



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1176804
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1176804

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	OXY USA Inc.
Well Name	LBSLU 603
Doc ID	1176804

Tops

Name	Top	Datum
HEEBNER	3866	
LANSING	3978	
KANSAS CITY	4181	
MARMATON	4609	
ATOKA	5017	
MORROW	5228	
ST GENEVIEVE	5681	
ST LOUIS	5760	



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 04513 A

DATE _____ TICKET NO. _____

DATE OF JOB 10-4-13 DISTRICT 1717		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER OXY USA		LEASE LBSLU				WELL NO. 603			
ADDRESS		COUNTY Grant		STATE KS					
CITY		STATE		SERVICE CREW Ruben-Carlos-Santiago-Jose					
AUTHORIZED BY Tyce Davis JRB		JOB TYPE: 2-42 85/8 Surface							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
				78940	6		10-4-13		1700
				3875019842	6	ARRIVED AT JOB		AM	1700
				3811737547	6	START OPERATION		AM	2040
				3046437724	6	FINISH OPERATION		AM	2230
						RELEASED		AM	2300
						MILES FROM STATION TO WELL		PM	60

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: *Martin Juan Salinas*
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CL 101	A-Con Blend	SK	335		
CL 110	Premium Plus	SK	245		
CC 165	SLS Polymer	bal	840		
CC 166	SLS LCM	Lb	320		
CC 109	Calcium Chloride	Lb	1407		
CC 102	Celloflake	Lb	145		
CC 130	C-51	Lb	63		
CF 253	85/8 Guide Shoe	Eq	1		
CF 1453	85/8 Insert float Valve	Eq	1		
CF 4405	85/8 Centralizers	Eq	15		
CF 105	85/8 Top Rubber Plug	Eq	1		
CF 4109	85/8 Stop Collar	Eq	1		
E 101	Heavy Equipment Mileage	Mi	180		
CE 240	Blending & Mixing Service Charge	SK	580		
E 113	Proppant and Bulk Delivery Charge	TM	1638		
CE 202	Depth Charge 1001'-2000'	4hrs	1		
CE 504	Plug Container Charge	Eq	1		
E 100	Pick up Charge	Mi	60		
S 003	Service Supervisor Charge	Eq	1		

SUB TOTAL **24131.03**

CHEMICAL / ACID DATA:			

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

TOTAL

SERVICE REPRESENTATIVE *Rub Martin*

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *Martin Juan Salinas*
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

Cement Report

Casing		Lease No.		Date
Depth		Well #		Service Receipt
Job Type		County		State
Formation		Legal Description		

XY USA
LBSLU

10-4-13

603
Grant

KS

7-30-38

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size	Shots/Ft		Lead
Depth	Depth	From	To	
Volume	Volume	From	To	
Max Press	Max Press	From	To	
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

3355KS@12.1PPG
27. CC 1/4# Polyflake
27. WCA-1
A-Con Blend
Tail in 2455KS@14.8PPG
27. CC 1/4# Polyflake
Premium Plus Cement

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1700					On Location Rig up
2020					Safety Meeting
2040	2500				Pressure Test
2045	100		20	5	Pump stoploss fluid
2053	150		143	5	Pump 335 5KS@12.1 PPG
2118	150		58	5	Pump 245 5KS@14.8 PPG
2128					Shot Down - Drop Plug
2131	100			5	start Displacement
2155	500		95	2	Slow Rate
2158	1000		112	2	Bump Plug - float Held
2200	1500				Test Casing
2230	0				Release Pressure - Rig Down

Service Units	78440	38750	38117	30464
Driver Names	Ruben	Carlos	Jose	Santiago

Early Zion
Customer Representative

Jerry Bennett
Station Manager

Ruben Martinez
Cementer



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 04578 A

DATE _____ TICKET NO. _____

DATE OF JOB 10-9-13 DISTRICT 1717		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER Oxy USA		LEASE LBSLU		# 603 WELL NO.					
ADDRESS		COUNTY Grant		STATE KS					
CITY STATE		SERVICE CREW J. Chavez, Sam, Sadyo							
AUTHORIZED BY Jay Bell		JOB TYPE: 242 5 1/2 Log Sky							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
							10-8-13		-800
78938	9	70897	9	3040		ARRIVED AT JOB	10-8-13	AM	-1155
		19570	1	14355	9	START OPERATION	10-9-13	AM	-500
				19578	1	FINISH OPERATION	10-9-13	AM	-635
						RELEASED	10-9-13	AM	-800
						MILES FROM STATION TO WELL 60			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

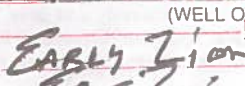
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. 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: 
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CL104	50-50 POZ	SK	420	8 25	3465 00
CC113	Gypsum	lb	1765	56	988 40
CC111	Salt	lb	2579	38	980 02
CC103	C-15	lb	212	9 38	1988 56
CC105	C-410	lb	89	3 00	267 00
CC201	Gilsonite	lb	2100	50	1050 00
CF251	Guide Shoe	EA	1		187 50
CF1451	Insert Float	EA	1		161 25
CF4105	Stop Collar	EA	1		63 00
CF4452	Centralizer 5/2	EA	25	56 25	1406 25
CF103	Rubber Plug	EA	1		78 75
CC155	Super Flush	gal	500	1 15	575 00
E101	Heavy Equipment Mileage	mi	120	5 25	630 00
CE240	Blowby + Mixy Charge	SK	420	1 05	441 00
E113	Bulk Delivery Charge	tm	1059	1 20	1270 80
CE207	Depth Charge	L/hrs	1		2430 00
CE504	Plus Constant Charge	job	1		187 50
E100	Picking Mileage	mi	60	3 19	191 40
5003	Service Superdust	EA	1		131 25
SUB TOTAL					16717 68

CHEMICAL / ACID DATA:			

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

AP LOCATION/DEPT. Libscap D02 NON D02
 LEASE/WELL/FAC. ~~ITZ~~ LBSLU 603
 MAXIMO / WSM # _____
 THE ABOVE MATERIAL AND SERVICE ELEMENT 3023
 ORDERED BY CUSTOMER AND RECEIVED BY: _____
 PROJECT # 172172 CAPEX/OPEX - Circle one
 SPO / BPA _____
 Circle Doc Type _____
 PRINTED NAME EARLY Zion
 SIGNATURE: 

SERVICE REPRESENTATIVE 

FIELD SERVICE ORDER NO. _____

Customer <i>Oxy USA</i>		Lease No.		Date <i>10-9-13</i>	
Lease <i>LT35LU</i>		Well # <i>603</i>		Service Receipt <i>04578</i>	
Casing <i>5 1/2</i>	Depth <i>6009</i>	County <i>Grant</i>		State <i>KS</i>	
Job Type <i>242 Log Skid</i>		Formation		Legal Description <i>18-30-38</i>	
Pipe Data			Perforating Data		Cement Data
Casing size <i>5 1/2 17#</i>		Tubing Size		Lead	
Depth <i>6013</i>		Depth <i>55' 42"</i>			
Volume <i>13665</i>		Volume		Tail in 420 sk 50.50	
Max Press <i>2500</i>		Max Press			
Well Connection <i>5 1/2</i>		Annulus Vol.		<i>1.58 FF3-SK PDZ</i>	
Plug Depth <i>5969</i>		Packer Depth			
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>100</i>					<i>Arrive On Location</i>
<i>115</i>					<i>Safety Check-Run Up</i>
<i>100</i>					<i>Run Pump Casing</i>
<i>400</i>					<i>Circulate w/ Mix</i>
<i>515</i>					<i>Hook up To B65</i>
<i>520</i>	<i>2500</i>		<i>1.0</i>	<i>1.0</i>	<i>Pressure Test</i>
<i>525</i>	<i>375</i>		<i>5</i>	<i>5.0</i>	<i>Pump Water Spacer</i>
<i>530</i>	<i>350</i>		<i>10</i>	<i>5.0</i>	<i>Pump Super Flush</i>
<i>535</i>	<i>300</i>		<i>5</i>	<i>5.0</i>	<i>Pump Water Spacer</i>
<i>540</i>	<i>250</i>		<i>113</i>	<i>5.9</i>	<i>Pump cont @ 13.5#</i>
<i>600</i>					<i>Drop Plug Wash Up</i>
<i>605</i>	<i>700</i>		<i>126</i>	<i>6.5</i>	<i>Displace</i>
<i>625</i>	<i>1300</i>		<i>10</i>	<i>2.0</i>	<i>5 bar Down</i>
<i>630</i>	<i>1800</i>		<i>1.0</i>	<i>1.0</i>	<i>Land Plug Float Held</i>
					<i>Job Complete</i>
					<i>Plug Mouse Hole</i>
					<i>Thanks For Using BASIC Energy Services</i>
Service Units	<i>78938</i>	<i>70897-14570</i>	<i>14355-14578</i>		
Driver Names	<i>I. Cannon</i>	<i>Sam</i>	<i>Sotijo</i>		

Emily
Customer Representative

Sey Beth
Station Manager

Jerry Chavez
Cementer

Phoenix Technology Services

OXY
LBSLU #603 - Phoenix MWD Surveys

Grant County, Kansas (NAD 27)
Little Bow
Your Ref:

Measured Depth (ft)	Sub-Sea Incl. (ft)	Vertical Azim. (ft)	Local Depth (ft)	Coordinate UTM Depth (ft)	Northings (ft)	Eastings (ft)	Coordinate Vertical Northings (ft)	Eastings (-/100ft)	Section	Rate				
0	0	0	-3162	0	0 N	0 E	295665.2 N	1124995 E	0	0				
125	0.4	191.7	-3037	125	0.43 S	0.09 W	295664.8 N	1124995 E	0.38	0.32				
308	0.5	178.7	-2854.01	307.99	1.85 S	0.2 W	295663.3 N	1124995 E	1.52	0.08				
493	0.3	182.7	-2669.01	492.99	3.14 S	0.2 W	295662 N	1124995 E	2.49	0.11				
681	1	189.7	-2481.02	680.98	5.25 S	0.5 W	295659.9 N	1124995 E	4.27	0.37				
875	1	183	-2287.05	874.95	8.61 S	0.88 W	295656.6 N	1124994 E	7.04	0.06				
1067	0.8	181	-2095.08	1066.92	11.62 S	0.99 W	295653.6 N	1124994 E	9.38	0.11				
1241	0.9	155.7	-1921.1	1240.9	14.08 S	0.45 W	295651.1 N	1124995 E	10.87	0.22				
1425	0.4	157.7	-1737.11	1424.89	15.99 S	0.39 E	295649.2 N	1124996 E	11.75	0.27				
1678.02	0.2	102.7	-1484.09	1677.91	16.91 S	1.16 E	295648.3 N	1124996 E	11.93	0.13				
1850	0.5	97.6	-1312.12	1849.88	17.07 S	2.19 E	295648.1 N	1124997 E	11.37	0.18	First	Phoenix	MWD	Survey
1912	1.3	184.6	-1250.12	1911.88	17.81 S	2.4 E	295647.4 N	1124998 E	11.78	2.21				
1974	3.6	189.4	-1188.18	1973.82	20.43 S	2.03 E	295644.7 N	1124997 E	14	3.72				
2036	5.1	201.1	-1126.36	2035.64	24.92 S	0.72 E	295640.3 N	1124996 E	18.23	2.8				
2160	5.1	211.2	-1002.85	2159.15	34.78 S	4.12 W	295630.4 N	1124991 E	28.83	0.72				
2223	5.1	212.2	-940.1	2221.9	39.55 S	7.06 W	295625.6 N	1124988 E	34.35	0.14				
2347	4.7	211.1	-816.55	2345.45	48.56 S	12.62 W	295616.6 N	1124983 E	44.79	0.33				
2409	5.3	212.2	-754.79	2407.21	53.16 S	15.46 W	295612 N	1124980 E	50.12	0.98				
2471	5.8	220.9	-693.08	2468.92	57.95 S	19.04 W	295607.2 N	1124976 E	56.08	1.58				
2595	5.8	223.9	-569.71	2592.29	67.2 S	27.48 W	295598 N	1124968 E	68.6	0.24				
2781	5.2	225.7	-384.57	2777.43	79.86 S	40.03 W	295585.3 N	1124955 E	86.4	0.34				
2968	5.1	218.8	-198.32	2963.68	92.25 S	51.31 W	295572.9 N	1124944 E	103.15	0.34				
3030	5.5	215.5	-136.59	3025.41	96.82 S	54.76 W	295568.4 N	1124940 E	108.86	0.81				
3092	5.7	219.2	-74.88	3087.12	101.63 S	58.43 W	295563.6 N	1124937 E	114.89	0.67				
3154	5.9	219.1	-13.2	3148.8	106.48 S	62.39 W	295558.7 N	1124933 E	121.15	0.32				
3217	5.6	218.5	49.48	3211.48	111.4 S	66.34 W	295553.8 N	1124929 E	127.46	0.49				
3278	5.7	229.4	110.19	3272.19	115.7 S	70.49 W	295549.5 N	1124925 E	133.43	1.76				
3403	5.8	238.3	234.56	3396.56	123.06 S	80.58 W	295542.1 N	1124915 E	145.62	0.72				
3527	5.4	236.4	357.97	3519.97	129.58 S	90.77 W	295535.6 N	1124904 E	157.25	0.36				
3651	5.3	236.1	481.43	3643.43	136.01 S	100.39 W	295529.2 N	1124895 E	168.42	0.08				
3713	5.1	225.8	543.17	3705.17	139.52 S	104.74 W	295525.7 N	1124890 E	173.94	1.54				
3837	4.5	221.6	666.74	3828.74	147 S	111.92 W	295518.2 N	1124883 E	184.29	0.56				
3961	4.4	219.1	790.37	3952.37	154.33 S	118.15 W	295510.8 N	1124877 E	193.91	0.18				
4147	6.5	221.4	975.51	4137.51	167.77 S	129.61 W	295497.4 N	1124866 E	211.57	1.13				
4334	6	224.2	1161.4	4323.4	182.72 S	143.43 W	295482.5 N	1124852 E	231.92	0.31				

4520	5.2	223.9	1346.51	4508.51	195.76 S	156.05 W	295469.4 N	1124839 E	250.05	0.43				
4707	5.9	221.6	1532.64	4694.64	209.05 S	168.3 W	295456.1 N	1124827 E	268.12	0.39				
4894	4.8	219.4	1718.82	4880.82	222.29 S	179.65 W	295442.9 N	1124816 E	285.56	0.6				
5020	5.3	221	1844.33	5006.33	230.75 S	186.82 W	295434.4 N	1124808 E	296.64	0.41				
5145	4.4	220.1	1968.88	5130.88	238.78 S	193.69 W	295426.4 N	1124801 E	307.21	0.72				
5269	3.3	215.8	2092.6	5254.6	245.31 S	198.84 W	295419.9 N	1124796 E	315.52	0.92				
5394	2.9	211.7	2217.42	5379.42	250.92 S	202.61 W	295414.3 N	1124793 E	322.22	0.37				
5518	2.2	208.3	2341.29	5503.29	255.68 S	205.39 W	295409.5 N	1124790 E	327.63	0.58				
5642	1.7	203.6	2465.22	5627.22	259.46 S	207.25 W	295405.7 N	1124788 E	331.7	0.42				
5766	1.5	200.8	2589.17	5751.17	262.67 S	208.56 W	295402.5 N	1124787 E	334.97	0.17				
5915	1.5	206.8	2738.12	5900.12	266.23 S	210.14 W	295399 N	1124785 E	338.68	0.11				
5984	1.4	208.4	2807.1	5969.1	267.78 S	210.94 W	295397.4 N	1124784 E	340.38	0.16	Last	Phoenix	MWD	Survey
6039	1.4	208.4	2862.08	6024.08	268.96 S	211.58 W	295396.2 N	1124784 E	341.69	0	Projection	to	TD	

All data are in feet unless otherwise stated. Directions and coordinate are relative to Grid North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet. Vertical Section is from Slot and calculated along an Azimuth of 221.350- (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), Kansas South 1502 Grid Convergent at Surface is -1.852-.

Based upon Minimum Curvature type calculation at a Measured Depth of 6039.00ft., the Bottom Hole Displacement is 342.21ft., in the Direction of 221.350- (Grid).



**PHOENIX
TECHNOLOGY SERVICES**

October 15, 2013

Occidental Oil and Gas
Attention: Regulatory Department
1701 N. Kansas
Liberal, KS 67901

Re: Occidental Oil and Gas
LBSLU #603
Grant County, KS
API #15-067-21754-01
Job No. 1311205

Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the survey certification, surveys, and lease plat for the above referenced well with the State of Kansas Oil Conservation Division – District 1 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Erik V. Wolff	603	1,850	5,984	10/05/13	10/08/13	MWD

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

Dolly Bush

Dolly Bush
Operations Administrator

**Phoenix Technology Services
SURVEY DATA CERTIFICATION**



PHOENIX JOB NUMBER **1311205**

OPERATOR **Occidental Oil and Gas**

WELL NAME **LBSLU #603**

COUNTY & STATE **Grant County, KS**

API WELL NUMBER **15-067-21754-01**

PROPOSED DIRECTION **221.35**

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
1,678.02 ft	1,677.91 ft	.2 ft	102.7 ft	-16.91 ft	1.16 ft	Surface

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
5-Oct-13	1,850 ft	0.5	97.6

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
8-Oct-13	5,984 ft	1.4	208.4

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
8-Oct-13	6,039 ft	1.4	208.4

Erik V. Wolff

PRINT YOUR NAME ABOVE

Erik V. Wolff

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	8.42
DECLINATION OR GRID	GRID

8-Oct-13

TODAY'S DATE

MWD SUPERVISOR 1

Erik Wolff

DIRECTIONAL DRILLER 1

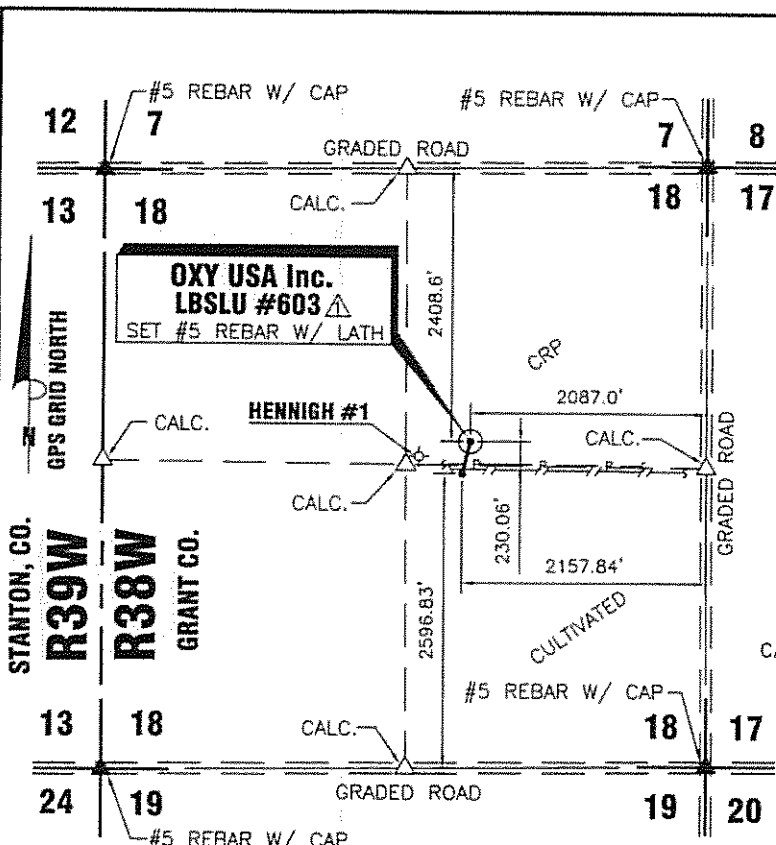
Casey Hendrix

MWD SUPERVISOR 2

Michael Branson

DIRECTIONAL DRILLER 2

Jim Tobola



DATE 7/26/2013

OPERATOR OXY U.S.A.

WELL NAME LBSLU #603

LOCATION E/2 SEC.18, T30S-R38W

SURFACE HOLE LOCATION

FOOTAGES & 2087.0' F E L

RELATIONS 2408.6' F N L

ELEVATION 3147.57'

BOTTOM HOLE LOCATION

FOOTAGES & 2157.84' F E L

RELATIONS 2596.83' F S L

CALC. ELEVATION N/A

DISTANCE TO EXISTING WELL 470.43' HENNIGH #1

AUTHORIZED BY BETH HICKERT

**E/2 SEC. 18, T30S-R38W
GRANT COUNTY, KANSAS**

CROP CRP

SURFACE HOLE LOCATION

LATITUDE 37°26'23.38644" N = 37.439830° N

LONGITUDE 101°30'51.28560" W = 101.514246° W

STATE PLANE COORD. X = 1124995.18

KANSAS SOUTH ZONE Y = 295665.18

NAD 27

BOTTOM HOLE LOCATION

LATITUDE 37°26'20.59565" N = 37.439054° N

LONGITUDE 101°30'52.14739" W = 101.514485° W

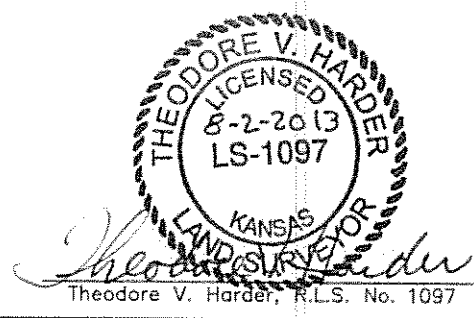
STATE PLANE COORD. X = 1124916.60

KANSAS SOUTH ZONE Y = 295385.31

NAD 27

DRIVING DIRECTIONS USED TO STAKE
WELL FROM KNOWN LANDMARK OR CITY
FROM:
**FROM THE INTERSECTION OF FAS #1701 &
FAS #5009 SOUTHWEST OF ULYSSES, KS;
THENCE WEST 3.0 MILES; THENCE SOUTH
2408.6 FT.; THENCE WEST 2087.0 FT. INTO.**

NOTE: CONTRACTOR TO CONTACT ONE CALL @ 1-800-DIG SAFE
PRIOR TO ANY EXCAVATION OR CONSTRUCTION.



	OXY USA Inc. 1117 N. HIGHWAY 27 P.O. DRAWER 330 ELKHART, KANSAS 67950 (620) 697-2500	NO. <u>001</u> REVISIONS DATE <u>8/02/2013</u>	
	PROPOSED WELL LOCATION OF THE LBSLU #603 LOCATED IN THE E/2 SEC. 18, T30S - R38W GRANT COUNTY, KANSAS	SCALE: <u>1"=1500'</u> DATE: <u>7/26/2013</u>	
DRAWN BY: <u>DRF</u> CHECKED BY: <u>TVH</u> APPROVED BY: _____ AUTHORIZED BY: <u>B. HICKERT</u>	WORK ORDER NO.: _____		

DRAWING NO. OX0613A08



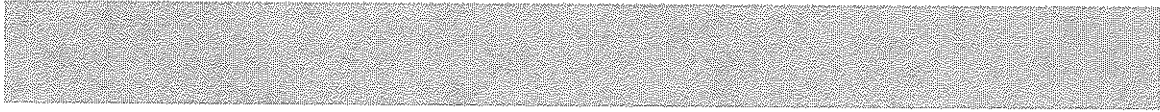
OXY

Grant County, Kansas (NAD 27)
Little Bow
LBSLU #603
Wellbore #1/Job#: 1311205

Survey: Phoenix MWD Surveys

OXY

08 October, 2013





OXY

Company: OXY	Local Co-ordinate Reference: Well LBSLU #603
Project: Grant County, Kansas (NAD 27)	Well @ 3162.00usft (Original Well Elev + 14' KB)
Site: Little Bow	Well @ 3162.00usft (Original Well Elev + 14' KB)
Well: LBSLU #603	Grid
Wellbore: Wellbore #1/Job#: 1311205	Minimum Curvature
Design: Wellbore #1/Rig: Aztec 777	Compass 5000 GCR DB

Project: Grant County, Kansas (NAD 27)

Map System: US State Plane 1927 (Exact solution)

Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: Kansas South 1502

System Datum: Mean Sea Level

Site: Little Bow

Site Position: Northing: 295,665.18 usft Latitude: 37° 26' 23.38627 N

From: Easting: 1,124,995.18 usft Longitude: 101° 30' 51.28574 W

Position Uncertainty: Map 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: -1.85 °

Well: LBSLU #603

Well Position: +N-S 0.00 usft Northing: 295,665.18 usft Latitude: 37° 26' 23.38627 N

+E-W 0.00 usft Easting: 1,124,995.18 usft Longitude: 101° 30' 51.28574 W

Position Uncertainty: Wellhead Elevation: 0.00 usft

Wellbore: Wellbore #1/Job#: 1311205

Magnetics	Model Name	Sample Date	Dip Angle (°)	Field Strength (mT)
	IGRF2010_14	08/06/13	65.04	51.640

Design: Wellbore #1/Rig: Aztec 777

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	221.35



OXY

Company:	OXY	Local Co-ordinate Reference:	Well LBSLU #603
Project:	Grant County, Kansas (NAD 27)	TVD Reference:	Well @ 3162.00usft (Original Well Elev + 14' KB)
Site:	Little Bow	MD Reference:	Well @ 3162.00usft (Original Well Elev + 14' KB)
Well:	LBSLU #603	North Reference:	Grid
Wellbore:	Wellbore #1/Job#: 1311205	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1/Rig: Aztec 777	Database:	Compass 5000 GCR DB

Survey Program	From (usft)	To (usft)	Date	10/08/13	Survey (Wellbore)	Tool Name	Description
	125.00	1,678.00			Tie-in Surveys (Wellbore #1/Job#: 1311205	MWD	MWD - Standard
	1,850.00	6,039.00			Phoenix MWD Surveys (Wellbore #1/Job#	MWD	MWD - Standard

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D/Leg (°/100usft)	Northing (usft)	Easting (usft)	
	1,678.02	0.20	102.70	-1,484.09	1,677.91	-16.91	1.16	11.93	0.00	295,648.27	1,124,996.34	
	1,850.00	0.50	97.60	-1,312.12	1,849.88	-17.07	2.19	11.37	0.18	295,648.11	1,124,997.37	
First Phoenix MWD Survey												
	1,912.00	1.30	184.60	-1,250.12	1,911.88	-17.81	2.40	11.78	2.21	295,647.37	1,124,997.58	
	1,974.00	3.60	189.40	-1,188.18	1,973.82	-20.43	2.03	14.00	3.72	295,644.75	1,124,997.21	
	2,036.00	5.10	201.10	-1,126.36	2,035.64	-24.92	0.72	18.23	2.80	295,640.26	1,124,995.90	
	2,160.00	5.10	211.20	-1,002.85	2,159.15	-34.78	-4.12	28.83	0.72	295,630.40	1,124,991.06	
	2,223.00	5.10	212.20	-940.10	2,221.90	-39.55	-7.06	34.35	0.14	295,625.63	1,124,988.12	
	2,347.00	4.70	211.10	-816.55	2,345.45	-48.58	-12.62	44.79	0.33	295,616.62	1,124,982.56	
	2,409.00	5.30	212.20	-754.79	2,407.21	-53.16	-15.46	50.12	0.98	295,612.02	1,124,979.72	
	2,471.00	5.80	220.90	-693.08	2,468.92	-57.95	-19.04	56.08	1.58	295,607.23	1,124,976.14	
	2,595.00	5.80	223.90	-569.71	2,592.29	-67.20	-27.48	68.60	0.24	295,597.98	1,124,967.70	
	2,781.00	5.20	225.70	-384.57	2,777.43	-79.86	-40.03	86.40	0.34	295,585.32	1,124,955.15	
	2,968.00	5.10	218.80	-198.32	2,963.68	-92.25	-51.31	103.15	0.34	295,572.93	1,124,943.87	
	3,030.00	5.50	215.50	-136.59	3,025.41	-98.82	-54.76	108.86	0.81	295,568.36	1,124,940.42	
	3,092.00	5.70	219.20	-74.88	3,087.12	-101.63	-58.43	114.89	0.67	295,563.55	1,124,936.75	
	3,154.00	5.90	219.10	-13.20	3,148.80	-106.48	-62.39	121.15	0.32	295,558.70	1,124,932.79	
	3,217.00	5.60	218.50	49.48	3,211.48	-111.40	-66.34	127.46	0.49	295,553.78	1,124,928.84	
	3,278.00	5.70	229.40	110.19	3,272.19	-115.70	-70.49	133.43	1.76	295,549.48	1,124,924.69	
	3,403.00	5.80	238.30	234.56	3,396.56	-123.06	-80.58	145.62	0.72	295,542.12	1,124,914.60	
	3,527.00	5.40	236.40	357.97	3,519.97	-129.58	-90.77	157.25	0.36	295,535.60	1,124,904.41	



OXY

Company: OXY
Project: Grant County, Kansas (NAD 27)
Site: Little Bow
Well: LBSLU #603
Wellbore: Wellbore #1/Job#: 1311205
Design: Wellbore #1/Rig: Aztec 777

Local Co-ordinate Reference: Well LBSLU #603
TVD Reference: Well @ 3162.00usft (Original Well Elev + 14' KB)
MD Reference: Well @ 3162.00usft (Original Well Elev + 14' KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (7100usft)	Northing (usft)	Easting (usft)
3,651.00	5.30	236.10	481.43	3,643.43	-136.01	-100.39	168.42	0.08	295,529.17	1,124,894.79
3,713.00	5.10	225.80	543.17	3,705.17	-139.52	-104.74	173.94	1.54	295,525.66	1,124,890.44
3,837.00	4.50	221.60	666.74	3,828.74	-147.00	-111.92	184.29	0.56	295,518.18	1,124,883.26
3,961.00	4.40	219.10	790.37	3,952.37	-154.33	-118.15	193.91	0.18	295,510.85	1,124,877.03
4,147.00	6.50	221.40	975.51	4,137.51	-167.77	-129.61	211.57	1.13	295,497.41	1,124,865.57
4,334.00	6.00	224.20	1,161.40	4,323.40	-182.72	-143.43	231.92	0.31	295,482.46	1,124,851.75
4,520.00	5.20	223.90	1,346.51	4,508.51	-195.76	-156.05	250.05	0.43	295,469.42	1,124,839.13
4,707.00	5.90	221.60	1,532.64	4,694.64	-209.05	-168.30	268.12	0.39	295,456.13	1,124,828.88
4,894.00	4.80	219.40	1,718.82	4,880.82	-222.29	-179.65	285.56	0.60	295,442.89	1,124,815.53
5,020.00	5.30	221.00	1,844.33	5,006.33	-230.75	-186.82	296.64	0.41	295,434.43	1,124,808.36
5,145.00	4.40	220.10	1,988.88	5,130.88	-238.78	-193.69	307.21	0.72	295,426.40	1,124,801.49
5,269.00	3.30	215.80	2,092.60	5,254.60	-245.31	-198.84	315.52	0.92	295,419.87	1,124,796.34
5,394.00	2.90	211.70	2,217.42	5,379.42	-250.92	-202.61	322.22	0.37	295,414.26	1,124,792.57
5,518.00	2.20	208.30	2,341.29	5,503.29	-255.68	-205.39	327.63	0.58	295,409.50	1,124,789.79
5,642.00	1.70	203.60	2,465.22	5,627.22	-259.46	-207.25	331.70	0.42	295,405.72	1,124,787.93
5,766.00	1.50	200.80	2,589.17	5,751.17	-262.67	-208.56	334.97	0.17	295,402.51	1,124,786.62
5,915.00	1.50	206.80	2,738.12	5,900.12	-266.23	-210.14	338.68	0.11	295,398.95	1,124,785.04
5,984.00	1.40	208.40	2,807.10	5,969.10	-267.78	-210.94	340.38	0.16	295,397.40	1,124,784.24
Last Phoenix MWD Survey										
6,039.00	1.40	208.40	2,862.08	6,024.08	-268.96	-211.58	341.69	0.00	295,396.22	1,124,783.60
Projection to TD										



OXY

Company: OXY
Project: Grant County, Kansas (NAD 27)
Site: Little Bow
Well: LBSLU #603
Wellbore: Wellbore #1/Job#:1311205
Design: Wellbore #1/Rig: Aztec 777

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well LBSLU #603
 Well @ 3162.00usft (Original Well Elev + 14' KB)
 Well @ 3162.00usft (Original Well Elev + 14' KB)
 Grid
 Minimum Curvature
 Compass 5000 GCR DB

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,850.00	1,849.88	-17.07	2.19	First Phoenix MWD Survey
5,984.00	5,969.10	-267.78	-210.94	Last Phoenix MWD Survey
6,039.00	6,024.08	-268.96	-211.58	Projection to TD

Checked By: _____

Approved By: _____

Date: _____