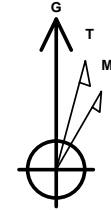




Company: B.P.
Project: La Plata County, CO NAD83
Site: Tiffany Pad 2
Well: Tiffany 2-1
Wellbore: Lateral 1
Design: Plan #1

PROJECT DETAILS: La Plata 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: 1.24°
Magnetic North: 10.53°

Magnetic Field
Strength: 50250.9snT
Dip Angle: 63.65°
Date: 4/6/2016
Model: HDGM

WELL DETAILS: Tiffany 2-1

GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1163257.22	2408649.91	37.0973973	-107.5276390	Tiffany 2-1

Plan: Plan #1 (Tiffany 2-1/Lateral 1)

Created By: Janie Collins Date: 11:09, April 07 2016

DESIGN TARGET DETAILS

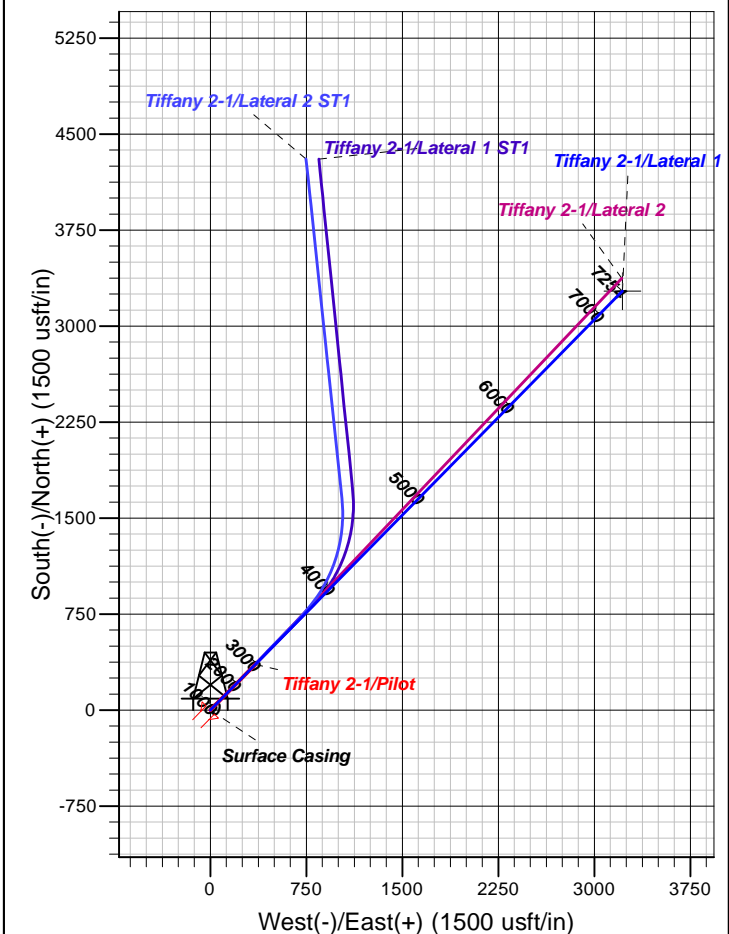
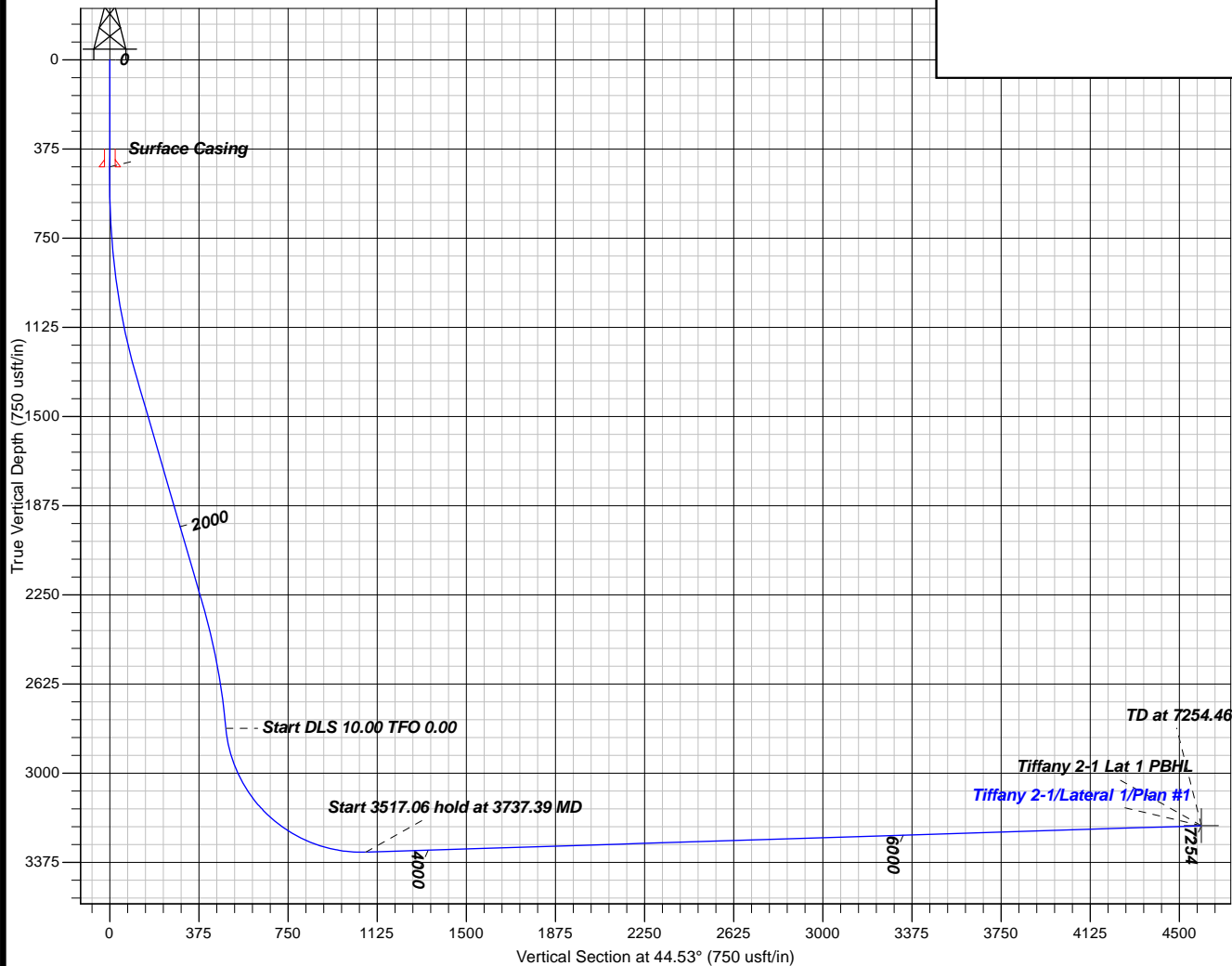
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Tiffany 2-1 Lat 1 PBHL	3221.00	3273.64	3220.22	1166530.86	2411870.13	37.1065773	-107.5168432

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
2871.66	5.24	44.53	2811.61	347.93	342.25	0.00	0.00	488.05	
3737.39	91.81	44.53	3332.00	767.58	755.05	10.00	0.00	1076.70	
7254.46	91.81	44.53	3221.00	3273.64	3220.22	0.00	0.00	4592.01	Tiffany 2-1 Lat 1 PBHL

FORMATION TOP DETAILS

No formation data is available





B.P.

La Plata County, CO NAD83

Tiffany Pad 2

Tiffany 2-1 - Slot Tiffany 2-1

Lateral 1

Plan: Plan #1

Standard Planning Report

07 April, 2016





Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-1 - Slot Tiffany 2-1
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1		
Design:	Plan #1		

Project	La Plata 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	Tiffany Pad 2			
Site Position:		Northing:	1,163,257.22 usft	Latitude: 37.0973972
From: Map		Easting:	2,408,649.91 usft	Longitude: -107.5276391
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.24 °

Well	Tiffany 2-1 - Slot Tiffany 2-1			
Well Position	+N/-S	0.00 usft	Northing:	1,163,257.22 usft
	+E/-W	0.00 usft	Easting:	2,408,649.91 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,669.66 usft

Wellbore	Lateral 1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/6/2016	9.28	63.65	50,251

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	2,871.66
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	44.53

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
2,871.66	5.24	44.53	2,811.61	347.93	342.25	0.00	0.00	0.00	0.00	
3,737.39	91.81	44.53	3,332.00	767.58	755.05	10.00	10.00	0.00	0.00	
7,254.46	91.81	44.53	3,221.00	3,273.64	3,220.22	0.00	0.00	0.00	0.00	Tiffany 2-1 Lat 1 PBH



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-1 - Slot Tiffany 2-1
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,871.66	5.24	44.53	2,811.61	347.93	342.25	488.05	0.00	0.00	0.00
2,900.00	8.07	44.53	2,839.75	350.27	344.55	491.33	10.00	10.00	0.00
3,000.00	18.07	44.53	2,937.04	366.37	360.39	513.91	10.00	10.00	0.00
3,100.00	28.07	44.53	3,028.93	394.27	387.83	553.05	10.00	10.00	0.00
3,200.00	38.07	44.53	3,112.62	433.12	426.05	607.54	10.00	10.00	0.00
3,300.00	48.07	44.53	3,185.58	481.74	473.88	675.75	10.00	10.00	0.00
3,400.00	58.07	44.53	3,245.59	538.65	529.86	755.58	10.00	10.00	0.00
3,500.00	68.07	44.53	3,290.82	602.13	592.30	844.62	10.00	10.00	0.00
3,600.00	78.07	44.53	3,319.91	670.25	659.31	940.17	10.00	10.00	0.00
3,700.00	88.07	44.53	3,331.96	740.93	728.83	1,039.31	10.00	10.00	0.00
3,737.39	91.81	44.53	3,332.00	767.58	755.05	1,076.70	10.00	10.00	0.00
3,800.00	91.81	44.53	3,330.02	812.19	798.93	1,139.27	0.00	0.00	0.00
3,900.00	91.81	44.53	3,326.87	883.44	869.02	1,239.22	0.00	0.00	0.00
4,000.00	91.81	44.53	3,323.71	954.70	939.12	1,339.17	0.00	0.00	0.00
4,100.00	91.81	44.53	3,320.56	1,025.95	1,009.21	1,439.12	0.00	0.00	0.00
4,200.00	91.81	44.53	3,317.40	1,097.21	1,079.30	1,539.07	0.00	0.00	0.00
4,300.00	91.81	44.53	3,314.24	1,168.46	1,149.39	1,639.02	0.00	0.00	0.00
4,400.00	91.81	44.53	3,311.09	1,239.72	1,219.48	1,738.97	0.00	0.00	0.00
4,500.00	91.81	44.53	3,307.93	1,310.97	1,289.57	1,838.92	0.00	0.00	0.00
4,600.00	91.81	44.53	3,304.78	1,382.22	1,359.67	1,938.87	0.00	0.00	0.00
4,700.00	91.81	44.53	3,301.62	1,453.48	1,429.76	2,038.82	0.00	0.00	0.00
4,800.00	91.81	44.53	3,298.46	1,524.73	1,499.85	2,138.77	0.00	0.00	0.00
4,900.00	91.81	44.53	3,295.31	1,595.99	1,569.94	2,238.73	0.00	0.00	0.00
5,000.00	91.81	44.53	3,292.15	1,667.24	1,640.03	2,338.68	0.00	0.00	0.00
5,100.00	91.81	44.53	3,289.00	1,738.50	1,710.12	2,438.63	0.00	0.00	0.00
5,200.00	91.81	44.53	3,285.84	1,809.75	1,780.22	2,538.58	0.00	0.00	0.00
5,300.00	91.81	44.53	3,282.68	1,881.00	1,850.31	2,638.53	0.00	0.00	0.00
5,400.00	91.81	44.53	3,279.53	1,952.26	1,920.40	2,738.48	0.00	0.00	0.00
5,500.00	91.81	44.53	3,276.37	2,023.51	1,990.49	2,838.43	0.00	0.00	0.00
5,600.00	91.81	44.53	3,273.22	2,094.77	2,060.58	2,938.38	0.00	0.00	0.00
5,700.00	91.81	44.53	3,270.06	2,166.02	2,130.68	3,038.33	0.00	0.00	0.00
5,800.00	91.81	44.53	3,266.90	2,237.28	2,200.77	3,138.28	0.00	0.00	0.00
5,900.00	91.81	44.53	3,263.75	2,308.53	2,270.86	3,238.23	0.00	0.00	0.00
6,000.00	91.81	44.53	3,260.59	2,379.79	2,340.95	3,338.18	0.00	0.00	0.00
6,100.00	91.81	44.53	3,257.44	2,451.04	2,411.04	3,438.13	0.00	0.00	0.00
6,200.00	91.81	44.53	3,254.28	2,522.29	2,481.13	3,538.08	0.00	0.00	0.00
6,300.00	91.81	44.53	3,251.12	2,593.55	2,551.23	3,638.03	0.00	0.00	0.00
6,400.00	91.81	44.53	3,247.97	2,664.80	2,621.32	3,737.98	0.00	0.00	0.00
6,500.00	91.81	44.53	3,244.81	2,736.06	2,691.41	3,837.93	0.00	0.00	0.00
6,600.00	91.81	44.53	3,241.65	2,807.31	2,761.50	3,937.88	0.00	0.00	0.00
6,700.00	91.81	44.53	3,238.50	2,878.57	2,831.59	4,037.83	0.00	0.00	0.00
6,800.00	91.81	44.53	3,235.34	2,949.82	2,901.68	4,137.78	0.00	0.00	0.00
6,900.00	91.81	44.53	3,232.19	3,021.07	2,971.78	4,237.73	0.00	0.00	0.00
7,000.00	91.81	44.53	3,229.03	3,092.33	3,041.87	4,337.68	0.00	0.00	0.00
7,100.00	91.81	44.53	3,225.87	3,163.58	3,111.96	4,437.63	0.00	0.00	0.00
7,200.00	91.81	44.53	3,222.72	3,234.84	3,182.05	4,537.58	0.00	0.00	0.00
7,254.46	91.81	44.53	3,221.00	3,273.64	3,220.22	4,592.01	0.00	0.00	0.00
Tiffany 2-1 Lat 1 PBHL									



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-1 - Slot Tiffany 2-1
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Tiffany 2-1 Lat 1 PBHL	0.00	0.00	3,221.00	3,273.64	3,220.22	1,166,530.86	2,411,870.13	37.1065773	-107.5168433
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(usft)	(usft)		(in)	(in)	
450.00	450.00	Surface Casing	8.62	12.25	