

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Midwestern Exploration Company
Well Name	TONY NIX 2-6
Doc ID	1408455

Tops

Name	Top	Datum
BASE HEEBNER	4326	-1305
TORONTO LIME	4336	-1315
LANSING LIME	4442	-1421
MARMATION LIME	5208	-2187
CHEROKEE SHALE	5569	-2548
ATOKA LIME	5768	-2747
MORROW SHALE	5922	-2901
LWR MORROW LIME	6246	-3225
CHESTER C LIME	6337	-3316
STE GENEVIEVE	6623	-3602



midwestern  
exploration co.

May 8, 2018

Kansas Corporation Commission  
Oil and Gas Conservation Division  
130 S. Market, Room 2078  
Wichita, Kansas 67202

Re: Confidentiality Request  
Tony Nix #2-6 (API-15-189-22853)  
NW SE SE SW  
Section 6-T35S-R35W  
Stevens County, Kansas

Gentleman,

Please hold the information concerning the above well confidential. Your consideration will be appreciated.

Yours very truly,



Dale J. Lollar  
President

DJL/sb

Conductor and Rat Hole Drilling, Landfill Gas Drilling and Well Construction Nationwide

Date	Invoice #
1/26/2018	12338

Bill To
Midwestern Exploration 3500 S. Blvd. Suite 2B Edmond OK 73013

Legal Description	Ordered By	Terms	Field Ticket	Lease Name	Drill Rig
NW of Liberal, KS	David Hickman	Net 30	9242	Tony Nix #2-6	Duke 2

Item	Quantity	Description	Rate	Amount
Conductor	80	Drilled 80' of 30" hole for conductor	35.00	2,800.00
20" Pipe	80	Furnished 80' of 20" conductor pipe	27.00	2,160.00T
Ream Hole	1	Ream Hole for cellar	450.00	450.00
72" X 6'	1	Furnished 6' X 6' tinhorn	450.00	450.00T
Dirt Removal	1	Provided Labor and Equipment for dirt removal and cleanup	500.00	500.00
Placement	1	Equipment and Labor to install pipe in holes	350.00	350.00
Welder	1	Weld pipe	100.00	100.00
Grout	8	Furnished grout	150.00	1,200.00T
Deliver Grout	1	Deliver grout to location	450.00	450.00
Cover Plate	1	Cover Plate	30.00	30.00T
Barrier Fence	1	Provided and Set Barrier Fence	75.00	75.00T

POSTED

Thank you for your business.	RECEIVED JAN 29 2018	Subtotal	\$8,565.00
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(7) TANG	71610	Sales Tax (6.5%)	\$254.48
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USED FOR: Drill & set conductor	Total	\$8,819.48
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**WESTERN  
EXPLORATION  
COMPANY**

Tony Nix 2-6

Scale: 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Tony Nix 2-6  
 APN: 15-168-2953-00-00  
 Location: Section 6 T55R-425W  
 License Number: RCC 5263  
 Spud Date: 05/07/81  
 Region: Stevens Co, KS  
 Drilling Completed: 2/14/2018  
 Surface Coordinates: 2148' FWL & 500' FSL  
 Bottom Hole Coordinates: 2148' FWL & 500' FSL  
 Ground Elevation (FE): 4.000' K.B. Elevation (FE): 3.021'  
 Logged Interval (FE): 4.000' To: 6.872' Total Depth (FE): 6.872'  
 Formation: Shawnee/Sls. Genevieve  
 Type of Drilling Fluid: Chemical  
 Printed by WDL-LOG from WellLight Systems 1-800-647-1534 www.welllight.com

**OPERATOR**

Company: Westmount Exploration Company  
 Address: 3508 S. Broadway, Suite 829  
 Edmond, OK 73113

**GEOLOGIST**

Name: Thomas M. Williams  
 Company: Petroleum Geologist  
 Address: Wichita, KS

**CORE**

Contractor:  
 Core #:  
 Formation:  
 Core Interval:  
 From: To: Cut:  
 Bit type:  
 Size:  
 Coring Time:

**Formation Tops**

Sample Top	E-Log Top
Quad Line	4249 (-4220)
Brown/Reddish Shale	4223 (-4203)
Terrazzo Line	4233 (-4193)
Lensing	4228 (-4188)
Mammation	5218 (-2187)
Cherokee Shale	5008 (-2009)
Alaska Line	5189 (-2148)
L. Alaska Line	5084 (-2063)
Morrow Shale	5026 (-2003)
L. Morrow Line	6256 (-4229)
L. Morrow Sand	6379 (-3249)
Cherokee 'C' Line	6336 (-3313)
Cherokee 'B' Line	6488 (-3387)
Cherokee 'A' Line	6486 (-3475)
Cherokee Upper 'B' Sd	6547 (-3320)
Cherokee Lower 'B' Sd	6570 (-3549)
Sls. Genevieve	6524 (-3585)

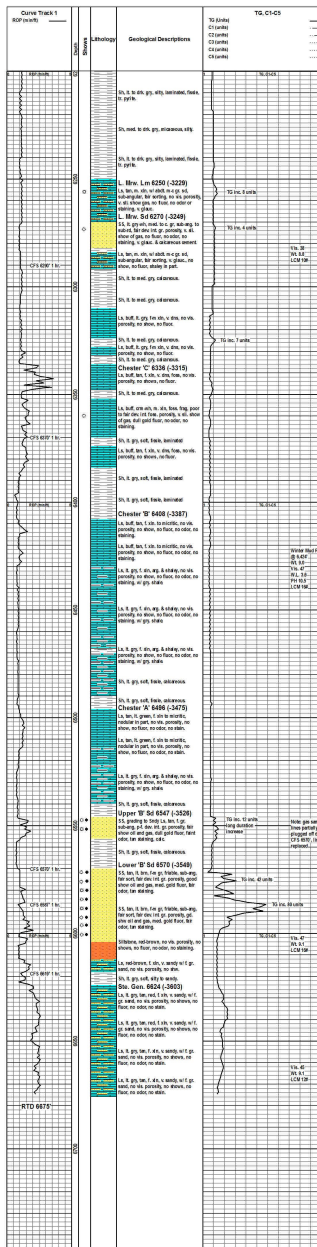
**DSTs**

Name

**Comments**

**ROCK TYPES**

Argill	Carbonate	Clayst	Shoal
Bedst	Congl	KNSSCS	Shaly
Brnc	Fl	KNSSCS	Shale
Chl	Gyp	KNSSCS	Sls
Chst	Sls	KNSSCS	TS
Clst	Sls	KNSSCS	TS





Customer Name MIDWESTERN EXPLORATION CO.  
 Well Name TONY NIX 2-6  
 Job Type Surface

District Liberal  
 Supervisor ALDO ESPINOZA  
 Engineer LENNY

Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psf)	Comments
1	2/6/18 13:00 HRS	Mobilization	Arrive on Location	Cement Pump Truck						ON LOCATION
2	200PM	Operational	RIG UP							RIG UP
3	300PM		CASING ON BOTTOM							CASING ON BOTTOM
4	320PM		SAFETY MEETING							SAFETY MEETING
5	330PM		PRESSURE TEST						2000	PRESSURE TEST LINES
6	332PM		LCM				4	10	50	10 BBL LCM
7	338PM		LEAD			12.1	4	218	150	480 SK / 218 BBL LEAD SLURRY @ 12.1 #
8	434PM		TAIL			15.6	4	43	80	200 SK / 43 BBL TAIL SLURRY @ 15.6 #
9	447PM		RELEASE						0	RELEASE PRE-LOADED PLUG
10	448PM		DISPLACING			8.34	3		70	START DISPLACEMENT
11	502PM						5	20	50	20 BBL GONE
12	505PM						5	20	50	40 BBL GONE
13	510PM						5	20	160	50 BBL GONE
14	515PM						5	20	340	80 MBBL GONE
15	519PM		SLOW DOWN				3	10	360	90 BBL SLOW DOWN TO LAND PLUG
16	523PM		BUMP				3	15	400-1100	105 BBL BUMP PLUG
17	525PM		CHECK FLOATS						0	CHECK FLOATS
18										FLOATS HOLDING
19										DONE
20	600PM		RIG DOWN							RIG DOWN
21	700PM		LEAVE LOCATION							LEAVE LOCATION
22			COMMENT							20 BBL OF CEMENT BACK TO SURFACE
23										THANKS
24										
25										



# Cementing Treatment



<b>Start Date</b>	2/8/2018	<b>Well</b>	Tony Nix 2-6
<b>End Date</b>	2/8/2018	<b>County</b>	Stevens
<b>Client</b>	MIDWESTERN EXPLORATION COMPANY	<b>State/Province</b>	KS
<b>Client Field Rep</b>	Billy Daugherty	<b>API</b>	15-189-22853
<b>Service Supervisor</b>		<b>Formation</b>	
<b>Field Ticket No.</b>	Surface	<b>Rig</b>	
<b>District</b>	Liberal, KS	<b>Type of Job</b>	Surface

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	19.12	20.00	94.00	80.00	80.00			
Open Hole	12.25			1,680.00	1,680.00	100.00		
Casing	8.10	8.63	24.00	1,680.00	1,680.00			

**Shoe Length (ft):** 42

## HARDWARE

<b>Bottom Plug Used?</b>	No	<b>Tool Type</b>	Float Collar
<b>Bottom Plug Provided By</b>		<b>Tool Depth (ft)</b>	1,661.00
<b>Bottom Plug Size</b>		<b>Max Tubing Pressure - Rated (psi)</b>	
<b>Top Plug Used?</b>	Yes	<b>Max Tubing Pressure - Operated (psi)</b>	
<b>Top Plug Provided By</b>	BJ	<b>Max Casing Pressure - Rated (psi)</b>	2,850.00
<b>Top Plug Size</b>	8.625	<b>Max Casing Pressure - Operated (psi)</b>	2,000.00
<b>Centralizers Used</b>	Yes	<b>Pipe Movement</b>	None
<b>Centralizers Quantity</b>	3.00	<b>Job Pumped Through</b>	Manifold
<b>Centralizers Type</b>	Bow	<b>Top Connection Thread</b>	ltc
<b>Landing Collar Depth (ft)</b>	1,638	<b>Top Connection Size</b>	8.625

# Cementing Treatment



## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	No	10 sec SGS	
Circulation Time (min)	1.00	10 min SGS	
Circulation Rate (bpm)	7.00	30 min SGS	
Circulation Volume (bbls)	200.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	9.00	Gas Units	
Mud Density Out (ppg)	9.00		
PV Mud In			
PV Mud Out			
YP Mud In			
YP Mud Out			

## TEMPERATURE

Ambient Temperature (°F)	40.00	Slurry Cement Temperature (°F)	65.00
Mix Water Temperature (°F)	50.00	Flow Line Temperature (°F)	65.00

## BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Star Spacer	8.6700			0.00				10.0000
Lead Slurry	Light Lead	12.1000	2.5567	14.87	0.00		480	1,222.0000	217.6000
Tail Slurry	Tail Cement	15.6000	1.1980	5.23	1,408.00		200	240.0000	42.6000
Displacement Final	Displacement	8.3400			0.00			0.0000	104.3000

# Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Star Spacer	IntegraGuard STAR LT concentrate	100.0000	PCT
Spacer / Pre Flush / Flush	Star Spacer	IntegraGuard STAR PLUS	20.0000	PPB
Lead Slurry	Light Lead	CEMENT, ASTM TYPE I	100.0000	PCT
Lead Slurry	Light Lead	EXTENDER, BENTONITE	4.0000	BWOB
Lead Slurry	Light Lead	CEMENT EXTENDER, GYPSUM, A-10	2.0000	BWOB
Lead Slurry	Light Lead	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	3.0000	BWOB
Lead Slurry	Light Lead	IntegraSeal CELLO	0.5000	LBS/SK
Lead Slurry	Light Lead	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	BWOB
Lead Slurry	Light Lead	SALT, SODIUM CHLORIDE, A-5	2.0000	BWOB
Tail Slurry	Tail Cement	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	BWOB
Tail Slurry	Tail Cement	CEMENT, ASTM TYPE I	100.0000	PCT
Tail Slurry	Tail Cement	IntegraSeal CELLO	0.2500	LBS/SK

## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
	Star Spacer	0.00	10.00			
	Light Lead	0.00	217.60			
	Tail Cement	0.00	42.60			
	Displacement	0.00	104.30			

	Min	Max	AVG
Pressure (psi)	0.00	2,000.00	300.00
Rate (bpm)	1.00	6.00	5.00

## DISPLACEMENT AND END OF JOB SUMMARY

# Cementing Treatment



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Displaced By	BJ	Amount of Cement Returned/Reversed	20.00
Calculated Displacement Volume (bbls)	106.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	105.00	Amount of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	1.00
Bump Plug Pressure (psi)	1,100.00	Total Volume Pumped (bbls)	300.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	Yes
Cement returns During Job	Full	Lost Circulation During Cement Job	No

## CEMENT PLUG

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Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	No
Number of Plugs			

## SQUEEZE

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Injection Rate (bpm)	Fluid Density (ppg)
Injection Pressure (psi)	ISIP (psi)
Type of Squeeze	FSIP (psi)
Operators Max SQ Pressure (psi)	

## COMMENTS

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### Treatment Report

### Job Summary

## Cementing Treatment



pressure test lines 2000 psi  
10 bbl lcm  
480 sk / 218 bbl lead cement at 12.1 #  
200 sk / 43 bbl tail cement at 15.6 #  
release pre-loaded plug provided by us  
displace 105 bbl h2o  
bump plug 400 - 1100 psi  
20 bbl of cemernt back to surface

# Cementing Treatment



Start Date	2/15/2018	Field Ticket#	FT-03762-G2R1Q10202-20231
End Date	2/15/2018	Well	Tony Nix 2-6
Client	MIDWESTERN EXPLORATION COMPANY	API#	15-189-22853
Client Field Rep.	Billy Daugherty	Well Classification	
Service Sup.	Lenny Baeza	County	Stevens
District	Liberal, KS	State/Province	KS
Type of Job	Long String	Formation	
Execution ID	EXC-03762-G2R1Q102	Rig	
Project ID	PRJ1004043		

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	8.10	8.63	24.00	1,703.00	1,703.00			
Open Hole	7.88			6,675.00	6,675.00	25.00		
Casing	4.95	5.50	15.50	6,677.00	6,677.00			

Shoe Length (ft): 37

## HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Bottom Plug Provided By		Tool Depth (ft)	6,639.00
Bottom Plug Size		Max Tubing Pressure - Rated (psi)	
Top Plug Used?	Yes	Max Tubing Pressure - Operated (psi)	
Top Plug Provided By	BJ	Max Casing Pressure - Rated (psi)	4,810.00
Top Plug Size	5.500	Max Casing Pressure - Operated (psi)	3,810.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	10.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	LTC
Landing Collar Depth (ft)	6,608	Top Connection Size	5.5

## CIRCULATION PRIOR TO JOB

# Cementing Treatment



Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	No	10 sec SGS	
Circulation Time (min)	1,130.00	10 min SGS	
Circulation Rate (bpm)	5.00	30 min SGS	
Circulation Volume (bbls)		Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)		Gas Units	
Mud Density Out (ppg)			
PV Mud In			
PV Mud Out			
YP Mud In			
YP Mud Out			

## TEMPERATURE

Ambient Temperature (°F)	71.00	Slurry Cement Temperature (°F)	68.00
Mix Water Temperature (°F)	65.00	Flow Line Temperature (°F)	

## BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Star Spacer	8.6700			5,076.00				10.0000
Tail Slurry	Tail Cement	13.6000	1.9187	9.58	5,400.00	1,250.00	145	277.0000	49.2000
Displacement Final	Displacement	8.3400			0.00			0.0000	157.3000
Top-Out / Scavenger Slurry	Rat Hole Plug	13.8000	1.4241	6.90		0.00	50	71.0000	12.6000

# Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Star Spacer	IntegraGuard STAR LT concentrate	15.0000	PPB
Spacer / Pre Flush / Flush	Star Spacer	IntegraGuard STAR PLUS	20.0000	PPB
Tail Slurry	Tail Cement	SALT,SODIUM CHLORIDE, A-5	10.0000	BWOW
Tail Slurry	Tail Cement	FLUID LOSS, FL-52	0.5000	BWOB
Tail Slurry	Tail Cement	CEMENT, CLASS H, HSR	100.0000	PCT
Tail Slurry	Tail Cement	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	Tail Cement	IntegraSeal KOL	5.0000	LBS/SK
Tail Slurry	Tail Cement	IntegraSeal CELLO	0.2500	LBS/SK
Tail Slurry	Tail Cement	CEMENT EXTENDER, GYPSUM, A-10	6.0000	BWOB
Top-Out / Scavenger Slurry	Rat Hole Plug	CEMENT, FLY ASH (POZZOLAN)	40.0000	PCT
Top-Out / Scavenger Slurry	Rat Hole Plug	CEMENT, ASTM TYPE I	60.0000	PCT
Top-Out / Scavenger Slurry	Rat Hole Plug	EXTENDER, BENTONITE	4.0000	BWOB

## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
2/15/2018 11:10 AM	Star Spacer	3.50	10.00	320.00		Stop Loss Spacer
2/15/2018 11:30 AM	Tail Cement	4.50	49.20	430.00		Start Pumping Cement down hole
2/15/2018 12:00 AM	Displacement	5.00	157.30	330.00		total of 158bbls to load the plug
2/15/2018 12:30 AM	Rat Hole Plug	3.00	12.60	120.00		

	Min	Max	Avg
Pressure (psi)	0.00	4,500.00	650.00
Rate (bpm)	3.00	6.00	4.50

## DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	Rig	Amount of Cement Returned/Reversed	0.00
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# Cementing Treatment



Calculated Displacement Volume (bbls)	158.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	158.00	Amount of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	1.00
Bump Plug Pressure (psi)	1,450.00	Total Volume Pumped (bbls)	217.00
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement returns During Job	None	Lost Circulation During Cement Job	No

## CEMENT PLUG

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Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	Yes
Number of Plugs	1		

## SQUEEZE

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Injection Rate (bpm)	Fluid Density (ppg)
Injection Pressure (psi)	ISIP (psi)
Type of Squeeze	FSIP (psi)
Operators Max SQ Pressure (psi)	

## COMMENTS

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### Treatment Report

### Job Summary

10bbls of Stop Loss Spacer

145sk of Tail Cement (49bbls of Slurry)

Shut down and washing pumping to pit.

Swapped lines and displacement of 158bbls

landed plug with 930psi and bumped to 1450psi

**KODA SERVICES INC.**

P. O. Box 66 Woodward, OK 73802

OFFICE (580)254-5019 FIELD (903)900-8522

Ticket # : 9242

**Drilling log**

**Company** Midwestern Explor **Completion Date:** Tuesday, January 23, 2018

**Company Rep** David Hickman **Lease Name/Num** Tony Nix 2

**City/Co/State** Liberal/Stevens Co., KS

**Directions** F/ west side of liberal, North on Western 300', just across tracks go west on 2nd street, west on 2nd towards elkhart ks to CR 22, 7/8 south, west into

**Cement** yds 8 **Type** 3000 psi **Compan** Tarbet INC

**Mud** bbls **hrs** **Fence** Orange **Hole cover**

**Driller** Travis **Helprs** Jimmy

**Drill Rig:** Duke 2 **Pusher** Eric

**Depth** X **Diameter**

**Conductor:**

Hole 80' X 30"

Pipe 80' X 20"

**Rat:**

Hole X

Casing X

**Mouse:**

Hole X

Casing X

**Cellar:** 6 X 6

Hole 6 X 6 **MH Deg**

**RH Deg**

**Other Notes & Drilling Formation:**

0-12 clay 12-25 sandy clay 25-40 clay 40-48 sand 48-60 clay

Conductor only

