

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**TIMBRO 9-59-8B PAD**

**TIMBRO 9-59 8B-9-7**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

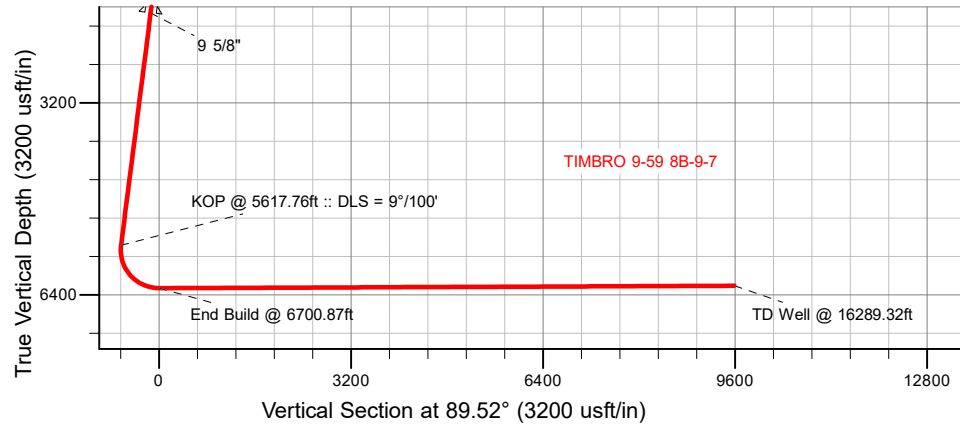
**06 April, 2019**

Project: WATTENBERG FIELD  
Site: TIMBRO 9-59-8B PAD  
Well: TIMBRO 9-59 8B-9-7  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1709.52	9 5/8"	9-5/8

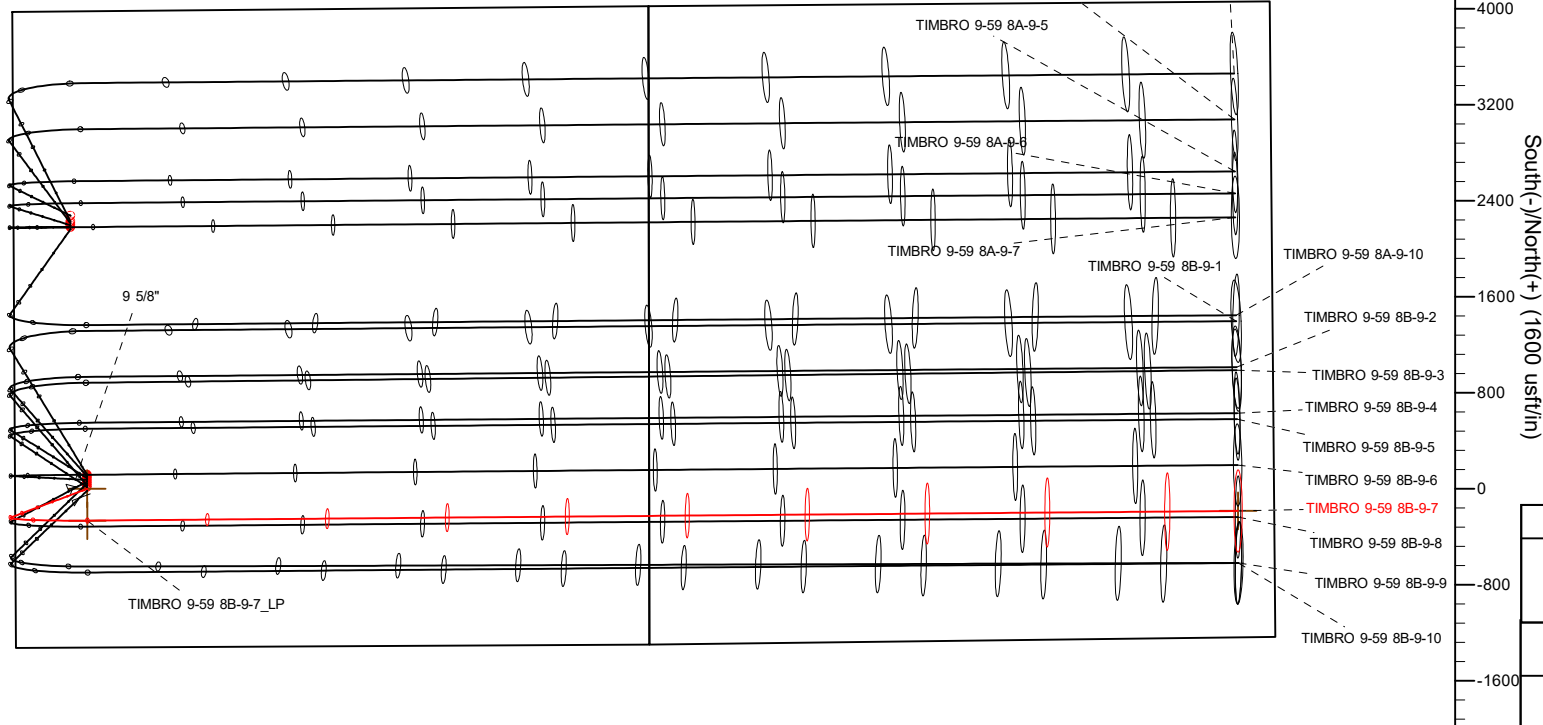
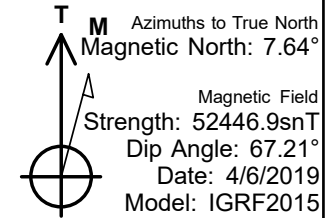
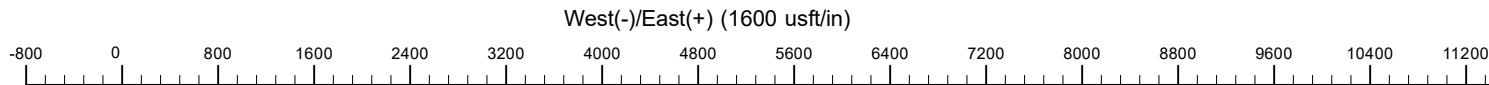


## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	785.50	7.71	249.50	784.34	-9.07	-24.26	2.00	249.50	-24.33	
4	5617.76	7.71	249.50	5572.91	-236.11	-631.50	0.00	0.00	-633.45	
5	6700.87	90.24	89.52	6289.00	-264.13	2.96	9.00	-159.80	0.74	
6	16289.32	90.24	89.52	6249.00	-183.93	9590.98	0.00	0.00	9589.10	TIMBRO 9-59 8B-9-7_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
TIMBRO 9-59 8B-9-7_SHL	0.00	0.00	0.00	40.761366	-104.009522
TIMBRO 9-59 8B-9-7_BHL	6249.00	-183.93	9590.98	40.760856	-103.974901



SHL  
1323' FSL  
600' FWL

LP  
1058' FSL  
600' FWL

BHL  
1053' FSL  
300' FEL

## WELL DETAILS: TIMBRO 9-59 8B-9-7

GL = 5045'  
RKB = 24' @ 5069.00usft (RIG)

Plan: Design #1 (TIMBRO 9-59 8B-9-7/Wellbore #1)

Date: 4/6/2019

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-7
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Site:</b>	TIMBRO 9-59-8B PAD	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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

Site		TIMBRO 9-59-8B PAD			
Site Position:		Northing:	1,523,800.83 usft	Latitude:	40.761695
From:	Lat/Long	Easting:	3,412,878.72 usft	Longitude:	-104.009524
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.96 °

Well	TIMBRO 9-59 8B-9-7					
Well Position	+N/-S	-119.87 usft	Northing:	1,523,680.99 usft	Latitude:	40.761366
	+E/-W	0.55 usft	Easting:	3,412,881.28 usft	Longitude:	-104.009522
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,045.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	4/6/2019	7.64	67.21	52,446.92730676

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	89.52

<b>Plan Survey Tool Program</b>	<b>Date</b>	4/6/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination
2	1,700.00	16,289.32	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	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	
785.50	7.71	249.50	784.34	-9.07	-24.26	2.00	2.00	0.00	249.50	
5,617.76	7.71	249.50	5,572.91	-236.11	-631.50	0.00	0.00	0.00	0.00	
6,700.87	90.24	89.52	6,289.00	-264.13	2.96	9.00	7.62	-14.77	-159.80	
16,289.32	90.24	89.52	6,249.00	-183.93	9,590.98	0.00	0.00	0.00	0.00	TIMBRO 9-59 8B-9-7

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-7
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Site:</b>	TIMBRO 9-59-8B PAD	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
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
Begin Nudge @ 400.00ft									
500.00	2.00	249.50	499.98	-0.61	-1.63	-1.64	2.00	2.00	0.00
600.00	4.00	249.50	599.84	-2.44	-6.54	-6.56	2.00	2.00	0.00
700.00	6.00	249.50	699.45	-5.50	-14.70	-14.75	2.00	2.00	0.00
785.50	7.71	249.50	784.34	-9.07	-24.26	-24.33	2.00	2.00	0.00
Hold Tangent @ 785.50ft									
800.00	7.71	249.50	798.71	-9.75	-26.08	-26.16	0.00	0.00	0.00
900.00	7.71	249.50	897.80	-14.45	-38.65	-38.77	0.00	0.00	0.00
1,000.00	7.71	249.50	996.90	-19.15	-51.21	-51.37	0.00	0.00	0.00
1,100.00	7.71	249.50	1,095.99	-23.85	-63.78	-63.98	0.00	0.00	0.00
1,200.00	7.71	249.50	1,195.09	-28.54	-76.35	-76.58	0.00	0.00	0.00
1,300.00	7.71	249.50	1,294.19	-33.24	-88.91	-89.19	0.00	0.00	0.00
1,400.00	7.71	249.50	1,393.28	-37.94	-101.48	-101.79	0.00	0.00	0.00
1,500.00	7.71	249.50	1,492.38	-42.64	-114.04	-114.40	0.00	0.00	0.00
1,600.00	7.71	249.50	1,591.47	-47.34	-126.61	-127.00	0.00	0.00	0.00
1,700.00	7.71	249.50	1,690.57	-52.04	-139.18	-139.61	0.00	0.00	0.00
1,709.52	7.71	249.50	1,700.00	-52.48	-140.37	-140.81	0.00	0.00	0.00
9 5/8"									
1,800.00	7.71	249.50	1,789.67	-56.73	-151.74	-152.21	0.00	0.00	0.00
1,900.00	7.71	249.50	1,888.76	-61.43	-164.31	-164.82	0.00	0.00	0.00
2,000.00	7.71	249.50	1,987.86	-66.13	-176.88	-177.42	0.00	0.00	0.00
2,100.00	7.71	249.50	2,086.95	-70.83	-189.44	-190.03	0.00	0.00	0.00
2,200.00	7.71	249.50	2,186.05	-75.53	-202.01	-202.63	0.00	0.00	0.00
2,300.00	7.71	249.50	2,285.15	-80.23	-214.58	-215.24	0.00	0.00	0.00
2,400.00	7.71	249.50	2,384.24	-84.92	-227.14	-227.84	0.00	0.00	0.00
2,500.00	7.71	249.50	2,483.34	-89.62	-239.71	-240.45	0.00	0.00	0.00
2,600.00	7.71	249.50	2,582.43	-94.32	-252.27	-253.06	0.00	0.00	0.00
2,700.00	7.71	249.50	2,681.53	-99.02	-264.84	-265.66	0.00	0.00	0.00
2,800.00	7.71	249.50	2,780.63	-103.72	-277.41	-278.27	0.00	0.00	0.00
2,900.00	7.71	249.50	2,879.72	-108.42	-289.97	-290.87	0.00	0.00	0.00
3,000.00	7.71	249.50	2,978.82	-113.11	-302.54	-303.48	0.00	0.00	0.00
3,100.00	7.71	249.50	3,077.91	-117.81	-315.11	-316.08	0.00	0.00	0.00
3,200.00	7.71	249.50	3,177.01	-122.51	-327.67	-328.69	0.00	0.00	0.00
3,300.00	7.71	249.50	3,276.11	-127.21	-340.24	-341.29	0.00	0.00	0.00
3,400.00	7.71	249.50	3,375.20	-131.91	-352.80	-353.90	0.00	0.00	0.00
3,500.00	7.71	249.50	3,474.30	-136.61	-365.37	-366.50	0.00	0.00	0.00
3,600.00	7.71	249.50	3,573.39	-141.30	-377.94	-379.11	0.00	0.00	0.00
3,700.00	7.71	249.50	3,672.49	-146.00	-390.50	-391.71	0.00	0.00	0.00
3,800.00	7.71	249.50	3,771.59	-150.70	-403.07	-404.32	0.00	0.00	0.00
3,900.00	7.71	249.50	3,870.68	-155.40	-415.64	-416.92	0.00	0.00	0.00
4,000.00	7.71	249.50	3,969.78	-160.10	-428.20	-429.53	0.00	0.00	0.00
4,100.00	7.71	249.50	4,068.87	-164.80	-440.77	-442.13	0.00	0.00	0.00
4,200.00	7.71	249.50	4,167.97	-169.50	-453.33	-454.74	0.00	0.00	0.00
4,300.00	7.71	249.50	4,267.07	-174.19	-465.90	-467.34	0.00	0.00	0.00
4,400.00	7.71	249.50	4,366.16	-178.89	-478.47	-479.95	0.00	0.00	0.00
4,500.00	7.71	249.50	4,465.26	-183.59	-491.03	-492.55	0.00	0.00	0.00
4,600.00	7.71	249.50	4,564.35	-188.29	-503.60	-505.16	0.00	0.00	0.00
4,700.00	7.71	249.50	4,663.45	-192.99	-516.17	-517.77	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Site:</b>	TIMBRO 9-59-8B PAD	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
4,800.00	7.71	249.50	4,762.55	-197.69	-528.73	-530.37	0.00	0.00	0.00
4,900.00	7.71	249.50	4,861.64	-202.38	-541.30	-542.98	0.00	0.00	0.00
5,000.00	7.71	249.50	4,960.74	-207.08	-553.87	-555.58	0.00	0.00	0.00
5,100.00	7.71	249.50	5,059.83	-211.78	-566.43	-568.19	0.00	0.00	0.00
5,200.00	7.71	249.50	5,158.93	-216.48	-579.00	-580.79	0.00	0.00	0.00
5,300.00	7.71	249.50	5,258.03	-221.18	-591.56	-593.40	0.00	0.00	0.00
5,400.00	7.71	249.50	5,357.12	-225.88	-604.13	-606.00	0.00	0.00	0.00
5,500.00	7.71	249.50	5,456.22	-230.57	-616.70	-618.61	0.00	0.00	0.00
5,600.00	7.71	249.50	5,555.31	-235.27	-629.26	-631.21	0.00	0.00	0.00
5,617.76	7.71	249.50	5,572.91	-236.11	-631.50	-633.45	0.00	0.00	0.00
KOP @ 5617.76ft :: DLS = 9°/100'									
5,700.00	2.66	176.07	5,654.85	-239.95	-636.54	-638.53	9.00	-6.14	-89.29
5,800.00	9.53	105.56	5,754.31	-244.49	-628.38	-630.41	9.00	6.87	-70.51
5,900.00	18.35	97.57	5,851.28	-248.80	-604.76	-606.82	9.00	8.81	-7.99
6,000.00	27.28	94.69	5,943.36	-252.75	-566.23	-568.33	9.00	8.93	-2.88
6,100.00	36.24	93.16	6,028.30	-256.26	-513.77	-515.90	9.00	8.96	-1.53
6,200.00	45.22	92.17	6,104.00	-259.24	-448.65	-450.81	9.00	8.98	-0.99
6,300.00	54.21	91.45	6,168.60	-261.62	-372.49	-374.66	9.00	8.98	-0.72
6,400.00	63.19	90.87	6,220.50	-263.33	-287.15	-289.34	9.00	8.99	-0.57
6,500.00	72.18	90.39	6,258.43	-264.33	-194.74	-196.94	9.00	8.99	-0.49
6,600.00	81.17	89.94	6,281.45	-264.60	-97.53	-99.74	9.00	8.99	-0.44
6,700.00	90.16	89.52	6,289.00	-264.14	2.08	-0.13	9.00	8.99	-0.42
6,700.87	90.24	89.52	6,289.00	-264.13	2.96	0.74	9.00	8.99	-0.42
End Build @ 6700.87ft									
6,800.00	90.24	89.52	6,288.59	-263.30	102.08	99.87	0.00	0.00	0.00
6,900.00	90.24	89.52	6,288.17	-262.47	202.07	199.87	0.00	0.00	0.00
7,000.00	90.24	89.52	6,287.75	-261.63	302.07	299.87	0.00	0.00	0.00
7,100.00	90.24	89.52	6,287.33	-260.79	402.06	399.87	0.00	0.00	0.00
7,200.00	90.24	89.52	6,286.92	-259.96	502.06	499.87	0.00	0.00	0.00
7,300.00	90.24	89.52	6,286.50	-259.12	602.06	599.86	0.00	0.00	0.00
7,400.00	90.24	89.52	6,286.08	-258.28	702.05	699.86	0.00	0.00	0.00
7,500.00	90.24	89.52	6,285.67	-257.45	802.05	799.86	0.00	0.00	0.00
7,600.00	90.24	89.52	6,285.25	-256.61	902.04	899.86	0.00	0.00	0.00
7,700.00	90.24	89.52	6,284.83	-255.77	1,002.04	999.86	0.00	0.00	0.00
7,800.00	90.24	89.52	6,284.41	-254.94	1,102.03	1,099.86	0.00	0.00	0.00
7,900.00	90.24	89.52	6,284.00	-254.10	1,202.03	1,199.86	0.00	0.00	0.00
8,000.00	90.24	89.52	6,283.58	-253.27	1,302.03	1,299.86	0.00	0.00	0.00
8,100.00	90.24	89.52	6,283.16	-252.43	1,402.02	1,399.86	0.00	0.00	0.00
8,200.00	90.24	89.52	6,282.75	-251.59	1,502.02	1,499.86	0.00	0.00	0.00
8,300.00	90.24	89.52	6,282.33	-250.76	1,602.01	1,599.86	0.00	0.00	0.00
8,400.00	90.24	89.52	6,281.91	-249.92	1,702.01	1,699.85	0.00	0.00	0.00
8,500.00	90.24	89.52	6,281.49	-249.08	1,802.00	1,799.85	0.00	0.00	0.00
8,600.00	90.24	89.52	6,281.08	-248.25	1,902.00	1,899.85	0.00	0.00	0.00
8,700.00	90.24	89.52	6,280.66	-247.41	2,001.99	1,999.85	0.00	0.00	0.00
8,800.00	90.24	89.52	6,280.24	-246.57	2,101.99	2,099.85	0.00	0.00	0.00
8,900.00	90.24	89.52	6,279.83	-245.74	2,201.99	2,199.85	0.00	0.00	0.00
9,000.00	90.24	89.52	6,279.41	-244.90	2,301.98	2,299.85	0.00	0.00	0.00
9,100.00	90.24	89.52	6,278.99	-244.07	2,401.98	2,399.85	0.00	0.00	0.00
9,200.00	90.24	89.52	6,278.57	-243.23	2,501.97	2,499.85	0.00	0.00	0.00
9,300.00	90.24	89.52	6,278.16	-242.39	2,601.97	2,599.85	0.00	0.00	0.00
9,400.00	90.24	89.52	6,277.74	-241.56	2,701.96	2,699.85	0.00	0.00	0.00
9,500.00	90.24	89.52	6,277.32	-240.72	2,801.96	2,799.85	0.00	0.00	0.00
9,600.00	90.24	89.52	6,276.91	-239.88	2,901.96	2,899.84	0.00	0.00	0.00
9,700.00	90.24	89.52	6,276.49	-239.05	3,001.95	2,999.84	0.00	0.00	0.00

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-7
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Site:</b>	TIMBRO 9-59-8B PAD	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
9,800.00	90.24	89.52	6,276.07	-238.21	3,101.95	3,099.84	0.00	0.00	0.00	
9,900.00	90.24	89.52	6,275.65	-237.37	3,201.94	3,199.84	0.00	0.00	0.00	
10,000.00	90.24	89.52	6,275.24	-236.54	3,301.94	3,299.84	0.00	0.00	0.00	
10,100.00	90.24	89.52	6,274.82	-235.70	3,401.93	3,399.84	0.00	0.00	0.00	
10,200.00	90.24	89.52	6,274.40	-234.86	3,501.93	3,499.84	0.00	0.00	0.00	
10,300.00	90.24	89.52	6,273.99	-234.03	3,601.93	3,599.84	0.00	0.00	0.00	
10,400.00	90.24	89.52	6,273.57	-233.19	3,701.92	3,699.84	0.00	0.00	0.00	
10,500.00	90.24	89.52	6,273.15	-232.36	3,801.92	3,799.84	0.00	0.00	0.00	
10,600.00	90.24	89.52	6,272.73	-231.52	3,901.91	3,899.84	0.00	0.00	0.00	
10,700.00	90.24	89.52	6,272.32	-230.68	4,001.91	3,999.83	0.00	0.00	0.00	
10,800.00	90.24	89.52	6,271.90	-229.85	4,101.90	4,099.83	0.00	0.00	0.00	
10,900.00	90.24	89.52	6,271.48	-229.01	4,201.90	4,199.83	0.00	0.00	0.00	
11,000.00	90.24	89.52	6,271.06	-228.17	4,301.89	4,299.83	0.00	0.00	0.00	
11,100.00	90.24	89.52	6,270.65	-227.34	4,401.89	4,399.83	0.00	0.00	0.00	
11,200.00	90.24	89.52	6,270.23	-226.50	4,501.89	4,499.83	0.00	0.00	0.00	
11,300.00	90.24	89.52	6,269.81	-225.66	4,601.88	4,599.83	0.00	0.00	0.00	
11,400.00	90.24	89.52	6,269.40	-224.83	4,701.88	4,699.83	0.00	0.00	0.00	
11,500.00	90.24	89.52	6,268.98	-223.99	4,801.87	4,799.83	0.00	0.00	0.00	
11,600.00	90.24	89.52	6,268.56	-223.16	4,901.87	4,899.83	0.00	0.00	0.00	
11,700.00	90.24	89.52	6,268.14	-222.32	5,001.86	4,999.83	0.00	0.00	0.00	
11,800.00	90.24	89.52	6,267.73	-221.48	5,101.86	5,099.83	0.00	0.00	0.00	
11,900.00	90.24	89.52	6,267.31	-220.65	5,201.86	5,199.82	0.00	0.00	0.00	
12,000.00	90.24	89.52	6,266.89	-219.81	5,301.85	5,299.82	0.00	0.00	0.00	
12,100.00	90.24	89.52	6,266.48	-218.97	5,401.85	5,399.82	0.00	0.00	0.00	
12,200.00	90.24	89.52	6,266.06	-218.14	5,501.84	5,499.82	0.00	0.00	0.00	
12,300.00	90.24	89.52	6,265.64	-217.30	5,601.84	5,599.82	0.00	0.00	0.00	
12,400.00	90.24	89.52	6,265.22	-216.46	5,701.83	5,699.82	0.00	0.00	0.00	
12,500.00	90.24	89.52	6,264.81	-215.63	5,801.83	5,799.82	0.00	0.00	0.00	
12,600.00	90.24	89.52	6,264.39	-214.79	5,901.82	5,899.82	0.00	0.00	0.00	
12,700.00	90.24	89.52	6,263.97	-213.95	6,001.82	5,999.82	0.00	0.00	0.00	
12,800.00	90.24	89.52	6,263.56	-213.12	6,101.82	6,099.82	0.00	0.00	0.00	
12,900.00	90.24	89.52	6,263.14	-212.28	6,201.81	6,199.82	0.00	0.00	0.00	
13,000.00	90.24	89.52	6,262.72	-211.45	6,301.81	6,299.81	0.00	0.00	0.00	
13,100.00	90.24	89.52	6,262.30	-210.61	6,401.80	6,399.81	0.00	0.00	0.00	
13,200.00	90.24	89.52	6,261.89	-209.77	6,501.80	6,499.81	0.00	0.00	0.00	
13,300.00	90.24	89.52	6,261.47	-208.94	6,601.79	6,599.81	0.00	0.00	0.00	
13,400.00	90.24	89.52	6,261.05	-208.10	6,701.79	6,699.81	0.00	0.00	0.00	
13,500.00	90.24	89.52	6,260.64	-207.26	6,801.79	6,799.81	0.00	0.00	0.00	
13,600.00	90.24	89.52	6,260.22	-206.43	6,901.78	6,899.81	0.00	0.00	0.00	
13,700.00	90.24	89.52	6,259.80	-205.59	7,001.78	6,999.81	0.00	0.00	0.00	
13,800.00	90.24	89.52	6,259.38	-204.75	7,101.77	7,099.81	0.00	0.00	0.00	
13,900.00	90.24	89.52	6,258.97	-203.92	7,201.77	7,199.81	0.00	0.00	0.00	
14,000.00	90.24	89.52	6,258.55	-203.08	7,301.76	7,299.81	0.00	0.00	0.00	
14,100.00	90.24	89.52	6,258.13	-202.25	7,401.76	7,399.81	0.00	0.00	0.00	
14,200.00	90.24	89.52	6,257.72	-201.41	7,501.75	7,499.80	0.00	0.00	0.00	
14,300.00	90.24	89.52	6,257.30	-200.57	7,601.75	7,599.80	0.00	0.00	0.00	
14,400.00	90.24	89.52	6,256.88	-199.74	7,701.75	7,699.80	0.00	0.00	0.00	
14,500.00	90.24	89.52	6,256.46	-198.90	7,801.74	7,799.80	0.00	0.00	0.00	
14,600.00	90.24	89.52	6,256.05	-198.06	7,901.74	7,899.80	0.00	0.00	0.00	
14,700.00	90.24	89.52	6,255.63	-197.23	8,001.73	7,999.80	0.00	0.00	0.00	
14,800.00	90.24	89.52	6,255.21	-196.39	8,101.73	8,099.80	0.00	0.00	0.00	
14,900.00	90.24	89.52	6,254.80	-195.55	8,201.72	8,199.80	0.00	0.00	0.00	
15,000.00	90.24	89.52	6,254.38	-194.72	8,301.72	8,299.80	0.00	0.00	0.00	
15,100.00	90.24	89.52	6,253.96	-193.88	8,401.72	8,399.80	0.00	0.00	0.00	

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## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-7
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5069.00usft (RIG)
<b>Site:</b>	TIMBRO 9-59-8B PAD	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
15,200.00	90.24	89.52	6,253.54	-193.04	8,501.71	8,499.80	0.00	0.00	0.00	
15,300.00	90.24	89.52	6,253.13	-192.21	8,601.71	8,599.79	0.00	0.00	0.00	
15,400.00	90.24	89.52	6,252.71	-191.37	8,701.70	8,699.79	0.00	0.00	0.00	
15,500.00	90.24	89.52	6,252.29	-190.54	8,801.70	8,799.79	0.00	0.00	0.00	
15,600.00	90.24	89.52	6,251.88	-189.70	8,901.69	8,899.79	0.00	0.00	0.00	
15,700.00	90.24	89.52	6,251.46	-188.86	9,001.69	8,999.79	0.00	0.00	0.00	
15,800.00	90.24	89.52	6,251.04	-188.03	9,101.69	9,099.79	0.00	0.00	0.00	
15,900.00	90.24	89.52	6,250.62	-187.19	9,201.68	9,199.79	0.00	0.00	0.00	
16,000.00	90.24	89.52	6,250.21	-186.35	9,301.68	9,299.79	0.00	0.00	0.00	
16,100.00	90.24	89.52	6,249.79	-185.52	9,401.67	9,399.79	0.00	0.00	0.00	
16,200.00	90.24	89.52	6,249.37	-184.68	9,501.67	9,499.79	0.00	0.00	0.00	
16,289.32	90.24	89.52	6,249.00	-183.93	9,590.98	9,589.10	0.00	0.00	0.00	
TD Well @ 16289.32ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,709.52	1,700.00	9 5/8"		9-5/8	13-1/2

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
400.00	400.00	+N/-S (usft)	+E/-W (usft)	Begin Nudge @ 400.00ft	
785.50	784.34	-9.07	-24.26	Hold Tangent @ 785.50ft	
5,617.76	5,572.91	-236.11	-631.50	KOP @ 5617.76ft :: DLS = 9°/100'	
6,700.87	6,289.00	-264.13	2.96	End Build @ 6700.87ft	
16,289.32	6,249.00	-183.93	9,590.98	TD Well @ 16289.32ft	