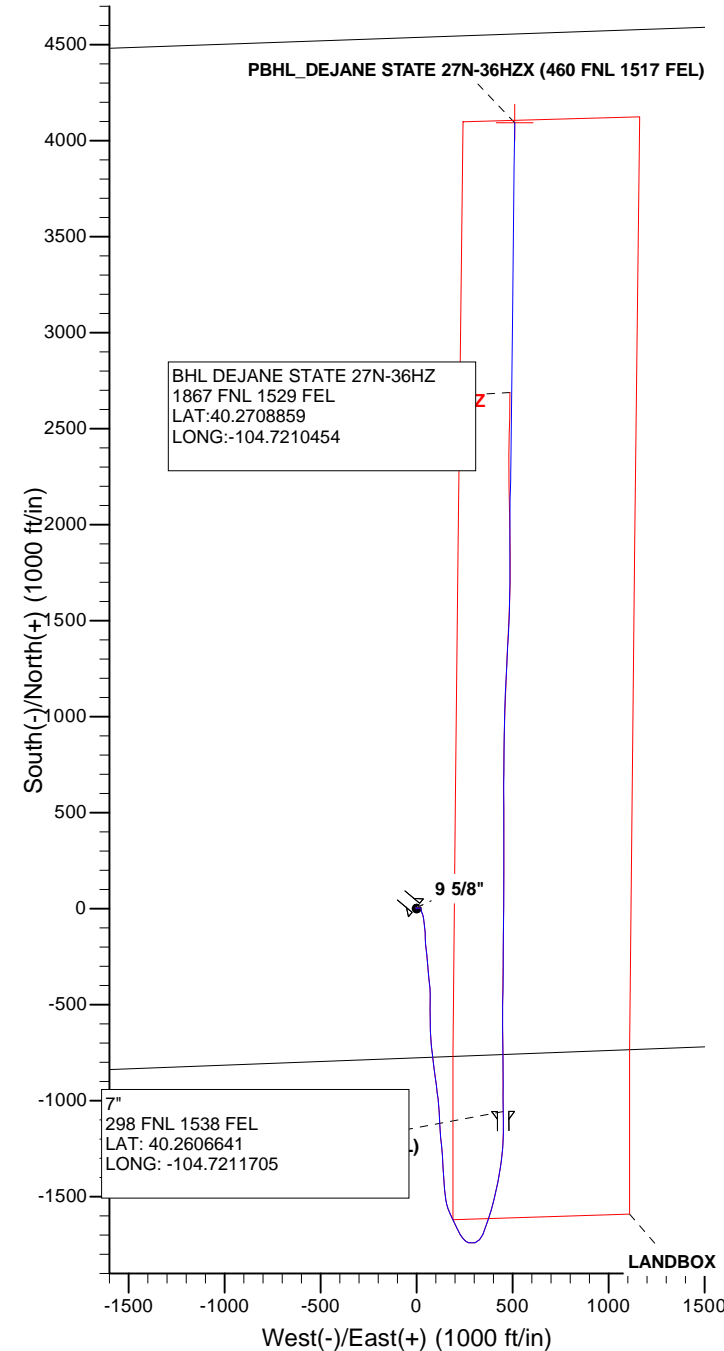
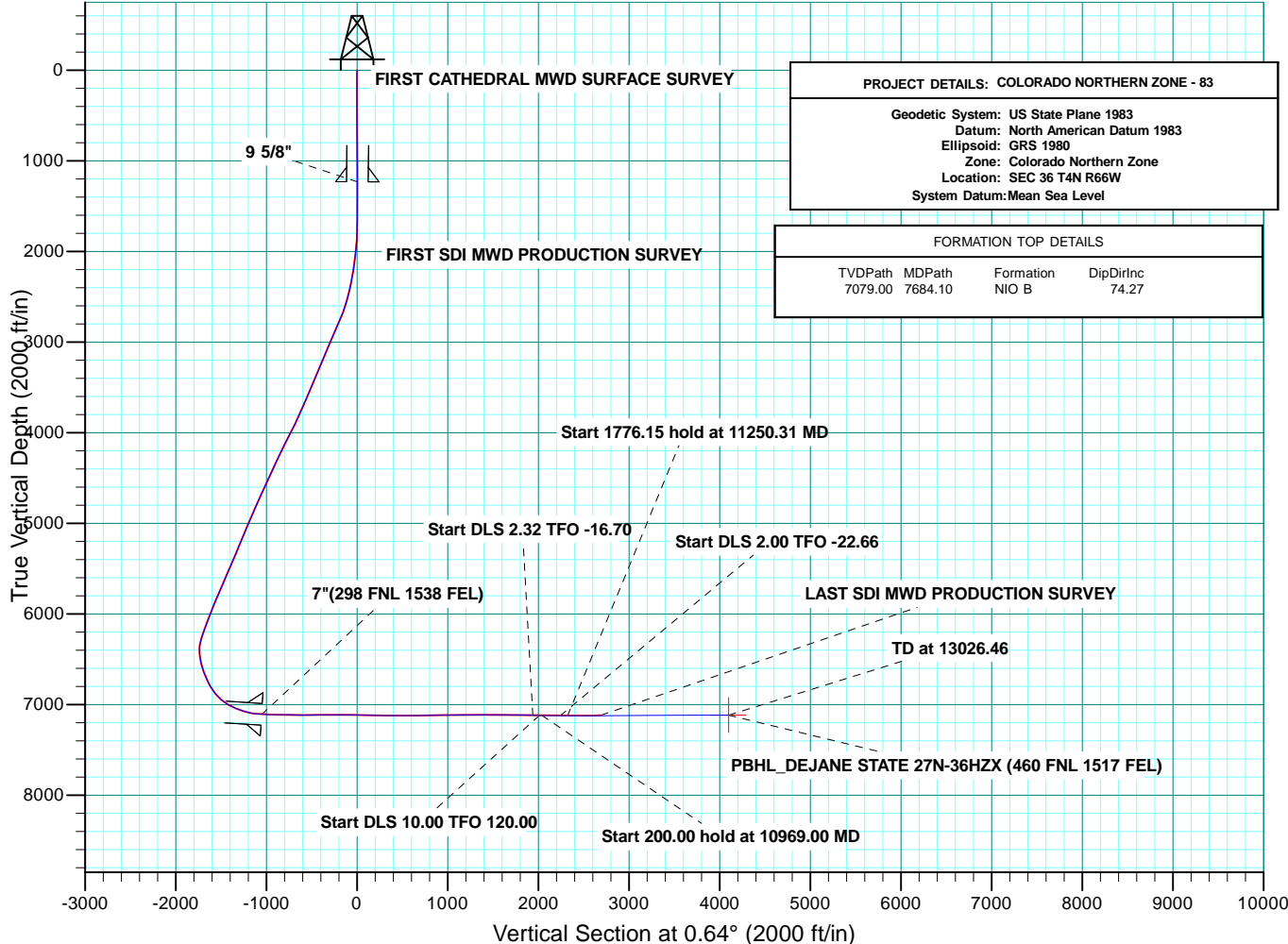
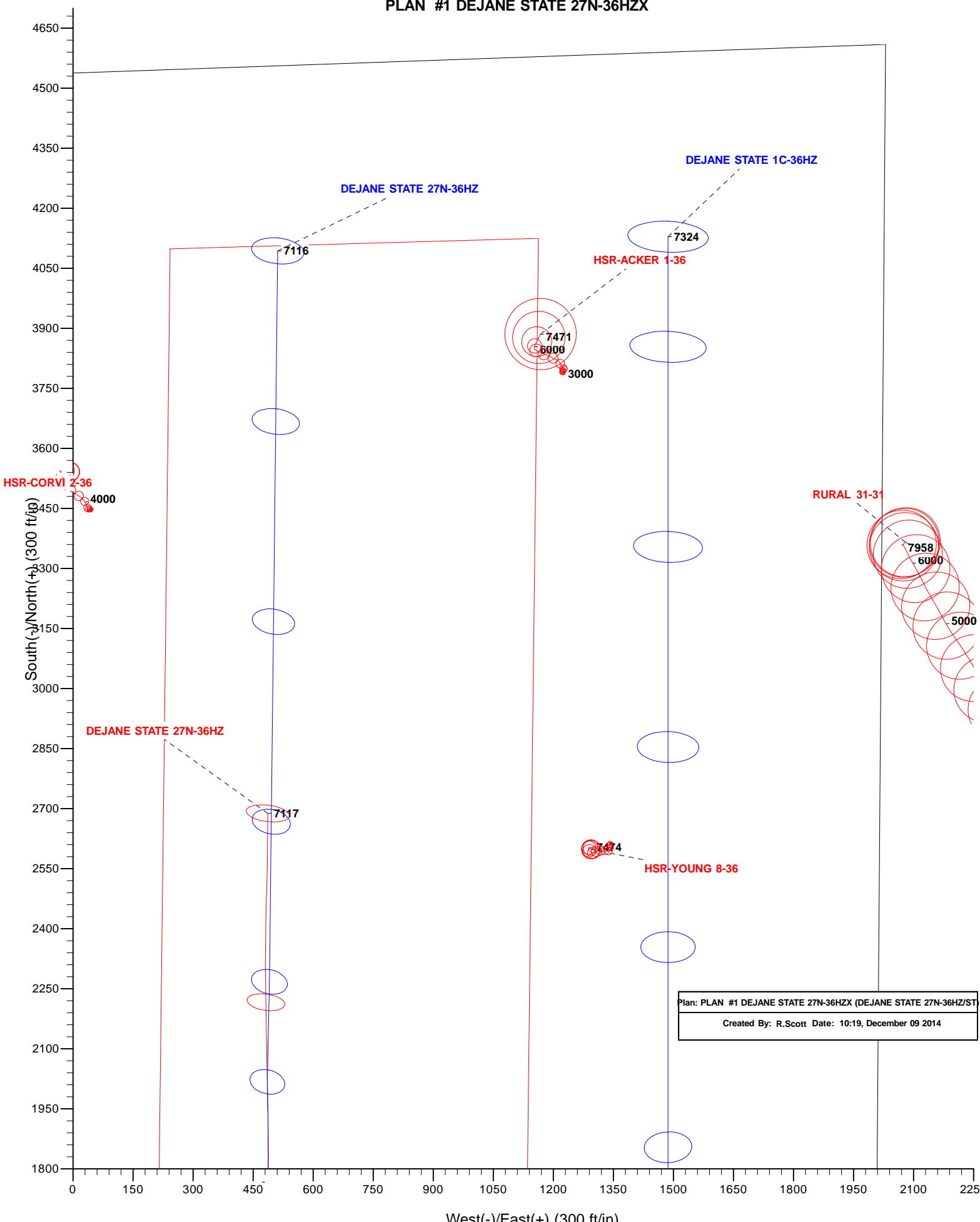


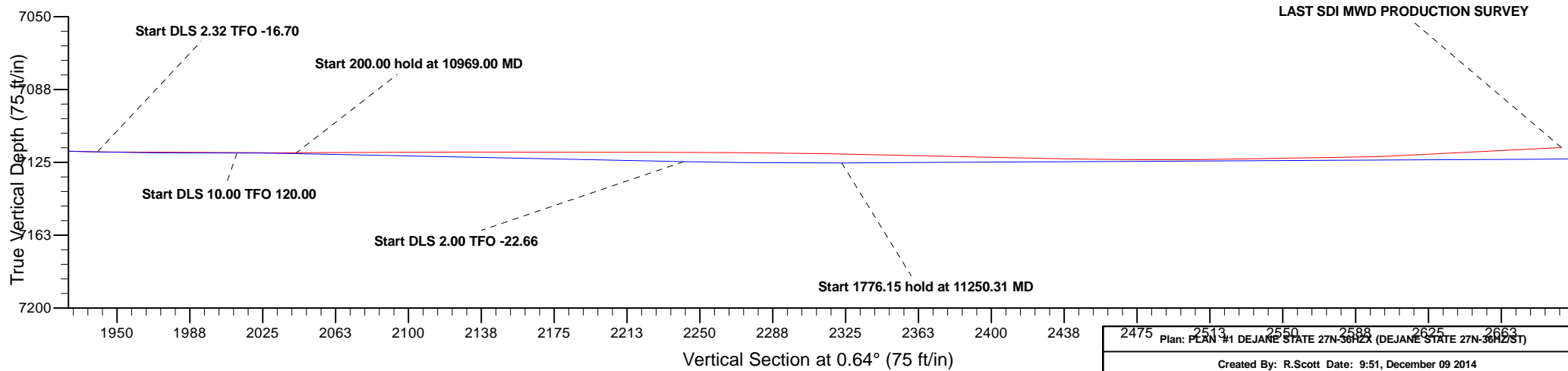
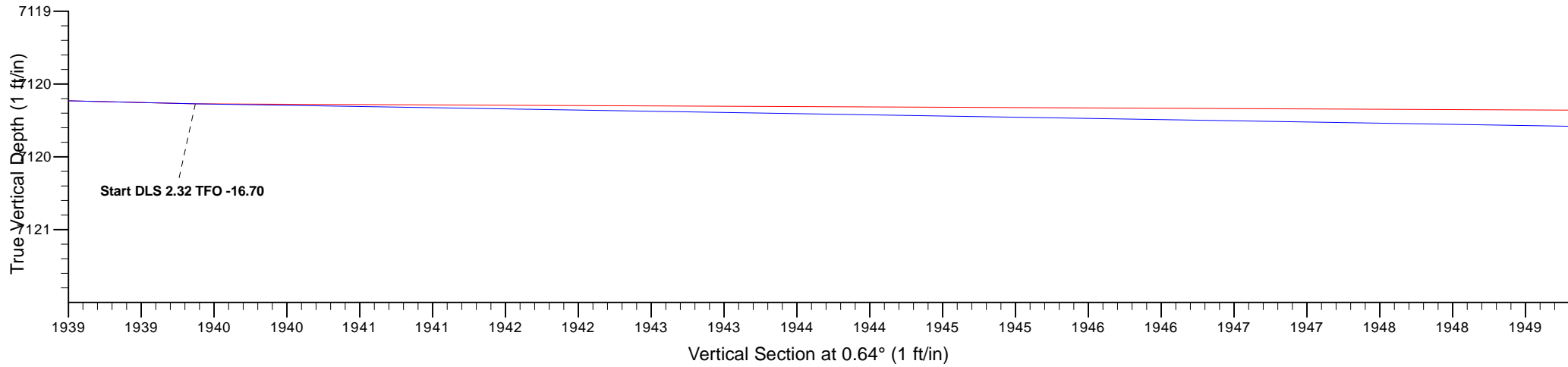
WELL DETAILS: DEJANE STATE 27N-36HZ									
GL 4864 KB 25 @ 4889.00ft (HP 311)									
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
	0.00	0.00	1339808.36	3216894.17	40.2635639	-104.7227890			
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
10867.00	88.70	359.15	7119.64	1934.55	487.11	0.00	0.00	1939.87	
10939.00	90.30	358.67	7120.27	2006.53	485.74	2.32	-16.70	2011.83	
10969.00	88.80	1.27	7120.50	2036.53	485.72	10.00	120.00	2041.83	
11169.00	88.80	1.27	7124.69	2236.44	490.15	0.00	0.00	2241.77	
11250.31	90.30	0.64	7125.33	2317.73	491.51	2.00	-22.66	2323.07	
13026.47	90.30	0.64	7116.00	4093.75	511.40	0.00	0.00	4093.75	PBHL DEJANE STATE 27N-36HZ (460 FNL 1517 FEL)
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL 7116.00	4093.75	511.40	1343906.43	3217369.66	40.2748016	-104.7209562		Point	
- plan hits target center									



DEJANE STATE 15-36 HZ PAD  
 DEJANE STATE 27N-36HZ  
 ST  
 PLAN #1 DEJANE STATE 27N-36HZX



Plan: PLAN #1 DEJANE STATE 27N-36HZX (DEJANE STATE 27N-36HZ/ST)  
 Created By: R.Scott Date: 10:19, December 09 2014





**Scientific Drilling**

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**DEJANE STATE 15-36 HZ PAD**

**DEJANE STATE 27N-36HZ**

**ST**

**Plan: PLAN #1 DEJANE STATE 27N-36HZX**

## **Standard Planning Report**

**09 December, 2014**

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well DEJANE STATE 27N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4864 KB 25 @ 4889.00ft (HP 311)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4864 KB 25 @ 4889.00ft (HP 311)
<b>Site:</b>	DEJANE STATE 15-36 HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DEJANE STATE 27N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ST		
<b>Design:</b>	PLAN #1 DEJANE STATE 27N-36HZX		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	DEJANE STATE 15-36 HZ PAD, SEC 36 T4N R66W				
<b>Site Position:</b>	<b>Northing:</b>	1,339,808.39 usft	<b>Latitude:</b>	40.2635640	
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,216,894.17 usft	<b>Longitude:</b>	-104.7227890
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.50 °

<b>Well</b>	DEJANE STATE 27N-36HZ, 776 FSL 1996 FEL					
<b>Well Position</b>	<b>+N/-S</b>	-0.02 ft	<b>Northing:</b>	1,339,808.37 usft	<b>Latitude:</b>	40.2635640
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,216,894.17 usft	<b>Longitude:</b>	-104.7227890
<b>Position Uncertainty</b>		3.28 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	4,889.00 ft

<b>Wellbore</b>	ST				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2014	12/9/2014	8.46	66.82	52,585

<b>Design</b>	PLAN #1 DEJANE STATE 27N-36HZX			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	10,867.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.64

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
10,867.00	88.70	359.15	7,119.64	1,934.55	487.11	0.00	0.00	0.00	0.00	
10,939.00	90.30	358.67	7,120.27	2,006.53	485.74	2.32	2.22	-0.67	-16.70	
10,969.00	88.80	1.27	7,120.50	2,036.53	485.72	10.00	-5.00	8.66	120.00	
11,169.00	88.80	1.27	7,124.69	2,236.44	490.15	0.00	0.00	0.00	0.00	
11,250.31	90.30	0.64	7,125.33	2,317.73	491.51	2.00	1.85	-0.77	-22.66	
13,026.46	90.30	0.64	7,116.00	4,093.74	511.40	0.00	0.00	0.00	0.00	PBHL_DEJANE STAT

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well DEJANE STATE 27N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4864 KB 25 @ 4889.00ft (HP 311)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4864 KB 25 @ 4889.00ft (HP 311)
<b>Site:</b>	DEJANE STATE 15-36 HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DEJANE STATE 27N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ST		
<b>Design:</b>	PLAN #1 DEJANE STATE 27N-36HZX		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,867.00	88.70	359.15	7,119.64	1,934.55	487.11	1,939.87	0.00	0.00	0.00
<b>Start DLS 2.32 TFO -16.70</b>									
10,900.02	89.43	358.93	7,120.17	1,967.56	486.56	1,972.88	2.32	2.22	-0.67
10,939.00	90.30	358.67	7,120.27	2,006.53	485.74	2,011.83	2.32	2.22	-0.67
<b>Start DLS 10.00 TFO 120.00</b>									
10,969.00	88.80	1.27	7,120.50	2,036.53	485.72	2,041.83	10.00	-5.00	8.66
<b>Start 200.00 hold at 10969.00 MD</b>									
11,000.02	88.80	1.27	7,121.15	2,067.54	486.41	2,072.84	0.00	0.00	0.00
11,100.02	88.80	1.27	7,123.24	2,167.49	488.62	2,172.81	0.00	0.00	0.00
11,169.00	88.80	1.27	7,124.69	2,236.44	490.15	2,241.77	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -22.66</b>									
11,200.02	89.37	1.03	7,125.18	2,267.45	490.77	2,272.79	2.00	1.84	-0.77
11,250.31	90.30	0.64	7,125.33	2,317.73	491.51	2,323.07	2.00	1.85	-0.77
<b>Start 1776.15 hold at 11250.31 MD</b>									
11,300.02	90.30	0.64	7,125.07	2,367.44	492.06	2,372.79	0.00	0.00	0.00
11,400.02	90.30	0.64	7,124.54	2,467.43	493.18	2,472.79	0.00	0.00	0.00
11,500.02	90.30	0.64	7,124.02	2,567.42	494.30	2,572.78	0.00	0.00	0.00
11,600.02	90.30	0.64	7,123.49	2,667.42	495.42	2,672.78	0.00	0.00	0.00
11,700.02	90.30	0.64	7,122.97	2,767.41	496.54	2,772.78	0.00	0.00	0.00
11,800.02	90.30	0.64	7,122.44	2,867.40	497.66	2,872.78	0.00	0.00	0.00
11,900.02	90.30	0.64	7,121.91	2,967.39	498.78	2,972.78	0.00	0.00	0.00
12,000.02	90.30	0.64	7,121.39	3,067.39	499.90	3,072.78	0.00	0.00	0.00
12,100.02	90.30	0.64	7,120.86	3,167.38	501.02	3,172.78	0.00	0.00	0.00
12,200.02	90.30	0.64	7,120.34	3,267.37	502.14	3,272.78	0.00	0.00	0.00
12,300.02	90.30	0.64	7,119.81	3,367.36	503.26	3,372.78	0.00	0.00	0.00
12,400.03	90.30	0.64	7,119.29	3,467.36	504.38	3,472.77	0.00	0.00	0.00
12,500.03	90.30	0.64	7,118.76	3,567.35	505.50	3,572.77	0.00	0.00	0.00
12,600.03	90.30	0.64	7,118.24	3,667.34	506.62	3,672.77	0.00	0.00	0.00
12,700.03	90.30	0.64	7,117.71	3,767.33	507.74	3,772.77	0.00	0.00	0.00
12,800.03	90.30	0.64	7,117.19	3,867.33	508.86	3,872.77	0.00	0.00	0.00
12,900.03	90.30	0.64	7,116.66	3,967.32	509.98	3,972.77	0.00	0.00	0.00
13,000.03	90.30	0.64	7,116.14	4,067.31	511.10	4,072.77	0.00	0.00	0.00
13,026.46	90.30	0.64	7,116.00	4,093.74	511.40	4,099.20	0.00	0.00	0.00
<b>TD at 13026.46 - PBHL_DEJANE STATE 27N-36HZX (460 FNL 1517 FEL)</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_DEJANE STATE - hit/miss target - Shape - Point	0.00	0.00	7,116.00	4,093.74	511.40	1,343,906.43	3,217,369.67	40.2748016	-104.7209562

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,684.10	7,079.00	NIO B		0.00	

<b>Database:</b>	Denver Sales	<b>Local Co-ordinate Reference:</b>	Well DEJANE STATE 27N-36HZ
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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4864 KB 25 @ 4889.00ft (HP 311)
<b>Site:</b>	DEJANE STATE 15-36 HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	DEJANE STATE 27N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ST		
<b>Design:</b>	PLAN #1 DEJANE STATE 27N-36HZX		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,867.00	7,119.64	1,934.55	487.11	Start DLS 2.32 TFO -16.70
10,939.00	7,120.27	2,006.53	485.74	Start DLS 10.00 TFO 120.00
10,969.00	7,120.50	2,036.53	485.72	Start 200.00 hold at 10969.00 MD
11,169.00	7,124.69	2,236.44	490.15	Start DLS 2.00 TFO -22.66
11,250.31	7,125.33	2,317.73	491.51	Start 1776.15 hold at 11250.31 MD
13,026.46	7,116.00	4,093.74	511.40	TD at 13026.46