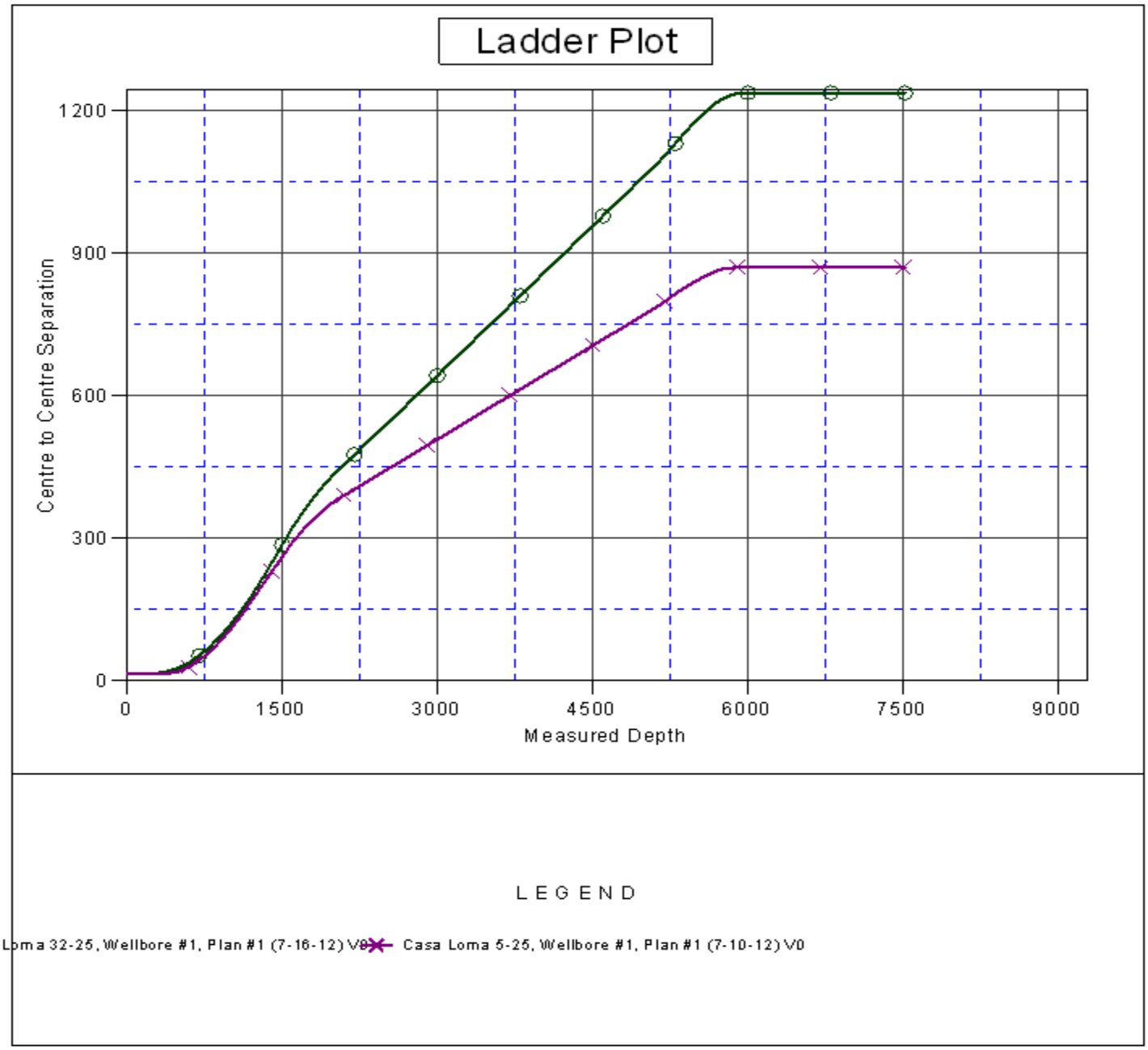
Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.0	4,845.0	4,810.7	4,607.1	15.5	28.1	-10.88	-1,048.1	780.4	758.9	733.4	25.47	29.789	
5,000.0	4,943.2	4,909.9	4,701.2	15.9	28.8	-10.93	-1,073.4	798.7	772.0	745.9	26.06	29.625	
5,100.0	5,041.4	5,009.0	4,795.3	16.3	29.4	-10.97	-1,098.6	817.1	785.2	758.5	26.65	29.467	
5,116.2	5,057.3	5,025.1	4,810.5	16.4	29.5	-10.97	-1,102.7	820.0	787.3	760.6	26.74	29.442	
5,200.0	5,139.8	5,107.9	4,889.2	16.7	30.1	-11.04	-1,123.9	835.4	799.5	772.3	27.18	29.415	
5,300.0	5,238.8	5,241.8	5,017.0	16.9	30.8	-11.08	-1,155.9	858.6	815.2	787.5	27.71	29.419	
5,400.0	5,338.2	5,380.3	5,151.2	17.2	31.3	-11.10	-1,183.9	878.9	829.6	801.5	28.16	29.457	
5,500.0	5,437.9	5,520.1	5,288.0	17.4	31.8	-11.10	-1,206.8	895.6	842.7	814.1	28.55	29.516	
5,600.0	5,537.8	5,660.9	5,427.2	17.6	32.2	-11.07	-1,224.4	908.4	854.2	825.4	28.86	29.596	
5,662.2	5,600.0	5,749.0	5,514.7	17.6	32.4	138.53	-1,232.6	914.3	860.7	831.6	29.03	29.651	
5,700.0	5,637.8	5,802.8	5,568.2	17.7	32.5	138.56	-1,236.5	917.2	864.1	834.9	29.19	29.604	
5,800.0	5,737.8	5,945.7	5,710.9	17.8	32.7	138.61	-1,243.0	921.9	869.7	840.1	29.59	29.395	
5,900.0	5,837.8	6,072.7	5,837.8	18.0	32.8	138.62	-1,244.1	922.7	870.6	840.7	29.95	29.067	
6,000.0	5,937.8	6,172.7	5,937.8	18.1	32.9	138.62	-1,244.1	922.7	870.6	840.3	30.27	28.758	
6,100.0	6,037.8	6,272.7	6,037.8	18.2	32.9	138.62	-1,244.1	922.7	870.6	840.0	30.60	28.455	
6,200.0	6,137.8	6,372.7	6,137.8	18.4	33.0	138.62	-1,244.1	922.7	870.6	839.7	30.92	28.156	
6,300.0	6,237.8	6,472.7	6,237.8	18.5	33.1	138.62	-1,244.1	922.7	870.6	839.4	31.25	27.861	
6,400.0	6,337.8	6,572.7	6,337.8	18.7	33.2	138.62	-1,244.1	922.7	870.6	839.0	31.58	27.569	
6,500.0	6,437.8	6,672.7	6,437.8	18.8	33.2	138.62	-1,244.1	922.7	870.6	838.7	31.91	27.281	
6,600.0	6,537.8	6,772.7	6,537.8	19.0	33.3	138.62	-1,244.1	922.7	870.6	838.4	32.25	26.997	
6,700.0	6,637.8	6,872.7	6,637.8	19.1	33.4	138.62	-1,244.1	922.7	870.6	838.0	32.59	26.716	
6,800.0	6,737.8	6,972.7	6,737.8	19.3	33.5	138.62	-1,244.1	922.7	870.6	837.7	32.93	26.440	
6,900.0	6,837.8	7,072.7	6,837.8	19.4	33.6	138.62	-1,244.1	922.7	870.6	837.3	33.27	26.166	
7,000.0	6,937.8	7,172.7	6,937.8	19.6	33.6	138.62	-1,244.1	922.7	870.6	837.0	33.62	25.897	
7,100.0	7,037.8	7,272.7	7,037.8	19.7	33.7	138.62	-1,244.1	922.7	870.6	836.6	33.97	25.631	
7,200.0	7,137.8	7,372.7	7,137.8	19.9	33.8	138.62	-1,244.1	922.7	870.6	836.3	34.32	25.369	
7,300.0	7,237.8	7,472.7	7,237.8	20.0	33.9	138.62	-1,244.1	922.7	870.6	835.9	34.67	25.111	
7,400.0	7,337.8	7,572.7	7,337.8	20.2	34.0	138.62	-1,244.1	922.7	870.6	835.6	35.03	24.857	
7,500.0	7,437.8	7,672.7	7,437.8	20.3	34.1	138.62	-1,244.1	922.7	870.6	835.2	35.38	24.606	
7,517.2	7,455.0	7,689.8	7,455.0	20.4	34.1	138.62	-1,244.1	922.7	870.6	835.2	35.44	24.563	

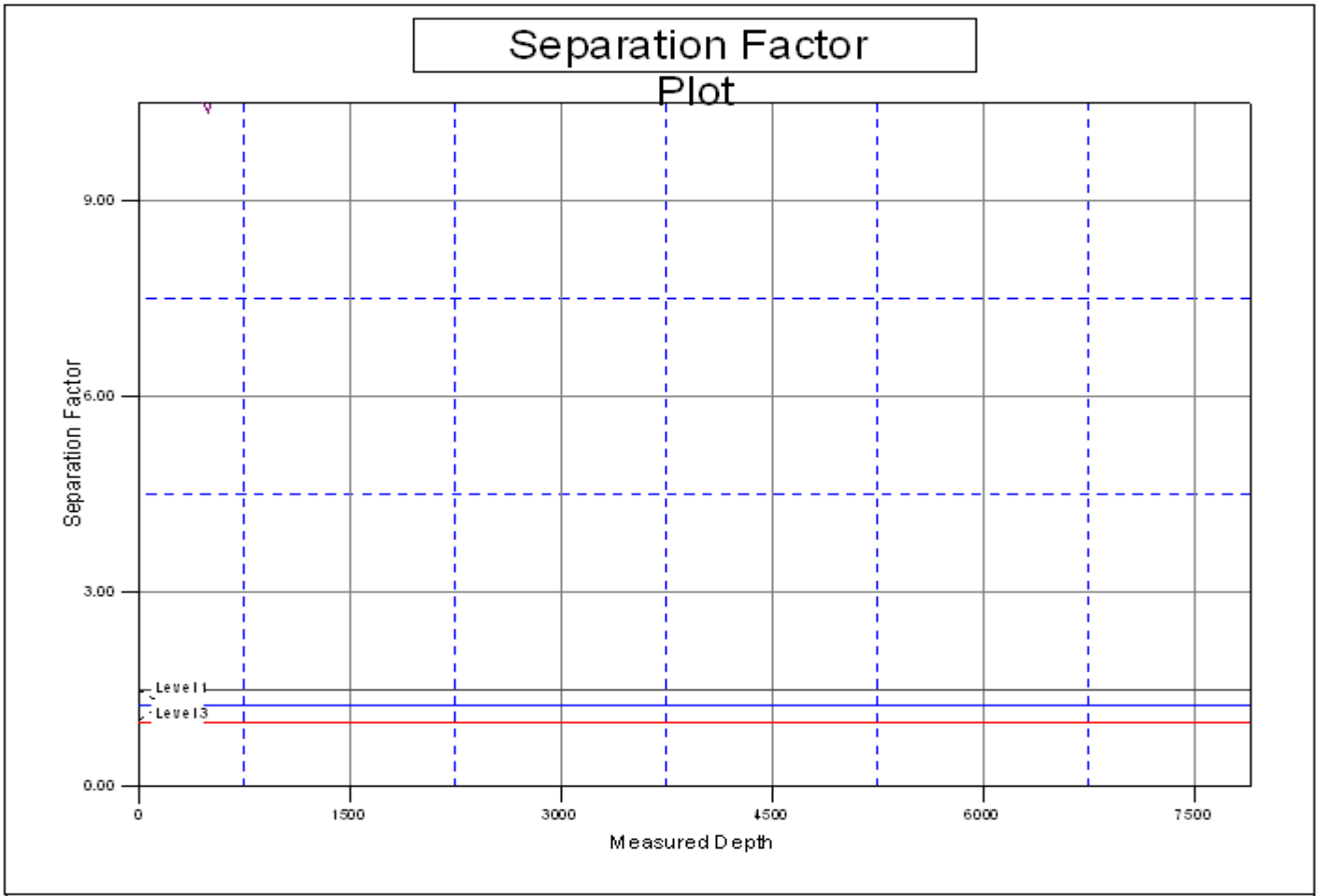
Company:	BAYSWATER EXPLORATION & PRODUCTION	**Local Co-ordinate Reference:**	Well Casa Loma 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4968.0ft (Original Well Elev) Coordinates are relative to: Casa Loma 31-25
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 31-25
Project:	SEC.26-T7N-R67W	**TVD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Reference Site:	Casa Loma 8 Pad Sec.26-T7N-R67W	**MD Reference:**	WELL @ 4968.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Casa Loma 31-25	**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 (7-16-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4968.0ft (Original Well Elev) Coordinates are relative to: Casa Loma 31-25
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°



LEGEND

Loma 32-25, Wellbore #1, Plan #1 (7-16-12) V0 Casa Loma 5-25, Wellbore #1, Plan #1 (7-10-12) V0