

DEVON ENERGY

Project: Eddy County, NM (NAD-83)
Site: Lone Tree Draw "14" State
Well: 2H
Wellbore: OH
Design: Plan #1 Draft 1a



Azimuths to Grid North
True North: -0.09°
Magnetic North: 7.58°

Magnetic Field
Strength: 48428.6nT
Dip Angle: 60.25°
Date: 01/15/2014
Model: BGGM2013



PROJECT DETAILS: Eddy County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

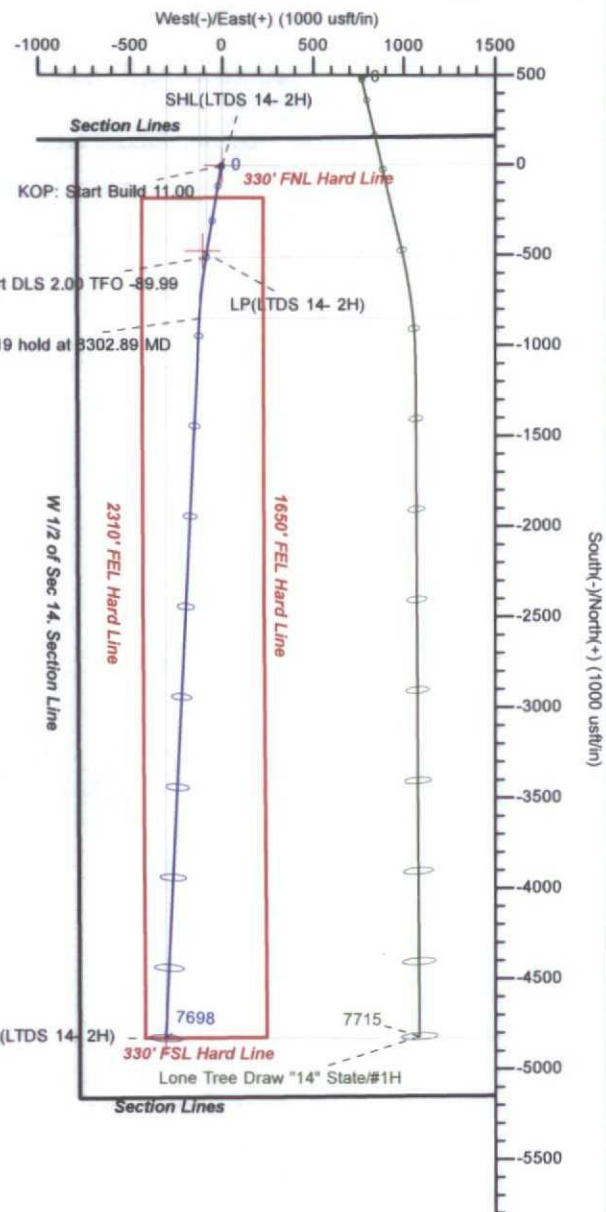
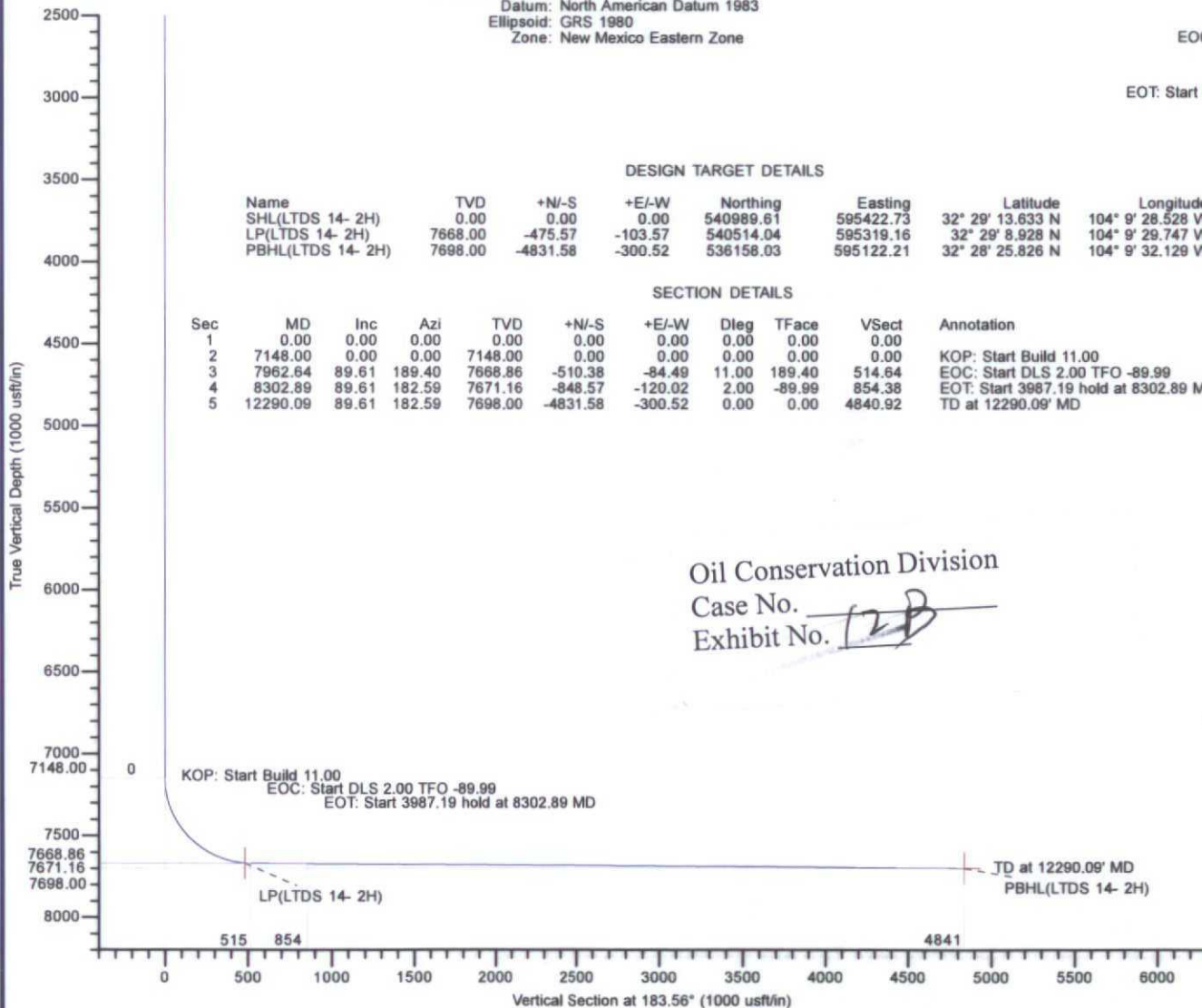
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL(LTDS 14- 2H)	0.00	0.00	0.00	540989.61	595422.73	32° 29' 13.633 N	104° 9' 28.528 W
LP(LTDS 14- 2H)	7668.00	-475.57	-103.57	540514.04	595319.16	32° 29' 8.928 N	104° 9' 29.747 W
PBHL(LTDS 14- 2H)	7698.00	-4831.58	-300.52	536158.03	595122.21	32° 28' 25.826 N	104° 9' 32.129 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7148.00	0.00	0.00	7148.00	0.00	0.00	0.00	0.00	0.00	KOP: Start Build 11.00
3	7962.64	89.61	189.40	7668.86	-510.38	-84.49	11.00	189.40	514.64	EOC: Start DLS 2.00 TFO -89.99
4	8302.89	89.61	182.59	7671.16	-848.57	-120.02	2.00	-89.99	854.38	EOT: Start 3987.19 hold at 8302.89 MD
5	12290.09	89.61	182.59	7698.00	-4831.58	-300.52	0.00	0.00	4840.92	TD at 12290.09' MD

Oil Conservation Division
Case No. 12B
Exhibit No. 12B



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #1 Draft 1a (2H/OH)
Lone Tree Draw "14" State
Created By: Heber Claros Date: 13:58, February 11 2014
Date: _____
Approved: _____ Date: _____

DEVON ENERGY

Eddy County, NM (NAD-83)

Lone Tree Draw "14" State

2H

OH

Plan: Plan #1 Draft 1a

Standard Planning Report

11 February, 2014

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Site:	Lone Tree Draw "14" State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1a		

Project	Eddy County, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Lone Tree Draw "14" State				
Site Position:		Northing:	541,480.29 usft	Latitude:	32° 29' 18.473 N
From:	Lat/Long	Easting:	596,338.28 usft	Longitude:	104° 9' 17.829 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	2H					
Well Position	+N/-S	-490.67 usft	Northing:	540,989.61 usft	Latitude:	32° 29' 13.633 N
	+E/-W	-915.55 usft	Easting:	595,422.73 usft	Longitude:	104° 9' 28.528 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,221.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	01/15/14	7.68	60.25	48,429

Design	Plan #1 Draft 1a			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	183.56

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,148.00	0.00	0.00	7,148.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,962.64	89.61	189.40	7,668.86	-510.38	-84.49	11.00	11.00	0.00	189.40	
8,302.89	89.61	182.59	7,671.16	-848.57	-120.02	2.00	0.00	-2.00	-89.99	
12,290.09	89.61	182.59	7,698.00	-4,831.58	-300.52	0.00	0.00	0.00	0.00	PBHL(LTDS 14- 2H)

Leam Drilling Systems LLC
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Site:	Lone Tree Draw "14" State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1a		

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)
7,148.00	0.00	0.00	7,148.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP: Start Build 11.00									
7,150.00	0.22	189.40	7,150.00	0.00	0.00	0.00	11.00	11.00	0.00
7,200.00	5.72	189.40	7,199.91	-2.56	-0.42	2.58	11.00	11.00	0.00
7,250.00	11.22	189.40	7,249.35	-9.82	-1.63	9.90	11.00	11.00	0.00
7,286.63	15.25	189.40	7,285.00	-18.09	-3.00	18.24	11.00	11.00	0.00
2nd Bone Spring Sand - 2nd BSSS Upper Top									
7,300.00	16.72	189.40	7,297.85	-21.73	-3.60	21.91	11.00	11.00	0.00
7,350.00	22.22	189.40	7,344.97	-38.16	-6.32	38.48	11.00	11.00	0.00
7,400.00	27.72	189.40	7,390.28	-58.98	-9.76	59.47	11.00	11.00	0.00
7,416.77	29.56	189.40	7,405.00	-66.91	-11.08	67.47	11.00	11.00	0.00
2nd BSSS Upper Base									
7,450.00	33.22	189.40	7,433.36	-83.98	-13.90	84.68	11.00	11.00	0.00
7,486.28	37.21	189.40	7,463.00	-104.62	-17.32	105.49	11.00	11.00	0.00
2nd BSSS Mid Top									
7,500.00	38.72	189.40	7,473.81	-112.94	-18.70	113.89	11.00	11.00	0.00
7,534.51	42.52	189.40	7,500.00	-135.10	-22.37	136.23	11.00	11.00	0.00
2nd BSSS Mid Base									
7,550.00	44.22	189.40	7,511.26	-145.60	-24.10	146.81	11.00	11.00	0.00
7,600.00	49.72	189.40	7,545.37	-181.64	-30.07	183.16	11.00	11.00	0.00
7,650.00	55.22	189.40	7,575.82	-220.75	-36.54	222.59	11.00	11.00	0.00
7,655.63	55.84	189.40	7,579.00	-225.32	-37.30	227.20	11.00	11.00	0.00
2nd BSSS Lower Top									
7,700.00	60.72	189.40	7,602.32	-262.55	-43.47	264.74	11.00	11.00	0.00
7,750.00	66.22	189.40	7,624.65	-306.67	-50.77	309.23	11.00	11.00	0.00
7,800.00	71.72	189.40	7,642.59	-352.69	-58.39	355.64	11.00	11.00	0.00
7,850.00	77.22	189.40	7,655.97	-400.20	-66.25	403.54	11.00	11.00	0.00
7,900.00	82.72	189.40	7,664.67	-448.76	-74.29	452.51	11.00	11.00	0.00
7,931.41	86.18	189.40	7,667.71	-479.60	-79.40	483.60	11.00	11.00	0.00
LP(LTDS 14- 2H)									
7,950.00	88.22	189.40	7,668.62	-497.91	-82.43	502.07	11.00	11.00	0.00
7,962.64	89.61	189.40	7,668.86	-510.38	-84.49	514.64	11.00	11.00	0.00
EOC: Start DLS 2.00 TFO -89.99									
8,000.00	89.61	188.65	7,669.11	-547.28	-90.35	551.83	2.00	0.00	-2.00
8,100.00	89.61	186.65	7,669.79	-646.38	-103.67	651.57	2.00	0.00	-2.00
8,200.00	89.61	184.65	7,670.47	-745.89	-113.52	751.50	2.00	0.00	-2.00
8,302.89	89.61	182.59	7,671.16	-848.57	-120.02	854.38	2.00	0.00	-2.00
EOT: Start 3987.19 hold at 8302.89 MD									
8,400.00	89.61	182.59	7,671.82	-945.57	-124.42	951.47	0.00	0.00	0.00
8,500.00	89.61	182.59	7,672.49	-1,045.47	-128.94	1,051.46	0.00	0.00	0.00
8,600.00	89.61	182.59	7,673.16	-1,145.36	-133.47	1,151.44	0.00	0.00	0.00
8,700.00	89.61	182.59	7,673.84	-1,245.26	-138.00	1,251.42	0.00	0.00	0.00
8,800.00	89.61	182.59	7,674.51	-1,345.15	-142.53	1,351.41	0.00	0.00	0.00
8,900.00	89.61	182.59	7,675.18	-1,445.05	-147.05	1,451.39	0.00	0.00	0.00
9,000.00	89.61	182.59	7,675.86	-1,544.94	-151.58	1,551.37	0.00	0.00	0.00
9,100.00	89.61	182.59	7,676.53	-1,644.84	-156.11	1,651.36	0.00	0.00	0.00
9,200.00	89.61	182.59	7,677.20	-1,744.73	-160.63	1,751.34	0.00	0.00	0.00
9,300.00	89.61	182.59	7,677.88	-1,844.63	-165.16	1,851.32	0.00	0.00	0.00
9,400.00	89.61	182.59	7,678.55	-1,944.52	-169.69	1,951.31	0.00	0.00	0.00
9,500.00	89.61	182.59	7,679.22	-2,044.42	-174.21	2,051.29	0.00	0.00	0.00
9,600.00	89.61	182.59	7,679.89	-2,144.31	-178.74	2,151.28	0.00	0.00	0.00

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Site:	Lone Tree Draw "14" State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1a		

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)
9,700.00	89.61	182.59	7,680.57	-2,244.21	-183.27	2,251.26	0.00	0.00	0.00
9,800.00	89.61	182.59	7,681.24	-2,344.10	-187.79	2,351.24	0.00	0.00	0.00
9,900.00	89.61	182.59	7,681.91	-2,444.00	-192.32	2,451.23	0.00	0.00	0.00
10,000.00	89.61	182.59	7,682.59	-2,543.90	-196.85	2,551.21	0.00	0.00	0.00
10,100.00	89.61	182.59	7,683.26	-2,643.79	-201.38	2,651.19	0.00	0.00	0.00
10,200.00	89.61	182.59	7,683.93	-2,743.69	-205.90	2,751.18	0.00	0.00	0.00
10,300.00	89.61	182.59	7,684.61	-2,843.58	-210.43	2,851.16	0.00	0.00	0.00
10,400.00	89.61	182.59	7,685.28	-2,943.48	-214.96	2,951.14	0.00	0.00	0.00
10,500.00	89.61	182.59	7,685.95	-3,043.37	-219.48	3,051.13	0.00	0.00	0.00
10,600.00	89.61	182.59	7,686.63	-3,143.27	-224.01	3,151.11	0.00	0.00	0.00
10,700.00	89.61	182.59	7,687.30	-3,243.16	-228.54	3,251.09	0.00	0.00	0.00
10,800.00	89.61	182.59	7,687.97	-3,343.06	-233.06	3,351.08	0.00	0.00	0.00
10,900.00	89.61	182.59	7,688.64	-3,442.95	-237.59	3,451.06	0.00	0.00	0.00
11,000.00	89.61	182.59	7,689.32	-3,542.85	-242.12	3,551.04	0.00	0.00	0.00
11,100.00	89.61	182.59	7,689.99	-3,642.74	-246.64	3,651.03	0.00	0.00	0.00
11,200.00	89.61	182.59	7,690.66	-3,742.64	-251.17	3,751.01	0.00	0.00	0.00
11,300.00	89.61	182.59	7,691.34	-3,842.53	-255.70	3,851.00	0.00	0.00	0.00
11,400.00	89.61	182.59	7,692.01	-3,942.43	-260.23	3,950.98	0.00	0.00	0.00
11,500.00	89.61	182.59	7,692.68	-4,042.32	-264.75	4,050.96	0.00	0.00	0.00
11,600.00	89.61	182.59	7,693.36	-4,142.22	-269.28	4,150.95	0.00	0.00	0.00
11,700.00	89.61	182.59	7,694.03	-4,242.11	-273.81	4,250.93	0.00	0.00	0.00
11,800.00	89.61	182.59	7,694.70	-4,342.01	-278.33	4,350.91	0.00	0.00	0.00
11,900.00	89.61	182.59	7,695.37	-4,441.90	-282.86	4,450.90	0.00	0.00	0.00
12,000.00	89.61	182.59	7,696.05	-4,541.80	-287.39	4,550.88	0.00	0.00	0.00
12,100.00	89.61	182.59	7,696.72	-4,641.69	-291.91	4,650.86	0.00	0.00	0.00
12,200.00	89.61	182.59	7,697.39	-4,741.59	-296.44	4,750.85	0.00	0.00	0.00
12,290.09	89.61	182.59	7,698.00	-4,831.58	-300.52	4,840.92	0.00	0.00	0.00

TD at 12290.09' MD - PBHL (LTDS 14- 2H)

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL(LTDS 14- 2H)	0.00	0.00	0.00	0.00	0.00	540,989.61	595,422.73	32° 29' 13.633 N	104° 9' 28.528 W
- hit/miss target									
- Shape									
- plan misses target center by 7148.00usft at 7148.00usft MD (7148.00 TVD, 0.00 N, 0.00 E)									
- Point									
LP(LTDS 14- 2H)	0.00	0.00	7,668.00	-475.57	-103.57	540,514.04	595,319.16	32° 29' 8.928 N	104° 9' 29.747 W
- plan misses target center by 24.51usft at 7931.41usft MD (7667.71 TVD, -479.60 N, -79.40 E)									
- Point									
PBHL(LTDS 14- 2H)	0.00	0.00	7,698.00	-4,831.58	-300.52	536,158.03	595,122.21	32° 28' 25.826 N	104° 9' 32.129 W
- plan hits target center									
- Point									

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (Cactus 126)
Site:	Lone Tree Draw "14" State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1a		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")
0.00	0.00	Rustler		0.01	
340.00	340.00	Salado		0.01	
595.00	595.00	Base of Salt		0.01	
595.00	595.00	Tansil Dolo		0.01	
645.00	645.00	Yates		0.01	
745.00	745.00	Seven Rivers		0.01	
835.00	835.00	Capitan		0.01	
2,640.00	2,640.00	Base of Capitan		0.01	
2,935.00	2,935.00	Delaware		0.01	
5,198.00	5,198.00	Lower Brushy Canyon		0.01	
5,380.00	5,380.00	Bone Spring Lime		0.01	
5,530.00	5,530.00	Avalon Sand		0.01	
6,462.00	6,462.00	1st Bone Spring Sand		0.01	
6,807.00	6,807.00	2nd Bone Spring Lime		0.01	
7,286.63	7,285.00	2nd Bone Spring Sand		0.01	
7,286.63	7,285.00	2nd BSSS Upper Top		0.01	
7,416.77	7,405.00	2nd BSSS Upper Base		0.01	
7,486.28	7,463.00	2nd BSSS Mid Top		0.01	
7,534.51	7,500.00	2nd BSSS Mid Base		0.01	
7,655.63	7,579.00	2nd BSSS Lower Top		0.01	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,148.00	7,148.00	0.00	0.00	KOP: Start Build 11.00	
7,962.64	7,668.86	-510.38	-84.49	EOC: Start DLS 2.00 TFO -89.99	
8,302.89	7,671.16	-848.57	-120.02	EOT: Start 3987.19 hold at 8302.89 MD	
12,290.09	7,698.00	-4,831.58	-300.52	TD at 12290.09' MD	