

Ritchie Exploration, Inc.

Ames P No.8

915' FNL and 1825' FWL

75' N and 155' W of S2 NE NW

Sec 6 T18S R10W

Rice County, Kansas

Geological Report

by

Macklin M. Armstrong, P.G.
License Number 743

Scale 1:240 Imperial

Well Name: Ames P No. 8	Time: 3:15 PM
Surface Location: Sec 6 T18S R10W	
Bottom Location: 915' FNL and 1825' FWL	
Well Name: Ames P No. 8	
License Number: 4767	
Spud Date: 3/13/2013	Time: 4:32 PM
Region: Rice County, Kansas	
Drilling Completed: 3/18/2013	
Surface Coordinates:	
Bottom Hole Coordinates:	
Ground Elevation: 1790.00ft	
K.B. Elevation: 1799.00ft	
Logged Interval: 2200.00ft	To: 3236.00ft
Total Depth: 3235.00ft	
Formation: Arbuckle	
Drilling Fluid Type: Chemical/Fresh Water Gel	

OPERATOR

Company: Ritchie Exploration, Inc.	Pete Fiorini
Address: 8100 East 22nd Street North, No. 700	316-691-9500
Wichita, Kansas 67278	15-159-22731
Contact Geologist: Pete Fiorini	
Contact Phone No: 316-691-9500	
Well Name: Ames P No. 8	
Location: Sec 6 T18S R10W	Field: 15-159-22731
Pool: Oil	API: 15-159-22731
State: Kansas	Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: 98° 28' 26.469" Latitude: 38° 31' 09.590"
N/S Co-ord:
E/W Co-ord:

CONTRACTOR

Contractor: Southwind Drilling	Time: 3:15 PM
Rig #: 2	Time: 4:32 PM
Rig Type: mud rotary	Time: 6:50 PM
Spud Date: 3/13/2013	
TD Date: 3/18/2013	
Rig Release: 3/19/2013	

ELEVATIONS

K.B. Elevation: 1799.00ft Ground Elevation: 1790.00ft
K.B. to Ground: 9.00ft

NOTES

Date Depth at 7 am Activity
3-13-13 MIRU Spud at 3:15 pm
3-14-13 675 Drilling
3-15-13 2220 Drilling
3-16-13 2812 CB with DST No. 1
3-17-13 3022 TIH after DST No. 2
3-18-13 3218 CFS
3-19-13 3235 Logging
3-20-13 3235 Set 5 1/2"

Surface Casing: 8 5/8" 24# at 353'
Production Casing: 5 1/2" 15.5# at 3234'

Deviation: 354' - 1°, 2812' - 1 1/4°, 3235' - 1°

Bit Record:	Make	Size	Type	Depth In	Depth Out	Hours
JZ	Reed	7 7/8"	HA20Q	353	3218	49 1/2
		7 7/8"	S52		3235	1/2

Drill Stem Tests:
DST No. 1 2748 to 2812 Formation: Leocompton
30-45-45-60
Recovery: 87' Mud
IHP 1326 FHP 1290
IFP 32-46 FFP 46-57
ISIP 692 FSP 664
Temp 95°

DST No. 2 2936 to 3022 Formation: Lansing A, C, D, E, and F zones
30-45-45-60
Recovery: 150' GIP
30' VSOCM (1%O, 99%M)
IHP 1507 FHP 1455
IFP 51-61 FFP 60-64
ISIP 251 FSP 270
Temp 99°

DST No. 3 3015 to 3039 Formation: Lansing F and G zones
30-45-45-60
Recovery: 1225' GIP
98' OGCM (5%O, 20%G, 75%M)
62' OGCMW (5%O, 15%G, 32%M, 48%W - Chl 12,500 ppm)
IHP 1476 FHP 1442
IFP 26-58 FFP 59-95
ISIP 388 FSP 382
Temp 99°

DST No. 4 3076 to 3218 Formation: Lansing H, I, J, K, and L zones
30-45-45-60
Recovery: 150' Mud
IHP 1534 FHP 1506
IFP 23-57 FFP 59-96
ISIP 418 FSP 404
Temp 96°

DST No. 5 3211 to 3235 Formation: Arbuckle
30-45-30-60
Recovery: 150' Oil (39° gravity)
372' MGWCW (5%M, 20%G, 30%W, 45%O)
434' MGOCW (5%M, 20%G, 25%O, 50%W)
992' W (Chlor 30,000 ppm)
IHP 1612 FHP 1540
IFP 129-617 FFP 623-860
ISIP 1048 FSP 1049
Temp 109°

Formation	Sample	E-Log	Datum	Well 1	Well 2	Well 3
Stoller	2274	2276	-477	+1	+2	+1
Tarkio	2336	2338	-539	+3	+6	-2
Howard	2482	2483	-684	0	+1	-5
Topeka	2565	2564	-767	-1	+3	-6
King Hill	2660	2662	-863	-1	+1	-6
Queen Hill	2738	2740	-941	-2	-1	-8
Hebner	2825	2824	-1025	-2	0	-8
Toronto	2941	2942	-1043	-1	+4	-9
Douglas	2850	2850	-1051	-1	+5	-6
Brown Lime	2935	2936	-1137	+1	+2	-4
Lansing	2949	2950	-1151	+1	+2	-2
Muncie Creek	3088	3085	-1293	-3	0	+2
Stark	3164	3162	-1366	-1	+1	+1
Hushpuckney	3198	3202	-1403	NL	+2	0
B/Kansas City	3223	3224	-1425	NL	NL	0
Arbuckle	3232	3234	-1435	NL	NL	+1
Total Depth	3235	3236	-1437			

Well 1: Ritchie Exploration, Inc. Ames No. 3 N2 N2 NW Sec 6 T18SS R10W
Well 2: Ritchie Exploration, Inc. Ames P No. 4 N60' FNL and 330' FEL Sec 6 T18S R10W
Well 3: Ritchie Exploration, Inc. Schlicht Trust No. 1 2305' FSL and 660' FEL Sec 6 T18S R10W

Pipe was set to further test the Arbuckle.

Respectfully submitted,
Macklin M. Armstrong

ROCK TYPES

Dolbrn	shale, grn	Carbon Sh	Siltst
Lmst fw7>	shale, gry	Sandstone	Siltstone

ACCESSORIES

MINERAL	FOSSIL	STRINGER	TEXTURE
▲ Chert, dark	F Fossils < 20%	+++ Sandstone	C Chalky
P Pyrite	○ Colitic	--- Siltstone	
▲ Chert White	○ Comolitic		
▲ Mica	○ Fusilline		

OTHER SYMBOLS

DST
■ DST Int
■ DST alt
■ Core

