Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1071104

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 5447
Name: OXY USA Inc.
Address 1: 5 E GREENWAY PLZ
Address 2: PO BOX 27570
City: HOUSTON State: TX Zip: 77227 + 7570
Contact Person: LAURA BETH HICKERT
Phone: (620) 629-4253
CONTRACTOR: License # 33784
Name: Trinidad Drilling Limited Partnership
Wellsite Geologist: N/A
Purchaser:

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:
Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

09/02/2011 Spud Date or Recompletion Date
09/09/2011 Date Reached TD
11/22/2011 Completion Date or Recompletion Date

API No. 15 - 15-081-21961-01-00
Spot Description:
NE - SW - SE - SE Sec. 3 Twp. 30 S. R. 32 ☐ East ☑ West
449 Feet from ☐ North / ☑ South Line of Section
828 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Haskell
Lease Name: LONGBOTHAM Well #: 7
Field Name: DIADEN
Producing Formation: ST. LOUIS
Elevation: Ground: 2887 Kelly Bushing: 2898
Total Vertical Depth: 6033 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1822 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 6700 ppm Fluid volume: 3000 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: HAYDEN OPERATING
Lease Name: LIZ SMITH License #: 33562
Quarter NE Sec. 26 Twp. 30 S. R. 34 ☐ East ☑ West
County: HASKELL Permit #: D26802

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 12/30/2011
☑ **Confidential Release Date:** 12/29/2013
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** Deanna Garrison **Date:** 01/06/2012

[redacted] 1071104

Operator Name: OXY USA Inc. Lease Name: LONGBOTHAM Well #: 7

Sec. 3 Twp. 30 S. R. 32 ☐ East ☑ West County: Haskell

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
CONDUCTOR	26	16	0	40	GROUT	0	4 YARDS UNKNOWN
SURFACE	12.25	8.625	24	1822	A-CON/PREM PLUS	585	SEE ATTACHED
PRODUCTION	7.875	5.5	17	6018	50-50 POZ	350	SEE ATTACHED

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	5952-5958 ST. LOUIS	12 BBL 7% KCL	5952-5958
		ACID 24 BBL 15% FLUSH 36 BBL 7% KCL	5952-5958
	CIBP @ 5930		5930
4	5886-5894 ST. LOUIS	FRAC 340 BBL 4% KCL WATER 70Q FOAM	5886-5894
		643000 SCF NE2 50800# 20/40 SAND	

TUBING RECORD: Size: 2.875 Set At: 5850 Packer At:

Liner Run: ☑ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 11/22/2011

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	61	70	10	1148	

DISPOSITION OF GAS: ☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL: ST. LOUIS

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	OXY USA Inc.
Well Name	LONGBOTHAM 7
Doc ID	1071104

All Electric Logs Run

CEMENT BOND LOG
COMPACT PHOTO DENSITY COMPENSATED NEUTRON MICRO RESISTIVITY
ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG
COMPENSATED SONIC WITH INTEGRATED TRANSIT TIME

Form	ACO1 - Well Completion
Operator	OXY USA Inc.
Well Name	LONGBOTHAM 7
Doc ID	1071104

Tops

Name	Top	Datum
HEEBNER	4329	
LANSING	4405	
SWOPE	4922	
MARMATON	5105	
CHEROKEE	5283	
ATOKA	5467	
MORROW	5590	
CHESTER	5631	
ST. GENEVIEVE	5773	
ST. LOUIS	5851	

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
P.O. Box 129
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 02445 A

DATE TICKET NO.

DATE OF JOB 9-5-11 DISTRICT 1717	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Oxy	LEASE Longbotham 7 WELL NO.
ADDRESS	COUNTY Haskell STATE KS
CITY STATE	SERVICE CREW I. Chavez, Adan, Ruben, Abel
AUTHORIZED BY Jay Bennett JRB	JOB TYPE: 242 8 5/8 Surface

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19820	7	19828	7	14355	7
		19883	2	14284	2
27462	7				

	DATE	TIME
TRUCK CALLED	9-4-11	AM PM - 1000
ARRIVED AT JOB	9-4-11	AM PM - 1130
START OPERATION	9-5-11	AM PM - 1230
FINISH OPERATION	9-5-11	AM PM - 300
RELEASED	9-5-11	AM PM - 400
MILES FROM STATION TO WELL	55	

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Jeff Wells
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CL101	Alon Blend	SK	340		6324 00
CL110	Premium Plus Cement	SK	245		3993 50
CC109	Calcium Chloride	lb	1422		1493 10
CC102	Cello Flake	lb	147		543 90
CC130	C-51	lb	64		1600 00
CF1203	AFU Float Shoe	EA	1		1025 00
CF1363	AFU Collar	EA	1		1275 00
CF1773	Centralizer 8 5/8	EA	15		2175 00
CF1903	8 5/8 Basket	EA	1		315 00
CF503	8 5/8 Stop Ring	EA	1		44 00
CF105	Rubber Plug	EA	1		225 00
E101	Heavy Equipment Mileage	mi	165		1155 00
CE240	Blending & Mixing Charge	SK	585		819 00
E113	Bulk Delivery Charge	tm	1516		2425 60
CE202	Depth Charge	4 hrs	1		1500 00
CE504	Plug Container Charge	job	1		250 00
E100	Pickup Mileage	mi	55		233 75
S003	Service Supervisor	EA	1		175 00
T105	Cement Data Acquisition Monitor	EA	1		550 00
				SUB TOTAL	21097 04

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT %TAX ON $
MATERIALS %TAX ON $
TOTAL

AP LOCATION/COST Liberal DEPARTMENT D02
LEASE/MATERIALS Longbotham #7
MAXIMO / WSM #
TASK 02 ELEMENT 3023
PROJECT # 1135071 CAPEX / OPEX - Circle one
SPO / BPA UNSUPPORTED

SERVICE REPRESENTATIVE I. Chavez

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
PRINTED NAME Jeff Wells
SIGNATURE (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)
I certify that these services have been received

FIELD SERVICE ORDER NO.

FIELD SERVICE TICKET CONT.

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
P.O. Box 129
Liberal, Kansas 67905
Phone 620-624-2277

TICKET NO. 2445

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
5008	Field Personnel Holiday Subsistance, per man	EA	4		2000 00

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Oxy	Lease No.	Date 9-5-11
Lease Longbotham	Well # 7	Service Receipt 02445
Casing 8 5/8 24# Depth 1806	County Haskell	State KS
Job Type 7 42 Surface	Formation	Legal Description

Pipe Data

Casing size 8 5/8 24#	Tubing Size
Depth 1811	~~Depth~~ S.J. 45
Volume 112.2 bbls	Volume
Max Press 1500	Max Press
Well Connection 8 5/8	Annulus Vol.
Plug Depth 1761	Packer Depth

Perforating Data

Shots/Ft		
	From	To
	From	To
	From	To
	From	To
	From	To

Cement Data

Lead 340sk A-Con
2.4ft3/sk 12.1#
14.6gal-sk

Tail in 245sk Prem Plus
1.34ft3/sk 14.8#
6.33gal-sk

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log Yard 1000 PM
1130					Arrive On Location
1135					Safety Meeting Rig Up
1130					Rig Running Casing
1210					Circulate w/ Rig
100					Hookup To BES
115	1800		1.0	1.0	Pressure Test
130	250		145	5.5	Pump Lead cmt @ 12.1#
200	200		58	4.0	Pump Tail cmt @ 14.8#
210					Drop Plug - Wash Up
215	700		102	5.5	Displace
250	800		10	2.0	Slow Down
300	1400		.5	.1	Land Plug - Float Held
					Job Complete
					Cement To Surface
					Thanks For Using Basic Energy Services

Service Units	19820	27402	19828-19883	14355-14784		
Driver Names	E. Chavez	Adam	Abel	Ruben		

Terry
Customer Representative

Jerry Bentley
Station Manager

Ismael Chavez
Cementer

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
P.O. Box 129
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 02126 A

DATE TICKET NO.

DATE OF JOB 9-11-11 DISTRICT 1717	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Oxy USA	LEASE Longbotham 7 WELL NO.
ADDRESS	COUNTY Haskell STATE KS
CITY STATE	SERVICE CREW I. Chavez, Adam, Juan
AUTHORIZED BY Tony Bennett JRB	JOB TYPE: Z42 5½ Long String

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19820	2	27462	12	14354	12
				19578	2

	DATE	AM. PM. TIME
TRUCK CALLED	9-10-11	AM PM 1130
ARRIVED AT JOB	9-11-11	AM PM 200
START OPERATION	9-11-11	AM PM 945
FINISH OPERATION	9-11-11	AM PM 1200
RELEASED	9-11-11	AM PM 1245
MILES FROM STATION TO WELL	35	

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Marcos Silva
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CL101	A-Con Blend	sk	160		2976 00
CL104	50-50 POZ	sk	190		2090 00
CC113	Gypsum	lb	800		600 00
CC111	Salt	lb	1167		583 50
CC130	C-51	lb	63		1575 00
CC201	Gilsonite	lb	949		635 83
CC102	Cello Flake	lb	88		325 60
CC103	C-15	lb	96		1200 00
CC109	Calcium Chloride	lb	302		317 10
CF1281	Accu Seal Float Shoe	EA	1		575 00
CF1291	Accu-Seal Float Collar	EA	1		640 00
CF1620	Spirogliders	EA	70		13,300 00
CF103	Rubber Plug	EA	1		105 00
CC155	Super Flush II	gal	500		765 00
E101	Heavy Equipment Mileage	mi	70		490 00
CE240	Blending & Mixing Charge	sk	350		490 00
E113	Bulk Delivery	tm	545		872 00
CE207	Depth Charge	4hrs	1		3240 00
CE504	Plug Container Charge	job	1		250 00
				SUB TOTAL	23932 31

AP LOCATION/DEPT. Libe C.P. D02 ☐ NON D02 ☐
LEASE/WELL/FAC Longbotham #7
MAXIMO / WSM # _____
TASK 01-03 ELEMENT 3023
PROJECT # 1135071 CAPEX / OPEX - Circle one
SPO / BPA Circle Doc Type _____ UNSUPPORTED ☐
PRINTED NAME Marcos Silva
SIGNATURE: Marcos Silva
I certify that these services/materials have been received

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	

SERVICE REPRESENTATIVE Ismael Chavez

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Marcos Silva
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

FIELD SERVICE TICKET CONT.

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
P.O. Box 129
Liberal, Kansas 67905
Phone 620-624-2277

TICKET NO. 02126 A

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
E100	Pickup Mileage	mi	35		148 75
S003	Service Supervisor	EA	1		175 00
T105	Cement Data Acquistion Monitor	EA	1		550 00

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Oxy	Lease No.	Date 9-11-11
Lease Longbotham	Well # 7	Service Receipt 02126
Casing 5½ 17.0# Depth 6024	County Haskell	State KS
Job Type Long String 7/8	Formation	Legal Description 3-30-32

Pipe Data

Casing size 5½ 17.0#	Tubing Size
Depth 6021	~~Depth~~ S.S. 45
Volume 138 bls	Volume
Max Press 3000	Max Press
Well Connection 5½	Annulus Vol.
Plug Depth 5976	Packer Depth

Perforating Data

Shots/Ft	From	To
	From	To
	From	To
	From	To
	From	To

Cement Data

Lead 160sk A-Con Blend 2.47ft³-sk 14.06gl-sk 12.1#'s

Tail in 190sk 50-50 POZ 1.62ft³-sk 7.356gl-sk 13.5#

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log Yard 12:00AM
2:40					Arrive on Location
2:50					Safety Meeting - Rig Up
2:40					Rig Running in Casing
8:35					Circulate W/ Rig
9:35					Hook Up To BES
9:45	3000		1.0	1.0	Pressure Test
9:47	425		5	4.0	Pump Water Spacer
9:49	400		12	4.0	Pump Super Flush
9:52	375		5	4.0	Pump Wata Spacer
10:00	300		68	4.0	Pump Lead cmt @ 12.1 #'s
10:25	250		55	4.0	Pump Tail cmt @ 13.5 #'s
10:40					Wash Up - Drop Plug
10:45	1000		128	6.5	Displace
11:05	1000		10	2.2	Slow Down - Displace
11:15	1500		.5	.5	Land Plug - Floats Held
11:20					Test Casing - 2500psi - OK
12:00					Plug - Rat + Mouse Holes
12:45					Job Complete
					Thanks For Using Basic Energy Services

Service Units	19820	27462	14354-19578			
Driver Names	E. Chavez	Adam	Juan O.			

Marco Silva
Customer Representative

Terry Bennett
Station Manager

E Chavez
Cementer

Taylor Printing, Inc.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

December 30, 2011

LAURA BETH HICKERT
OXY USA Inc.
5 E GREENWAY PLZ
PO BOX 27570
HOUSTON, TX 77227-7570

Re: ACO1
API 15-081-21961-01-00
LONGBOTHAM 7
SE/4 Sec.03-30S-32W
Haskell County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
LAURA BETH HICKERT

Scientific Drilling

Oxy USA Inc.

Haskell County Kansas
Section 3 - 30S - 32W
Longbotham #7
Original Wellpath

Survey: Survey #1 MWD

EOW Completion Report

26 September, 2011

OXY

Company:	Oxy USA Inc.	**Local Co-ordinate Reference:**	Well Longbotham #7
Project:	Haskell County Kansas	**TVD Reference:**	WELL #7 @ 2897.8usft
Site:	Section 3 - 30S - 32W	**MD Reference:**	WELL #7 @ 2897.8usft
Well:	Longbotham #7	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Wellpath	**Database:**	EDMOKC

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

Site	Section 3 - 30S - 32W, SHL of Longbotham #6				
Site Position:		**Northing:**	297,622.28 usft	**Latitude:**	37° 27' 41.140 N
From:	Map	**Easting:**	1,332,291.71 usft	**Longitude:**	100° 48' 2.322 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	-1.41 °

Well	Longbotham #7					
Well Position	**+N/-S**	0.0 usft	**Northing:**	297,634.49 usft	**Latitude:**	37° 27' 41.264 N
	+E/-W	0.0 usft	**Easting:**	1,332,307.48 usft	**Longitude:**	100° 48' 2.130 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	2,897.8 usft	**Ground Level:**	2,886.8 usft

Wellbore	Original Wellpath			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2011	06/28/11	6.54	65.29	51,923

Design	Original Wellpath			
Audit Notes:				
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	321.51

Survey Program **Date** 09/26/11

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
188.0	6,033.0	Survey #1 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

Survey

MD (usft)	**Inc (°)**	**Azi (azimuth) (°)**	**TVD (usft)**	**N/S (usft)**	**E/W (usft)**	**V. Sec (usft)**	**DLeg (°/100usft)**
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
188.0	0.19	224.76	188.0	-0.2	-0.2	0.0	0.10
340.0	0.05	328.03	340.0	-0.3	-0.4	0.0	0.14
433.0	0.14	65.19	433.0	-0.3	-0.4	0.0	0.17
526.0	0.12	107.00	526.0	-0.2	-0.2	-0.1	0.10
622.0	0.57	78.29	622.0	-0.2	0.4	-0.4	0.49
718.0	0.44	50.88	718.0	0.2	1.2	-0.6	0.28
814.0	1.01	357.07	814.0	1.2	1.4	0.1	0.86
910.0	1.91	4.07	910.0	3.7	1.5	2.0	0.95
1,006.0	2.16	357.47	1,005.9	7.1	1.5	4.6	0.36
1,102.0	2.02	355.39	1,101.8	10.6	1.3	7.5	0.17
1,198.0	1.59	351.17	1,197.8	13.6	1.0	10.0	0.47

Company:	Oxy USA Inc.	**Local Co-ordinate Reference:**	Well Longbotham #7
Project:	Haskell County Kansas	**TVD Reference:**	WELL #7 @ 2897.8usft
Site:	Section 3 - 30S - 32W	**MD Reference:**	WELL #7 @ 2897.8usft
Well:	Longbotham #7	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Wellpath	**Database:**	EDMOKC

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,294.0	1.70	349.07	1,293.7	16.3	0.5	12.4	0.13
1,389.0	1.90	348.69	1,388.7	19.2	-0.1	15.1	0.21
1,486.0	2.04	354.82	1,485.6	22.5	-0.6	18.0	0.26
1,582.0	1.43	356.87	1,581.6	25.4	-0.8	20.4	0.64
1,678.0	1.44	1.94	1,677.6	27.8	-0.8	22.3	0.13
1,756.0	1.26	349.50	1,755.5	29.6	-0.9	23.8	0.44
1,878.0	1.28	13.59	1,877.5	32.3	-0.9	25.8	0.43
1,974.0	1.97	11.38	1,973.5	34.9	-0.3	27.5	0.72
2,070.0	5.05	344.03	2,069.3	40.6	-1.1	32.5	3.56
2,165.0	8.10	329.68	2,163.7	50.4	-5.6	43.0	3.62
2,262.0	9.21	306.41	2,259.6	60.9	-15.4	57.2	3.76
2,358.0	7.86	302.81	2,354.5	69.0	-27.1	70.9	1.51
2,454.0	9.03	306.91	2,449.5	77.1	-38.6	84.4	1.37
2,550.0	11.15	319.63	2,544.0	88.7	-50.6	101.0	3.19
2,646.0	14.08	320.98	2,637.7	104.9	-64.0	121.9	3.07
2,742.0	17.74	321.68	2,730.0	125.4	-80.4	148.2	3.82
2,838.0	20.07	320.92	2,820.8	149.7	-99.9	179.3	2.44
2,934.0	22.87	319.05	2,910.1	176.6	-122.5	214.4	3.00
3,030.0	26.27	317.74	2,997.4	206.4	-149.0	254.3	3.59
3,126.0	27.50	319.40	3,083.0	238.9	-177.7	297.6	1.50
3,222.0	27.08	319.55	3,168.4	272.4	-206.3	341.6	0.44
3,318.0	25.95	318.31	3,254.3	304.7	-234.5	384.4	1.31
3,414.0	26.49	321.71	3,340.4	337.2	-261.7	426.8	1.66
3,510.0	24.91	321.35	3,426.9	369.8	-287.6	468.5	1.65
3,606.0	25.31	324.10	3,513.8	402.2	-312.3	509.2	1.28
3,702.0	26.31	324.71	3,600.2	436.2	-336.6	550.9	1.08
3,798.0	26.97	323.40	3,686.0	471.1	-361.9	593.9	0.92
3,894.0	27.87	322.95	3,771.3	506.4	-388.4	638.1	0.96
3,989.0	27.80	321.57	3,855.3	541.5	-415.5	682.5	0.68
4,086.0	27.72	321.42	3,941.1	576.9	-443.6	727.6	0.11
4,181.0	27.39	320.70	4,025.3	611.1	-471.3	771.6	0.49
4,278.0	26.36	319.98	4,111.9	644.8	-499.2	815.4	1.11
4,374.0	27.01	321.89	4,197.6	678.3	-526.4	858.5	1.12
4,469.0	27.58	321.28	4,282.1	712.4	-553.5	902.1	0.67
4,565.0	26.76	321.45	4,367.5	746.7	-580.8	945.9	0.86
4,661.0	28.10	320.97	4,452.7	781.1	-608.5	990.1	1.41
4,756.0	26.34	318.85	4,537.1	814.4	-636.5	1,033.6	2.11
4,852.0	26.67	320.53	4,623.1	847.0	-664.2	1,076.4	0.85
4,948.0	27.63	321.19	4,708.5	881.0	-691.9	1,120.2	1.05
5,044.0	26.30	320.95	4,794.0	914.9	-719.2	1,163.7	1.39
5,140.0	26.88	323.94	4,879.9	949.0	-745.4	1,206.7	1.52
5,235.0	27.31	323.75	4,964.5	983.9	-770.9	1,249.9	0.46
5,331.0	27.94	322.57	5,049.5	1,019.5	-797.6	1,294.4	0.87
5,427.0	25.94	323.84	5,135.1	1,054.3	-823.7	1,337.9	2.17

Company:	Oxy USA Inc.	**Local Co-ordinate Reference:**	Well Longbotham #7
Project:	Haskell County Kansas	**TVD Reference:**	WELL #7 @ 2897.8usft
Site:	Section 3 - 30S - 32W	**MD Reference:**	WELL #7 @ 2897.8usft
Well:	Longbotham #7	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Original Wellpath	**Database:**	EDMOKC

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,523.0	26.05	321.80	5,221.4	1,087.8	-849.1	1,379.9	0.94
5,619.0	25.94	322.64	5,307.7	1,121.1	-874.9	1,422.0	0.40
5,715.0	25.03	322.46	5,394.3	1,153.9	-900.0	1,463.3	0.95
5,811.0	25.50	319.47	5,481.1	1,185.7	-925.8	1,504.3	1.42
5,907.0	26.23	319.77	5,567.5	1,217.6	-952.9	1,546.1	0.77
5,985.0	25.16	319.11	5,637.8	1,243.3	-974.9	1,579.9	1.42
6,033.0	25.16	319.11	5,681.3	1,258.7	-988.3	1,600.3	0.00

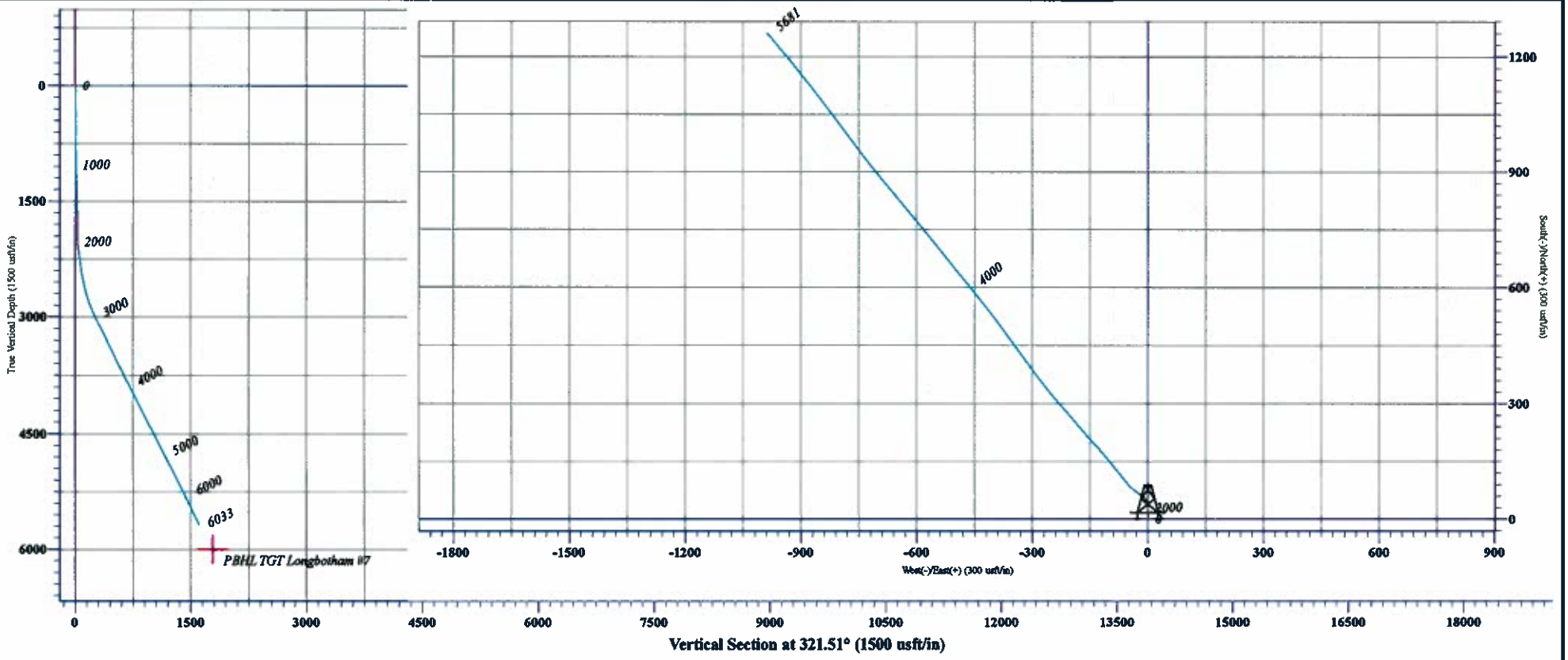
Checked By: _____ Approved By: _____ Date: _____

Oxy USA Inc.

Field: Haskell County Kansas
Site: Section 3 - 30S - 32W
Well: Longbotham #7
Wellpath: Original Wellpath
Plan: Original Wellpath

Azimuths to Grid North
True North: 1.41°
Magnetic North: 7.95°

Magnetic Field
Strength: 51923.0nT
Dip Angle: 65.29°
Date: 06/28/2011
Model: BGGM2011



Vertical Section Azimuth
321.51

Bottom Hole from Surface:
5681.3' TVD 1258.7' N & 988.3' W
6033' MD 1600.3' VS @ 321.51 Azimuth

Scientific Drilling

WELL DETAILS: Longbotham #7

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	297634.49	1532307.48	37° 27' 41.264 N	100° 48' 2.130 W	

Survey: Survey #1 MWD (Longbotham #7/Original Wellpath)

Created By: Genie Lightfoot Date: 11:48, September 26 2011