

**GEOLOGIST'S REPORT**  
 DRILLING TIME AND SAMPLE LOG

OPERATOR: RITCHEIE EXPLORATION, INC.  
 WELL NO: 2  
 ELEVATION: 2903

LEASE: Joseph

FIELD: Rate Loop R/D/C  
 LOCATION: 335' E. L. & 920' E. W.  
 SEC. 30 TWP. 13S R. 31W.  
 COUNTY: Goose STATE: Kansas

DRILLING TIME: 3550 TO RTD  
 SAMPLES DAMAGED FROM: 3550 TO RTD  
 DEPT. SUPERVISION FROM: 3553 TO RTD  
 MADE UP: 3085-5100 TYPE IRON CHEMICAL

FORMATION: 3550 TO RTD  
 TOP LEG DTDIM. TOP SURF. STRATIG. CORNER  
 Ashlandite 2378 +535 2316 +521 -5  
 Hedberg 3393 -887 3281 -881 -2  
 Abilene 3793 -1230 3731 -1028 -2  
 Lincoln 4098 -1580 4028 -1478 -3  
 Freshwater 4422 -1578 4410 -1573 -3  
 Cherokee sh. 4452 -1547 4440 -1543 -3  
 Johnson sh. 4479 -1582 4468 -1585 -3  
 Johnson sh. 4492 -1672 4481 -1672 -3  
 Haskins sh. 4537 -1634 4523 -1629 -3

DIAGRAM:

ELECTRICAL SURVEYS: None

SUPERBOND: None

DUAL INDUCTION: None

NEUTRON DENSITY: None

RTD 4660  
 E.T.O. 4665

DATE	DEPTH	NO.	SIZE	TYPE	DEPTH	REMARKS
1-21-12	2378	1	2 1/4"	Steel	2378	Bit set
1-28-12	2380	2	2 1/4"	Steel	2380	Bit set
1-30-12	3193	3	2 1/4"	Steel	3193	Bit set
1-31-12	4075	4	2 1/4"	Steel	4075	Bit set
2-01-12	4137	5	2 1/4"	Steel	4137	Bit set
2-02-12	4415	6	2 1/4"	Steel	4415	Bit set
2-03-12	4495	7	2 1/4"	Steel	4495	Bit set
2-04-12	4495	8	2 1/4"	Steel	4495	Bit set
2-05-12	4495	9	2 1/4"	Steel	4495	Bit set
2-06-12	4660	10	2 1/4"	Steel	4660	Bit set

**DRILL STEM TESTS**

No.	Interval	RT/Min	SP/Min	RT/Min	SP/Min	Remarks
1	DST No. 1 42'-27"	7 1/2"	81"	76"	2286"	90' mud 20% oil 5% gas
2	DST No. 2 30'-14"	4 5/8"	81"	60"	1898"	90' mud 85% oil 45% gas
3	DST No. 3 49'-09"	1 1/2"	103'	154"	1908"	80' mud 10% oil 90% gas
4	DST No. 4 41'-07"	3 3/4"	90'	140"	2122"	180' fluid
5	DST No. 5 33'-17"	4 1/2"	90'	140"	2122"	180' fluid
6	DST No. 6 42'-06"	4 1/2"	90'	140"	2122"	180' fluid
7	DST No. 7 46'-05"	4 1/2"	90'	140"	2122"	180' fluid
8	DST No. 8 56'-06"	4 1/2"	103'	177"	2406"	90' mud 20% oil 5% gas

**LEGEND**

Anydrite Salt Sandstone Shale Carb. sh. Limestone Co. Lime. Chert Dolomite

**SCALE** 1" = 100'

