



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_HIGHWAY 160 17-2 pad**

**P\_HIGHWAY 160 2-2**

**P\_HIGHWAY 160 2-2**

**Plan: PLAN #1 3-17-10 RHS**

## **Standard Planning Report**

**17 March, 2010**

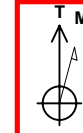




Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD\_HIGHWAY 160 17-2 pad  
 Well: P\_HIGHWAY 160 2-2  
 Wellbore: P\_HIGHWAY 160 2-2  
 Section: SECTION 2 T1N R66W  
 SHL: 1496 FNL 1639 FEL  
 Design: PLAN #1 3-17-10 RHS  
 Latitude: 40° 4' 59.707 N  
 Longitude: 104° 44' 26.506 W  
 GL: 5104.00  
 KB: WELL @ 5119.00ft (Original Well Elev)



**Weatherford**



Azimuths to True North  
 Magnetic North: 8.99°  
 Magnetic Field  
 Strength: 53096.4nT  
 Dip Angle: 66.84°  
 Date: 3/17/2010  
 Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4222.00	4290.27	PARKMAN
4712.00	4753.19	SUSSEX
7192.00	7300.79	NIO A
7512.00	7620.79	CODELL
7972.00	8080.79	JSAND

CASING DETAILS			
TVD	MD	Name	Size
1100.00	1100.00	8 5/8"	8.62

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1850.84	13.02	349.05	1845.25	72.27	-13.99	2.00	349.05	73.61	Start 3799.11 hold at 1850.84 MD
5649.95	13.02	349.05	5546.75	912.38	-176.56	0.00	0.00	929.31	Start Drop -2.00
6300.79	0.00	0.00	6192.00	984.66	-190.54	2.00	180.00	1002.92	Start 1915.00 hold at 6300.79 MD
8215.79	0.00	0.00	8107.00	984.66	-190.54	0.00	0.00	1002.92	TD at 8215.79

LEGEND

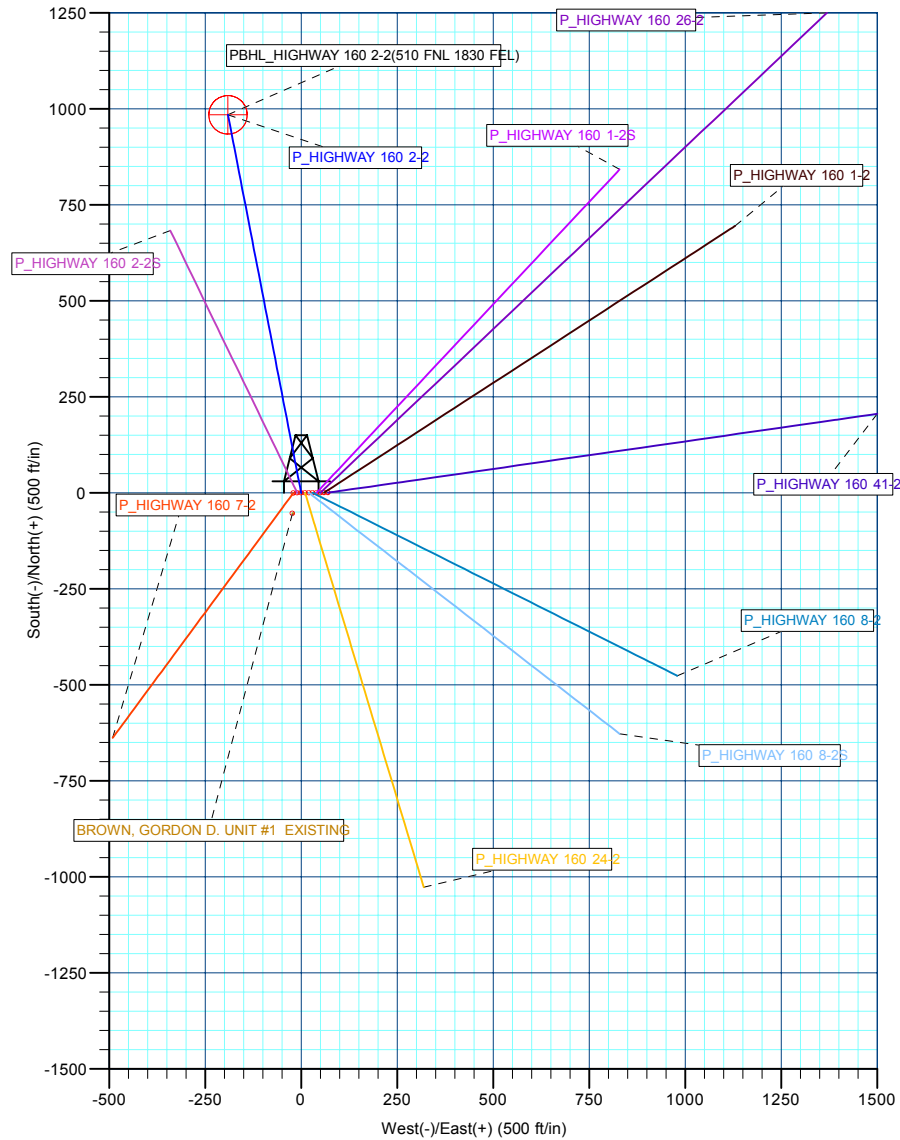
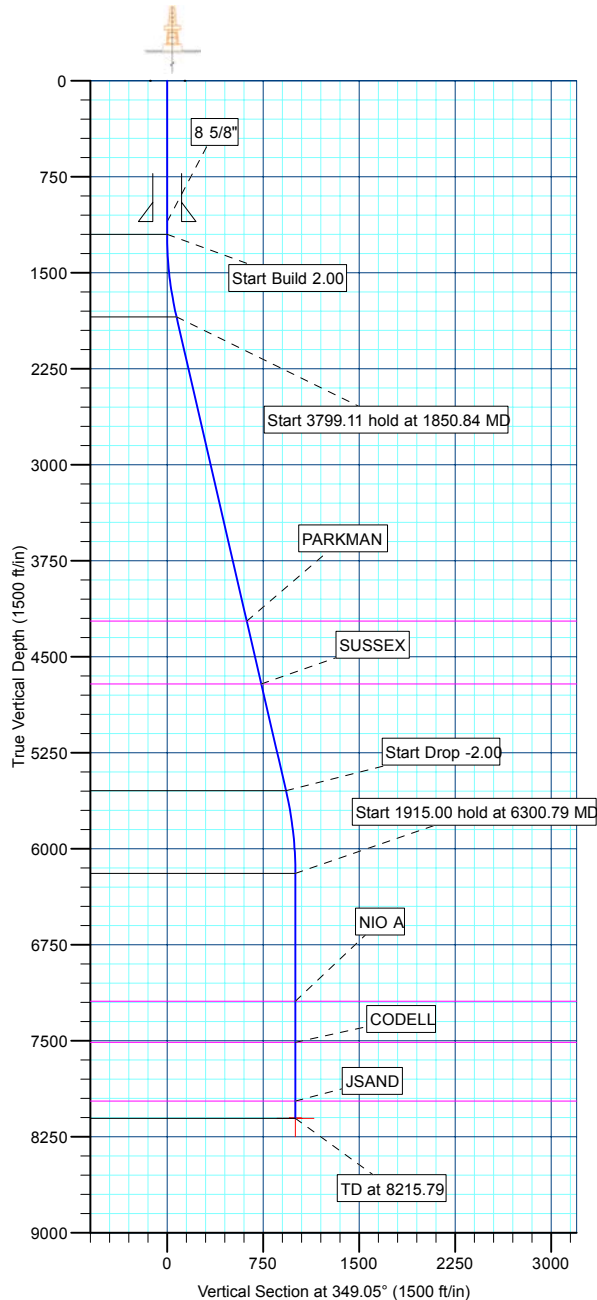
- BROWN, GORDON D. UNIT #1 EXISTING, BROWN, GORDON D. UNIT #1 EXISTING, BROWN, GORDON D. UNIT #1 EXISTING VO
- P\_HIGHWAY 160 1-2, P\_HIGHWAY 160 1-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 1-2S, P\_HIGHWAY 160 1-2S, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 2-2S, P\_HIGHWAY 160 2-2S, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 24-2, P\_HIGHWAY 160 24-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 26-2, P\_HIGHWAY 160 26-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 41-2, P\_HIGHWAY 160 41-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 7-2, P\_HIGHWAY 160 7-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 8-2, P\_HIGHWAY 160 8-2, PLAN #1 3-17-10 RHS VO
- P\_HIGHWAY 160 8-2S, P\_HIGHWAY 160 8-2S, PLAN #1 3-17-10 RHS VO
- PLAN #1 3-17-10 RHS

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8107.00	984.66	-190.54	40° 5' 9.438 N	104° 44' 28.957 W	Circle (Radius: 50.00)

WELL DETAILS: P\_HIGHWAY 160 2-2

+N/-S	+E/-W	Northing	Ground Level:	5104.00	Slot
0.00	0.00	1274083.11	Easting	3212459.47	
			Latitude	40° 4' 59.707 N	
			Longitude	104° 44' 26.506 W	



Plan: PLAN #1 3-17-10 RHS (P\_HIGHWAY 160 2-2/P\_HIGHWAY 160 2-2)

Created By: Robert H. Scott Date: 14:40, March 17 2010

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_HIGHWAY 160 2-2		
<b>Design:</b>	PLAN #1 3-17-10 RHS		

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

<b>Site</b>	WELD_HIGHWAY 160 17-2 pad, SECTION 2 T1N R66W				
<b>Site Position:</b>		<b>Northing:</b>	1,274,084.36ft	<b>Latitude:</b>	40° 4' 59.714 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,212,519.34ft	<b>Longitude:</b>	104° 44' 25.735 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	P_HIGHWAY 160 2-2					
<b>Well Position</b>	<b>+N/-S</b>	-0.74 ft	<b>Northing:</b>	1,274,083.11 ft	<b>Latitude:</b>	40° 4' 59.707 N
	<b>+E/-W</b>	-59.88 ft	<b>Easting:</b>	3,212,459.47 ft	<b>Longitude:</b>	104° 44' 26.506 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,104.00 ft

<b>Wellbore</b>	P_HIGHWAY 160 2-2				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/17/2010	8.99	66.84	53,096

<b>Design</b>	PLAN #1 3-17-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	349.05

<b>Plan Sections</b>										
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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,850.84	13.02	349.05	1,845.25	72.27	-13.99	2.00	2.00	0.00	349.05	
5,649.95	13.02	349.05	5,546.75	912.38	-176.56	0.00	0.00	0.00	0.00	
6,300.79	0.00	0.00	6,192.00	984.66	-190.54	2.00	-2.00	0.00	180.00	
8,215.79	0.00	0.00	8,107.00	984.66	-190.54	0.00	0.00	0.00	0.00	PBHL_HIGHWAY 1

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_HIGHWAY 160 2-2		
<b>Design:</b>	PLAN #1 3-17-10 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)
<b>Start Build 2.00</b>									
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	2.00	349.05	1,299.98	1.71	-0.33	1.75	2.00	2.00	0.00
1,400.00	4.00	349.05	1,399.84	6.85	-1.33	6.98	2.00	2.00	0.00
1,500.00	6.00	349.05	1,499.45	15.41	-2.98	15.69	2.00	2.00	0.00
1,600.00	8.00	349.05	1,598.70	27.37	-5.30	27.88	2.00	2.00	0.00
1,700.00	10.00	349.05	1,697.47	42.73	-8.27	43.52	2.00	2.00	0.00
1,800.00	12.00	349.05	1,795.62	61.46	-11.89	62.60	2.00	2.00	0.00
<b>Start 3799.11 hold at 1850.84 MD</b>									
1,850.84	13.02	349.05	1,845.25	72.27	-13.99	73.61	2.00	2.00	0.00
1,900.00	13.02	349.05	1,893.15	83.14	-16.09	84.69	0.00	0.00	0.00
2,000.00	13.02	349.05	1,990.58	105.26	-20.37	107.21	0.00	0.00	0.00
2,100.00	13.02	349.05	2,088.01	127.37	-24.65	129.73	0.00	0.00	0.00
2,200.00	13.02	349.05	2,185.44	149.48	-28.93	152.26	0.00	0.00	0.00
2,300.00	13.02	349.05	2,282.87	171.60	-33.21	174.78	0.00	0.00	0.00
2,400.00	13.02	349.05	2,380.30	193.71	-37.49	197.30	0.00	0.00	0.00
2,500.00	13.02	349.05	2,477.74	215.82	-41.76	219.83	0.00	0.00	0.00
2,600.00	13.02	349.05	2,575.17	237.94	-46.04	242.35	0.00	0.00	0.00
2,700.00	13.02	349.05	2,672.60	260.05	-50.32	264.87	0.00	0.00	0.00
2,800.00	13.02	349.05	2,770.03	282.16	-54.60	287.40	0.00	0.00	0.00
2,900.00	13.02	349.05	2,867.46	304.28	-58.88	309.92	0.00	0.00	0.00
3,000.00	13.02	349.05	2,964.89	326.39	-63.16	332.45	0.00	0.00	0.00
3,100.00	13.02	349.05	3,062.32	348.50	-67.44	354.97	0.00	0.00	0.00
3,200.00	13.02	349.05	3,159.75	370.62	-71.72	377.49	0.00	0.00	0.00
3,300.00	13.02	349.05	3,257.18	392.73	-76.00	400.02	0.00	0.00	0.00
3,400.00	13.02	349.05	3,354.61	414.84	-80.28	422.54	0.00	0.00	0.00
3,500.00	13.02	349.05	3,452.04	436.96	-84.56	445.06	0.00	0.00	0.00
3,600.00	13.02	349.05	3,549.47	459.07	-88.84	467.59	0.00	0.00	0.00
3,700.00	13.02	349.05	3,646.90	481.18	-93.12	490.11	0.00	0.00	0.00
3,800.00	13.02	349.05	3,744.33	503.30	-97.39	512.63	0.00	0.00	0.00
3,900.00	13.02	349.05	3,841.76	525.41	-101.67	535.16	0.00	0.00	0.00
4,000.00	13.02	349.05	3,939.19	547.52	-105.95	557.68	0.00	0.00	0.00
4,100.00	13.02	349.05	4,036.62	569.64	-110.23	580.21	0.00	0.00	0.00
4,200.00	13.02	349.05	4,134.05	591.75	-114.51	602.73	0.00	0.00	0.00
<b>PARKMAN</b>									
4,290.27	13.02	349.05	4,222.00	611.71	-118.37	623.06	0.00	0.00	0.00
4,300.00	13.02	349.05	4,231.48	613.86	-118.79	625.25	0.00	0.00	0.00
4,400.00	13.02	349.05	4,328.91	635.98	-123.07	647.78	0.00	0.00	0.00
4,500.00	13.02	349.05	4,426.34	658.09	-127.35	670.30	0.00	0.00	0.00
4,600.00	13.02	349.05	4,523.77	680.20	-131.63	692.82	0.00	0.00	0.00
4,700.00	13.02	349.05	4,621.20	702.32	-135.91	715.35	0.00	0.00	0.00
<b>SUSSEX</b>									
4,793.19	13.02	349.05	4,712.00	722.93	-139.90	736.34	0.00	0.00	0.00
4,800.00	13.02	349.05	4,718.63	724.43	-140.19	737.87	0.00	0.00	0.00
4,900.00	13.02	349.05	4,816.07	746.54	-144.47	760.39	0.00	0.00	0.00
5,000.00	13.02	349.05	4,913.50	768.66	-148.75	782.92	0.00	0.00	0.00
5,100.00	13.02	349.05	5,010.93	790.77	-153.03	805.44	0.00	0.00	0.00
5,200.00	13.02	349.05	5,108.36	812.88	-157.30	827.97	0.00	0.00	0.00
5,300.00	13.02	349.05	5,205.79	835.00	-161.58	850.49	0.00	0.00	0.00
5,400.00	13.02	349.05	5,303.22	857.11	-165.86	873.01	0.00	0.00	0.00
5,500.00	13.02	349.05	5,400.65	879.23	-170.14	895.54	0.00	0.00	0.00
5,600.00	13.02	349.05	5,498.08	901.34	-174.42	918.06	0.00	0.00	0.00
<b>Start Drop -2.00</b>									

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_HIGHWAY 160 2-2		
<b>Design:</b>	PLAN #1 3-17-10 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)
5,649.95	13.02	349.05	5,546.75	912.38	-176.56	929.31	0.00	0.00	0.00
5,700.00	12.02	349.05	5,595.60	923.03	-178.62	940.16	2.00	-2.00	0.00
5,800.00	10.02	349.05	5,693.76	941.79	-182.25	959.26	2.00	-2.00	0.00
5,900.00	8.02	349.05	5,792.52	957.18	-185.23	974.93	2.00	-2.00	0.00
6,000.00	6.02	349.05	5,891.76	969.17	-187.55	987.15	2.00	-2.00	0.00
6,100.00	4.02	349.05	5,991.37	977.75	-189.21	995.89	2.00	-2.00	0.00
6,200.00	2.02	349.05	6,091.23	982.92	-190.21	1,001.15	2.00	-2.00	0.00
6,300.00	0.02	349.05	6,191.21	984.66	-190.54	1,002.92	2.00	-2.00	0.00
<b>Start 1915.00 hold at 6300.79 MD</b>									
6,300.79	0.00	0.00	6,192.00	984.66	-190.54	1,002.92	2.00	-2.00	1,386.91
6,400.00	0.00	0.00	6,291.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
6,500.00	0.00	0.00	6,391.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
6,600.00	0.00	0.00	6,491.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
6,700.00	0.00	0.00	6,591.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
6,800.00	0.00	0.00	6,691.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
6,900.00	0.00	0.00	6,791.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,000.00	0.00	0.00	6,891.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,100.00	0.00	0.00	6,991.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,200.00	0.00	0.00	7,091.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,300.00	0.00	0.00	7,191.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
<b>NIO A</b>									
7,300.79	0.00	0.00	7,192.00	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,400.00	0.00	0.00	7,291.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,500.00	0.00	0.00	7,391.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,600.00	0.00	0.00	7,491.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
<b>CODELL</b>									
7,620.79	0.00	0.00	7,512.00	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,700.00	0.00	0.00	7,591.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,800.00	0.00	0.00	7,691.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
7,900.00	0.00	0.00	7,791.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
8,000.00	0.00	0.00	7,891.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
<b>JSAND</b>									
8,080.79	0.00	0.00	7,972.00	984.66	-190.54	1,002.92	0.00	0.00	0.00
8,100.00	0.00	0.00	7,991.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
8,200.00	0.00	0.00	8,091.21	984.66	-190.54	1,002.92	0.00	0.00	0.00
<b>PBHL_HIGHWAY 160 2-2(510 FNL 1830 FEL)</b>									
8,215.79	0.00	0.00	8,107.00	984.66	-190.54	1,002.92	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_HIGHWAY 160 - hit/miss target - Shape - Circle (radius 50.00)	0.00	0.00	8,107.00	984.66	-190.54	1,275,066.10	3,212,260.50	40° 5' 9.438 N	104° 44' 28.957 W

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>North Reference:</b>	True
<b>Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_HIGHWAY 160 2-2		
<b>Design:</b>	PLAN #1 3-17-10 RHS		

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,100.00	1,100.00	8 5/8"	8.62	11.00

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,290.27	4,222.00	PARKMAN			
4,793.19	4,712.00	SUSSEX			
7,300.79	7,192.00	NIO A			
7,620.79	7,512.00	CODELL			
8,080.79	7,972.00	JSAND			

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.00	1,200.00	0.00	0.00	Start Build 2.00
1,850.84	1,845.25	72.27	-13.99	Start 3799.11 hold at 1850.84 MD
5,649.95	5,546.75	912.38	-176.56	Start Drop -2.00
6,300.79	6,192.00	984.66	-190.54	Start 1915.00 hold at 6300.79 MD
8,215.79	8,107.00	984.66	-190.54	TD at 8215.79



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_HIGHWAY 160 17-2 pad  
P\_HIGHWAY 160 2-2**

**P\_HIGHWAY 160 2-2  
PLAN #1 3-17-10 RHS**

## **Anticollision Report**

**17 March, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 3-17-10 RHS		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	3/17/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,215.79	PLAN #1 3-17-10 RHS (P_HIGHWAY 160	MWD	MWD - Standard

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
WELD_HIGHWAY 160 17-2 pad						
BROWN, GORDON D. UNIT #1 EXISTING - BROWN, C	1,200.00	1,185.00	57.92	9.95	1.208	Level 2, CC
BROWN, GORDON D. UNIT #1 EXISTING - BROWN, C	1,300.00	1,284.98	59.37	7.20	1.138	Level 2, ES
BROWN, GORDON D. UNIT #1 EXISTING - BROWN, C	1,400.00	1,384.84	63.81	7.49	1.133	Level 2, SF
P_HIGHWAY 160 1-2 - P_HIGHWAY 160 1-2 - PLAN #1	1,200.00	1,200.00	59.88	54.75	11.660	CC, ES
P_HIGHWAY 160 1-2 - P_HIGHWAY 160 1-2 - PLAN #1	1,300.00	1,298.23	61.65	56.08	11.062	SF
P_HIGHWAY 160 1-2S - P_HIGHWAY 160 1-2S - PLAN	1,200.00	1,200.00	40.01	34.88	7.791	CC, ES
P_HIGHWAY 160 1-2S - P_HIGHWAY 160 1-2S - PLAN	1,300.00	1,299.27	41.24	35.66	7.392	SF
P_HIGHWAY 160 2-2S - P_HIGHWAY 160 2-2S - PLAN	1,200.00	1,200.00	10.07	4.94	1.961	CC
P_HIGHWAY 160 2-2S - P_HIGHWAY 160 2-2S - PLAN	1,300.00	1,299.89	10.32	4.74	1.850	ES, SF
P_HIGHWAY 160 24-2 - P_HIGHWAY 160 24-2 - PLAN	1,200.00	1,200.00	10.08	4.94	1.963	CC, ES, SF
P_HIGHWAY 160 26-2 - P_HIGHWAY 160 26-2 - PLAN	300.00	300.00	50.09	49.00	45.947	CC, ES
P_HIGHWAY 160 26-2 - P_HIGHWAY 160 26-2 - PLAN	700.00	692.48	72.60	69.72	25.147	SF
P_HIGHWAY 160 41-2 - P_HIGHWAY 160 41-2 - PLAN	1,200.00	1,200.00	69.96	64.82	13.621	CC, ES
P_HIGHWAY 160 41-2 - P_HIGHWAY 160 41-2 - PLAN	1,300.00	1,297.58	71.97	66.41	12.930	SF
P_HIGHWAY 160 7-2 - P_HIGHWAY 160 7-2 - PLAN #1	1,200.00	1,200.00	20.15	15.01	3.923	CC, ES
P_HIGHWAY 160 7-2 - P_HIGHWAY 160 7-2 - PLAN #1	1,300.00	1,299.48	21.08	15.52	3.793	SF
P_HIGHWAY 160 8-2 - P_HIGHWAY 160 8-2 - PLAN #1	1,200.00	1,200.00	29.94	24.81	5.830	CC, ES
P_HIGHWAY 160 8-2 - P_HIGHWAY 160 8-2 - PLAN #1	1,300.00	1,298.98	31.89	26.33	5.734	SF
P_HIGHWAY 160 8-2S - P_HIGHWAY 160 8-2S - PLAN	1,200.00	1,200.00	20.15	15.01	3.923	CC, ES
P_HIGHWAY 160 8-2S - P_HIGHWAY 160 8-2S - PLAN	1,300.00	1,299.51	21.61	16.05	3.888	SF

<b>Offset Design</b>	WELD_HIGHWAY 160 17-2 pad - BROWN, GORDON D. UNIT #1 EXISTING - BROWN, GORDON D.										<b>Offset Site Error:</b>	0.00 ft		
<b>Survey Program:</b>	0-UNKNOWN										<b>Offset Well Error:</b>	0.00 ft		
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance						Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-156.66	-53.18	-22.94	59.83					
100.00	100.00	85.00	85.00	0.10	1.70	-156.66	-53.18	-22.94	57.92	56.13	1.80	32.259		
200.00	200.00	185.00	185.00	0.32	5.40	-156.66	-53.18	-22.94	57.92	52.20	5.72	10.126		
300.00	300.00	285.00	285.00	0.55	9.40	-156.66	-53.18	-22.94	57.92	47.98	9.95	5.824		
400.00	400.00	385.00	385.00	0.77	13.40	-156.66	-53.18	-22.94	57.92	43.75	14.17	4.088		
500.00	500.00	485.00	485.00	0.99	17.40	-156.66	-53.18	-22.94	57.92	39.53	18.39	3.149		
600.00	600.00	585.00	585.00	1.22	21.40	-156.66	-53.18	-22.94	57.92	35.30	22.62	2.561		
700.00	700.00	685.00	685.00	1.44	25.40	-156.66	-53.18	-22.94	57.92	31.08	26.84	2.158		

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - BROWN, GORDON D. UNIT #1 EXISTING - BROWN, GORDON D.	Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
800.00	800.00	785.00	785.00	1.67	29.40	-156.66	-53.18	-22.94	57.92	26.85	31.07	1.864			
900.00	900.00	885.00	885.00	1.89	33.40	-156.66	-53.18	-22.94	57.92	22.63	35.29	1.641			
1,000.00	1,000.00	985.00	985.00	2.12	37.40	-156.66	-53.18	-22.94	57.92	18.40	39.52	1.466	Level 3		
1,100.00	1,100.00	1,085.00	1,085.00	2.34	41.40	-156.66	-53.18	-22.94	57.92	14.18	43.74	1.324	Level 3		
1,200.00	1,200.00	1,185.00	1,185.00	2.57	45.40	-156.66	-53.18	-22.94	57.92	9.95	47.97	1.208	Level 2, CC		
1,300.00	1,299.98	1,284.98	1,284.98	2.79	49.40	-146.64	-53.18	-22.94	59.37	7.20	52.18	1.138	Level 2, ES		
1,400.00	1,399.84	1,384.84	1,384.84	3.02	53.39	-149.18	-53.18	-22.94	63.81	7.49	56.32	1.133	Level 2, SF		
1,500.00	1,499.45	1,484.45	1,484.45	3.25	57.38	-152.69	-53.18	-22.94	71.44	11.05	60.39	1.183	Level 2		
1,600.00	1,598.70	1,583.70	1,583.70	3.49	61.35	-156.49	-53.18	-22.94	82.47	18.13	64.33	1.282	Level 3		
1,700.00	1,697.47	1,682.47	1,682.47	3.75	65.30	-160.07	-53.18	-22.94	97.03	28.89	68.14	1.424	Level 3		
1,800.00	1,795.62	1,780.62	1,780.62	4.04	69.22	-163.19	-53.18	-22.94	115.18	43.38	71.80	1.604			
1,850.84	1,845.25	1,830.25	1,830.25	4.21	71.21	-164.59	-53.18	-22.94	125.78	52.19	73.59	1.709			
1,900.00	1,893.15	1,878.15	1,878.15	4.38	73.13	-165.82	-53.18	-22.94	136.50	60.94	75.56	1.807			
2,000.00	1,990.58	1,975.58	1,975.58	4.74	77.02	-167.81	-53.18	-22.94	158.46	78.89	79.58	1.991			
2,100.00	2,088.01	2,073.01	2,073.01	5.11	80.92	-169.32	-53.18	-22.94	180.56	96.96	83.61	2.160			
2,200.00	2,185.44	2,170.44	2,170.44	5.50	84.82	-170.50	-53.18	-22.94	202.76	115.11	87.64	2.313			
2,300.00	2,282.87	2,267.87	2,267.87	5.91	88.71	-171.45	-53.18	-22.94	225.02	133.33	91.69	2.454			
2,400.00	2,380.30	2,365.30	2,365.30	6.32	92.61	-172.22	-53.18	-22.94	247.32	151.59	95.73	2.583			
2,500.00	2,477.74	2,462.74	2,462.74	6.74	96.51	-172.87	-53.18	-22.94	269.67	169.88	99.78	2.703			
2,600.00	2,575.17	2,560.17	2,560.17	7.17	100.41	-173.42	-53.18	-22.94	292.04	188.20	103.83	2.813			
2,700.00	2,672.60	2,657.60	2,657.60	7.60	104.30	-173.89	-53.18	-22.94	314.43	206.54	107.89	2.914			
2,800.00	2,770.03	2,755.03	2,755.03	8.04	108.20	-174.30	-53.18	-22.94	336.84	224.89	111.94	3.009			
2,900.00	2,867.46	2,852.46	2,852.46	8.48	112.10	-174.65	-53.18	-22.94	359.26	243.26	116.00	3.097			
3,000.00	2,964.89	2,949.89	2,949.89	8.93	116.00	-174.97	-53.18	-22.94	381.70	261.64	120.06	3.179			
3,100.00	3,062.32	3,047.32	3,047.32	9.38	119.89	-175.25	-53.18	-22.94	404.15	280.02	124.12	3.256			
3,200.00	3,159.75	3,144.75	3,144.75	9.83	123.79	-175.50	-53.18	-22.94	426.60	298.42	128.18	3.328			
3,300.00	3,257.18	3,242.18	3,242.18	10.28	127.69	-175.72	-53.18	-22.94	449.06	316.82	132.24	3.396			
3,400.00	3,354.61	3,339.61	3,339.61	10.73	131.58	-175.93	-53.18	-22.94	471.53	335.22	136.31	3.459			
3,500.00	3,452.04	3,437.04	3,437.04	11.19	135.48	-176.11	-53.18	-22.94	494.00	353.63	140.37	3.519			
3,600.00	3,549.47	3,534.47	3,534.47	11.65	139.38	-176.28	-53.18	-22.94	516.48	372.04	144.43	3.576			
3,700.00	3,646.90	3,631.90	3,631.90	12.11	143.28	-176.44	-53.18	-22.94	538.96	390.46	148.50	3.629			
3,800.00	3,744.33	3,729.33	3,729.33	12.57	147.17	-176.58	-53.18	-22.94	561.44	408.88	152.56	3.680			
3,900.00	3,841.76	3,826.76	3,826.76	13.03	151.07	-176.71	-53.18	-22.94	583.93	427.30	156.63	3.728			
4,000.00	3,939.19	3,924.19	3,924.19	13.49	154.97	-176.83	-53.18	-22.94	606.42	445.72	160.70	3.774			
4,100.00	4,036.62	4,021.62	4,021.62	13.95	158.86	-176.95	-53.18	-22.94	628.91	464.15	164.76	3.817			
4,200.00	4,134.05	4,119.05	4,119.05	14.41	162.76	-177.05	-53.18	-22.94	651.40	482.57	168.83	3.858			
4,300.00	4,231.48	4,216.48	4,216.48	14.88	166.66	-177.15	-53.18	-22.94	673.90	501.00	172.90	3.898			
4,400.00	4,328.91	4,313.91	4,313.91	15.34	170.56	-177.24	-53.18	-22.94	696.40	519.43	176.97	3.935			
4,500.00	4,426.34	4,411.34	4,411.34	15.81	174.45	-177.33	-53.18	-22.94	718.90	537.86	181.03	3.971			
4,600.00	4,523.77	4,508.77	4,508.77	16.27	178.35	-177.41	-53.18	-22.94	741.40	556.30	185.10	4.005			
4,700.00	4,621.20	4,606.20	4,606.20	16.74	182.25	-177.49	-53.18	-22.94	763.90	574.73	189.17	4.038			
4,800.00	4,718.63	4,703.63	4,703.63	17.20	186.15	-177.56	-53.18	-22.94	786.40	593.17	193.24	4.070			
4,900.00	4,816.07	4,801.07	4,801.07	17.67	190.04	-177.63	-53.18	-22.94	808.91	611.60	197.31	4.100			
5,000.00	4,913.50	4,898.50	4,898.50	18.14	193.94	-177.69	-53.18	-22.94	831.42	630.04	201.38	4.129			
5,100.00	5,010.93	4,995.93	4,995.93	18.60	197.84	-177.75	-53.18	-22.94	853.92	648.48	205.45	4.156			
5,200.00	5,108.36	5,093.36	5,093.36	19.07	201.73	-177.81	-53.18	-22.94	876.43	666.92	209.51	4.183			
5,300.00	5,205.79	5,190.79	5,190.79	19.54	205.63	-177.86	-53.18	-22.94	898.94	685.35	213.58	4.209			
5,400.00	5,303.22	5,288.22	5,288.22	20.01	209.53	-177.92	-53.18	-22.94	921.45	703.79	217.65	4.234			
5,500.00	5,400.65	5,385.65	5,385.65	20.48	213.43	-177.97	-53.18	-22.94	943.96	722.23	221.72	4.257			
5,600.00	5,498.08	5,483.08	5,483.08	20.95	217.32	-178.01	-53.18	-22.94	966.47	740.67	225.79	4.280			
5,649.95	5,546.75	5,531.75	5,531.75	21.18	219.27	-178.04	-53.18	-22.94	977.71	749.89	227.83	4.291			
5,700.00	5,595.60	5,580.60	5,580.60	21.39	221.22	-178.07	-53.18	-22.94	988.55	757.93	230.62	4.286			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - BROWN, GORDON D. UNIT #1 EXISTING - BROWN, GORDON D.	Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN														Offset Well Error:	0.00 ft
Reference				Offset			Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,800.00	5,693.76	5,678.76	5,678.76	21.72	225.15	-178.12	-53.18	-22.94	1,007.65	771.48	236.17	4.267			
5,900.00	5,792.52	5,777.52	5,777.52	22.01	229.10	-178.15	-53.18	-22.94	1,023.31	781.81	241.50	4.237			
6,000.00	5,891.76	5,876.76	5,876.76	22.26	233.07	-178.18	-53.18	-22.94	1,035.52	788.93	246.59	4.199			
6,100.00	5,991.37	5,976.37	5,976.37	22.47	237.05	-178.20	-53.18	-22.94	1,044.26	792.85	251.41	4.154			
6,200.00	6,091.23	6,076.23	6,076.23	22.64	241.05	-178.22	-53.18	-22.94	1,049.51	793.57	255.94	4.101			
6,300.79	6,192.00	6,177.00	6,177.00	22.78	245.08	170.83	-53.18	-22.94	1,051.29	791.08	260.20	4.040			
6,400.00	6,291.21	6,276.21	6,276.21	22.89	249.05	170.83	-53.18	-22.94	1,051.29	786.94	264.34	3.977			
6,500.00	6,391.21	6,376.21	6,376.21	23.02	253.05	170.83	-53.18	-22.94	1,051.29	782.75	268.54	3.915			
6,600.00	6,491.21	6,476.21	6,476.21	23.15	257.05	170.83	-53.18	-22.94	1,051.29	778.55	272.74	3.855			
6,700.00	6,591.21	6,576.21	6,576.21	23.29	261.05	170.83	-53.18	-22.94	1,051.29	774.35	276.94	3.796			
6,800.00	6,691.21	6,676.21	6,676.21	23.42	265.05	170.83	-53.18	-22.94	1,051.29	770.15	281.14	3.739			
6,900.00	6,791.21	6,776.21	6,776.21	23.55	269.05	170.83	-53.18	-22.94	1,051.29	765.95	285.34	3.684			
7,000.00	6,891.21	6,876.21	6,876.21	23.69	273.05	170.83	-53.18	-22.94	1,051.29	761.75	289.54	3.631			
7,100.00	6,991.21	6,976.21	6,976.21	23.83	277.05	170.83	-53.18	-22.94	1,051.29	757.55	293.74	3.579			
7,200.00	7,091.21	7,076.21	7,076.21	23.97	281.05	170.83	-53.18	-22.94	1,051.29	753.35	297.94	3.529			
7,300.00	7,191.21	7,176.21	7,176.21	24.11	285.05	170.83	-53.18	-22.94	1,051.29	749.15	302.14	3.479			
7,400.00	7,291.21	7,276.21	7,276.21	24.25	289.05	170.83	-53.18	-22.94	1,051.29	744.94	306.34	3.432			
7,500.00	7,391.21	7,376.21	7,376.21	24.39	293.05	170.83	-53.18	-22.94	1,051.29	740.74	310.55	3.385			
7,600.00	7,491.21	7,476.21	7,476.21	24.53	297.05	170.83	-53.18	-22.94	1,051.29	736.54	314.75	3.340			
7,700.00	7,591.21	7,576.21	7,576.21	24.68	301.05	170.83	-53.18	-22.94	1,051.29	732.33	318.95	3.296			
7,800.00	7,691.21	7,676.21	7,676.21	24.83	305.05	170.83	-53.18	-22.94	1,051.29	728.13	323.16	3.253			
7,900.00	7,791.21	7,776.21	7,776.21	24.97	309.05	170.83	-53.18	-22.94	1,051.29	723.92	327.36	3.211			
8,000.00	7,891.21	7,876.21	7,876.21	25.12	313.05	170.83	-53.18	-22.94	1,051.29	719.72	331.57	3.171			
8,100.00	7,991.21	7,976.21	7,976.21	25.27	317.05	170.83	-53.18	-22.94	1,051.29	715.51	335.78	3.131			
8,200.00	8,091.21	8,076.21	8,076.21	25.42	321.05	170.83	-53.18	-22.94	1,051.29	711.30	339.98	3.092			
8,215.79	8,107.00	8,092.00	8,092.00	25.45	321.68	170.83	-53.18	-22.94	1,051.29	710.64	340.65	3.086			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 1-2 - P_HIGHWAY 160 1-2 - PLAN #1 3-17-10 RH:	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	89.29	0.74	59.88	59.88						
100.00	100.00	100.00	100.00	0.10	0.10	89.29	0.74	59.88	59.88	59.69	0.19	313.447			
200.00	200.00	200.00	200.00	0.32	0.32	89.29	0.74	59.88	59.88	59.24	0.64	93.484			
300.00	300.00	300.00	300.00	0.55	0.55	89.29	0.74	59.88	59.88	58.79	1.09	54.934			
400.00	400.00	400.00	400.00	0.77	0.77	89.29	0.74	59.88	59.88	58.34	1.54	38.895			
500.00	500.00	500.00	500.00	0.99	0.99	89.29	0.74	59.88	59.88	57.90	1.99	30.105			
600.00	600.00	600.00	600.00	1.22	1.22	89.29	0.74	59.88	59.88	57.45	2.44	24.556			
700.00	700.00	700.00	700.00	1.44	1.44	89.29	0.74	59.88	59.88	57.00	2.89	20.734			
800.00	800.00	800.00	800.00	1.67	1.67	89.29	0.74	59.88	59.88	56.55	3.34	17.941			
900.00	900.00	900.00	900.00	1.89	1.89	89.29	0.74	59.88	59.88	56.10	3.79	15.812			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.29	0.74	59.88	59.88	55.65	4.24	14.134			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.29	0.74	59.88	59.88	55.20	4.69	12.778			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.29	0.74	59.88	59.88	54.75	5.14	11.660 CC, ES			
1,300.00	1,299.98	1,298.23	1,298.21	2.79	2.78	100.94	1.66	61.29	61.65	56.08	5.57	11.062 SF			
1,400.00	1,399.84	1,396.24	1,396.08	3.02	3.00	102.80	4.40	65.52	66.99	60.99	6.00	11.158			
1,500.00	1,499.45	1,493.81	1,493.30	3.25	3.22	105.30	8.94	72.51	76.01	69.57	6.44	11.802			
1,600.00	1,598.70	1,590.75	1,589.54	3.49	3.45	107.90	15.23	82.20	88.81	81.92	6.89	12.886			
1,700.00	1,697.47	1,686.84	1,684.50	3.75	3.70	110.25	23.21	94.49	105.40	98.03	7.37	14.305			
1,800.00	1,795.62	1,781.90	1,777.90	4.04	3.98	112.21	32.81	109.28	125.77	117.89	7.88	15.958			
1,850.84	1,845.25	1,829.77	1,824.71	4.21	4.14	113.05	38.28	117.71	137.55	129.39	8.16	16.856			
1,900.00	1,893.15	1,875.80	1,869.55	4.38	4.30	113.85	43.94	126.43	149.69	141.24	8.45	17.723			
2,000.00	1,990.58	1,968.72	1,959.53	4.74	4.65	114.56	56.56	145.87	175.99	166.93	9.06	19.422			
2,100.00	2,088.01	2,060.92	2,048.03	5.11	5.04	114.43	70.64	167.56	204.36	194.64	9.72	21.032			
2,200.00	2,185.44	2,156.55	2,139.45	5.50	5.49	114.09	85.91	191.09	233.59	223.17	10.42	22.409			
2,300.00	2,282.87	2,252.17	2,230.86	5.91	5.97	113.82	101.18	214.61	262.83	251.67	11.16	23.567			
2,400.00	2,380.30	2,347.80	2,322.28	6.32	6.45	113.61	116.45	238.14	292.07	280.16	11.91	24.521			
2,500.00	2,477.74	2,443.42	2,413.70	6.74	6.96	113.43	131.72	261.66	321.31	308.64	12.68	25.343			
2,600.00	2,575.17	2,539.04	2,505.12	7.17	7.47	113.29	146.99	285.19	350.56	337.10	13.46	26.038			
2,700.00	2,672.60	2,634.67	2,596.54	7.60	7.99	113.16	162.26	308.71	379.81	365.55	14.26	26.634			
2,800.00	2,770.03	2,730.29	2,687.96	8.04	8.52	113.06	177.53	332.24	409.06	393.99	15.07	27.149			
2,900.00	2,867.46	2,825.92	2,779.38	8.48	9.06	112.97	192.80	355.76	438.31	422.43	15.88	27.596			
3,000.00	2,964.89	2,921.54	2,870.80	8.93	9.60	112.89	208.07	379.29	467.56	450.86	16.71	27.988			
3,100.00	3,062.32	3,017.16	2,962.21	9.38	10.14	112.82	223.34	402.81	496.81	479.28	17.54	28.333			
3,200.00	3,159.75	3,112.79	3,053.63	9.83	10.69	112.75	238.61	426.34	526.07	507.70	18.37	28.638			
3,300.00	3,257.18	3,208.41	3,145.05	10.28	11.24	112.70	253.88	449.86	555.32	536.11	19.21	28.909			
3,400.00	3,354.61	3,304.04	3,236.47	10.73	11.79	112.65	269.15	473.39	584.58	564.52	20.05	29.152			
3,500.00	3,452.04	3,399.66	3,327.89	11.19	12.35	112.60	284.42	496.91	613.83	592.93	20.90	29.370			
3,600.00	3,549.47	3,495.29	3,419.31	11.65	12.90	112.56	299.69	520.44	643.09	621.33	21.75	29.567			
3,700.00	3,646.90	3,590.91	3,510.73	12.11	13.46	112.52	314.96	543.96	672.34	649.74	22.60	29.745			
3,800.00	3,744.33	3,686.53	3,602.14	12.57	14.02	112.49	330.23	567.49	701.60	678.14	23.46	29.907			
3,900.00	3,841.76	3,782.16	3,693.56	13.03	14.59	112.45	345.50	591.01	730.85	706.53	24.32	30.054			
4,000.00	3,939.19	3,877.78	3,784.98	13.49	15.15	112.43	360.77	614.54	760.11	734.93	25.18	30.190			
4,100.00	4,036.62	3,973.41	3,876.40	13.95	15.71	112.40	376.04	638.06	789.36	763.32	26.04	30.314			
4,200.00	4,134.05	4,069.03	3,967.82	14.41	16.28	112.37	391.31	661.59	818.62	791.72	26.90	30.428			
4,300.00	4,231.48	4,164.65	4,059.24	14.88	16.85	112.35	406.58	685.11	847.88	820.11	27.77	30.534			
4,400.00	4,328.91	4,260.28	4,150.66	15.34	17.41	112.33	421.85	708.63	877.13	848.50	28.63	30.632			
4,500.00	4,426.34	4,355.90	4,242.08	15.81	17.98	112.31	437.12	732.16	906.39	876.89	29.50	30.722			
4,600.00	4,523.77	4,451.53	4,333.49	16.27	18.55	112.29	452.39	755.68	935.65	905.27	30.37	30.807			
4,700.00	4,621.20	4,547.15	4,424.91	16.74	19.12	112.27	467.66	779.21	964.90	933.66	31.24	30.885			
4,800.00	4,718.63	4,642.77	4,516.33	17.20	19.69	112.25	482.93	802.73	994.16	962.05	32.11	30.959			
4,900.00	4,816.07	4,738.40	4,607.75	17.67	20.26	112.24	498.20	826.26	1,023.42	990.43	32.98	31.028			
5,000.00	4,913.50	4,834.02	4,699.17	18.14	20.83	112.22	513.47	849.78	1,052.67	1,018.82	33.86	31.092			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 1-2 - P_HIGHWAY 160 2-2 - PLAN #1 3-17-10 RH:	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,929.65	4,790.59	18.60	21.40	112.21	528.74	873.31	1,081.93	1,047.20	34.73	31.153			
5,200.00	5,108.36	5,025.27	4,882.01	19.07	21.97	112.19	544.01	896.83	1,111.19	1,075.58	35.60	31.210			
5,300.00	5,205.79	5,120.89	4,973.42	19.54	22.54	112.18	559.28	920.36	1,140.44	1,103.97	36.48	31.264			
5,400.00	5,303.22	5,216.52	5,064.84	20.01	23.11	112.17	574.55	943.88	1,169.70	1,132.35	37.35	31.314			
5,500.00	5,400.65	5,312.14	5,156.26	20.48	23.68	112.16	589.82	967.41	1,198.96	1,160.73	38.23	31.362			
5,600.00	5,498.08	5,407.77	5,247.68	20.95	24.25	112.14	605.09	990.93	1,228.22	1,189.11	39.11	31.408			
5,649.95	5,546.75	5,455.53	5,293.35	21.18	24.54	112.14	612.72	1,002.68	1,242.83	1,203.29	39.54	31.429			
5,700.00	5,595.60	5,503.44	5,339.14	21.39	24.83	112.39	620.36	1,014.47	1,257.31	1,217.30	40.02	31.420			
5,800.00	5,693.76	5,625.59	5,456.27	21.72	25.47	112.75	639.23	1,043.53	1,284.71	1,243.78	40.94	31.383			
5,900.00	5,792.52	5,767.75	5,594.22	22.01	26.04	113.00	657.90	1,072.29	1,307.76	1,265.98	41.78	31.303			
6,000.00	5,891.76	5,912.60	5,736.35	22.26	26.53	113.18	673.06	1,095.65	1,326.06	1,283.54	42.51	31.191			
6,100.00	5,991.37	6,059.58	5,881.83	22.47	26.93	113.29	684.43	1,113.17	1,339.49	1,296.35	43.13	31.055			
6,200.00	6,091.23	6,208.08	6,029.69	22.64	27.24	113.34	691.78	1,124.48	1,347.95	1,304.31	43.63	30.892			
6,300.79	6,192.00	6,358.62	6,180.10	22.78	27.45	102.38	694.96	1,129.38	1,351.40	1,307.39	44.01	30.708			
6,400.00	6,291.21	6,469.73	6,291.21	22.89	27.57	102.37	695.08	1,129.57	1,351.50	1,307.23	44.27	30.528			
6,500.00	6,391.21	6,569.73	6,391.21	23.02	27.68	102.37	695.08	1,129.57	1,351.50	1,306.97	44.53	30.348			
6,600.00	6,491.21	6,669.73	6,491.21	23.15	27.79	102.37	695.08	1,129.57	1,351.50	1,306.71	44.80	30.168			
6,700.00	6,591.21	6,769.73	6,591.21	23.29	27.90	102.37	695.08	1,129.57	1,351.50	1,306.44	45.07	29.989			
6,800.00	6,691.21	6,869.73	6,691.21	23.42	28.01	102.37	695.08	1,129.57	1,351.50	1,306.17	45.34	29.810			
6,900.00	6,791.21	6,969.73	6,791.21	23.55	28.13	102.37	695.08	1,129.57	1,351.50	1,305.89	45.61	29.631			
7,000.00	6,891.21	7,069.73	6,891.21	23.69	28.24	102.37	695.08	1,129.57	1,351.50	1,305.62	45.89	29.452			
7,100.00	6,991.21	7,169.73	6,991.21	23.83	28.36	102.37	695.08	1,129.57	1,351.50	1,305.34	46.17	29.274			
7,200.00	7,091.21	7,269.73	7,091.21	23.97	28.48	102.37	695.08	1,129.57	1,351.50	1,305.05	46.45	29.096			
7,300.00	7,191.21	7,369.73	7,191.21	24.11	28.60	102.37	695.08	1,129.57	1,351.50	1,304.77	46.73	28.919			
7,400.00	7,291.21	7,469.73	7,291.21	24.25	28.72	102.37	695.08	1,129.57	1,351.50	1,304.48	47.02	28.742			
7,500.00	7,391.21	7,569.73	7,391.21	24.39	28.84	102.37	695.08	1,129.57	1,351.50	1,304.19	47.31	28.566			
7,600.00	7,491.21	7,669.73	7,491.21	24.53	28.96	102.37	695.08	1,129.57	1,351.50	1,303.90	47.60	28.391			
7,700.00	7,591.21	7,769.73	7,591.21	24.68	29.09	102.37	695.08	1,129.57	1,351.50	1,303.61	47.90	28.216			
7,800.00	7,691.21	7,869.73	7,691.21	24.83	29.21	102.37	695.08	1,129.57	1,351.50	1,303.31	48.19	28.042			
7,900.00	7,791.21	7,969.73	7,791.21	24.97	29.34	102.37	695.08	1,129.57	1,351.50	1,303.01	48.49	27.869			
8,000.00	7,891.21	8,069.73	7,891.21	25.12	29.47	102.37	695.08	1,129.57	1,351.50	1,302.71	48.80	27.697			
8,100.00	7,991.21	8,169.73	7,991.21	25.27	29.59	102.37	695.08	1,129.57	1,351.50	1,302.40	49.10	27.526			
8,200.00	8,091.21	8,269.73	8,091.21	25.42	29.73	102.37	695.08	1,129.57	1,351.50	1,302.10	49.41	27.355			
8,215.79	8,107.00	8,285.52	8,107.00	25.45	29.75	102.37	695.08	1,129.57	1,351.50	1,302.05	49.45	27.328			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.48	0.36	40.01	40.01					
100.00	100.00	100.00	100.00	0.10	0.10	89.48	0.36	40.01	40.01	39.82	0.19	209.445		
200.00	200.00	200.00	200.00	0.32	0.32	89.48	0.36	40.01	40.01	39.37	0.64	62.466		
300.00	300.00	300.00	300.00	0.55	0.55	89.48	0.36	40.01	40.01	38.92	1.09	36.707		
400.00	400.00	400.00	400.00	0.77	0.77	89.48	0.36	40.01	40.01	38.48	1.54	25.990		
500.00	500.00	500.00	500.00	0.99	0.99	89.48	0.36	40.01	40.01	38.03	1.99	20.116		
600.00	600.00	600.00	600.00	1.22	1.22	89.48	0.36	40.01	40.01	37.58	2.44	16.408		
700.00	700.00	700.00	700.00	1.44	1.44	89.48	0.36	40.01	40.01	37.13	2.89	13.854		
800.00	800.00	800.00	800.00	1.67	1.67	89.48	0.36	40.01	40.01	36.68	3.34	11.988		
900.00	900.00	900.00	900.00	1.89	1.89	89.48	0.36	40.01	40.01	36.23	3.79	10.565		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.48	0.36	40.01	40.01	35.78	4.24	9.444		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.48	0.36	40.01	40.01	35.33	4.69	8.539		
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.48	0.36	40.01	40.01	34.88	5.14	7.791 CC, ES		
1,300.00	1,299.98	1,299.27	1,299.25	2.79	2.79	101.48	1.31	40.90	41.24	35.66	5.58	7.392 SF		
1,400.00	1,399.84	1,398.44	1,398.35	3.02	3.01	104.27	4.12	43.54	44.97	38.95	6.02	7.476		
1,500.00	1,499.45	1,497.41	1,497.11	3.25	3.23	107.98	8.81	47.93	51.39	44.93	6.46	7.957		
1,600.00	1,598.70	1,596.10	1,595.39	3.49	3.45	111.82	15.34	54.04	60.64	53.73	6.91	8.771		
1,700.00	1,697.47	1,694.41	1,693.03	3.75	3.69	115.25	23.68	61.86	72.81	65.42	7.39	9.851		
1,800.00	1,795.62	1,792.25	1,789.88	4.04	3.95	118.11	33.80	71.35	87.91	80.01	7.90	11.128		
1,850.84	1,845.25	1,841.78	1,838.77	4.21	4.09	119.33	39.61	76.79	96.69	88.52	8.17	11.828		
1,900.00	1,893.15	1,889.58	1,885.84	4.38	4.23	120.34	45.66	82.46	105.69	97.24	8.46	12.500		
2,000.00	1,990.58	1,986.63	1,981.08	4.74	4.53	121.13	59.26	95.21	124.75	115.69	9.06	13.764		
2,100.00	2,088.01	2,083.33	2,075.48	5.11	4.87	120.79	74.56	109.55	144.76	135.04	9.72	14.894		
2,200.00	2,185.44	2,179.56	2,168.86	5.50	5.24	119.74	91.51	125.43	165.72	155.30	10.42	15.905		
2,300.00	2,282.87	2,275.20	2,261.05	5.91	5.64	118.24	110.05	142.81	187.74	176.58	11.16	16.817		
2,400.00	2,380.30	2,370.13	2,351.92	6.32	6.09	116.46	130.12	161.62	210.93	198.98	11.95	17.657		
2,500.00	2,477.74	2,464.26	2,441.30	6.74	6.57	114.53	151.64	181.78	235.42	222.65	12.76	18.445		
2,600.00	2,575.17	2,558.16	2,529.74	7.17	7.09	112.50	174.66	203.36	261.28	247.68	13.61	19.202		
2,700.00	2,672.60	2,654.21	2,619.96	7.60	7.65	110.68	198.70	225.89	287.80	273.32	14.48	19.872		
2,800.00	2,770.03	2,750.25	2,710.18	8.04	8.22	109.16	222.75	248.42	314.54	299.18	15.37	20.471		
2,900.00	2,867.46	2,846.30	2,800.39	8.48	8.81	107.88	246.79	270.96	341.46	325.21	16.25	21.007		
3,000.00	2,964.89	2,942.35	2,890.61	8.93	9.41	106.78	270.83	293.49	368.52	351.37	17.15	21.487		
3,100.00	3,062.32	3,038.40	2,980.83	9.38	10.02	105.84	294.88	316.03	395.68	377.63	18.05	21.919		
3,200.00	3,159.75	3,134.45	3,071.05	9.83	10.63	105.02	318.92	338.56	422.93	403.97	18.96	22.310		
3,300.00	3,257.18	3,230.50	3,161.27	10.28	11.25	104.29	342.97	361.09	450.25	430.38	19.87	22.665		
3,400.00	3,354.61	3,326.55	3,251.49	10.73	11.87	103.65	367.01	383.63	477.63	456.85	20.78	22.988		
3,500.00	3,452.04	3,422.59	3,341.71	11.19	12.50	103.08	391.06	406.16	505.06	483.36	21.69	23.282		
3,600.00	3,549.47	3,518.64	3,431.93	11.65	13.13	102.56	415.10	428.69	532.53	509.92	22.61	23.553		
3,700.00	3,646.90	3,614.69	3,522.15	12.11	13.76	102.10	439.14	451.23	560.04	536.51	23.53	23.801		
3,800.00	3,744.33	3,710.74	3,612.36	12.57	14.40	101.68	463.19	473.76	587.57	563.12	24.45	24.030		
3,900.00	3,841.76	3,806.79	3,702.58	13.03	15.04	101.30	487.23	496.29	615.14	589.76	25.38	24.242		
4,000.00	3,939.19	3,902.84	3,792.80	13.49	15.68	100.95	511.28	518.83	642.72	616.42	26.30	24.438		
4,100.00	4,036.62	3,998.89	3,883.02	13.95	16.32	100.63	535.32	541.36	670.33	643.11	27.23	24.621		
4,200.00	4,134.05	4,094.93	3,973.24	14.41	16.96	100.33	559.36	563.90	697.96	669.80	28.15	24.790		
4,300.00	4,231.48	4,190.98	4,063.46	14.88	17.61	100.06	583.41	586.43	725.60	696.52	29.08	24.949		
4,400.00	4,328.91	4,287.03	4,153.68	15.34	18.25	99.81	607.45	608.96	753.25	723.24	30.01	25.097		
4,500.00	4,426.34	4,383.08	4,243.90	15.81	18.90	99.57	631.50	631.50	780.92	749.98	30.94	25.236		
4,600.00	4,523.77	4,479.13	4,334.12	16.27	19.55	99.36	655.54	654.03	808.60	776.73	31.88	25.367		
4,700.00	4,621.20	4,575.18	4,424.33	16.74	20.20	99.15	679.59	676.56	836.29	803.48	32.81	25.490		
4,800.00	4,718.63	4,671.23	4,514.55	17.20	20.85	98.96	703.63	699.10	863.99	830.25	33.74	25.606		
4,900.00	4,816.07	4,767.27	4,604.77	17.67	21.50	98.78	727.67	721.63	891.70	857.02	34.68	25.715		
5,000.00	4,913.50	4,863.32	4,694.99	18.14	22.15	98.61	751.72	744.16	919.41	883.80	35.61	25.818		

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 1-2S - P_HIGHWAY 160 1-2S - PLAN #1 3-17-10 f	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,959.37	4,785.21	18.60	22.80	98.45	775.76	766.70	947.13	910.59	36.55	25.916			
5,200.00	5,108.36	5,055.42	4,875.43	19.07	23.46	98.30	799.81	789.23	974.86	937.38	37.48	26.009			
5,300.00	5,205.79	5,151.47	4,965.65	19.54	24.11	98.16	823.85	811.76	1,002.60	964.18	38.42	26.097			
5,400.00	5,303.22	5,226.37	5,036.00	20.01	24.62	98.06	842.60	829.34	1,030.55	991.30	39.25	26.255			
5,500.00	5,400.65	5,226.37	5,036.00	20.48	24.62	98.06	842.60	829.34	1,064.55	1,024.83	39.72	26.804			
5,600.00	5,498.08	5,226.37	5,036.00	20.95	24.62	98.06	842.60	829.34	1,106.57	1,066.39	40.18	27.539			
5,649.95	5,546.75	5,226.37	5,036.00	21.18	24.62	98.06	842.60	829.34	1,130.29	1,089.88	40.41	27.968			
5,700.00	5,595.60	5,226.37	5,036.00	21.39	24.62	98.64	842.60	829.34	1,155.68	1,114.97	40.71	28.385			
5,800.00	5,693.76	5,226.37	5,036.00	21.72	24.62	99.94	842.60	829.34	1,210.70	1,169.44	41.25	29.347			
5,900.00	5,792.52	5,226.37	5,036.00	22.01	24.62	101.42	842.60	829.34	1,270.74	1,228.97	41.77	30.421			
6,000.00	5,891.76	5,226.37	5,036.00	22.26	24.62	103.06	842.60	829.34	1,335.07	1,292.80	42.26	31.591			
6,100.00	5,991.37	5,226.37	5,036.00	22.47	24.62	104.86	842.60	829.34	1,403.01	1,360.30	42.71	32.847			
6,200.00	6,091.23	5,226.37	5,036.00	22.64	24.62	106.80	842.60	829.34	1,474.00	1,430.88	43.12	34.185			
6,300.79	6,192.00	5,226.37	5,036.00	22.78	24.62	97.93	842.60	829.34	1,548.12	1,504.65	43.47	35.614			
6,400.00	6,291.21	5,226.37	5,036.00	22.89	24.62	97.93	842.60	829.34	1,623.54	1,579.95	43.59	37.245			
6,500.00	6,391.21	5,226.37	5,036.00	23.02	24.62	97.93	842.60	829.34	1,702.04	1,658.31	43.72	38.927			
6,600.00	6,491.21	5,226.37	5,036.00	23.15	24.62	97.93	842.60	829.34	1,782.69	1,738.83	43.86	40.647			
6,700.00	6,591.21	5,226.37	5,036.00	23.29	24.62	97.93	842.60	829.34	1,865.21	1,821.22	43.99	42.398			
6,800.00	6,691.21	5,226.37	5,036.00	23.42	24.62	97.93	842.60	829.34	1,949.37	1,905.24	44.13	44.173			
6,900.00	6,791.21	5,226.37	5,036.00	23.55	24.62	97.93	842.60	829.34	2,034.97	1,990.70	44.27	45.969			
7,000.00	6,891.21	5,226.37	5,036.00	23.69	24.62	97.93	842.60	829.34	2,121.83	2,077.42	44.41	47.780			
7,100.00	6,991.21	5,226.37	5,036.00	23.83	24.62	97.93	842.60	829.34	2,209.79	2,165.24	44.55	49.603			
7,200.00	7,091.21	5,226.37	5,036.00	23.97	24.62	97.93	842.60	829.34	2,298.74	2,254.05	44.69	51.436			
7,300.00	7,191.21	5,226.37	5,036.00	24.11	24.62	97.93	842.60	829.34	2,388.57	2,343.74	44.84	53.274			
7,400.00	7,291.21	5,226.37	5,036.00	24.25	24.62	97.93	842.60	829.34	2,479.18	2,434.20	44.98	55.117			
7,500.00	7,391.21	5,226.37	5,036.00	24.39	24.62	97.93	842.60	829.34	2,570.48	2,525.35	45.13	56.962			
7,600.00	7,491.21	5,226.37	5,036.00	24.53	24.62	97.93	842.60	829.34	2,662.40	2,617.13	45.27	58.807			
7,700.00	7,591.21	5,226.37	5,036.00	24.68	24.62	97.93	842.60	829.34	2,754.89	2,709.47	45.42	60.650			
7,800.00	7,691.21	5,226.37	5,036.00	24.83	24.62	97.93	842.60	829.34	2,847.89	2,802.32	45.57	62.492			
7,900.00	7,791.21	5,226.37	5,036.00	24.97	24.62	97.93	842.60	829.34	2,941.35	2,895.62	45.72	64.329			
8,000.00	7,891.21	5,226.37	5,036.00	25.12	24.62	97.93	842.60	829.34	3,035.22	2,989.35	45.88	66.162			
8,100.00	7,991.21	5,226.37	5,036.00	25.27	24.62	97.93	842.60	829.34	3,129.47	3,083.45	46.03	67.990			
8,200.00	8,091.21	5,226.37	5,036.00	25.42	24.62	97.93	842.60	829.34	3,224.07	3,177.89	46.18	69.811			
8,215.79	8,107.00	5,226.37	5,036.00	25.45	24.62	97.93	842.60	829.34	3,239.04	3,192.83	46.21	70.098			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 2-2S - P_HIGHWAY 160 2-2S - PLAN #1 3-17-10 f	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-10.07	10.07						
100.00	100.00	100.00	100.00	0.10	0.10	-90.00	0.00	-10.07	10.07	9.88	0.19	52.725			
200.00	200.00	200.00	200.00	0.32	0.32	-90.00	0.00	-10.07	10.07	9.43	0.64	15.725			
300.00	300.00	300.00	300.00	0.55	0.55	-90.00	0.00	-10.07	10.07	8.98	1.09	9.241			
400.00	400.00	400.00	400.00	0.77	0.77	-90.00	0.00	-10.07	10.07	8.53	1.54	6.543			
500.00	500.00	500.00	500.00	0.99	0.99	-90.00	0.00	-10.07	10.07	8.08	1.99	5.064			
600.00	600.00	600.00	600.00	1.22	1.22	-90.00	0.00	-10.07	10.07	7.63	2.44	4.131			
700.00	700.00	700.00	700.00	1.44	1.44	-90.00	0.00	-10.07	10.07	7.18	2.89	3.488			
800.00	800.00	800.00	800.00	1.67	1.67	-90.00	0.00	-10.07	10.07	6.74	3.34	3.018			
900.00	900.00	900.00	900.00	1.89	1.89	-90.00	0.00	-10.07	10.07	6.29	3.79	2.660			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.00	0.00	-10.07	10.07	5.84	4.24	2.378			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.00	0.00	-10.07	10.07	5.39	4.69	2.149			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.00	0.00	-10.07	10.07	4.94	5.14	1.961 CC			
1,300.00	1,299.98	1,299.89	1,299.87	2.79	2.79	-82.02	1.18	-10.64	10.32	4.74	5.58	1.850 ES, SF			
1,400.00	1,399.84	1,399.78	1,399.69	3.02	3.01	-90.03	4.70	-12.35	11.23	5.20	6.03	1.863			
1,500.00	1,499.45	1,499.68	1,499.38	3.25	3.24	-100.54	10.58	-15.19	13.13	6.65	6.48	2.025			
1,600.00	1,598.70	1,599.61	1,598.88	3.49	3.47	-110.66	18.80	-19.16	16.30	9.35	6.95	2.345			
1,700.00	1,697.47	1,699.55	1,698.13	3.75	3.72	-118.82	29.37	-24.27	20.86	13.42	7.44	2.803			
1,800.00	1,795.62	1,799.53	1,797.07	4.04	3.98	-124.86	42.27	-30.51	26.78	18.82	7.96	3.366			
1,850.84	1,845.25	1,850.37	1,847.24	4.21	4.13	-127.25	49.73	-34.12	30.29	22.06	8.23	3.681			
1,900.00	1,893.15	1,899.57	1,895.67	4.38	4.27	-128.71	57.51	-37.88	33.74	25.23	8.51	3.964			
2,000.00	1,990.58	1,999.78	1,993.94	4.74	4.59	-128.39	75.10	-46.39	39.97	30.83	9.14	4.373			
2,100.00	2,088.01	2,099.79	2,091.59	5.11	4.94	-125.64	94.58	-55.81	45.37	35.53	9.84	4.610			
2,200.00	2,185.44	2,199.62	2,189.01	5.50	5.30	-123.24	114.22	-65.30	50.79	40.20	10.58	4.799			
2,300.00	2,282.87	2,299.45	2,286.43	5.91	5.69	-121.31	133.86	-74.80	56.27	44.92	11.35	4.957			
2,400.00	2,380.30	2,399.29	2,383.85	6.32	6.08	-119.71	153.51	-84.30	61.81	49.66	12.14	5.089			
2,500.00	2,477.74	2,499.12	2,481.27	6.74	6.48	-118.39	173.15	-93.80	67.39	54.43	12.96	5.201			
2,600.00	2,575.17	2,598.95	2,578.69	7.17	6.89	-117.26	192.79	-103.29	72.99	59.21	13.78	5.296			
2,700.00	2,672.60	2,698.79	2,676.11	7.60	7.31	-116.30	212.43	-112.79	78.63	64.00	14.62	5.377			
2,800.00	2,770.03	2,798.62	2,773.53	8.04	7.73	-115.46	232.07	-122.29	84.28	68.81	15.47	5.447			
2,900.00	2,867.46	2,898.45	2,870.95	8.48	8.16	-114.73	251.72	-131.79	89.94	73.61	16.33	5.508			
3,000.00	2,964.89	2,998.28	2,968.37	8.93	8.59	-114.09	271.36	-141.28	95.62	78.43	17.20	5.560			
3,100.00	3,062.32	3,098.12	3,065.79	9.38	9.02	-113.52	291.00	-150.78	101.31	83.24	18.07	5.607			
3,200.00	3,159.75	3,197.95	3,163.21	9.83	9.46	-113.01	310.64	-160.28	107.01	88.07	18.95	5.648			
3,300.00	3,257.18	3,297.78	3,260.63	10.28	9.90	-112.55	330.28	-169.78	112.72	92.89	19.83	5.684			
3,400.00	3,354.61	3,397.62	3,358.05	10.73	10.34	-112.13	349.93	-179.28	118.43	97.72	20.72	5.716			
3,500.00	3,452.04	3,497.45	3,455.47	11.19	10.79	-111.76	369.57	-188.77	124.15	102.54	21.61	5.745			
3,600.00	3,549.47	3,597.28	3,552.89	11.65	11.23	-111.41	389.21	-198.27	129.88	107.37	22.50	5.771			
3,700.00	3,646.90	3,697.12	3,650.31	12.11	11.68	-111.10	408.85	-207.77	135.61	112.20	23.40	5.795			
3,800.00	3,744.33	3,796.95	3,747.73	12.57	12.13	-110.81	428.49	-217.27	141.34	117.04	24.30	5.816			
3,900.00	3,841.76	3,896.78	3,845.15	13.03	12.58	-110.54	448.14	-226.76	147.07	121.87	25.20	5.836			
4,000.00	3,939.19	3,996.62	3,942.57	13.49	13.03	-110.30	467.78	-236.26	152.81	126.70	26.11	5.854			
4,100.00	4,036.62	4,096.45	4,039.99	13.95	13.48	-110.07	487.42	-245.76	158.55	131.54	27.01	5.870			
4,200.00	4,134.05	4,196.28	4,137.41	14.41	13.94	-109.86	507.06	-255.26	164.29	136.38	27.92	5.885			
4,300.00	4,231.48	4,296.12	4,234.83	14.88	14.39	-109.66	526.70	-264.75	170.04	141.21	28.83	5.899			
4,400.00	4,328.91	4,395.95	4,332.25	15.34	14.84	-109.47	546.35	-274.25	175.79	146.05	29.74	5.912			
4,500.00	4,426.34	4,495.78	4,429.67	15.81	15.30	-109.30	565.99	-283.75	181.53	150.89	30.65	5.923			
4,600.00	4,523.77	4,595.62	4,527.09	16.27	15.75	-109.14	585.63	-293.25	187.28	155.73	31.56	5.935			
4,700.00	4,621.20	4,695.45	4,624.51	16.74	16.21	-108.98	605.27	-302.74	193.04	160.57	32.47	5.945			
4,800.00	4,718.63	4,795.28	4,721.93	17.20	16.67	-108.84	624.91	-312.24	198.79	165.40	33.39	5.954			
4,900.00	4,816.07	4,895.11	4,819.35	17.67	17.12	-108.70	644.56	-321.74	204.54	170.24	34.30	5.963			
5,000.00	4,913.50	4,994.95	4,916.77	18.14	17.58	-108.57	664.20	-331.24	210.30	175.08	35.22	5.972			

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



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 2-2S - P_HIGHWAY 160 2-2S - PLAN #1 3-17-10 f	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,010.93	5,092.54	5,012.00	18.60	18.03	-108.46	683.40	-340.52	216.07	179.95	36.12	5.982		
5,200.00	5,108.36	5,092.54	5,012.00	19.07	18.03	-108.46	683.40	-340.52	244.17	207.60	36.57	6.676		
5,300.00	5,205.79	5,092.54	5,012.00	19.54	18.03	-108.46	683.40	-340.52	304.23	267.20	37.03	8.216		
5,400.00	5,303.22	5,092.54	5,012.00	20.01	18.03	-108.46	683.40	-340.52	381.43	343.95	37.48	10.177		
5,500.00	5,400.65	5,092.54	5,012.00	20.48	18.03	-108.46	683.40	-340.52	467.36	429.42	37.93	12.320		
5,600.00	5,498.08	5,092.54	5,012.00	20.95	18.03	-108.46	683.40	-340.52	558.00	519.61	38.39	14.536		
5,649.95	5,546.75	5,092.54	5,012.00	21.18	18.03	-108.46	683.40	-340.52	604.38	565.76	38.61	15.651		
5,700.00	5,595.60	5,092.54	5,012.00	21.39	18.03	-111.01	683.40	-340.52	651.33	612.71	38.62	16.865		
5,800.00	5,693.76	5,092.54	5,012.00	21.72	18.03	-116.43	683.40	-340.52	746.06	707.66	38.40	19.430		
5,900.00	5,792.52	5,092.54	5,012.00	22.01	18.03	-122.07	683.40	-340.52	841.59	803.66	37.93	22.188		
6,000.00	5,891.76	5,092.54	5,012.00	22.26	18.03	-127.68	683.40	-340.52	937.57	900.32	37.25	25.168		
6,100.00	5,991.37	5,092.54	5,012.00	22.47	18.03	-133.05	683.40	-340.52	1,033.79	997.36	36.43	28.377		
6,200.00	6,091.23	5,092.54	5,012.00	22.64	18.03	-138.03	683.40	-340.52	1,130.06	1,094.53	35.54	31.801		
6,300.79	6,192.00	5,092.54	5,012.00	22.78	18.03	-153.53	683.40	-340.52	1,227.05	1,192.43	34.62	35.442		
6,400.00	6,291.21	5,092.54	5,012.00	22.89	18.03	-153.53	683.40	-340.52	1,322.73	1,287.97	34.77	38.048		
6,500.00	6,391.21	5,092.54	5,012.00	23.02	18.03	-153.53	683.40	-340.52	1,419.67	1,384.74	34.93	40.645		
6,600.00	6,491.21	5,092.54	5,012.00	23.15	18.03	-153.53	683.40	-340.52	1,517.01	1,481.91	35.09	43.229		
6,700.00	6,591.21	5,092.54	5,012.00	23.29	18.03	-153.53	683.40	-340.52	1,614.67	1,579.41	35.26	45.795		
6,800.00	6,691.21	5,092.54	5,012.00	23.42	18.03	-153.53	683.40	-340.52	1,712.60	1,677.17	35.43	48.344		
6,900.00	6,791.21	5,092.54	5,012.00	23.55	18.03	-153.53	683.40	-340.52	1,810.76	1,775.16	35.59	50.874		
7,000.00	6,891.21	5,092.54	5,012.00	23.69	18.03	-153.53	683.40	-340.52	1,909.10	1,873.34	35.76	53.383		
7,100.00	6,991.21	5,092.54	5,012.00	23.83	18.03	-153.53	683.40	-340.52	2,007.62	1,971.68	35.93	55.872		
7,200.00	7,091.21	5,092.54	5,012.00	23.97	18.03	-153.53	683.40	-340.52	2,106.27	2,070.16	36.10	58.339		
7,300.00	7,191.21	5,092.54	5,012.00	24.11	18.03	-153.53	683.40	-340.52	2,205.04	2,168.76	36.28	60.785		
7,400.00	7,291.21	5,092.54	5,012.00	24.25	18.03	-153.53	683.40	-340.52	2,303.92	2,267.47	36.45	63.208		
7,500.00	7,391.21	5,092.54	5,012.00	24.39	18.03	-153.53	683.40	-340.52	2,402.89	2,366.27	36.62	65.609		
7,600.00	7,491.21	5,092.54	5,012.00	24.53	18.03	-153.53	683.40	-340.52	2,501.95	2,465.15	36.80	67.988		
7,700.00	7,591.21	5,092.54	5,012.00	24.68	18.03	-153.53	683.40	-340.52	2,601.07	2,564.10	36.98	70.345		
7,800.00	7,691.21	5,092.54	5,012.00	24.83	18.03	-153.53	683.40	-340.52	2,700.26	2,663.11	37.15	72.679		
7,900.00	7,791.21	5,092.54	5,012.00	24.97	18.03	-153.53	683.40	-340.52	2,799.51	2,762.18	37.33	74.991		
8,000.00	7,891.21	5,092.54	5,012.00	25.12	18.03	-153.53	683.40	-340.52	2,898.81	2,861.30	37.51	77.280		
8,100.00	7,991.21	5,092.54	5,012.00	25.27	18.03	-153.53	683.40	-340.52	2,998.16	2,960.47	37.69	79.547		
8,200.00	8,091.21	5,092.54	5,012.00	25.42	18.03	-153.53	683.40	-340.52	3,097.54	3,059.67	37.87	81.792		
8,215.79	8,107.00	5,092.54	5,012.00	25.45	18.03	-153.53	683.40	-340.52	3,113.24	3,075.34	37.90	82.144		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 24-2 - P_HIGHWAY 160 24-2 - PLAN #1 3-17-10 F	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	87.93	0.36	10.07	10.08						
100.00	100.00	100.00	100.00	0.10	0.10	87.93	0.36	10.07	10.08	9.89	0.19	52.760			
200.00	200.00	200.00	200.00	0.32	0.32	87.93	0.36	10.07	10.08	9.44	0.64	15.735			
300.00	300.00	300.00	300.00	0.55	0.55	87.93	0.36	10.07	10.08	8.99	1.09	9.247			
400.00	400.00	400.00	400.00	0.77	0.77	87.93	0.36	10.07	10.08	8.54	1.54	6.547			
500.00	500.00	500.00	500.00	0.99	0.99	87.93	0.36	10.07	10.08	8.09	1.99	5.067			
600.00	600.00	600.00	600.00	1.22	1.22	87.93	0.36	10.07	10.08	7.64	2.44	4.133			
700.00	700.00	700.00	700.00	1.44	1.44	87.93	0.36	10.07	10.08	7.19	2.89	3.490			
800.00	800.00	800.00	800.00	1.67	1.67	87.93	0.36	10.07	10.08	6.74	3.34	3.020			
900.00	900.00	900.00	900.00	1.89	1.89	87.93	0.36	10.07	10.08	6.29	3.79	2.661			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	87.93	0.36	10.07	10.08	5.84	4.24	2.379			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	87.93	0.36	10.07	10.08	5.39	4.69	2.151			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	87.93	0.36	10.07	10.08	4.94	5.14	1.963	CC, ES, SF		
1,300.00	1,299.98	1,299.79	1,299.77	2.79	2.76	116.35	-1.30	10.57	11.32	5.76	5.55	2.037			
1,400.00	1,399.84	1,398.86	1,398.70	3.02	2.94	145.11	-6.24	12.06	18.76	12.82	5.94	3.158			
1,500.00	1,499.45	1,496.50	1,495.97	3.25	3.12	160.19	-14.31	14.49	34.65	28.33	6.32	5.480			
1,600.00	1,598.70	1,592.06	1,590.84	3.49	3.32	166.90	-25.28	17.80	58.03	51.33	6.70	8.662			
1,700.00	1,697.47	1,684.94	1,682.63	3.75	3.54	170.24	-38.84	21.88	88.22	81.16	7.07	12.483			
1,800.00	1,795.62	1,774.61	1,770.76	4.04	3.79	172.09	-54.63	26.63	124.82	117.39	7.43	16.808			
1,850.84	1,845.25	1,818.82	1,814.01	4.21	3.92	172.72	-63.38	29.27	145.77	138.17	7.60	19.170			
1,900.00	1,893.15	1,860.79	1,854.95	4.38	4.06	173.25	-72.29	31.95	167.11	159.31	7.80	21.415			
2,000.00	1,990.58	1,948.06	1,939.71	4.74	4.37	174.01	-92.15	37.93	212.03	203.81	8.22	25.800			
2,100.00	2,088.01	2,037.27	2,026.32	5.11	4.71	174.52	-112.65	44.10	257.18	248.53	8.65	29.747			
2,200.00	2,185.44	2,126.48	2,112.92	5.50	5.07	174.88	-133.14	50.27	302.34	293.26	9.08	33.297			
2,300.00	2,282.87	2,215.69	2,199.52	5.91	5.45	175.15	-153.63	56.44	347.50	337.98	9.52	36.497			
2,400.00	2,380.30	2,304.90	2,286.13	6.32	5.83	175.35	-174.13	62.61	392.68	382.71	9.97	39.392			
2,500.00	2,477.74	2,394.11	2,372.73	6.74	6.23	175.51	-194.62	68.79	437.85	427.43	10.42	42.018			
2,600.00	2,575.17	2,483.31	2,459.34	7.17	6.63	175.65	-215.11	74.96	483.03	472.15	10.88	44.406			
2,700.00	2,672.60	2,572.52	2,545.94	7.60	7.05	175.75	-235.61	81.13	528.20	516.87	11.34	46.587			
2,800.00	2,770.03	2,661.73	2,632.54	8.04	7.46	175.85	-256.10	87.30	573.38	561.58	11.80	48.585			
2,900.00	2,867.46	2,750.94	2,719.15	8.48	7.89	175.92	-276.60	93.47	618.56	606.29	12.27	50.419			
3,000.00	2,964.89	2,840.15	2,805.75	8.93	8.31	175.99	-297.09	99.64	663.74	651.01	12.74	52.108			
3,100.00	3,062.32	2,929.36	2,892.35	9.38	8.74	176.05	-317.58	105.81	708.92	695.72	13.21	53.667			
3,200.00	3,159.75	3,018.57	2,978.96	9.83	9.17	176.10	-338.08	111.98	754.11	740.42	13.68	55.110			
3,300.00	3,257.18	3,107.78	3,065.56	10.28	9.61	176.15	-358.57	118.15	799.29	785.13	14.16	56.448			
3,400.00	3,354.61	3,196.99	3,152.16	10.73	10.04	176.19	-379.06	124.32	844.47	829.83	14.64	57.693			
3,500.00	3,452.04	3,286.20	3,238.77	11.19	10.48	176.23	-399.56	130.49	889.66	874.54	15.12	58.852			
3,600.00	3,549.47	3,375.40	3,325.37	11.65	10.92	176.26	-420.05	136.66	934.84	919.24	15.60	59.935			
3,700.00	3,646.90	3,464.61	3,411.97	12.11	11.36	176.29	-440.54	142.83	980.02	963.94	16.08	60.948			
3,800.00	3,744.33	3,553.82	3,498.58	12.57	11.81	176.32	-461.04	149.01	1,025.21	1,008.64	16.56	61.897			
3,900.00	3,841.76	3,643.03	3,585.18	13.03	12.25	176.35	-481.53	155.18	1,070.39	1,053.34	17.05	62.789			
4,000.00	3,939.19	3,732.24	3,671.78	13.49	12.70	176.37	-502.02	161.35	1,115.57	1,098.04	17.53	63.628			
4,100.00	4,036.62	3,821.45	3,758.39	13.95	13.14	176.39	-522.52	167.52	1,160.76	1,142.74	18.02	64.418			
4,200.00	4,134.05	3,910.66	3,844.99	14.41	13.59	176.41	-543.01	173.69	1,205.94	1,187.44	18.51	65.164			
4,300.00	4,231.48	3,999.87	3,931.60	14.88	14.04	176.43	-563.50	179.86	1,251.13	1,232.13	18.99	65.869			
4,400.00	4,328.91	4,089.08	4,018.20	15.34	14.49	176.45	-584.00	186.03	1,296.31	1,276.83	19.48	66.536			
4,500.00	4,426.34	4,178.28	4,104.80	15.81	14.94	176.46	-604.49	192.20	1,341.50	1,321.53	19.97	67.168			
4,600.00	4,523.77	4,267.49	4,191.41	16.27	15.39	176.48	-624.98	198.37	1,386.68	1,366.22	20.46	67.767			
4,700.00	4,621.20	4,356.70	4,278.01	16.74	15.84	176.49	-645.48	204.54	1,431.87	1,410.91	20.95	68.337			
4,800.00	4,718.63	4,445.91	4,364.61	17.20	16.29	176.50	-665.97	210.71	1,477.05	1,455.61	21.44	68.879			
4,900.00	4,816.07	4,535.12	4,451.22	17.67	16.74	176.52	-686.47	216.88	1,522.24	1,500.30	21.94	69.395			
5,000.00	4,913.50	4,624.33	4,537.82	18.14	17.19	176.53	-706.96	223.06	1,567.42	1,544.99	22.43	69.887			

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



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 24-2 - P_HIGHWAY 160 24-2 - PLAN #1 3-17-10 F	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,010.93	4,713.54	4,624.42	18.60	17.64	176.54	-727.45	229.23	1,612.61	1,589.69	22.92	70.357		
5,200.00	5,108.36	4,802.75	4,711.03	19.07	18.10	176.55	-747.95	235.40	1,657.79	1,634.38	23.41	70.805		
5,300.00	5,205.79	4,891.96	4,797.63	19.54	18.55	176.56	-768.44	241.57	1,702.98	1,679.07	23.91	71.234		
5,400.00	5,303.22	4,981.16	4,884.23	20.01	19.00	176.57	-788.93	247.74	1,748.16	1,723.76	24.40	71.644		
5,500.00	5,400.65	5,070.37	4,970.84	20.48	19.45	176.58	-809.43	253.91	1,793.35	1,768.45	24.89	72.037		
5,600.00	5,498.08	5,159.58	5,057.44	20.95	19.91	176.59	-829.92	260.08	1,838.53	1,813.14	25.39	72.414		
5,649.95	5,546.75	5,204.14	5,100.70	21.18	20.14	176.59	-840.16	263.16	1,861.10	1,835.47	25.64	72.597		
5,700.00	5,595.60	5,248.99	5,144.23	21.39	20.36	176.62	-850.46	266.26	1,883.33	1,857.36	25.96	72.535		
5,800.00	5,693.76	5,339.71	5,232.31	21.72	20.83	176.68	-871.30	272.54	1,925.38	1,898.80	26.57	72.454		
5,900.00	5,792.52	5,431.85	5,321.75	22.01	21.29	176.72	-892.47	278.91	1,964.24	1,937.08	27.15	72.341		
6,000.00	5,891.76	5,525.28	5,412.46	22.26	21.77	176.75	-913.93	285.38	1,999.86	1,972.16	27.70	72.200		
6,100.00	5,991.37	5,619.89	5,504.31	22.47	22.25	176.77	-935.66	291.92	2,032.21	2,004.00	28.21	72.034		
6,200.00	6,091.23	5,840.44	5,719.57	22.64	23.10	176.76	-981.41	305.69	2,059.76	2,030.79	28.97	71.111		
6,300.79	6,192.00	6,198.13	6,074.50	22.78	23.95	165.78	-1,022.10	317.95	2,073.51	2,043.63	29.89	69.378		
6,400.00	6,291.21	6,414.93	6,291.21	22.89	24.23	165.78	-1,026.52	319.28	2,074.79	2,044.34	30.45	68.142		
6,500.00	6,391.21	6,514.93	6,391.21	23.02	24.33	165.78	-1,026.52	319.28	2,074.79	2,043.98	30.81	67.336		
6,600.00	6,491.21	6,614.93	6,491.21	23.15	24.44	165.78	-1,026.52	319.28	2,074.79	2,043.61	31.18	66.544		
6,700.00	6,591.21	6,714.93	6,591.21	23.29	24.54	165.78	-1,026.52	319.28	2,074.79	2,043.24	31.55	65.766		
6,800.00	6,691.21	6,814.93	6,691.21	23.42	24.65	165.78	-1,026.52	319.28	2,074.79	2,042.87	31.92	65.001		
6,900.00	6,791.21	6,914.93	6,791.21	23.55	24.76	165.78	-1,026.52	319.28	2,074.79	2,042.50	32.29	64.251		
7,000.00	6,891.21	7,014.93	6,891.21	23.69	24.87	165.78	-1,026.52	319.28	2,074.79	2,042.12	32.67	63.513		
7,100.00	6,991.21	7,114.93	6,991.21	23.83	24.98	165.78	-1,026.52	319.28	2,074.79	2,041.75	33.04	62.789		
7,200.00	7,091.21	7,214.93	7,091.21	23.97	25.10	165.78	-1,026.52	319.28	2,074.79	2,041.37	33.42	62.078		
7,300.00	7,191.21	7,314.93	7,191.21	24.11	25.21	165.78	-1,026.52	319.28	2,074.79	2,040.99	33.80	61.380		
7,400.00	7,291.21	7,414.93	7,291.21	24.25	25.33	165.78	-1,026.52	319.28	2,074.79	2,040.61	34.18	60.694		
7,500.00	7,391.21	7,514.93	7,391.21	24.39	25.45	165.78	-1,026.52	319.28	2,074.79	2,040.22	34.57	60.021		
7,600.00	7,491.21	7,614.93	7,491.21	24.53	25.57	165.78	-1,026.52	319.28	2,074.79	2,039.84	34.95	59.360		
7,700.00	7,591.21	7,714.93	7,591.21	24.68	25.69	165.78	-1,026.52	319.28	2,074.79	2,039.45	35.34	58.711		
7,800.00	7,691.21	7,814.93	7,691.21	24.83	25.81	165.78	-1,026.52	319.28	2,074.79	2,039.06	35.73	58.073		
7,900.00	7,791.21	7,914.93	7,791.21	24.97	25.93	165.78	-1,026.52	319.28	2,074.79	2,038.67	36.12	57.447		
8,000.00	7,891.21	8,014.93	7,891.21	25.12	26.06	165.78	-1,026.52	319.28	2,074.79	2,038.28	36.51	56.832		
8,100.00	7,991.21	8,114.93	7,991.21	25.27	26.19	165.78	-1,026.52	319.28	2,074.79	2,037.89	36.90	56.228		
8,200.00	8,091.21	8,214.93	8,091.21	25.42	26.31	165.78	-1,026.52	319.28	2,074.79	2,037.50	37.29	55.634		
8,215.79	8,107.00	8,230.72	8,107.00	25.45	26.33	165.78	-1,026.52	319.28	2,074.79	2,037.43	37.36	55.542		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.58	0.36	50.09	50.09					
100.00	100.00	100.00	100.00	0.10	0.10	89.58	0.36	50.09	50.09	49.90	0.19	262.169		
200.00	200.00	200.00	200.00	0.32	0.32	89.58	0.36	50.09	50.09	49.45	0.64	78.191		
300.00	300.00	300.00	300.00	0.55	0.55	89.58	0.36	50.09	50.09	49.00	1.09	45.947 CC, ES		
400.00	400.00	398.70	398.68	0.77	0.76	88.29	1.53	51.32	51.36	49.83	1.53	33.514		
500.00	500.00	497.16	497.01	0.99	0.99	84.78	5.03	55.01	55.32	53.34	1.98	27.999		
600.00	600.00	595.17	594.64	1.22	1.23	79.97	10.81	61.12	62.30	59.87	2.43	25.666		
700.00	700.00	692.48	691.25	1.44	1.49	74.86	18.82	69.57	72.60	69.72	2.89	25.147 SF		
800.00	800.00	788.89	786.52	1.67	1.79	70.15	28.98	80.30	86.43	83.07	3.35	25.766		
900.00	900.00	884.19	880.15	1.89	2.14	66.15	41.19	93.18	103.79	99.96	3.83	27.121		
1,000.00	1,000.00	978.21	971.89	2.12	2.52	62.90	55.32	108.10	124.64	120.33	4.30	28.957		
1,100.00	1,100.00	1,070.75	1,061.49	2.34	2.95	60.30	71.24	124.91	148.86	144.08	4.79	31.103		
1,200.00	1,200.00	1,161.68	1,148.75	2.57	3.43	58.24	88.81	143.46	176.34	171.07	5.27	33.448		
1,300.00	1,299.98	1,251.12	1,233.74	2.79	3.94	67.40	107.95	163.66	206.32	200.67	5.65	36.513		
1,400.00	1,399.84	1,339.24	1,316.60	3.02	4.50	66.54	128.58	185.44	237.97	231.84	6.13	38.811		
1,500.00	1,499.45	1,425.97	1,397.20	3.25	5.10	66.26	150.59	208.67	271.16	264.53	6.63	40.918		
1,600.00	1,598.70	1,511.23	1,475.47	3.49	5.73	66.36	173.85	233.23	305.83	298.69	7.14	42.821		
1,700.00	1,697.47	1,603.47	1,559.44	3.75	6.45	66.86	200.08	260.92	340.99	333.27	7.72	44.175		
1,800.00	1,795.62	1,697.07	1,644.65	4.04	7.20	67.68	226.72	289.04	375.05	366.71	8.35	44.933		
1,850.84	1,845.25	1,744.70	1,688.01	4.21	7.58	68.20	240.27	303.35	391.98	383.30	8.69	45.112		
1,900.00	1,893.15	1,790.76	1,729.95	4.38	7.95	69.01	253.38	317.19	408.28	399.24	9.04	45.188		
2,000.00	1,990.58	1,884.47	1,815.26	4.74	8.71	70.49	280.05	345.34	441.63	431.86	9.77	45.208		
2,100.00	2,088.01	1,978.17	1,900.56	5.11	9.47	71.76	306.72	373.49	475.20	464.67	10.53	45.108		
2,200.00	2,185.44	2,071.88	1,985.87	5.50	10.23	72.86	333.38	401.64	508.96	497.63	11.33	44.933		
2,300.00	2,282.87	2,165.58	2,071.17	5.91	10.99	73.82	360.05	429.79	542.87	530.72	12.14	44.713		
2,400.00	2,380.30	2,259.29	2,156.47	6.32	11.76	74.68	386.72	457.95	576.89	563.92	12.97	44.467		
2,500.00	2,477.74	2,352.99	2,241.78	6.74	12.53	75.43	413.38	486.10	611.02	597.20	13.82	44.211		
2,600.00	2,575.17	2,446.69	2,327.08	7.17	13.30	76.11	440.05	514.25	645.23	630.55	14.68	43.953		
2,700.00	2,672.60	2,540.40	2,412.39	7.60	14.07	76.72	466.72	542.40	679.51	663.96	15.55	43.699		
2,800.00	2,770.03	2,634.10	2,497.69	8.04	14.84	77.27	493.38	570.55	713.86	697.43	16.43	43.451		
2,900.00	2,867.46	2,727.81	2,583.00	8.48	15.61	77.78	520.05	598.70	748.26	730.94	17.32	43.213		
3,000.00	2,964.89	2,821.51	2,668.30	8.93	16.38	78.23	546.72	626.85	782.70	764.49	18.21	42.986		
3,100.00	3,062.32	2,915.22	2,753.61	9.38	17.15	78.65	573.38	655.00	817.19	798.08	19.11	42.769		
3,200.00	3,159.75	3,008.92	2,838.91	9.83	17.93	79.04	600.05	683.15	851.71	831.70	20.01	42.563		
3,300.00	3,257.18	3,102.63	2,924.22	10.28	18.70	79.39	626.72	711.30	886.26	865.34	20.92	42.368		
3,400.00	3,354.61	3,196.33	3,009.52	10.73	19.47	79.72	653.38	739.46	920.84	899.01	21.83	42.184		
3,500.00	3,452.04	3,290.03	3,094.83	11.19	20.25	80.03	680.05	767.61	955.45	932.70	22.74	42.009		
3,600.00	3,549.47	3,383.74	3,180.13	11.65	21.02	80.31	706.72	795.76	990.07	966.41	23.66	41.843		
3,700.00	3,646.90	3,477.44	3,265.44	12.11	21.80	80.57	733.39	823.91	1,024.72	1,000.14	24.58	41.687		
3,800.00	3,744.33	3,571.15	3,350.74	12.57	22.57	80.82	760.05	852.06	1,059.39	1,033.88	25.50	41.538		
3,900.00	3,841.76	3,664.85	3,436.05	13.03	23.35	81.05	786.72	880.21	1,094.07	1,067.64	26.43	41.397		
4,000.00	3,939.19	3,758.56	3,521.35	13.49	24.12	81.27	813.39	908.36	1,128.76	1,101.41	27.35	41.264		
4,100.00	4,036.62	3,852.26	3,606.66	13.95	24.90	81.47	840.05	936.51	1,163.47	1,135.19	28.28	41.138		
4,200.00	4,134.05	3,945.97	3,691.96	14.41	25.67	81.67	866.72	964.66	1,198.20	1,168.98	29.21	41.017		
4,300.00	4,231.48	4,039.67	3,777.27	14.88	26.45	81.85	893.39	992.82	1,232.93	1,202.79	30.14	40.903		
4,400.00	4,328.91	4,133.37	3,862.57	15.34	27.22	82.02	920.05	1,020.97	1,267.67	1,236.60	31.07	40.794		
4,500.00	4,426.34	4,227.08	3,947.88	15.81	28.00	82.18	946.72	1,049.12	1,302.42	1,270.42	32.01	40.691		
4,600.00	4,523.77	4,320.78	4,033.18	16.27	28.78	82.34	973.39	1,077.27	1,337.19	1,304.24	32.94	40.592		
4,700.00	4,621.20	4,414.49	4,118.49	16.74	29.55	82.48	1,000.05	1,105.42	1,371.96	1,338.08	33.88	40.498		
4,800.00	4,718.63	4,508.19	4,203.79	17.20	30.33	82.62	1,026.72	1,133.57	1,406.73	1,371.92	34.81	40.408		
4,900.00	4,816.07	4,601.90	4,289.10	17.67	31.10	82.76	1,053.39	1,161.72	1,441.52	1,405.77	35.75	40.323		
5,000.00	4,913.50	4,695.60	4,374.40	18.14	31.88	82.88	1,080.05	1,189.87	1,476.31	1,439.62	36.69	40.240		

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 26-2 - P_HIGHWAY 160 26-2 - PLAN #1 3-17-10 F	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,789.30	4,459.71	18.60	32.66	83.00	1,106.72	1,218.02	1,511.11	1,473.48	37.63	40.162			
5,200.00	5,108.36	4,883.01	4,545.01	19.07	33.43	83.12	1,133.39	1,246.17	1,545.91	1,507.34	38.56	40.087			
5,300.00	5,205.79	4,976.71	4,630.32	19.54	34.21	83.23	1,160.05	1,274.33	1,580.72	1,541.21	39.50	40.014			
5,400.00	5,303.22	5,070.42	4,715.62	20.01	34.99	83.33	1,186.72	1,302.48	1,615.53	1,575.08	40.44	39.945			
5,500.00	5,400.65	5,164.12	4,800.93	20.48	35.76	83.43	1,213.39	1,330.63	1,650.35	1,608.96	41.38	39.879			
5,600.00	5,498.08	5,257.83	4,886.23	20.95	36.54	83.53	1,240.05	1,358.78	1,685.17	1,642.84	42.32	39.815			
5,649.95	5,546.75	5,304.63	4,928.84	21.18	36.93	83.58	1,253.37	1,372.84	1,702.56	1,659.77	42.80	39.784			
5,700.00	5,595.60	5,351.52	4,971.53	21.39	37.32	83.98	1,266.72	1,386.93	1,720.04	1,676.69	43.35	39.682			
5,800.00	5,693.76	5,491.32	5,099.32	21.72	38.38	84.67	1,305.69	1,428.07	1,754.68	1,710.16	44.52	39.410			
5,900.00	5,792.52	5,699.56	5,294.15	22.01	39.56	85.20	1,356.17	1,481.35	1,784.67	1,738.91	45.76	39.001			
6,000.00	5,891.76	5,915.47	5,501.22	22.26	40.56	85.59	1,398.08	1,525.60	1,808.69	1,761.87	46.83	38.625			
6,100.00	5,991.37	6,137.64	5,718.46	22.47	41.35	85.86	1,429.89	1,559.18	1,826.41	1,778.71	47.70	38.286			
6,200.00	6,091.23	6,364.34	5,943.15	22.64	41.90	86.01	1,450.32	1,580.75	1,837.58	1,789.20	48.37	37.989			
6,300.79	6,192.00	6,595.39	6,173.83	22.78	42.22	75.09	1,458.51	1,589.39	1,842.02	1,793.20	48.82	37.732			
6,400.00	6,291.21	6,712.77	6,291.21	22.89	42.30	75.09	1,458.63	1,589.52	1,842.09	1,793.04	49.05	37.553			
6,500.00	6,391.21	6,812.77	6,391.21	23.02	42.36	75.09	1,458.63	1,589.52	1,842.09	1,792.80	49.29	37.376			
6,600.00	6,491.21	6,912.77	6,491.21	23.15	42.43	75.09	1,458.63	1,589.52	1,842.09	1,792.57	49.52	37.199			
6,700.00	6,591.21	7,012.77	6,591.21	23.29	42.50	75.09	1,458.63	1,589.52	1,842.09	1,792.33	49.76	37.021			
6,800.00	6,691.21	7,112.77	6,691.21	23.42	42.58	75.09	1,458.63	1,589.52	1,842.09	1,792.09	50.00	36.842			
6,900.00	6,791.21	7,212.77	6,791.21	23.55	42.65	75.09	1,458.63	1,589.52	1,842.09	1,791.84	50.24	36.663			
7,000.00	6,891.21	7,312.77	6,891.21	23.69	42.72	75.09	1,458.63	1,589.52	1,842.09	1,791.60	50.49	36.484			
7,100.00	6,991.21	7,412.77	6,991.21	23.83	42.80	75.09	1,458.63	1,589.52	1,842.09	1,791.35	50.74	36.305			
7,200.00	7,091.21	7,512.77	7,091.21	23.97	42.88	75.09	1,458.63	1,589.52	1,842.09	1,791.10	50.99	36.125			
7,300.00	7,191.21	7,612.77	7,191.21	24.11	42.95	75.09	1,458.63	1,589.52	1,842.09	1,790.84	51.25	35.946			
7,400.00	7,291.21	7,712.77	7,291.21	24.25	43.03	75.09	1,458.63	1,589.52	1,842.09	1,790.58	51.50	35.766			
7,500.00	7,391.21	7,812.77	7,391.21	24.39	43.11	75.09	1,458.63	1,589.52	1,842.09	1,790.32	51.76	35.586			
7,600.00	7,491.21	7,912.77	7,491.21	24.53	43.19	75.09	1,458.63	1,589.52	1,842.09	1,790.06	52.03	35.407			
7,700.00	7,591.21	8,012.77	7,591.21	24.68	43.27	75.09	1,458.63	1,589.52	1,842.09	1,789.80	52.29	35.227			
7,800.00	7,691.21	8,112.77	7,691.21	24.83	43.35	75.09	1,458.63	1,589.52	1,842.09	1,789.53	52.56	35.048			
7,900.00	7,791.21	8,212.77	7,791.21	24.97	43.44	75.09	1,458.63	1,589.52	1,842.09	1,789.26	52.83	34.868			
8,000.00	7,891.21	8,312.77	7,891.21	25.12	43.52	75.09	1,458.63	1,589.52	1,842.09	1,788.99	53.10	34.689			
8,100.00	7,991.21	8,412.77	7,991.21	25.27	43.61	75.09	1,458.63	1,589.52	1,842.09	1,788.71	53.38	34.511			
8,200.00	8,091.21	8,512.77	8,091.21	25.42	43.69	75.09	1,458.63	1,589.52	1,842.09	1,788.43	53.65	34.332			
8,215.79	8,107.00	8,528.56	8,107.00	25.45	43.71	75.09	1,458.63	1,589.52	1,842.09	1,788.39	53.70	34.304			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	89.40	0.73	69.95	69.96						
100.00	100.00	100.00	100.00	0.10	0.10	89.40	0.73	69.95	69.96	69.77	0.19	366.168			
200.00	200.00	200.00	200.00	0.32	0.32	89.40	0.73	69.95	69.96	69.32	0.64	109.208			
300.00	300.00	300.00	300.00	0.55	0.55	89.40	0.73	69.95	69.96	68.87	1.09	64.174			
400.00	400.00	400.00	400.00	0.77	0.77	89.40	0.73	69.95	69.96	68.42	1.54	45.437			
500.00	500.00	500.00	500.00	0.99	0.99	89.40	0.73	69.95	69.96	67.97	1.99	35.169			
600.00	600.00	600.00	600.00	1.22	1.22	89.40	0.73	69.95	69.96	67.52	2.44	28.686			
700.00	700.00	700.00	700.00	1.44	1.44	89.40	0.73	69.95	69.96	67.07	2.89	24.221			
800.00	800.00	800.00	800.00	1.67	1.67	89.40	0.73	69.95	69.96	66.62	3.34	20.959			
900.00	900.00	900.00	900.00	1.89	1.89	89.40	0.73	69.95	69.96	66.17	3.79	18.471			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.40	0.73	69.95	69.96	65.72	4.24	16.512			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.40	0.73	69.95	69.96	65.27	4.69	14.928			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.40	0.73	69.95	69.96	64.82	5.14	13.621 CC, ES			
1,300.00	1,299.98	1,297.58	1,297.56	2.79	2.78	101.48	0.96	71.60	71.97	66.41	5.57	12.930 SF			
1,400.00	1,399.84	1,394.79	1,394.64	3.02	2.98	104.47	1.67	76.51	78.18	72.19	5.99	13.060			
1,500.00	1,499.45	1,491.29	1,490.79	3.25	3.19	108.47	2.83	84.60	88.90	82.49	6.41	13.871			
1,600.00	1,598.70	1,586.73	1,585.56	3.49	3.42	112.60	4.43	95.75	104.45	97.61	6.84	15.267			
1,700.00	1,697.47	1,680.79	1,678.54	3.75	3.66	116.30	6.44	109.80	124.96	117.67	7.29	17.143			
1,800.00	1,795.62	1,773.17	1,769.35	4.04	3.94	119.35	8.84	126.52	150.39	142.63	7.76	19.384			
1,850.84	1,845.25	1,819.40	1,814.58	4.21	4.08	120.64	10.20	135.98	165.18	157.17	8.01	20.626			
1,900.00	1,893.15	1,863.69	1,857.77	4.38	4.24	121.90	11.59	145.71	180.42	172.16	8.26	21.831			
2,000.00	1,990.58	1,952.71	1,944.08	4.74	4.57	123.58	14.69	167.28	213.49	204.68	8.81	24.236			
2,100.00	2,088.01	2,040.21	2,028.22	5.11	4.95	124.44	18.10	191.05	249.08	239.70	9.38	26.551			
2,200.00	2,185.44	2,126.06	2,110.02	5.50	5.36	124.77	21.79	216.83	287.04	277.06	9.98	28.762			
2,300.00	2,282.87	2,210.16	2,189.36	5.91	5.82	124.74	25.75	244.43	327.26	316.66	10.60	30.870			
2,400.00	2,380.30	2,295.42	2,268.98	6.32	6.33	124.50	30.08	274.59	369.54	358.29	11.25	32.836			
2,500.00	2,477.74	2,385.81	2,353.20	6.74	6.90	124.25	34.74	307.08	412.30	400.36	11.95	34.513			
2,600.00	2,575.17	2,476.19	2,437.42	7.17	7.49	124.04	39.39	339.56	455.07	442.41	12.65	35.962			
2,700.00	2,672.60	2,566.57	2,521.63	7.60	8.10	123.87	44.05	372.04	497.83	484.46	13.38	37.221			
2,800.00	2,770.03	2,656.96	2,605.85	8.04	8.72	123.73	48.71	404.53	540.61	526.50	14.11	38.321			
2,900.00	2,867.46	2,747.34	2,690.07	8.48	9.34	123.60	53.37	437.01	583.38	568.53	14.85	39.286			
3,000.00	2,964.89	2,837.73	2,774.28	8.93	9.98	123.50	58.03	469.49	626.15	610.55	15.60	40.139			
3,100.00	3,062.32	2,928.11	2,858.50	9.38	10.62	123.41	62.69	501.98	668.93	652.57	16.36	40.896			
3,200.00	3,159.75	3,018.49	2,942.72	9.83	11.27	123.33	67.34	534.46	711.71	694.59	17.12	41.570			
3,300.00	3,257.18	3,108.88	3,026.93	10.28	11.92	123.25	72.00	566.94	754.49	736.60	17.89	42.175			
3,400.00	3,354.61	3,199.26	3,111.15	10.73	12.57	123.19	76.66	599.42	797.27	778.60	18.66	42.719			
3,500.00	3,452.04	3,289.64	3,195.36	11.19	13.23	123.13	81.32	631.91	840.05	820.61	19.44	43.209			
3,600.00	3,549.47	3,380.03	3,279.58	11.65	13.89	123.08	85.98	664.39	882.83	862.61	20.22	43.655			
3,700.00	3,646.90	3,470.41	3,363.80	12.11	14.55	123.03	90.64	696.87	925.61	904.60	21.01	44.060			
3,800.00	3,744.33	3,560.80	3,448.01	12.57	15.21	122.99	95.30	729.36	968.39	946.60	21.80	44.430			
3,900.00	3,841.76	3,651.18	3,532.23	13.03	15.88	122.95	99.95	761.84	1,011.18	988.59	22.59	44.770			
4,000.00	3,939.19	3,741.56	3,616.45	13.49	16.55	122.91	104.61	794.32	1,053.96	1,030.58	23.38	45.082			
4,100.00	4,036.62	3,831.95	3,700.66	13.95	17.22	122.88	109.27	826.81	1,096.74	1,072.57	24.17	45.369			
4,200.00	4,134.05	3,922.33	3,784.88	14.41	17.89	122.85	113.93	859.29	1,139.53	1,114.56	24.97	45.635			
4,300.00	4,231.48	4,012.72	3,869.10	14.88	18.56	122.82	118.59	891.77	1,182.31	1,156.54	25.77	45.882			
4,400.00	4,328.91	4,103.10	3,953.31	15.34	19.23	122.79	123.25	924.26	1,225.10	1,198.53	26.57	46.110			
4,500.00	4,426.34	4,193.48	4,037.53	15.81	19.90	122.77	127.91	956.74	1,267.88	1,240.51	27.37	46.323			
4,600.00	4,523.77	4,283.87	4,121.74	16.27	20.58	122.74	132.56	989.22	1,310.67	1,282.49	28.17	46.522			
4,700.00	4,621.20	4,374.25	4,205.96	16.74	21.25	122.72	137.22	1,021.70	1,353.45	1,324.47	28.98	46.708			
4,800.00	4,718.63	4,464.64	4,290.18	17.20	21.93	122.70	141.88	1,054.19	1,396.24	1,366.45	29.78	46.882			
4,900.00	4,816.07	4,555.02	4,374.39	17.67	22.60	122.68	146.54	1,086.67	1,439.02	1,408.43	30.59	47.045			
5,000.00	4,913.50	4,645.40	4,458.61	18.14	23.28	122.67	151.20	1,119.15	1,481.81	1,450.41	31.40	47.198			

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



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,735.79	4,542.83	18.60	23.96	122.65	155.86	1,151.64	1,524.59	1,492.39	32.20	47.343			
5,200.00	5,108.36	4,826.17	4,627.04	19.07	24.63	122.63	160.51	1,184.12	1,567.38	1,534.36	33.01	47.479			
5,300.00	5,205.79	4,916.56	4,711.26	19.54	25.31	122.62	165.17	1,216.60	1,610.16	1,576.34	33.82	47.608			
5,400.00	5,303.22	5,006.94	4,795.48	20.01	25.99	122.60	169.83	1,249.09	1,652.95	1,618.32	34.63	47.730			
5,500.00	5,400.65	5,097.32	4,879.69	20.48	26.67	122.59	174.49	1,281.57	1,695.73	1,660.29	35.44	47.845			
5,600.00	5,498.08	5,187.71	4,963.91	20.95	27.35	122.58	179.15	1,314.05	1,738.52	1,702.27	36.25	47.955			
5,649.95	5,546.75	5,232.85	5,005.98	21.18	27.68	122.57	181.48	1,330.28	1,759.89	1,723.23	36.66	48.007			
5,700.00	5,595.60	5,278.19	5,048.22	21.39	28.03	122.94	183.81	1,346.57	1,781.09	1,743.93	37.16	47.934			
5,800.00	5,693.76	5,369.30	5,133.12	21.72	28.71	123.58	188.51	1,379.32	1,822.15	1,784.08	38.08	47.853			
5,900.00	5,792.52	5,517.43	5,271.78	22.01	29.70	123.97	195.90	1,430.86	1,860.77	1,821.63	39.14	47.546			
6,000.00	5,891.76	5,731.06	5,475.90	22.26	30.74	124.14	204.82	1,493.06	1,892.51	1,852.28	40.23	47.043			
6,100.00	5,991.37	5,954.68	5,693.96	22.47	31.60	124.23	211.82	1,541.84	1,916.15	1,874.98	41.17	46.540			
6,200.00	6,091.23	6,185.71	5,922.58	22.64	32.22	124.27	216.49	1,574.41	1,931.25	1,889.31	41.93	46.054			
6,300.79	6,192.00	6,422.91	6,159.27	22.78	32.59	113.30	218.55	1,588.76	1,937.51	1,895.01	42.50	45.590			
6,400.00	6,291.21	6,554.86	6,291.21	22.89	32.71	113.29	218.63	1,589.32	1,937.71	1,894.92	42.79	45.284			
6,500.00	6,391.21	6,654.86	6,391.21	23.02	32.80	113.29	218.63	1,589.32	1,937.71	1,894.65	43.06	45.001			
6,600.00	6,491.21	6,754.86	6,491.21	23.15	32.90	113.29	218.63	1,589.32	1,937.71	1,894.38	43.33	44.719			
6,700.00	6,591.21	6,854.86	6,591.21	23.29	32.99	113.29	218.63	1,589.32	1,937.71	1,894.10	43.61	44.437			
6,800.00	6,691.21	6,954.86	6,691.21	23.42	33.09	113.29	218.63	1,589.32	1,937.71	1,893.83	43.88	44.157			
6,900.00	6,791.21	7,054.86	6,791.21	23.55	33.19	113.29	218.63	1,589.32	1,937.71	1,893.55	44.16	43.876			
7,000.00	6,891.21	7,154.86	6,891.21	23.69	33.28	113.29	218.63	1,589.32	1,937.71	1,893.26	44.45	43.597			
7,100.00	6,991.21	7,254.86	6,991.21	23.83	33.38	113.29	218.63	1,589.32	1,937.71	1,892.98	44.73	43.318			
7,200.00	7,091.21	7,354.86	7,091.21	23.97	33.48	113.29	218.63	1,589.32	1,937.71	1,892.69	45.02	43.041			
7,300.00	7,191.21	7,454.86	7,191.21	24.11	33.59	113.29	218.63	1,589.32	1,937.71	1,892.40	45.31	42.764			
7,400.00	7,291.21	7,554.86	7,291.21	24.25	33.69	113.29	218.63	1,589.32	1,937.71	1,892.11	45.60	42.489			
7,500.00	7,391.21	7,654.86	7,391.21	24.39	33.80	113.29	218.63	1,589.32	1,937.71	1,891.81	45.90	42.215			
7,600.00	7,491.21	7,754.86	7,491.21	24.53	33.90	113.29	218.63	1,589.32	1,937.71	1,891.51	46.20	41.942			
7,700.00	7,591.21	7,854.86	7,591.21	24.68	34.01	113.29	218.63	1,589.32	1,937.71	1,891.21	46.50	41.671			
7,800.00	7,691.21	7,954.86	7,691.21	24.83	34.12	113.29	218.63	1,589.32	1,937.71	1,890.91	46.80	41.401			
7,900.00	7,791.21	8,054.86	7,791.21	24.97	34.22	113.29	218.63	1,589.32	1,937.71	1,890.60	47.11	41.132			
8,000.00	7,891.21	8,154.86	7,891.21	25.12	34.34	113.29	218.63	1,589.32	1,937.71	1,890.29	47.42	40.865			
8,100.00	7,991.21	8,254.86	7,991.21	25.27	34.45	113.29	218.63	1,589.32	1,937.71	1,889.98	47.73	40.599			
8,200.00	8,091.21	8,354.86	8,091.21	25.42	34.56	113.29	218.63	1,589.32	1,937.71	1,889.67	48.04	40.335			
8,215.79	8,107.00	8,370.65	8,107.00	25.45	34.58	113.29	218.63	1,589.32	1,937.71	1,889.62	48.09	40.294			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-90.01	0.00	-20.15	20.15						
100.00	100.00	100.00	100.00	0.10	0.10	-90.01	0.00	-20.15	20.15	19.96	0.19	105.451			
200.00	200.00	200.00	200.00	0.32	0.32	-90.01	0.00	-20.15	20.15	19.51	0.64	31.450			
300.00	300.00	300.00	300.00	0.55	0.55	-90.01	0.00	-20.15	20.15	19.06	1.09	18.481			
400.00	400.00	400.00	400.00	0.77	0.77	-90.01	0.00	-20.15	20.15	18.61	1.54	13.085			
500.00	500.00	500.00	500.00	0.99	0.99	-90.01	0.00	-20.15	20.15	18.16	1.99	10.128			
600.00	600.00	600.00	600.00	1.22	1.22	-90.01	0.00	-20.15	20.15	17.71	2.44	8.261			
700.00	700.00	700.00	700.00	1.44	1.44	-90.01	0.00	-20.15	20.15	17.26	2.89	6.975			
800.00	800.00	800.00	800.00	1.67	1.67	-90.01	0.00	-20.15	20.15	16.81	3.34	6.036			
900.00	900.00	900.00	900.00	1.89	1.89	-90.01	0.00	-20.15	20.15	16.36	3.79	5.319			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.01	0.00	-20.15	20.15	15.91	4.24	4.755			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.01	0.00	-20.15	20.15	15.46	4.69	4.299			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.01	0.00	-20.15	20.15	15.01	5.14	3.923 CC, ES			
1,300.00	1,299.98	1,299.48	1,299.46	2.79	2.77	-87.48	-1.39	-21.17	21.08	15.52	5.56	3.793 SF			
1,400.00	1,399.84	1,398.36	1,398.20	3.02	2.94	-107.17	-5.53	-24.22	26.08	20.12	5.96	4.379			
1,500.00	1,499.45	1,496.05	1,495.52	3.25	3.13	-124.95	-12.30	-29.22	38.36	32.01	6.36	6.036			
1,600.00	1,598.70	1,591.99	1,590.77	3.49	3.34	-135.85	-21.55	-36.04	58.32	51.57	6.75	8.636			
1,700.00	1,697.47	1,685.67	1,683.34	3.75	3.57	-142.02	-33.05	-44.53	85.19	78.04	7.15	11.913			
1,800.00	1,795.62	1,779.84	1,776.11	4.04	3.82	-145.88	-46.08	-54.15	117.18	109.63	7.56	15.509			
1,850.84	1,845.25	1,827.44	1,823.01	4.21	3.96	-147.38	-52.68	-59.02	134.67	126.90	7.76	17.345			
1,900.00	1,893.15	1,873.34	1,868.21	4.38	4.09	-148.75	-59.04	-63.71	152.00	144.01	7.99	19.031			
2,000.00	1,990.58	1,966.69	1,960.17	4.74	4.38	-150.76	-71.97	-73.25	187.43	178.98	8.45	22.175			
2,100.00	2,088.01	2,060.03	2,052.12	5.11	4.68	-152.13	-84.90	-82.79	223.00	214.07	8.93	24.972			
2,200.00	2,185.44	2,153.38	2,144.08	5.50	4.99	-153.12	-97.84	-92.34	258.65	249.23	9.42	27.465			
2,300.00	2,282.87	2,246.73	2,236.03	5.91	5.31	-153.87	-110.77	-101.88	294.35	284.43	9.91	29.693			
2,400.00	2,380.30	2,340.08	2,327.99	6.32	5.64	-154.46	-123.70	-111.42	330.08	319.67	10.42	31.690			
2,500.00	2,477.74	2,433.43	2,419.94	6.74	5.97	-154.94	-136.63	-120.97	365.84	354.92	10.92	33.487			
2,600.00	2,575.17	2,526.78	2,511.90	7.17	6.30	-155.33	-149.57	-130.51	401.62	390.18	11.44	35.110			
2,700.00	2,672.60	2,620.13	2,603.85	7.60	6.64	-155.65	-162.50	-140.05	437.41	425.45	11.96	36.581			
2,800.00	2,770.03	2,713.48	2,695.81	8.04	6.99	-155.93	-175.43	-149.60	473.21	460.73	12.48	37.918			
2,900.00	2,867.46	2,806.83	2,787.76	8.48	7.34	-156.17	-188.37	-159.14	509.02	496.01	13.01	39.138			
3,000.00	2,964.89	2,900.18	2,879.72	8.93	7.69	-156.37	-201.30	-168.68	544.84	531.30	13.53	40.254			
3,100.00	3,062.32	2,993.53	2,971.67	9.38	8.04	-156.56	-214.23	-178.23	580.66	566.59	14.07	41.279			
3,200.00	3,159.75	3,086.88	3,063.63	9.83	8.39	-156.72	-227.17	-187.77	616.48	601.88	14.60	42.222			
3,300.00	3,257.18	3,180.22	3,155.58	10.28	8.75	-156.86	-240.10	-197.31	652.31	637.18	15.14	43.093			
3,400.00	3,354.61	3,273.57	3,247.54	10.73	9.11	-156.99	-253.03	-206.86	688.15	672.47	15.68	43.899			
3,500.00	3,452.04	3,366.92	3,339.49	11.19	9.46	-157.10	-265.97	-216.40	723.98	707.77	16.22	44.647			
3,600.00	3,549.47	3,460.27	3,431.45	11.65	9.82	-157.21	-278.90	-225.94	759.82	743.06	16.76	45.343			
3,700.00	3,646.90	3,553.62	3,523.40	12.11	10.19	-157.30	-291.83	-235.49	795.66	778.36	17.30	45.992			
3,800.00	3,744.33	3,646.97	3,615.36	12.57	10.55	-157.39	-304.76	-245.03	831.50	813.66	17.84	46.598			
3,900.00	3,841.76	3,740.32	3,707.31	13.03	10.91	-157.47	-317.70	-254.57	867.34	848.95	18.39	47.165			
4,000.00	3,939.19	3,833.67	3,799.27	13.49	11.27	-157.54	-330.63	-264.12	903.19	884.25	18.94	47.696			
4,100.00	4,036.62	3,927.02	3,891.22	13.95	11.64	-157.61	-343.56	-273.66	939.03	919.55	19.48	48.196			
4,200.00	4,134.05	4,020.37	3,983.18	14.41	12.00	-157.67	-356.50	-283.20	974.88	954.85	20.03	48.666			
4,300.00	4,231.48	4,113.72	4,075.13	14.88	12.37	-157.73	-369.43	-292.75	1,010.73	990.15	20.58	49.109			
4,400.00	4,328.91	4,207.06	4,167.09	15.34	12.74	-157.78	-382.36	-302.29	1,046.58	1,025.45	21.13	49.528			
4,500.00	4,426.34	4,300.41	4,259.04	15.81	13.10	-157.83	-395.30	-311.83	1,082.43	1,060.74	21.68	49.923			
4,600.00	4,523.77	4,393.76	4,351.00	16.27	13.47	-157.88	-408.23	-321.38	1,118.28	1,096.04	22.23	50.298			
4,700.00	4,621.20	4,487.11	4,442.95	16.74	13.84	-157.93	-421.16	-330.92	1,154.13	1,131.34	22.79	50.653			
4,800.00	4,718.63	4,580.46	4,534.91	17.20	14.21	-157.97	-434.09	-340.46	1,189.98	1,166.64	23.34	50.990			
4,900.00	4,816.07	4,673.81	4,626.86	17.67	14.58	-158.01	-447.03	-350.01	1,225.83	1,201.94	23.89	51.310			
5,000.00	4,913.50	4,767.16	4,718.82	18.14	14.95	-158.04	-459.96	-359.55	1,261.68	1,237.24	24.44	51.615			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 7-2 - P_HIGHWAY 160 7-2 - PLAN #1 3-17-10 RH:	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,010.93	4,860.51	4,810.77	18.60	15.31	-158.08	-472.89	-369.09	1,297.53	1,272.54	25.00	51.905		
5,200.00	5,108.36	4,953.86	4,902.73	19.07	15.68	-158.11	-485.83	-378.64	1,333.39	1,307.83	25.55	52.182		
5,300.00	5,205.79	5,047.21	4,994.68	19.54	16.05	-158.14	-498.76	-388.18	1,369.24	1,343.13	26.11	52.446		
5,400.00	5,303.22	5,140.56	5,086.64	20.01	16.42	-158.17	-511.69	-397.72	1,405.09	1,378.43	26.66	52.699		
5,500.00	5,400.65	5,233.91	5,178.59	20.48	16.79	-158.20	-524.63	-407.27	1,440.95	1,413.73	27.22	52.941		
5,600.00	5,498.08	5,327.25	5,270.55	20.95	17.16	-158.23	-537.56	-416.81	1,476.80	1,449.03	27.77	53.172		
5,649.95	5,546.75	5,373.88	5,316.48	21.18	17.35	-158.24	-544.02	-421.58	1,494.71	1,466.66	28.05	53.284		
5,700.00	5,595.60	5,420.75	5,362.65	21.39	17.54	-158.39	-550.51	-426.37	1,512.28	1,483.89	28.39	53.276		
5,800.00	5,693.76	5,515.21	5,455.69	21.72	17.91	-158.61	-563.60	-436.02	1,545.08	1,516.08	29.00	53.284		
5,900.00	5,792.52	5,610.66	5,549.73	22.01	18.29	-158.77	-576.82	-445.78	1,574.80	1,545.22	29.58	53.247		
6,000.00	5,891.76	5,707.00	5,644.63	22.26	18.67	-158.85	-590.17	-455.63	1,601.40	1,571.28	30.12	53.171		
6,100.00	5,991.37	5,805.73	5,741.88	22.47	19.06	-158.86	-603.85	-465.72	1,624.86	1,594.23	30.63	53.055		
6,200.00	6,091.23	6,007.51	5,941.73	22.64	19.63	-158.69	-625.97	-482.05	1,641.96	1,610.68	31.28	52.495		
6,300.79	6,192.00	6,215.32	6,149.06	22.78	20.01	-169.53	-636.87	-490.09	1,649.52	1,617.70	31.82	51.845		
6,400.00	6,291.21	6,357.48	6,291.21	22.89	20.21	-169.52	-637.83	-490.80	1,650.04	1,617.82	32.22	51.207		
6,500.00	6,391.21	6,457.48	6,391.21	23.02	20.33	-169.52	-637.83	-490.80	1,650.04	1,617.47	32.57	50.657		
6,600.00	6,491.21	6,557.48	6,491.21	23.15	20.46	-169.52	-637.83	-490.80	1,650.04	1,617.11	32.92	50.116		
6,700.00	6,591.21	6,657.48	6,591.21	23.29	20.59	-169.52	-637.83	-490.80	1,650.04	1,616.76	33.28	49.582		
6,800.00	6,691.21	6,757.48	6,691.21	23.42	20.72	-169.52	-637.83	-490.80	1,650.04	1,616.40	33.64	49.056		
6,900.00	6,791.21	6,857.48	6,791.21	23.55	20.86	-169.52	-637.83	-490.80	1,650.04	1,616.04	33.99	48.538		
7,000.00	6,891.21	6,957.48	6,891.21	23.69	20.99	-169.52	-637.83	-490.80	1,650.04	1,615.68	34.36	48.028		
7,100.00	6,991.21	7,057.48	6,991.21	23.83	21.13	-169.52	-637.83	-490.80	1,650.04	1,615.32	34.72	47.526		
7,200.00	7,091.21	7,157.48	7,091.21	23.97	21.27	-169.52	-637.83	-490.80	1,650.04	1,614.96	35.08	47.031		
7,300.00	7,191.21	7,257.48	7,191.21	24.11	21.40	-169.52	-637.83	-490.80	1,650.04	1,614.59	35.45	46.544		
7,400.00	7,291.21	7,357.48	7,291.21	24.25	21.55	-169.52	-637.83	-490.80	1,650.04	1,614.22	35.82	46.065		
7,500.00	7,391.21	7,457.48	7,391.21	24.39	21.69	-169.52	-637.83	-490.80	1,650.04	1,613.85	36.19	45.593		
7,600.00	7,491.21	7,557.48	7,491.21	24.53	21.83	-169.52	-637.83	-490.80	1,650.04	1,613.48	36.56	45.129		
7,700.00	7,591.21	7,657.48	7,591.21	24.68	21.98	-169.52	-637.83	-490.80	1,650.04	1,613.10	36.94	44.671		
7,800.00	7,691.21	7,757.48	7,691.21	24.83	22.12	-169.52	-637.83	-490.80	1,650.04	1,612.73	37.31	44.221		
7,900.00	7,791.21	7,857.48	7,791.21	24.97	22.27	-169.52	-637.83	-490.80	1,650.04	1,612.35	37.69	43.779		
8,000.00	7,891.21	7,957.48	7,891.21	25.12	22.42	-169.52	-637.83	-490.80	1,650.04	1,611.97	38.07	43.343		
8,100.00	7,991.21	8,057.48	7,991.21	25.27	22.57	-169.52	-637.83	-490.80	1,650.04	1,611.59	38.45	42.914		
8,200.00	8,091.21	8,157.48	8,091.21	25.42	22.72	-169.52	-637.83	-490.80	1,650.04	1,611.21	38.83	42.491		
8,215.79	8,107.00	8,173.27	8,107.00	25.45	22.74	-169.52	-637.83	-490.80	1,650.04	1,611.15	38.89	42.425		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 8-2 - P_HIGHWAY 160 8-2 - PLAN #1 3-17-10 RH:	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	89.30	0.36	29.94	29.94						
100.00	100.00	100.00	100.00	0.10	0.10	89.30	0.36	29.94	29.94	29.75	0.19	156.723			
200.00	200.00	200.00	200.00	0.32	0.32	89.30	0.36	29.94	29.94	29.30	0.64	46.742			
300.00	300.00	300.00	300.00	0.55	0.55	89.30	0.36	29.94	29.94	28.85	1.09	27.467			
400.00	400.00	400.00	400.00	0.77	0.77	89.30	0.36	29.94	29.94	28.40	1.54	19.447			
500.00	500.00	500.00	500.00	0.99	0.99	89.30	0.36	29.94	29.94	27.95	1.99	15.052			
600.00	600.00	600.00	600.00	1.22	1.22	89.30	0.36	29.94	29.94	27.50	2.44	12.278			
700.00	700.00	700.00	700.00	1.44	1.44	89.30	0.36	29.94	29.94	27.05	2.89	10.367			
800.00	800.00	800.00	800.00	1.67	1.67	89.30	0.36	29.94	29.94	26.60	3.34	8.971			
900.00	900.00	900.00	900.00	1.89	1.89	89.30	0.36	29.94	29.94	26.15	3.79	7.906			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.30	0.36	29.94	29.94	25.71	4.24	7.067			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.30	0.36	29.94	29.94	25.26	4.69	6.389			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.30	0.36	29.94	29.94	24.81	5.14	5.830 CC, ES			
1,300.00	1,299.98	1,298.98	1,298.96	2.79	2.77	104.69	-0.40	31.47	31.89	26.33	5.56	5.734 SF			
1,400.00	1,399.84	1,397.40	1,397.24	3.02	2.96	114.98	-2.68	36.02	38.63	32.66	5.97	6.474			
1,500.00	1,499.45	1,494.67	1,494.16	3.25	3.16	125.47	-6.43	43.47	51.60	45.23	6.37	8.100			
1,600.00	1,598.70	1,590.29	1,589.08	3.49	3.38	133.30	-11.54	53.67	71.30	64.52	6.77	10.526			
1,700.00	1,697.47	1,683.75	1,681.46	3.75	3.62	138.51	-17.91	66.36	97.48	90.31	7.18	13.582			
1,800.00	1,795.62	1,774.62	1,770.77	4.04	3.88	141.89	-25.40	81.27	129.78	122.19	7.58	17.113			
1,850.84	1,845.25	1,819.69	1,814.87	4.21	4.02	143.12	-29.58	89.61	148.42	140.63	7.79	19.049			
1,900.00	1,893.15	1,862.64	1,856.75	4.38	4.17	144.24	-33.86	98.13	167.51	159.50	8.01	20.903			
2,000.00	1,990.58	1,952.56	1,944.11	4.74	4.50	145.81	-43.41	117.16	207.78	199.30	8.49	24.485			
2,100.00	2,088.01	2,043.92	2,032.85	5.11	4.86	146.88	-53.16	136.60	248.26	239.29	8.98	27.655			
2,200.00	2,185.44	2,135.28	2,121.58	5.50	5.24	147.65	-62.91	156.04	288.80	279.31	9.48	30.458			
2,300.00	2,282.87	2,226.64	2,210.31	5.91	5.63	148.24	-72.67	175.47	329.36	319.36	10.00	32.943			
2,400.00	2,380.30	2,318.00	2,299.04	6.32	6.04	148.69	-82.42	194.91	369.95	359.42	10.52	35.153			
2,500.00	2,477.74	2,409.35	2,387.77	6.74	6.45	149.05	-92.18	214.35	410.55	399.49	11.06	37.125			
2,600.00	2,575.17	2,500.71	2,476.50	7.17	6.87	149.35	-101.93	233.79	451.16	439.56	11.60	38.893			
2,700.00	2,672.60	2,592.07	2,565.24	7.60	7.30	149.60	-111.69	253.22	491.79	479.64	12.15	40.482			
2,800.00	2,770.03	2,683.43	2,653.97	8.04	7.73	149.81	-121.44	272.66	532.42	519.71	12.70	41.916			
2,900.00	2,867.46	2,774.79	2,742.70	8.48	8.17	149.99	-131.19	292.10	573.05	559.79	13.26	43.216			
3,000.00	2,964.89	2,866.15	2,831.43	8.93	8.61	150.15	-140.95	311.54	613.69	599.87	13.82	44.398			
3,100.00	3,062.32	2,957.50	2,920.16	9.38	9.06	150.29	-150.70	330.97	654.33	639.94	14.39	45.476			
3,200.00	3,159.75	3,048.86	3,008.90	9.83	9.50	150.41	-160.46	350.41	694.97	680.02	14.96	46.463			
3,300.00	3,257.18	3,140.22	3,097.63	10.28	9.95	150.52	-170.21	369.85	735.62	720.09	15.53	47.369			
3,400.00	3,354.61	3,231.58	3,186.36	10.73	10.40	150.62	-179.96	389.29	776.27	760.17	16.10	48.203			
3,500.00	3,452.04	3,322.94	3,275.09	11.19	10.85	150.70	-189.72	408.72	816.92	800.24	16.68	48.973			
3,600.00	3,549.47	3,414.29	3,363.82	11.65	11.31	150.78	-199.47	428.16	857.57	840.31	17.26	49.686			
3,700.00	3,646.90	3,505.65	3,452.56	12.11	11.76	150.85	-209.23	447.60	898.23	880.38	17.84	50.347			
3,800.00	3,744.33	3,597.01	3,541.29	12.57	12.22	150.92	-218.98	467.04	938.88	920.46	18.42	50.962			
3,900.00	3,841.76	3,688.37	3,630.02	13.03	12.68	150.98	-228.74	486.47	979.54	960.53	19.01	51.534			
4,000.00	3,939.19	3,779.73	3,718.75	13.49	13.14	151.03	-238.49	505.91	1,020.19	1,000.60	19.59	52.069			
4,100.00	4,036.62	3,871.08	3,807.48	13.95	13.60	151.09	-248.24	525.35	1,060.85	1,040.67	20.18	52.570			
4,200.00	4,134.05	3,962.44	3,896.21	14.41	14.06	151.13	-258.00	544.79	1,101.51	1,080.74	20.77	53.040			
4,300.00	4,231.48	4,053.80	3,984.95	14.88	14.52	151.18	-267.75	564.22	1,142.16	1,120.81	21.36	53.480			
4,400.00	4,328.91	4,145.16	4,073.68	15.34	14.98	151.22	-277.51	583.66	1,182.82	1,160.88	21.95	53.895			
4,500.00	4,426.34	4,236.52	4,162.41	15.81	15.44	151.26	-287.26	603.10	1,223.48	1,200.94	22.54	54.286			
4,600.00	4,523.77	4,327.88	4,251.14	16.27	15.91	151.29	-297.02	622.54	1,264.14	1,241.01	23.13	54.656			
4,700.00	4,621.20	4,419.23	4,339.87	16.74	16.37	151.33	-306.77	641.97	1,304.80	1,281.08	23.72	55.005			
4,800.00	4,718.63	4,510.59	4,428.61	17.20	16.84	151.36	-316.52	661.41	1,345.46	1,321.15	24.31	55.335			
4,900.00	4,816.07	4,601.95	4,517.34	17.67	17.30	151.39	-326.28	680.85	1,386.12	1,361.21	24.91	55.648			
5,000.00	4,913.50	4,693.31	4,606.07	18.14	17.77	151.41	-336.03	700.28	1,426.78	1,401.28	25.50	55.945			

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_HIGHWAY 160 17-2 pad - P_HIGHWAY 160 8-2 - P_HIGHWAY 160 8-2 - PLAN #1 3-17-10 RH:	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,784.67	4,694.80	18.60	18.23	151.44	-345.79	719.72	1,467.44	1,441.34	26.10	56.227			
5,200.00	5,108.36	4,876.02	4,783.53	19.07	18.70	151.47	-355.54	739.16	1,508.10	1,481.41	26.69	56.496			
5,300.00	5,205.79	4,967.38	4,872.27	19.54	19.16	151.49	-365.30	758.60	1,548.77	1,521.48	27.29	56.752			
5,400.00	5,303.22	5,058.74	4,961.00	20.01	19.63	151.51	-375.05	778.03	1,589.43	1,561.54	27.89	56.996			
5,500.00	5,400.65	5,150.10	5,049.73	20.48	20.10	151.53	-384.80	797.47	1,630.09	1,601.61	28.48	57.229			
5,600.00	5,498.08	5,241.46	5,138.46	20.95	20.56	151.55	-394.56	816.91	1,670.75	1,641.67	29.08	57.451			
5,649.95	5,546.75	5,287.09	5,182.78	21.18	20.80	151.56	-399.43	826.62	1,691.06	1,661.68	29.38	57.559			
5,700.00	5,595.60	5,332.97	5,227.34	21.39	21.03	151.77	-404.33	836.38	1,711.06	1,681.31	29.75	57.516			
5,800.00	5,693.76	5,425.53	5,317.24	21.72	21.50	152.12	-414.21	856.07	1,748.89	1,718.46	30.43	57.464			
5,900.00	5,792.52	5,519.17	5,408.19	22.01	21.98	152.37	-424.21	876.00	1,783.85	1,752.77	31.08	57.389			
6,000.00	5,891.76	5,613.79	5,500.09	22.26	22.47	152.54	-434.31	896.13	1,815.91	1,784.21	31.69	57.295			
6,100.00	5,991.37	5,779.83	5,661.93	22.47	23.16	152.50	-450.93	929.24	1,844.06	1,811.64	32.42	56.872			
6,200.00	6,091.23	6,017.69	5,896.81	22.64	23.83	152.37	-467.57	962.40	1,862.85	1,829.66	33.19	56.127			
6,300.79	6,192.00	6,263.95	6,142.36	22.78	24.29	141.32	-475.53	978.27	1,871.03	1,837.21	33.82	55.326			
6,400.00	6,291.21	6,412.82	6,291.21	22.89	24.46	141.31	-476.08	979.36	1,871.48	1,837.27	34.21	54.705			
6,500.00	6,391.21	6,512.82	6,391.21	23.02	24.58	141.31	-476.08	979.36	1,871.48	1,836.93	34.54	54.177			
6,600.00	6,491.21	6,612.82	6,491.21	23.15	24.70	141.31	-476.08	979.36	1,871.48	1,836.60	34.88	53.655			
6,700.00	6,591.21	6,712.82	6,591.21	23.29	24.81	141.31	-476.08	979.36	1,871.48	1,836.26	35.22	53.140			
6,800.00	6,691.21	6,812.82	6,691.21	23.42	24.93	141.31	-476.08	979.36	1,871.48	1,835.92	35.56	52.630			
6,900.00	6,791.21	6,912.82	6,791.21	23.55	25.05	141.31	-476.08	979.36	1,871.48	1,835.58	35.90	52.127			
7,000.00	6,891.21	7,012.82	6,891.21	23.69	25.18	141.31	-476.08	979.36	1,871.48	1,835.23	36.25	51.630			
7,100.00	6,991.21	7,112.82	6,991.21	23.83	25.30	141.31	-476.08	979.36	1,871.48	1,834.88	36.60	51.139			
7,200.00	7,091.21	7,212.82	7,091.21	23.97	25.43	141.31	-476.08	979.36	1,871.48	1,834.53	36.95	50.654			
7,300.00	7,191.21	7,312.82	7,191.21	24.11	25.55	141.31	-476.08	979.36	1,871.48	1,834.18	37.30	50.176			
7,400.00	7,291.21	7,412.82	7,291.21	24.25	25.68	141.31	-476.08	979.36	1,871.48	1,833.83	37.65	49.704			
7,500.00	7,391.21	7,512.82	7,391.21	24.39	25.81	141.31	-476.08	979.36	1,871.48	1,833.47	38.01	49.238			
7,600.00	7,491.21	7,612.82	7,491.21	24.53	25.94	141.31	-476.08	979.36	1,871.48	1,833.11	38.37	48.778			
7,700.00	7,591.21	7,712.82	7,591.21	24.68	26.07	141.31	-476.08	979.36	1,871.48	1,832.75	38.73	48.324			
7,800.00	7,691.21	7,812.82	7,691.21	24.83	26.21	141.31	-476.08	979.36	1,871.48	1,832.39	39.09	47.877			
7,900.00	7,791.21	7,912.82	7,791.21	24.97	26.34	141.31	-476.08	979.36	1,871.48	1,832.03	39.45	47.435			
8,000.00	7,891.21	8,012.82	7,891.21	25.12	26.48	141.31	-476.08	979.36	1,871.48	1,831.66	39.82	47.000			
8,100.00	7,991.21	8,112.82	7,991.21	25.27	26.61	141.31	-476.08	979.36	1,871.48	1,831.29	40.19	46.570			
8,200.00	8,091.21	8,212.82	8,091.21	25.42	26.75	141.31	-476.08	979.36	1,871.48	1,830.92	40.56	46.147			
8,215.79	8,107.00	8,228.61	8,107.00	25.45	26.77	141.31	-476.08	979.36	1,871.48	1,830.86	40.61	46.080			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	88.96	0.36	20.15	20.15						
100.00	100.00	100.00	100.00	0.10	0.10	88.96	0.36	20.15	20.15	19.96	0.19	105.468			
200.00	200.00	200.00	200.00	0.32	0.32	88.96	0.36	20.15	20.15	19.51	0.64	31.455			
300.00	300.00	300.00	300.00	0.55	0.55	88.96	0.36	20.15	20.15	19.06	1.09	18.484			
400.00	400.00	400.00	400.00	0.77	0.77	88.96	0.36	20.15	20.15	18.61	1.54	13.087			
500.00	500.00	500.00	500.00	0.99	0.99	88.96	0.36	20.15	20.15	18.16	1.99	10.130			
600.00	600.00	600.00	600.00	1.22	1.22	88.96	0.36	20.15	20.15	17.71	2.44	8.262			
700.00	700.00	700.00	700.00	1.44	1.44	88.96	0.36	20.15	20.15	17.26	2.89	6.976			
800.00	800.00	800.00	800.00	1.67	1.67	88.96	0.36	20.15	20.15	16.81	3.34	6.037			
900.00	900.00	900.00	900.00	1.89	1.89	88.96	0.36	20.15	20.15	16.36	3.79	5.320			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	88.96	0.36	20.15	20.15	15.91	4.24	4.756			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	88.96	0.36	20.15	20.15	15.46	4.69	4.300			
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	88.96	0.36	20.15	20.15	15.01	5.14	3.923 CC, ES			
1,300.00	1,299.98	1,299.51	1,299.50	2.79	2.77	106.59	-0.43	21.17	21.61	16.05	5.56	3.888 SF			
1,400.00	1,399.84	1,398.57	1,398.48	3.02	2.95	121.41	-2.80	24.22	27.35	21.38	5.96	4.588			
1,500.00	1,499.45	1,496.71	1,496.42	3.25	3.15	134.91	-6.69	29.25	39.20	32.84	6.36	6.164			
1,600.00	1,598.70	1,593.51	1,592.82	3.49	3.35	143.76	-12.05	36.15	57.50	50.75	6.75	8.514			
1,700.00	1,697.47	1,688.56	1,687.23	3.75	3.57	149.12	-18.76	44.80	81.87	74.72	7.14	11.459			
1,800.00	1,795.62	1,781.46	1,779.22	4.04	3.80	152.41	-26.71	55.05	111.91	104.38	7.53	14.855			
1,850.84	1,845.25	1,827.76	1,824.94	4.21	3.93	153.57	-31.18	60.82	129.27	121.54	7.73	16.720			
1,900.00	1,893.15	1,872.02	1,868.56	4.38	4.05	154.58	-35.77	66.74	146.99	139.05	7.94	18.501			
2,000.00	1,990.58	1,960.91	1,955.89	4.74	4.33	155.85	-45.93	79.84	184.67	176.28	8.39	22.014			
2,100.00	2,088.01	2,048.22	2,041.27	5.11	4.63	156.51	-57.12	94.26	224.41	215.57	8.84	25.381			
2,200.00	2,185.44	2,133.90	2,124.63	5.50	4.95	156.82	-69.26	109.91	266.12	256.82	9.30	28.605			
2,300.00	2,282.87	2,217.92	2,205.91	5.91	5.30	156.91	-82.27	126.69	309.74	299.97	9.77	31.696			
2,400.00	2,380.30	2,300.00	2,284.86	6.32	5.67	156.87	-96.04	144.44	355.19	344.94	10.25	34.665			
2,500.00	2,477.74	2,382.64	2,363.85	6.74	6.08	156.75	-110.91	163.62	402.38	391.65	10.73	37.486			
2,600.00	2,575.17	2,470.52	2,447.69	7.17	6.55	156.62	-127.05	184.44	450.10	438.85	11.24	40.028			
2,700.00	2,672.60	2,558.40	2,531.53	7.60	7.02	156.52	-143.19	205.25	497.82	486.06	11.76	42.328			
2,800.00	2,770.03	2,646.27	2,615.37	8.04	7.51	156.43	-159.33	226.06	545.54	533.25	12.28	44.412			
2,900.00	2,867.46	2,734.15	2,699.21	8.48	8.00	156.36	-175.47	246.87	593.25	580.44	12.81	46.306			
3,000.00	2,964.89	2,822.03	2,783.04	8.93	8.51	156.30	-191.61	267.68	640.97	627.63	13.34	48.032			
3,100.00	3,062.32	2,909.91	2,866.88	9.38	9.02	156.25	-207.75	288.49	688.70	674.81	13.88	49.610			
3,200.00	3,159.75	2,997.78	2,950.72	9.83	9.53	156.20	-223.89	309.30	736.42	721.99	14.42	51.056			
3,300.00	3,257.18	3,085.66	3,034.56	10.28	10.05	156.16	-240.03	330.11	784.14	769.17	14.97	52.383			
3,400.00	3,354.61	3,173.54	3,118.40	10.73	10.57	156.13	-256.17	350.92	831.86	816.34	15.52	53.606			
3,500.00	3,452.04	3,261.42	3,202.24	11.19	11.10	156.10	-272.31	371.73	879.58	863.51	16.07	54.737			
3,600.00	3,549.47	3,349.29	3,286.08	11.65	11.63	156.07	-288.45	392.54	927.30	910.68	16.62	55.785			
3,700.00	3,646.90	3,437.17	3,369.91	12.11	12.16	156.04	-304.59	413.35	975.02	957.85	17.18	56.757			
3,800.00	3,744.33	3,525.05	3,453.75	12.57	12.70	156.02	-320.73	434.16	1,022.75	1,005.01	17.74	57.662			
3,900.00	3,841.76	3,612.93	3,537.59	13.03	13.24	156.00	-336.87	454.97	1,070.47	1,052.17	18.30	58.505			
4,000.00	3,939.19	3,700.80	3,621.43	13.49	13.77	155.98	-353.01	475.78	1,118.19	1,099.33	18.86	59.294			
4,100.00	4,036.62	3,788.68	3,705.27	13.95	14.31	155.96	-369.15	496.59	1,165.91	1,146.49	19.42	60.030			
4,200.00	4,134.05	3,876.56	3,789.11	14.41	14.86	155.94	-385.29	517.40	1,213.64	1,193.65	19.99	60.722			
4,300.00	4,231.48	3,964.44	3,872.95	14.88	15.40	155.93	-401.43	538.21	1,261.36	1,240.81	20.55	61.371			
4,400.00	4,328.91	4,052.31	3,956.78	15.34	15.94	155.91	-417.57	559.02	1,309.08	1,287.96	21.12	61.982			
4,500.00	4,426.34	4,140.19	4,040.62	15.81	16.49	155.90	-433.71	579.83	1,356.81	1,335.12	21.69	62.558			
4,600.00	4,523.77	4,228.07	4,124.46	16.27	17.03	155.89	-449.85	600.64	1,404.53	1,382.27	22.26	63.101			
4,700.00	4,621.20	4,315.95	4,208.30	16.74	17.58	155.88	-465.99	621.45	1,452.25	1,429.42	22.83	63.615			
4,800.00	4,718.63	4,403.82	4,292.14	17.20	18.12	155.87	-482.13	642.26	1,499.97	1,476.57	23.40	64.101			
4,900.00	4,816.07	4,491.70	4,375.98	17.67	18.67	155.86	-498.27	663.07	1,547.70	1,523.73	23.97	64.562			
5,000.00	4,913.50	4,579.58	4,459.81	18.14	19.22	155.85	-514.41	683.88	1,595.42	1,570.88	24.55	64.999			

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

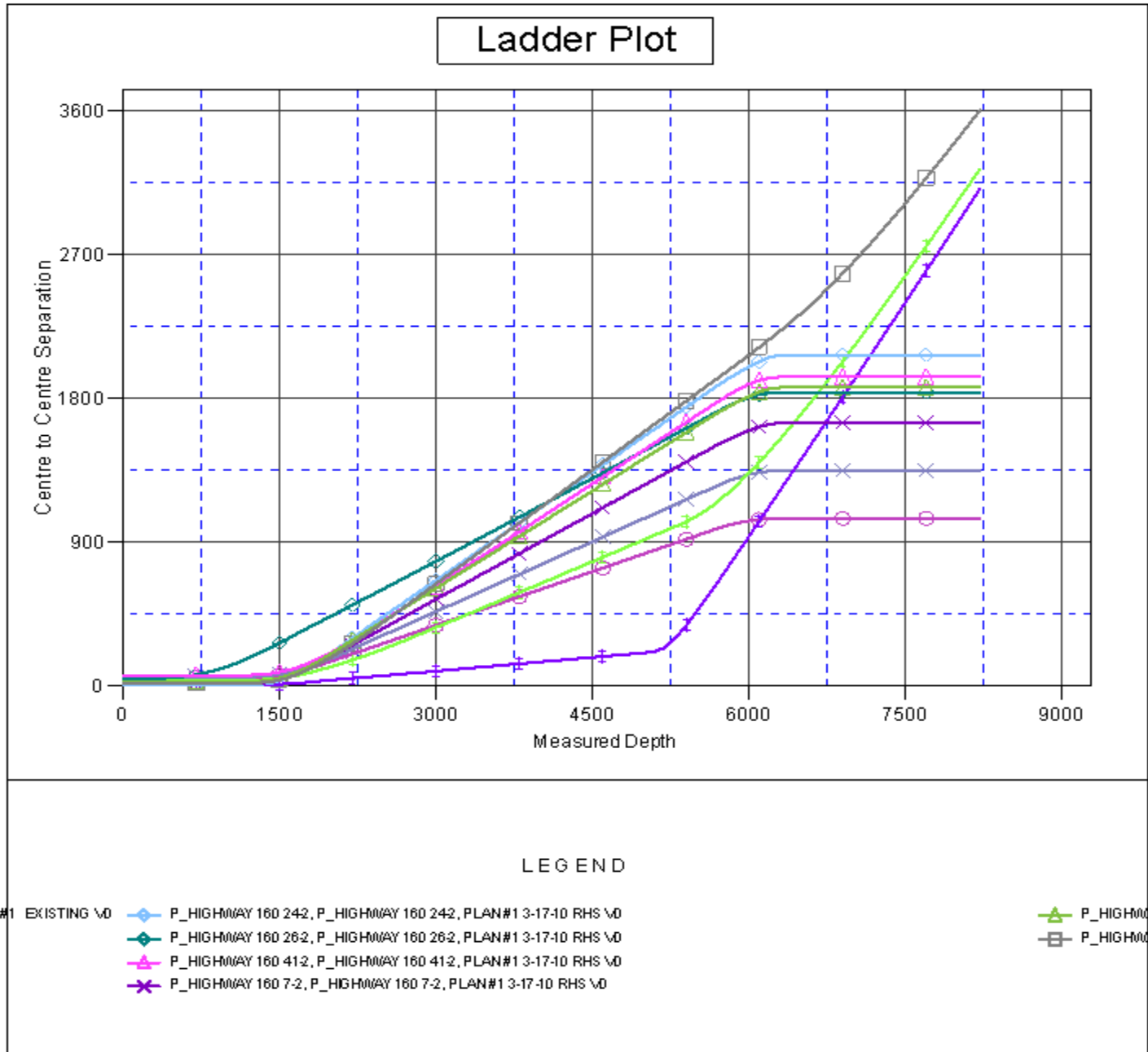


<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,010.93	4,667.46	4,543.65	18.60	19.77	155.84	-530.55	704.69	1,643.14	1,618.02	25.12	65.414			
5,200.00	5,108.36	4,755.33	4,627.49	19.07	20.32	155.83	-546.69	725.50	1,690.87	1,665.17	25.69	65.810			
5,300.00	5,205.79	4,843.21	4,711.33	19.54	20.87	155.82	-562.83	746.31	1,738.59	1,712.32	26.27	66.186			
5,400.00	5,303.22	4,931.09	4,795.17	20.01	21.42	155.81	-578.97	767.12	1,786.31	1,759.47	26.84	66.545			
5,500.00	5,400.65	5,018.97	4,879.01	20.48	21.97	155.81	-595.11	787.93	1,834.04	1,806.62	27.42	66.887			
5,600.00	5,498.08	5,106.84	4,962.85	20.95	22.52	155.80	-611.25	808.74	1,881.76	1,853.76	28.00	67.214			
5,649.95	5,546.75	5,150.74	5,004.72	21.18	22.80	155.80	-619.31	819.14	1,905.60	1,877.31	28.28	67.372			
5,700.00	5,595.60	5,194.00	5,046.00	21.39	23.07	156.01	-627.26	829.38	1,929.13	1,900.47	28.66	67.317			
5,800.00	5,693.76	5,194.00	5,046.00	21.72	23.07	156.43	-627.26	829.38	1,976.09	1,947.00	29.08	67.948			
5,900.00	5,792.52	5,194.00	5,046.00	22.01	23.07	156.87	-627.26	829.38	2,024.14	1,994.68	29.46	68.703			
6,000.00	5,891.76	5,194.00	5,046.00	22.26	23.07	157.31	-627.26	829.38	2,073.17	2,043.38	29.80	69.578			
6,100.00	5,991.37	5,194.00	5,046.00	22.47	23.07	157.75	-627.26	829.38	2,123.05	2,092.96	30.08	70.571			
6,200.00	6,091.23	5,194.00	5,046.00	22.64	23.07	158.19	-627.26	829.38	2,173.65	2,143.32	30.32	71.682			
6,300.79	6,192.00	5,194.00	5,046.00	22.78	23.07	147.68	-627.26	829.38	2,225.27	2,194.76	30.52	72.918			
6,400.00	6,291.21	5,194.00	5,046.00	22.89	23.07	147.68	-627.26	829.38	2,277.96	2,247.28	30.68	74.250			
6,500.00	6,391.21	5,194.00	5,046.00	23.02	23.07	147.68	-627.26	829.38	2,334.12	2,303.26	30.86	75.634			
6,600.00	6,491.21	5,194.00	5,046.00	23.15	23.07	147.68	-627.26	829.38	2,393.15	2,362.11	31.04	77.091			
6,700.00	6,591.21	5,194.00	5,046.00	23.29	23.07	147.68	-627.26	829.38	2,454.83	2,423.61	31.23	78.613			
6,800.00	6,691.21	5,194.00	5,046.00	23.42	23.07	147.68	-627.26	829.38	2,518.98	2,487.57	31.41	80.194			
6,900.00	6,791.21	5,194.00	5,046.00	23.55	23.07	147.68	-627.26	829.38	2,585.40	2,553.80	31.60	81.826			
7,000.00	6,891.21	5,194.00	5,046.00	23.69	23.07	147.68	-627.26	829.38	2,653.93	2,622.15	31.78	83.503			
7,100.00	6,991.21	5,194.00	5,046.00	23.83	23.07	147.68	-627.26	829.38	2,724.40	2,692.43	31.97	85.218			
7,200.00	7,091.21	5,194.00	5,046.00	23.97	23.07	147.68	-627.26	829.38	2,796.68	2,764.52	32.16	86.968			
7,300.00	7,191.21	5,194.00	5,046.00	24.11	23.07	147.68	-627.26	829.38	2,870.62	2,838.27	32.35	88.746			
7,400.00	7,291.21	5,194.00	5,046.00	24.25	23.07	147.68	-627.26	829.38	2,946.10	2,913.56	32.54	90.548			
7,500.00	7,391.21	5,194.00	5,046.00	24.39	23.07	147.68	-627.26	829.38	3,023.00	2,990.28	32.73	92.371			
7,600.00	7,491.21	5,194.00	5,046.00	24.53	23.07	147.68	-627.26	829.38	3,101.22	3,068.31	32.92	94.211			
7,700.00	7,591.21	5,194.00	5,046.00	24.68	23.07	147.68	-627.26	829.38	3,180.66	3,147.55	33.11	96.064			
7,800.00	7,691.21	5,194.00	5,046.00	24.83	23.07	147.68	-627.26	829.38	3,261.24	3,227.93	33.30	97.928			
7,900.00	7,791.21	5,194.00	5,046.00	24.97	23.07	147.68	-627.26	829.38	3,342.86	3,309.36	33.50	99.799			
8,000.00	7,891.21	5,194.00	5,046.00	25.12	23.07	147.68	-627.26	829.38	3,425.46	3,391.77	33.69	101.676			
8,100.00	7,991.21	5,194.00	5,046.00	25.27	23.07	147.68	-627.26	829.38	3,508.96	3,475.07	33.88	103.556			
8,200.00	8,091.21	5,194.00	5,046.00	25.42	23.07	147.68	-627.26	829.38	3,593.30	3,559.22	34.08	105.438			
8,215.79	8,107.00	5,194.00	5,046.00	25.45	23.07	147.68	-627.26	829.38	3,606.70	3,572.58	34.11	105.735			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5119.00ft (Original Well Elev) Coordinates are relative to: P\_HIGHWAY 160 2-2  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.49°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_HIGHWAY 160 2-2
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_HIGHWAY 160 17-2 pad	<b>MD Reference:</b>	WELL @ 5119.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_HIGHWAY 160 2-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_HIGHWAY 160 2-2	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-17-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5119.00ft (Original Well Elev) Coordinates are relative to: P\_HIGHWAY 160 2-2  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.49°

