



Company: B.P.
Project: Archuleta County, CO NAD83
Site: SEC 8-T32N-R5W
Well: Seibel A 2
Wellbore: Lateral 1 ST1
Design: Plan #1

PROJECT DETAILS: Archuleta County, CO NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Southern Zone
System Datum: Mean Sea Level
Local North: Grid



Azimuths to Grid North
True North: 1.17°
Magnetic North: 10.54°

Magnetic Field
Strength: 50481.1 nT
Dip Angle: 63.67°
Date: 4/7/2015
Model: IGRF2015

WELL DETAILS: Seibel A 2

Plan: Plan #1 (Seibel A 2/Lateral 1 ST1)

Created By: Janie Collins Date: 11:43, April 07 2015

GL 6158' & RKB 11' @ 6169.00ft

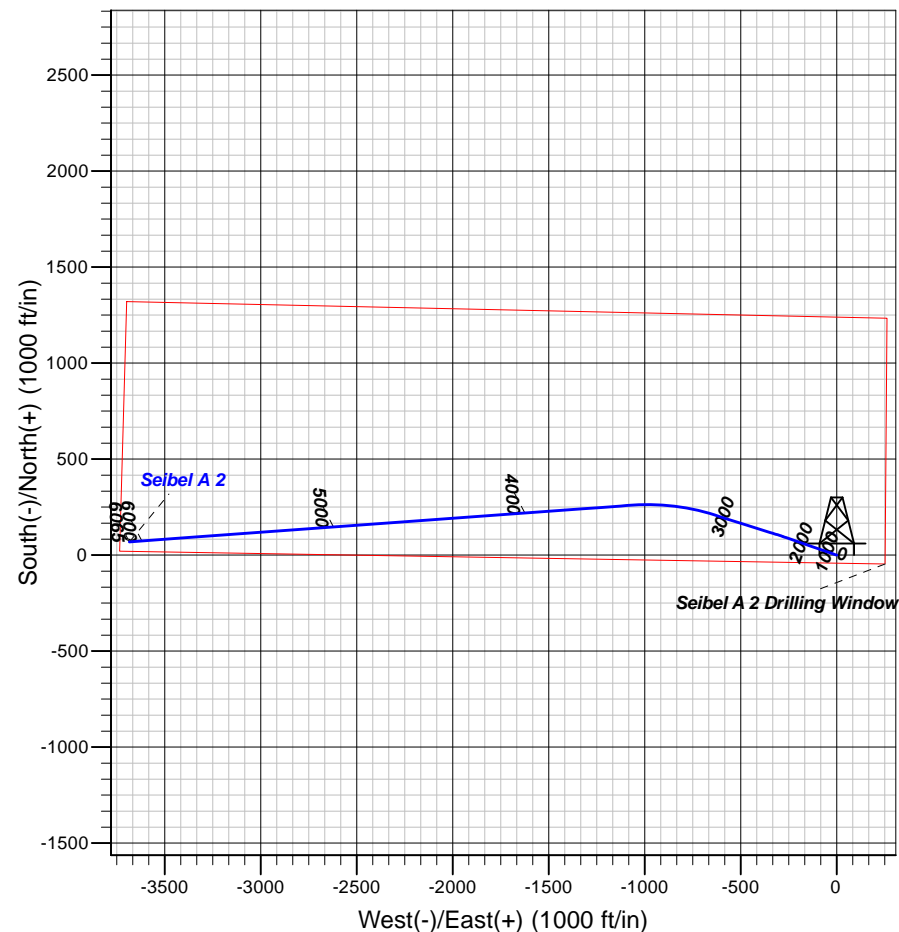
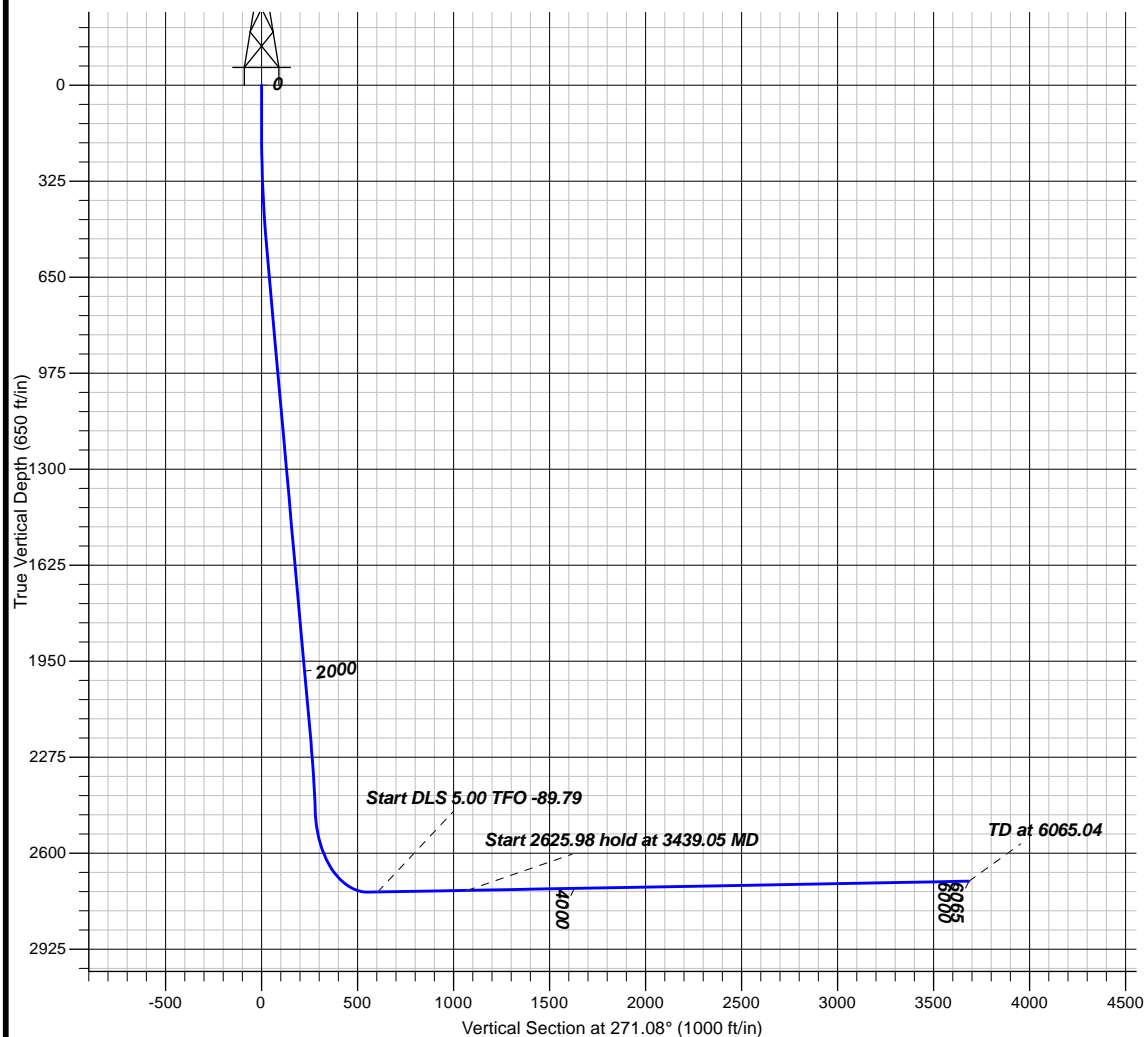
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1137019.42	2442581.73	37.0273181	-107.4094872

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Seibel A 2 ST1 PBHL	2695.00	69.76	-3683.77	1137089.18	2438897.97	37.0273022	-107.4221076

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
2968.87	90.65	289.35	2731.43	198.55	-602.12	0.00	0.00	605.77		
3439.05	90.67	265.84	2725.93	260.26	-1064.89	5.00	-89.79	1069.62		
6065.04	90.67	265.84	2695.00	69.76	-3683.77	0.00	0.00	3684.43	Seibel A 2 ST1 PBHL	





B.P.

**Archuleta County, CO NAD83
SEC 8-T32N-R5W
Seibel A 2**

Lateral 1 ST1

Plan: Plan #1

Standard Planning Report

07 April, 2015





Database:	Grand Junction District	Local Co-ordinate Reference:	Well Seibel A 2
Company:	B.P.	TVD Reference:	GL 6158' & RKB 11' @ 6169.00ft
Project:	Archuleta County, CO NAD83	MD Reference:	GL 6158' & RKB 11' @ 6169.00ft
Site:	SEC 8-T32N-R5W	North Reference:	Grid
Well:	Seibel A 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 ST1		
Design:	Plan #1		

Project	Archuleta County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site	SEC 8-T32N-R5W			
Site Position:		Northing:	1,137,019.43 usft	Latitude: 37.0273181
From:	Lat/Long	Easting:	2,442,581.73 usft	Longitude: -107.4094873
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: -1.17 °

Well	Seibel A 2			
Well Position	+N/-S	-0.01 ft	Northing:	1,137,019.42 usft
	+E/-W	0.00 ft	Easting:	2,442,581.73 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft
			Ground Level:	6,158.00 ft

Wellbore	Lateral 1 ST1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/7/2015	9.37	63.67	50,481

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	2,968.87
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	271.08

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
2,968.87	90.65	289.35	2,731.43	198.55	-602.12	0.00	0.00	0.00	0.00	
3,439.05	90.67	265.84	2,725.93	260.26	-1,064.89	5.00	0.01	-5.00	-89.79	
6,065.04	90.67	265.84	2,695.00	69.76	-3,683.77	0.00	0.00	0.00	0.00	Seibel A 2 ST1 PBHL



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Site:	SEC 8-T32N-R5W	North Reference:	Grid
Well:	Seibel A 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 ST1		
Design:	Plan #1		

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)	
2,968.87	90.65	289.35	2,731.43	198.55	-602.12	605.77	0.00	0.00	0.00	
3,000.00	90.65	287.79	2,731.08	208.47	-631.63	635.46	5.00	0.02	-5.00	
3,100.00	90.67	282.79	2,729.93	234.84	-728.05	732.36	5.00	0.01	-5.00	
3,200.00	90.67	277.79	2,728.76	252.70	-826.40	831.04	5.00	0.01	-5.00	
3,300.00	90.68	272.79	2,727.58	261.92	-925.94	930.73	5.00	0.00	-5.00	
3,400.00	90.68	267.79	2,726.40	262.43	-1,025.90	1,030.68	5.00	0.00	-5.00	
3,439.05	90.67	265.84	2,725.93	260.26	-1,064.89	1,069.62	5.00	0.00	-5.00	
3,500.00	90.67	265.84	2,725.22	255.84	-1,125.67	1,130.31	0.00	0.00	0.00	
3,600.00	90.67	265.84	2,724.04	248.58	-1,225.40	1,229.88	0.00	0.00	0.00	
3,700.00	90.67	265.84	2,722.86	241.33	-1,325.13	1,329.46	0.00	0.00	0.00	
3,800.00	90.67	265.84	2,721.68	234.08	-1,424.86	1,429.03	0.00	0.00	0.00	
3,900.00	90.67	265.84	2,720.50	226.82	-1,524.59	1,528.61	0.00	0.00	0.00	
4,000.00	90.67	265.84	2,719.33	219.57	-1,624.31	1,628.18	0.00	0.00	0.00	
4,100.00	90.67	265.84	2,718.15	212.31	-1,724.04	1,727.76	0.00	0.00	0.00	
4,200.00	90.67	265.84	2,716.97	205.06	-1,823.77	1,827.33	0.00	0.00	0.00	
4,300.00	90.67	265.84	2,715.79	197.80	-1,923.50	1,926.90	0.00	0.00	0.00	
4,400.00	90.67	265.84	2,714.61	190.55	-2,023.23	2,026.48	0.00	0.00	0.00	
4,500.00	90.67	265.84	2,713.44	183.29	-2,122.96	2,126.05	0.00	0.00	0.00	
4,600.00	90.67	265.84	2,712.26	176.04	-2,222.69	2,225.63	0.00	0.00	0.00	
4,700.00	90.67	265.84	2,711.08	168.79	-2,322.42	2,325.20	0.00	0.00	0.00	
4,800.00	90.67	265.84	2,709.90	161.53	-2,422.15	2,424.78	0.00	0.00	0.00	
4,900.00	90.67	265.84	2,708.72	154.28	-2,521.88	2,524.35	0.00	0.00	0.00	
5,000.00	90.67	265.84	2,707.55	147.02	-2,621.61	2,623.92	0.00	0.00	0.00	
5,100.00	90.67	265.84	2,706.37	139.77	-2,721.34	2,723.50	0.00	0.00	0.00	
5,200.00	90.67	265.84	2,705.19	132.51	-2,821.07	2,823.07	0.00	0.00	0.00	
5,300.00	90.67	265.84	2,704.01	125.26	-2,920.80	2,922.65	0.00	0.00	0.00	
5,400.00	90.67	265.84	2,702.83	118.01	-3,020.53	3,022.22	0.00	0.00	0.00	
5,500.00	90.67	265.84	2,701.66	110.75	-3,120.26	3,121.80	0.00	0.00	0.00	
5,600.00	90.67	265.84	2,700.48	103.50	-3,219.99	3,221.37	0.00	0.00	0.00	
5,700.00	90.67	265.84	2,699.30	96.24	-3,319.72	3,320.94	0.00	0.00	0.00	
5,800.00	90.67	265.84	2,698.12	88.99	-3,419.45	3,420.52	0.00	0.00	0.00	
5,900.00	90.67	265.84	2,696.94	81.73	-3,519.18	3,520.09	0.00	0.00	0.00	
6,000.00	90.67	265.84	2,695.77	74.48	-3,618.91	3,619.67	0.00	0.00	0.00	
6,065.04	90.67	265.84	2,695.00	69.76	-3,683.77	3,684.43	0.00	0.00	0.00	
Seibel A 2 ST1 PBHL										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Seibel A 2 ST1 PBHL	0.00	0.00	2,695.00	69.76	-3,683.77	1,137,089.18	2,438,897.97	37.0273021	-107.4221077
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
400.32	400.00	Surface Casing	8.625	12.250	



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