

**5D Plan Report**

Apache Corporation**Field Name:** *Apache NM (Nad 83 NMEZ)***Site Name:** *Palmillo 26 State COM 313H***Well Name:** *Palmillo 26 State COM 313H (Pilot) - 30-015-44905***Plan:** *P1:V1*

7 April 2018





Palmillo 26 State COM 313H (Pilot)

Field Name: Apache NM (Nad 83 NMEZ)	Map Units: US ft		Company Name: Apache Corporation	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Palmillo 26 State COM 313H	Units: US ft	North Reference: Grid	Convergence Angle: 0.10	
	Position:	Northing: 592687.30 US ft	Latitude: 32.629197904	
		Easting: 600917.40 US ft	Longitude: -104.139799581	
	Elevation above MSL: 3339.00 US ft			
Comment: Eddy Co. New Mexico				
Slot: Palmillo 26 State COM 313H	Position (Relative to Site Centre)			
	+N/-S: 0.00 US ft	Northing: 592687.30 US ft	Latitude: 32.629197904	
	+E/-W: 0.00 US ft	Easting: 600917.40 US ft	Longitude: -104.139799581	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3339.00 US ft			
Comment:				
Well: Palmillo 26 State COM 313H (Pilot)	Type: Main well		UWI:	Plan: P1:V1
	File Number:	Comment: H&P 482		
	Closure Distance: 1.7381e-006US ft		Closure Azimuth: 34.94°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: 0.00 US ft	Az: 291.24°
	Magnetic Parameters:			
	Model: bggm2017	Field Strength: 48126.6nT	Declination: 7.23°	Dip: 60.32°
				Date: 01/May/2018

Drill floor: Plan: P1:V1

Rig Height (Drill Floor): 26.00us ft	Elevation above MSL: 3365.00us ft	Inclination: 0.00°	Azimuth: 0.00°
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Target set: P26 St Com 313H Comment:

Target Name:	Shape:	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (USft)	Easting (USft)	C.Pt.Distance (US ft)	Comment
LPr0	Point	8589.19	172.72	-444.39	592860.02	600473.01	476.78	
T1	Point	8594.00	481.91	-2385.96	593169.21	598531.44	2434.14	
T2	Point	8605.00	481.91	-3761.76	593169.21	597155.64	3792.50	
PBHL	Point	8600.00	481.90	-4833.40	593169.20	596084.00	4857.36	

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Casing Points: (Relative to Slot centre)(TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Name
400.00	0.00	0.00	400.00	0.00	0.00	592687.30	600917.40	13 3/8 in
8400.00	0.00	0.00	8400.00	0.00	0.00	592687.30	600917.40	9 5/8 in

Wellpath created using minimum curvature.

Tie Point:
MD: 0.00USFt **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00USFt **North Offset:** 0.00USFt **East Offset:** 0.00USFt

Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
10250.00	0.00	0.00	10250.00	0.00	0.00	0.00	592687.30	600917.40	0.00	PBHL

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	13 3/8 in
500.00	0.00	0.00	500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3106.20	0.00	0.00	3106.20	0.00	0.00	0.00	592687.30	600917.40	0.00	Delaware Sands :
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4314.00	0.00	0.00	4314.00	0.00	0.00	0.00	592687.30	600917.40	0.00	1 BSC :
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6300.00	0.00	0.00	6300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6400.00	0.00	0.00	6400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6500.00	0.00	0.00	6500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6600.00	0.00	0.00	6600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6614.00	0.00	0.00	6614.00	0.00	0.00	0.00	592687.30	600917.40	0.00	1 BSS :
6700.00	0.00	0.00	6700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6800.00	0.00	0.00	6800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
6805.00	0.00	0.00	6805.00	0.00	0.00	0.00	592687.30	600917.40	0.00	2 BSC :
6900.00	0.00	0.00	6900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7000.00	0.00	0.00	7000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7100.00	0.00	0.00	7100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7200.00	0.00	0.00	7200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7300.00	0.00	0.00	7300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7400.00	0.00	0.00	7400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7460.00	0.00	0.00	7460.00	0.00	0.00	0.00	592687.30	600917.40	0.00	2 BSS :
7500.00	0.00	0.00	7500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7600.00	0.00	0.00	7600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7700.00	0.00	0.00	7700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7750.00	0.00	0.00	7750.00	0.00	0.00	0.00	592687.30	600917.40	0.00	3 BSC :
7800.00	0.00	0.00	7800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8100.00	0.00	0.00	8100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8200.00	0.00	0.00	8200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8400.00	0.00	0.00	8400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	9 5/8 in
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8570.00	0.00	0.00	8570.00	0.00	0.00	0.00	592687.30	600917.40	0.00	3 BSS :
8574.00	0.00	0.00	8574.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Landing Top :
8589.00	0.00	0.00	8589.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Target :
8600.00	0.00	0.00	8600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8604.00	0.00	0.00	8604.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Landing Base :
8700.00	0.00	0.00	8700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
8800.00	0.00	0.00	8800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
8900.00	0.00	0.00	8900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Wolfcamp :
8960.00	0.00	0.00	8960.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9100.00	0.00	0.00	9100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9200.00	0.00	0.00	9200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9300.00	0.00	0.00	9300.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9400.00	0.00	0.00	9400.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9500.00	0.00	0.00	9500.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Canyon :
9530.00	0.00	0.00	9530.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9600.00	0.00	0.00	9600.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9700.00	0.00	0.00	9700.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9800.00	0.00	0.00	9800.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
10000.00	0.00	0.00	10000.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
10100.00	0.00	0.00	10100.00	0.00	0.00	0.00	592687.30	600917.40	0.00	Strawn :
10170.00	0.00	0.00	10170.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
10200.00	0.00	0.00	10200.00	0.00	0.00	0.00	592687.30	600917.40	0.00	
10250.00	0.00	0.00	10250.00	0.00	0.00	0.00	592687.30	600917.40	0.00	PBHL

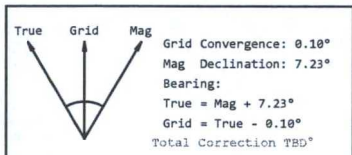
Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)								
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)
Delaware Sands	3106.20	0.00	0.00	3106.20	0.00	0.00	592687.30	600917.40
1BSC	4314.00	0.00	0.00	4314.00	0.00	0.00	592687.30	600917.40
1 BSS	6614.00	0.00	0.00	6614.00	0.00	0.00	592687.30	600917.40
2 BSC	6805.00	0.00	0.00	6805.00	0.00	0.00	592687.30	600917.40
2 BSS	7460.00	0.00	0.00	7460.00	0.00	0.00	592687.30	600917.40
3 BSC	7750.00	0.00	0.00	7750.00	0.00	0.00	592687.30	600917.40
3 BSS	8570.00	0.00	0.00	8570.00	0.00	0.00	592687.30	600917.40
Landing Top	8574.00	0.00	0.00	8574.00	0.00	0.00	592687.30	600917.40
Target	8589.00	0.00	0.00	8589.00	0.00	0.00	592687.30	600917.40
Landing Base	8604.00	0.00	0.00	8604.00	0.00	0.00	592687.30	600917.40
Wolfcamp	8960.00	0.00	0.00	8960.00	0.00	0.00	592687.30	600917.40
Canyon	9530.00	0.00	0.00	9530.00	0.00	0.00	592687.30	600917.40
Strawn	10170.00	0.00	0.00	10170.00	0.00	0.00	592687.30	600917.40



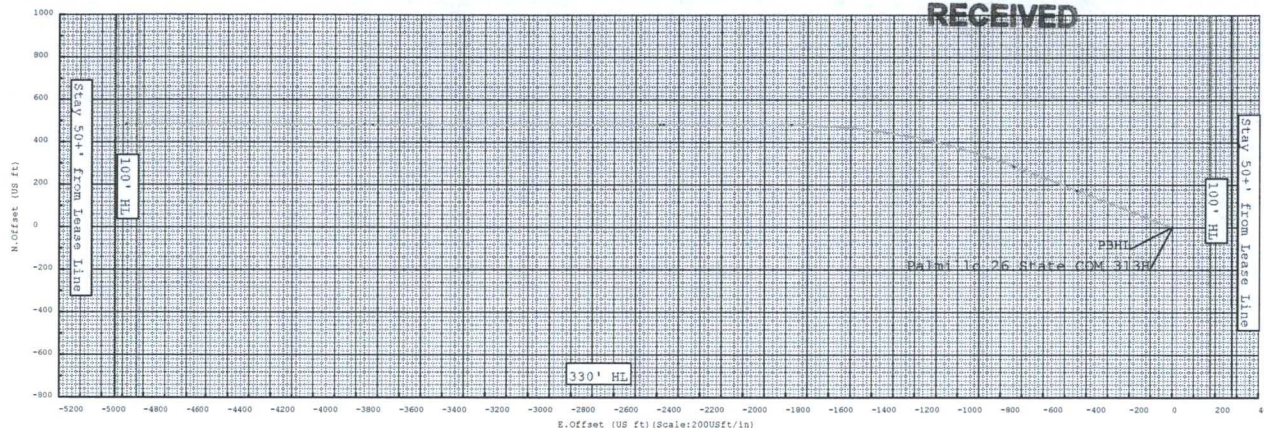
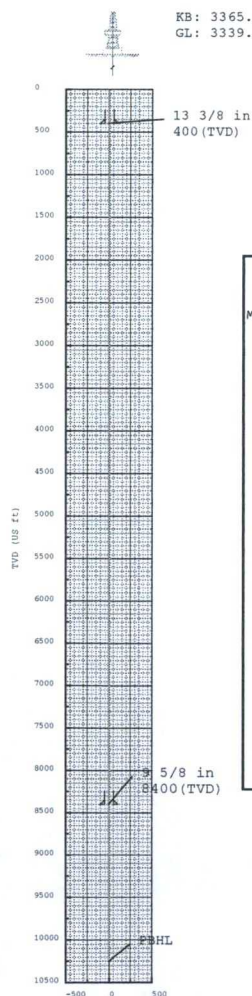
Apache Corporation
Palmillo 26 State COM 313H (Pilot)
Eddy Co., New Mexico
Plan P1:V1

NM OIL CONSERVATION
ARTESIA DISTRICT

APR 25 2018



KB: 3365.00
GL: 3339.00



Plan Data for Palmillo 26 State COM 313H (Pilot)

Field: Apache NM (Nad 83 NMEZ)
Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD83 / New Mexico East (ftUS)

Site: Palmillo 26 State COM 313H
Unit: USFet TVD Reference:
Company Name: Apache Corporation
Position: Northing: 592687.30USFt Latitude: 32.629198°
Easting: 600917.40USFt Longitude: -104.139800°
North Reference: Grid Grid Convergence: 0.10°
Elevation Above VRD: 3339.00USFt
Comment: Eddy Co. New Mexico

Slot: Palmillo 26 State COM 313H
Position:
Offset is from Site centre
+N/-S: 0.00USFt Northing: 592687.30USFt Latitude: 32.629198°
+E/-W: 0.00USFt Easting: 600917.40USFt Longitude: -104.139800°
Elevation Above VRD: 3339.00USFt

Well: Palmillo 26 State COM 313H (Pilot)
Type: Main-Well
File Number:
Plan Folder: P1 Plan: P1:V1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USFt Azimuth: 291.24°
+E/-W: 0.00USFt
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
bggm2017 48126(nT) 7.23° 60.32° 2018-05-01
Comment: H&P 482

Plan Data for Palmillo 26 State COM 313H (Pilot)

Target Set Information:
Name: P26 St Com 313H
Position offsets from Slot centre

Name	TVD	Elevation	+N/-S	+E/-W	Northing	Easting
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)
LPr0	8589.19	-5224.19	172.72	-444.39	592860.02	600473.01
T1	8594.00	-5229.00	481.91	-2385.96	593169.21	598531.44
T2	8605.00	-5240.00	481.91	-3761.76	593169.21	597155.64
PBHL	8600.00	-5235.00	481.90	-4833.40	593169.20	596084.00

Plan Data for Palmillo 26 State COM 313H (Pilot)

Formation Point Information:

Name	TVD	Elevation	MD
(USft)	(USft)	(USft)	(USft)
Delaware Sands	3106.20	258.00	3106.20
1 BSC	4314.00	-949.00	4314.00
2 BSS	6614.00	-3249.00	6614.00
2 BSC	6805.00	-3440.00	6805.00
2 BSS	7460.00	-4095.00	7460.00
3 BSC	7750.00	-4385.00	7750.00
3 BSS	8570.00	-5205.00	8570.00
Landing Top	8574.00	-5209.00	8574.00
Target	8589.00	-5224.00	8589.00
Landing Base	8604.00	-5239.00	8604.00
Wolfcamp	8960.00	-5595.00	8960.00
Canyon	9530.00	-6165.00	9530.00
Strawn	10170.00	-6805.00	10170.00

Plan Data for Palmillo 26 State COM 313H (Pilot)

Plan Point Information:
DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS	Comments
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)	
0.00	0.00	0.00	0.00	0.00	0.00	592687.30	600917.40	0.00	0.00	
10250.00	0.00	0.00	10250.00	0.00	0.00	592687.30	600917.40	0.00	0.00	PBHL

Plan Data for Palmillo 26 State COM 313H (Pilot)

Casing Point Information:
Position offsets from Slot centre

Name	MD	TVD	+N/-S	+E/-W	Northing	Easting
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)
13 3/8 in	400.00	400.00	0.00	0.00	592687.30	600917.40
9 5/8 in	8400.00	8400.00	0.00	0.00	592687.30	600917.40

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