

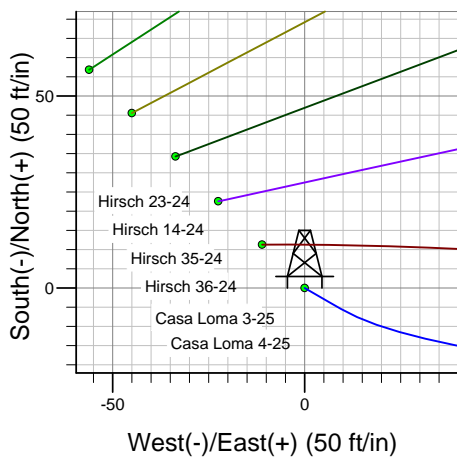
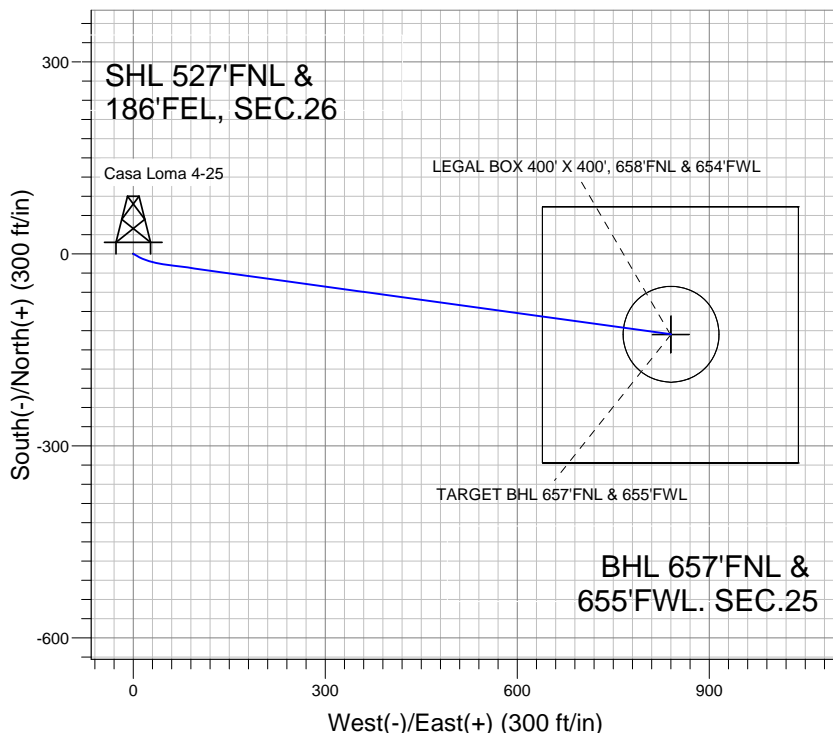
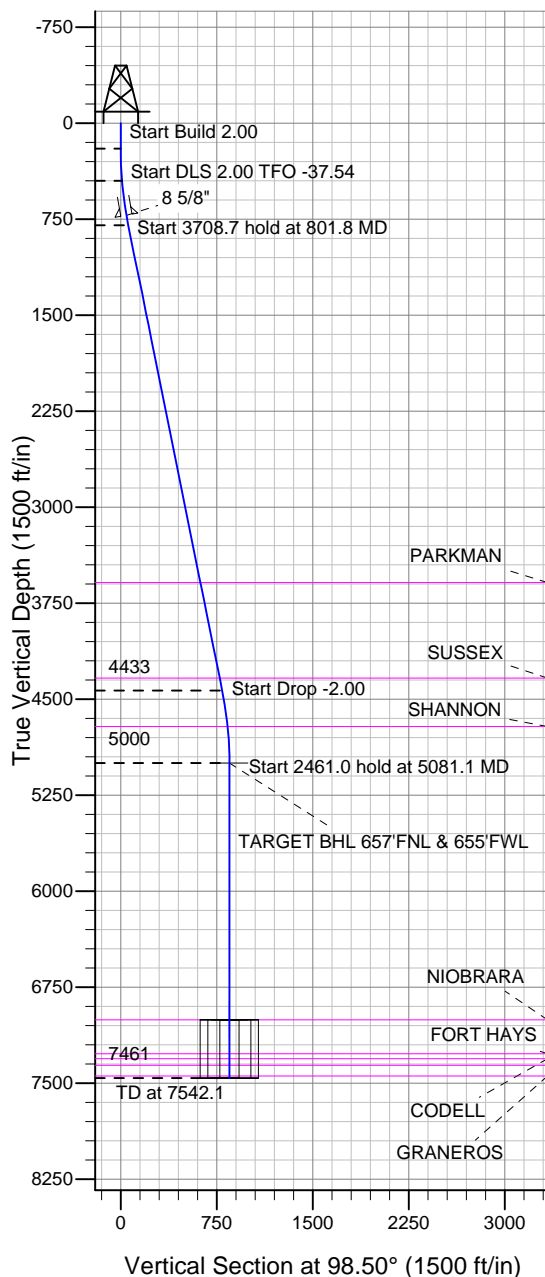
Well Name: Casa Loma 4-25

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

Ground Elevation: 4954.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1444199.52	3180193.60	40.550919	-104.851560	
Original Well Elev WELL @ 4970.0ft (Original Well Elev)						

BAYSWATER EXPLORATION & PRODUCTION



Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W
Casa Loma 4-25
Plan #1 (7-13-12)
12:04, July 18 2012



Azimuths to True North
Magnetic North: 8.78°
Magnetic Field
Strength: 53086.3snT
Dip Angle: 67.12°
Date: 7/13/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 657'FNL & 655'FWL	5000.0	-125.7	840.4	40.550574	-104.848536	Point
LEGAL BOX 400' X 400', 658'FNL & 654'FWL	7005.0	-126.7	839.4	40.550571	-104.848539	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 657'FNL & 655'FWL	7005.0	-125.7	840.4	40.550574	-104.848536	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	120.00	449.7	-5.5	9.4	2.00	120.00	10.1	
4	801.8	11.41	97.84	797.8	-17.9	57.3	2.00	-37.54	59.3	
5	4510.5	11.41	97.84	4433.1	-117.9	784.3	0.00	0.00	793.1	
6	5081.1	0.00	0.00	5000.0	-125.7	840.4	2.00	180.00	849.7	TARGET BHL 657'FNL & 655'FWL
7	7542.1	0.00	0.00	7461.0	-125.7	840.4	0.00	0.00	849.7	



BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W

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

Casa Loma 4-25

Wellbore #1

Plan: Plan #1 (7-13-12)

Standard Planning Report

18 July, 2012

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	120.00	449.7	-5.5	9.4	2.00	2.00	0.00	120.00	
801.8	11.41	97.84	797.8	-17.9	57.3	2.00	1.82	-6.30	-37.54	
4,510.5	11.41	97.84	4,433.1	-117.9	784.3	0.00	0.00	0.00	0.00	
5,081.1	0.00	0.00	5,000.0	-125.7	840.4	2.00	-2.00	0.00	180.00	TARGET BHL 657°
7,542.1	0.00	0.00	7,461.0	-125.7	840.4	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 4-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 4-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-13-12)		

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	120.00	240.0	-0.1	0.2	0.3	2.00	2.00	0.00
280.0	1.60	120.00	280.0	-0.6	1.0	1.0	2.00	2.00	0.00
320.0	2.40	120.00	320.0	-1.3	2.2	2.3	2.00	2.00	0.00
360.0	3.20	120.00	359.9	-2.2	3.9	4.2	2.00	2.00	0.00
400.0	4.00	120.00	399.8	-3.5	6.0	6.5	2.00	2.00	0.00
440.0	4.80	120.00	439.7	-5.0	8.7	9.3	2.00	2.00	0.00
450.0	5.00	120.00	449.7	-5.5	9.4	10.1	2.00	2.00	0.00
480.0	5.49	116.17	479.6	-6.7	11.9	12.7	2.00	1.63	-12.75
520.0	6.17	112.04	519.4	-8.4	15.6	16.6	2.00	1.70	-10.34
560.0	6.88	108.73	559.1	-10.0	19.8	21.1	2.00	1.77	-8.26
600.0	7.60	106.05	598.8	-11.5	24.6	26.1	2.00	1.81	-6.71
640.0	8.34	103.83	638.4	-12.9	30.0	31.6	2.00	1.85	-5.54
680.0	9.09	101.98	677.9	-14.2	35.9	37.6	2.00	1.87	-4.64
720.0	9.85	100.41	717.4	-15.5	42.4	44.2	2.00	1.89	-3.93
722.7	9.90	100.31	720.0	-15.6	42.8	44.6	2.00	1.90	-3.61
8 5/8"									
760.0	10.61	99.06	756.7	-16.7	49.4	51.3	2.00	1.91	-3.36
800.0	11.38	97.89	796.0	-17.8	56.9	58.9	2.00	1.92	-2.92
801.8	11.41	97.84	797.8	-17.9	57.3	59.3	2.00	1.93	-2.72
840.0	11.41	97.84	835.2	-18.9	64.7	66.8	0.00	0.00	0.00
880.0	11.41	97.84	874.4	-20.0	72.6	74.7	0.00	0.00	0.00
920.0	11.41	97.84	913.6	-21.1	80.4	82.7	0.00	0.00	0.00
960.0	11.41	97.84	952.8	-22.1	88.3	90.6	0.00	0.00	0.00
1,000.0	11.41	97.84	992.1	-23.2	96.1	98.5	0.00	0.00	0.00
1,040.0	11.41	97.84	1,031.3	-24.3	104.0	106.4	0.00	0.00	0.00
1,080.0	11.41	97.84	1,070.5	-25.4	111.8	114.3	0.00	0.00	0.00
1,120.0	11.41	97.84	1,109.7	-26.5	119.6	122.2	0.00	0.00	0.00
1,160.0	11.41	97.84	1,148.9	-27.5	127.5	130.1	0.00	0.00	0.00
1,200.0	11.41	97.84	1,188.1	-28.6	135.3	138.1	0.00	0.00	0.00
1,240.0	11.41	97.84	1,227.3	-29.7	143.2	146.0	0.00	0.00	0.00
1,280.0	11.41	97.84	1,266.5	-30.8	151.0	153.9	0.00	0.00	0.00
1,320.0	11.41	97.84	1,305.7	-31.9	158.8	161.8	0.00	0.00	0.00
1,360.0	11.41	97.84	1,344.9	-32.9	166.7	169.7	0.00	0.00	0.00
1,400.0	11.41	97.84	1,384.1	-34.0	174.5	177.6	0.00	0.00	0.00
1,440.0	11.41	97.84	1,423.4	-35.1	182.4	185.5	0.00	0.00	0.00
1,480.0	11.41	97.84	1,462.6	-36.2	190.2	193.5	0.00	0.00	0.00
1,520.0	11.41	97.84	1,501.8	-37.3	198.0	201.4	0.00	0.00	0.00
1,560.0	11.41	97.84	1,541.0	-38.3	205.9	209.3	0.00	0.00	0.00
1,600.0	11.41	97.84	1,580.2	-39.4	213.7	217.2	0.00	0.00	0.00
1,640.0	11.41	97.84	1,619.4	-40.5	221.6	225.1	0.00	0.00	0.00
1,680.0	11.41	97.84	1,658.6	-41.6	229.4	233.0	0.00	0.00	0.00
1,720.0	11.41	97.84	1,697.8	-42.7	237.2	240.9	0.00	0.00	0.00
1,760.0	11.41	97.84	1,737.0	-43.7	245.1	248.9	0.00	0.00	0.00
1,800.0	11.41	97.84	1,776.2	-44.8	252.9	256.8	0.00	0.00	0.00
1,840.0	11.41	97.84	1,815.4	-45.9	260.8	264.7	0.00	0.00	0.00
1,880.0	11.41	97.84	1,854.7	-47.0	268.6	272.6	0.00	0.00	0.00
1,920.0	11.41	97.84	1,893.9	-48.0	276.5	280.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 4-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 4-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-13-12)		

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	11.41	97.84	1,933.1	-49.1	284.3	288.4	0.00	0.00	0.00
2,000.0	11.41	97.84	1,972.3	-50.2	292.1	296.3	0.00	0.00	0.00
2,040.0	11.41	97.84	2,011.5	-51.3	300.0	304.3	0.00	0.00	0.00
2,080.0	11.41	97.84	2,050.7	-52.4	307.8	312.2	0.00	0.00	0.00
2,120.0	11.41	97.84	2,089.9	-53.4	315.7	320.1	0.00	0.00	0.00
2,160.0	11.41	97.84	2,129.1	-54.5	323.5	328.0	0.00	0.00	0.00
2,200.0	11.41	97.84	2,168.3	-55.6	331.3	335.9	0.00	0.00	0.00
2,240.0	11.41	97.84	2,207.5	-56.7	339.2	343.8	0.00	0.00	0.00
2,280.0	11.41	97.84	2,246.7	-57.8	347.0	351.7	0.00	0.00	0.00
2,320.0	11.41	97.84	2,286.0	-58.8	354.9	359.7	0.00	0.00	0.00
2,360.0	11.41	97.84	2,325.2	-59.9	362.7	367.6	0.00	0.00	0.00
2,400.0	11.41	97.84	2,364.4	-61.0	370.5	375.5	0.00	0.00	0.00
2,440.0	11.41	97.84	2,403.6	-62.1	378.4	383.4	0.00	0.00	0.00
2,480.0	11.41	97.84	2,442.8	-63.2	386.2	391.3	0.00	0.00	0.00
2,520.0	11.41	97.84	2,482.0	-64.2	394.1	399.2	0.00	0.00	0.00
2,560.0	11.41	97.84	2,521.2	-65.3	401.9	407.2	0.00	0.00	0.00
2,600.0	11.41	97.84	2,560.4	-66.4	409.8	415.1	0.00	0.00	0.00
2,640.0	11.41	97.84	2,599.6	-67.5	417.6	423.0	0.00	0.00	0.00
2,680.0	11.41	97.84	2,638.8	-68.6	425.4	430.9	0.00	0.00	0.00
2,720.0	11.41	97.84	2,678.0	-69.6	433.3	438.8	0.00	0.00	0.00
2,760.0	11.41	97.84	2,717.3	-70.7	441.1	446.7	0.00	0.00	0.00
2,800.0	11.41	97.84	2,756.5	-71.8	449.0	454.6	0.00	0.00	0.00
2,840.0	11.41	97.84	2,795.7	-72.9	456.8	462.6	0.00	0.00	0.00
2,880.0	11.41	97.84	2,834.9	-74.0	464.6	470.5	0.00	0.00	0.00
2,920.0	11.41	97.84	2,874.1	-75.0	472.5	478.4	0.00	0.00	0.00
2,960.0	11.41	97.84	2,913.3	-76.1	480.3	486.3	0.00	0.00	0.00
3,000.0	11.41	97.84	2,952.5	-77.2	488.2	494.2	0.00	0.00	0.00
3,040.0	11.41	97.84	2,991.7	-78.3	496.0	502.1	0.00	0.00	0.00
3,080.0	11.41	97.84	3,030.9	-79.3	503.8	510.0	0.00	0.00	0.00
3,120.0	11.41	97.84	3,070.1	-80.4	511.7	518.0	0.00	0.00	0.00
3,160.0	11.41	97.84	3,109.3	-81.5	519.5	525.9	0.00	0.00	0.00
3,200.0	11.41	97.84	3,148.6	-82.6	527.4	533.8	0.00	0.00	0.00
3,240.0	11.41	97.84	3,187.8	-83.7	535.2	541.7	0.00	0.00	0.00
3,280.0	11.41	97.84	3,227.0	-84.7	543.0	549.6	0.00	0.00	0.00
3,320.0	11.41	97.84	3,266.2	-85.8	550.9	557.5	0.00	0.00	0.00
3,360.0	11.41	97.84	3,305.4	-86.9	558.7	565.4	0.00	0.00	0.00
3,400.0	11.41	97.84	3,344.6	-88.0	566.6	573.4	0.00	0.00	0.00
3,440.0	11.41	97.84	3,383.8	-89.1	574.4	581.3	0.00	0.00	0.00
3,480.0	11.41	97.84	3,423.0	-90.1	582.3	589.2	0.00	0.00	0.00
3,520.0	11.41	97.84	3,462.2	-91.2	590.1	597.1	0.00	0.00	0.00
3,560.0	11.41	97.84	3,501.4	-92.3	597.9	605.0	0.00	0.00	0.00
3,600.0	11.41	97.84	3,540.6	-93.4	605.8	612.9	0.00	0.00	0.00
3,640.0	11.41	97.84	3,579.9	-94.5	613.6	620.8	0.00	0.00	0.00
3,650.3	11.41	97.84	3,590.0	-94.7	615.6	622.9	0.00	0.00	0.00
PARKMAN									
3,680.0	11.41	97.84	3,619.1	-95.5	621.5	628.8	0.00	0.00	0.00
3,720.0	11.41	97.84	3,658.3	-96.6	629.3	636.7	0.00	0.00	0.00
3,760.0	11.41	97.84	3,697.5	-97.7	637.1	644.6	0.00	0.00	0.00
3,800.0	11.41	97.84	3,736.7	-98.8	645.0	652.5	0.00	0.00	0.00
3,840.0	11.41	97.84	3,775.9	-99.9	652.8	660.4	0.00	0.00	0.00
3,880.0	11.41	97.84	3,815.1	-100.9	660.7	668.3	0.00	0.00	0.00
3,920.0	11.41	97.84	3,854.3	-102.0	668.5	676.2	0.00	0.00	0.00
3,960.0	11.41	97.84	3,893.5	-103.1	676.3	684.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 4-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 4-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-13-12)		

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	11.41	97.84	3,932.7	-104.2	684.2	692.1	0.00	0.00	0.00
4,040.0	11.41	97.84	3,971.9	-105.3	692.0	700.0	0.00	0.00	0.00
4,080.0	11.41	97.84	4,011.2	-106.3	699.9	707.9	0.00	0.00	0.00
4,120.0	11.41	97.84	4,050.4	-107.4	707.7	715.8	0.00	0.00	0.00
4,160.0	11.41	97.84	4,089.6	-108.5	715.6	723.7	0.00	0.00	0.00
4,200.0	11.41	97.84	4,128.8	-109.6	723.4	731.6	0.00	0.00	0.00
4,240.0	11.41	97.84	4,168.0	-110.6	731.2	739.6	0.00	0.00	0.00
4,280.0	11.41	97.84	4,207.2	-111.7	739.1	747.5	0.00	0.00	0.00
4,320.0	11.41	97.84	4,246.4	-112.8	746.9	755.4	0.00	0.00	0.00
4,360.0	11.41	97.84	4,285.6	-113.9	754.8	763.3	0.00	0.00	0.00
4,400.0	11.41	97.84	4,324.8	-115.0	762.6	771.2	0.00	0.00	0.00
4,410.4	11.41	97.84	4,335.0	-115.2	764.6	773.3	0.00	0.00	0.00
SUSSEX									
4,440.0	11.41	97.84	4,364.0	-116.0	770.4	779.1	0.00	0.00	0.00
4,480.0	11.41	97.84	4,403.2	-117.1	778.3	787.0	0.00	0.00	0.00
4,510.5	11.41	97.84	4,433.1	-117.9	784.3	793.1	0.00	0.00	0.00
4,520.0	11.22	97.84	4,442.5	-118.2	786.1	794.9	2.00	-2.00	0.00
4,560.0	10.42	97.84	4,481.7	-119.2	793.5	802.5	2.00	-2.00	0.00
4,600.0	9.62	97.84	4,521.1	-120.2	800.4	809.4	2.00	-2.00	0.00
4,640.0	8.82	97.84	4,560.6	-121.0	806.8	815.8	2.00	-2.00	0.00
4,680.0	8.02	97.84	4,600.2	-121.8	812.6	821.7	2.00	-2.00	0.00
4,720.0	7.22	97.84	4,639.8	-122.6	817.9	827.0	2.00	-2.00	0.00
4,760.0	6.42	97.84	4,679.5	-123.2	822.6	831.7	2.00	-2.00	0.00
4,795.7	5.71	97.84	4,715.0	-123.7	826.3	835.5	2.00	-2.00	0.00
SHANNON									
4,800.0	5.62	97.84	4,719.3	-123.8	826.7	835.9	2.00	-2.00	0.00
4,840.0	4.82	97.84	4,759.2	-124.3	830.3	839.6	2.00	-2.00	0.00
4,880.0	4.02	97.84	4,799.0	-124.7	833.4	842.7	2.00	-2.00	0.00
4,920.0	3.22	97.84	4,839.0	-125.1	835.9	845.2	2.00	-2.00	0.00
4,960.0	2.42	97.84	4,878.9	-125.3	837.8	847.2	2.00	-2.00	0.00
5,000.0	1.62	97.84	4,918.9	-125.5	839.2	848.6	2.00	-2.00	0.00
5,040.0	0.82	97.84	4,958.9	-125.6	840.1	849.4	2.00	-2.00	0.00
5,080.0	0.02	97.84	4,998.9	-125.7	840.4	849.7	2.00	-2.00	0.00
5,081.1	0.00	0.00	5,000.0	-125.7	840.4	849.7	2.00	-2.00	0.00
TARGET BHL 657'FNL & 655'FWL									
5,120.0	0.00	0.00	5,038.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,160.0	0.00	0.00	5,078.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,118.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,240.0	0.00	0.00	5,158.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,280.0	0.00	0.00	5,198.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,320.0	0.00	0.00	5,238.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,360.0	0.00	0.00	5,278.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,318.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,440.0	0.00	0.00	5,358.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,480.0	0.00	0.00	5,398.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,520.0	0.00	0.00	5,438.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,560.0	0.00	0.00	5,478.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,518.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,640.0	0.00	0.00	5,558.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,680.0	0.00	0.00	5,598.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,720.0	0.00	0.00	5,638.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,760.0	0.00	0.00	5,678.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,718.9	-125.7	840.4	849.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 4-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 4-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-13-12)		

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)
5,840.0	0.00	0.00	5,758.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,798.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,838.9	-125.7	840.4	849.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,878.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,918.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,958.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,998.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,120.0	0.00	0.00	6,038.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,078.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,118.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,240.0	0.00	0.00	6,158.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,280.0	0.00	0.00	6,198.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,238.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,278.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,318.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,358.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,398.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,438.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,478.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,518.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,558.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,598.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,638.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,678.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,718.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,758.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,798.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,838.9	-125.7	840.4	849.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,878.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,918.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,958.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,998.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,086.1	0.00	0.00	7,005.0	-125.7	840.4	849.7	0.00	0.00	0.00
NIORARA - TARGET CIRCLE 657'FNL & 655'FWL - LEGAL BOX 400' X 400', 658'FNL & 654'FWL									
7,120.0	0.00	0.00	7,038.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,078.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,118.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,240.0	0.00	0.00	7,158.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,280.0	0.00	0.00	7,198.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,320.0	0.00	0.00	7,238.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,351.1	0.00	0.00	7,270.0	-125.7	840.4	849.7	0.00	0.00	0.00
FORT HAYS									
7,360.0	0.00	0.00	7,278.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,391.1	0.00	0.00	7,310.0	-125.7	840.4	849.7	0.00	0.00	0.00
CODELL									
7,400.0	0.00	0.00	7,318.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,358.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,441.1	0.00	0.00	7,360.0	-125.7	840.4	849.7	0.00	0.00	0.00
GREENHORN									
7,480.0	0.00	0.00	7,398.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,438.9	-125.7	840.4	849.7	0.00	0.00	0.00
7,526.1	0.00	0.00	7,445.0	-125.7	840.4	849.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Casa Loma 4-25
Company:	BAYSWATER EXPLORATION & PRODUCTION	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Project:	SEC.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	North Reference:	True
Well:	Casa Loma 4-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-13-12)		

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)
GRANEROS									
7,542.1	0.00	0.00	7,461.0	-125.7	840.4	849.7	0.00	0.00	0.00

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
	- Shape								Latitude Longitude
TARGET BHL 657'FN	- plan hits target center	0.00	0.00	5,000.0	-125.7	840.4	1,444,080.00	3,181,034.84	40.550574 -104.848536
	- Point								
TARGET CIRCLE 657	- plan hits target center	0.00	0.00	7,005.0	-125.7	840.4	1,444,080.00	3,181,034.84	40.550574 -104.848536
	- Circle (radius 75.0)								
LEGAL BOX 400' X 400'	- plan misses target center by 1.4ft at 7086.1ft MD (7005.0 TVD, -125.7 N, 840.4 E)	0.00	0.00	7,005.0	-126.7	839.4	1,444,078.96	3,181,033.88	40.550571 -104.848539
	- Rectangle (sides W400.0 H400.0 D456.0)								

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
722.7	720.0	8 5/8"	8-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,650.3	3,590.0	PARKMAN		0.00		
4,410.4	4,335.0	SUSSEX		0.00		
4,795.7	4,715.0	SHANNON		0.00		
7,086.1	7,005.0	NIOBRARA		0.00		
7,351.1	7,270.0	FORT HAYS		0.00		
7,391.1	7,310.0	CODELL		0.00		
7,441.1	7,360.0	GREENHORN		0.00		
7,526.1	7,445.0	GRANEROS		0.00		



BAYSWATER EXPLORATION & PRODUCTION

SEC.26-T7N-R67W

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

Casa Loma 4-25

Wellbore #1

Plan #1 (7-13-12)

Anticollision Report

18 July, 2012

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 4-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 4-25	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 (7-13-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Casa Loma 3-25 - 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	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
2,300.0	2,266.3	2,262.1	2,142.4	8.5	13.7	-14.62	-22.7	608.6	287.7	275.0	12.76	22.548	
2,400.0	2,364.4	2,359.0	2,229.6	8.9	14.6	-14.07	-25.2	650.6	312.4	299.1	13.36	23.379	
2,500.0	2,462.4	2,455.8	2,316.9	9.4	15.5	-13.60	-27.8	692.6	337.1	323.2	13.97	24.133	
2,600.0	2,560.4	2,552.7	2,404.1	9.8	16.5	-13.20	-30.3	734.6	361.9	347.3	14.58	24.820	
2,700.0	2,658.4	2,649.5	2,491.4	10.3	17.4	-12.84	-32.8	776.6	386.6	371.4	15.19	25.448	
2,800.0	2,756.5	2,746.4	2,578.6	10.7	18.3	-12.53	-35.4	818.6	411.4	395.6	15.81	26.024	
2,900.0	2,854.5	2,843.3	2,665.9	11.2	19.2	-12.26	-37.9	860.6	436.1	419.7	16.42	26.555	
3,000.0	2,952.5	2,940.1	2,753.1	11.6	20.1	-12.01	-40.4	902.6	460.9	443.9	17.04	27.044	
3,100.0	3,050.5	3,037.0	2,840.4	12.0	21.0	-11.79	-43.0	944.6	485.7	468.0	17.66	27.498	
3,200.0	3,148.6	3,133.9	2,927.6	12.5	22.0	-11.59	-45.5	986.6	510.5	492.2	18.28	27.919	
3,300.0	3,246.6	3,230.7	3,014.9	12.9	22.9	-11.41	-48.1	1,028.5	535.3	516.4	18.91	28.311	
3,400.0	3,344.6	3,327.6	3,102.2	13.4	23.8	-11.24	-50.6	1,070.5	560.1	540.5	19.53	28.677	
3,500.0	3,442.6	3,424.5	3,189.4	13.8	24.7	-11.09	-53.1	1,112.5	584.9	564.7	20.15	29.020	
3,600.0	3,540.6	3,521.3	3,276.7	14.3	25.6	-10.95	-55.7	1,154.5	609.7	588.9	20.78	29.340	
3,700.0	3,638.7	3,618.2	3,363.9	14.7	26.6	-10.82	-58.2	1,196.5	634.5	613.1	21.40	29.642	
3,800.0	3,736.7	3,715.1	3,451.2	15.1	27.5	-10.70	-60.7	1,238.5	659.3	637.3	22.03	29.925	
3,900.0	3,834.7	3,811.9	3,538.4	15.6	28.4	-10.59	-63.3	1,280.5	684.1	661.4	22.66	30.192	
4,000.0	3,932.7	3,908.8	3,625.7	16.0	29.3	-10.49	-65.8	1,322.5	708.9	685.6	23.29	30.444	
4,100.0	4,030.8	4,005.7	3,712.9	16.5	30.2	-10.40	-68.3	1,364.5	733.7	709.8	23.91	30.682	
4,200.0	4,128.8	4,102.5	3,800.2	16.9	31.2	-10.31	-70.9	1,406.5	758.5	734.0	24.54	30.908	
4,300.0	4,226.8	4,199.4	3,887.4	17.4	32.1	-10.22	-73.4	1,448.4	783.4	758.2	25.17	31.122	
4,400.0	4,324.8	4,296.2	3,974.7	17.8	33.0	-10.15	-75.9	1,490.4	808.2	782.4	25.80	31.325	
4,500.0	4,422.9	4,393.1	4,061.9	18.3	33.9	-10.07	-78.5	1,532.4	833.0	806.6	26.43	31.518	
4,510.5	4,433.1	4,403.3	4,071.1	18.3	34.0	-10.06	-78.7	1,536.8	835.6	809.1	26.50	31.538	
4,600.0	4,521.1	4,489.6	4,148.9	18.6	34.8	-10.07	-81.0	1,574.3	859.2	832.2	26.95	31.882	
4,700.0	4,620.0	4,585.2	4,234.9	18.9	35.8	-10.06	-83.5	1,615.7	888.6	861.2	27.37	32.461	
4,800.0	4,719.3	4,679.6	4,320.0	19.1	36.6	-10.03	-86.0	1,656.6	921.3	893.6	27.75	33.204	
4,900.0	4,819.0	4,772.9	4,404.0	19.3	37.5	-9.98	-88.4	1,697.1	957.3	929.2	28.06	34.109	
5,000.0	4,918.9	4,864.9	4,486.9	19.5	38.4	-9.92	-90.8	1,736.9	996.4	968.1	28.33	35.175	
5,081.1	5,000.0	4,938.4	4,553.1	19.6	39.1	87.97	-92.7	1,768.8	1,030.5	1,002.0	28.51	36.147	
5,100.0	5,018.9	4,955.4	4,568.5	19.6	39.3	88.01	-93.2	1,776.2	1,038.6	1,010.1	28.59	36.327	
5,200.0	5,118.9	5,045.5	4,649.6	19.7	40.1	88.23	-95.5	1,815.2	1,081.9	1,052.9	29.03	37.263	
5,300.0	5,218.9	5,135.6	4,730.7	19.8	41.0	88.43	-97.9	1,854.3	1,125.2	1,095.7	29.48	38.165	
5,400.0	5,318.9	5,268.2	4,851.0	20.0	42.1	88.69	-101.3	1,910.1	1,167.4	1,137.3	30.03	38.870	
5,500.0	5,418.9	5,426.1	4,997.3	20.1	43.1	88.94	-104.8	1,969.2	1,204.8	1,174.2	30.62	39.343	
5,600.0	5,518.9	5,590.7	5,153.1	20.2	44.0	89.15	-108.0	2,022.3	1,237.1	1,205.9	31.21	39.631	
5,700.0	5,618.9	5,761.4	5,317.6	20.3	44.8	89.31	-110.8	2,067.8	1,263.7	1,231.9	31.79	39.753	
5,800.0	5,718.9	5,937.3	5,489.6	20.5	45.5	89.43	-113.0	2,104.4	1,284.5	1,252.2	32.34	39.721	
5,900.0	5,818.9	6,117.1	5,667.4	20.6	45.9	89.51	-114.6	2,130.8	1,299.2	1,266.3	32.85	39.549	
6,000.0	5,918.9	6,299.6	5,849.2	20.7	46.2	89.55	-115.5	2,146.2	1,307.6	1,274.3	33.32	39.248	
6,100.0	6,018.9	6,468.3	6,017.9	20.8	46.4	89.57	-115.8	2,150.1	1,309.8	1,276.1	33.72	38.847	
6,200.0	6,118.9	6,568.3	6,117.9	21.0	46.4	89.57	-115.8	2,150.1	1,309.8	1,275.8	34.03	38.492	
6,300.0	6,218.9	6,668.3	6,217.9	21.1	46.5	89.57	-115.8	2,150.1	1,309.8	1,275.4	34.34	38.141	
6,400.0	6,318.9	6,768.3	6,317.9	21.3	46.6	89.57	-115.8	2,150.1	1,309.8	1,275.1	34.66	37.794	
6,500.0	6,418.9	6,868.3	6,417.9	21.4	46.6	89.57	-115.8	2,150.1	1,309.8	1,274.8	34.97	37.449	
6,600.0	6,518.9	6,968.3	6,517.9	21.5	46.7	89.57	-115.8	2,150.1	1,309.8	1,274.5	35.30	37.108	
6,700.0	6,618.9	7,068.3	6,617.9	21.7	46.8	89.57	-115.8	2,150.1	1,309.8	1,274.2	35.62	36.771	
6,800.0	6,718.9	7,168.3	6,717.9	21.8	46.8	89.57	-115.8	2,150.1	1,309.8	1,273.8	35.95	36.437	
6,900.0	6,818.9	7,268.3	6,817.9	22.0	46.9	89.57	-115.8	2,150.1	1,309.8	1,273.5	36.28	36.107	
7,000.0	6,918.9	7,368.3	6,917.9	22.1	47.0	89.57	-115.8	2,150.1	1,309.8	1,273.2	36.61	35.780	
7,100.0	7,018.9	7,468.3	7,017.9	22.3	47.0	89.57	-115.8	2,150.1	1,309.8	1,272.8	36.94	35.457	

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 4-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 4-25	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 (7-13-12)	Offset TVD Reference:	Offset Datum

Offset Design Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W - Casa Loma 3-25 - Wellbore #1 - Plan #1 (7-10-12)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,200.0	7,118.9	7,568.3	7,117.9	22.4	47.1	89.57	-115.8	2,150.1	1,309.8	1,272.5	37.28	35.137	
7,300.0	7,218.9	7,668.3	7,217.9	22.6	47.2	89.57	-115.8	2,150.1	1,309.8	1,272.2	37.61	34.821	
7,400.0	7,318.9	7,768.3	7,317.9	22.7	47.3	89.57	-115.8	2,150.1	1,309.8	1,271.8	37.96	34.509	
7,500.0	7,418.9	7,868.3	7,417.9	22.9	47.3	89.57	-115.8	2,150.1	1,309.8	1,271.5	38.30	34.200	
7,542.1	7,461.0	7,910.5	7,460.0	22.9	47.4	89.57	-115.8	2,150.1	1,309.8	1,271.3	38.44	34.071	

Company:	BAYSWATER EXPLORATION & PRODUCTION	Local Co-ordinate Reference:	Well Casa Loma 4-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 4-25	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 (7-13-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4970.0ft (Original Well Elev) Coordinates are relative to: Casa Loma 4-25
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 4-25
Project:	SEC.26-T7N-R67W	TVD Reference:	WELL @ 4970.0ft (Original Well Elev)
Reference Site:	Hirsch/Casa Loma 10 Pad Sec.26-T7N-R67W	MD Reference:	WELL @ 4970.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Casa Loma 4-25	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 (7-13-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4970.0ft (Original Well Elev) Coordinates are relative to: Casa Loma 4-25
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°

