

OCT 21 2019

RECEIVED



5D Plan Report

Apache Corporation

Field Name: *Apache NM (Nad 83 NMEZ)*
Site Name: *Palmillo 10 State Com Pad (233,334)*
Well Name: *Palmillo 10 State Com 334H*
File number: *13930766*
Plan: *P1:V2 (Current plan)*

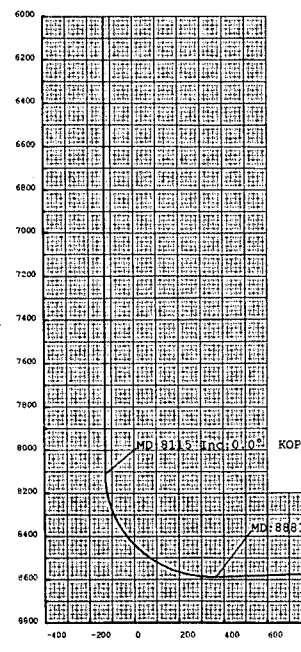
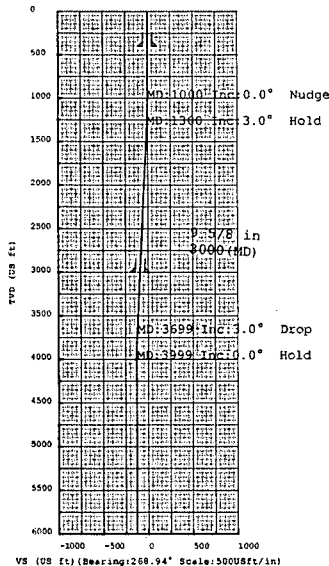
4 October 2019



Apache

Palmillo 10 State Com 334H Eddy Co, New Mexico

KB: 3518.00'
GL: 3492.00'



Plan Data for Palmillo 10 State Com 334H

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
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
0.00	0.00	0.00	0.00	0.00	-0.00	610091.30	595802.10	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	-0.00	610091.30	595802.10	0.00	0.00
1299.75	3.00	112.93	1299.61	-3.05	7.22	610088.25	595809.32	-7.16	1.00
3699.31	3.00	112.93	3695.89	-51.95	122.78	610039.35	595924.88	-121.80	0.00
3999.06	0.00	0.00	3995.50	-55.00	130.00	610036.30	595932.10	-128.96	1.00
8114.86	0.00	0.00	8111.30	-55.00	130.00	610036.30	595932.10	-128.96	0.00
8882.69	92.14	269.59	8588.43	-58.53	-365.28	610032.77	595436.82	366.30	12.00
11518.39	92.14	269.59	8490.00	-77.30	-2999.08	610014.00	592803.02	3000.00	0.00
11582.39	90.86	269.59	8488.32	-77.76	-3063.05	610013.54	592739.05	3063.96	2.00
13468.70	90.86	269.59	8460.00	-91.20	-4949.10	610000.10	590853.00	4949.94	0.00

Plan Data for Palmillo 10 State Com 334H

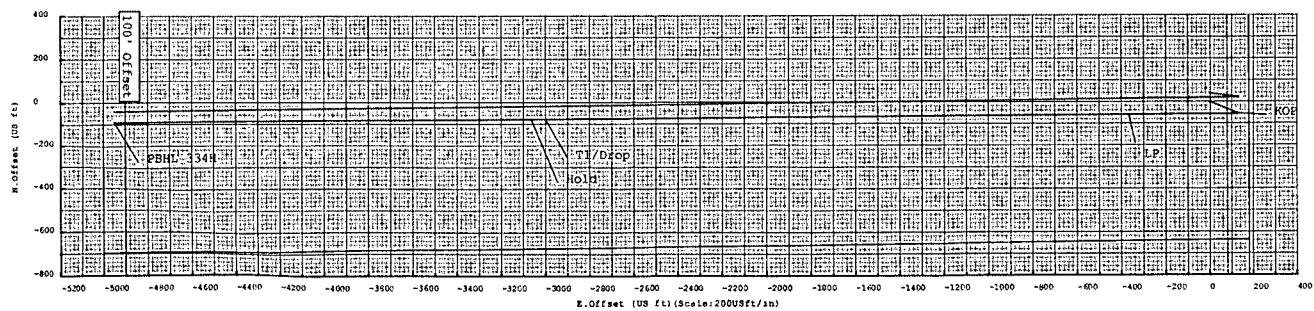
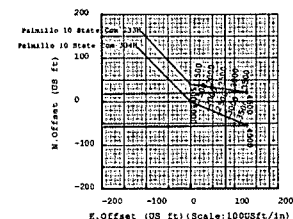
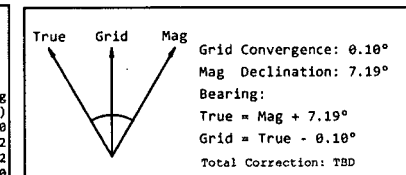
Casing Point Information:					
Position offsets from Slot centre					
Name	MD	TVD	+N/-S	+E/-W	Easting
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)
13 3/8 in	400.00	400.00	0.00	-0.00	610091.30
9 5/8 in	3000.00	2997.54	-37.70	89.10	610053.60

Formation Point Information:			
Name	TVD	Elevation	MD
(USft)	(USft)	(USft)	(USft)
WOLFCAMP	8728.00	5210.00	-1.00
TAN SILL	648.00	2870.00	648.00
YATES	828.00	2690.00	828.00
SEVEN RIVE RS	1198.00	2320.00	1198.04
QUEEN	1678.00	1840.00	1678.66
GRAYBURG	2028.00	1490.00	2029.13
SAN A NDRES	2478.00	1040.00	2479.75
BONE SPRING	3650.00	-132.00	3653.36
1ST BONE SPRING SAND	6338.00	-2820.00	6341.56
2ND BONE SPRING CARB	6468.00	-2950.00	6471.56
2ND BONESPRING SAND	7250.00	-3732.00	7253.56
3RD BONE SPRING CARB	7468.00	-3950.00	7471.56
3RD BONE SPRING SAND	8368.00	-4850.00	8385.88
LANDING TOP	8539.00	-5021.00	8644.92
TARGET	8554.00	-5036.00	8681.53
LANDING BASE	8569.00	-5051.00	8727.00



Plan Data for Palmillo 10 State Com 334H

Target Set Information:					
Name: Palm10SC334H					
Position offsets from Slot centre					
Name	TVD	Elevation	+N/-S	+E/-W	Easting
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)
NP	8111.30	-4593.30	-55.00	130.00	610036.30
LP	8590.00	-5072.00	-58.27	-328.98	610033.03
TI	8490.00	-4972.00	-77.30	-2999.08	610014.00
LTP	334H	8460.75	-4942.75	-90.60	-4899.10
PBHL	334H	8460.00	-4942.00	-91.20	-4949.10



Palmillo 10 State Com 334H
Palmillo 10 State Com 233H

5D Plan Report

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 21 2019

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The Apache logo is rendered in a stylized, italicized font with a double outline and a stippled texture.5D Plan Report

Apache Corporation

Field Name: *Apache NM (Nad 83 NMEZ)*
Site Name: *Palmillo 10 State Com Pad (233,334)*
Well Name: *Palmillo 10 State Com 334H*
File number: *13930766*
Plan: *P1:V2 (Current plan)*

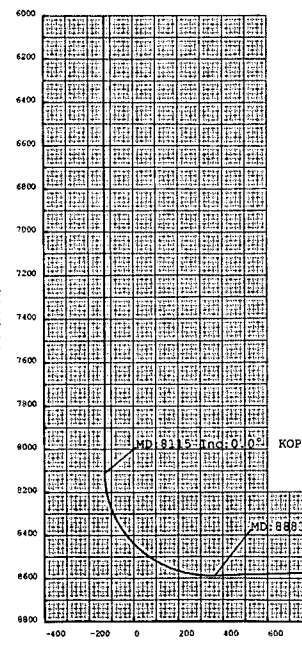
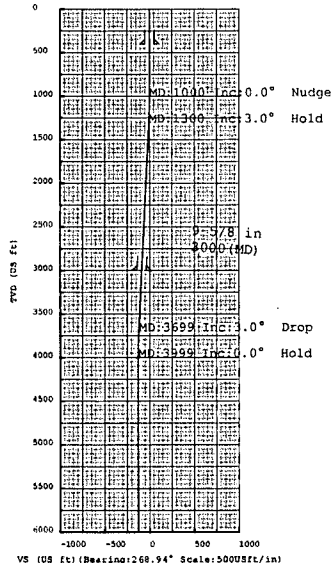
4 October 2019





Palmillo 10 State Com 334H Eddy Co, New Mexico

KB: 3518.00°
GL: 3492.00°



Plan Data for Palmillo 10 State Com 334H

Plan Point Information:										
Dogleg Severity Unit: °/100.00ft										
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS	Comment:
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)	
0.00	0.00	0.00	0.00	0.00	-0.00	610091.30	595802.10	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	-0.00	610091.30	595802.10	0.00	0.00	Nudge
1299.75	3.00	112.93	1299.61	-3.05	7.22	610088.25	595809.32	-7.16	1.00	Hold
3699.31	3.00	112.93	3695.89	-51.95	122.78	610039.35	595924.88	-121.80	0.00	Drop
3999.06	0.00	0.00	3995.50	-55.00	130.00	610036.30	595932.10	-128.96	1.00	Hold
8114.86	0.00	0.00	8111.30	-55.00	130.00	610036.30	595932.10	-128.96	0.00	KOP
8882.69	92.14	269.59	8588.43	-58.53	-365.28	610032.77	595436.82	366.30	12.00	LP
11518.39	92.14	269.59	8490.00	-77.30	-2999.08	610014.00	592803.02	3000.00	0.00	TI/Drop
11582.39	90.86	269.59	8488.32	-77.76	-3063.05	610013.54	592739.05	3063.96	2.00	Hold
13468.70	90.86	269.59	8460.00	-91.20	-4949.10	610000.10	590853.00	4949.94	0.00	PBHL 334H

Plan Data for Palmillo 10 State Com 334H

Casing Point Information:						
Position offsets from Slot centre						
Name	MD	TVD	+N/-S	+E/-W	Northing	Easting
	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)
13 3/8 in	400.00	400.00	0.00	-0.00	610091.30	595802.10
9 5/8 in	3000.00	2997.54	-37.70	89.10	610053.60	595891.20

Formation Point Information:

Name	TVD Elevation	MD
	(USft)	(USft)
WOLFCAMP	8728.00	-5210.00
TAN STILL	648.00	2870.00
YATES	828.00	2690.00
SEVEN RIVE RS	1198.00	2320.00
QUEEN	1678.00	1840.00
GRAYBURG	2028.00	1490.00
SAN A NDRES	2478.00	1040.00
BONE SPRING	3650.00	-132.00
1ST BONE SPRING SAND	6338.00	-2820.00
2ND BONE SPRING CARB	6468.00	-2950.00
2ND BONESPRING SAND	7250.00	-3732.00
3RD BONE SPRING CARB	7468.00	-3950.00
3RD BONE SPRING SAND	8368.00	-4850.00
LANDING TOP	8539.00	-5021.00
TARGET	8554.00	-5036.00
LANDING BASE	8569.00	-5051.00



Weatherford

Plan Data for Palmillo 10 State Com 334H

Target Set Information:						
Name: Palm10SC334H						
Position offsets from Slot centre						
Name	TVD Elevation	+N/-S	+E/-W	Northing	Easting	
	(USft)	(USft)	(USft)	(USft)	(USft)	
NP	8111.30	-4593.30	-55.00	130.00	610036.30	595932.10
LP	8590.00	-5072.00	-58.27	-328.98	610033.03	595473.12
TI	8490.00	-4972.00	-77.30	-2999.08	610014.00	592803.02
LTP	334H 8460.75	-4942.75	-90.60	-4899.10	610000.70	590903.00
PBHL	334H 8460.00	-4942.00	-91.20	-4949.10	610000.10	590853.00

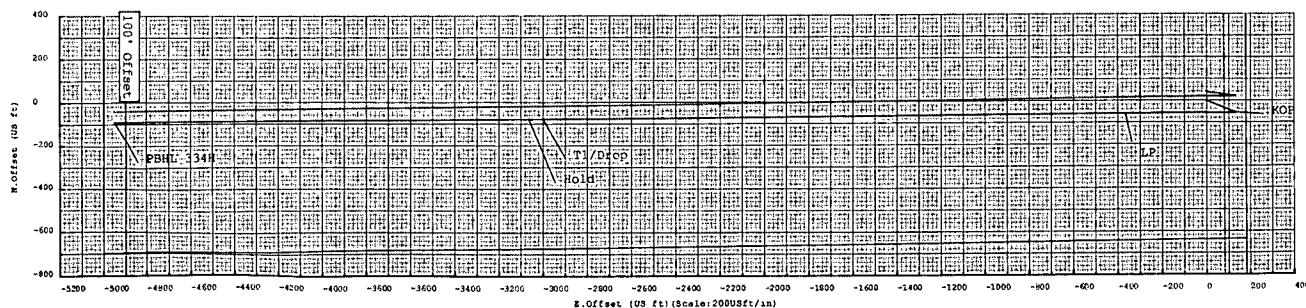
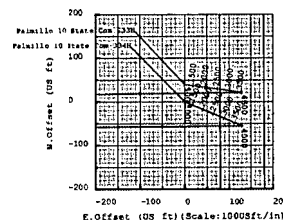
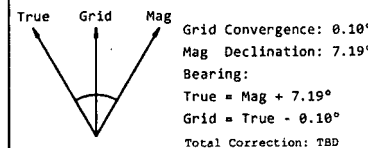
Position:
North: 32.677171°
Easting: 595801.90USft
North Reference: Grid
Elevation Above VRD: 3493.00USft
Comment: Eddy Co., New Mexico

Slot: Palmillo 10 State Com 334H

Position:
Offset is from Site centre
+N/-S: -40.00USft
+E/-W: 0.20USft
Elevation Above VRD: 3492.00USft

Well: Palmillo 10 State Com 334H

Type: Main-Well
File Number: 13930766
Plan Folder: P1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft
+E/-W: -0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
bggm2019 47870(NT) 7.19° 60.40° 2019-12-25



Palmillo 10 State Com 334H
Palmillo 10 State Com 233H

Drawing By: Ty Hardin Date: 11 September 2019
Office Name: Drilling Services - Houston
Address: 12261 Cullen Road
Houston, TX 77066

Phone: +1.713.882.8256


Weatherford

Palmillo 10 State Com 334H

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:	
Units: US ft	North Reference: Grid	Convergence Angle: 0.10
Site: Palmillo 10 State Com Pad (233,334)	Position: Northing: 610131.30 US ft Easting: 595801.90 US ft	Latitude: 32.677170846 Longitude: -104.156321767
	Elevation above MSL: 3493.00 US ft	
	Comment: Eddy Co., New Mexico	
Slot: Palmillo 10 State Com 334H	Position (Relative to Site Centre) +N/-S: -40.00 US ft +E/-W: 0.20 US ft	Latitude: 32.677060898 Longitude: -104.156321333
	Slot TVD Reference: Ground Elevation	
	Elevation above MSL: 3492.00 US ft	
	Comment:	
Well: Palmillo 10 State Com 334H	Type: Main well File Number: 13930766 Comment:	UWI: Plan: P1:V2 (Current plan)
	Closure Distance: 4949.94 US ft	Closure Azimuth: 268.94°
	Vertical Section: Position of Origin (Relative to Slot centre) +N/-S: 0.00 US ft +E/-W: -0.00 US ft	Az: 268.94°
	Magnetic Parameters: Model: bggm2019 Field Strength: 47870.9 nT	Declination: 7.19° Dip: 60.40° Date: 25/Dec/2019

Drill floor: Plan: P1:V2 (Current plan)

Rig Height (Drill Floor): 26.00 US ft **Elevation above MSL:** 3518.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Target set: Palm10SC334H Comment:

Target Name:	Shape:	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	C. Pt. Distance (US ft)	Comment
NP	Point	8111.30	-55.00	130.00	610036.30	595932.10	0.00	
LP	Point	8590.00	-58.27	-328.98	610033.03	595473.12	1.59	
T1	Point	8490.00	-77.30	-2999.08	610014.00	592803.02	0.00	
LTP 334H	Point	8460.75	-90.60	-4899.10	610000.70	590903.00	0.24	
PBHL 334H	Point	8460.00	-91.20	-4949.10	610000.10	590853.00	0.00	

5D Plan Report

Tie Point:					
MD: 0.00USft	Inclination: 0.00°	Azimuth: 0.00°	TVD: 0.00USft	North Offset: 0.00USft	East Offset: -0.00USft

Survey Tool Ranges:			
Name	Start MD(USft)	End MD(USft)	Source Survey
MWD	0.00	1000.00	
MWD	1000.00	13468.70	Default Tool

Casing 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)
13 3/8 in	400.00	0.00	0.00	400.00	0.00	-0.00	610091.30	595802.10
9 5/8 in	3000.00	3.00	112.93	2997.54	-37.70	89.10	610053.60	595891.20

Wellpath created using minimum curvature.

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	610091.30	595802.10	0.00	
1000.00	0.00	0.00	1000.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	Nudge
1299.75	3.00	112.93	1299.61	-7.16	-3.05	7.22	610088.25	595809.32	1.00	Hold
3699.31	3.00	112.93	3695.89	-121.80	-51.95	122.78	610039.35	595924.88	0.00	Drop
3999.06	0.00	0.00	3995.50	-128.96	-55.00	130.00	610036.30	595932.10	1.00	Hold
8114.86	0.00	0.00	8111.30	-128.96	-55.00	130.00	610036.30	595932.10	0.00	KOP
8882.69	92.14	269.59	8588.43	366.30	-58.53	-365.28	610032.77	595436.82	12.00	LP
11518.39	92.14	269.59	8490.00	3000.00	-77.30	-2999.08	610014.00	592803.02	0.00	T1/Drop
11582.39	90.86	269.59	8488.32	3063.96	-77.76	-3063.05	610013.54	592739.05	2.00	Hold
13468.70	90.86	269.59	8460.00	4949.94	-91.20	-4949.10	610000.10	590853.00	0.00	PBHL 334H

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	610091.30	595802.10	0.00	
100.00	0.00	0.00	100.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
200.00	0.00	0.00	200.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
300.00	0.00	0.00	300.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
400.00	0.00	0.00	400.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	13 3/8 in
500.00	0.00	0.00	500.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
600.00	0.00	0.00	600.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
700.00	0.00	0.00	700.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
800.00	0.00	0.00	800.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
900.00	0.00	0.00	900.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	
1000.00	0.00	0.00	1000.00	-0.00	0.00	-0.00	610091.30	595802.10	0.00	Nudge
1100.00	1.00	112.93	1099.99	-0.80	-0.34	0.80	610090.96	595802.90	1.00	
1200.00	2.00	112.93	1199.96	-3.19	-1.36	3.21	610089.94	595805.31	1.00	
1299.75	3.00	112.93	1299.61	-7.16	-3.05	7.22	610088.25	595809.32	1.00	Hold
1300.00	3.00	112.93	1299.86	-7.17	-3.06	7.23	610088.24	595809.33	0.00	
1400.00	3.00	112.93	1399.73	-11.95	-5.10	12.05	610086.20	595814.15	0.00	
1500.00	3.00	112.93	1499.59	-16.73	-7.13	16.86	610084.17	595818.96	0.00	
1600.00	3.00	112.93	1599.45	-21.51	-9.17	21.68	610082.13	595823.78	0.00	
1700.00	3.00	112.93	1699.32	-26.28	-11.21	26.50	610080.09	595828.60	0.00	
1800.00	3.00	112.93	1799.18	-31.06	-13.25	31.31	610078.05	595833.41	0.00	
1900.00	3.00	112.93	1899.04	-35.84	-15.28	36.13	610076.02	595838.23	0.00	
2000.00	3.00	112.93	1998.91	-40.62	-17.32	40.94	610073.98	595843.04	0.00	
2100.00	3.00	112.93	2098.77	-45.39	-19.36	45.76	610071.94	595847.86	0.00	
2200.00	3.00	112.93	2198.63	-50.17	-21.40	50.57	610069.90	595852.67	0.00	
2300.00	3.00	112.93	2298.49	-54.95	-23.43	55.39	610067.87	595857.49	0.00	
2400.00	3.00	112.93	2398.36	-59.73	-25.47	60.21	610065.83	595862.31	0.00	
2500.00	3.00	112.93	2498.22	-64.50	-27.51	65.02	610063.79	595867.12	0.00	
2600.00	3.00	112.93	2598.08	-69.28	-29.55	69.84	610061.75	595871.94	0.00	
2700.00	3.00	112.93	2697.95	-74.06	-31.58	74.65	610059.72	595876.75	0.00	
2800.00	3.00	112.93	2797.81	-78.83	-33.62	79.47	610057.68	595881.57	0.00	

5D Plan Report

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
2900.00	3.00	112.93	2897.67	-83.61	-35.66	84.29	610055.64	595886.39	0.00	
3000.00	3.00	112.93	2997.54	-88.39	-37.70	89.10	610053.60	595891.20	0.00	9 5/8 in
3100.00	3.00	112.93	3097.40	-93.17	-39.73	93.92	610051.57	595896.02	0.00	
3200.00	3.00	112.93	3197.26	-97.94	-41.77	98.73	610049.53	595900.83	0.00	
3300.00	3.00	112.93	3297.13	-102.72	-43.81	103.55	610047.49	595905.65	0.00	
3400.00	3.00	112.93	3396.99	-107.50	-45.85	108.37	610045.45	595910.47	0.00	
3500.00	3.00	112.93	3496.85	-112.28	-47.88	113.18	610043.42	595915.28	0.00	
3600.00	3.00	112.93	3596.72	-117.05	-49.92	118.00	610041.38	595920.10	0.00	
3699.31	3.00	112.93	3695.89	-121.80	-51.95	122.78	610039.35	595924.88	0.00	Drop
3700.00	2.99	112.93	3696.58	-121.83	-51.96	122.81	610039.34	595924.91	1.00	
3800.00	1.99	112.93	3796.48	-125.80	-53.65	126.82	610037.65	595928.92	1.00	
3900.00	0.99	112.93	3896.45	-128.18	-54.67	129.21	610036.63	595931.31	1.00	
3999.06	0.00	0.00	3995.50	-128.96	-55.00	130.00	610036.30	595932.10	1.00	Hold
4000.00	0.00	0.00	3996.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4100.00	0.00	0.00	4096.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4200.00	0.00	0.00	4196.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4300.00	0.00	0.00	4296.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4400.00	0.00	0.00	4396.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4500.00	0.00	0.00	4496.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4600.00	0.00	0.00	4596.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4700.00	0.00	0.00	4696.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4800.00	0.00	0.00	4796.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
4900.00	0.00	0.00	4896.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5000.00	0.00	0.00	4996.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5100.00	0.00	0.00	5096.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5200.00	0.00	0.00	5196.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5300.00	0.00	0.00	5296.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5400.00	0.00	0.00	5396.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5500.00	0.00	0.00	5496.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5600.00	0.00	0.00	5596.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5700.00	0.00	0.00	5696.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5800.00	0.00	0.00	5796.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
5900.00	0.00	0.00	5896.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6000.00	0.00	0.00	5996.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6100.00	0.00	0.00	6096.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6200.00	0.00	0.00	6196.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6300.00	0.00	0.00	6296.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6400.00	0.00	0.00	6396.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6500.00	0.00	0.00	6496.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6600.00	0.00	0.00	6596.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6700.00	0.00	0.00	6696.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6800.00	0.00	0.00	6796.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
6900.00	0.00	0.00	6896.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7000.00	0.00	0.00	6996.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7100.00	0.00	0.00	7096.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7200.00	0.00	0.00	7196.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7300.00	0.00	0.00	7296.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7400.00	0.00	0.00	7396.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7500.00	0.00	0.00	7496.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7600.00	0.00	0.00	7596.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7700.00	0.00	0.00	7696.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7800.00	0.00	0.00	7796.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
7900.00	0.00	0.00	7896.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
8000.00	0.00	0.00	7996.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
8100.00	0.00	0.00	8096.44	-128.96	-55.00	130.00	610036.30	595932.10	0.00	
8114.86	0.00	0.00	8111.30	-128.96	-55.00	130.00	610036.30	595932.10	0.00	KOP
8200.00	10.22	269.59	8195.99	-121.39	-55.05	122.43	610036.25	595924.53	12.00	
8300.00	22.22	269.59	8291.84	-93.51	-55.25	94.55	610036.05	595896.65	12.00	
8400.00	34.22	269.59	8379.79	-46.32	-55.59	47.36	610035.71	595849.46	12.00	

5D Plan Report

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
8500.00	46.22	269.59	8456.01	18.12	-56.05	-17.09	610035.25	595785.01	12.00	
8600.00	58.22	269.59	8517.17	97.01	-56.61	-95.98	610034.69	595706.12	12.00	
8700.00	70.22	269.59	8560.59	186.88	-57.25	-185.86	610034.05	595616.24	12.00	
8800.00	82.22	269.59	8584.37	283.82	-57.94	-282.80	610033.36	595519.30	12.00	
8882.69	92.14	269.59	8588.43	366.30	-58.53	-365.28	610032.77	595436.82	12.00	LP
8900.00	92.14	269.59	8587.79	383.60	-58.65	-382.58	610032.65	595419.52	0.00	
9000.00	92.14	269.59	8584.05	483.52	-59.37	-482.51	610031.93	595319.59	0.00	
9100.00	92.14	269.59	8580.32	583.45	-60.08	-582.43	610031.22	595219.67	0.00	
9200.00	92.14	269.59	8576.58	683.37	-60.79	-682.36	610030.51	595119.74	0.00	
9300.00	92.14	269.59	8572.85	783.29	-61.50	-782.29	610029.80	595019.81	0.00	
9400.00	92.14	269.59	8569.11	883.22	-62.21	-882.22	610029.09	594919.88	0.00	
9500.00	92.14	269.59	8565.38	983.14	-62.93	-982.15	610028.37	594819.95	0.00	
9600.00	92.14	269.59	8561.64	1083.07	-63.64	-1082.07	610027.66	594720.03	0.00	
9700.00	92.14	269.59	8557.91	1182.99	-64.35	-1182.00	610026.95	594620.10	0.00	
9800.00	92.14	269.59	8554.17	1282.91	-65.06	-1281.93	610026.24	594520.17	0.00	
9900.00	92.14	269.59	8550.44	1382.84	-65.77	-1381.86	610025.53	594420.24	0.00	
10000.00	92.14	269.59	8546.71	1482.76	-66.49	-1481.78	610024.81	594320.32	0.00	
10100.00	92.14	269.59	8542.97	1582.68	-67.20	-1581.71	610024.10	594220.39	0.00	
10200.00	92.14	269.59	8539.24	1682.61	-67.91	-1681.64	610023.39	594120.46	0.00	
10300.00	92.14	269.59	8535.50	1782.53	-68.62	-1781.57	610022.68	594020.53	0.00	
10400.00	92.14	269.59	8531.77	1882.46	-69.34	-1881.49	610021.96	593920.61	0.00	
10500.00	92.14	269.59	8528.03	1982.38	-70.05	-1981.42	610021.25	593820.68	0.00	
10600.00	92.14	269.59	8524.30	2082.30	-70.76	-2081.35	610020.54	593720.75	0.00	
10700.00	92.14	269.59	8520.56	2182.23	-71.47	-2181.28	610019.83	593620.82	0.00	
10800.00	92.14	269.59	8516.83	2282.15	-72.18	-2281.21	610019.12	593520.89	0.00	
10900.00	92.14	269.59	8513.09	2382.07	-72.90	-2381.13	610018.40	593420.97	0.00	
11000.00	92.14	269.59	8509.36	2482.00	-73.61	-2481.06	610017.69	593321.04	0.00	
11100.00	92.14	269.59	8505.63	2581.92	-74.32	-2580.99	610016.98	593221.11	0.00	
11200.00	92.14	269.59	8501.89	2681.85	-75.03	-2680.92	610016.27	593121.18	0.00	
11300.00	92.14	269.59	8498.16	2781.77	-75.74	-2780.84	610015.56	593021.26	0.00	
11400.00	92.14	269.59	8494.42	2881.69	-76.46	-2880.77	610014.84	592921.33	0.00	
11500.00	92.14	269.59	8490.69	2981.62	-77.17	-2980.70	610014.13	592821.40	0.00	
11518.39	92.14	269.59	8490.00	3000.00	-77.30	-2999.08	610014.00	592803.02	0.00	T1/Drop
11582.39	90.86	269.59	8488.32	3063.96	-77.76	-3063.05	610013.54	592739.05	2.00	Hold
11600.00	90.86	269.59	8488.06	3081.57	-77.88	-3080.66	610013.42	592721.44	0.00	
11700.00	90.86	269.59	8486.56	3181.55	-78.59	-3180.65	610012.71	592621.45	0.00	
11800.00	90.86	269.59	8485.06	3281.54	-79.31	-3280.63	610011.99	592521.47	0.00	
11900.00	90.86	269.59	8483.56	3381.52	-80.02	-3380.62	610011.28	592421.48	0.00	
12000.00	90.86	269.59	8482.05	3481.50	-80.73	-3480.60	610010.57	592321.50	0.00	
12100.00	90.86	269.59	8480.55	3581.48	-81.45	-3580.59	610009.85	592221.51	0.00	
12200.00	90.86	269.59	8479.05	3681.47	-82.16	-3680.58	610009.14	592121.52	0.00	
12300.00	90.86	269.59	8477.55	3781.45	-82.87	-3780.56	610008.43	592021.54	0.00	
12400.00	90.86	269.59	8476.05	3881.43	-83.58	-3880.55	610007.72	591921.55	0.00	
12500.00	90.86	269.59	8474.55	3981.41	-84.30	-3980.53	610007.00	591821.57	0.00	
12600.00	90.86	269.59	8473.04	4081.40	-85.01	-4080.52	610006.29	591721.58	0.00	
12700.00	90.86	269.59	8471.54	4181.38	-85.72	-4180.51	610005.58	591621.59	0.00	
12800.00	90.86	269.59	8470.04	4281.36	-86.43	-4280.49	610004.87	591521.61	0.00	
12900.00	90.86	269.59	8468.54	4381.34	-87.15	-4380.48	610004.15	591421.62	0.00	
13000.00	90.86	269.59	8467.04	4481.32	-87.86	-4480.47	610003.44	591321.63	0.00	
13100.00	90.86	269.59	8465.54	4581.31	-88.57	-4580.45	610002.73	591221.65	0.00	
13200.00	90.86	269.59	8464.03	4681.29	-89.28	-4680.44	610002.02	591121.66	0.00	
13300.00	90.86	269.59	8462.53	4781.27	-90.00	-4780.42	610001.30	591021.68	0.00	
13400.00	90.86	269.59	8461.03	4881.25	-90.71	-4880.41	610000.59	590921.69	0.00	
13468.70	90.86	269.59	8460.00	4949.94	-91.20	-4949.10	610000.10	590853.00	0.00	PBHL 334H

Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Comment
WOLFCAMP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

5D Plan Report

Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	TVD (MSL) (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Comment
TAN SILL	648.00	0.00	0.00	648.00	-2870.00	0.00	-0.00	610091.30	595802.10	
YATES	828.00	0.00	0.00	828.00	-2690.00	0.00	-0.00	610091.30	595802.10	
SEVEN RIVE RS	1198.04	1.98	112.93	1198.00	-2320.00	-1.33	3.15	610089.97	595805.25	
QUEEN	1678.66	3.00	112.93	1678.00	-1840.00	-10.77	25.47	610080.53	595827.57	
GRAYBURG	2029.13	3.00	112.93	2028.00	-1490.00	-17.92	42.35	610073.38	595844.45	
SAN A NDRES	2479.75	3.00	112.93	2478.00	-1040.00	-27.10	64.05	610064.20	595866.15	
BONE SPRING	3653.36	3.00	112.93	3650.00	132.00	-51.01	120.57	610040.29	595922.67	
1ST BONE SPRING SAND	6341.56	0.00	0.00	6338.00	2820.00	-55.00	130.00	610036.30	595932.10	
2ND BONE SPRING CARB	6471.56	0.00	0.00	6468.00	2950.00	-55.00	130.00	610036.30	595932.10	
2ND BONESPRING SAND	7253.56	0.00	0.00	7250.00	3732.00	-55.00	130.00	610036.30	595932.10	
3RD BONE SPRING CARB	7471.56	0.00	0.00	7468.00	3950.00	-55.00	130.00	610036.30	595932.10	
3RD BONE SPRING SAND	8385.88	32.52	269.59	8368.00	4850.00	-55.53	55.13	610035.77	595857.23	
LANDING TOP	8644.92	63.61	269.59	8539.00	5021.00	-56.89	-135.22	610034.41	595666.88	
TARGET	8681.53	68.00	269.59	8554.00	5036.00	-57.13	-168.60	610034.17	595633.50	
LANDING BASE	8727.00	73.46	269.59	8569.00	5051.00	-57.43	-211.50	610033.87	595590.60	