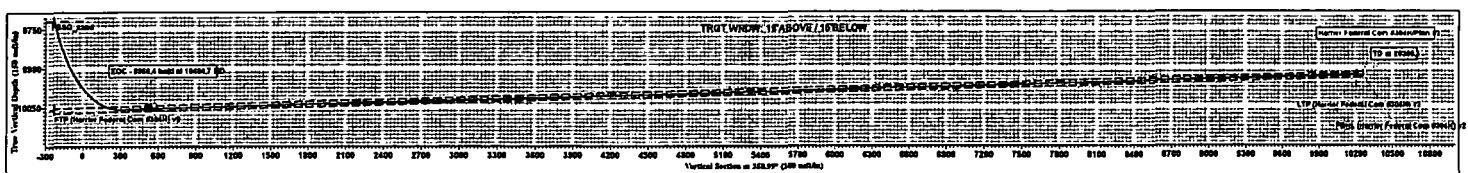
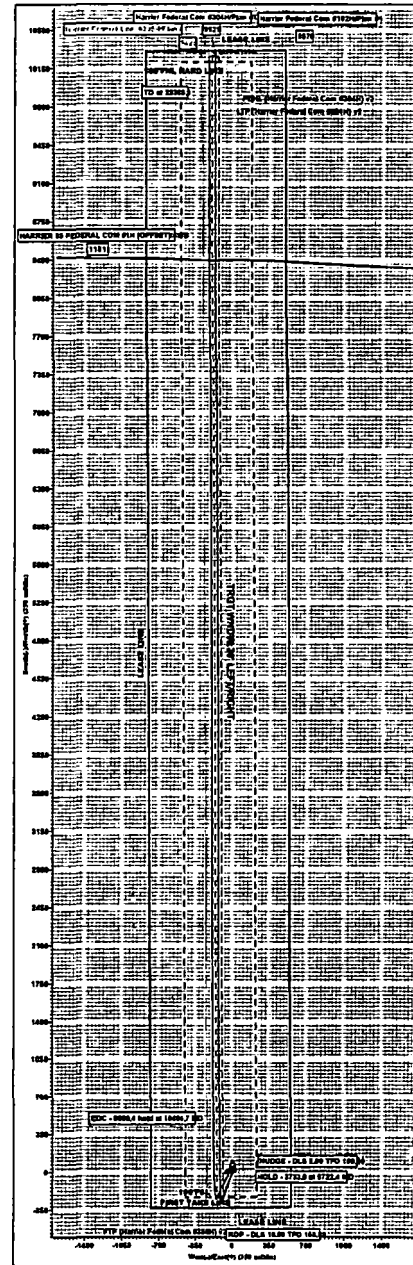
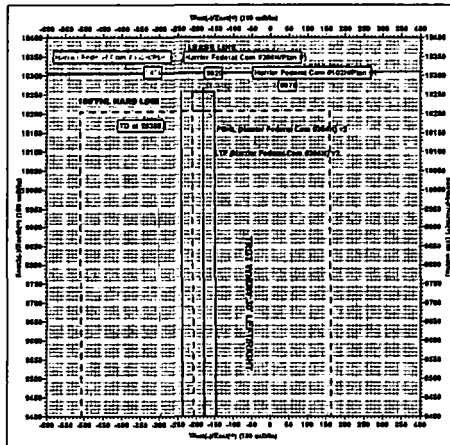
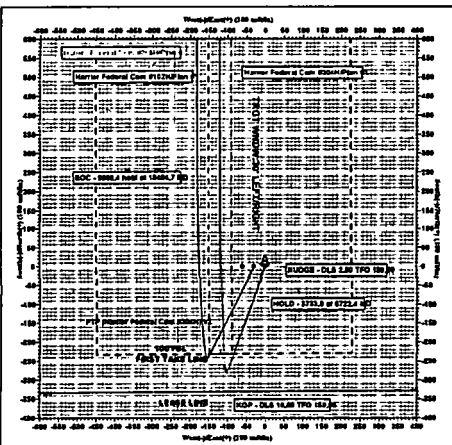
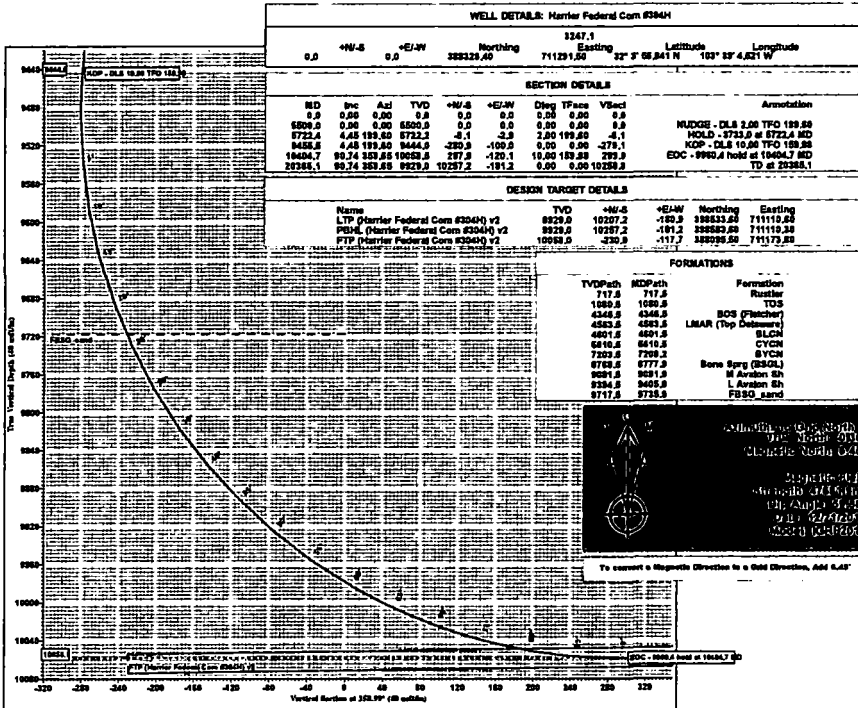
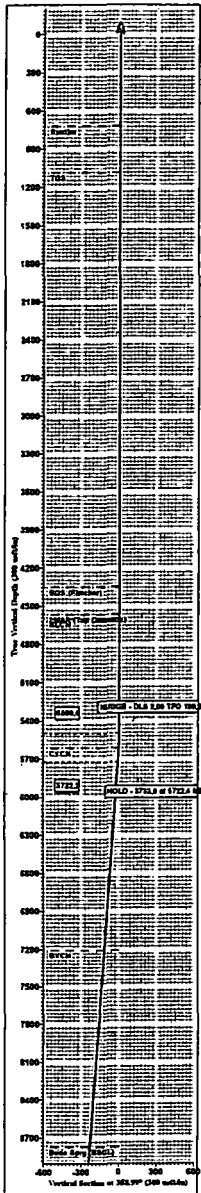




Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: Harrier Federal Sec-2 T-26-S R-32-E
Well: Harrier Federal Com #304H
Wellbore: OWS
Design: Plan 95
Lat: 32° 3' 55.841" N
Long: 103° 39' 4.521" W
Pad GL: 3247.1
KB: KB @ 3272.1usft (Latahew 44)





C O N C H O

Concho Resources, Inc.

**Lea County, NM (NAD 27 NME)
(Harrier Federal) Sec-2_T-26-S_R-32-E
Harrier Federal Com #304H**

OWB

Plan: Plan #1

Standard Planning Report

22 August, 2019

INTREPID



Intrepid Planning Report



Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Harrier Federal) Sec-2_T-26-S_R-32-E
Well: Harrier Federal Com #304H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Harrier Federal Com #304H
TVD Reference: KB @ 3272.1usft (Latshaw 44)
MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site (Harrier Federal) Sec-2_T-26-S_R-32-E

Site Position:	Map	Northing:	388,326.40 usft	Latitude:	32° 3' 56.841 N
From:		Easting:	711,291.50 usft	Longitude:	103° 39' 4.521 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Harrier Federal Com #304H					
Well Position	+N/-S	0.0 usft	Northing:	388,326.40 usft	Latitude:	32° 3' 56.841 N
	+E/-W	0.0 usft	Easting:	711,291.50 usft	Longitude:	103° 39' 4.521 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,247.1 usft	

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/21/18	6.82	59.88	47,681.85363977

Design Plan #1

Audit Notes:

Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
----------	--------	-----------	---------------	-----

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.99

Plan Survey Tool Program Date 08/22/19

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	8,868.1 Plan #1 (OWB)	Standard Keeper 104	
			Standard Wireline Keeper v	
2	8,868.1	20,365.1 Plan #1 (OWB)	MWD+IFR1+MS	
			MWD + IFR1 + Multi-Station	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,722.4	4.45	199.60	5,722.2	-8.1	-2.9	2.00	2.00	-72.12	199.60	
9,455.5	4.45	199.60	9,444.0	-280.9	-100.0	0.00	0.00	0.00	0.00	
10,404.7	90.74	359.65	10,058.5	297.9	-120.1	10.00	9.09	16.86	159.98	
20,365.1	90.74	359.65	9,929.0	10,257.2	-181.2	0.00	0.00	0.00	0.00	0.00 PBHL (Harrier Fede



Intrepid
Planning Report



Database: EDM 5000.15 Single User Db
Company: Concho Resources, Inc.
Project: Lea County, NM (NAD 27 NME)
Site: (Harrier Federal) Sec-2_T-26-S_R-32-E
Well: Harrier Federal Com #304H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Harrier Federal Com #304H
TVD Reference: KB @ 3272.1usft (Latshaw 44)
MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
717.5	0.00	0.00	717.5	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.5	0.00	0.00	1,080.5	0.0	0.0	0.0	0.00	0.00	0.00
TOS									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,346.5	0.00	0.00	4,346.5	0.0	0.0	0.0	0.00	0.00	0.00
BOS (Fletcher)									
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,563.5	0.00	0.00	4,563.5	0.0	0.0	0.0	0.00	0.00	0.00
LMAR (Top Delaware)									

Database: EDM 5000.15 Single User Db
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Well: Harrier Federal Com #304H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Harrier Federal Com #304H
TVD Reference: KB @ 3272.1usft (Latshaw 44)
MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,601.5	0.00	0.00	4,601.5	0.0	0.0	0.0	0.00	0.00	0.00
BLCN									
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - DLS 2.00 TFO 199.60									
5,600.0	2.00	199.60	5,600.0	-1.6	-0.6	-1.6	2.00	2.00	0.00
5,610.5	2.21	199.60	5,610.5	-2.0	-0.7	-2.0	2.00	2.00	0.00
CYCN									
5,700.0	4.00	199.60	5,699.8	-6.6	-2.3	-6.5	2.00	2.00	0.00
5,722.4	4.45	199.60	5,722.2	-8.1	-2.9	-8.1	2.00	2.00	0.00
HOLD - 3733.0 at 5722.4 MD									
5,800.0	4.45	199.60	5,799.5	-13.8	-4.9	-13.7	0.00	0.00	0.00
5,900.0	4.45	199.60	5,899.2	-21.1	-7.5	-21.0	0.00	0.00	0.00
6,000.0	4.45	199.60	5,998.9	-28.4	-10.1	-28.2	0.00	0.00	0.00
6,100.0	4.45	199.60	6,098.6	-35.7	-12.7	-35.5	0.00	0.00	0.00
6,200.0	4.45	199.60	6,198.3	-43.0	-15.3	-42.7	0.00	0.00	0.00
6,300.0	4.45	199.60	6,298.0	-50.3	-17.9	-50.0	0.00	0.00	0.00
6,400.0	4.45	199.60	6,397.7	-57.6	-20.5	-57.3	0.00	0.00	0.00
6,500.0	4.45	199.60	6,497.4	-64.9	-23.1	-64.5	0.00	0.00	0.00
6,600.0	4.45	199.60	6,597.1	-72.3	-25.7	-71.8	0.00	0.00	0.00
6,700.0	4.45	199.60	6,696.8	-79.6	-28.3	-79.0	0.00	0.00	0.00
6,800.0	4.45	199.60	6,796.5	-86.9	-30.9	-86.3	0.00	0.00	0.00
6,900.0	4.45	199.60	6,896.2	-94.2	-33.5	-93.6	0.00	0.00	0.00
7,000.0	4.45	199.60	6,995.9	-101.5	-36.1	-100.8	0.00	0.00	0.00
7,100.0	4.45	199.60	7,095.6	-108.8	-38.7	-108.1	0.00	0.00	0.00
7,200.0	4.45	199.60	7,195.3	-116.1	-41.3	-115.3	0.00	0.00	0.00
7,208.2	4.45	199.60	7,203.5	-116.7	-41.5	-115.9	0.00	0.00	0.00
BYCN									
7,300.0	4.45	199.60	7,295.0	-123.4	-43.9	-122.6	0.00	0.00	0.00
7,400.0	4.45	199.60	7,394.7	-130.7	-46.5	-129.9	0.00	0.00	0.00
7,500.0	4.45	199.60	7,494.4	-138.0	-49.1	-137.1	0.00	0.00	0.00
7,600.0	4.45	199.60	7,594.1	-145.3	-51.7	-144.4	0.00	0.00	0.00
7,700.0	4.45	199.60	7,693.8	-152.6	-54.3	-151.6	0.00	0.00	0.00
7,800.0	4.45	199.60	7,793.5	-159.9	-56.9	-158.9	0.00	0.00	0.00
7,900.0	4.45	199.60	7,893.2	-167.2	-59.5	-166.2	0.00	0.00	0.00
8,000.0	4.45	199.60	7,992.9	-174.6	-62.1	-173.4	0.00	0.00	0.00
8,100.0	4.45	199.60	8,092.6	-181.9	-64.7	-180.7	0.00	0.00	0.00
8,200.0	4.45	199.60	8,192.3	-189.2	-67.3	-187.9	0.00	0.00	0.00
8,300.0	4.45	199.60	8,292.0	-196.5	-69.9	-195.2	0.00	0.00	0.00
8,400.0	4.45	199.60	8,391.7	-203.8	-72.5	-202.5	0.00	0.00	0.00
8,500.0	4.45	199.60	8,491.4	-211.1	-75.1	-209.7	0.00	0.00	0.00
8,600.0	4.45	199.60	8,591.1	-218.4	-77.7	-217.0	0.00	0.00	0.00
8,700.0	4.45	199.60	8,690.8	-225.7	-80.3	-224.2	0.00	0.00	0.00
8,777.9	4.45	199.60	8,768.5	-231.4	-82.4	-229.9	0.00	0.00	0.00

Bone Sprg (BSGL)

Database: EDM 5000.15 Single User Db
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MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
8,800.0	4.45	199.60	8,790.5	-233.0	-82.9	-231.5	0.00	0.00	0.00
8,900.0	4.45	199.60	8,890.2	-240.3	-85.6	-238.8	0.00	0.00	0.00
9,000.0	4.45	199.60	8,989.9	-247.6	-88.2	-246.0	0.00	0.00	0.00
9,091.9	4.45	199.60	9,081.5	-254.3	-90.5	-252.7	0.00	0.00	0.00
M Avalon Sh									
9,100.0	4.45	199.60	9,089.6	-254.9	-90.8	-253.3	0.00	0.00	0.00
9,200.0	4.45	199.60	9,189.3	-262.2	-93.4	-260.5	0.00	0.00	0.00
9,300.0	4.45	199.60	9,289.0	-269.5	-96.0	-267.8	0.00	0.00	0.00
9,400.0	4.45	199.60	9,388.7	-276.8	-98.6	-275.1	0.00	0.00	0.00
9,405.8	4.45	199.60	9,394.5	-277.3	-98.7	-275.5	0.00	0.00	0.00
L Avalon Sh									
9,455.5	4.45	199.60	9,444.0	-280.9	-100.0	-279.1	0.00	0.00	0.00
KOP - DLS 10.00 TFO 159.98									
9,500.0	1.55	279.79	9,488.5	-282.4	-101.2	-280.6	10.00	-6.52	180.08
9,550.0	5.49	343.57	9,538.4	-280.0	-102.5	-278.2	10.00	7.88	127.58
9,600.0	10.38	351.29	9,587.9	-273.3	-103.9	-271.4	10.00	9.79	15.44
9,650.0	15.35	354.07	9,636.6	-262.2	-105.2	-260.3	10.00	9.93	5.56
9,700.0	20.33	355.52	9,684.2	-247.0	-106.6	-245.1	10.00	9.96	2.89
9,735.9	23.91	356.19	9,717.5	-233.5	-107.6	-231.5	10.00	9.97	1.88
FBSG_sand									
9,750.0	25.32	356.41	9,730.3	-227.6	-108.0	-225.7	10.00	9.98	1.53
9,800.0	30.31	357.02	9,774.5	-204.4	-109.3	-202.4	10.00	9.98	1.23
9,850.0	35.30	357.48	9,816.5	-177.3	-110.6	-175.3	10.00	9.99	0.91
9,900.0	40.30	357.83	9,856.0	-146.7	-111.8	-144.7	10.00	9.99	0.71
9,950.0	45.29	358.12	9,892.7	-112.8	-113.0	-110.7	10.00	9.99	0.58
10,000.0	50.29	358.36	9,926.3	-75.8	-114.1	-73.7	10.00	9.99	0.49
10,050.0	55.29	358.57	9,956.5	-36.0	-115.2	-33.9	10.00	9.99	0.42
10,100.0	60.28	358.76	9,983.1	6.3	-116.2	8.4	10.00	10.00	0.37
10,150.0	65.28	358.93	10,006.0	50.8	-117.1	52.8	10.00	10.00	0.34
10,200.0	70.28	359.08	10,024.9	97.0	-117.9	99.1	10.00	10.00	0.31
10,250.0	75.28	359.23	10,039.7	144.8	-118.6	146.8	10.00	10.00	0.29
10,300.0	80.28	359.37	10,050.3	193.6	-119.2	195.7	10.00	10.00	0.28
10,350.0	85.27	359.50	10,056.6	243.2	-119.7	245.3	10.00	10.00	0.27
10,404.7	90.74	359.65	10,058.5	297.9	-120.1	299.9	10.00	10.00	0.27
EOC - 9960.4 hold at 10404.7 MD									
10,500.0	90.74	359.65	10,057.2	393.1	-120.7	395.2	0.00	0.00	0.00
10,600.0	90.74	359.65	10,055.9	493.1	-121.3	495.2	0.00	0.00	0.00
10,700.0	90.74	359.65	10,054.6	593.1	-121.9	595.2	0.00	0.00	0.00
10,800.0	90.74	359.65	10,053.3	693.1	-122.5	695.2	0.00	0.00	0.00
10,900.0	90.74	359.65	10,052.0	793.1	-123.1	795.1	0.00	0.00	0.00
11,000.0	90.74	359.65	10,050.7	893.1	-123.7	895.1	0.00	0.00	0.00
11,100.0	90.74	359.65	10,049.4	993.1	-124.3	995.1	0.00	0.00	0.00
11,200.0	90.74	359.65	10,048.1	1,093.1	-125.0	1,095.1	0.00	0.00	0.00
11,300.0	90.74	359.65	10,046.8	1,193.0	-125.6	1,195.1	0.00	0.00	0.00
11,400.0	90.74	359.65	10,045.5	1,293.0	-126.2	1,295.1	0.00	0.00	0.00
11,500.0	90.74	359.65	10,044.2	1,393.0	-126.8	1,395.1	0.00	0.00	0.00
11,600.0	90.74	359.65	10,042.9	1,493.0	-127.4	1,495.0	0.00	0.00	0.00
11,700.0	90.74	359.65	10,041.6	1,593.0	-128.0	1,595.0	0.00	0.00	0.00
11,800.0	90.74	359.65	10,040.3	1,693.0	-128.6	1,695.0	0.00	0.00	0.00
11,900.0	90.74	359.65	10,039.0	1,793.0	-129.3	1,795.0	0.00	0.00	0.00
12,000.0	90.74	359.65	10,037.7	1,893.0	-129.9	1,895.0	0.00	0.00	0.00
12,100.0	90.74	359.65	10,036.4	1,993.0	-130.5	1,995.0	0.00	0.00	0.00
12,200.0	90.74	359.65	10,035.1	2,093.0	-131.1	2,094.9	0.00	0.00	0.00

Database: EDM 5000.15 Single User Db
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Well: Harrier Federal Com #304H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Harrier Federal Com #304H
TVD Reference: KB @ 3272.1usft (Latshaw 44)
MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
12,300.0	90.74	359.65	10,033.8	2,192.9	-131.7	2,194.9	0.00	0.00	0.00
12,400.0	90.74	359.65	10,032.5	2,292.9	-132.3	2,294.9	0.00	0.00	0.00
12,500.0	90.74	359.65	10,031.2	2,392.9	-132.9	2,394.9	0.00	0.00	0.00
12,600.0	90.74	359.65	10,029.9	2,492.9	-133.5	2,494.9	0.00	0.00	0.00
12,700.0	90.74	359.65	10,028.6	2,592.9	-134.2	2,594.9	0.00	0.00	0.00
12,800.0	90.74	359.65	10,027.3	2,692.9	-134.8	2,694.9	0.00	0.00	0.00
12,900.0	90.74	359.65	10,026.0	2,792.9	-135.4	2,794.8	0.00	0.00	0.00
13,000.0	90.74	359.65	10,024.7	2,892.9	-136.0	2,894.8	0.00	0.00	0.00
13,100.0	90.74	359.65	10,023.4	2,992.9	-136.6	2,994.8	0.00	0.00	0.00
13,200.0	90.74	359.65	10,022.1	3,092.9	-137.2	3,094.8	0.00	0.00	0.00
13,300.0	90.74	359.65	10,020.8	3,192.8	-137.8	3,194.8	0.00	0.00	0.00
13,400.0	90.74	359.65	10,019.5	3,292.8	-138.5	3,294.8	0.00	0.00	0.00
13,500.0	90.74	359.65	10,018.2	3,392.8	-139.1	3,394.7	0.00	0.00	0.00
13,600.0	90.74	359.65	10,016.9	3,492.8	-139.7	3,494.7	0.00	0.00	0.00
13,700.0	90.74	359.65	10,015.6	3,592.8	-140.3	3,594.7	0.00	0.00	0.00
13,800.0	90.74	359.65	10,014.3	3,692.8	-140.9	3,694.7	0.00	0.00	0.00
13,900.0	90.74	359.65	10,013.0	3,792.8	-141.5	3,794.7	0.00	0.00	0.00
14,000.0	90.74	359.65	10,011.7	3,892.8	-142.1	3,894.7	0.00	0.00	0.00
14,100.0	90.74	359.65	10,010.4	3,992.8	-142.8	3,994.7	0.00	0.00	0.00
14,200.0	90.74	359.65	10,009.1	4,092.7	-143.4	4,094.6	0.00	0.00	0.00
14,300.0	90.74	359.65	10,007.8	4,192.7	-144.0	4,194.6	0.00	0.00	0.00
14,400.0	90.74	359.65	10,006.5	4,292.7	-144.6	4,294.6	0.00	0.00	0.00
14,500.0	90.74	359.65	10,005.2	4,392.7	-145.2	4,394.6	0.00	0.00	0.00
14,600.0	90.74	359.65	10,003.9	4,492.7	-145.8	4,494.6	0.00	0.00	0.00
14,700.0	90.74	359.65	10,002.6	4,592.7	-146.4	4,594.6	0.00	0.00	0.00
14,800.0	90.74	359.65	10,001.3	4,692.7	-147.0	4,694.6	0.00	0.00	0.00
14,900.0	90.74	359.65	10,000.0	4,792.7	-147.7	4,794.5	0.00	0.00	0.00
15,000.0	90.74	359.65	9,998.7	4,892.7	-148.3	4,894.5	0.00	0.00	0.00
15,100.0	90.74	359.65	9,997.4	4,992.7	-148.9	4,994.5	0.00	0.00	0.00
15,200.0	90.74	359.65	9,996.1	5,092.6	-149.5	5,094.5	0.00	0.00	0.00
15,300.0	90.74	359.65	9,994.8	5,192.6	-150.1	5,194.5	0.00	0.00	0.00
15,400.0	90.74	359.65	9,993.5	5,292.6	-150.7	5,294.5	0.00	0.00	0.00
15,500.0	90.74	359.65	9,992.2	5,392.6	-151.3	5,394.4	0.00	0.00	0.00
15,600.0	90.74	359.65	9,990.9	5,492.6	-152.0	5,494.4	0.00	0.00	0.00
15,700.0	90.74	359.65	9,989.6	5,592.6	-152.6	5,594.4	0.00	0.00	0.00
15,800.0	90.74	359.65	9,988.3	5,692.6	-153.2	5,694.4	0.00	0.00	0.00
15,900.0	90.74	359.65	9,987.0	5,792.6	-153.8	5,794.4	0.00	0.00	0.00
16,000.0	90.74	359.65	9,985.7	5,892.6	-154.4	5,894.4	0.00	0.00	0.00
16,100.0	90.74	359.65	9,984.4	5,992.6	-155.0	5,994.4	0.00	0.00	0.00
16,200.0	90.74	359.65	9,983.1	6,092.5	-155.6	6,094.3	0.00	0.00	0.00
16,300.0	90.74	359.65	9,981.8	6,192.5	-156.3	6,194.3	0.00	0.00	0.00
16,400.0	90.74	359.65	9,980.5	6,292.5	-156.9	6,294.3	0.00	0.00	0.00
16,500.0	90.74	359.65	9,979.2	6,392.5	-157.5	6,394.3	0.00	0.00	0.00
16,600.0	90.74	359.65	9,977.9	6,492.5	-158.1	6,494.3	0.00	0.00	0.00
16,700.0	90.74	359.65	9,976.6	6,592.5	-158.7	6,594.3	0.00	0.00	0.00
16,800.0	90.74	359.65	9,975.3	6,692.5	-159.3	6,694.3	0.00	0.00	0.00
16,900.0	90.74	359.65	9,974.0	6,792.5	-159.9	6,794.2	0.00	0.00	0.00
17,000.0	90.74	359.65	9,972.7	6,892.5	-160.5	6,894.2	0.00	0.00	0.00
17,100.0	90.74	359.65	9,971.4	6,992.4	-161.2	6,994.2	0.00	0.00	0.00
17,200.0	90.74	359.65	9,970.1	7,092.4	-161.8	7,094.2	0.00	0.00	0.00
17,300.0	90.74	359.65	9,968.8	7,192.4	-162.4	7,194.2	0.00	0.00	0.00
17,400.0	90.74	359.65	9,967.5	7,292.4	-163.0	7,294.2	0.00	0.00	0.00
17,500.0	90.74	359.65	9,966.2	7,392.4	-163.6	7,394.1	0.00	0.00	0.00
17,600.0	90.74	359.65	9,964.9	7,492.4	-164.2	7,494.1	0.00	0.00	0.00

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Survey Calculation Method: Minimum Curvature

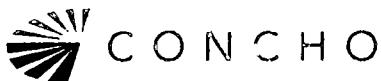
Planned Survey

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)
17,700.0	90.74	359.65	9,963.6	7,592.4	-164.8	7,594.1	0.00	0.00	0.00
17,800.0	90.74	359.65	9,962.3	7,692.4	-165.5	7,694.1	0.00	0.00	0.00
17,900.0	90.74	359.65	9,961.0	7,792.4	-166.1	7,794.1	0.00	0.00	0.00
18,000.0	90.74	359.65	9,959.7	7,892.4	-166.7	7,894.1	0.00	0.00	0.00
18,100.0	90.74	359.65	9,958.4	7,992.3	-167.3	7,994.1	0.00	0.00	0.00
18,200.0	90.74	359.65	9,957.1	8,092.3	-167.9	8,094.0	0.00	0.00	0.00
18,300.0	90.74	359.65	9,955.8	8,192.3	-168.5	8,194.0	0.00	0.00	0.00
18,400.0	90.74	359.65	9,954.5	8,292.3	-169.1	8,294.0	0.00	0.00	0.00
18,500.0	90.74	359.65	9,953.2	8,392.3	-169.8	8,394.0	0.00	0.00	0.00
18,600.0	90.74	359.65	9,951.9	8,492.3	-170.4	8,494.0	0.00	0.00	0.00
18,700.0	90.74	359.65	9,950.6	8,592.3	-171.0	8,594.0	0.00	0.00	0.00
18,800.0	90.74	359.65	9,949.3	8,692.3	-171.6	8,693.9	0.00	0.00	0.00
18,900.0	90.74	359.65	9,948.0	8,792.3	-172.2	8,793.9	0.00	0.00	0.00
19,000.0	90.74	359.65	9,946.7	8,892.3	-172.8	8,893.9	0.00	0.00	0.00
19,100.0	90.74	359.65	9,945.4	8,992.2	-173.4	8,993.9	0.00	0.00	0.00
19,200.0	90.74	359.65	9,944.1	9,092.2	-174.1	9,093.9	0.00	0.00	0.00
19,300.0	90.74	359.65	9,942.8	9,192.2	-174.7	9,193.9	0.00	0.00	0.00
19,400.0	90.74	359.65	9,941.5	9,292.2	-175.3	9,293.9	0.00	0.00	0.00
19,500.0	90.74	359.65	9,940.2	9,392.2	-175.9	9,393.8	0.00	0.00	0.00
19,600.0	90.74	359.65	9,938.9	9,492.2	-176.5	9,493.8	0.00	0.00	0.00
19,700.0	90.74	359.65	9,937.6	9,592.2	-177.1	9,593.8	0.00	0.00	0.00
19,800.0	90.74	359.65	9,936.3	9,692.2	-177.7	9,693.8	0.00	0.00	0.00
19,900.0	90.74	359.65	9,935.0	9,792.2	-178.3	9,793.8	0.00	0.00	0.00
20,000.0	90.74	359.65	9,933.7	9,892.1	-179.0	9,893.8	0.00	0.00	0.00
20,100.0	90.74	359.65	9,932.4	9,992.1	-179.6	9,993.8	0.00	0.00	0.00
20,200.0	90.74	359.65	9,931.1	10,092.1	-180.2	10,093.7	0.00	0.00	0.00
20,300.0	90.74	359.65	9,929.8	10,192.1	-180.8	10,193.7	0.00	0.00	0.00
20,365.1	90.74	359.65	9,929.0	10,257.2	-181.2	10,258.8	0.00	0.00	0.00

TD at 20365.1

Design Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PBHL (Harrier Federal)	-0.74	359.65	9,929.0	10,257.2	-181.2	398,583.60	711,110.30	32° 5' 38.356 N	103° 39' 5.873 W
- plan hits target center									
- Rectangle (sides W60.0 H10,490.0 D20.0)									
LTP (Harrier Federal)	-0.61	359.65	9,929.0	10,207.2	-180.9	398,533.60	711,110.60	32° 5' 37.862 N	103° 39' 5.873 W
- plan misses target center by 15.1usft at 20300.0usft MD (9929.8 TVD, 10192.1 N, -180.8 E)									
- Point									
FTP (Harrier Federal)	0.00	0.00	10,058.0	-230.9	-117.7	388,095.50	711,173.80	32° 3' 54.563 N	103° 39' 5.905 W
- plan misses target center by 201.3usft at 9973.7usft MD (9909.0 TVD, -95.6 N, -113.6 E)									
- Point									



Intrepid
Planning Report



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Local Co-ordinate Reference: Well Harrier Federal Com #304H
TVD Reference: KB @ 3272.1usft (Latshaw 44)
MD Reference: KB @ 3272.1usft (Latshaw 44)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
717.5	717.5	Rustler			
1,080.5	1,080.5	TOS			
4,346.5	4,346.5	BOS (Fletcher)			
4,563.5	4,563.5	LMAR (Top Delaware)			
4,601.5	4,601.5	BLCN			
5,610.5	5,610.5	CYCN			
7,208.2	7,203.5	BYCN			
8,777.9	8,768.5	Bone Sprg (BSGL)			
9,091.9	9,081.5	M.Avalon Sh			
9,405.8	9,394.5	L Avalon Sh			
9,735.9	9,717.5	FBSG_sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,500.0	5,500.0	0.0	0.0	NUDGE - DLS 2.00 TFO 199.60
5,722.4	5,722.2	-8.1	-2.9	HOLD - 3733.0 at 5722.4 MD
9,455.5	9,444.0	-280.9	-100.0	KOP - DLS 10.00 TFO 159.98
10,404.7	10,058.5	297.9	-120.1	EOC - 9960.4 hold at 10404.7 MD
20,365.1	9,929.0	10,257.2	-181.2	TD at 20365.1