

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
2080.0	0.00	0.00	2080.0	0.0	0.0	0.00	0.00	0.0	
3050.5	19.41	244.75	3032.1	-69.5	-147.3	2.00	244.75	162.8	
5890.9	19.41	244.75	5711.0	-472.2	-1001.0	0.00	0.00	1106.8	WEBER 157X29
6722.1	19.41	244.75	6495.0	-590.1	-1250.8	0.00	0.00	1383.0	PBHL-BH-157X29



Azimuths to Grid North
True North: 2.18°
Magnetic North: 13.18°
Magnetic Field
Strength: 52664.5nT
Dip Angle: 66.14°
Date: 2009/11/17
Model: IGRF200510

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WEBER 157X29	5711.0	-472.2	-1001.0	1303999.02	2056900.96	40° 7' 7.058 N	108° 52' 22.957 W	Circle (Radius: 100.0)
PBHL -S-157X29	6495.0	-472.2	-1001.0	1303999.02	2056900.98	40° 7' 7.058 N	108° 52' 22.957 W	Circle (Radius: 100.0)
PBHL-BH-157X29	6495.0	-590.1	-1250.8	1303881.12	2056651.16	40° 7' 5.800 N	108° 52' 26.112 W	Point

Rangely County Colorado

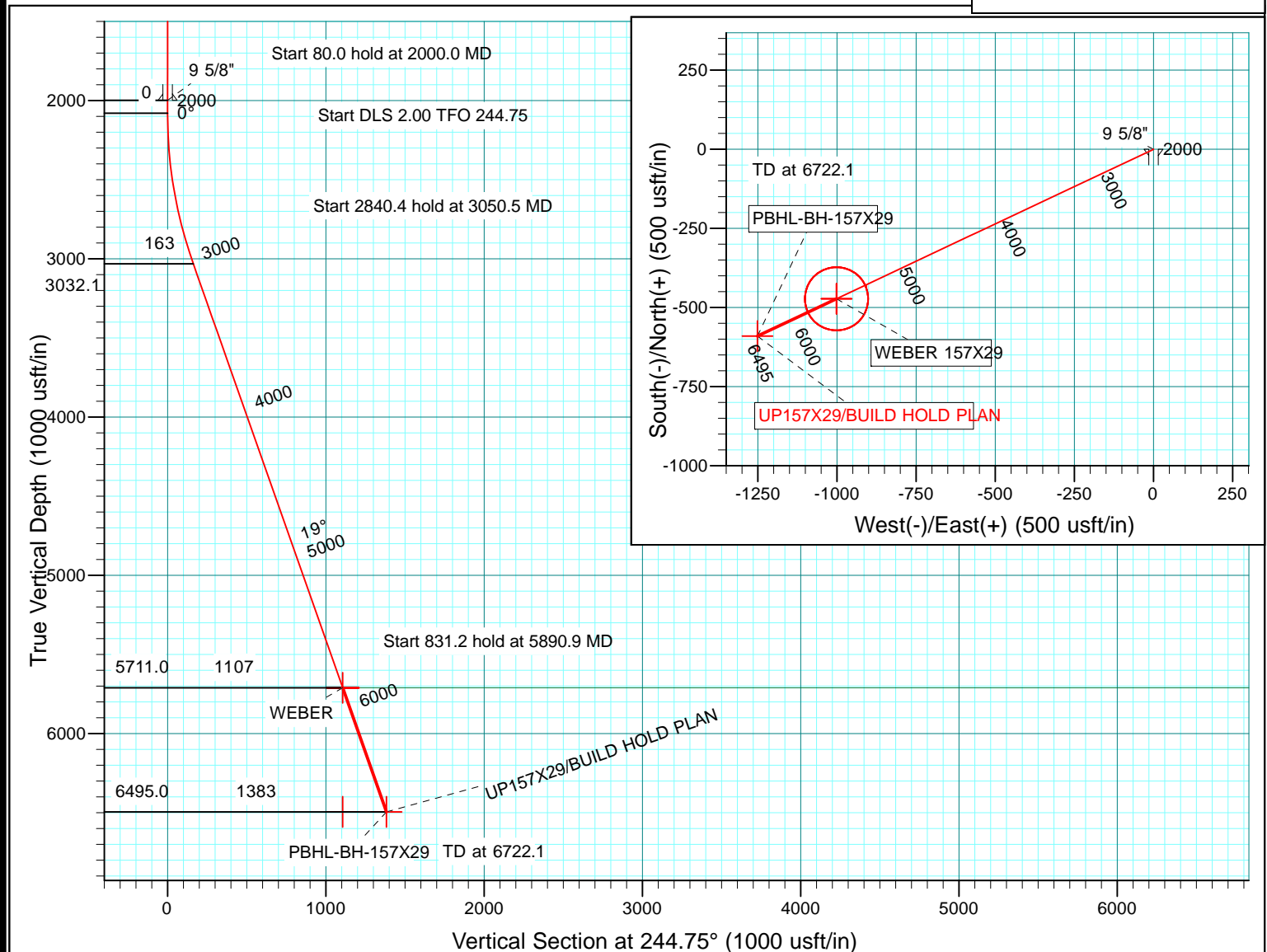
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

WELL DETAILS: UP157X29

Northing: 1304471.22
Ground Level: 5323.0
Easting: 2057901.96
Latitude: 40° 7' 12.097 N
Longitude: 108° 52' 10.312 W

FORMATION TOP DETAILS

TVDPATH: 5711.0
MDPATH: 5890.9
FORMATION: WEBER



Chevron

**Rangely County Colorado
SEC 29-T2N-R102W Rio Blanco
UP157X29**

Wellbore #1

Plan: BUILD HOLD PLAN

Standard Planning Report

19 November, 2009

Scientific Drilling International

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well UP157X29
Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP157X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Project	Rangely County Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		SEC 29-T2N-R102W Rio Blanco			
Site Position:		Northing:	1,304,457.19 usft	Latitude:	40° 7' 11.980 N
From:	Lat/Long	Easting:	2,057,960.10 usft	Longitude:	108° 52' 9.557 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-2.18 °

Well	UP157X29					
Well Position	+N/-S	14.0 usft	Northing:	1,304,471.22 usft	Latitude:	40° 7' 12.097 N
	+E/-W	-58.1 usft	Easting:	2,057,901.96 usft	Longitude:	108° 52' 10.312 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,323.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/11/17	11.01	66.14	52,664

Design	BUILD HOLD PLAN				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	244.75	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,050.5	19.41	244.75	3,032.1	-69.5	-147.3	2.00	2.00	-11.88	244.75	
5,890.9	19.41	244.75	5,711.0	-472.2	-1,001.0	0.00	0.00	0.00	0.00	WEBER 157X29
6,722.1	19.41	244.75	6,495.0	-590.1	-1,250.8	0.00	0.00	0.00	0.00	PBHL-BH-157X29

Scientific Drilling International

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well UP157X29
Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP157X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Start 80.0 hold at 2000.0 MD - 9 5/8"									
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
Start DLS 2.00 TFO 244.75									
2,100.0	0.40	244.75	2,100.0	0.0	-0.1	0.1	2.00	2.00	0.00
2,200.0	2.40	244.75	2,200.0	-1.1	-2.3	2.5	2.00	2.00	0.00
2,300.0	4.40	244.75	2,299.8	-3.6	-7.6	8.4	2.00	2.00	0.00
2,400.0	6.40	244.75	2,399.3	-7.6	-16.1	17.9	2.00	2.00	0.00
2,500.0	8.40	244.75	2,498.5	-13.1	-27.8	30.7	2.00	2.00	0.00
2,600.0	10.40	244.75	2,597.1	-20.1	-42.6	47.1	2.00	2.00	0.00
2,700.0	12.40	244.75	2,695.2	-28.5	-60.4	66.8	2.00	2.00	0.00
2,800.0	14.40	244.75	2,792.4	-38.4	-81.4	90.0	2.00	2.00	0.00
2,900.0	16.40	244.75	2,888.8	-49.7	-105.4	116.6	2.00	2.00	0.00
3,000.0	18.40	244.75	2,984.3	-62.5	-132.5	146.5	2.00	2.00	0.00
3,050.5	19.41	244.75	3,032.1	-69.5	-147.3	162.8	2.00	2.00	0.00
Start 2840.4 hold at 3050.5 MD									
3,100.0	19.41	244.75	3,078.7	-76.5	-162.1	179.3	0.00	0.00	0.00
3,200.0	19.41	244.75	3,173.0	-90.7	-192.2	212.5	0.00	0.00	0.00
3,300.0	19.41	244.75	3,267.4	-104.8	-222.3	245.7	0.00	0.00	0.00
3,400.0	19.41	244.75	3,361.7	-119.0	-252.3	279.0	0.00	0.00	0.00
3,500.0	19.41	244.75	3,456.0	-133.2	-282.4	312.2	0.00	0.00	0.00
3,600.0	19.41	244.75	3,550.3	-147.4	-312.4	345.4	0.00	0.00	0.00
3,700.0	19.41	244.75	3,644.6	-161.6	-342.5	378.7	0.00	0.00	0.00
3,800.0	19.41	244.75	3,738.9	-175.7	-372.5	411.9	0.00	0.00	0.00
3,900.0	19.41	244.75	3,833.3	-189.9	-402.6	445.1	0.00	0.00	0.00
4,000.0	19.41	244.75	3,927.6	-204.1	-432.7	478.4	0.00	0.00	0.00
4,100.0	19.41	244.75	4,021.9	-218.3	-462.7	511.6	0.00	0.00	0.00
4,200.0	19.41	244.75	4,116.2	-232.5	-492.8	544.8	0.00	0.00	0.00
4,300.0	19.41	244.75	4,210.5	-246.6	-522.8	578.1	0.00	0.00	0.00
4,400.0	19.41	244.75	4,304.8	-260.8	-552.9	611.3	0.00	0.00	0.00
4,500.0	19.41	244.75	4,399.2	-275.0	-582.9	644.5	0.00	0.00	0.00
4,600.0	19.41	244.75	4,493.5	-289.2	-613.0	677.8	0.00	0.00	0.00
4,700.0	19.41	244.75	4,587.8	-303.3	-643.1	711.0	0.00	0.00	0.00

Scientific Drilling International

Planning Report

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Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP157X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,800.0	19.41	244.75	4,682.1	-317.5	-673.1	744.2	0.00	0.00	0.00	
4,900.0	19.41	244.75	4,776.4	-331.7	-703.2	777.5	0.00	0.00	0.00	
5,000.0	19.41	244.75	4,870.7	-345.9	-733.2	810.7	0.00	0.00	0.00	
5,100.0	19.41	244.75	4,965.1	-360.1	-763.3	843.9	0.00	0.00	0.00	
5,200.0	19.41	244.75	5,059.4	-374.2	-793.3	877.2	0.00	0.00	0.00	
5,300.0	19.41	244.75	5,153.7	-388.4	-823.4	910.4	0.00	0.00	0.00	
5,400.0	19.41	244.75	5,248.0	-402.6	-853.4	943.6	0.00	0.00	0.00	
5,500.0	19.41	244.75	5,342.3	-416.8	-883.5	976.9	0.00	0.00	0.00	
5,600.0	19.41	244.75	5,436.6	-431.0	-913.6	1,010.1	0.00	0.00	0.00	
5,700.0	19.41	244.75	5,530.9	-445.1	-943.6	1,043.3	0.00	0.00	0.00	
5,800.0	19.41	244.75	5,625.3	-459.3	-973.7	1,076.6	0.00	0.00	0.00	
5,890.9	19.41	244.75	5,711.0	-472.2	-1,001.0	1,106.8	0.00	0.00	0.00	
Start 831.2 hold at 5890.9 MD - WEBER - WEBER 157X29										
5,900.0	19.41	244.75	5,719.6	-473.5	-1,003.7	1,109.8	0.00	0.00	0.00	
6,000.0	19.41	244.75	5,813.9	-487.7	-1,033.8	1,143.0	0.00	0.00	0.00	
6,100.0	19.41	244.75	5,908.2	-501.8	-1,063.8	1,176.3	0.00	0.00	0.00	
6,200.0	19.41	244.75	6,002.5	-516.0	-1,093.9	1,209.5	0.00	0.00	0.00	
6,300.0	19.41	244.75	6,096.8	-530.2	-1,124.0	1,242.7	0.00	0.00	0.00	
6,400.0	19.41	244.75	6,191.2	-544.4	-1,154.0	1,276.0	0.00	0.00	0.00	
6,500.0	19.41	244.75	6,285.5	-558.6	-1,184.1	1,309.2	0.00	0.00	0.00	
6,600.0	19.41	244.75	6,379.8	-572.7	-1,214.1	1,342.4	0.00	0.00	0.00	
6,630.3	19.41	244.75	6,408.4	-577.0	-1,223.3	1,352.5	0.00	0.00	0.00	
PBHL -S-157X29										
6,700.0	19.41	244.75	6,474.1	-586.9	-1,244.2	1,375.7	0.00	0.00	0.00	
6,722.1	19.41	244.75	6,495.0	-590.1	-1,250.8	1,383.0	0.00	0.00	0.00	
TD at 6722.1 - PBHL-BH-157X29										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
WEBER 157X29	0.00	0.00	5,711.0	-472.2	-1,001.0	1,303,999.02	2,056,900.96	40° 7' 7.058 N	108° 52' 22.957 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 100.0)										
PBHL -S-157X29	0.00	360.00	6,495.0	-472.2	-1,001.0	1,303,999.02	2,056,900.97	40° 7' 7.058 N	108° 52' 22.957 W	
- plan misses target center by 260.6usft at 6630.3usft MD (6408.4 TVD, -577.0 N, -1223.3 E)										
- Circle (radius 100.0)										
PBHL-BH-157X29	0.00	0.00	6,495.0	-590.1	-1,250.8	1,303,881.12	2,056,651.16	40° 7' 5.800 N	108° 52' 26.112 W	
- plan misses target center by 0.1usft at 6722.1usft MD (6495.0 TVD, -590.1 N, -1250.8 E)										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,000.0	2,000.0	9 5/8"	9-5/8	12-1/4	

Scientific Drilling International

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well UP157X29
Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP157X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,890.9	5,711.0	WEBER		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	Start 80.0 hold at 2000.0 MD	
2,080.0	2,080.0	0.0	0.0	Start DLS 2.00 TFO 244.75	
3,050.5	3,032.1	-69.5	-147.3	Start 2840.4 hold at 3050.5 MD	
5,890.9	5,711.0	-472.2	-1,001.0	Start 831.2 hold at 5890.9 MD	
6,722.1	6,495.0	-590.1	-1,250.8	TD at 6722.1	