

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

RITCHIE EXPLORATION, INC.

WELL: JOSEPH #4

LOC.: 1200' FNL & 600' FEL

SEC. 30-13-31W

GOVE COUNTY, KANSAS

API: 15-063-22185-00-00

DRILLING CONTR.: DISCOVERY RIG #1

SPUD: 03-05-14 COMP: 03-16-14

MUD UP: 2800' TYPE MUD: CHEM.

DRILL TIME: 3500 to RTD

RTD: 4675' LTD: 4578'

SAMPLES SAVED: 3600'-RTD

GEOLOGIST: ROBERT J. PETERSEN

ELEVATION

KB: 2876
GL: 2868

LOG MEASURED
FROM: KB

SURFACE CASING

20# 8 5/8" Casing set @ 21' w/175 SX

PRODUCTION CASING

5 1/2" Set

WELL LOG SURVEYS

DIL/CDL

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM	POS A	POS B	POS C
Anhydrite	2353	+523	+2	-3	+2
Base Anhydrite	2374	+502	+5	-2	+3
Heebner	3863	-987	+8	-3	+2
Toronto	3890	-1014	+3	-7	-1
Lansing	3910	-1034	+9	-6	+1
Muncie	4058	-1182	+10	-5	Flat
Stark	4146	-1270	+5	-7	+1
Marm	4238	-1362	+5	-2	+2
Pawnee	4339	-1463	+11	Flat	+4
Fort Scott	4395	-1519	+8	-2	+3
Cher SH	4423	-1547	+11	Flat	+3
Johnson	4467	-1591	+10	-2	+1
Base Johnson	4488	-1612	+9	-1	+1
Mississippian	4515	-1639	+12	-12	+14

DAILY REPORT @ 7:00 A.M.

3-5-14 MIRU, SPUD
3-6-14 636'
3-7-14 2369'
3-8-14 3408'
3-9-14 3955'
3-10-14 3982'
3-11-14 4060'
3-12-14 4120'
3-13-14 4175'
3-14-14 4268'
3-15-14 4439'
3-16-14 4553'

REFERENCE WELL:

Well A: Joseph #3
350' FNL & 1230' FEL
30-13S-13W

Well B: Joseph #1
390' FNL & 360' FEL
30-13S-13W

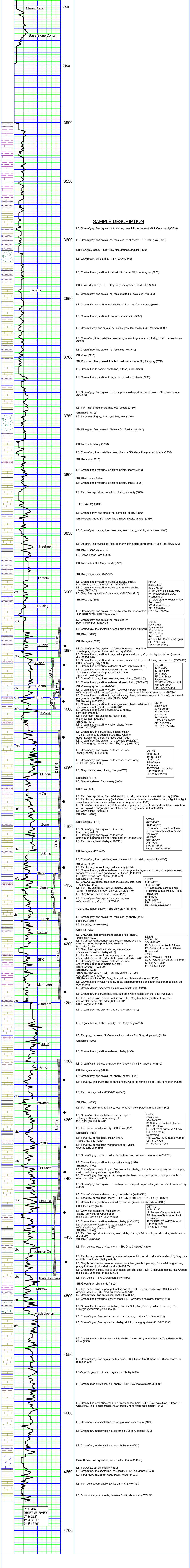
Well C: Joseph-Hess #1
1700' FSL & 175' FEL
30-13S-13W

REMARKS AND RECOMMENDATIONS

Production pipe was run by the operator to further test this well for commercial production.

Respectfully Submitted,

Robert J. Petersen



RTD 4675'
DRIFT SURVEY
0° @ 2225'
1° @ 3955'
2° @ 4675'