



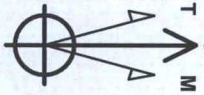
Yates Petroleum Corp.
Project: Lea County, NM (NAD-83 2015)
Site: Undaunted BSD State Com #3H
Wellbore: Lateral #1
Wellbore: Lateral #1

Plan: Design #2 (Undaunted BSD State Com #3H/Lateral #1)

WELL DETAILS: Undaunted BSD State Com #3H

Ground Elevation: 3523.00
RKB Elevation: KB @ 3548.00usft
Rig Name:

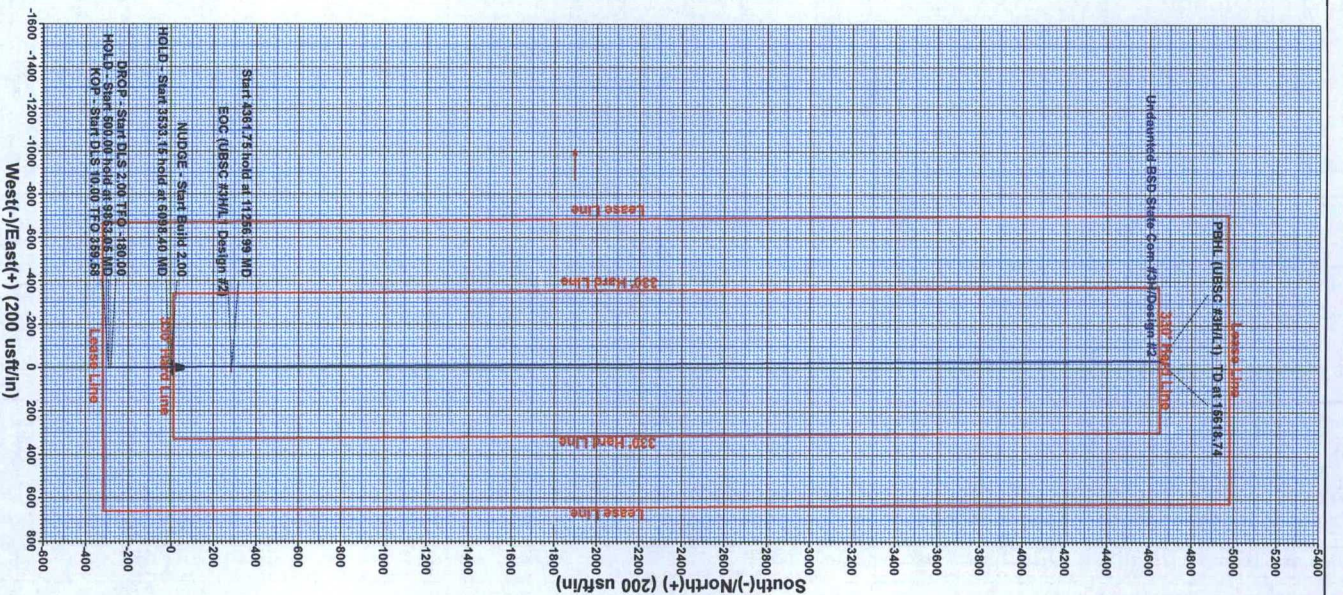
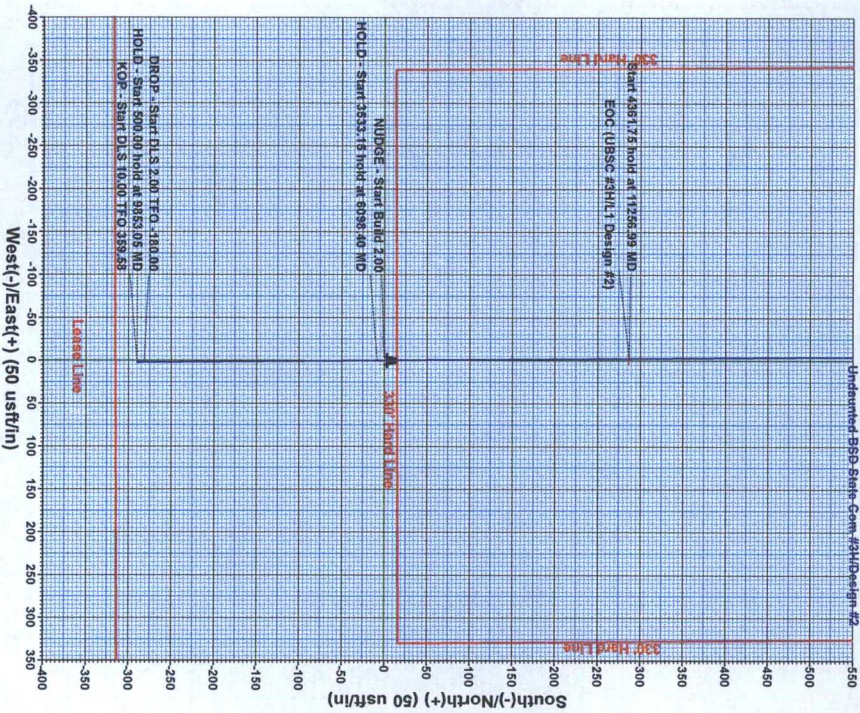
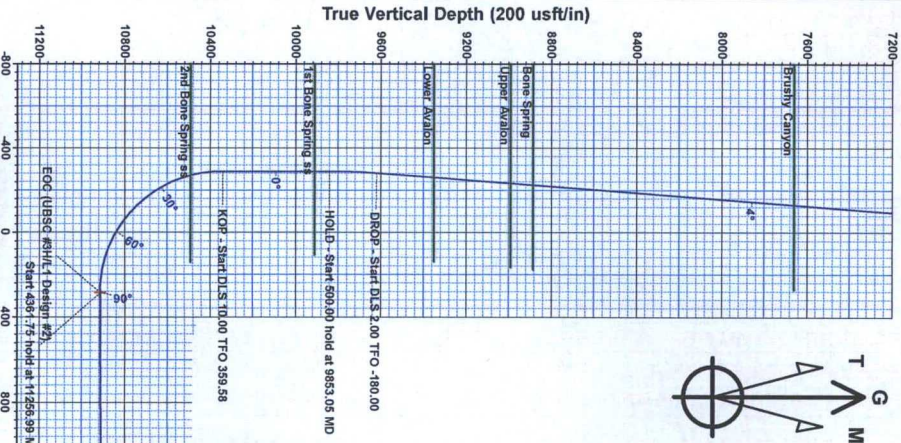
Northing 420157.80 Easting 756169.10 32° 9' 11.478 N 103° 38' 20.948 W



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.82°
Magnetic Field
Strength: 48085.85nT
Dip Angle: 60.01°
Date: 7/15/2015
Model: IGRF2015

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSECT	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5876.90	0.00	5876.90	0.00	0.00	0.00	0.00	0.00	0.00	
3	6098.40	4.43	179.58	6098.18	-8.56	0.06	2.00	179.58	-8.56	
4	9631.55	4.43	179.58	9620.77	-281.46	2.06	0.00	0.00	-281.46	
5	9853.05	0.00	9842.05	9842.05	-290.01	2.13	2.00	-180.00	-290.02	
6	10353.05	0.00	10342.05	10342.05	-290.01	2.13	0.00	0.00	-290.02	
7	11256.99	90.39	359.58	10915.00	286.87	-2.13	10.00	359.58	286.88	PBHL (UBSC #3H/L1)
8	15618.74	90.39	359.58	10885.00	4648.40	-34.30	0.00	0.00	4648.53	PBHL (UBSC #3H/L1)



n. Design #2 (Undaunted BSD State Com #3H/Lateral #1)
attd By: Well Planner Date: 7/15/2015

3705 South County Road 1210, Midland, TX 79706
Office: (432) 618-1210

Undaunted BSD State Com #3H/Lateral #1

PROJECT DETAILS: Lea County, NM (NAD-83 2015)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

MAR 14 2016



Yates Petroleum Corp.
Project: Lea County, NM (NAD-83 2015)
Site: Undaunted BSD State Com #3H
Well: Undaunted BSD State Com #3H
Wellbore: Lateral #1

Plan: Design #2 (Undaunted BSD State Com #3H/Lateral #1)

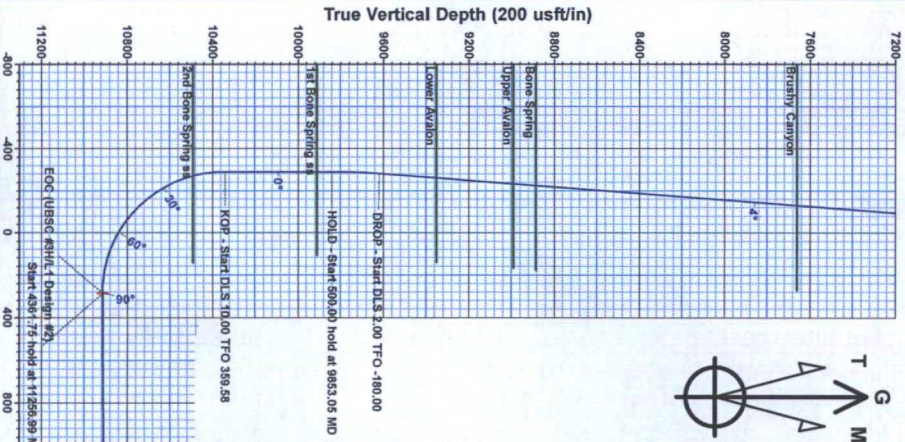
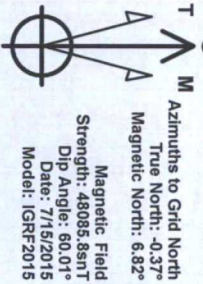
WELL DETAILS: Undaunted BSD State Com #3H

Ground Elevation: 3523.00

RKB Elevation: KB @ 3548.00usft

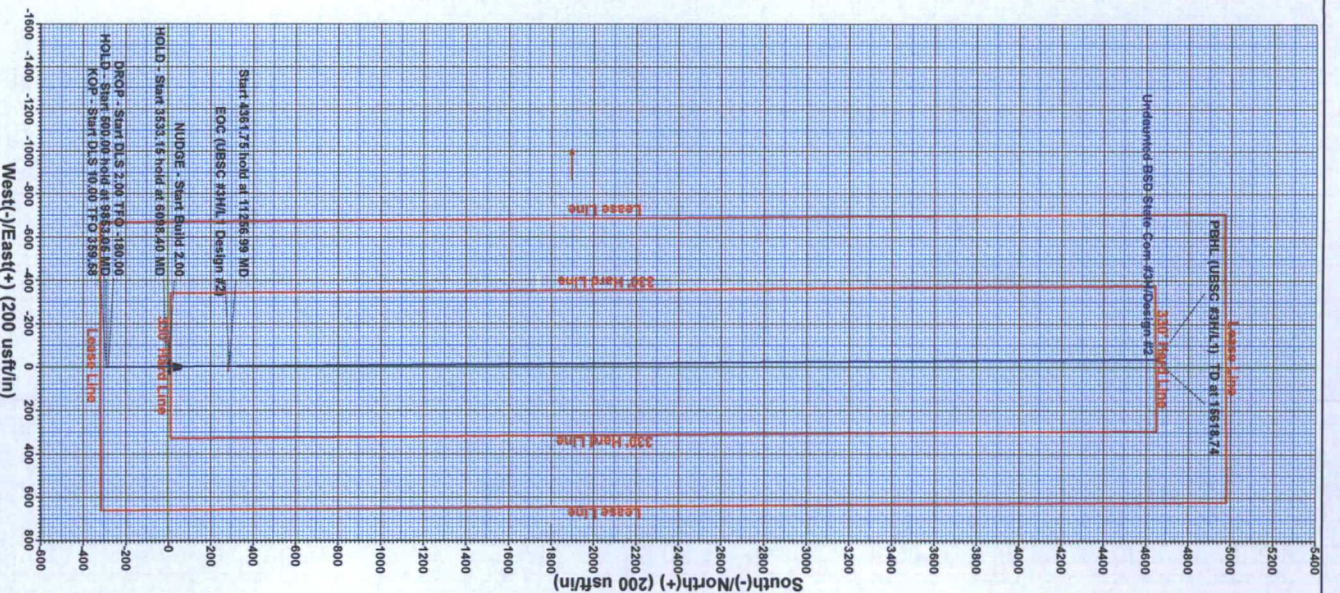
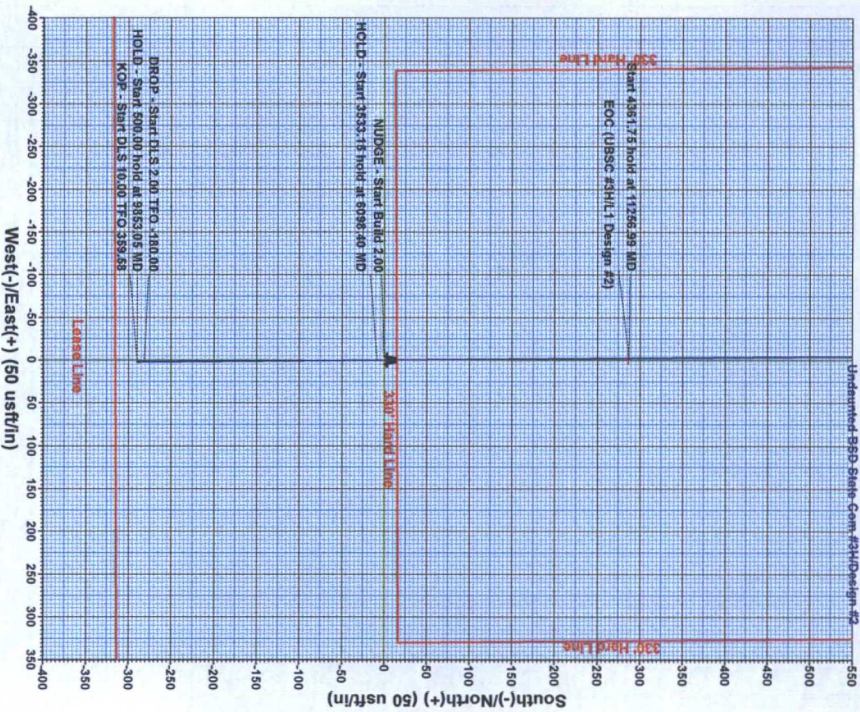
Rig Name:

Northing 420157.80 Easting 756169.10 32° 9' 11.478 N 103° 38' 20.948 W



Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5876.90	0.00	5876.90	0.00	0.00	0.00	0.00	0.00	0.00	
3	6098.40	4.43	179.58	6098.18	-8.56	0.06	2.00	179.58	-8.56	
4	9631.55	4.43	179.58	9620.77	-281.46	2.06	0.00	0.00	-281.46	
5	9853.05	0.00	0.00	9842.05	-290.01	2.13	2.00	-180.00	-290.02	
6	10353.05	0.00	0.00	10342.05	-290.01	2.13	0.00	0.00	-290.02	
7	11256.99	90.39	359.58	10915.00	286.87	-2.13	10.00	359.58	286.88	
8	15618.74	90.39	359.58	10885.00	4648.40	-34.30	0.00	0.00	4648.53	PBHL (UBSC #3H/L1)



n: Design #2 (Undaunted BSD State Com #3H/Lateral #1)
ated By: Well Planner Date: 11/15/2015

3705 South County Road 1210, Midland, TX 79706
Office: (432) 618-1210

Design #:

PROJECT DETAILS: Lea County, NM (NAD-83 2015)

Geodetic System: US State Plane 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Local North: Grid



Yates Petroleum Corp.

Lea County, NM (NAD-83 2015)

Undaunted BSD State Com #3H

Undaunted BSD State Com #3H

Lateral #1

Plan: Design #2

Standard Planning Report

29 September, 2015





TDS Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	KB @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00usft
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

Project	Lea County, NM (NAD-83 2015)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Undaunted BSD State Com #3H		
Site Position:	Map	Northing:	420,157.80 usft
From:	0.00 usft	Easting:	756,169.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Grid Convergence:	

Well	Undaunted BSD State Com #3H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	

Wellbore	Lateral #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	7/15/2015	7.19
			60.01
			48.086

Design	Design #2		
Audit Notes:		Phase:	PLAN
Version:		Depth From (TVD)	+N-S
Vertical Section:		(usft)	(usft)
		0.00	0.00
			359.58

Measured Depth (usft)	Inclination (°)	Adimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Deg/deg 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	
5,878.90	0.00	0.00	5,878.90	0.00	0.00	0.00	0.00	0.00	0.00	
6,098.40	4.43	179.58	6,098.18	-8.56	2.00	2.00	0.00	0.00	179.58	
9,631.55	4.43	179.58	9,620.77	-281.46	2.06	0.00	0.00	0.00	0.00	
9,853.05	0.00	0.00	9,842.05	-290.01	2.13	2.00	-2.00	-81.07	-180.00	
10,353.05	0.00	0.00	10,342.05	-290.01	2.13	0.00	0.00	0.00	0.00	
11,258.99	90.39	359.58	10,915.00	288.87	-2.13	10.00	10.00	-0.05	359.58	
15,618.74	90.39	359.58	10,885.00	4,848.40	-24.30	0.00	0.00	0.00	0.00	0.00 PBHL (UBSC #3H.L.)



TDS
Planning Report



Database:	EDM 5000, 1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	KB @ 3548.00ust
Project:	Las County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00ust
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

Planned Survey									
Measured Depth (ust)	Inclination (°)	Azimuth (°)	Vertical Depth (ust)	+N-S (ust)	+E-W (ust)	Vertical Section (ust)	Dogleg Rate (°/100ust)	Build Rate (°/100ust)	Turn Rate (°/100ust)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
920.00	0.00	0.00	920.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00
Saddle									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Castle									
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,650.00	0.00	0.00	4,650.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									



TDS Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undeanted BSD State Cam #3H
Company:	Yates Petroleum Corp.	TVD Reference:	K8 @ 3548.00usft
Project:	Leas County, NM (NAD-83 2015)	MD Reference:	K8 @ 3548.00usft
Site:	Undeanted BSD State Cam #3H	North Reference:	Grid
Well:	Undeanted BSD State Cam #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

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)
Delaware									
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,890.00	0.00	0.00	4,890.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,910.00	0.00	0.00	4,910.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,840.00	0.00	0.00	5,840.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
5,876.90	0.00	0.00	5,876.90	0.00	0.00	0.00	0.00	0.00	0.00
NUDGE - Start Build 2.00									
5,900.00	0.46	179.58	5,900.00	-0.09	0.00	-0.09	2.00	2.00	0.00
6,000.00	2.46	179.58	5,999.86	-2.64	0.02	-2.64	2.00	2.00	0.00
6,098.40	4.43	179.58	6,098.18	-8.56	0.06	-8.56	2.00	2.00	0.00
HOLD - Start 5533.15 hold at 6098.40 MD									
6,100.00	4.43	179.58	6,099.77	-8.66	0.06	-8.66	0.00	0.00	0.00
6,200.00	4.43	179.58	6,198.48	-16.41	0.12	-16.41	0.00	0.00	0.00
6,300.00	4.43	179.58	6,298.18	-24.13	0.18	-24.13	0.00	0.00	0.00
6,400.00	4.43	179.58	6,398.88	-31.85	0.23	-31.85	0.00	0.00	0.00
6,500.00	4.43	179.58	6,498.58	-39.58	0.29	-39.58	0.00	0.00	0.00
6,600.00	4.43	179.58	6,598.28	-47.30	0.35	-47.30	0.00	0.00	0.00
6,700.00	4.43	179.58	6,697.98	-55.03	0.40	-55.03	0.00	0.00	0.00
6,800.00	4.43	179.58	6,797.68	-62.75	0.46	-62.75	0.00	0.00	0.00
6,900.00	4.43	179.58	6,897.38	-70.47	0.52	-70.48	0.00	0.00	0.00
7,000.00	4.43	179.58	6,997.09	-78.20	0.57	-78.20	0.00	0.00	0.00
7,100.00	4.43	179.58	7,096.79	-85.92	0.63	-85.92	0.00	0.00	0.00
7,200.00	4.43	179.58	7,196.49	-93.64	0.69	-93.65	0.00	0.00	0.00
7,300.00	4.43	179.58	7,296.19	-101.37	0.74	-101.37	0.00	0.00	0.00
7,400.00	4.43	179.58	7,395.89	-109.09	0.80	-109.10	0.00	0.00	0.00
7,500.00	4.43	179.58	7,495.59	-116.82	0.86	-116.82	0.00	0.00	0.00
7,600.00	4.43	179.58	7,595.29	-124.54	0.91	-124.54	0.00	0.00	0.00
7,664.90	4.43	179.58	7,600.00	-129.55	0.95	-129.56	0.00	0.00	0.00
Brushy Canyon									
7,700.00	4.43	179.58	7,694.99	-132.26	0.97	-132.27	0.00	0.00	0.00
7,800.00	4.43	179.58	7,794.70	-139.99	1.03	-139.99	0.00	0.00	0.00
7,900.00	4.43	179.58	7,894.40	-147.71	1.08	-147.72	0.00	0.00	0.00
8,000.00	4.43	179.58	7,994.10	-155.44	1.14	-155.44	0.00	0.00	0.00
8,100.00	4.43	179.58	8,093.80	-163.16	1.20	-163.16	0.00	0.00	0.00
8,200.00	4.43	179.58	8,193.50	-170.88	1.25	-170.89	0.00	0.00	0.00
8,300.00	4.43	179.58	8,293.20	-178.61	1.31	-178.61	0.00	0.00	0.00
8,400.00	4.43	179.58	8,392.90	-186.33	1.37	-186.34	0.00	0.00	0.00
8,500.00	4.43	179.58	8,492.60	-194.06	1.42	-194.06	0.00	0.00	0.00
8,600.00	4.43	179.58	8,592.31	-201.78	1.48	-201.78	0.00	0.00	0.00
8,700.00	4.43	179.58	8,692.01	-209.50	1.54	-209.51	0.00	0.00	0.00



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undanted BSD State Cam #3H
Company:	Yates Petroleum Corp.	TVD Reference:	K8 @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	K8 @ 3548.00usft
Site:	Undanted BSD State Cam #3H	North Reference:	Grid
Well:	Undanted BSD State Cam #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Planned Survey									
8,800.00	4.43	179.58	8,791.71	-217.23	1.59	-217.23	0.00	0.00	0.00
8,883.57	4.43	179.58	8,883.00	-224.45	1.65	-224.46	0.00	0.00	0.00
Bone Spring									
8,900.00	4.43	179.58	8,891.41	-224.95	1.65	-224.96	0.00	0.00	0.00
8,968.89	4.43	179.58	8,960.00	-232.59	1.70	-232.60	0.00	0.00	0.00
Upper Avalon									
9,000.00	4.43	179.58	8,991.11	-232.68	1.71	-232.68	0.00	0.00	0.00
9,100.00	4.43	179.58	9,090.81	-240.40	1.76	-240.41	0.00	0.00	0.00
9,200.00	4.43	179.58	9,190.51	-248.12	1.82	-248.13	0.00	0.00	0.00
9,300.00	4.43	179.58	9,290.21	-255.85	1.88	-255.86	0.00	0.00	0.00
9,359.96	4.43	179.58	9,350.00	-260.48	1.91	-260.49	0.00	0.00	0.00
Lower Avalon									
9,400.00	4.43	179.58	9,399.92	-263.57	1.93	-263.58	0.00	0.00	0.00
9,500.00	4.43	179.58	9,499.62	-271.29	1.99	-271.30	0.00	0.00	0.00
9,600.00	4.43	179.58	9,599.32	-279.02	2.05	-279.03	0.00	0.00	0.00
9,631.55	4.43	179.58	9,620.77	-281.46	2.06	-281.46	0.00	0.00	0.00
DROP - Start DLS 2.00 TFO -180.00									
9,700.00	3.06	179.58	9,699.08	-285.93	2.10	-285.93	2.00	-2.00	0.00
9,800.00	1.06	179.58	9,798.01	-289.52	2.12	-289.53	2.00	-2.00	0.00
9,853.05	0.00	0.00	9,842.05	-290.01	2.13	-290.02	2.00	-2.00	-338.51
HOLD - Start 500.00 hold at 9853.05 MD									
9,900.00	0.00	0.00	9,899.00	-290.01	2.13	-290.02	0.00	0.00	0.00
9,921.00	0.00	0.00	9,910.00	-290.01	2.13	-290.02	0.00	0.00	0.00
1st Bone Spring ss									
10,000.00	0.00	0.00	9,999.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,100.00	0.00	0.00	10,099.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,200.00	0.00	0.00	10,199.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,300.00	0.00	0.00	10,299.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,353.05	0.00	0.00	10,342.05	-290.01	2.13	-290.02	0.00	0.00	0.00
KOP - Start DLS 10.00 TFO 359.58									
10,400.00	4.69	359.58	10,388.95	-288.09	2.11	-288.10	10.00	10.00	-0.90
10,450.00	9.69	359.58	10,438.54	-281.83	2.07	-281.84	10.00	10.00	0.00
10,500.00	14.69	359.58	10,487.40	-271.27	1.99	-271.28	10.00	10.00	0.00
10,592.69	14.96	359.58	10,490.00	-270.58	1.98	-270.59	10.00	10.00	0.00
2nd Bone Spring ss									
10,550.00	19.69	359.58	10,535.15	-256.50	1.88	-256.50	10.00	10.00	0.00
10,600.00	24.69	359.58	10,581.43	-237.62	1.74	-237.62	10.00	10.00	0.00
10,650.00	29.69	359.58	10,625.89	-214.77	1.57	-214.78	10.00	10.00	0.00
10,700.00	34.69	359.58	10,668.19	-188.14	1.37	-188.15	10.00	10.00	0.00
10,750.00	39.69	359.58	10,708.00	-157.93	1.15	-157.93	10.00	10.00	0.00
10,800.00	44.69	359.58	10,745.03	-124.35	0.90	-124.36	10.00	10.00	0.00
10,850.00	49.69	359.58	10,779.00	-87.68	0.63	-87.69	10.00	10.00	0.00
10,900.00	54.69	359.58	10,809.64	-48.19	0.34	-48.19	10.00	10.00	0.00
10,950.00	59.69	359.58	10,836.72	-6.18	0.03	-6.18	10.00	10.00	0.00
11,000.00	64.69	359.58	10,860.03	38.03	-0.29	38.03	10.00	10.00	0.00
11,050.00	69.69	359.58	10,879.41	84.11	-0.63	84.11	10.00	10.00	0.00
11,100.00	74.69	359.58	10,894.89	131.70	-0.96	131.70	10.00	10.00	0.00
11,150.00	79.69	359.58	10,905.77	180.44	-1.34	180.44	10.00	10.00	0.00
11,200.00	84.69	359.58	10,912.56	229.56	-1.71	229.56	10.00	10.00	0.00
11,250.00	89.69	359.58	10,915.00	279.89	-2.08	279.89	10.00	10.00	0.00
11,256.89	90.39	359.58	10,915.00	286.87	-2.13	286.88	10.00	10.00	0.00
EOC - Start 4361.75 hold at 11256.89 MD									
11,300.00	90.39	359.58	10,914.70	329.86	-2.45	329.86	0.00	0.00	0.00



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undeanted BSD State Cam #3H
Company:	Vates Petroleum Corp.	TVD Reference:	KB @ 3548.00usft
Project:	Las County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00usft
Site:	Undeanted BSD State Cam #3H	North Reference:	Gd
Well:	Undeanted BSD State Cam #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

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)
11,400.00	90.39	359.58	10,914.01	429.87	-3.18	429.88	0.00	0.00	0.00
11,500.00	90.39	359.58	10,913.33	529.87	-3.92	529.88	0.00	0.00	0.00
11,600.00	90.39	359.58	10,912.64	629.86	-4.66	629.86	0.00	0.00	0.00
11,700.00	90.39	359.58	10,911.95	729.86	-5.40	729.86	0.00	0.00	0.00
11,800.00	90.39	359.58	10,911.26	829.85	-6.13	829.87	0.00	0.00	0.00
11,900.00	90.39	359.58	10,910.58	929.85	-6.87	929.87	0.00	0.00	0.00
12,000.00	90.39	359.58	10,909.89	1,029.84	-7.61	1,029.87	0.00	0.00	0.00
12,100.00	90.39	359.58	10,909.20	1,129.84	-8.35	1,129.87	0.00	0.00	0.00
12,200.00	90.39	359.58	10,908.51	1,229.83	-9.08	1,229.86	0.00	0.00	0.00
12,300.00	90.39	359.58	10,907.82	1,329.83	-9.82	1,329.86	0.00	0.00	0.00
12,400.00	90.39	359.58	10,907.14	1,429.82	-10.56	1,429.86	0.00	0.00	0.00
12,500.00	90.39	359.58	10,906.45	1,529.81	-11.30	1,529.86	0.00	0.00	0.00
12,600.00	90.39	359.58	10,905.76	1,629.81	-12.03	1,629.85	0.00	0.00	0.00
12,700.00	90.39	359.58	10,905.07	1,729.80	-12.77	1,729.85	0.00	0.00	0.00
12,800.00	90.39	359.58	10,904.39	1,829.80	-13.51	1,829.85	0.00	0.00	0.00
12,900.00	90.39	359.58	10,903.70	1,929.79	-14.25	1,929.85	0.00	0.00	0.00
13,000.00	90.39	359.58	10,903.01	2,029.79	-14.99	2,029.84	0.00	0.00	0.00
13,100.00	90.39	359.58	10,902.32	2,129.78	-15.72	2,129.84	0.00	0.00	0.00
13,200.00	90.39	359.58	10,901.63	2,229.78	-16.46	2,229.84	0.00	0.00	0.00
13,300.00	90.39	359.58	10,900.95	2,329.77	-17.20	2,329.84	0.00	0.00	0.00
13,400.00	90.39	359.58	10,900.26	2,429.77	-17.94	2,429.84	0.00	0.00	0.00
13,500.00	90.39	359.58	10,899.57	2,529.76	-18.67	2,529.83	0.00	0.00	0.00
13,600.00	90.39	359.58	10,898.88	2,629.76	-19.41	2,629.83	0.00	0.00	0.00
13,700.00	90.39	359.58	10,898.20	2,729.75	-20.15	2,729.83	0.00	0.00	0.00
13,800.00	90.39	359.58	10,897.51	2,829.75	-20.89	2,829.83	0.00	0.00	0.00
13,900.00	90.39	359.58	10,896.82	2,929.74	-21.62	2,929.82	0.00	0.00	0.00
14,000.00	90.39	359.58	10,896.13	3,029.74	-22.36	3,029.82	0.00	0.00	0.00
14,100.00	90.39	359.58	10,895.45	3,129.73	-23.10	3,129.82	0.00	0.00	0.00
14,200.00	90.39	359.58	10,894.76	3,229.73	-23.84	3,229.82	0.00	0.00	0.00
14,300.00	90.39	359.58	10,894.07	3,329.72	-24.57	3,329.81	0.00	0.00	0.00
14,400.00	90.39	359.58	10,893.38	3,429.72	-25.31	3,429.81	0.00	0.00	0.00
14,500.00	90.39	359.58	10,892.69	3,529.71	-26.05	3,529.81	0.00	0.00	0.00
14,600.00	90.39	359.58	10,892.01	3,629.71	-26.79	3,629.81	0.00	0.00	0.00
14,700.00	90.39	359.58	10,891.32	3,729.70	-27.52	3,729.80	0.00	0.00	0.00
14,800.00	90.39	359.58	10,890.63	3,829.70	-28.26	3,829.80	0.00	0.00	0.00
14,900.00	90.39	359.58	10,889.94	3,929.69	-29.00	3,929.80	0.00	0.00	0.00
15,000.00	90.39	359.58	10,889.26	4,029.69	-29.74	4,029.80	0.00	0.00	0.00
15,100.00	90.39	359.58	10,888.57	4,129.68	-30.47	4,129.80	0.00	0.00	0.00
15,200.00	90.39	359.58	10,887.88	4,229.68	-31.21	4,229.79	0.00	0.00	0.00
15,300.00	90.39	359.58	10,887.19	4,329.67	-31.95	4,329.79	0.00	0.00	0.00
15,400.00	90.39	359.58	10,886.50	4,429.67	-32.69	4,429.79	0.00	0.00	0.00
15,500.00	90.39	359.58	10,885.82	4,529.66	-33.42	4,529.79	0.00	0.00	0.00
15,600.00	90.39	359.58	10,885.13	4,629.66	-34.16	4,629.78	0.00	0.00	0.00
15,700.00	90.39	359.58	10,884.44	4,729.65	-34.90	4,729.78	0.00	0.00	0.00
TD at 15618.74									



TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Yates Petroleum Corp.
Project: Lea County, NM (NAD-83 2015)
Site: Undaunted BSD State Cam #3H
Well: Undaunted BSD State Cam #3H
Wellbore: Lateral #1
Design: Design #2

Local Co-ordinate Reference:
TVD Reference: KB @ 3548.00usft
MD Reference: KB @ 3548.00usft
North Reference: Gd
Survey Calculation Method: Minimum Curvature

Design Targets		Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/S (usft)	+E/W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Target Name										
- Minimum target										
- Shape										
PBHL (UBSC #3H,1)		0.00	0.01	10,885.00	4,648.40	-34.30	424,806.20	756,134.80	32° 6' 57.478 N	103° 38' 20.998 W
- plan hit target center										
- Point										
EOC (UBSC #3H,1) De		0.00	0.00	10,915.00	286.87	-2.13	420,444.67	756,166.97	32° 6' 14.316 N	103° 38' 20.951 W
- plan hit target center										
- Point										

Formations		Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
		820.00	820.00	Rustler		0.00	
		1,250.00	1,250.00	Salado		0.00	
		3,300.00	3,300.00	Castle		0.00	
		4,660.00	4,660.00	Base of Salt		0.00	
		4,890.00	4,890.00	Delaware		0.00	
		4,910.00	4,910.00	Ball Canyon		0.00	
		5,840.00	5,840.00	Cherry Canyon		0.00	
		7,664.90	7,660.00	Brushy Canyon		0.00	
		8,883.57	8,885.00	Bone Spring		0.00	
		8,998.89	8,990.00	Upper Aviation		0.00	
		9,359.96	9,350.00	Lower Aviation		0.00	
		9,921.00	9,910.00	1st Bone Spring ss		0.00	
		10,502.69	10,490.00	2nd Bone Spring ss		0.00	

Plan Annotations		Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/S (usft)	+E/W (usft)	Comment
		5,878.90	5,878.90	0.00	0.00	NUDGE - Start Build 2.00
		6,096.40	6,096.18	-3.26	0.06	HOLD - Start 3533.15 hold at 6096.40 MD
		9,631.55	9,630.77	-281.46	2.06	DRCP - Start DLS 2.00 TFO -180.00
		9,853.05	9,842.05	-290.01	2.13	HOLD - Start 500.00 hold at 9853.05 MD
		10,353.05	10,342.05	-290.01	2.13	KOP - Start DLS 10.00 TFO 359.58
		11,256.99	10,915.00	286.87	-2.13	EOC - Start 4361.75 hold at 11256.99 MD
		15,618.74	10,885.00	4,648.40	-34.30	TD at 15618.74



Yates Petroleum Corp.

Lea County, NM (NAD-83 2015)

Undaunted BSD State Com #3H

Undaunted BSD State Com #3H

Lateral #1

Plan: Design #2

Standard Planning Report

29 September, 2015





ATES
PETROLEUM
CORPORATION

Yates Petroleum Corp.

Project: Lea County, NM (NAD-83 2015)

Site: Undaunted BSD State Com #3H

Well: Undaunted BSD State Com #3H

Wellbore: Lateral #1

Plan: Design #2 (Undaunted BSD State Com #3H Lateral #1)

WELL DETAILS: Undaunted BSD State Com #3H

Ground Elevation: 3523.00

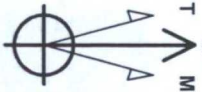
RKB Elevation: KB @ 3548.00usft

Rig Name:

Northing Easting 756169.10 32° 9' 11.478 N 103° 38' 20.948 W

Latitude

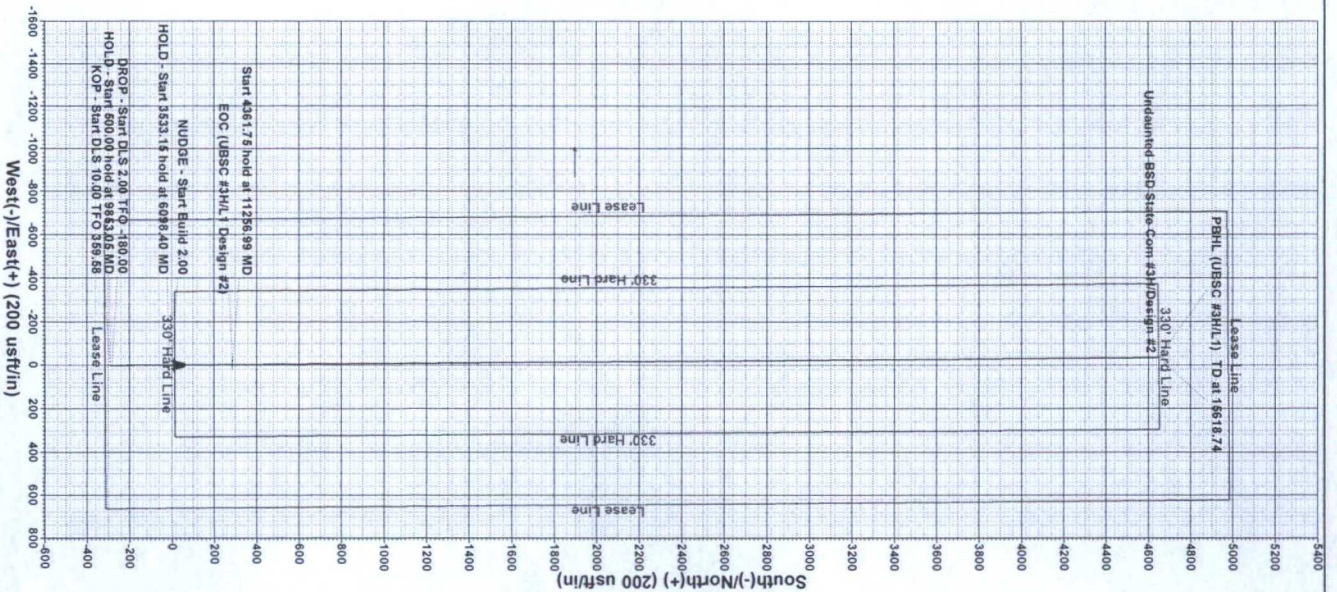
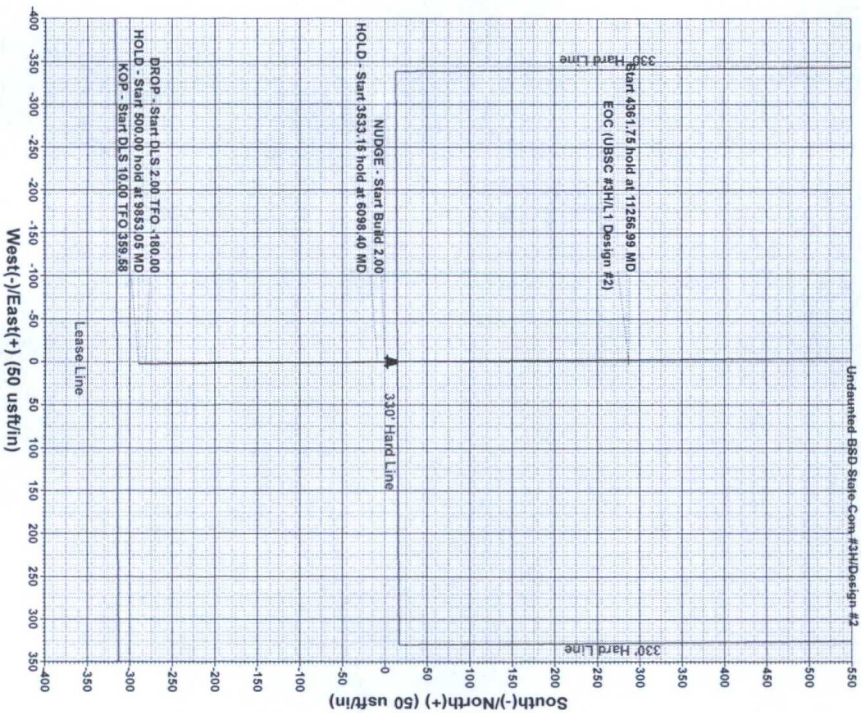
Longitude



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.82°
Magnetic Field
Strength: 48085.8mT
Dip Angle: 60.01°
Date: 7/15/2015
Model: IGRF2015

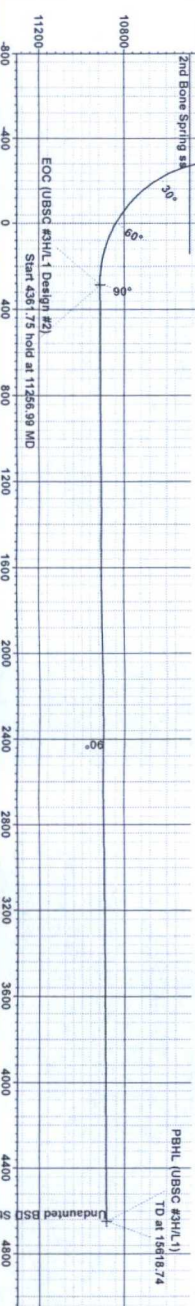
Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5876.90	0.00	5876.90	0.00	0.00	0.00	0.00	0.00	0.00	
3	6098.40	4.43	179.58	6098.18	-8.56	0.06	2.00	179.58	-8.56	
4	9631.65	4.43	179.58	9620.77	-281.46	2.06	2.00	0.00	-281.46	
5	9853.05	0.00	9842.05	-290.01	2.13	2.00	-180.00	-290.02		
6	10353.05	0.00	10342.05	-290.01	2.13	0.00	0.00	-290.02		
7	11256.99	90.39	359.58	10915.00	286.87	-2.13	10.00	359.58	286.88	
8	15618.74	90.39	359.58	10885.00	4648.40	-34.30	0.00	0.00	4648.53	PBHL (UBSC #3H/L1)



West(-)/East(+) (200 usft/in)

Vertical Section at 359.58° (200 usft/in)



n: Design #2 (Undaunted BSD State Com #3H/Lateral #1)
ated By: Well Planner Date: 13:57, September 29 2015

Terra Directional Services
3705 South County Road 1210, Midland, TX 79706
Office: (432) 618-1210

PROJECT DETAILS: Lea County, NM (NAD-83 2015)

Geodetic System: US State Plane 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Local North: Grid



TDS Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	KB @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00usft
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

Project	Lea County, NM (NAD-83 2015)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Undaunted BSD State Com #3H	Northing:	420,157.80 usft	Latitude:	32° 9' 11.478 N
Site Position:	Map	Eastings:	756,169.10 usft	Longitude:	103° 38' 20.948 W
Position Uncertainty:	0.00 usft	Ster Radius:	13.3/16 "	Grid Convergence:	0.37°

Well	Undaunted BSD State Com #3H					
Well Position	+N/-S	0.00 usft	Northing:	420,157.80 usft	Latitude:	32° 9' 11.478 N
	+E/-W	0.00 usft	Eastings:	756,169.10 usft	Longitude:	103° 38' 20.948 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,523.00 usft

Wellbore	Lateral #1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2015	7/15/2015	7.19	60.01	48.086	

Design	Design #2	Phase:	PLAN	Tie On Depth:	0.00
Audit Notes:		Depth From (TVD)	+N/-S	+E/-W	Direction
Version:		(usft)	(usft)	(usft)	(°)
Vertical Section:		0.00	0.00	0.00	359.58

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	
	5,876.90	0.00	0.00	5,876.90	0.00	0.00	0.00	0.00	0.00	0.00	
	6,098.40	4.43	179.58	6,098.18	-8.56	0.06	2.00	2.00	0.00	179.58	
	6,631.55	4.43	179.58	6,620.77	-281.46	2.06	0.00	0.00	0.00	0.00	
	9,853.05	0.00	0.00	9,842.05	-290.01	2.13	2.00	-2.00	-81.07	-180.00	
	10,353.05	0.00	0.00	10,342.05	-290.01	2.13	0.00	0.00	0.00	0.00	
	11,256.99	90.39	359.58	10,915.00	-286.87	-2.13	10.00	10.00	-0.05	359.58	
	15,618.74	90.39	359.58	10,885.00	-4,648.40	-34.30	0.00	0.00	0.00	0.00	0.00 PBHL (UBSC #3HL1)



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	KB @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00usft
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
920.00	0.00	0.00	920.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,660.00	0.00	0.00	4,660.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	K8 @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	K8 @ 3548.00usft
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

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)
Delaware									
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,890.00	0.00	0.00	4,890.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,910.00	0.00	0.00	4,910.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,840.00	0.00	0.00	5,840.00	0.00	0.00	0.00	0.00	0.00	0.00
NUDGE - Start Build 2.00									
5,876.90	0.00	0.00	5,876.90	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.46	179.58	5,900.00	-0.09	0.00	-0.09	2.00	2.00	0.00
6,000.00	2.46	179.58	5,999.96	-2.64	0.02	-2.64	2.00	2.00	0.00
6,098.40	4.43	179.58	6,098.18	-8.56	0.06	-8.56	2.00	2.00	0.00
HOLD - Start 3533.15 hold at 6098.40 MD									
6,100.00	4.43	179.58	6,099.77	-8.68	0.06	-8.68	0.00	0.00	0.00
6,200.00	4.43	179.58	6,199.48	-16.41	0.12	-16.41	0.00	0.00	0.00
6,300.00	4.43	179.58	6,299.18	-24.13	0.18	-24.13	0.00	0.00	0.00
6,400.00	4.43	179.58	6,398.88	-31.85	0.23	-31.85	0.00	0.00	0.00
6,500.00	4.43	179.58	6,498.58	-39.58	0.29	-39.58	0.00	0.00	0.00
6,600.00	4.43	179.58	6,598.28	-47.30	0.35	-47.30	0.00	0.00	0.00
6,700.00	4.43	179.58	6,697.98	-55.03	0.40	-55.03	0.00	0.00	0.00
6,800.00	4.43	179.58	6,797.68	-62.75	0.46	-62.75	0.00	0.00	0.00
6,900.00	4.43	179.58	6,897.38	-70.47	0.52	-70.47	0.00	0.00	0.00
7,000.00	4.43	179.58	6,997.09	-78.20	0.57	-78.20	0.00	0.00	0.00
7,100.00	4.43	179.58	7,096.79	-85.92	0.63	-85.92	0.00	0.00	0.00
7,200.00	4.43	179.58	7,196.49	-93.64	0.69	-93.64	0.00	0.00	0.00
7,300.00	4.43	179.58	7,296.19	-101.37	0.74	-101.37	0.00	0.00	0.00
7,400.00	4.43	179.58	7,395.89	-109.09	0.80	-109.10	0.00	0.00	0.00
7,500.00	4.43	179.58	7,495.59	-116.82	0.86	-116.82	0.00	0.00	0.00
7,600.00	4.43	179.58	7,595.29	-124.54	0.91	-124.54	0.00	0.00	0.00
7,664.90	4.43	179.58	7,660.00	-128.55	0.95	-128.56	0.00	0.00	0.00
Brushy Canyon									
7,700.00	4.43	179.58	7,694.99	-132.26	0.97	-132.27	0.00	0.00	0.00
7,800.00	4.43	179.58	7,794.70	-139.99	1.03	-139.99	0.00	0.00	0.00
7,900.00	4.43	179.58	7,894.40	-147.71	1.08	-147.72	0.00	0.00	0.00
8,000.00	4.43	179.58	7,994.10	-155.44	1.14	-155.44	0.00	0.00	0.00
8,100.00	4.43	179.58	8,093.80	-163.16	1.20	-163.16	0.00	0.00	0.00
8,200.00	4.43	179.58	8,193.50	-170.88	1.25	-170.88	0.00	0.00	0.00
8,300.00	4.43	179.58	8,293.20	-178.61	1.31	-178.61	0.00	0.00	0.00
8,400.00	4.43	179.58	8,392.90	-186.33	1.37	-186.34	0.00	0.00	0.00
8,500.00	4.43	179.58	8,492.60	-194.06	1.42	-194.06	0.00	0.00	0.00
8,600.00	4.43	179.58	8,592.31	-201.78	1.48	-201.78	0.00	0.00	0.00
8,700.00	4.43	179.58	8,692.01	-209.50	1.54	-209.51	0.00	0.00	0.00



TDS Planning Report



Database: EDM 5000.1 Single User Db
Company: Yates Petroleum Corp.
Project: Lea County, NM (NAD-83 2015)
Site: Undaunted BSD State Com #3H
Well: Undaunted BSD State Com #3H
Wellbore: Lateral #1
Design: Design #2

Local Co-ordinate Reference:
TVD Reference: KB @ 3548.00usft
MD Reference: KB @ 3548.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
8,800.00	4.43	179.56	8,791.71	-217.23	1.59	-217.23	0.00	0.00	0.00
8,893.57	4.43	179.56	8,885.00	-224.45	1.65	-224.46	0.00	0.00	0.00
Bone Spring									
8,900.00	4.43	179.56	8,891.41	-224.95	1.65	-224.96	0.00	0.00	0.00
8,998.89	4.43	179.56	8,990.00	-232.59	1.70	-232.60	0.00	0.00	0.00
Upper Avalon									
9,000.00	4.43	179.56	8,991.11	-232.68	1.71	-232.68	0.00	0.00	0.00
9,100.00	4.43	179.56	9,090.81	-240.40	1.76	-240.41	0.00	0.00	0.00
9,200.00	4.43	179.56	9,190.51	-248.12	1.82	-248.13	0.00	0.00	0.00
9,300.00	4.43	179.56	9,290.21	-255.85	1.88	-255.85	0.00	0.00	0.00
9,359.96	4.43	179.56	9,350.00	-260.48	1.91	-260.49	0.00	0.00	0.00
Lower Avalon									
9,400.00	4.43	179.56	9,389.92	-263.57	1.93	-263.58	0.00	0.00	0.00
9,500.00	4.43	179.56	9,489.62	-271.29	1.99	-271.30	0.00	0.00	0.00
9,600.00	4.43	179.56	9,589.32	-279.02	2.05	-279.03	0.00	0.00	0.00
9,631.55	4.43	179.56	9,629.77	-281.46	2.06	-281.46	0.00	0.00	0.00
DROP - Start DLS 2.00 TFO -180.00									
9,700.00	3.06	179.56	9,689.08	-285.93	2.10	-285.93	2.00	-2.00	0.00
9,800.00	1.06	179.56	9,788.01	-289.52	2.12	-289.53	2.00	-2.00	0.00
9,853.05	0.00	0.00	9,742.05	-290.01	2.13	-290.02	2.00	-2.00	-338.51
HOLD - Start 500.00 hold at 9853.05 MD									
9,900.00	0.00	0.00	9,889.00	-290.01	2.13	-290.02	0.00	0.00	0.00
9,921.00	0.00	0.00	9,910.00	-290.01	2.13	-290.02	0.00	0.00	0.00
1st Bone Spring ss									
10,000.00	0.00	0.00	9,989.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,100.00	0.00	0.00	10,088.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,200.00	0.00	0.00	10,188.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,300.00	0.00	0.00	10,288.00	-290.01	2.13	-290.02	0.00	0.00	0.00
10,353.05	0.00	0.00	10,342.05	-290.01	2.13	-290.02	0.00	0.00	0.00
KOP - Start DLS 10.00 TFO 359.58									
10,400.00	4.69	359.56	10,388.95	-288.09	2.11	-288.10	10.00	10.00	-0.90
10,450.00	9.69	359.56	10,438.54	-281.83	2.07	-281.84	10.00	10.00	0.00
10,500.00	14.69	359.56	10,487.40	-271.27	1.99	-271.28	10.00	10.00	0.00
10,502.69	14.96	359.56	10,490.00	-270.58	1.98	-270.59	10.00	10.00	0.00
2nd Bone Spring ss									
10,550.00	19.69	359.56	10,535.15	-256.50	1.88	-256.50	10.00	10.00	0.00
10,600.00	24.69	359.56	10,581.43	-237.62	1.74	-237.62	10.00	10.00	0.00
10,650.00	29.69	359.56	10,625.89	-214.77	1.57	-214.78	10.00	10.00	0.00
10,700.00	34.69	359.56	10,668.19	-188.14	1.37	-188.15	10.00	10.00	0.00
10,750.00	39.69	359.56	10,708.00	-157.93	1.15	-157.93	10.00	10.00	0.00
10,800.00	44.69	359.56	10,745.03	-124.35	0.90	-124.36	10.00	10.00	0.00
10,850.00	49.69	359.56	10,779.00	-87.69	0.63	-87.69	10.00	10.00	0.00
10,900.00	54.69	359.56	10,809.64	-48.19	0.34	-48.19	10.00	10.00	0.00
10,950.00	59.69	359.56	10,838.72	-6.18	0.03	-6.18	10.00	10.00	0.00
11,000.00	64.69	359.56	10,860.03	38.03	-0.29	38.03	10.00	10.00	0.00
11,050.00	69.69	359.56	10,879.41	84.11	-0.63	84.11	10.00	10.00	0.00
11,100.00	74.69	359.56	10,894.69	131.70	-0.98	131.70	10.00	10.00	0.00
11,150.00	79.69	359.56	10,905.77	180.44	-1.34	180.44	10.00	10.00	0.00
11,200.00	84.69	359.56	10,912.56	229.96	-1.71	229.96	10.00	10.00	0.00
11,250.00	89.69	359.56	10,915.00	279.89	-2.08	279.89	10.00	10.00	0.00
11,256.99	90.39	359.56	10,915.00	286.87	-2.13	286.88	10.00	10.00	0.00
EOC - Start 4361.75 hold at 11256.99 MD									
11,300.00	90.39	359.56	10,914.70	329.88	-2.45	329.88	0.00	0.00	0.00



TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Yates Petroleum Corp.
Project: Lea County, NM (NAD-83 2015)
Site: Undaunted BSD State Com #3H
Well: Undaunted BSD State Com #3H
Wellbore: Lateral #1
Design: Design #2

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Undaunted BSD State Com #3H
KB @ 3548.00ustf
KB @ 3548.00ustf
Grid
Minimum Curvature

Measured Depth (ustf)	Inclination (°)	Azimuth (°)	Vertical Depth (ustf)	+N/-S (ustf)	+E/-W (ustf)	Vertical Section (ustf)	Dogleg Rate (°/100ustf)	Build Rate (°/100ustf)	Turn Rate (°/100ustf)
11,400.00	90.39	359.56	10,914.01	429.87	-3.18	429.88	0.00	0.00	0.00
11,500.00	90.39	359.56	10,913.33	529.87	-3.92	529.88	0.00	0.00	0.00
11,600.00	90.39	359.56	10,912.64	629.86	-4.66	629.88	0.00	0.00	0.00
11,700.00	90.39	359.56	10,911.95	729.86	-5.40	729.88	0.00	0.00	0.00
11,800.00	90.39	359.56	10,911.26	829.85	-6.13	829.87	0.00	0.00	0.00
11,900.00	90.39	359.56	10,910.58	929.85	-6.87	929.87	0.00	0.00	0.00
12,000.00	90.39	359.56	10,909.89	1,029.84	-7.61	1,029.87	0.00	0.00	0.00
12,100.00	90.39	359.56	10,909.20	1,129.84	-8.35	1,129.87	0.00	0.00	0.00
12,200.00	90.39	359.56	10,908.51	1,229.83	-9.08	1,229.86	0.00	0.00	0.00
12,300.00	90.39	359.56	10,907.82	1,329.83	-9.82	1,329.86	0.00	0.00	0.00
12,400.00	90.39	359.56	10,907.14	1,429.82	-10.56	1,429.86	0.00	0.00	0.00
12,500.00	90.39	359.56	10,906.45	1,529.81	-11.30	1,529.86	0.00	0.00	0.00
12,600.00	90.39	359.56	10,905.76	1,629.81	-12.03	1,629.85	0.00	0.00	0.00
12,700.00	90.39	359.56	10,905.07	1,729.80	-12.77	1,729.85	0.00	0.00	0.00
12,800.00	90.39	359.56	10,904.39	1,829.80	-13.51	1,829.85	0.00	0.00	0.00
12,900.00	90.39	359.56	10,903.70	1,929.79	-14.25	1,929.85	0.00	0.00	0.00
13,000.00	90.39	359.56	10,903.01	2,029.79	-14.99	2,029.84	0.00	0.00	0.00
13,100.00	90.39	359.56	10,902.32	2,129.78	-15.72	2,129.84	0.00	0.00	0.00
13,200.00	90.39	359.56	10,901.63	2,229.78	-16.46	2,229.84	0.00	0.00	0.00
13,300.00	90.39	359.56	10,900.95	2,329.77	-17.20	2,329.84	0.00	0.00	0.00
13,400.00	90.39	359.56	10,900.26	2,429.77	-17.94	2,429.84	0.00	0.00	0.00
13,500.00	90.39	359.56	10,899.57	2,529.76	-18.67	2,529.83	0.00	0.00	0.00
13,600.00	90.39	359.56	10,898.88	2,629.76	-19.41	2,629.83	0.00	0.00	0.00
13,700.00	90.39	359.56	10,898.20	2,729.75	-20.15	2,729.83	0.00	0.00	0.00
13,800.00	90.39	359.56	10,897.51	2,829.75	-20.89	2,829.83	0.00	0.00	0.00
13,900.00	90.39	359.56	10,896.82	2,929.74	-21.62	2,929.82	0.00	0.00	0.00
14,000.00	90.39	359.56	10,896.13	3,029.74	-22.36	3,029.82	0.00	0.00	0.00
14,100.00	90.39	359.56	10,895.45	3,129.73	-23.10	3,129.82	0.00	0.00	0.00
14,200.00	90.39	359.56	10,894.76	3,229.73	-23.84	3,229.82	0.00	0.00	0.00
14,300.00	90.39	359.56	10,894.07	3,329.72	-24.57	3,329.81	0.00	0.00	0.00
14,400.00	90.39	359.56	10,893.38	3,429.72	-25.31	3,429.81	0.00	0.00	0.00
14,500.00	90.39	359.56	10,892.69	3,529.71	-26.05	3,529.81	0.00	0.00	0.00
14,600.00	90.39	359.56	10,892.01	3,629.71	-26.79	3,629.81	0.00	0.00	0.00
14,700.00	90.39	359.56	10,891.32	3,729.70	-27.52	3,729.80	0.00	0.00	0.00
14,800.00	90.39	359.56	10,890.63	3,829.70	-28.26	3,829.80	0.00	0.00	0.00
14,900.00	90.39	359.56	10,889.94	3,929.69	-29.00	3,929.80	0.00	0.00	0.00
15,000.00	90.39	359.56	10,889.26	4,029.69	-29.74	4,029.80	0.00	0.00	0.00
15,100.00	90.39	359.56	10,888.57	4,129.68	-30.47	4,129.80	0.00	0.00	0.00
15,200.00	90.39	359.56	10,887.88	4,229.68	-31.21	4,229.79	0.00	0.00	0.00
15,300.00	90.39	359.56	10,887.19	4,329.67	-31.95	4,329.79	0.00	0.00	0.00
15,400.00	90.39	359.56	10,886.50	4,429.67	-32.69	4,429.79	0.00	0.00	0.00
15,500.00	90.39	359.56	10,885.82	4,529.66	-33.42	4,529.79	0.00	0.00	0.00
15,600.00	90.39	359.56	10,885.13	4,629.66	-34.16	4,629.78	0.00	0.00	0.00
15,700.00	90.39	359.56	10,884.44	4,729.65	-34.90	4,729.78	0.00	0.00	0.00
TD at 15618.74									



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Undaunted BSD State Com #3H
Company:	Yates Petroleum Corp.	TVD Reference:	KB @ 3548.00usft
Project:	Lea County, NM (NAD-83 2015)	MD Reference:	KB @ 3548.00usft
Site:	Undaunted BSD State Com #3H	North Reference:	Grid
Well:	Undaunted BSD State Com #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #2		

Design Targets						
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)
- bitumias target						
- Shape						
PBHL (UBSC #3HL1)	0.00	0.01	10,885.00	4,648.40	-34.30	424,806.20
- plan hits target center						
- Point						
EOC (UBSC #3HL1 De:	0.00	0.00	10,915.00	286.87	-2.13	420,444.67
- plan hits target center						
- Point						

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
920.00	920.00	Rustler		0.00		
1,250.00	1,250.00	Salado		0.00		
3,300.00	3,300.00	Castile		0.00		
4,660.00	4,660.00	Base of Salt		0.00		
4,890.00	4,890.00	Delaware		0.00		
4,910.00	4,910.00	Bell Canyon		0.00		
5,840.00	5,840.00	Cherry Canyon		0.00		
7,664.90	7,660.00	Brushy Canyon		0.00		
8,893.57	8,885.00	Bone Spring		0.00		
8,998.89	8,990.00	Upper Avalon		0.00		
9,359.96	9,350.00	Lower Avalon		0.00		
9,921.00	9,910.00	1st Bone Spring ss		0.00		
10,502.69	10,490.00	2nd Bone Spring ss		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment	
5,876.90	5,876.90	0.00	0.00	NUDGE - Start Build 2.00	
6,098.40	6,098.18	-8.56	0.06	HOLD - Start 3533.15 hold at 6098.40 MD	
9,631.55	9,620.77	-281.46	2.06	DROP - Start DLS 2.00 TFO -180.00	
9,853.05	9,842.05	-280.01	2.13	HOLD - Start 500.00 hold at 9853.05 MD	
10,353.05	10,342.05	-290.01	2.13	KOP - Start DLS 10.00 TFO 359.58	
11,256.99	10,915.00	286.87	-2.13	EOC - Start 4361.75 hold at 11256.99 MD	
13,618.74	10,885.00	4,648.40	-34.30	TD at 13618.74	