

VERDAD RESOURCES

**WATTENBERG FIELD
1N-65W-10 HDI KF PAD
HDI KF 10-6H**

Wellbore #1

Plan: Design #1

Standard Planning Report

18 January, 2018

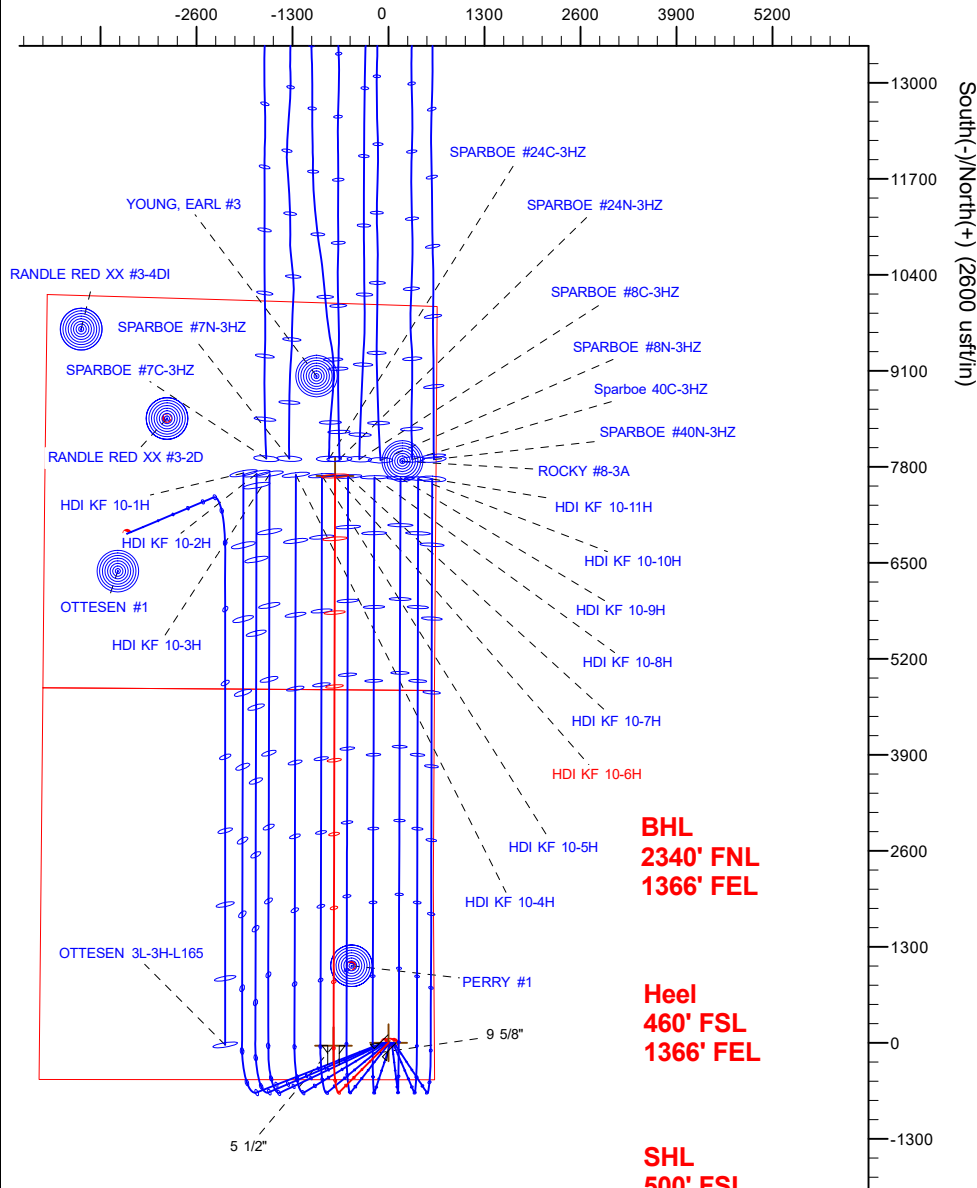
Project: WATTENBERG FIELD
Site: 1N-65W-10 HDI KF PAD
Well: HDI KF 10-6H
Wellbore: Wellbore #1
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
1700.00	1713.78	9 5/8"	9-5/8
7295.00	7734.74	5 1/2"	5-1/2

West(-)/East(+) (2600 usft/in)



BHL
2340' FNL
1366' FEL

Heel
460' FSL
1366' FEL

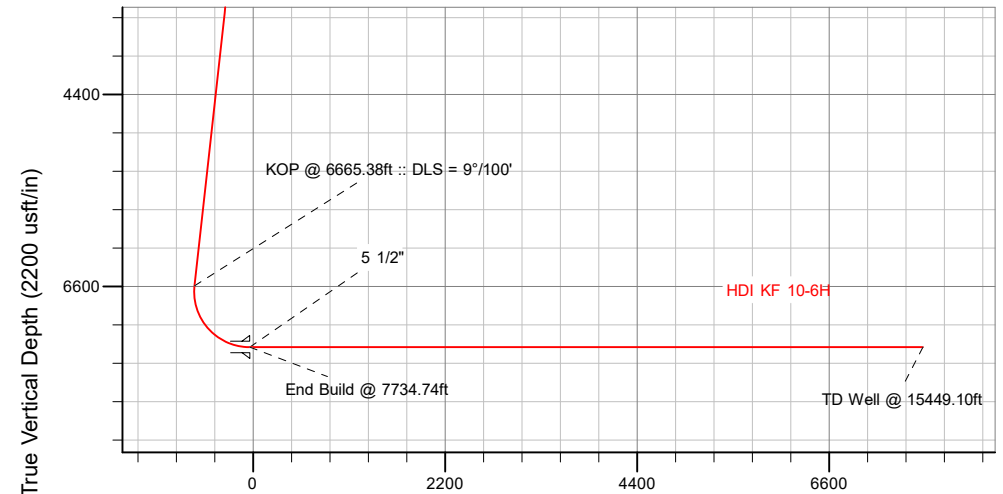
SHL
500' FSL
622' FEL

SECTION DETAILS

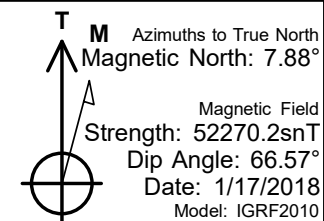
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	690.00	8.80	224.85	688.27	-23.91	-23.78	2.00	224.85	-23.97	
4	6665.38	8.80	224.85	6593.31	-672.00	-668.49	0.00	0.00	-673.63	
5	7734.74	90.00	0.14	7295.00	-38.96	-743.31	9.00	134.95	-40.78	
6	15449.10	90.00	0.14	7295.00	7675.37	-723.89	0.00	0.00	7673.58	HDI KF 10-6H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
HDI KF 10-6H_SHL	0.00	0.00	0.00	40.060105	-104.642712
HDI KF 10-6H_BHL	7295.00	7675.37	-723.89	40.081175	-104.645299



Vertical Section at 0.14° (2200 usft/in)



WELL DETAILS: HDI KF 10-6H

GL = 5013'

RKB = 20' @ 5033.00usft (RIG)

Plan: Design #1 (HDI KF 10-6H/Wellbore #1)

Created By: _____ Date: 1/18/2018
Reviewed: _____ Date: _____

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-6H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5033.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5033.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	WATTENBERG FIELD		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		1N-65W-10 HDI KF PAD			
Site Position:		Northing:	1,265,900.79 usft	Latitude:	40.060105
From:	Lat/Long	Easting:	3,239,881.89 usft	Longitude:	-104.642980
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.55 °

Well	HDI KF 10-6H					
Well Position	+N/-S	-0.05 usft	Northing:	1,265,901.46 usft	Latitude:	40.060105
	+E/-W	75.01 usft	Easting:	3,239,956.90 usft	Longitude:	-104.642712
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,013.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/17/2018	7.88	66.57	52,270.23493431

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.14

Plan Survey Tool Program	Date	1/18/2018			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD	
				Fixed:v2:standard declination	
2	1,700.00	15,449.10	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD	
				Fixed:v2:standard declination	

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	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
690.00	8.80	224.85	688.27	-23.91	-23.78	2.00	2.00	0.00	224.85	
6,665.38	8.80	224.85	6,593.31	-672.00	-668.49	0.00	0.00	0.00	0.00	
7,734.74	90.00	0.14	7,295.00	-38.96	-743.31	9.00	7.59	12.65	134.95	
15,449.10	90.00	0.14	7,295.00	7,675.37	-723.89	0.00	0.00	0.00	0.00	HDI KF 10-6H_BHL

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-6H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5033.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5033.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 250.00ft									
300.00	1.00	224.85	300.00	-0.31	-0.31	-0.31	2.00	2.00	0.00
400.00	3.00	224.85	399.93	-2.78	-2.77	-2.79	2.00	2.00	0.00
500.00	5.00	224.85	499.68	-7.73	-7.69	-7.75	2.00	2.00	0.00
600.00	7.00	224.85	599.13	-15.14	-15.06	-15.18	2.00	2.00	0.00
690.00	8.80	224.85	688.27	-23.91	-23.78	-23.97	2.00	2.00	0.00
End Nudge @ 690.00ft									
700.00	8.80	224.85	698.15	-24.99	-24.86	-25.05	0.00	0.00	0.00
800.00	8.80	224.85	796.98	-35.84	-35.65	-35.93	0.00	0.00	0.00
900.00	8.80	224.85	895.80	-46.68	-46.44	-46.80	0.00	0.00	0.00
1,000.00	8.80	224.85	994.62	-57.53	-57.23	-57.67	0.00	0.00	0.00
1,100.00	8.80	224.85	1,093.45	-68.38	-68.02	-68.54	0.00	0.00	0.00
1,200.00	8.80	224.85	1,192.27	-79.22	-78.81	-79.42	0.00	0.00	0.00
1,300.00	8.80	224.85	1,291.09	-90.07	-89.60	-90.29	0.00	0.00	0.00
1,400.00	8.80	224.85	1,389.91	-100.91	-100.39	-101.16	0.00	0.00	0.00
1,500.00	8.80	224.85	1,488.74	-111.76	-111.18	-112.03	0.00	0.00	0.00
1,600.00	8.80	224.85	1,587.56	-122.61	-121.97	-122.90	0.00	0.00	0.00
1,700.00	8.80	224.85	1,686.38	-133.45	-132.76	-133.78	0.00	0.00	0.00
1,713.78	8.80	224.85	1,700.00	-134.95	-134.24	-135.28	0.00	0.00	0.00
9 5/8"									
1,800.00	8.80	224.85	1,785.21	-144.30	-143.55	-144.65	0.00	0.00	0.00
1,900.00	8.80	224.85	1,884.03	-155.15	-154.33	-155.52	0.00	0.00	0.00
2,000.00	8.80	224.85	1,982.85	-165.99	-165.12	-166.39	0.00	0.00	0.00
2,100.00	8.80	224.85	2,081.67	-176.84	-175.91	-177.27	0.00	0.00	0.00
2,200.00	8.80	224.85	2,180.50	-187.68	-186.70	-188.14	0.00	0.00	0.00
2,300.00	8.80	224.85	2,279.32	-198.53	-197.49	-199.01	0.00	0.00	0.00
2,400.00	8.80	224.85	2,378.14	-209.38	-208.28	-209.88	0.00	0.00	0.00
2,500.00	8.80	224.85	2,476.97	-220.22	-219.07	-220.76	0.00	0.00	0.00
2,600.00	8.80	224.85	2,575.79	-231.07	-229.86	-231.63	0.00	0.00	0.00
2,700.00	8.80	224.85	2,674.61	-241.91	-240.65	-242.50	0.00	0.00	0.00
2,800.00	8.80	224.85	2,773.43	-252.76	-251.44	-253.37	0.00	0.00	0.00
2,900.00	8.80	224.85	2,872.26	-263.61	-262.23	-264.25	0.00	0.00	0.00
3,000.00	8.80	224.85	2,971.08	-274.45	-273.02	-275.12	0.00	0.00	0.00
3,100.00	8.80	224.85	3,069.90	-285.30	-283.81	-285.99	0.00	0.00	0.00
3,200.00	8.80	224.85	3,168.73	-296.14	-294.60	-296.86	0.00	0.00	0.00
3,300.00	8.80	224.85	3,267.55	-306.99	-305.39	-307.73	0.00	0.00	0.00
3,400.00	8.80	224.85	3,366.37	-317.84	-316.18	-318.61	0.00	0.00	0.00
3,500.00	8.80	224.85	3,465.19	-328.68	-326.96	-329.48	0.00	0.00	0.00
3,600.00	8.80	224.85	3,564.02	-339.53	-337.75	-340.35	0.00	0.00	0.00
3,700.00	8.80	224.85	3,662.84	-350.37	-348.54	-351.22	0.00	0.00	0.00
3,800.00	8.80	224.85	3,761.66	-361.22	-359.33	-362.10	0.00	0.00	0.00
3,900.00	8.80	224.85	3,860.49	-372.07	-370.12	-372.97	0.00	0.00	0.00
4,000.00	8.80	224.85	3,959.31	-382.91	-380.91	-383.84	0.00	0.00	0.00
4,100.00	8.80	224.85	4,058.13	-393.76	-391.70	-394.71	0.00	0.00	0.00
4,200.00	8.80	224.85	4,156.95	-404.60	-402.49	-405.59	0.00	0.00	0.00
4,300.00	8.80	224.85	4,255.78	-415.45	-413.28	-416.46	0.00	0.00	0.00
4,400.00	8.80	224.85	4,354.60	-426.30	-424.07	-427.33	0.00	0.00	0.00
4,500.00	8.80	224.85	4,453.42	-437.14	-434.86	-438.20	0.00	0.00	0.00
4,600.00	8.80	224.85	4,552.25	-447.99	-445.65	-449.08	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-6H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5033.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5033.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
4,700.00	8.80	224.85	4,651.07	-458.83	-456.44	-459.95	0.00	0.00	0.00
4,800.00	8.80	224.85	4,749.89	-469.68	-467.23	-470.82	0.00	0.00	0.00
4,900.00	8.80	224.85	4,848.71	-480.53	-478.02	-481.69	0.00	0.00	0.00
5,000.00	8.80	224.85	4,947.54	-491.37	-488.81	-492.56	0.00	0.00	0.00
5,100.00	8.80	224.85	5,046.36	-502.22	-499.59	-503.44	0.00	0.00	0.00
5,200.00	8.80	224.85	5,145.18	-513.06	-510.38	-514.31	0.00	0.00	0.00
5,300.00	8.80	224.85	5,244.01	-523.91	-521.17	-525.18	0.00	0.00	0.00
5,400.00	8.80	224.85	5,342.83	-534.76	-531.96	-536.05	0.00	0.00	0.00
5,500.00	8.80	224.85	5,441.65	-545.60	-542.75	-546.93	0.00	0.00	0.00
5,600.00	8.80	224.85	5,540.47	-556.45	-553.54	-557.80	0.00	0.00	0.00
5,700.00	8.80	224.85	5,639.30	-567.29	-564.33	-568.67	0.00	0.00	0.00
5,800.00	8.80	224.85	5,738.12	-578.14	-575.12	-579.54	0.00	0.00	0.00
5,900.00	8.80	224.85	5,836.94	-588.99	-585.91	-590.42	0.00	0.00	0.00
6,000.00	8.80	224.85	5,935.76	-599.83	-596.70	-601.29	0.00	0.00	0.00
6,100.00	8.80	224.85	6,034.59	-610.68	-607.49	-612.16	0.00	0.00	0.00
6,200.00	8.80	224.85	6,133.41	-621.52	-618.28	-623.03	0.00	0.00	0.00
6,300.00	8.80	224.85	6,232.23	-632.37	-629.07	-633.90	0.00	0.00	0.00
6,400.00	8.80	224.85	6,331.06	-643.22	-639.86	-644.78	0.00	0.00	0.00
6,500.00	8.80	224.85	6,429.88	-654.06	-650.65	-655.65	0.00	0.00	0.00
6,600.00	8.80	224.85	6,528.70	-664.91	-661.44	-666.52	0.00	0.00	0.00
6,665.38	8.80	224.85	6,593.31	-672.00	-668.49	-673.63	0.00	0.00	0.00
KOP @ 6665.38ft :: DLS = 9°/100'									
6,700.00	6.95	243.37	6,627.61	-674.82	-672.23	-676.46	9.00	-5.33	53.50
6,750.00	6.36	282.63	6,677.30	-675.57	-677.64	-677.22	9.00	-1.18	78.52
6,800.00	8.54	313.68	6,726.89	-672.39	-683.04	-674.06	9.00	4.36	62.10
6,850.00	12.08	329.54	6,776.09	-665.32	-688.38	-667.00	9.00	7.06	31.72
6,900.00	16.09	337.97	6,824.58	-654.38	-693.63	-656.07	9.00	8.03	16.85
6,950.00	20.31	343.03	6,872.07	-639.65	-698.77	-641.35	9.00	8.43	10.13
7,000.00	24.62	346.40	6,918.26	-621.22	-703.75	-622.93	9.00	8.63	6.73
7,050.00	28.99	348.81	6,962.88	-599.19	-708.55	-600.92	9.00	8.74	4.82
7,100.00	33.39	350.63	7,005.64	-573.72	-713.15	-575.46	9.00	8.80	3.65
7,150.00	37.81	352.08	7,046.29	-544.95	-717.50	-546.70	9.00	8.84	2.89
7,200.00	42.25	353.26	7,084.57	-513.06	-721.59	-514.82	9.00	8.87	2.36
7,250.00	46.69	354.25	7,120.24	-478.25	-725.39	-480.02	9.00	8.89	1.99
7,300.00	51.15	355.11	7,153.08	-440.73	-728.87	-442.51	9.00	8.91	1.72
7,350.00	55.61	355.87	7,182.91	-400.73	-732.02	-402.52	9.00	8.92	1.51
7,400.00	60.07	356.55	7,209.52	-358.51	-734.81	-360.31	9.00	8.93	1.36
7,450.00	64.54	357.17	7,232.75	-314.32	-737.23	-316.12	9.00	8.93	1.24
7,500.00	69.00	357.75	7,252.47	-268.43	-739.26	-270.23	9.00	8.94	1.15
7,550.00	73.47	358.29	7,268.54	-221.13	-740.89	-222.94	9.00	8.94	1.09
7,600.00	77.95	358.81	7,280.88	-172.70	-742.11	-174.51	9.00	8.94	1.04
7,650.00	82.42	359.31	7,289.41	-123.45	-742.92	-125.27	9.00	8.95	1.00
7,700.00	86.89	359.81	7,294.06	-73.68	-743.30	-75.50	9.00	8.95	0.98
7,734.74	90.00	0.14	7,295.00	-38.96	-743.31	-40.78	9.00	8.95	0.98
End Build @ 7734.74ft - 5 1/2"									
7,800.00	90.00	0.14	7,295.00	26.30	-743.15	24.48	0.00	0.00	0.00
7,900.00	90.00	0.14	7,295.00	126.30	-742.90	124.48	0.00	0.00	0.00
8,000.00	90.00	0.14	7,295.00	226.30	-742.64	224.48	0.00	0.00	0.00
8,100.00	90.00	0.14	7,295.00	326.30	-742.39	324.48	0.00	0.00	0.00
8,200.00	90.00	0.14	7,295.00	426.30	-742.14	424.48	0.00	0.00	0.00
8,300.00	90.00	0.14	7,295.00	526.30	-741.89	524.48	0.00	0.00	0.00
8,400.00	90.00	0.14	7,295.00	626.30	-741.64	624.48	0.00	0.00	0.00
8,500.00	90.00	0.14	7,295.00	726.30	-741.39	724.48	0.00	0.00	0.00
8,600.00	90.00	0.14	7,295.00	826.30	-741.13	824.48	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-6H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5033.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5033.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
8,700.00	90.00	0.14	7,295.00	926.30	-740.88	924.48	0.00	0.00	0.00
8,800.00	90.00	0.14	7,295.00	1,026.30	-740.63	1,024.48	0.00	0.00	0.00
8,900.00	90.00	0.14	7,295.00	1,126.30	-740.38	1,124.48	0.00	0.00	0.00
9,000.00	90.00	0.14	7,295.00	1,226.30	-740.13	1,224.48	0.00	0.00	0.00
9,100.00	90.00	0.14	7,295.00	1,326.29	-739.88	1,324.48	0.00	0.00	0.00
9,200.00	90.00	0.14	7,295.00	1,426.29	-739.62	1,424.48	0.00	0.00	0.00
9,300.00	90.00	0.14	7,295.00	1,526.29	-739.37	1,524.48	0.00	0.00	0.00
9,400.00	90.00	0.14	7,295.00	1,626.29	-739.12	1,624.48	0.00	0.00	0.00
9,500.00	90.00	0.14	7,295.00	1,726.29	-738.87	1,724.48	0.00	0.00	0.00
9,600.00	90.00	0.14	7,295.00	1,826.29	-738.62	1,824.48	0.00	0.00	0.00
9,700.00	90.00	0.14	7,295.00	1,926.29	-738.37	1,924.48	0.00	0.00	0.00
9,800.00	90.00	0.14	7,295.00	2,026.29	-738.11	2,024.48	0.00	0.00	0.00
9,900.00	90.00	0.14	7,295.00	2,126.29	-737.86	2,124.48	0.00	0.00	0.00
10,000.00	90.00	0.14	7,295.00	2,226.29	-737.61	2,224.48	0.00	0.00	0.00
10,100.00	90.00	0.14	7,295.00	2,326.29	-737.36	2,324.48	0.00	0.00	0.00
10,200.00	90.00	0.14	7,295.00	2,426.29	-737.11	2,424.48	0.00	0.00	0.00
10,300.00	90.00	0.14	7,295.00	2,526.29	-736.86	2,524.48	0.00	0.00	0.00
10,400.00	90.00	0.14	7,295.00	2,626.29	-736.60	2,624.48	0.00	0.00	0.00
10,500.00	90.00	0.14	7,295.00	2,726.29	-736.35	2,724.48	0.00	0.00	0.00
10,600.00	90.00	0.14	7,295.00	2,826.29	-736.10	2,824.48	0.00	0.00	0.00
10,700.00	90.00	0.14	7,295.00	2,926.29	-735.85	2,924.48	0.00	0.00	0.00
10,800.00	90.00	0.14	7,295.00	3,026.29	-735.60	3,024.48	0.00	0.00	0.00
10,900.00	90.00	0.14	7,295.00	3,126.29	-735.35	3,124.48	0.00	0.00	0.00
11,000.00	90.00	0.14	7,295.00	3,226.29	-735.09	3,224.48	0.00	0.00	0.00
11,100.00	90.00	0.14	7,295.00	3,326.29	-734.84	3,324.48	0.00	0.00	0.00
11,200.00	90.00	0.14	7,295.00	3,426.29	-734.59	3,424.48	0.00	0.00	0.00
11,300.00	90.00	0.14	7,295.00	3,526.29	-734.34	3,524.48	0.00	0.00	0.00
11,400.00	90.00	0.14	7,295.00	3,626.29	-734.09	3,624.48	0.00	0.00	0.00
11,500.00	90.00	0.14	7,295.00	3,726.29	-733.83	3,724.48	0.00	0.00	0.00
11,600.00	90.00	0.14	7,295.00	3,826.29	-733.58	3,824.48	0.00	0.00	0.00
11,700.00	90.00	0.14	7,295.00	3,926.29	-733.33	3,924.48	0.00	0.00	0.00
11,800.00	90.00	0.14	7,295.00	4,026.29	-733.08	4,024.48	0.00	0.00	0.00
11,900.00	90.00	0.14	7,295.00	4,126.29	-732.83	4,124.48	0.00	0.00	0.00
12,000.00	90.00	0.14	7,295.00	4,226.29	-732.58	4,224.48	0.00	0.00	0.00
12,100.00	90.00	0.14	7,295.00	4,326.29	-732.32	4,324.48	0.00	0.00	0.00
12,200.00	90.00	0.14	7,295.00	4,426.29	-732.07	4,424.48	0.00	0.00	0.00
12,300.00	90.00	0.14	7,295.00	4,526.28	-731.82	4,524.48	0.00	0.00	0.00
12,400.00	90.00	0.14	7,295.00	4,626.28	-731.57	4,624.48	0.00	0.00	0.00
12,500.00	90.00	0.14	7,295.00	4,726.28	-731.32	4,724.48	0.00	0.00	0.00
12,600.00	90.00	0.14	7,295.00	4,826.28	-731.07	4,824.48	0.00	0.00	0.00
12,700.00	90.00	0.14	7,295.00	4,926.28	-730.81	4,924.48	0.00	0.00	0.00
12,800.00	90.00	0.14	7,295.00	5,026.28	-730.56	5,024.48	0.00	0.00	0.00
12,900.00	90.00	0.14	7,295.00	5,126.28	-730.31	5,124.48	0.00	0.00	0.00
13,000.00	90.00	0.14	7,295.00	5,226.28	-730.06	5,224.48	0.00	0.00	0.00
13,100.00	90.00	0.14	7,295.00	5,326.28	-729.81	5,324.48	0.00	0.00	0.00
13,200.00	90.00	0.14	7,295.00	5,426.28	-729.56	5,424.48	0.00	0.00	0.00
13,300.00	90.00	0.14	7,295.00	5,526.28	-729.30	5,524.48	0.00	0.00	0.00
13,400.00	90.00	0.14	7,295.00	5,626.28	-729.05	5,624.48	0.00	0.00	0.00
13,500.00	90.00	0.14	7,295.00	5,726.28	-728.80	5,724.48	0.00	0.00	0.00
13,600.00	90.00	0.14	7,295.00	5,826.28	-728.55	5,824.48	0.00	0.00	0.00
13,700.00	90.00	0.14	7,295.00	5,926.28	-728.30	5,924.48	0.00	0.00	0.00
13,800.00	90.00	0.14	7,295.00	6,026.28	-728.05	6,024.48	0.00	0.00	0.00
13,900.00	90.00	0.14	7,295.00	6,126.28	-727.79	6,124.48	0.00	0.00	0.00
14,000.00	90.00	0.14	7,295.00	6,226.28	-727.54	6,224.48	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-6H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5033.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5033.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
14,100.00	90.00	0.14	7,295.00	6,326.28	-727.29	6,324.48	0.00	0.00	0.00
14,200.00	90.00	0.14	7,295.00	6,426.28	-727.04	6,424.48	0.00	0.00	0.00
14,300.00	90.00	0.14	7,295.00	6,526.28	-726.79	6,524.48	0.00	0.00	0.00
14,400.00	90.00	0.14	7,295.00	6,626.28	-726.54	6,624.48	0.00	0.00	0.00
14,500.00	90.00	0.14	7,295.00	6,726.28	-726.28	6,724.48	0.00	0.00	0.00
14,600.00	90.00	0.14	7,295.00	6,826.28	-726.03	6,824.48	0.00	0.00	0.00
14,700.00	90.00	0.14	7,295.00	6,926.28	-725.78	6,924.48	0.00	0.00	0.00
14,800.00	90.00	0.14	7,295.00	7,026.28	-725.53	7,024.48	0.00	0.00	0.00
14,900.00	90.00	0.14	7,295.00	7,126.28	-725.28	7,124.48	0.00	0.00	0.00
15,000.00	90.00	0.14	7,295.00	7,226.28	-725.03	7,224.48	0.00	0.00	0.00
15,100.00	90.00	0.14	7,295.00	7,326.28	-724.77	7,324.48	0.00	0.00	0.00
15,200.00	90.00	0.14	7,295.00	7,426.28	-724.52	7,424.48	0.00	0.00	0.00
15,300.00	90.00	0.14	7,295.00	7,526.28	-724.27	7,524.48	0.00	0.00	0.00
15,400.00	90.00	0.14	7,295.00	7,626.27	-724.02	7,624.48	0.00	0.00	0.00
15,449.10	90.00	0.14	7,295.00	7,675.37	-723.89	7,673.58	0.00	0.00	0.00
TD Well @ 15449.10ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,713.78	1,700.00	9 5/8"	9-5/8	13-1/2	
7,734.74	7,295.00	5 1/2"	5-1/2	8-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft
690.00	688.27	-23.91	-23.78	End Nudge @ 690.00ft
6,665.38	6,593.31	-672.00	-668.49	KOP @ 6665.38ft :: DLS = 9°/100'
7,734.74	7,295.00	-38.96	-743.31	End Build @ 7734.74ft
15,449.10	7,295.00	7,675.37	-723.89	TD Well @ 15449.10ft