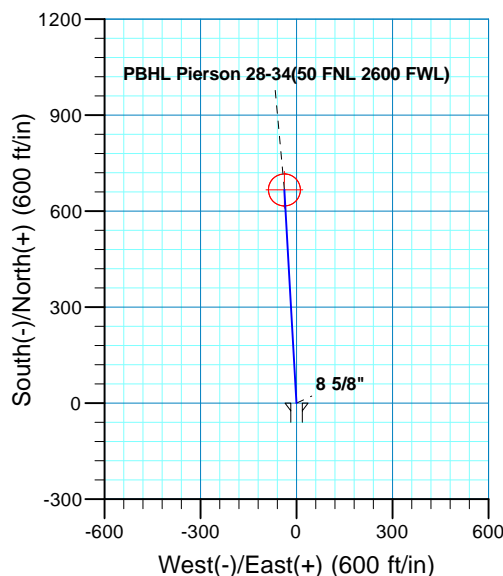
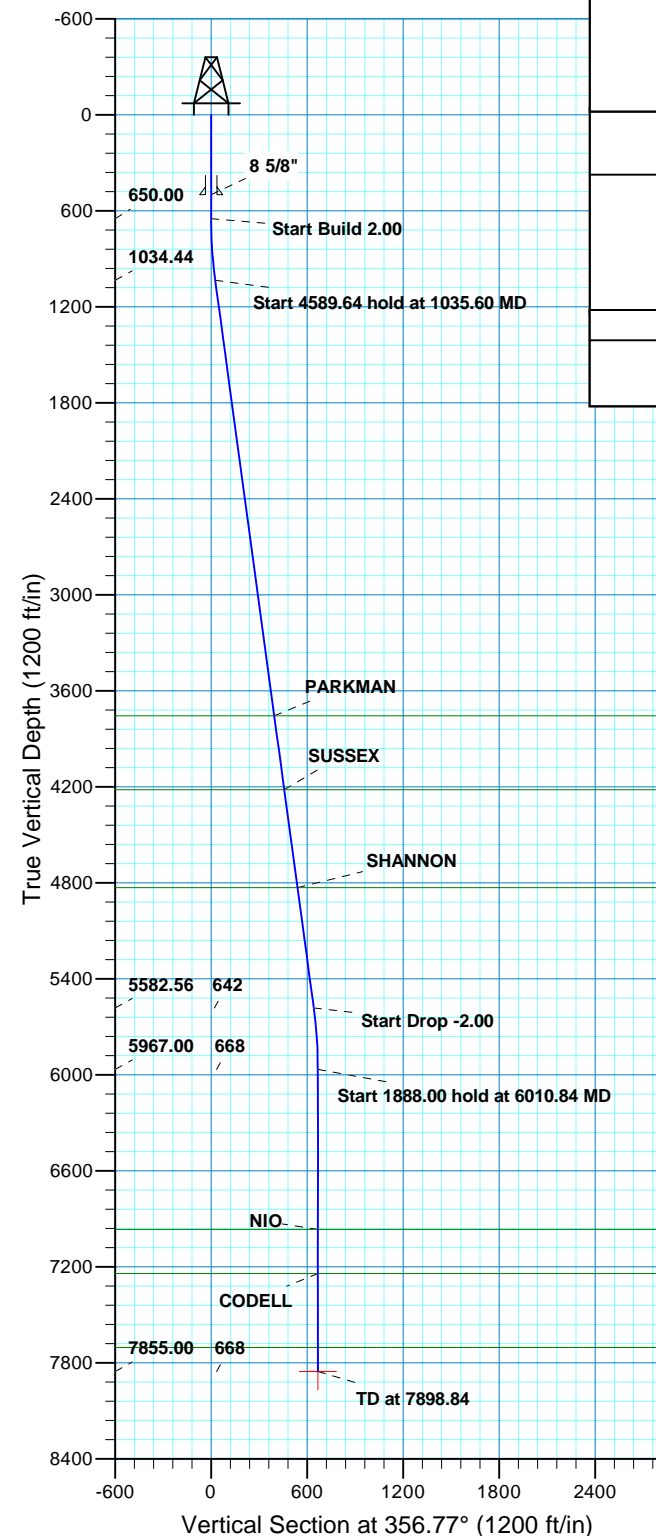


WELL DETAILS: P_Pierson 28-34					
GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1343327.14	3205626.91	40° 16' 24.553 N	104° 45' 47.005 W

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7855.00	666.66	-37.67	1343993.46	3205583.70	40° 16' 31.141 N	104° 45' 47.491 W	Circle (Radius: 50.00)
- plan hits target center								

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00		
1035.60	7.71	356.77	1034.44	25.87	-1.46	2.00	356.77	25.91		
5625.24	7.71	356.77	5582.56	640.79	-36.21	0.00	0.00	641.81		
6010.84	0.00	0.00	5967.00	666.66	-37.67	2.00	180.00	667.72		
7898.84	0.00	0.00	7855.00	666.66	-37.67	0.00	0.00	667.72	PBHL Pierson 28-34(50 FNL 2600 FWL)	
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83						FORMATION TOP DETAILS				
						TVDPath	MDPath	Formation		
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Location: SECTION 34 T4N R66W System Datum:Mean Sea Level						3757.00	3783.01	PARKMAN		
						4219.00	4249.23	SUSSEX		
						4830.00	4865.81	SHANNON		
						6967.00	7010.84	NIO		
						7243.00	7286.84	CODELL		
						7705.00	7748.84	JSAND		
						CASING DETAILS				
			TVD	MD	Name	Size				
			500.00	500.00	8 5/8"	8.625				



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Pierson 21-34 Pad

P_Pierson 28-34

P_Pierson 28-34

Plan: PLAN #1 8-13-10 RHS

Standard Planning Report

13 August, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pierson 28-34
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Site:	WELD_Pierson 21-34 Pad	North Reference:	True
Well:	P_Pierson 28-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pierson 28-34		
Design:	PLAN #1 8-13-10 RHS		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_Pierson 21-34 Pad, SECTION 34 T4N R66W		
Site Position:		Northing:	1,343,326.02 usft
From:	Lat/Long	Easting:	3,205,578.92 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	40° 16' 24.546 N
		Longitude:	104° 45' 47.624 W
		Grid Convergence:	0.48 °

Well	P_Pierson 28-34, 717 FNL 2565 FEL		
Well Position	+N/-S	0.72 ft	Northing:
	+E/-W	47.99 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	P_Pierson 28-34				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/13/2010	8.97	66.98	53,154

Design	PLAN #1 8-13-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	356.77

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,035.60	7.71	356.77	1,034.44	25.87	-1.46	2.00	2.00	0.00	356.77	
5,625.24	7.71	356.77	5,582.56	640.79	-36.21	0.00	0.00	0.00	0.00	
6,010.84	0.00	0.00	5,967.00	666.66	-37.67	2.00	-2.00	0.00	180.00	
7,898.84	0.00	0.00	7,855.00	666.66	-37.67	0.00	0.00	0.00	0.00	PBHL Pierson 28-34(i

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pierson 28-34
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Site:	WELD_Pierson 21-34 Pad	North Reference:	True
Well:	P_Pierson 28-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pierson 28-34		
Design:	PLAN #1 8-13-10 RHS		

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8 5/8"										
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
700.00	1.00	356.77	700.00	0.44	-0.02	0.44	2.00	2.00	0.00	
800.00	3.00	356.77	799.93	3.92	-0.22	3.93	2.00	2.00	0.00	
900.00	5.00	356.77	899.68	10.88	-0.61	10.90	2.00	2.00	0.00	
1,000.00	7.00	356.77	999.13	21.32	-1.20	21.35	2.00	2.00	0.00	
1,035.60	7.71	356.77	1,034.44	25.87	-1.46	25.91	2.00	2.00	0.00	
Start 4589.64 hold at 1035.60 MD										
1,100.00	7.71	356.77	1,098.25	34.50	-1.95	34.55	0.00	0.00	0.00	
1,200.00	7.71	356.77	1,197.35	47.90	-2.71	47.97	0.00	0.00	0.00	
1,300.00	7.71	356.77	1,296.45	61.29	-3.46	61.39	0.00	0.00	0.00	
1,400.00	7.71	356.77	1,395.54	74.69	-4.22	74.81	0.00	0.00	0.00	
1,500.00	7.71	356.77	1,494.64	88.09	-4.98	88.23	0.00	0.00	0.00	
1,600.00	7.71	356.77	1,593.73	101.49	-5.73	101.65	0.00	0.00	0.00	
1,700.00	7.71	356.77	1,692.83	114.89	-6.49	115.07	0.00	0.00	0.00	
1,800.00	7.71	356.77	1,791.92	128.28	-7.25	128.49	0.00	0.00	0.00	
1,900.00	7.71	356.77	1,891.02	141.68	-8.01	141.91	0.00	0.00	0.00	
2,000.00	7.71	356.77	1,990.11	155.08	-8.76	155.33	0.00	0.00	0.00	
2,100.00	7.71	356.77	2,089.21	168.48	-9.52	168.75	0.00	0.00	0.00	
2,200.00	7.71	356.77	2,188.30	181.88	-10.28	182.17	0.00	0.00	0.00	
2,300.00	7.71	356.77	2,287.40	195.27	-11.03	195.59	0.00	0.00	0.00	
2,400.00	7.71	356.77	2,386.50	208.67	-11.79	209.01	0.00	0.00	0.00	
2,500.00	7.71	356.77	2,485.59	222.07	-12.55	222.42	0.00	0.00	0.00	
2,600.00	7.71	356.77	2,584.69	235.47	-13.30	235.84	0.00	0.00	0.00	
2,700.00	7.71	356.77	2,683.78	248.87	-14.06	249.26	0.00	0.00	0.00	
2,800.00	7.71	356.77	2,782.88	262.26	-14.82	262.68	0.00	0.00	0.00	
2,900.00	7.71	356.77	2,881.97	275.66	-15.58	276.10	0.00	0.00	0.00	
3,000.00	7.71	356.77	2,981.07	289.06	-16.33	289.52	0.00	0.00	0.00	
3,100.00	7.71	356.77	3,080.16	302.46	-17.09	302.94	0.00	0.00	0.00	
3,200.00	7.71	356.77	3,179.26	315.86	-17.85	316.36	0.00	0.00	0.00	
3,300.00	7.71	356.77	3,278.36	329.25	-18.60	329.78	0.00	0.00	0.00	
3,400.00	7.71	356.77	3,377.45	342.65	-19.36	343.20	0.00	0.00	0.00	
3,500.00	7.71	356.77	3,476.55	356.05	-20.12	356.62	0.00	0.00	0.00	
3,600.00	7.71	356.77	3,575.64	369.45	-20.87	370.04	0.00	0.00	0.00	
3,700.00	7.71	356.77	3,674.74	382.85	-21.63	383.46	0.00	0.00	0.00	
3,783.01	7.71	356.77	3,757.00	393.97	-22.26	394.60	0.00	0.00	0.00	
PARKMAN										
3,800.00	7.71	356.77	3,773.83	396.24	-22.39	396.88	0.00	0.00	0.00	
3,900.00	7.71	356.77	3,872.93	409.64	-23.15	410.30	0.00	0.00	0.00	
4,000.00	7.71	356.77	3,972.02	423.04	-23.90	423.72	0.00	0.00	0.00	
4,100.00	7.71	356.77	4,071.12	436.44	-24.66	437.13	0.00	0.00	0.00	
4,200.00	7.71	356.77	4,170.22	449.84	-25.42	450.55	0.00	0.00	0.00	
4,249.23	7.71	356.77	4,219.00	456.43	-25.79	457.16	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pierson 28-34
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Site:	WELD_Pierson 21-34 Pad	North Reference:	True
Well:	P_Pierson 28-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pierson 28-34		
Design:	PLAN #1 8-13-10 RHS		

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)
SUSSEX									
4,300.00	7.71	356.77	4,269.31	463.23	-26.17	463.97	0.00	0.00	0.00
4,400.00	7.71	356.77	4,368.41	476.63	-26.93	477.39	0.00	0.00	0.00
4,500.00	7.71	356.77	4,467.50	490.03	-27.69	490.81	0.00	0.00	0.00
4,600.00	7.71	356.77	4,566.60	503.43	-28.45	504.23	0.00	0.00	0.00
4,700.00	7.71	356.77	4,665.69	516.83	-29.20	517.65	0.00	0.00	0.00
4,800.00	7.71	356.77	4,764.79	530.22	-29.96	531.07	0.00	0.00	0.00
4,865.81	7.71	356.77	4,830.00	539.04	-30.46	539.90	0.00	0.00	0.00
SHANNON									
4,900.00	7.71	356.77	4,863.88	543.62	-30.72	544.49	0.00	0.00	0.00
5,000.00	7.71	356.77	4,962.98	557.02	-31.47	557.91	0.00	0.00	0.00
5,100.00	7.71	356.77	5,062.07	570.42	-32.23	571.33	0.00	0.00	0.00
5,200.00	7.71	356.77	5,161.17	583.82	-32.99	584.75	0.00	0.00	0.00
5,300.00	7.71	356.77	5,260.27	597.21	-33.74	598.17	0.00	0.00	0.00
5,400.00	7.71	356.77	5,359.36	610.61	-34.50	611.59	0.00	0.00	0.00
5,500.00	7.71	356.77	5,458.46	624.01	-35.26	625.01	0.00	0.00	0.00
5,600.00	7.71	356.77	5,557.55	637.41	-36.02	638.43	0.00	0.00	0.00
5,625.24	7.71	356.77	5,582.56	640.79	-36.21	641.81	0.00	0.00	0.00
Start Drop -2.00									
5,700.00	6.22	356.77	5,656.77	649.84	-36.72	650.88	2.00	-2.00	0.00
5,800.00	4.22	356.77	5,756.35	658.92	-37.23	659.97	2.00	-2.00	0.00
5,900.00	2.22	356.77	5,856.19	664.52	-37.55	665.58	2.00	-2.00	0.00
6,000.00	0.22	356.77	5,956.16	666.64	-37.67	667.70	2.00	-2.00	0.00
6,010.84	0.00	0.00	5,967.00	666.66	-37.67	667.72	2.00	-2.00	0.00
Start 1888.00 hold at 6010.84 MD									
6,100.00	0.00	0.00	6,056.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,200.00	0.00	0.00	6,156.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,300.00	0.00	0.00	6,256.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,400.00	0.00	0.00	6,356.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,500.00	0.00	0.00	6,456.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,600.00	0.00	0.00	6,556.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,700.00	0.00	0.00	6,656.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,800.00	0.00	0.00	6,756.16	666.66	-37.67	667.72	0.00	0.00	0.00
6,900.00	0.00	0.00	6,856.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,000.00	0.00	0.00	6,956.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,010.84	0.00	0.00	6,967.00	666.66	-37.67	667.72	0.00	0.00	0.00
NIO									
7,100.00	0.00	0.00	7,056.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,200.00	0.00	0.00	7,156.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,286.84	0.00	0.00	7,243.00	666.66	-37.67	667.72	0.00	0.00	0.00
CODELL									
7,300.00	0.00	0.00	7,256.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,400.00	0.00	0.00	7,356.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,500.00	0.00	0.00	7,456.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,600.00	0.00	0.00	7,556.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,700.00	0.00	0.00	7,656.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,748.84	0.00	0.00	7,705.00	666.66	-37.67	667.72	0.00	0.00	0.00
JSAND									
7,800.00	0.00	0.00	7,756.16	666.66	-37.67	667.72	0.00	0.00	0.00
7,898.84	0.00	0.00	7,855.00	666.66	-37.67	667.72	0.00	0.00	0.00
PBHL Pierson 28-34(50 FNL 2600 FWL)									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Pierson 28-34
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4783' & RKB 15' @ 4798.00ft (ASSUMED)
Site:	WELD_Pierson 21-34 Pad	North Reference:	True
Well:	P_Pierson 28-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Pierson 28-34		
Design:	PLAN #1 8-13-10 RHS		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL Pierson 28-34(50 - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,855.00	666.66	-37.67	1,343,993.46	3,205,583.70	40° 16' 31.141 N	104° 45' 47.491 W

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
500.00	500.00	8 5/8"		8.625	11.000

Formations					
Measured Depth	Vertical Depth	Name		Dip	Dip Direction
(ft)	(ft)			(°)	(°)
3,783.01	3,757.00	PARKMAN			
4,249.23	4,219.00	SUSSEX			
4,865.81	4,830.00	SHANNON			
7,010.84	6,967.00	NIO			
7,286.84	7,243.00	CODELL			
7,748.84	7,705.00	JSAND			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
650.00	650.00	0.00	0.00	Start Build 2.00
1,035.60	1,034.44	25.87	-1.46	Start 4589.64 hold at 1035.60 MD
5,625.24	5,582.56	640.79	-36.21	Start Drop -2.00
6,010.84	5,967.00	666.66	-37.67	Start 1888.00 hold at 6010.84 MD
7,898.84	7,855.00	666.66	-37.67	TD at 7898.84