



**Scientific Drilling**

## **Oxy USA Inc.**

**Haskell County Kansas**

**Section 24 - 30S - 33W**

**Stapleton "A" #1**

**Sidetrack Wellpath**

**Design: Sidetrack Wellpath**

# **EOW Completion Report**

**16 October, 2012**



<b>Company:</b>	Oxy USA Inc.	<b>Local Co-ordinate Reference:</b>	Well Stapleton "A" #1
<b>Project:</b>	Haskell County Kansas	<b>TVD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930
<b>Site:</b>	Section 24 - 30S - 33W	<b>MD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930
<b>Well:</b>	Stapleton "A" #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack Wellpath	<b>Database:</b>	EDMOKC

<b>Project</b>	Haskell County Kansas, Haskell County Kansas, South Kansas		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Kansas South 1502		

<b>Site</b>	Section 24 - 30S - 33W, SHL of Stapleton "A" #1H				
<b>Site Position:</b>		<b>Northing:</b>	283,490.21 usft	<b>Latitude:</b>	37° 25' 15.938 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,310,034.06 usft	<b>Longitude:</b>	100° 52' 33.824 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	-1.46 °

<b>Well</b>	Stapleton "A" #1					
<b>Well Position</b>	<b>+N-S</b>	0.0 usft	<b>Northing:</b>	283,490.21 usft	<b>Latitude:</b>	37° 25' 15.938 N
	<b>+E-W</b>	0.0 usft	<b>Easting:</b>	1,310,034.06 usft	<b>Longitude:</b>	100° 52' 33.824 W
<b>Position Uncertainty</b>		2.0 usft	<b>Wellhead Elevation:</b>	2,930.7 usft	<b>Ground Level:</b>	2,916.7 usft

<b>Wellbore</b>	Sidetrack Wellpath				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2012	10/11/2012	6.43	65.17	51,743

<b>Design</b>	Sidetrack Wellpath				
<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	180.00	

<b>Survey Program</b>	<b>Date</b>	10/16/2012			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
1,030.0	2,786.0	Survey #1 (Sidetrack Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

<b>Survey</b>									
<b>MD (usft)</b>	<b>Inc (°)</b>	<b>Azi (azimuth) (°)</b>	<b>TVD (usft)</b>	<b>N/S (usft)</b>	<b>E/W (usft)</b>	<b>V. Sec (usft)</b>	<b>DLeg (°/100usft)</b>		
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.00	
1,030.0	0.75	0.00	1,030.0	6.7	0.0	-6.7	0.07		
1,774.0	0.25	0.00	1,773.9	13.2	0.0	-13.2	0.07		
1,943.0	0.90	82.00	1,942.9	13.8	1.3	-13.8	0.53		
2,112.0	1.22	116.98	2,111.9	13.2	4.2	-13.2	0.42		
2,144.0	1.85	155.72	2,143.9	12.5	4.7	-12.5	3.68		
2,175.0	3.14	171.70	2,174.9	11.2	5.1	-11.2	4.69		
2,207.0	4.66	177.63	2,206.8	9.1	5.3	-9.1	4.91		
2,238.0	5.83	182.36	2,237.7	6.2	5.2	-6.2	4.02		
2,269.0	6.02	182.61	2,268.5	3.0	5.1	-3.0	0.62		
2,301.0	5.82	181.60	2,300.3	-0.3	5.0	0.3	0.70		
2,332.0	6.10	181.43	2,331.2	-3.5	4.9	3.5	0.91		

<b>Company:</b>	Oxy USA Inc.	<b>Local Co-ordinate Reference:</b>	Well Stapleton "A" #1
<b>Project:</b>	Haskell County Kansas	<b>TVD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930
<b>Site:</b>	Section 24 - 30S - 33W	<b>MD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930
<b>Well:</b>	Stapleton "A" #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack Wellpath	<b>Database:</b>	EDMOKC

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
2,364.0	5.89	183.49	2,363.0	-6.8	4.8	6.8	0.94		
2,395.0	6.15	182.63	2,393.8	-10.1	4.6	10.1	0.89		
2,427.0	5.91	179.31	2,425.6	-13.4	4.5	13.4	1.32		
2,458.0	6.16	178.30	2,456.5	-16.7	4.6	16.7	0.88		
2,490.0	5.94	174.65	2,488.3	-20.0	4.8	20.0	1.38		
2,521.0	5.04	168.05	2,519.1	-23.0	5.2	23.0	3.54		
2,553.0	4.78	169.20	2,551.0	-25.7	5.8	25.7	0.87		
2,584.0	3.63	166.32	2,581.9	-27.9	6.2	27.9	3.77		
2,616.0	3.02	162.65	2,613.9	-29.7	6.7	29.7	2.02		
2,647.0	2.54	149.04	2,644.8	-31.0	7.3	31.0	2.62		
2,678.0	2.19	129.90	2,675.8	-32.0	8.1	32.0	2.77		
2,710.0	2.28	112.92	2,707.8	-32.6	9.2	32.6	2.08		
2,735.0	1.82	103.45	2,732.8	-32.9	10.0	32.9	2.28		
2,786.0	1.01	103.45	2,783.8	-33.2	11.3	33.2	1.59		

Checked By: _____	Approved By: _____	Date: _____
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**Scientific Drilling**

## **Oxy USA Inc.**

**Haskell County Kansas  
Section 24 - 30S - 33W  
Stapleton "A" #1**

**Sidetrack Wellpath**

**Design: Sidetrack Wellpath**

## **Survey Report - Geographic**

**16 October, 2012**



<b>Company:</b>	Oxy USA Inc.	<b>Local Co-ordinate Reference:</b>	Well Stapleton "A" #1
<b>Project:</b>	Haskell County Kansas	<b>TVD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930.7usft (Original Well Elev)
<b>Site:</b>	Section 24 - 30S - 33W	<b>MD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930.7usft (Original Well Elev)
<b>Well:</b>	Stapleton "A" #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack Wellpath	<b>Database:</b>	EDMOKC

<b>Project</b>	Haskell County Kansas, Haskell County Kansas, South Kansas		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Kansas South 1502		

<b>Site</b>	Section 24 - 30S - 33W, SHL of Stapleton "A" #1H				
<b>Site Position:</b>		<b>Northing:</b>	283,490.21 usft	<b>Latitude:</b>	37° 25' 15.938 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,310,034.06 usft	<b>Longitude:</b>	100° 52' 33.824 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-1.46 °

<b>Well</b>	Stapleton "A" #1					
<b>Well Position</b>	<b>+N-S</b>	0.0 usft	<b>Northing:</b>	283,490.21 usft	<b>Latitude:</b>	37° 25' 15.938 N
	<b>+E-W</b>	0.0 usft	<b>Easting:</b>	1,310,034.06 usft	<b>Longitude:</b>	100° 52' 33.824 W
<b>Position Uncertainty</b>		2.0 usft	<b>Wellhead Elevation:</b>	2,930.7 usft	<b>Ground Level:</b>	2,916.7 usft

<b>Wellbore</b>	Sidetrack Wellpath				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2012	10/11/2012	6.43	65.17	51,743

<b>Design</b>	Sidetrack Wellpath				
<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	180.00	

<b>Survey Program</b>	<b>Date</b>	10/16/2012			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
1,030.0	2,786.0	Survey #1 (Sidetrack Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

<b>Survey</b>									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	283,490.21	1,310,034.06	37° 25' 15.938 N	100° 52' 33.824 W
1,030.0	0.75	0.00	1,030.0	6.7	0.0	283,496.95	1,310,034.06	37° 25' 16.005 N	100° 52' 33.827 W
1,774.0	0.25	0.00	1,773.9	13.2	0.0	283,503.44	1,310,034.06	37° 25' 16.069 N	100° 52' 33.829 W
1,943.0	0.90	82.00	1,942.9	13.8	1.3	283,504.00	1,310,035.37	37° 25' 16.075 N	100° 52' 33.812 W
2,112.0	1.22	116.98	2,111.9	13.2	4.2	283,503.37	1,310,038.29	37° 25' 16.069 N	100° 52' 33.776 W
2,144.0	1.85	155.72	2,143.9	12.5	4.7	283,502.74	1,310,038.81	37° 25' 16.063 N	100° 52' 33.770 W
2,175.0	3.14	171.70	2,174.9	11.2	5.1	283,501.44	1,310,039.14	37° 25' 16.051 N	100° 52' 33.765 W
2,207.0	4.66	177.63	2,206.8	9.1	5.3	283,499.28	1,310,039.32	37° 25' 16.029 N	100° 52' 33.762 W
2,238.0	5.83	182.36	2,237.7	6.2	5.2	283,496.45	1,310,039.30	37° 25' 16.001 N	100° 52' 33.761 W
2,269.0	6.02	182.61	2,268.5	3.0	5.1	283,493.25	1,310,039.16	37° 25' 15.970 N	100° 52' 33.762 W

<b>Company:</b>	Oxy USA Inc.	<b>Local Co-ordinate Reference:</b>	Well Stapleton "A" #1
<b>Project:</b>	Haskell County Kansas	<b>TVD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930.7usft (Original Well Elev)
<b>Site:</b>	Section 24 - 30S - 33W	<b>MD Reference:</b>	Stapleton "A" #1H 2916.66' GL + 14' KB= @ 2930.7usft (Original Well Elev)
<b>Well:</b>	Stapleton "A" #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack Wellpath	<b>Database:</b>	EDMOKC

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,301.0	5.82	181.60	2,300.3	-0.3	5.0	283,489.95	1,310,039.04	37° 25' 15.937 N	100° 52' 33.763 W
2,332.0	6.10	181.43	2,331.2	-3.5	4.9	283,486.73	1,310,038.96	37° 25' 15.905 N	100° 52' 33.763 W
2,364.0	5.89	183.49	2,363.0	-6.8	4.8	283,483.40	1,310,038.82	37° 25' 15.872 N	100° 52' 33.763 W
2,395.0	6.15	182.63	2,393.8	-10.1	4.6	283,480.15	1,310,038.64	37° 25' 15.840 N	100° 52' 33.764 W
2,427.0	5.91	179.31	2,425.6	-13.4	4.5	283,476.79	1,310,038.58	37° 25' 15.807 N	100° 52' 33.764 W
2,458.0	6.16	178.30	2,456.5	-16.7	4.6	283,473.53	1,310,038.65	37° 25' 15.775 N	100° 52' 33.762 W
2,490.0	5.94	174.65	2,488.3	-20.0	4.8	283,470.17	1,310,038.86	37° 25' 15.741 N	100° 52' 33.759 W
2,521.0	5.04	168.05	2,519.1	-23.0	5.2	283,467.24	1,310,039.29	37° 25' 15.713 N	100° 52' 33.752 W
2,553.0	4.78	169.20	2,551.0	-25.7	5.8	283,464.55	1,310,039.83	37° 25' 15.686 N	100° 52' 33.745 W
2,584.0	3.63	166.32	2,581.9	-27.9	6.2	283,462.33	1,310,040.30	37° 25' 15.664 N	100° 52' 33.738 W
2,616.0	3.02	162.65	2,613.9	-29.7	6.7	283,460.54	1,310,040.79	37° 25' 15.647 N	100° 52' 33.732 W
2,647.0	2.54	149.04	2,644.8	-31.0	7.3	283,459.17	1,310,041.39	37° 25' 15.633 N	100° 52' 33.724 W
2,678.0	2.19	129.90	2,675.8	-32.0	8.1	283,458.20	1,310,042.20	37° 25' 15.624 N	100° 52' 33.713 W
2,710.0	2.28	112.92	2,707.8	-32.6	9.2	283,457.56	1,310,043.25	37° 25' 15.618 N	100° 52' 33.700 W
2,735.0	1.82	103.45	2,732.8	-32.9	10.0	283,457.28	1,310,044.10	37° 25' 15.615 N	100° 52' 33.690 W
2,786.0	1.01	103.45	2,783.8	-33.2	11.3	283,456.98	1,310,045.32	37° 25' 15.613 N	100° 52' 33.674 W

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



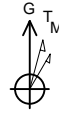
Oxy USA Inc.  
 Stapleton "A" #1  
 Haskell County Kansas  
 Northing: 283490.21  
 Easting: 1310034.06  
 Sidetrack Wellpath

**WELL DETAILS:** Stapleton "A" #1

+N/-S	+E/-W	Northing	Ground Level	2916.7	Latitude	Longitude	Slot
0.0	0.0	283490.21	Easting	1310034.06	37° 25' 15.938 N	100° 52' 33.824 W	

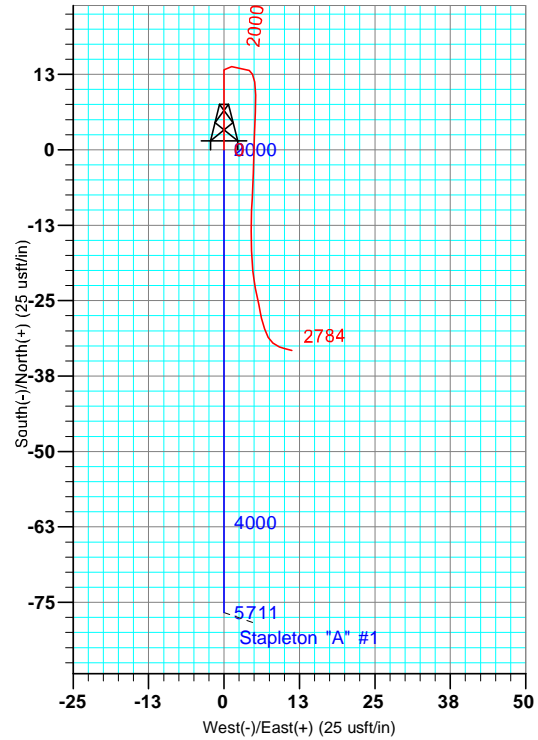
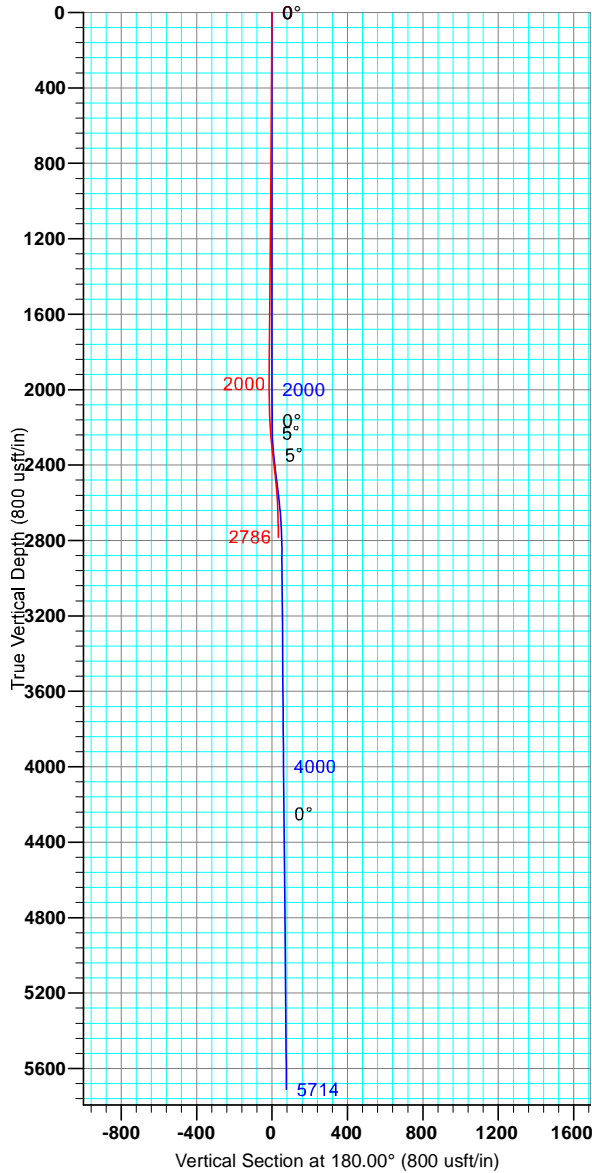
**DESIGN TARGET DETAILS**

No target data is available.



Azimuths to Grid North  
 True North: 1.46°  
 Magnetic North: 7.89°

Magnetic Field  
 Strength: 51742.5nT  
 Dip Angle: 65.17°  
 Date: 10/11/2012  
 Model: BGGM2012



**LEGEND**

- Stapleton "A" #1, Sidetrack Wellpath, Plan #3 V0
- Sidetrack Wellpath

**SITE DETAILS:** Section 24 - 30S - 33W

SHL of Stapleton "A" #1H  
 Site Center: 1596' FEL 1572' FSL  
 Site Centre Northing: 283490.21  
 Easting: 1310034.06

Positional Uncertainty: 0.0  
 Convergence: -1.46  
 Local North: Grid

**PROJECT DETAILS:** Haskell County Kansas

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Kansas South 1502  
 System Datum: Mean Sea Level

**FORMATION TOP DETAILS**  
 No formation data is available

**SECTION DETAILS:**

No plan data is available



Jameson Shadid  
 15:29, October 16 2012

Scientific Drilling  
 421 South Eagle Lane  
 Oklahoma City, OK