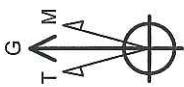


Continental Resources

Field: Weld County, Co. (NAD 83)
 Site: Staudinger
 Well: 1-31H
 Wellpath: OH
 Plan: Plan #1



Azimuths to Grid North
 True North: -0.81°
 Magnetic North: 7.80°
 Magnetic Field
 Strength: 53354nT
 Dip Angle: 67.32°
 Date: 5/9/2011
 Model: IGRF2010

SITE DETAILS

Staudinger
 Sec. 31-T8N-R61W
 250' FNL & 694' FEL
 Northing: 1472786.82
 Easting: 3349076.93
 Ground Level: 4980.00
 KB: 16.00



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
2	6086.54	0.00	0.00	6086.54	0.00	0.00	0.00	0.00	0.00	-0.00
3	6834.67	89.78	180.20	6564.00	-475.59	-1.69	12.00	180.20	475.59	475.59
4	16023.81	89.78	180.20	6600.00	-9664.60	-34.29	0.00	0.00	9664.66	PBHL

TARGET DETAILS

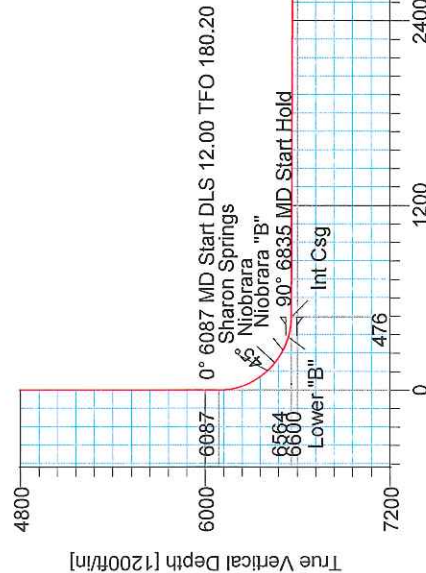
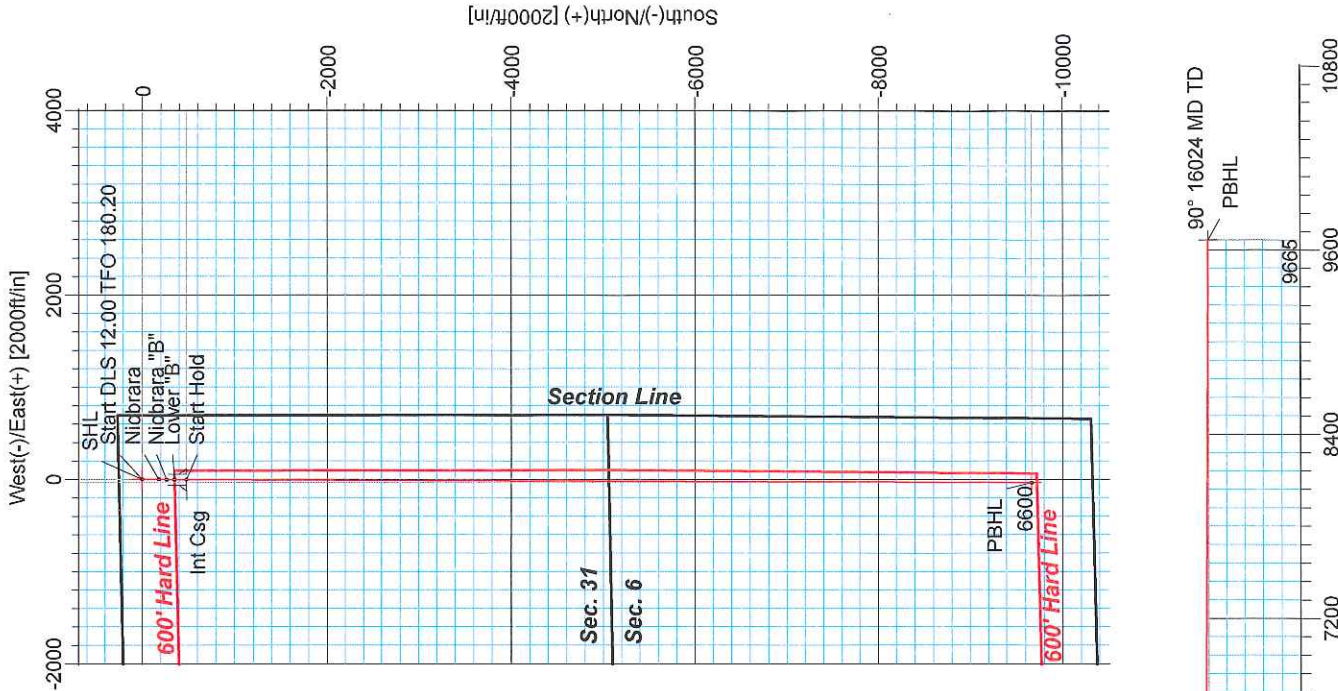
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL	0.00	0.00	0.00	1472786.82	3349076.93	40°37'27.818N	104°14'32.813W	Point
PBHL	6600.00	-9664.60	-34.29	1463122.22	3349042.64	40°35'52.332N	104°14'35.034W	Point

CASING DETAILS

No.	TVD	MD	Name	Size
1	6564.00	6834.67	Int Csg	0.000

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	533.00	533.00	Pierre
2	3623.00	3623.00	Laramie
3	6410.00	6441.91	Sharon Springs
4	6457.68	6511.67	Niobrara
5	6512.00	6611.82	Niobrara "B"
6	6545.33	6702.54	Lower "B"



LEAM DRILLING SYSTEMS, INC.
 2010 East Davis, Conroe, Texas 77301
 Phone: 936-756-7577 Fax: 936-756-7595

Plan: Plan #1 (1-31HCH)
 Created By: Justin Andoe
 Checked: _____ Date: _____
 Reviewed: _____ Date: _____
 Approved: _____ Date: _____

LEAM Drilling Systems, Inc.

Planning Report

Company: Continental Resources	Date: 5/9/2011	Time: 15:40:00	Page: 1
Field: Weld County, Co. (NAD 83)	Co-ordinate(NE) Reference: Well: 1-31H, Grid North		
Site: Staudinger	Vertical (TVD) Reference: GL 4980'+KB 16' 4996.0		
Well: 1-31H	Section (YS) Reference: Well (0.00N,0.00E,180.20Azi)		
Wellpath: OH	Survey Calculation Method: Minimum Curvature	Db: Adapti	

Field: Weld County, Co. (NAD 83)

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

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

Site: Staudinger
 Sec. 31-T8N-R61W
 250' FNL & 694' FEL

Site Position:	Northing: 1472786.82 ft	Latitude: 40 37 27.818 N
From: Map	Easting: 3349076.93 ft	Longitude: 104 14 32.813 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 4980.00 ft		Grid Convergence: 0.81 deg

Well: 1-31H

Slot Name:

Well Position:	+N/-S 0.00 ft	Northing: 1472786.82 ft	Latitude: 40 37 27.818 N
	+E/-W 0.00 ft	Easting: 3349076.93 ft	Longitude: 104 14 32.813 W
Position Uncertainty: 0.00 ft			

Wellpath: OH

Current Datum: GL 4980'+KB 16'	Height 4996.00 ft	Drilled From: Surface
Magnetic Data: 5/9/2011		Tie-on Depth: 0.00 ft
Field Strength: 53354 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: 8.62 deg
ft	ft	Mag Dip Angle: 67.32 deg
		+E/-W
		ft
		Direction
		deg
0.00	0.00	0.00
		180.20

Plan: Plan #1

Date Composed: 5/9/2011
Version: 1
Tied-to: User Defined

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6086.54	0.00	0.00	6086.54	0.00	0.00	0.00	0.00	0.00	0.00	
6834.67	89.78	180.20	6564.00	-475.59	-1.69	12.00	12.00	-24.03	180.20	
16023.81	89.78	180.20	6600.00	-9664.60	-34.29	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	Build deg/100ft	Turn deg/100ft	Tool/Comment
6086.54	0.00	0.00	6086.54	0.00	0.00	-0.00	0.00	0.00	0.00	
6100.00	1.62	180.20	6100.00	-0.19	0.00	0.19	12.00	12.00	0.00	
6125.00	4.62	180.20	6124.96	-1.55	-0.01	1.55	12.00	12.00	0.00	
6150.00	7.62	180.20	6149.81	-4.21	-0.01	4.21	12.00	12.00	0.00	
6175.00	10.62	180.20	6174.49	-8.17	-0.03	8.17	12.00	12.00	0.00	
6200.00	13.62	180.20	6198.94	-13.42	-0.05	13.42	12.00	12.00	0.00	
6225.00	16.62	180.20	6223.07	-19.94	-0.07	19.94	12.00	12.00	0.00	
6250.00	19.62	180.20	6246.83	-27.71	-0.10	27.71	12.00	12.00	0.00	
6275.00	22.62	180.20	6270.14	-36.71	-0.13	36.71	12.00	12.00	0.00	
6300.00	25.62	180.20	6292.96	-46.93	-0.17	46.93	12.00	12.00	0.00	
6325.00	28.62	180.20	6315.21	-58.32	-0.21	58.32	12.00	12.00	0.00	
6350.00	31.62	180.20	6336.83	-70.86	-0.25	70.86	12.00	12.00	0.00	
6375.00	34.62	180.20	6357.77	-84.52	-0.30	84.52	12.00	12.00	0.00	
6400.00	37.62	180.20	6377.96	-99.25	-0.35	99.25	12.00	12.00	0.00	
6425.00	40.62	180.20	6397.36	-115.02	-0.41	115.02	12.00	12.00	0.00	
6441.91	42.64	180.20	6410.00	-126.26	-0.45	126.26	12.00	12.00	0.00	Sharon Springs
6450.00	43.62	180.20	6415.90	-131.78	-0.47	131.79	12.00	12.00	0.00	

LEAM Drilling Systems, Inc.

Planning Report

Company: Continental Resources
Field: Weld County, Co. (NAD 83)
Site: Staudinger
Well: 1-31H
Wellpath: OH

Date: 5/9/2011 **Time:** 15:40:00 **Page:** 2
Co-ordinate(NE) Reference: Well: 1-31H, Grid North
Vertical (TVD) Reference: GL 4980'+KB 16' 4996.0
Section (VS) Reference: Well (0.00N,0.00E,180.20Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6475.00	46.62	180.20	6433.54	-149.50	-0.53	149.50	12.00	12.00	0.00	
6500.00	49.62	180.20	6450.23	-168.11	-0.60	168.11	12.00	12.00	0.00	
6511.67	51.02	180.20	6457.68	-177.08	-0.63	177.09	12.00	12.00	0.00	Niobrara
6525.00	52.62	180.20	6465.92	-187.56	-0.67	187.56	12.00	12.00	0.00	
6550.00	55.62	180.20	6480.57	-207.82	-0.74	207.82	12.00	12.00	0.00	
6575.00	58.62	180.20	6494.15	-228.81	-0.81	228.81	12.00	12.00	0.00	
6600.00	61.62	180.20	6506.60	-250.48	-0.89	250.48	12.00	12.00	0.00	
6611.62	63.01	180.20	6512.00	-260.77	-0.93	260.77	12.00	12.00	0.00	Niobrara "B"
6625.00	64.62	180.20	6517.91	-272.78	-0.97	272.78	12.00	12.00	0.00	
6650.00	67.62	180.20	6528.03	-295.63	-1.05	295.63	12.00	12.00	0.00	
6675.00	70.62	180.20	6536.94	-318.99	-1.13	318.99	12.00	12.00	0.00	
6700.00	73.62	180.20	6544.61	-342.78	-1.22	342.78	12.00	12.00	0.00	
6702.54	73.92	180.20	6545.33	-345.22	-1.22	345.22	12.00	12.00	0.00	Lower "B"
6725.00	76.62	180.20	6551.04	-366.93	-1.30	366.94	12.00	12.00	0.00	
6750.00	79.62	180.20	6556.18	-391.40	-1.39	391.40	12.00	12.00	0.00	
6775.00	82.62	180.20	6560.04	-416.09	-1.48	416.10	12.00	12.00	0.00	
6800.00	85.62	180.20	6562.61	-440.96	-1.56	440.96	12.00	12.00	0.00	
6825.00	88.62	180.20	6563.87	-465.92	-1.65	465.93	12.00	12.00	0.00	
6834.67	89.78	180.20	6564.00	-475.59	-1.69	475.59	12.00	12.00	0.00	Int Csg
6900.00	89.78	180.20	6564.26	-540.92	-1.92	540.92	0.00	0.00	0.00	
7000.00	89.78	180.20	6564.65	-640.92	-2.27	640.92	0.00	0.00	0.00	
7100.00	89.78	180.20	6565.04	-740.92	-2.63	740.92	0.00	0.00	0.00	
7200.00	89.78	180.20	6565.43	-840.92	-2.98	840.92	0.00	0.00	0.00	
7300.00	89.78	180.20	6565.82	-940.92	-3.34	940.92	0.00	0.00	0.00	
7400.00	89.78	180.20	6566.22	-1040.91	-3.69	1040.92	0.00	0.00	0.00	
7500.00	89.78	180.20	6566.61	-1140.91	-4.05	1140.92	0.00	0.00	0.00	
7600.00	89.78	180.20	6567.00	-1240.91	-4.40	1240.92	0.00	0.00	0.00	
7700.00	89.78	180.20	6567.39	-1340.91	-4.76	1340.92	0.00	0.00	0.00	
7800.00	89.78	180.20	6567.78	-1440.91	-5.11	1440.92	0.00	0.00	0.00	
7900.00	89.78	180.20	6568.17	-1540.91	-5.47	1540.92	0.00	0.00	0.00	
8000.00	89.78	180.20	6568.57	-1640.91	-5.82	1640.92	0.00	0.00	0.00	
8100.00	89.78	180.20	6568.96	-1740.90	-6.18	1740.92	0.00	0.00	0.00	
8200.00	89.78	180.20	6569.35	-1840.90	-6.53	1840.91	0.00	0.00	0.00	
8300.00	89.78	180.20	6569.74	-1940.90	-6.89	1940.91	0.00	0.00	0.00	
8400.00	89.78	180.20	6570.13	-2040.90	-7.24	2040.91	0.00	0.00	0.00	
8500.00	89.78	180.20	6570.53	-2140.90	-7.60	2140.91	0.00	0.00	0.00	
8600.00	89.78	180.20	6570.92	-2240.90	-7.95	2240.91	0.00	0.00	0.00	
8700.00	89.78	180.20	6571.31	-2340.90	-8.31	2340.91	0.00	0.00	0.00	
8800.00	89.78	180.20	6571.70	-2440.89	-8.66	2440.91	0.00	0.00	0.00	
8900.00	89.78	180.20	6572.09	-2540.89	-9.01	2540.91	0.00	0.00	0.00	
9000.00	89.78	180.20	6572.48	-2640.89	-9.37	2640.91	0.00	0.00	0.00	
9100.00	89.78	180.20	6572.88	-2740.89	-9.72	2740.91	0.00	0.00	0.00	
9200.00	89.78	180.20	6573.27	-2840.89	-10.08	2840.91	0.00	0.00	0.00	
9300.00	89.78	180.20	6573.66	-2940.89	-10.43	2940.91	0.00	0.00	0.00	
9400.00	89.78	180.20	6574.05	-3040.89	-10.79	3040.91	0.00	0.00	0.00	
9500.00	89.78	180.20	6574.44	-3140.88	-11.14	3140.90	0.00	0.00	0.00	
9600.00	89.78	180.20	6574.83	-3240.88	-11.50	3240.90	0.00	0.00	0.00	
9700.00	89.78	180.20	6575.23	-3340.88	-11.85	3340.90	0.00	0.00	0.00	
9800.00	89.78	180.20	6575.62	-3440.88	-12.21	3440.90	0.00	0.00	0.00	
9900.00	89.78	180.20	6576.01	-3540.88	-12.56	3540.90	0.00	0.00	0.00	
10000.00	89.78	180.20	6576.40	-3640.88	-12.92	3640.90	0.00	0.00	0.00	
10100.00	89.78	180.20	6576.79	-3740.88	-13.27	3740.90	0.00	0.00	0.00	
10200.00	89.78	180.20	6577.18	-3840.87	-13.63	3840.90	0.00	0.00	0.00	

LEAM Drilling Systems, Inc.

Planning Report

Company: Continental Resources	Date: 5/9/2011	Time: 15:40:00	Page: 3
Field: Weld County, Co. (NAD 83)	Co-ordinate(NE) Reference: Well: 1-31H, Grid North		
Site: Staudinger	Vertical (TVD) Reference: GL 4980'+KB 16' 4996.0		
Well: 1-31H	Section (VS) Reference: Well (0.00N,0.00E,180.20Azi)		
Wellpath: OH	Survey Calculation Method: Minimum Curvature	Db: Adapti	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10300.00	89.78	180.20	6577.58	-3940.87	-13.98	3940.90	0.00	0.00	0.00	
10400.00	89.78	180.20	6577.97	-4040.87	-14.34	4040.90	0.00	0.00	0.00	
10500.00	89.78	180.20	6578.36	-4140.87	-14.69	4140.90	0.00	0.00	0.00	
10600.00	89.78	180.20	6578.75	-4240.87	-15.05	4240.90	0.00	0.00	0.00	
10700.00	89.78	180.20	6579.14	-4340.87	-15.40	4340.90	0.00	0.00	0.00	
10800.00	89.78	180.20	6579.54	-4440.87	-15.76	4440.89	0.00	0.00	0.00	
10900.00	89.78	180.20	6579.93	-4540.87	-16.11	4540.89	0.00	0.00	0.00	
11000.00	89.78	180.20	6580.32	-4640.86	-16.46	4640.89	0.00	0.00	0.00	
11100.00	89.78	180.20	6580.71	-4740.86	-16.82	4740.89	0.00	0.00	0.00	
11200.00	89.78	180.20	6581.10	-4840.86	-17.17	4840.89	0.00	0.00	0.00	
11300.00	89.78	180.20	6581.49	-4940.86	-17.53	4940.89	0.00	0.00	0.00	
11400.00	89.78	180.20	6581.89	-5040.86	-17.88	5040.89	0.00	0.00	0.00	
11500.00	89.78	180.20	6582.28	-5140.86	-18.24	5140.89	0.00	0.00	0.00	
11600.00	89.78	180.20	6582.67	-5240.86	-18.59	5240.89	0.00	0.00	0.00	
11700.00	89.78	180.20	6583.06	-5340.85	-18.95	5340.89	0.00	0.00	0.00	
11800.00	89.78	180.20	6583.45	-5440.85	-19.30	5440.89	0.00	0.00	0.00	
11900.00	89.78	180.20	6583.84	-5540.85	-19.66	5540.89	0.00	0.00	0.00	
12000.00	89.78	180.20	6584.24	-5640.85	-20.01	5640.89	0.00	0.00	0.00	
12100.00	89.78	180.20	6584.63	-5740.85	-20.37	5740.88	0.00	0.00	0.00	
12200.00	89.78	180.20	6585.02	-5840.85	-20.72	5840.88	0.00	0.00	0.00	
12300.00	89.78	180.20	6585.41	-5940.85	-21.08	5940.88	0.00	0.00	0.00	
12400.00	89.78	180.20	6585.80	-6040.84	-21.43	6040.88	0.00	0.00	0.00	
12500.00	89.78	180.20	6586.20	-6140.84	-21.79	6140.88	0.00	0.00	0.00	
12600.00	89.78	180.20	6586.59	-6240.84	-22.14	6240.88	0.00	0.00	0.00	
12700.00	89.78	180.20	6586.98	-6340.84	-22.50	6340.88	0.00	0.00	0.00	
12800.00	89.78	180.20	6587.37	-6440.84	-22.85	6440.88	0.00	0.00	0.00	
12900.00	89.78	180.20	6587.76	-6540.84	-23.21	6540.88	0.00	0.00	0.00	
13000.00	89.78	180.20	6588.15	-6640.84	-23.56	6640.88	0.00	0.00	0.00	
13100.00	89.78	180.20	6588.55	-6740.83	-23.92	6740.88	0.00	0.00	0.00	
13200.00	89.78	180.20	6588.94	-6840.83	-24.27	6840.88	0.00	0.00	0.00	
13300.00	89.78	180.20	6589.33	-6940.83	-24.62	6940.88	0.00	0.00	0.00	
13400.00	89.78	180.20	6589.72	-7040.83	-24.98	7040.87	0.00	0.00	0.00	
13500.00	89.78	180.20	6590.11	-7140.83	-25.33	7140.87	0.00	0.00	0.00	
13600.00	89.78	180.20	6590.50	-7240.83	-25.69	7240.87	0.00	0.00	0.00	
13700.00	89.78	180.20	6590.90	-7340.83	-26.04	7340.87	0.00	0.00	0.00	
13800.00	89.78	180.20	6591.29	-7440.82	-26.40	7440.87	0.00	0.00	0.00	
13900.00	89.78	180.20	6591.68	-7540.82	-26.75	7540.87	0.00	0.00	0.00	
14000.00	89.78	180.20	6592.07	-7640.82	-27.11	7640.87	0.00	0.00	0.00	
14100.00	89.78	180.20	6592.46	-7740.82	-27.46	7740.87	0.00	0.00	0.00	
14200.00	89.78	180.20	6592.86	-7840.82	-27.82	7840.87	0.00	0.00	0.00	
14300.00	89.78	180.20	6593.25	-7940.82	-28.17	7940.87	0.00	0.00	0.00	
14400.00	89.78	180.20	6593.64	-8040.82	-28.53	8040.87	0.00	0.00	0.00	
14500.00	89.78	180.20	6594.03	-8140.81	-28.88	8140.87	0.00	0.00	0.00	
14600.00	89.78	180.20	6594.42	-8240.81	-29.24	8240.87	0.00	0.00	0.00	
14700.00	89.78	180.20	6594.81	-8340.81	-29.59	8340.86	0.00	0.00	0.00	
14800.00	89.78	180.20	6595.21	-8440.81	-29.95	8440.86	0.00	0.00	0.00	
14900.00	89.78	180.20	6595.60	-8540.81	-30.30	8540.86	0.00	0.00	0.00	
15000.00	89.78	180.20	6595.99	-8640.81	-30.66	8640.86	0.00	0.00	0.00	
15100.00	89.78	180.20	6596.38	-8740.81	-31.01	8740.86	0.00	0.00	0.00	
15200.00	89.78	180.20	6596.77	-8840.81	-31.37	8840.86	0.00	0.00	0.00	
15300.00	89.78	180.20	6597.16	-8940.80	-31.72	8940.86	0.00	0.00	0.00	
15400.00	89.78	180.20	6597.56	-9040.80	-32.07	9040.86	0.00	0.00	0.00	

LEAM Drilling Systems, Inc.

Planning Report

Company: Continental Resources Field: Weld County, Co. (NAD 83) Site: Staudinger Well: 1-31H Wellpath: OH	Date: 5/9/2011 Time: 15:40:00 Page: 4 Co-ordinate(NE) Reference: Well: 1-31H, Grid North Vertical (TVD) Reference: GL 4980'+KB 16' 4996.0 Section (VS) Reference: Well (0.00N,0.00E,180.20Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
15500.00	89.78	180.20	6597.95	-9140.80	-32.43	9140.86	0.00	0.00	0.00	
15600.00	89.78	180.20	6598.34	-9240.80	-32.78	9240.86	0.00	0.00	0.00	
15700.00	89.78	180.20	6598.73	-9340.80	-33.14	9340.86	0.00	0.00	0.00	
15800.00	89.78	180.20	6599.12	-9440.80	-33.49	9440.86	0.00	0.00	0.00	
15900.00	89.78	180.20	6599.51	-9540.80	-33.85	9540.86	0.00	0.00	0.00	
16000.00	89.78	180.20	6599.91	-9640.79	-34.20	9640.85	0.00	0.00	0.00	
16023.81	89.78	180.20	6600.00	-9664.60	-34.29	9664.66	0.00	0.00	0.00	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		
SHL		0.00	0.00	0.00	1472786.82	3349076.93	40	37	27.818 N	104	14	32.813 W
PBHL		6600.00	-9664.60	-34.29	1463122.22	3349042.64	40	35	52.332 N	104	14	35.034 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6834.67	6564.00	0.000	0.000	Int Csg

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
533.00	533.00	Pierre		0.00	0.00
3623.00	3623.00	Laramie		0.00	0.00
6441.91	6410.00	Sharon Springs		0.00	0.00
6511.67	6457.68	Niobrara		0.22	180.20
6611.62	6512.00	Niobrara "B"		0.22	180.20
6702.54	6545.33	Lower "B"		0.22	180.20