



Company: B.P.
Project: La Plata County, CO NAD83
Site: East Sauls Creek Pad
Well: East Sauls Creek 26 1- 1
Wellbore: Lateral 1 (Lwr Lemon)
Design: Plan #3

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



Plan: Plan #3 (East Sauls Creek 26 1- 1/Lateral 1 (Lwr Lemon))

Created By: Janie Collins Date: 15:38, December 05 2016

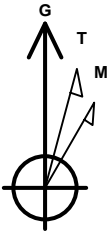
WELL DETAILS: East Sauls Creek 26 1- 1

GL 7340' & RKB 11' @ 7351.00usft (Aztec 507) 7340.00				
Northing	Easting	Latitude	Longitude	Slot
1227800.12	2414731.21	37.2749771	-107.5115588	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2785.92	65.00	87.49	2481.91	27.78	633.61	0.00	0.00	634.13	
3008.85	87.27	86.39	2535.00	39.36	848.38	10.00	-2.90	849.20	
8253.76	87.27	86.39	2785.00	369.35	6076.92	0.00	0.00	6088.13	

ESC 26-1 Lat 1 LL PBHL



Azimuths to Grid North
True North: 1.23°
Magnetic North: 10.63°

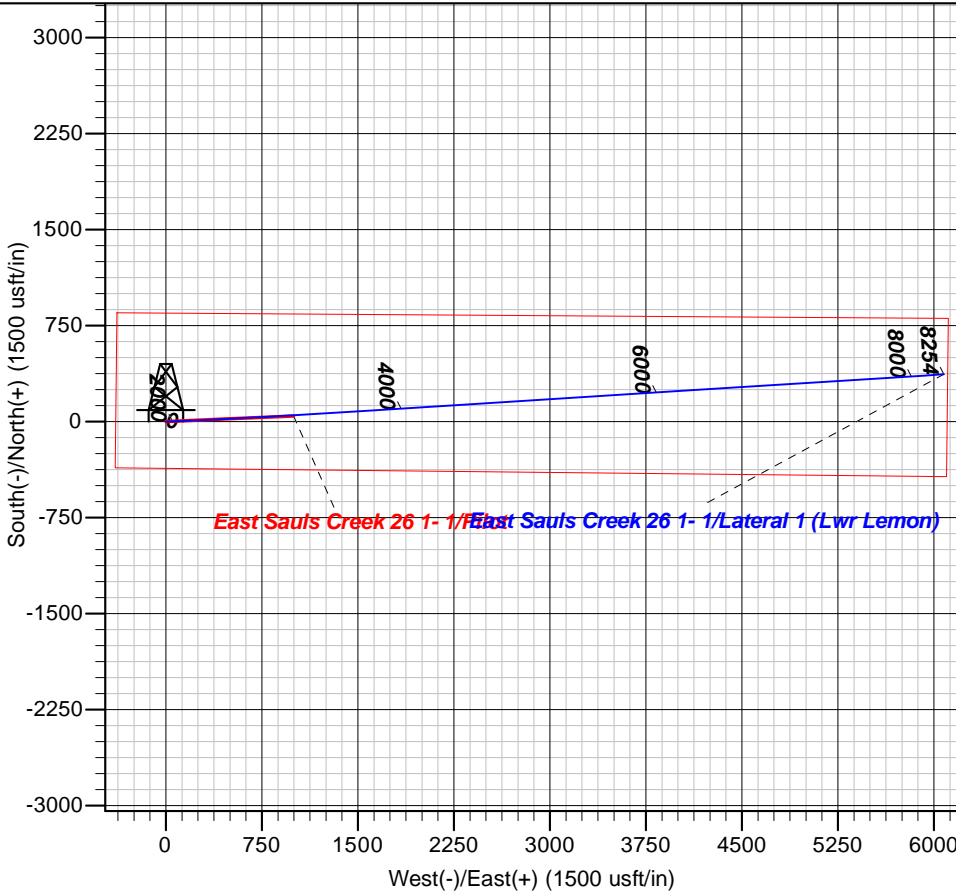
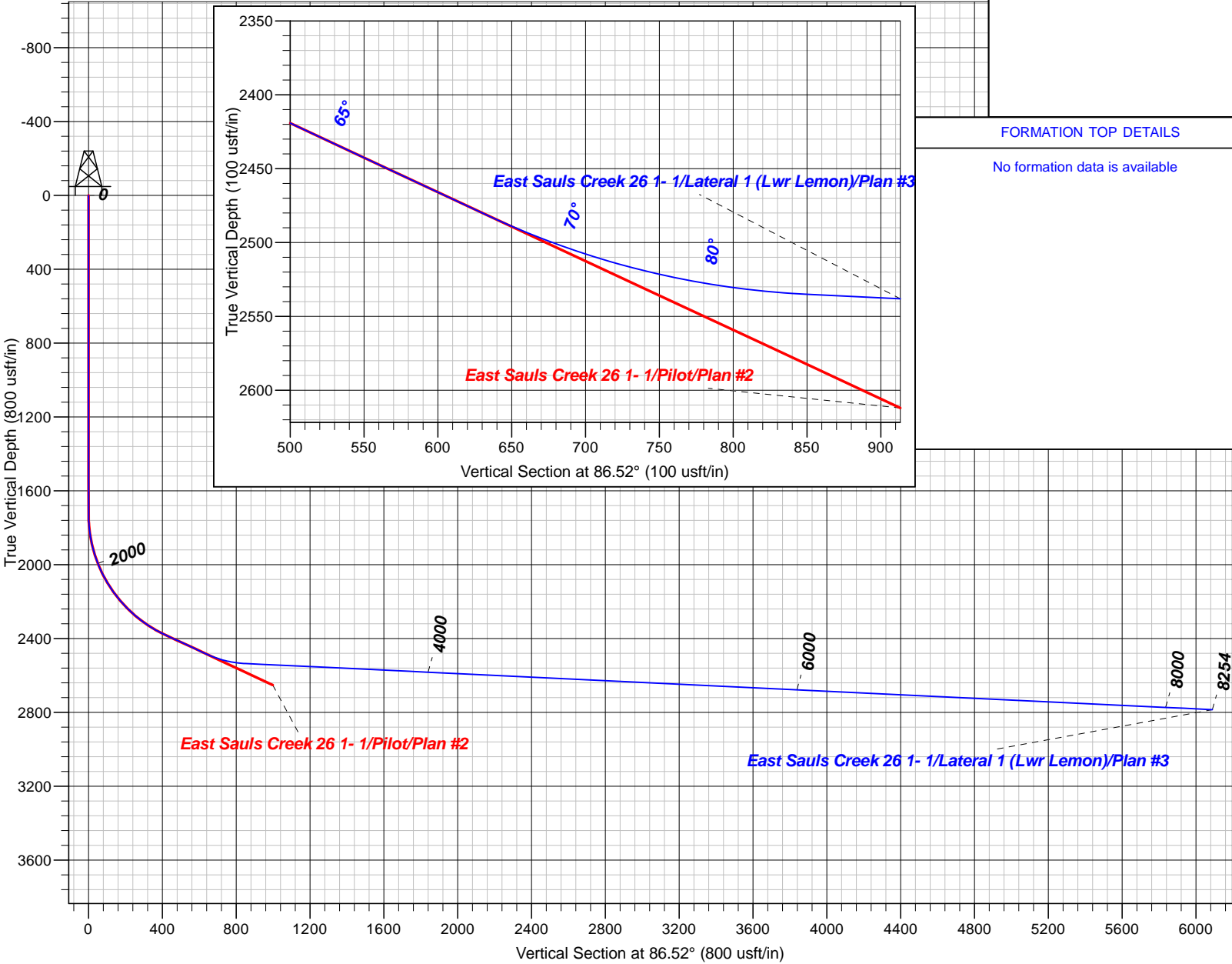
Magnetic Field
Strength: 50334.7snT
Dip Angle: 63.80°
Date: 9/30/2016
Model: HDGM

FORMATION TOP DETAILS

No formation data is available

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
ESC 26-1 Lat 1 LL PBHL	2785.00	369.35	6076.92	1228169.47	2420808.13	37.2763487	-107.4907059





B.P.

**La Plata County, CO NAD83
East Sauls Creek Pad
East Sauls Creek 26 1- 1**

Lateral 1 (Lwr Lemon)

Plan: Plan #3

Standard Planning Report

05 December, 2016





Database:	Grand Junction District	Local Co-ordinate Reference:	Well East Sauls Creek 26 1- 1
Company:	B.P.	TVD Reference:	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 1- 1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 (Lwr Lemon)		
Design:	Plan #3		

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		East Sauls Creek Pad			
Site Position:		Northing:	1,227,806.45 usft	Latitude:	37.2749933
From:	Map	Easting:	2,414,712.24 usft	Longitude:	-107.5116245
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.23 °

Well	East Sauls Creek 26 1- 1					
Well Position	+N/-S	-6.33 usft	Northing:	1,227,800.12 usft	Latitude:	37.2749770
	+E/-W	18.97 usft	Easting:	2,414,731.21 usft	Longitude:	-107.5115588
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,340.00 usft

Wellbore	Lateral 1 (Lwr Lemon)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/30/2016	9.40	63.80	50,335

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	2,785.92
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	86.52	

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
2,785.92	65.00	87.49	2,481.91	27.78	633.61	0.00	0.00	0.00	0.00	
3,008.85	87.27	86.39	2,535.00	39.36	848.38	10.00	9.99	-0.49	-2.90	
8,253.76	87.27	86.39	2,785.00	369.35	6,076.92	0.00	0.00	0.00	0.00	ESC 26-1 Lat 1 LL PE



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Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 1- 1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 (Lwr Lemon)		
Design:	Plan #3		

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)
2,785.92	65.00	87.49	2,481.91	27.78	633.61	634.13	0.00	0.00	0.00
2,800.00	66.41	87.41	2,487.70	28.35	646.43	646.96	10.00	9.99	-0.55
ESC 26-1 Lat 1 LL LP									
2,900.00	76.39	86.90	2,519.56	33.05	740.97	741.61	10.00	9.99	-0.51
3,000.00	86.38	86.43	2,534.51	38.81	839.55	840.36	10.00	9.99	-0.47
3,008.85	87.27	86.39	2,535.00	39.36	848.38	849.20	10.00	9.99	-0.46
3,009.48	87.27	86.39	2,535.03	39.40	849.00	849.83	0.00	0.00	0.00
ESC 26-1 Lat 1 ST2 LP									
3,100.00	87.27	86.39	2,539.35	45.09	939.24	940.24	0.00	0.00	0.00
3,200.00	87.27	86.39	2,544.11	51.39	1,038.93	1,040.13	0.00	0.00	0.00
3,300.00	87.27	86.39	2,548.88	57.68	1,138.61	1,140.02	0.00	0.00	0.00
3,400.00	87.27	86.39	2,553.65	63.97	1,238.30	1,239.90	0.00	0.00	0.00
3,500.00	87.27	86.39	2,558.41	70.26	1,337.99	1,339.79	0.00	0.00	0.00
3,600.00	87.27	86.39	2,563.18	76.55	1,437.68	1,439.67	0.00	0.00	0.00
3,700.00	87.27	86.39	2,567.95	82.84	1,537.37	1,539.56	0.00	0.00	0.00
3,800.00	87.27	86.39	2,572.71	89.14	1,637.05	1,639.45	0.00	0.00	0.00
3,900.00	87.27	86.39	2,577.48	95.43	1,736.74	1,739.33	0.00	0.00	0.00
4,000.00	87.27	86.39	2,582.25	101.72	1,836.43	1,839.22	0.00	0.00	0.00
4,100.00	87.27	86.39	2,587.01	108.01	1,936.12	1,939.10	0.00	0.00	0.00
4,200.00	87.27	86.39	2,591.78	114.30	2,035.81	2,038.99	0.00	0.00	0.00
4,300.00	87.27	86.39	2,596.55	120.59	2,135.49	2,138.88	0.00	0.00	0.00
4,400.00	87.27	86.39	2,601.31	126.88	2,235.18	2,238.76	0.00	0.00	0.00
4,500.00	87.27	86.39	2,606.08	133.18	2,334.87	2,338.65	0.00	0.00	0.00
4,600.00	87.27	86.39	2,610.84	139.47	2,434.56	2,438.54	0.00	0.00	0.00
4,700.00	87.27	86.39	2,615.61	145.76	2,534.25	2,538.42	0.00	0.00	0.00
4,800.00	87.27	86.39	2,620.38	152.05	2,633.93	2,638.31	0.00	0.00	0.00
4,900.00	87.27	86.39	2,625.14	158.34	2,733.62	2,738.19	0.00	0.00	0.00
5,000.00	87.27	86.39	2,629.91	164.63	2,833.31	2,838.08	0.00	0.00	0.00
5,100.00	87.27	86.39	2,634.68	170.93	2,933.00	2,937.97	0.00	0.00	0.00
5,200.00	87.27	86.39	2,639.44	177.22	3,032.69	3,037.85	0.00	0.00	0.00
5,300.00	87.27	86.39	2,644.21	183.51	3,132.37	3,137.74	0.00	0.00	0.00
5,400.00	87.27	86.39	2,648.98	189.80	3,232.06	3,237.62	0.00	0.00	0.00
5,500.00	87.27	86.39	2,653.74	196.09	3,331.75	3,337.51	0.00	0.00	0.00
5,600.00	87.27	86.39	2,658.51	202.38	3,431.44	3,437.40	0.00	0.00	0.00
5,700.00	87.27	86.39	2,663.28	208.68	3,531.13	3,537.28	0.00	0.00	0.00
5,800.00	87.27	86.39	2,668.04	214.97	3,630.81	3,637.17	0.00	0.00	0.00
5,900.00	87.27	86.39	2,672.81	221.26	3,730.50	3,737.05	0.00	0.00	0.00
6,000.00	87.27	86.39	2,677.58	227.55	3,830.19	3,836.94	0.00	0.00	0.00
6,100.00	87.27	86.39	2,682.34	233.84	3,929.88	3,936.83	0.00	0.00	0.00
6,200.00	87.27	86.39	2,687.11	240.13	4,029.57	4,036.71	0.00	0.00	0.00
6,300.00	87.27	86.39	2,691.87	246.43	4,129.25	4,136.60	0.00	0.00	0.00
6,400.00	87.27	86.39	2,696.64	252.72	4,228.94	4,236.48	0.00	0.00	0.00
6,500.00	87.27	86.39	2,701.41	259.01	4,328.63	4,336.37	0.00	0.00	0.00
6,600.00	87.27	86.39	2,706.17	265.30	4,428.32	4,436.26	0.00	0.00	0.00
6,700.00	87.27	86.39	2,710.94	271.59	4,528.01	4,536.14	0.00	0.00	0.00
6,800.00	87.27	86.39	2,715.71	277.88	4,627.69	4,636.03	0.00	0.00	0.00
6,900.00	87.27	86.39	2,720.47	284.18	4,727.38	4,735.91	0.00	0.00	0.00
7,000.00	87.27	86.39	2,725.24	290.47	4,827.07	4,835.80	0.00	0.00	0.00
7,100.00	87.27	86.39	2,730.01	296.76	4,926.76	4,935.69	0.00	0.00	0.00
7,200.00	87.27	86.39	2,734.77	303.05	5,026.45	5,035.57	0.00	0.00	0.00
7,300.00	87.27	86.39	2,739.54	309.34	5,126.13	5,135.46	0.00	0.00	0.00
7,400.00	87.27	86.39	2,744.31	315.63	5,225.82	5,235.35	0.00	0.00	0.00



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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)
7,500.00	87.27	86.39	2,749.07	321.93	5,325.51	5,335.23	0.00	0.00	0.00
7,600.00	87.27	86.39	2,753.84	328.22	5,425.20	5,435.12	0.00	0.00	0.00
7,700.00	87.27	86.39	2,758.61	334.51	5,524.89	5,535.00	0.00	0.00	0.00
7,800.00	87.27	86.39	2,763.37	340.80	5,624.57	5,634.89	0.00	0.00	0.00
7,900.00	87.27	86.39	2,768.14	347.09	5,724.26	5,734.78	0.00	0.00	0.00
8,000.00	87.27	86.39	2,772.90	353.38	5,823.95	5,834.66	0.00	0.00	0.00
8,100.00	87.27	86.39	2,777.67	359.68	5,923.64	5,934.55	0.00	0.00	0.00
8,200.00	87.27	86.39	2,782.44	365.97	6,023.33	6,034.43	0.00	0.00	0.00
8,232.03	87.27	86.39	2,783.96	367.98	6,055.25	6,066.43	0.00	0.00	0.00
ESC 26-1 Lat 1 ST2 PBHL									
8,253.76	87.27	86.39	2,785.00	369.35	6,076.92	6,088.13	0.00	0.00	0.00
ESC 26-1 Lat 1 LL PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
ESC 26-1 Lat 1 LL PBHL - plan hits target center - Point	0.00	360.00	2,785.00	369.35	6,076.92	1,228,169.47	2,420,808.13	37.2763487	-107.4907060