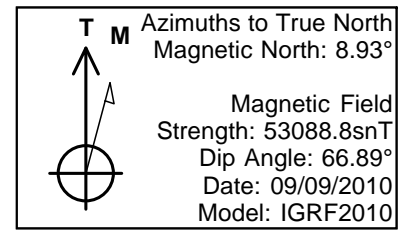
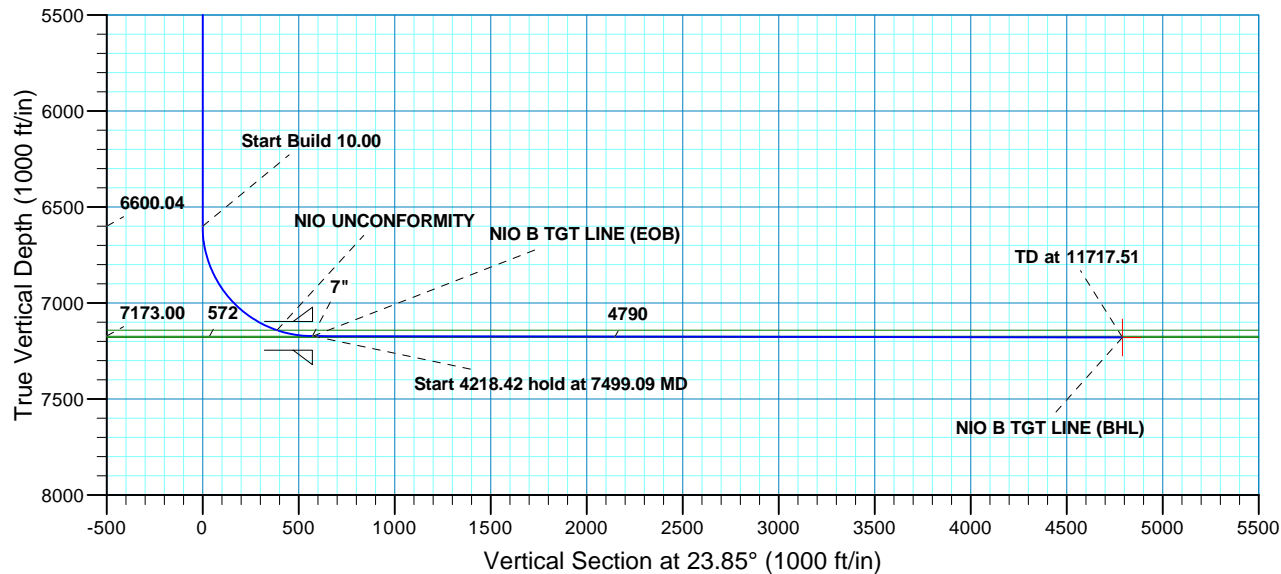
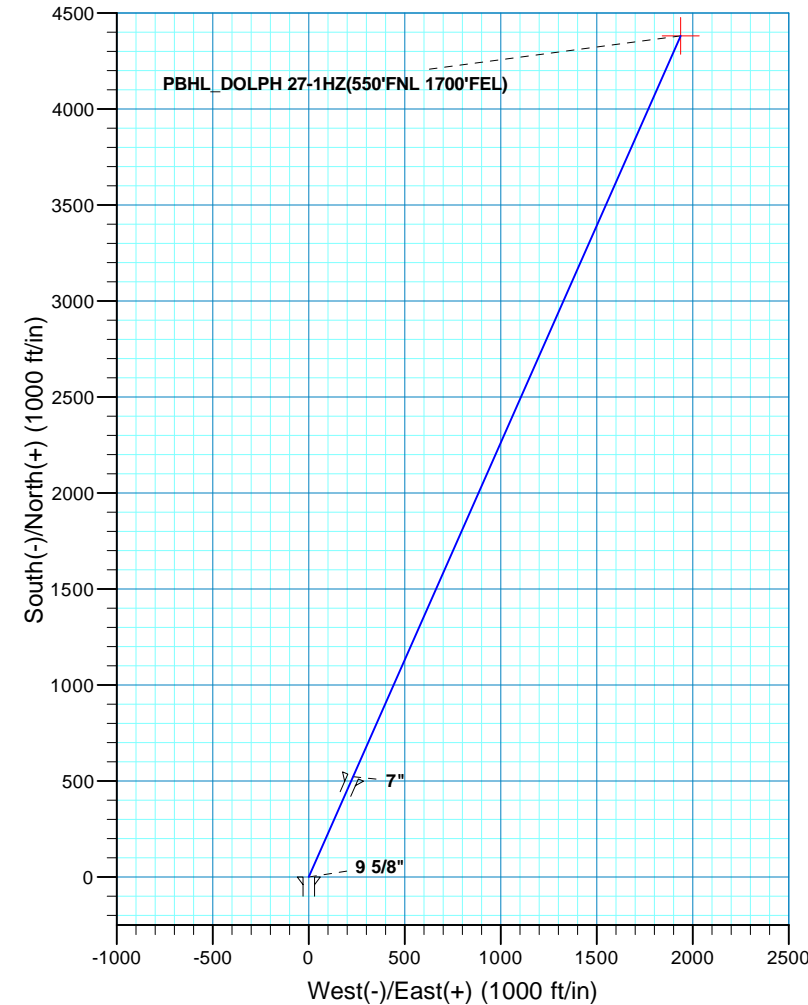




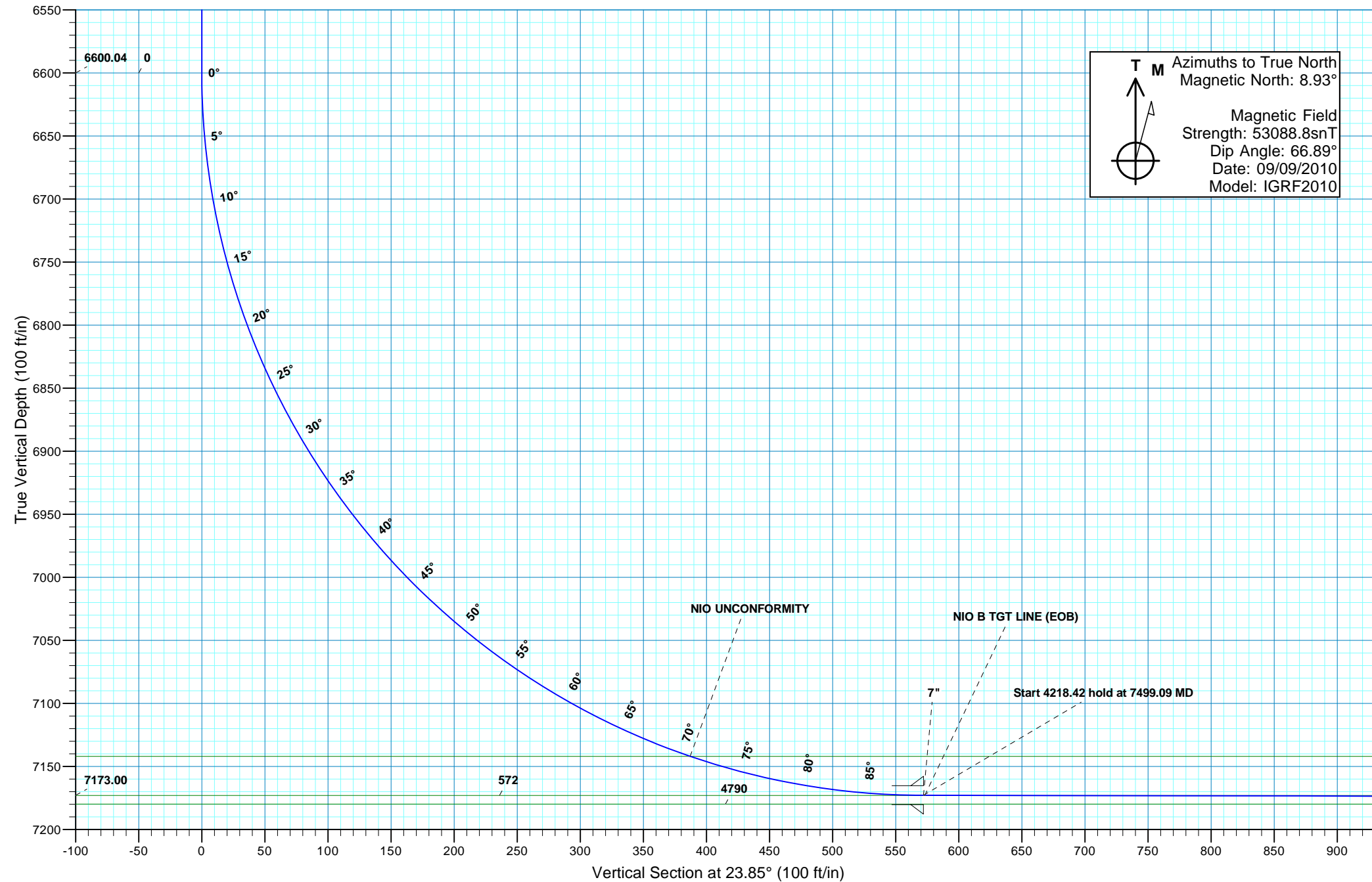
Project: COLORADO NORTHERN ZONE - 83
Site: WELD_DOLPH 27-1HZ
Well: DOLPH 27-1HZ
Wellbore: P_DOLPH 27-1HZ
Design: PLAN #1 9-9-10 RHS



WELL DETAILS: DOLPH 27-1HZ						
GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)						
+N-S 0.00	+E-W 0.00	Northing 1302486.50	Easting 3215523.87	Latitude 40° 9' 40.133 N	Longitude 104° 43' 43.903 W	
DESIGN TARGET DETAILS						
Name PBHL	TVD 7180.00 - plan hits target center	+N-S 4381.30	+E-W 1937.10	Northing 1306884.47	Easting 3217422.79	Latitude 40° 10' 23.430 N Longitude 104° 43' 18.948 W Shape Circle (Radius: 0.00)
CASING DETAILS						
	TVD 856.00 7173.00	MD 856.00 7499.09	Name 9 5/8" 7"	Size 9.625 7.000		
SECTION DETAILS						
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg
0.00	0.00	0.00	0.00	0.00	0.00	0.00
6600.04	0.00	0.00	6600.04	0.00	0.00	0.00
7499.09	89.90	23.85	7173.00	523.16	231.30	10.00
11717.51	89.90	23.85	7180.00	4381.30	1937.10	0.00
				TFace	VSect	Target
				0.00	0.00	0.00
				0.00	0.00	0.00
				23.85	572.01	PBHL_DOLPH 27-1HZ(550'FNL 1700'FEL)
				0.00	4790.42	
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83				FORMATION TOP DETAILS		
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Location: SEC 1 T2N R66W System Datum: Mean Sea Level				TVDPath	MDPath	Formation
				4007.00	4007.00	PARKMAN
				4414.00	4414.00	SUSSEX
				5104.00	5104.00	SHANNON
				7142.00	7310.71	NIO UNCONFORMITY
				7173.00	7500.15	NIO B TGT LINE (EOB)
				7180.00	11717.50	NIO B TGT LINE (BHL)



Plan: PLAN #1 9-9-10 RHS (DOLPH 27-1HZ/P_DOLPH 27-1HZ)	
Created By: RobertScott	Date: 11:10, September 10 2010



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_DOLPH 27-1HZ

DOLPH 27-1HZ

P_DOLPH 27-1HZ

Plan: PLAN #1 9-9-10 RHS

Standard Planning Report

10 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well DOLPH 27-1HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Site:	WELD_DOLPH 27-1HZ	North Reference:	True
Well:	DOLPH 27-1HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DOLPH 27-1HZ		
Design:	PLAN #1 9-9-10 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_DOLPH 27-1HZ, SEC 1 T2N R66W			
Site Position:		Northing:	1,302,486.50 usft	Latitude:	40° 9' 40.133 N
From:	Lat/Long	Easting:	3,215,523.87 usft	Longitude:	104° 43' 43.903 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.50 °

Well	DOLPH 27-1HZ, 364' FSL 1679' FWL					
Well Position	+N/-S	0.00 ft	Northing:	1,302,486.50 usft	Latitude:	40° 9' 40.133 N
	+E/-W	0.00 ft	Easting:	3,215,523.87 usft	Longitude:	104° 43' 43.903 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,006.00 ft

Wellbore	P_DOLPH 27-1HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/09/2010	8.93	66.89	53,089

Design	PLAN #1 9-9-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	2.00	0.00	0.00	23.85

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	
6,600.04	0.00	0.00	6,600.04	0.00	0.00	0.00	0.00	0.00	0.00	
7,499.09	89.90	23.85	7,173.00	523.16	231.30	10.00	10.00	0.00	23.85	
11,717.51	89.90	23.85	7,180.00	4,381.30	1,937.10	0.00	0.00	0.00	0.00	PBHL_DOLPH 27-1H

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well DOLPH 27-1HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Site:	WELD_DOLPH 27-1HZ	North Reference:	True
Well:	DOLPH 27-1HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DOLPH 27-1HZ		
Design:	PLAN #1 9-9-10 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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
856.00	0.00	0.00	856.00	0.00	0.00	0.00	0.00	0.00	0.00	
9 5/8"										
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,007.00	0.00	0.00	4,007.00	0.00	0.00	0.00	0.00	0.00	0.00	
PARKMAN										
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,414.00	0.00	0.00	4,414.00	0.00	0.00	0.00	0.00	0.00	0.00	
SUSSEX										
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well DOLPH 27-1HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Site:	WELD_DOLPH 27-1HZ	North Reference:	True
Well:	DOLPH 27-1HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DOLPH 27-1HZ		
Design:	PLAN #1 9-9-10 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)	
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,104.00	0.00	0.00	5,104.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHANNON										
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.04	0.00	0.00	6,600.04	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 10.00										
6,700.00	10.00	23.85	6,699.49	7.95	3.52	8.70	10.00	10.00	0.00	
6,800.00	20.00	23.85	6,795.97	31.59	13.97	34.54	10.00	10.00	0.00	
6,900.00	30.00	23.85	6,886.48	70.19	31.03	76.74	10.00	10.00	0.00	
7,000.00	40.00	23.85	6,968.30	122.57	54.19	134.02	10.00	10.00	0.00	
7,100.00	50.00	23.85	7,038.93	187.16	82.75	204.64	10.00	10.00	0.00	
7,200.00	60.00	23.85	7,096.22	261.98	115.83	286.44	10.00	10.00	0.00	
7,300.00	70.00	23.85	7,138.43	344.76	152.43	376.96	10.00	10.00	0.00	
7,310.71	71.07	23.85	7,142.00	354.00	156.51	387.05	10.00	10.00	0.00	
NIO UNCONFORMITY										
7,400.00	80.00	23.85	7,164.29	432.99	191.44	473.42	10.00	10.00	0.00	
7,499.09	89.90	23.85	7,173.00	523.15	231.30	572.01	10.00	10.00	0.00	
Start 4218.42 hold at 7499.09 MD - 7"										
7,500.00	89.90	23.85	7,173.00	523.99	231.67	572.92	0.00	0.00	0.00	
7,500.15	89.90	23.85	7,173.00	524.12	231.73	573.07	0.00	0.00	0.00	
NIO B TGT LINE (EOB)										
7,600.00	89.90	23.85	7,173.17	615.45	272.11	672.92	0.00	0.00	0.00	
7,700.00	89.90	23.85	7,173.33	706.91	312.54	772.92	0.00	0.00	0.00	
7,800.00	89.90	23.85	7,173.50	798.37	352.98	872.92	0.00	0.00	0.00	
7,900.00	89.90	23.85	7,173.66	889.82	393.42	972.92	0.00	0.00	0.00	
8,000.00	89.90	23.85	7,173.83	981.28	433.85	1,072.92	0.00	0.00	0.00	
8,100.00	89.90	23.85	7,174.00	1,072.74	474.29	1,172.92	0.00	0.00	0.00	
8,200.00	89.90	23.85	7,174.16	1,164.20	514.73	1,272.92	0.00	0.00	0.00	
8,300.00	89.90	23.85	7,174.33	1,255.66	555.16	1,372.92	0.00	0.00	0.00	
8,400.00	89.90	23.85	7,174.49	1,347.12	595.60	1,472.92	0.00	0.00	0.00	
8,500.00	89.90	23.85	7,174.66	1,438.58	636.04	1,572.92	0.00	0.00	0.00	
8,600.00	89.90	23.85	7,174.83	1,530.04	676.48	1,672.92	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well DOLPH 27-1HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Site:	WELD_DOLPH 27-1HZ	North Reference:	True
Well:	DOLPH 27-1HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DOLPH 27-1HZ		
Design:	PLAN #1 9-9-10 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)
8,700.00	89.90	23.85	7,174.99	1,621.50	716.91	1,772.91	0.00	0.00	0.00
8,800.00	89.90	23.85	7,175.16	1,712.96	757.35	1,872.91	0.00	0.00	0.00
8,900.00	89.90	23.85	7,175.32	1,804.42	797.79	1,972.91	0.00	0.00	0.00
9,000.00	89.90	23.85	7,175.49	1,895.88	838.22	2,072.91	0.00	0.00	0.00
9,100.00	89.90	23.85	7,175.66	1,987.34	878.66	2,172.91	0.00	0.00	0.00
9,200.00	89.90	23.85	7,175.82	2,078.80	919.10	2,272.91	0.00	0.00	0.00
9,300.00	89.90	23.85	7,175.99	2,170.26	959.53	2,372.91	0.00	0.00	0.00
9,400.00	89.90	23.85	7,176.15	2,261.72	999.97	2,472.91	0.00	0.00	0.00
9,500.00	89.90	23.85	7,176.32	2,353.18	1,040.41	2,572.91	0.00	0.00	0.00
9,600.00	89.90	23.85	7,176.49	2,444.64	1,080.84	2,672.91	0.00	0.00	0.00
9,700.00	89.90	23.85	7,176.65	2,536.10	1,121.28	2,772.91	0.00	0.00	0.00
9,800.00	89.90	23.85	7,176.82	2,627.55	1,161.72	2,872.91	0.00	0.00	0.00
9,900.00	89.90	23.85	7,176.98	2,719.01	1,202.15	2,972.91	0.00	0.00	0.00
10,000.00	89.90	23.85	7,177.15	2,810.47	1,242.59	3,072.91	0.00	0.00	0.00
10,100.00	89.90	23.85	7,177.32	2,901.93	1,283.03	3,172.91	0.00	0.00	0.00
10,200.00	89.90	23.85	7,177.48	2,993.39	1,323.47	3,272.91	0.00	0.00	0.00
10,300.00	89.90	23.85	7,177.65	3,084.85	1,363.90	3,372.91	0.00	0.00	0.00
10,400.00	89.90	23.85	7,177.81	3,176.31	1,404.34	3,472.91	0.00	0.00	0.00
10,500.00	89.90	23.85	7,177.98	3,267.77	1,444.78	3,572.91	0.00	0.00	0.00
10,600.00	89.90	23.85	7,178.15	3,359.23	1,485.21	3,672.91	0.00	0.00	0.00
10,700.00	89.90	23.85	7,178.31	3,450.69	1,525.65	3,772.91	0.00	0.00	0.00
10,800.00	89.90	23.85	7,178.48	3,542.15	1,566.09	3,872.91	0.00	0.00	0.00
10,900.00	89.90	23.85	7,178.64	3,633.61	1,606.52	3,972.91	0.00	0.00	0.00
11,000.00	89.90	23.85	7,178.81	3,725.07	1,646.96	4,072.91	0.00	0.00	0.00
11,100.00	89.90	23.85	7,178.98	3,816.53	1,687.40	4,172.91	0.00	0.00	0.00
11,200.00	89.90	23.85	7,179.14	3,907.99	1,727.83	4,272.91	0.00	0.00	0.00
11,300.00	89.90	23.85	7,179.31	3,999.45	1,768.27	4,372.91	0.00	0.00	0.00
11,400.00	89.90	23.85	7,179.47	4,090.91	1,808.71	4,472.91	0.00	0.00	0.00
11,500.00	89.90	23.85	7,179.64	4,182.37	1,849.14	4,572.91	0.00	0.00	0.00
11,600.00	89.90	23.85	7,179.81	4,273.83	1,889.58	4,672.91	0.00	0.00	0.00
11,700.00	89.90	23.85	7,179.97	4,365.28	1,930.02	4,772.91	0.00	0.00	0.00
11,717.51	89.90	23.85	7,180.00	4,381.30	1,937.10	4,790.42	0.00	0.00	0.00
TD at 11717.51 - PBHL_DOLPH 27-1HZ(550'FNL 1700'FEL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_DOLPH 27-1HZ(550'FNL 1700'FEL)	0.00	0.00	7,180.00	4,381.30	1,937.10	1,306,884.47	3,217,422.79	40° 10' 23.430 N	104° 43' 18.948 W
- plan hits target center									
- Circle (radius 0.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
856.00	856.00	9 5/8"	9.625	12.250	
7,499.09	7,173.00	7"	7.000	7.500	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well DOLPH 27-1HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5006' & RKB 17" @ 5023.00ft (ACTUAL RIG KB)
Site:	WELD_DOLPH 27-1HZ	North Reference:	True
Well:	DOLPH 27-1HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DOLPH 27-1HZ		
Design:	PLAN #1 9-9-10 RHS		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,007.00	4,007.00	PARKMAN		0.00		
4,414.00	4,414.00	SUSSEX		0.00		
5,104.00	5,104.00	SHANNON		0.00		
7,310.71	7,142.00	NIO UNCONFORMITY		0.00		
7,500.15	7,173.00	NIO B TGT LINE (EOB)		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
6,600.04	6,600.04	0.00	0.00	Start Build 10.00	
7,499.09	7,173.00	523.16	231.30	Start 4218.42 hold at 7499.09 MD	
11,717.51	7,180.00	4,381.30	1,937.10	TD at 11717.51	