# CONFIDENTIAL

## KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

8/11/11

Form ACO-1 October 2008 Form Must Be Typed

## ORIGINAL

## WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 32294	API No. 15 - 121-28720-0000
Name: Osborn Energy, L.L.C. CONFIDENTIAL	Spot Description: NW4 Sec. 22 T16S R25E
Address 1: 24850 Farley AUG 1 9 2009	N2_sw_sw_nw_sec. 22_twp. 16_s. R. 25_ Fast West
Address 2:	3040 Feet from North / South Line of Section
City: Bucyrus State: KS Zip: 66013 +	330 Feet from East / West Line of Section
Contact Person: Curstin Hamblin	Footages Calculated from Nearest Outside Section Corner:
Phone: (913 ) 533-9900	□NE □NW □SE ☑SW
CONTRACTOR: License # 32294	County: Miami
	Lease Name: Garvey Well #: 1-22
Name: Osborn Energy, L.L.C. RECEIVED Wellsite Geologist: Curstin Hamblin	Field Name: Louisburg
Purchaser: Akawa Natural Gas, L.L.C. AUG 2 1 2009	Producing Formation: Marmaton
During the Town of Completion	Elevation: Ground: 985 Kelly Bushing:
✓ New Well Re-Entry Workover WICHITA	Total Depth: 719 Plug Back Total Depth:
Oil SWD SIOW	Amount of Surface Pipe Set and Cemented at: 670 Feet
	Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
CM (Coal Bed Methane) Temp. Abd.	If yes, show depth set: Feet
Dry Other(Core, WSW, Expl., Cathodic, etc.)	If Alternate II completion, cement circulated from: 670
' '	feet depth to: surface w/ 100 sx cmt.
If Workover/Re-entry: Old Well Info as follows:	Drilling Fluid Management Plan AH IN 9-3809
Operator:	(Data must be collected from the Reserve Pit)
Well Name:	Chloride content:ppm Fluid volume:bbls
Original Comp. Date: Original Total Depth: Conv. to SWD	Dewatering method used:
Plug Back: Plug Back Total Depth	•
Commingled Docket No.:	Location of fluid disposal if hauled offsite:
Dual Completion	Operator Name:
Other (SWD or Enhr.?) Docket No.:	Lease Name: License No.:
8/10/2009 8/12/2009 8/13/2009	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workover or confidence of side two of this form will be held confidential for a period of 12 months if requirally in excess of 12 months). One copy of all wireline logs and geologist we BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 for	uested in writing and submitted with the form (see rule 82-3-107 for confiden- Il report shall be attached with this form. ALL CEMENTING TICKETS MUST m with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regulate t are complete and correct to the best of my knowledge.	he oil and gas industry have been fully complied with and the statements herein
Signature: Cultin Hauber	KCC Office Use ONLY
Title: Grossist Date: 8-19.09	Letter of Confidentiality Received
Subscribed and sworn to before me this 191 day of Jugust.	If Denied, Yes Date:
20 09	Wireline Log Received
	Geologist Report Received
Notary Public: Jane Brewer  Notary Public Date Commission Expires: Notary Public Date Commission	UIC Distribution

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Operator Name: Osborn Energy, L.L.C.  AUG: 1 9 2009 Pease Name: Garvey  Sec. 22 Twp. 16 S. R. 25 East County: Miami  INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tester time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, flurecovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Log: surveyed. Attach final geological well site report.  Drill Stem Tests Taken Yes No  (Attach Additional Sheets)  Samples Sent to Geological Survey Yes No  Cores Taken Yes No  Co
Drill Stem Tests Taken  (Attach Additional Sheets)  Samples Sent to Geological Survey  Cores Taken  (Submit Copy)
(Attach Additional Sheets)  Samples Sent to Geological Survey  Cores Taken  Electric Log Run (Submit Copy)  Name  Top  Datum  Name  Top  Datum
Samples Sent to Geological Survey  Yes No  Cores Taken  Yes No  Electric Log Run  (Submit Copy)
Electric Log Run  (Submit Copy)  PECTIVE  RECTIVE  Electric Log Run  PECTIVE  RECTIVE  Electric Log Run  PECTIVE  PECTIVE  PECTIVE  PERTITION OF PER
List All E. Logs Run:
700 2 1 2009
KCC WICHITA
CASING RECORD New Used  Report all strings set-conductor, surface, intermediate, production, etc.
Purpose of String Size Hole Size Casing Weight Setting Type of Drilled Set (in O.D.) Lbs. / Ft. Depth Cement Used Additives
Surface 12 1/4" 8 5/8" 24.30' portland 5 water
Production         6 3/4"         4 1/2"         670'         OWC         100         100# gel, dye, flose
ADDITIONAL CEMENTING / SQUEEZE RECORD
Purpose:  Depth Top Bottom Type of Cement  Sacks Used Type and Percent Additives  Protect Casing
Plug Back TD Plug Off Zone
Shots Per Foot PERFORATION RECORD - Bridge Plugs Set/Type Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth
TUBING RECORD: Size: Set At: Packer At: Liner Run:
Date of First, Resumed Production, SWD or Enhr.  Producing Method:  Flowing Pumping Gas Lift Other (Explain)
Estimated Production Per 24 Hours  Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity
DISPOSITION OF GAS: METHOD OF COMPLETION: PRODUCTION INTERVAL:
Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled  (If vented, Submit ACO-18.) Other (Specify)

#### Geological Report

Garvey # 1-22

CONFIDENTIAL

3040 FSL, 330 FWL

AUG .1 9 2009

Section: 22-T16S-R25E

KCC

N2-SW-SW-NW

Miami Co., Kansas

API#:

15-121-28720-0000

Elevation:

985' GL

Drilling Contractor: Osborn Energy, L.L.C (Lic. # 32294)

8/10/2009

Production Bore Hole: 6 3/4"

Rotary Total Depth: 719 on 8/12/2009

RECEIVED

Drilling Fluid:

air

AUG 2 1 2009 KCC WICHITA

 Surface Csg.:
 8 5/8" @ 24.30' in 12 4" hole

 Production Csg.:
 4 ½" set at 670' in 6 ¾" hole

Geologist:

Curstin Hamblin

Driller:

Brian Schwab

Formation	Geo Tops	Datum
Stark Shale	92-94'	893
Hushpuckney Shale	122-124'	863
Base Kansas City	140'	845
Knobtown Sand	167 <b>'</b>	818
Carbonaceous Zone in Tacket Fm.	No call	
"Big Lake" Sand	No call	
South Mound Zone	312-314'	673
Hepler (Wayside) Sand	No call	
"Upper" Mulberry Zone	333′	652
Mulberry Zone	No call	
Weiser Sand	360 <b>′</b>	625
Myrick Station	379-382 <b>′</b>	
Anna Shale (Lexington Coal Zone)	382-385'	603
Peru Sand	No call	
Summit Shale Zone	431-434'	554
Mulky Coal/Shale Zone	464-477'	521
Squirrel Sand	Absent	
Bevier Zone	532	453
Croweburg Zone	No call	
Fleming Zone	No Call	
Mineral Zone	No call	
Cattleman Sand	552 <b>′</b>	433

#### COMFIDENTIAL

	AUG.1 9 2009			
Scammon Zone Tebo Zone Bartlesville A Sand Un Named Zone	KGG	No call 563-574' 598' No call	422 387	
Bartlesville B Sand Dry Wood Zone	1	659-666' No call	326	
Bartlesville C Sand	l	690-696 <b>'</b>	295	
Rotary Total Depth		719′		
Drilling at 59' in the Background Gas (BG)12		/11/2009 at 1:00pm	RECL	Elven
59-68: SH: grey, gummy, 69-78: LS: lt grey, dk 79-88: LS: white, nodu.	grey		RECE AUG 2 KCC WIC	1 2009
STARK FORMATION drille: 94: SH: black, no gas : 89-98: SH: dk grey, black; blac	in the samples	, gas kick of 0 uni	s over BG	·HITA
HUSHPUCKNEY SHALE Geold **GAS TEST @139', C		-124', gas kick of (	) units over BG	

123: SH: black, poor gas in samples 119-128: LS: grey, dk grey, SH: black

129-138: LS: 1t grey

BKC: 140

139-148: LS: grey, SS: small grained, grey

149-158: LS: lt grey, SS: lt grey, small grained, gummy

Driller smelt gas at 156, no ch kick

#### \*\*GAS TEST @159', 0 MCF Total\*\*

159-168: Siltstone: grey, SS: grey, bleeding

#### KNOBTOWN SAND Geologist called at 167, gas kick of 20 units

167: bleeding oil, gas kick of 20 units. SS: small grained, very firm, heavy odor

169-178: SS: heavy bleeding oil, small grained, don't see shale, but it gummy to the touch

172-176: heavy bleeding oil, small grained, medium firmness, feels shaley to the touch, fair breakout oil, but very dirty

#### \*\*GAS TEST @179', 0 MCF Total\*\*

179-188: Siltstone: grey 189-198: Siltstone: grey

199-208: Siltstone: grey, gummy

209-218: SH: grey, gummy

219-228: Siltstone: grey, gummy 229-238: Siltstone: grey, shaley

239-248: SH: grey, LS: brown

249-258: SH: grey, gummy, pyrite, SS: It grey, small grained, gummy

Gas kick of 18 units

CG: 232 units

259-268: SH: grey, SS: medium grained, bleeding oil

259-265: bleeding oil, not a clean sand, fair to good breakout oil 269-278: Siltstone: grey, gummy, shaley CG: 394 units CONFIDENTIAL \*\*GAS TEST @279', 0 MCF Total\*\* AUG 1 9 2009 279-288: Siltstone: grey, gummy, shaley 289-298: SH: grey KCC CG: 147 units 299-308: SH: grey, gummy, silty SOUTH MOUND ZONE Geologist called @312-314', gas kick of 60 units over BG \*\*GAS TEST @319', 10 MCF Total\*\* 313: SH: black fair to poor gas in samples, the longer the samples sat in water, the better they looked 309-318: SH: grey, gummy 319-328: SH: grey, silty MULBERRY COAL Geologist called at 333', gas kick of 773 units \*\*GAS TEST @339', 105 MCF, 115 open flow, 115 MCF Total\*\* \*\*\*Not mulberry, Gas, LS gas\*\*\* Making some water 333: SH: black, Coal, good gas in samples. Very little samples, less than 1' Below the mulberry is a limestone, sandyish, with slight bleeding oil. It is possible the gas came from the limestone LS gave up some water 329-338: SH: grey, gummy, LS: beige, sandy, SH: black 339-348: SH: grey, LS: grey/brown 349-358: LS: white, pinkish 355: LS: bit sandy, very firm, bleeding oil, heavy odor, good breakout oil BG running at 800 units. The chromatograph is turned to x8 \*\*GAS TEST @359', 0 MCF, 115 open flow, 115 MCF Total\*\* WEISER SAND Geologist called at 360, no noticeable gas kick 359-368: SS: medium grained, greasy, bleeding oil, SH: grey, LS: white 360-361: SS: medium grained, bleeding oil, greasy, heavy odor, fair to poor breakout oil 369-378: SH: dk grey, silty, limey LEXINGTON COAL ZONE Geologist called @382-385', gas kick of 128 units over BG \*\*GAS TEST @399', 17 MCF, 132 open flow, 132 Total\*\* 383: SH: black, good to very good gas in samples 379-388: LS: brown, nodular, SH: black, Coal, SS: brown, medium grained, Pyrite 389-398: SS: brown, medium grained, pyrite, SH: grey, gummy 399-408: LS: grey, SH: grey 409-418: SH: grey, LS: grey 419-428: SH: grey, LS: grey SUMMIT SHALE ZONE Geologist called @431-434', gas kick of 16 units over BG \*\*GAS TEST @439', 0 MCF, 115 open flow, 132 Total \*\* 431: SH: Black, no gas in samples 434: SH: black, poor gas in samples 429-438: SH: grev, black 439-448: LS: white, SH: grey MULKY COAL/SHALE ZONE Geologist called @454-461 dk grey shale, 464-477 Black shale and coal', gas kick of 0 units over BG

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#### \*\*GAS TEST @459', 0 MCF, 115 open flow, 132 MCF Total \*\*

KCC

RECEIVED AUG 2 1 2009 KCC WICHITA

456: SH: dk grey, no gas in samples

458: SH: dk grey, no gas in samples 460: SH: dk grey, no gas in samples

461: SH: dk grey, the dk grey shale ended, and then 2' of reg shale, then,

black shale at 464-477

464: SH: black, fair gas in samples

468: SH: black, poor to fair gas in samples

449-458: SH: grey, and dk grey

459-468: SH: dk grey, occ. Black, occ. Lt grey

469-478: SH: black, lots of coal, pyrite

475: Coal: EXCELLENT gas in samples!!!

2' of coal

\*\*GAS TEST @479', 0 MCF, 115 open flow, 132 MCF Total \*\*

Stopped drilling at 6:00pm on 8/11/2009.

Started drilling at 6:30am on 8/12/2009

\*\*GAS TEST @479', 47 MCF open flow \*\*

479-488: SH: grey, dk grey, occ. Coal, no SS

483-490: SH: v dk grey, poor gas in samples

489-498: SH: grey, gummy, dk grey, Siltstone, coal, 489: LS: lt grey

#### \*\*GAS TEST @499', 22 MCF, 69 open flow, 154 MCF total \*\*

#### M shale yeve he batch

499-508: LS: lt grey, SH: grey, Coal (502) 509-518: SH: grey, SS: lt grey, small grained 519-528: SH: grey, gummy, some is silty

SQUIRREL SAND Geologist called no squirrel-absent

BEVIER ZONE - Geologist called at 532', gas kick of 0 units over bg

529-538: SH: grey, dk grey, Coal, Pyrite (Bevier?)

539-548: SH: grey, dk grey, Siltstone, SS: white, small grained

CROWEBURG ZONE Geologist no call

FLEMING ZONE Geologist no call

MINERAL ZONE Geologist no call

CATTLEMAN SAND Geologist called at 552'

549-558: SH: grey, SS: white, small grained (cattleman?)

CG: 1100 units

SCAMMON ZONE Geologist no call

TEBO ZONE Geologist called at 563-574', gas kick of 0 units over bg \*\*GAS TEST @ 579', 5 MCF, 74 open flow, 159 MCF Total \*\*

559-568: SH: grey, dk grey, SS: white, small grained

563-574: SH: dk grey/black

569: SH: dk grey, occ. Black, no gas in samples

569-578: SH: grey, black, coal: 574 579-588: SH: grey, dk grey, coal **BARTELSVILLE A** Geologist called at 598', gas kick of 0 units over bg \*\*GAS TEST @ 619' 0 MCF, 74 open flow \*\*

589-598: SH: grey, dk grey, SS: 598: banded, lt grey/dk grey, small grained

599-608: SS: grey/lt grey banded, SH: dk grey

609-618: SS: white/dk grey banded, small grained, SH: grey

619-628: Siltstone, SH: grey, Coal, LS: brown

629-638: SH: dk grey, limey, LS: brown

639-648: SH: dk grey, sandy

641: SH: dk grey, no gas in samples

649-658: SH: dk grey, sandy,

UN NAMED ZONE Geologist no call

BARTLESVILLE B Geologist called at 659-666', gas kick of 20 units over bg

653: SS: white, small grained, shaley

\*\*GAS TEST @ 659' 0 MCF, 74 MCF open flow\*\*

659-668: SS: white (659-666), SH: grey, sandy- gas kick of 20 units

669-678: SS: white, small grained, SS: banded, white and dk grey, SS: dk grey,

shaley

\*\*GAS TEST @679' 11 MCF, 85 MCF open flow, 170 MCF total\*\*

679-688: Siltstone, SH: grey, sandy

DRYWOOD ZONE Geologist no call

**BARTELSVILLE C** Geologist called at 690-696', gas kick of 0 units over bg \*\*GAS TEST 0 719', 0 MCF, 85 MCF open flow, 170 total \*\* 689-698:

689: coal

690-696: SS: white, small-med grained

697-698: SH: dk grey

699-708: SH: dk grey, silty, SS: white, small grained 709-718: SH: dk grey, SS: dk grey, lt grey, small grained

Total Rotary Depth, 719 on 8/12/2009

\*\*GAS TEST @ 719', 0 MCF, 85 MCF open flow, 170 total \*\*

RECEIVED

Summary:

Stark: 0 MCF
Hushpuckney: 0 MCF
South Mound: 10 MCF
Mulberry: 105 MCF
Lexington: 17 MCF
Summit: 0 MCF
Mulky: 0 MCF

AUG 2 1 2019

KCC WICHITA

?: 22 MCF Tebo: 5 MCF Bart B: 11 MCF

Total: 170 MCF

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AUG 1 9 2009

TICKET NUMBER

20109

KCO

LOCATION 1 + + q wg
FOREMAN Alan Mader

PO Box 884, Chanute, KS 66720 FIELD TICKET & TREATMENT REPORT 620-431-9210 or 800-467-8676 CEMENT

	<del>5, 500 10, 5</del> 0, 6	•		CEMEN	1			
DATE	CUSTOMER #	WELL NAME	E & NUMI	BER	SECTION	TOWNSHIP	RANGE	COUNTY
8-13-09	6073	Garvey	100	32	SW 22	16	25	M:
CUSTOMER	COUNTY  C-13-09 6073 Garvey 1-22 SW 22 16 25 M;  USTOMER  O Shorn Energy  Alling Address  CH850 Farley  TY  STATE ZIP CODE  TY  STATE ZIP CODE  TY  ASING DEPTH 689 DRILL PIPE  TUBING  OTHER  LURRY WEIGHT  SPLACEMENT 10 3/W DISPLACEMENT PSI  EMARKS: Checked Casias depth. M: red + Dy mped							
MAILING ADDRE	SS	<u> </u>		4		DRIVER	TRUCK#	DRIVER
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JOB TYPE		HOLE SIZE 6つ	14	HOLE DEPTH	695	CASING SIZE & W	EIGHT 4	1/2
CASING DEPTH	689	DRILL PIPE		TUBING				
SLURRY WEIGH	τ	SLURRY VOL		WATER gal/s	k			5
DISPLACEMENT	103/W	DISPLACEMENT PSI_				RATE 46	000	
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ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
3401	1	PUMP CHARGE	<del> </del>	870 £
5406	'3	MILEAGE		1532
3402	6891	casing footage	<del> </del>	
54 <i>07</i>	min	ton niles		296.0
1107	25#	Floseal		Ha n
1118.73	100 th	9e RECEIVED		16.00
4404	100 Sx	AUG 2 1 2009		1600.00
				75.//
		KCC WICHIT	A	
		ND230865		
				311
win 3737	Matal -	6,55	SALES TAX ESTIMATED TOTAL	2991

AUTHORIZTION MINISTER

TITLE\_

TOTAL 2996 50

DATE\_\_\_