

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_LAMBRECHT 1-2 PAD

LAMBRECHT 1-2

LAMBRECHT 1-2

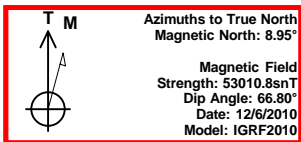
Plan: LAMBRECHT 1-2 (wp02)

Standard Planning Report

10 April, 2012

FORMATION TOP DETAILS			
	TVDPPath	MDPath	Formation
	4039.00	4039.55	PK Depth
	4499.00	4499.61	SX Depth
	7219.00	7219.98	NIO Depth
	7529.00	7530.03	CD Depth
	7617.00	7618.04	GH Depth
	7969.00	7970.09	J Depth

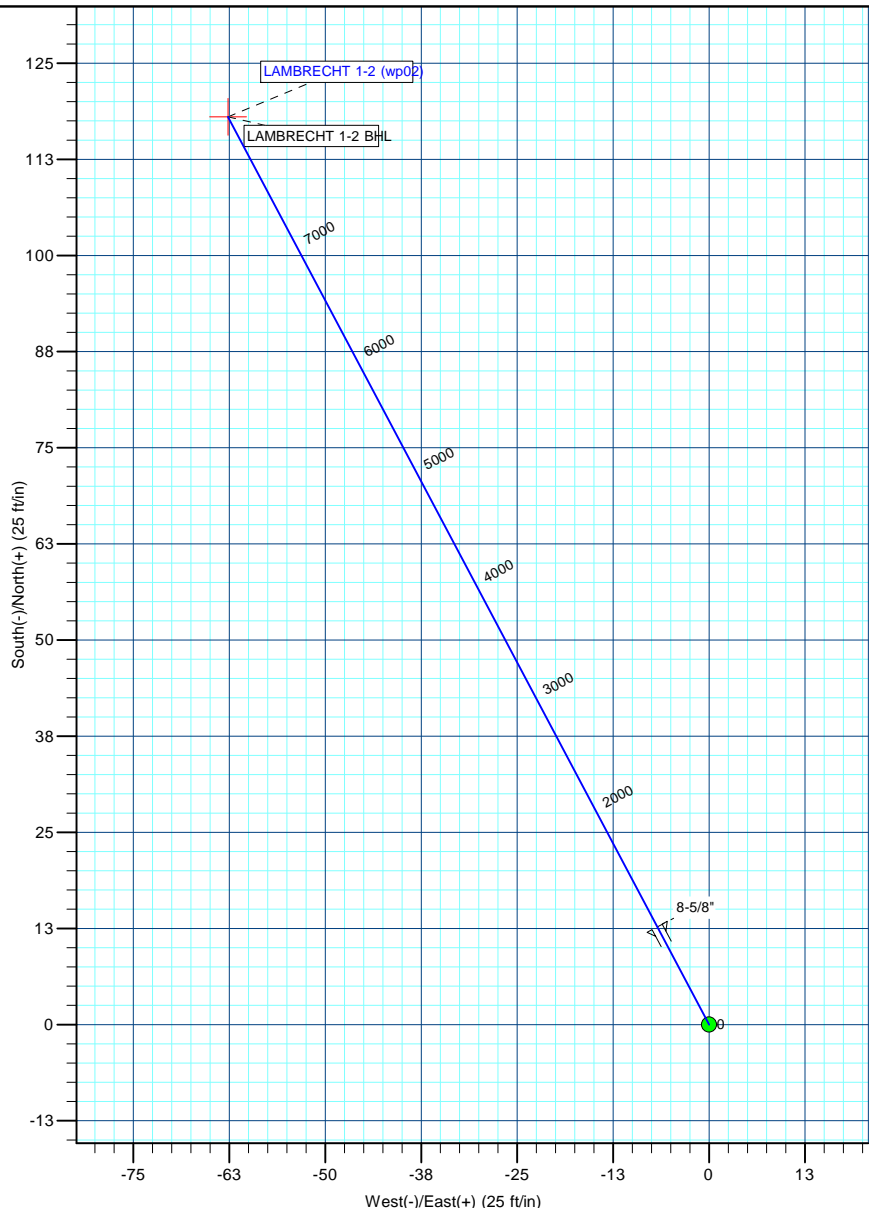
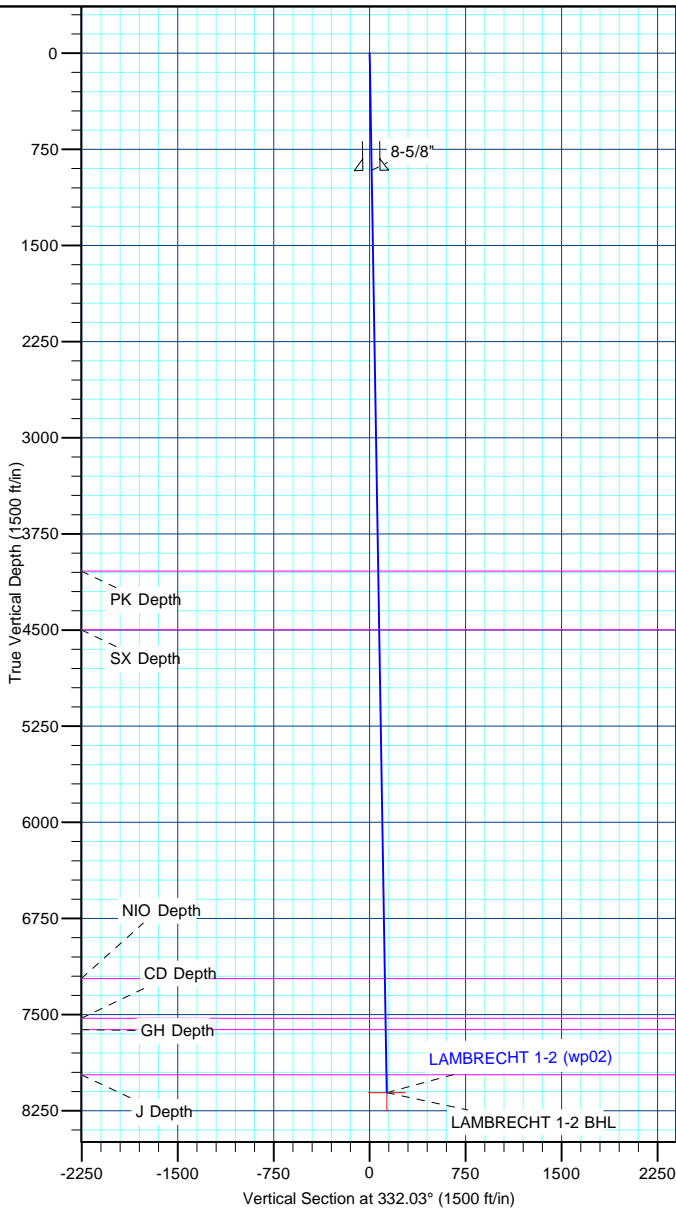
CASING DETAILS			
TVD	MD	Name	Size
915.00	915.12	8-5/8"	8-5/8



WELL DETAILS: LAMBRECHT 1-2						
+N/-S	+E/-W	Northing	Ground Level: Easting	4939.00 Latitude	Longitude	Slot
0.00	0.00	1274772.10	3181751.28	40.085813	-104.850421	

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LAMBRECHT 1-2 BHL	8109.00	118.04	-62.68	1274889.67	3181687.74	40.086137	-104.850645	Point

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.98	0.95	332.03	94.97	0.70	-0.37	1.00	332.03	0.79
8110.11	0.95	332.03	8109.00	118.04	-62.68	0.00	0.00	133.65



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well LAMBRECHT 1-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 4954.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 1-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 1-2		
Design:	LAMBRECHT 1-2 (wp02)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_LAMBRECHT 1-2 PAD			
Site Position:		Northing:	1,274,749.10 usft	Latitude: 40.085753
From:	Lat/Long	Easting:	3,181,594.19 usft	Longitude: -104.850983
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence: 0.42 °

Well	LAMBRECHT 1-2			
Well Position	+N/-S	21.84 ft	Northing:	1,274,772.10 usft
	+E/-W	157.25 ft	Easting:	3,181,751.28 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:		Ground Level: 4,939.00 ft

Wellbore	LAMBRECHT 1-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/6/2010	8.95	66.80	53,011

Design	LAMBRECHT 1-2 (wp02)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	332.03

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
94.98	0.95	332.03	94.97	0.70	-0.37	1.00	1.00	-29.45	332.03	
8,110.11	0.95	332.03	8,109.00	118.04	-62.68	0.00	0.00	0.00	0.00	LAMBRECHT 1-2 BH

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 1-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 1-2		
Design:	LAMBRECHT 1-2 (wp02)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.98	0.95	332.03	94.97	0.70	-0.37	0.79	1.00	1.00	0.00
100.00	0.95	332.03	99.99	0.77	-0.41	0.87	0.00	0.00	0.00
200.00	0.95	332.03	199.98	2.23	-1.19	2.53	0.00	0.00	0.00
300.00	0.95	332.03	299.97	3.70	-1.96	4.19	0.00	0.00	0.00
400.00	0.95	332.03	399.95	5.16	-2.74	5.84	0.00	0.00	0.00
500.00	0.95	332.03	499.94	6.62	-3.52	7.50	0.00	0.00	0.00
600.00	0.95	332.03	599.93	8.09	-4.29	9.16	0.00	0.00	0.00
700.00	0.95	332.03	699.91	9.55	-5.07	10.82	0.00	0.00	0.00
800.00	0.95	332.03	799.90	11.02	-5.85	12.47	0.00	0.00	0.00
900.00	0.95	332.03	899.89	12.48	-6.63	14.13	0.00	0.00	0.00
915.12	0.95	332.03	915.00	12.70	-6.74	14.38	0.00	0.00	0.00
8-5/8"									
1,000.00	0.95	332.03	999.87	13.95	-7.40	15.79	0.00	0.00	0.00
1,100.00	0.95	332.03	1,099.86	15.41	-8.18	17.45	0.00	0.00	0.00
1,200.00	0.95	332.03	1,199.84	16.87	-8.96	19.10	0.00	0.00	0.00
1,300.00	0.95	332.03	1,299.83	18.34	-9.74	20.76	0.00	0.00	0.00
1,400.00	0.95	332.03	1,399.82	19.80	-10.51	22.42	0.00	0.00	0.00
1,500.00	0.95	332.03	1,499.80	21.27	-11.29	24.08	0.00	0.00	0.00
1,600.00	0.95	332.03	1,599.79	22.73	-12.07	25.73	0.00	0.00	0.00
1,700.00	0.95	332.03	1,699.78	24.19	-12.85	27.39	0.00	0.00	0.00
1,800.00	0.95	332.03	1,799.76	25.66	-13.62	29.05	0.00	0.00	0.00
1,900.00	0.95	332.03	1,899.75	27.12	-14.40	30.71	0.00	0.00	0.00
2,000.00	0.95	332.03	1,999.73	28.59	-15.18	32.36	0.00	0.00	0.00
2,100.00	0.95	332.03	2,099.72	30.05	-15.96	34.02	0.00	0.00	0.00
2,200.00	0.95	332.03	2,199.71	31.51	-16.73	35.68	0.00	0.00	0.00
2,300.00	0.95	332.03	2,299.69	32.98	-17.51	37.34	0.00	0.00	0.00
2,400.00	0.95	332.03	2,399.68	34.44	-18.29	39.00	0.00	0.00	0.00
2,500.00	0.95	332.03	2,499.67	35.91	-19.06	40.65	0.00	0.00	0.00
2,600.00	0.95	332.03	2,599.65	37.37	-19.84	42.31	0.00	0.00	0.00
2,700.00	0.95	332.03	2,699.64	38.83	-20.62	43.97	0.00	0.00	0.00
2,800.00	0.95	332.03	2,799.62	40.30	-21.40	45.63	0.00	0.00	0.00
2,900.00	0.95	332.03	2,899.61	41.76	-22.17	47.28	0.00	0.00	0.00
3,000.00	0.95	332.03	2,999.60	43.23	-22.95	48.94	0.00	0.00	0.00
3,100.00	0.95	332.03	3,099.58	44.69	-23.73	50.60	0.00	0.00	0.00
3,200.00	0.95	332.03	3,199.57	46.15	-24.51	52.26	0.00	0.00	0.00
3,300.00	0.95	332.03	3,299.56	47.62	-25.28	53.91	0.00	0.00	0.00
3,400.00	0.95	332.03	3,399.54	49.08	-26.06	55.57	0.00	0.00	0.00
3,500.00	0.95	332.03	3,499.53	50.55	-26.84	57.23	0.00	0.00	0.00
3,600.00	0.95	332.03	3,599.51	52.01	-27.62	58.89	0.00	0.00	0.00
3,700.00	0.95	332.03	3,699.50	53.47	-28.39	60.54	0.00	0.00	0.00
3,800.00	0.95	332.03	3,799.49	54.94	-29.17	62.20	0.00	0.00	0.00
3,900.00	0.95	332.03	3,899.47	56.40	-29.95	63.86	0.00	0.00	0.00
4,000.00	0.95	332.03	3,999.46	57.87	-30.73	65.52	0.00	0.00	0.00
4,039.55	0.95	332.03	4,039.00	58.44	-31.03	66.17	0.00	0.00	0.00
PK Depth									
4,100.00	0.95	332.03	4,099.45	59.33	-31.50	67.17	0.00	0.00	0.00
4,200.00	0.95	332.03	4,199.43	60.79	-32.28	68.83	0.00	0.00	0.00
4,300.00	0.95	332.03	4,299.42	62.26	-33.06	70.49	0.00	0.00	0.00
4,400.00	0.95	332.03	4,399.40	63.72	-33.83	72.15	0.00	0.00	0.00
4,499.61	0.95	332.03	4,499.00	65.18	-34.61	73.80	0.00	0.00	0.00
SX Depth									
4,500.00	0.95	332.03	4,499.39	65.19	-34.61	73.81	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 1-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 1-2		
Design:	LAMBRECHT 1-2 (wp02)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	0.95	332.03	4,599.38	66.65	-35.39	75.46	0.00	0.00	0.00
4,700.00	0.95	332.03	4,699.36	68.11	-36.17	77.12	0.00	0.00	0.00
4,800.00	0.95	332.03	4,799.35	69.58	-36.94	78.78	0.00	0.00	0.00
4,900.00	0.95	332.03	4,899.34	71.04	-37.72	80.44	0.00	0.00	0.00
5,000.00	0.95	332.03	4,999.32	72.51	-38.50	82.09	0.00	0.00	0.00
5,100.00	0.95	332.03	5,099.31	73.97	-39.28	83.75	0.00	0.00	0.00
5,200.00	0.95	332.03	5,199.29	75.43	-40.05	85.41	0.00	0.00	0.00
5,300.00	0.95	332.03	5,299.28	76.90	-40.83	87.07	0.00	0.00	0.00
5,400.00	0.95	332.03	5,399.27	78.36	-41.61	88.72	0.00	0.00	0.00
5,500.00	0.95	332.03	5,499.25	79.83	-42.39	90.38	0.00	0.00	0.00
5,600.00	0.95	332.03	5,599.24	81.29	-43.16	92.04	0.00	0.00	0.00
5,700.00	0.95	332.03	5,699.23	82.75	-43.94	93.70	0.00	0.00	0.00
5,800.00	0.95	332.03	5,799.21	84.22	-44.72	95.35	0.00	0.00	0.00
5,900.00	0.95	332.03	5,899.20	85.68	-45.49	97.01	0.00	0.00	0.00
6,000.00	0.95	332.03	5,999.18	87.15	-46.27	98.67	0.00	0.00	0.00
6,100.00	0.95	332.03	6,099.17	88.61	-47.05	100.33	0.00	0.00	0.00
6,200.00	0.95	332.03	6,199.16	90.07	-47.83	101.98	0.00	0.00	0.00
6,300.00	0.95	332.03	6,299.14	91.54	-48.60	103.64	0.00	0.00	0.00
6,400.00	0.95	332.03	6,399.13	93.00	-49.38	105.30	0.00	0.00	0.00
6,500.00	0.95	332.03	6,499.12	94.47	-50.16	106.96	0.00	0.00	0.00
6,600.00	0.95	332.03	6,599.10	95.93	-50.94	108.61	0.00	0.00	0.00
6,700.00	0.95	332.03	6,699.09	97.39	-51.71	110.27	0.00	0.00	0.00
6,800.00	0.95	332.03	6,799.07	98.86	-52.49	111.93	0.00	0.00	0.00
6,900.00	0.95	332.03	6,899.06	100.32	-53.27	113.59	0.00	0.00	0.00
7,000.00	0.95	332.03	6,999.05	101.79	-54.05	115.25	0.00	0.00	0.00
7,100.00	0.95	332.03	7,099.03	103.25	-54.82	116.90	0.00	0.00	0.00
7,200.00	0.95	332.03	7,199.02	104.71	-55.60	118.56	0.00	0.00	0.00
7,219.98	0.95	332.03	7,219.00	105.01	-55.76	118.89	0.00	0.00	0.00
NIO Depth									
7,300.00	0.95	332.03	7,299.01	106.18	-56.38	120.22	0.00	0.00	0.00
7,400.00	0.95	332.03	7,398.99	107.64	-57.16	121.88	0.00	0.00	0.00
7,500.00	0.95	332.03	7,498.98	109.11	-57.93	123.53	0.00	0.00	0.00
7,530.03	0.95	332.03	7,529.00	109.55	-58.17	124.03	0.00	0.00	0.00
CD Depth									
7,600.00	0.95	332.03	7,598.96	110.57	-58.71	125.19	0.00	0.00	0.00
7,618.04	0.95	332.03	7,617.00	110.83	-58.85	125.49	0.00	0.00	0.00
GH Depth									
7,700.00	0.95	332.03	7,698.95	112.03	-59.49	126.85	0.00	0.00	0.00
7,800.00	0.95	332.03	7,798.94	113.50	-60.26	128.51	0.00	0.00	0.00
7,900.00	0.95	332.03	7,898.92	114.96	-61.04	130.16	0.00	0.00	0.00
7,970.09	0.95	332.03	7,969.00	115.99	-61.59	131.33	0.00	0.00	0.00
J Depth									
8,000.00	0.95	332.03	7,998.91	116.43	-61.82	131.82	0.00	0.00	0.00
8,100.00	0.95	332.03	8,098.90	117.89	-62.60	133.48	0.00	0.00	0.00
8,110.11	0.95	332.03	8,109.00	118.04	-62.68	133.65	0.00	0.00	0.00
LAMBRECHT 1-2 BHL									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well LAMBRECHT 1-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 4954.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 1-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 1-2		
Design:	LAMBRECHT 1-2 (wp02)		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
LAMBRECHT 1-2 BHL	0.00	0.00	8,109.00	118.04	-62.68	1,274,889.67	3,181,687.74	40.086137	-104.850645
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
915.12	915.00	8-5/8"		8-5/8	11

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,039.55	4,039.00	PK Depth				
4,499.61	4,499.00	SX Depth				
7,219.98	7,219.00	NIO Depth				
7,530.03	7,529.00	CD Depth				
7,618.04	7,617.00	GH Depth				
7,970.09	7,969.00	J Depth				