



Drilling Services

Proposal



YA 6

MONTEZUMA CO., CO

WELL FILE: **PLAN 1**

DECEMBER 1, 2011

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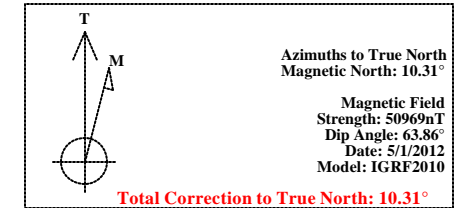
YA 6
Montezuma Co., Colorado

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7905.00	0.00	45.00	7905.00	0.00	0.00	0.00	0.00	0.00	
3	8101.35	90.00	45.00	8030.00	88.39	88.39	45.84	45.00	125.00	
4	9979.44	90.00	45.00	8030.00	1416.45	1416.35	0.00	0.00	2003.09	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
YA-6	0.00	0.00	1305857.17	2048977.39	37°27'38.988N	108°46'38.064W	N/A

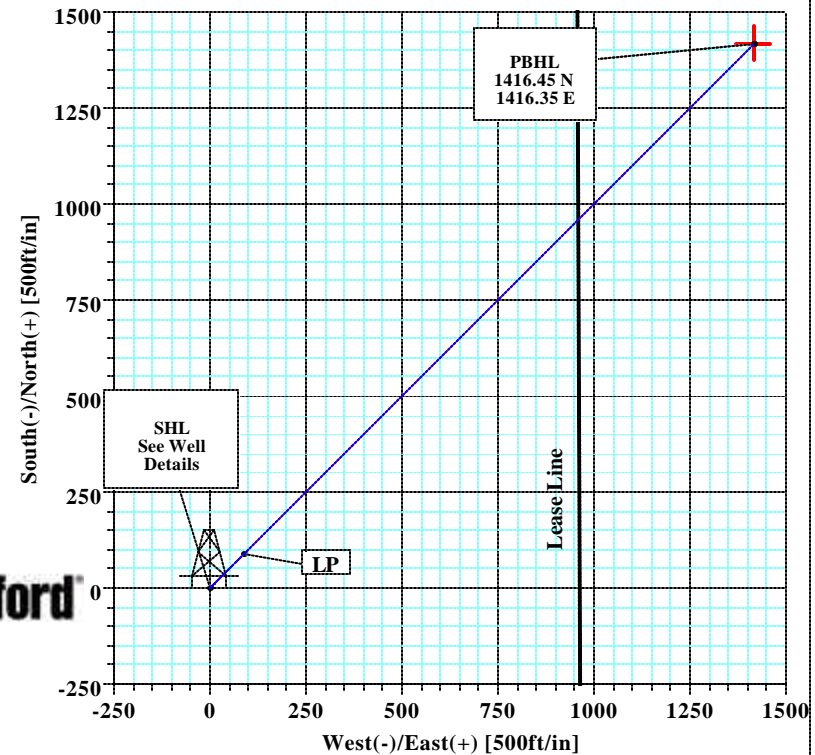
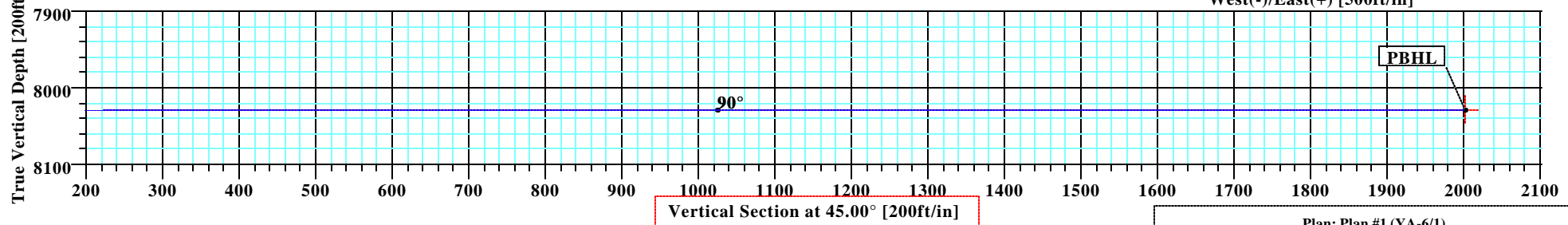
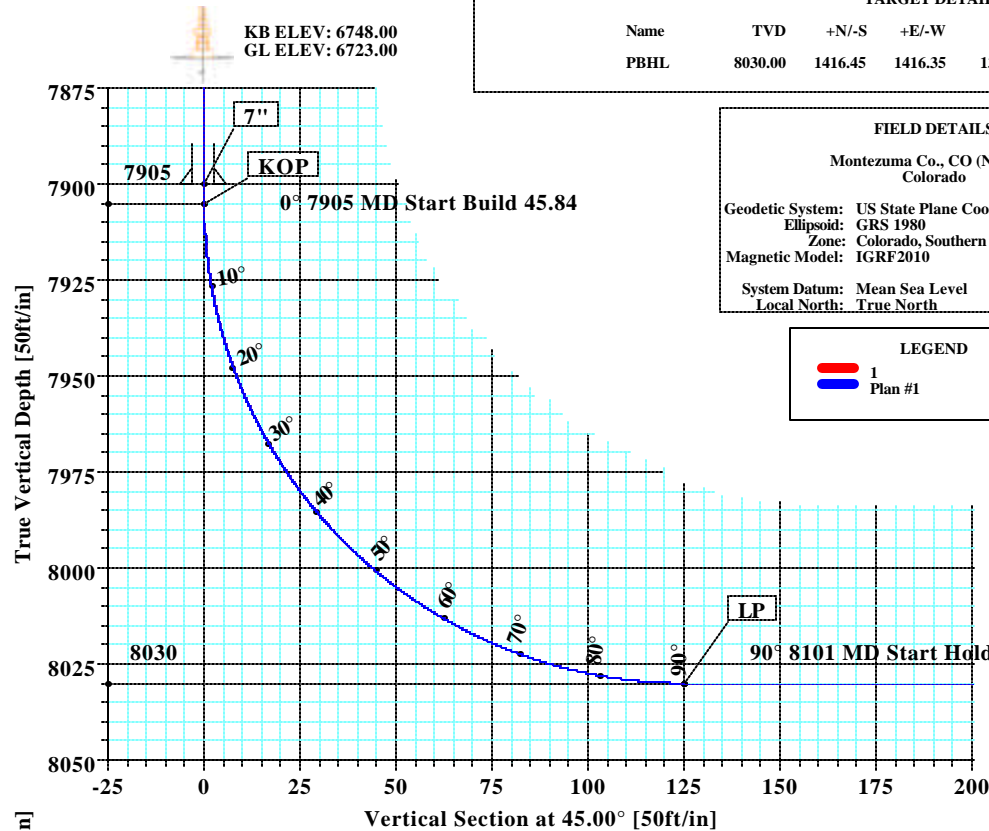
TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
PBHL	8030.00	1416.45	1416.35	1307223.06	2050442.55	Point	

SITE DETAILS	
YA-6	
Site Centre Latitude:	37°27'38.988N
Longitude:	108°46'38.064W
Ground Level:	6723.00
Positional Uncertainty:	0.00
Convergence:	-2.01



FIELD DETAILS	
Montezuma Co., CO (NAD83) Colorado	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	Colorado, Southern Zone
Magnetic Model:	IGRF2010
System Datum:	Mean Sea Level
Local North:	True North

LEGEND	
1	Plan #1





Company: Kinder Morgan	Date: 12/1/2011	Time: 08:50:17	Page: 1
Field: Montezuma Co., CO (NAD83)	Co-ordinate(NE) Reference: Well: YA-6, True North		
Site: YA-6	Vertical (TVD) Reference: SITE 6748.0		
Well: YA-6	Section (VS) Reference: Well (0.00N,0.00E,45.00Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Plan: Plan #1	Date Composed: 12/1/2011
Principal: Yes	Version: 1
	Tied-to: From Surface

Field: Montezuma Co., CO (NAD83)
Colorado

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: Colorado, Southern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: YA-6

Site Position:	Northing: 1305857.17 ft	Latitude: 37 27 38.988 N
From: Geographic	Easting: 2048977.39 ft	Longitude: 108 46 38.064 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6723.00 ft		Grid Convergence: -2.01 deg

Well: YA-6	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 37 27 38.988 N
+E/-W 0.00 ft	Longitude: 108 46 38.064 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 5/1/2012	Above System Datum: Mean Sea Level
Field Strength: 50969 nT	Declination: 10.31 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 63.86 deg
ft	+N/-S ft
	+E/-W ft
	Direction deg
0.00	0.00 0.00 45.00

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7905.00	0.00	45.00	7905.00	0.00	0.00	0.00	0.00	0.00	0.00	
8101.35	90.00	45.00	8030.00	88.39	88.39	45.84	45.84	0.00	45.00	
9979.44	90.00	45.00	8030.00	1416.45	1416.35	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
7900.00	0.00	45.00	7900.00	0.00	0.00	0.00	0.00	37	27	38.988	108	46	38.064	7"
7905.00	0.00	45.00	7905.00	0.00	0.00	0.00	0.00	37	27	38.988	108	46	38.064	KOP
7910.00	2.29	45.00	7910.00	0.07	0.07	0.10	45.84	37	27	38.989	108	46	38.063	
7920.00	6.88	45.00	7919.96	0.64	0.64	0.90	45.84	37	27	38.994	108	46	38.056	
7930.00	11.46	45.00	7929.83	1.76	1.76	2.49	45.84	37	27	39.005	108	46	38.042	
7940.00	16.04	45.00	7939.54	3.44	3.44	4.87	45.84	37	27	39.022	108	46	38.021	
7950.00	20.63	45.00	7949.03	5.67	5.67	8.01	45.84	37	27	39.044	108	46	37.994	
7960.00	25.21	45.00	7958.24	8.42	8.42	11.91	45.84	37	27	39.071	108	46	37.960	
7970.00	29.79	45.00	7967.11	11.68	11.68	16.52	45.84	37	27	39.103	108	46	37.919	
7980.00	34.38	45.00	7975.58	15.44	15.44	21.83	45.84	37	27	39.141	108	46	37.873	
7990.00	38.96	45.00	7983.60	19.66	19.66	27.80	45.84	37	27	39.182	108	46	37.820	
8000.00	43.54	45.00	7991.12	24.32	24.32	34.40	45.84	37	27	39.228	108	46	37.762	
8010.00	48.13	45.00	7998.08	29.39	29.39	41.57	45.84	37	27	39.279	108	46	37.699	
8020.00	52.71	45.00	8004.45	34.84	34.84	49.27	45.84	37	27	39.332	108	46	37.632	
8030.00	57.30	45.00	8010.18	40.63	40.63	57.46	45.84	37	27	39.390	108	46	37.560	
8040.00	61.88	45.00	8015.24	46.73	46.73	66.08	45.84	37	27	39.450	108	46	37.484	
8050.00	66.46	45.00	8019.60	53.09	53.09	75.08	45.84	37	27	39.513	108	46	37.406	

Company: Kinder Morgan	Date: 12/1/2011	Time: 08:50:17	Page: 2
Field: Montezuma Co., CO (NAD83)	Co-ordinate(NE) Reference: Well: YA-6, True North		
Site: YA-6	Vertical (TVD) Reference: SITE 6748.0		
Well: YA-6	Section (VS) Reference: Well (0.00N,0.00E,45.00Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
8060.00	71.05	45.00	8023.22	59.68	59.68	84.40	45.84	37	27	39.578	108	46	37.324	
8070.00	75.63	45.00	8026.09	66.45	66.45	93.98	45.84	37	27	39.645	108	46	37.240	
8080.00	80.21	45.00	8028.18	73.37	73.36	103.75	45.84	37	27	39.713	108	46	37.154	
8090.00	84.80	45.00	8029.49	80.38	80.37	113.67	45.84	37	27	39.783	108	46	37.067	
8100.00	89.38	45.00	8029.99	87.44	87.43	123.65	45.84	37	27	39.852	108	46	36.980	
8101.35	90.00	45.00	8030.00	88.39	88.39	125.00	45.84	37	27	39.862	108	46	36.968	LP
8200.00	90.00	45.00	8030.00	158.15	158.14	223.65	0.00	37	27	40.552	108	46	36.103	
8300.00	90.00	45.00	8030.00	228.86	228.85	323.65	0.00	37	27	41.251	108	46	35.226	
8400.00	90.00	45.00	8030.00	299.58	299.56	423.65	0.00	37	27	41.950	108	46	34.349	
8500.00	90.00	45.00	8030.00	370.29	370.26	523.65	0.00	37	27	42.649	108	46	33.472	
8600.00	90.00	45.00	8030.00	441.00	440.97	623.65	0.00	37	27	43.348	108	46	32.595	
8700.00	90.00	45.00	8030.00	511.72	511.68	723.65	0.00	37	27	44.047	108	46	31.717	
8800.00	90.00	45.00	8030.00	582.43	582.39	823.65	0.00	37	27	44.746	108	46	30.840	
8900.00	90.00	45.00	8030.00	653.14	653.10	923.65	0.00	37	27	45.445	108	46	29.963	
9000.00	90.00	45.00	8030.00	723.85	723.81	1023.65	0.00	37	27	46.145	108	46	29.086	
9100.00	90.00	45.00	8030.00	794.57	794.51	1123.65	0.00	37	27	46.844	108	46	28.209	
9200.00	90.00	45.00	8030.00	865.28	865.22	1223.65	0.00	37	27	47.543	108	46	27.332	
9300.00	90.00	45.00	8030.00	935.99	935.93	1323.65	0.00	37	27	48.242	108	46	26.455	
9400.00	90.00	45.00	8030.00	1006.71	1006.64	1423.65	0.00	37	27	48.941	108	46	25.578	
9500.00	90.00	45.00	8030.00	1077.42	1077.35	1523.65	0.00	37	27	49.640	108	46	24.701	
9600.00	90.00	45.00	8030.00	1148.13	1148.06	1623.65	0.00	37	27	50.339	108	46	23.824	
9700.00	90.00	45.00	8030.00	1218.85	1218.76	1723.65	0.00	37	27	51.038	108	46	22.947	
9800.00	90.00	45.00	8030.00	1289.56	1289.47	1823.65	0.00	37	27	51.737	108	46	22.070	
9900.00	90.00	45.00	8030.00	1360.27	1360.18	1923.65	0.00	37	27	52.437	108	46	21.193	
9979.44	90.00	45.00	8030.00	1416.45	1416.35	2003.09	0.00	37	27	52.992	108	46	20.496	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec				
PBHL			8030.00	1416.45	1416.35	1307223.06	2050442.55	37	27	52.992	N	108	46	20.496	W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
7900.00	7900.00	7.000	0.000	7"

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
7905.00	7905.00	KOP
8101.35	8030.00	LP
9979.44	8030.00	PBHL

**Weatherford****Weatherford Drilling Services**

GeoDec v5.03

Report Date: December 01, 2011

Job Number: _____

Customer: Kinder Morgan

Well Name: YA 6

API Number: _____

Rig Name: _____

Location: Montezuma Co., CO

Block: _____

Engineer: KRN

Geodetic Latitude / Longitude

System: Latitude / Longitude

Projection: Geodetic Latitude and Longitude

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Latitude 37.4608300 DEG

Longitude -108.7772400 DEG

Geodetic Latitude / Longitude

System: Latitude / Longitude

Projection: Geodetic Latitude and Longitude

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Latitude 37.4608300 DEG

Longitude -108.7772400 DEG

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 37.46083° N 37° 27 min 38.988 sec

Longitude = 108.77724° W 108° 46 min 38.064 sec

Magnetic Declination = 10.31° [True North Offset]

Local Gravity = .9993 g CheckSum = 7487

Local Field Strength = 50965 nT Magnetic Vector X = 22088 nT

Magnetic Dip = 63.86° Magnetic Vector Y = 4018 nT

Magnetic Model = IGRF-2010g11 Magnetic Vector Z = 45754 nT

Spud Date = May 01, 2012 Magnetic Vector H = 22451 nT

Signed: _____

Date: _____