

# **Buckeye Oil Producing**

**Calhoun, West Virginia**

**Buckeye #2H**

**Buckeye #2H**

**Wellbore #1**

**Design: Wellbore #1**

## **DDC Survey Report**

**21 October, 2013**



**08/12/2022**

DDC  
Survey Report



**Company:** Buckeye Oil Producing  
**Project:** Calhoun, West Virginia  
**Site:** Buckeye #2H  
**Well:** Buckeye #2H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Buckeye #2H  
**TVD Reference:** WELL @ 0.0usft (Original Well Elev)  
**MD Reference:** WELL @ 0.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

<b>Project</b>	Calhoun, West Virginia		
<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>	West Virginia Southern Zone		

<b>Site</b>	Buckeye #2H				
<b>Site Position:</b>		<b>Northing:</b>	722,887.45 usft	<b>Latitude:</b>	38° 59' 6.252 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,938,553.26 usft	<b>Longitude:</b>	81° 6' 19.242 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.07 °

<b>Well</b>	Buckeye #2H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	722,887.44 usft	<b>Latitude:</b>	38° 59' 6.252 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,938,553.26 usft	<b>Longitude:</b>	81° 6' 19.242 W
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	0.0 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>
	IGRF2010	6/13/2013	-8.14	66.71	52,307

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	283.13	

<b>Survey Program</b>	<b>Date</b>	10/21/2013			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
1,703.0	3,953.0	MWD (Wellbore #1)	MWD default	MWD - Standard	

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	
<b>FIRST MWD SURVEY @ 1703' MD / 1703' TVD</b>										
1,703.0	0.00	0.00	1,703.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,733.0	0.60	288.30	1,733.0	0.0	-0.1	0.2	2.00	2.00	0.00	
1,763.0	1.70	290.30	1,763.0	0.3	-0.7	0.8	3.67	3.67	6.67	
1,793.0	3.90	296.10	1,793.0	0.9	-2.0	2.2	7.38	7.33	19.33	
1,823.0	5.90	297.20	1,822.8	2.0	-4.3	4.7	6.67	6.67	3.67	
1,853.0	8.10	297.00	1,852.6	3.7	-7.6	8.2	7.33	7.33	-0.67	
1,883.0	10.80	296.10	1,882.2	5.9	-12.0	13.0	9.01	9.00	-3.00	
1,913.0	14.20	293.80	1,911.5	8.6	-17.9	19.4	11.45	11.33	-7.67	
1,943.0	17.50	291.30	1,940.3	11.7	-25.5	27.5	11.23	11.00	-8.33	

DDC  
Survey Report



**Company:** Buckeye Oil Producing  
**Project:** Calhoun, West Virginia  
**Site:** Buckeye #2H  
**Well:** Buckeye #2H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Buckeye #2H  
**TVD Reference:** WELL @ 0.0usft (Original Well Elev)  
**MD Reference:** WELL @ 0.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

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)
1,973.0	19.80	288.80	1,968.8	15.0	-34.5	37.0	8.11	7.67	-8.33
2,003.0	22.00	284.60	1,996.8	18.0	-44.7	47.7	8.87	7.33	-14.00
2,033.0	21.80	281.60	2,024.6	20.6	-55.6	58.8	3.79	-0.67	-10.00
2,063.0	21.60	278.60	2,052.5	22.5	-66.5	69.9	3.76	-0.67	-10.00
2,093.0	22.70	274.90	2,080.3	23.9	-77.8	81.2	5.92	3.67	-12.33
2,123.0	24.60	275.30	2,107.8	24.9	-89.8	93.1	6.36	6.33	1.33
2,153.0	25.60	276.30	2,134.9	26.2	-102.4	105.7	3.62	3.33	3.33
2,183.0	27.40	275.80	2,161.8	27.6	-115.7	119.0	6.05	6.00	-1.67
2,213.0	29.00	273.10	2,188.2	28.7	-129.9	133.0	6.82	5.33	-9.00
2,243.0	32.50	271.50	2,214.0	29.3	-145.2	148.0	11.98	11.67	-5.33
2,273.0	36.20	271.70	2,238.8	29.8	-162.1	164.6	12.34	12.33	0.67
2,303.0	39.00	270.90	2,262.5	30.2	-180.4	182.5	9.47	9.33	-2.67
2,333.0	41.20	270.80	2,285.5	30.5	-199.7	201.4	7.34	7.33	-0.33
2,363.0	43.60	269.30	2,307.6	30.5	-219.9	221.1	8.68	8.00	-5.00
2,393.0	47.60	268.70	2,328.6	30.1	-241.4	241.9	13.41	13.33	-2.00
2,423.0	52.10	269.10	2,348.0	29.7	-264.3	264.1	15.03	15.00	1.33
2,453.0	57.60	270.20	2,365.2	29.5	-288.8	288.0	18.58	18.33	3.67
2,483.0	63.10	270.80	2,380.1	29.8	-314.9	313.4	18.42	18.33	2.00
2,513.0	67.80	270.70	2,392.5	30.1	-342.1	340.0	15.67	15.67	-0.33
2,543.0	72.40	269.70	2,402.7	30.2	-370.3	367.5	15.65	15.33	-3.33
2,573.0	76.40	268.40	2,410.8	29.7	-399.2	395.5	13.97	13.33	-4.33
2,603.0	80.30	268.00	2,416.9	28.8	-428.6	423.9	13.07	13.00	-1.33
2,633.0	84.90	268.50	2,420.7	27.9	-458.3	452.7	15.42	15.33	1.67
2,663.0	89.50	268.60	2,422.2	27.2	-488.3	481.7	15.34	15.33	0.33
2,693.0	91.80	267.90	2,421.8	26.2	-518.2	510.7	8.01	7.67	-2.33
2,723.0	92.40	268.40	2,420.7	25.3	-548.2	539.6	2.60	2.00	1.67
2,753.0	93.70	267.40	2,419.1	24.2	-578.1	568.5	5.46	4.33	-3.33
2,783.0	93.50	267.00	2,417.3	22.7	-608.1	597.3	1.49	-0.67	-1.33
2,813.0	93.60	267.20	2,415.4	21.2	-638.0	626.1	0.74	0.33	0.67
2,843.0	93.80	266.40	2,413.5	19.5	-667.8	654.8	2.74	0.67	-2.67
2,873.0	93.90	266.40	2,411.5	17.6	-697.7	683.5	0.33	0.33	0.00
2,903.0	93.60	266.40	2,409.5	15.8	-727.6	712.2	1.00	-1.00	0.00
2,933.0	93.10	266.20	2,407.7	13.8	-757.5	740.8	1.79	-1.67	-0.67
2,963.0	93.20	266.30	2,406.1	11.9	-787.4	769.5	0.47	0.33	0.33
2,993.0	93.00	266.10	2,404.5	9.9	-817.3	798.1	0.94	-0.67	-0.67
3,023.0	92.60	265.50	2,403.0	7.7	-847.1	826.7	2.40	-1.33	-2.00
3,053.0	92.20	265.80	2,401.7	5.4	-877.0	855.3	1.67	-1.33	1.00
3,083.0	93.30	265.20	2,400.3	3.1	-906.9	883.9	4.18	3.67	-2.00
3,113.0	95.10	264.40	2,398.1	0.4	-936.7	912.3	6.56	6.00	-2.67
3,143.0	95.10	264.10	2,395.4	-2.6	-966.4	940.6	1.00	0.00	-1.00
3,173.0	94.50	263.80	2,392.9	-5.8	-996.2	968.8	2.23	-2.00	-1.00
3,203.0	94.40	263.70	2,390.6	-9.0	-1,025.9	997.0	0.47	-0.33	-0.33
3,233.0	94.10	263.30	2,388.4	-12.4	-1,055.6	1,025.2	1.66	-1.00	-1.33

DDC  
Survey Report



**Company:** Buckeye Oil Producing  
**Project:** Calhoun, West Virginia  
**Site:** Buckeye #2H  
**Well:** Buckeye #2H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Buckeye #2H  
**TVD Reference:** WELL @ 0.0usft (Original Well Elev)  
**MD Reference:** WELL @ 0.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

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)
3,263.0	94.00	263.40	2,386.3	-15.9	-1,085.3	1,053.4	0.47	-0.33	0.33
3,293.0	94.60	264.10	2,384.0	-19.2	-1,115.1	1,081.6	3.07	2.00	2.33
3,323.0	94.80	264.10	2,381.6	-22.2	-1,144.8	1,109.8	0.67	0.67	0.00
3,353.0	95.10	263.70	2,379.0	-25.4	-1,174.5	1,138.1	1.66	1.00	-1.33
3,383.0	93.40	263.30	2,376.7	-28.8	-1,204.3	1,166.2	5.82	-5.67	-1.33
3,413.0	90.70	262.80	2,375.7	-32.4	-1,234.0	1,194.4	9.15	-9.00	-1.67
3,443.0	91.00	263.00	2,375.2	-36.1	-1,263.8	1,222.5	1.20	1.00	0.67
3,473.0	91.90	263.80	2,374.5	-39.6	-1,293.6	1,250.8	4.01	3.00	2.67
3,503.0	92.50	265.20	2,373.3	-42.4	-1,323.4	1,279.2	5.07	2.00	4.67
3,533.0	92.40	265.60	2,372.0	-44.8	-1,353.3	1,307.7	1.37	-0.33	1.33
3,563.0	91.70	266.60	2,371.0	-46.9	-1,383.2	1,336.4	4.07	-2.33	3.33
3,593.0	90.80	268.00	2,370.3	-48.3	-1,413.2	1,365.2	5.55	-3.00	4.67
3,623.0	88.70	269.60	2,370.4	-48.9	-1,443.2	1,394.3	8.80	-7.00	5.33
3,653.0	89.30	270.30	2,371.0	-49.0	-1,473.1	1,423.5	3.07	2.00	2.33
3,683.0	89.80	271.50	2,371.2	-48.5	-1,503.1	1,452.8	4.33	1.67	4.00
3,713.0	90.00	273.20	2,371.2	-47.3	-1,533.1	1,482.3	5.71	0.67	5.67
3,743.0	90.30	274.60	2,371.2	-45.2	-1,563.0	1,511.9	4.77	1.00	4.67
3,773.0	88.80	275.60	2,371.4	-42.5	-1,592.9	1,541.6	6.01	-5.00	3.33
3,803.0	87.10	276.30	2,372.5	-39.4	-1,622.7	1,571.4	6.13	-5.67	2.33
3,833.0	86.40	275.90	2,374.2	-36.3	-1,652.5	1,601.1	2.69	-2.33	-1.33
3,863.0	86.60	275.80	2,376.0	-33.2	-1,682.3	1,630.8	0.75	0.67	-0.33
3,893.0	86.90	276.50	2,377.7	-30.0	-1,712.1	1,660.5	2.54	1.00	2.33
3,923.0	87.00	276.40	2,379.3	-26.6	-1,741.9	1,690.3	0.47	0.33	-0.33
<b>TD @ 3953' MD / 2380.8' TVD</b>									
3,953.0	87.20	276.40	2,380.8	-23.3	-1,771.6	1,720.0	0.67	0.67	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,703.0	1,703.0	0.0	0.0	FIRST MWD SURVEY @ 1703' MD / 1703' TVD
3,953.0	2,380.8	-23.3	-1,771.6	TD @ 3953' MD / 2380.8' TVD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

