

DST REPORT

GENERAL INFORMATION

DATE	: 3-18-95	TICKET	: 21412
CUSTOMER	: RANGE OIL COMPANY, INC.	LEASE	: WAITE
WELL	: #3	TEST:	1
ELEVATION:	1435 KB	GEOLOGIST:	TIM J. LAUER
SECTION	: 31	FORMATION:	SQUIRREL-CHEROKEE SD
RANGE	: 7E	TOWNSHIP	: 26S
Gauge SN#:	11018	STATE	: KS
		CLOCK	: 12
	COUNTY: BUTLER		
	RANGE : 4425		

WELL INFORMATION

PERFORATION INTERVAL FROM:	2511.00 ft	TO:	2579.00 ft	TVD:	2579.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	2514.0 ft		2576.0 ft		
TEMPERATURE:	98.0				
DRILL COLLAR LENGTH:	30.0 ft	I.D.:		2.200 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	2461.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	68.0 ft	ANCHOR SIZE:		5.500 in	
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:		0.750 in	
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :		4.5 F.H.	
PACKER DEPTH:	2506.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	2511.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	

MUD INFORMATION

DRILLING CON. :	GLAVES DRILLING RIG2	VISCOSITY :	40.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.500 cc
WEIGHT :	9.600 ppg		
CHLORIDES :	1100 ppm	SERIAL NUMBER:	
JARS-MAKE :	NOT RAN	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW: VERY WEAK BLOW THROUGHOUT - 1/4 INCH
FINAL FLOW: SURFACE BLOW THROUGHOUT - 1/8 INCH

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
20.0	0.0	0.0	0.0	100.0	OIL SPECKED MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0940	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0940	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1280.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	40.00	40.00
INITIAL SHUT-IN	30.00		700.00
FINAL FLOW	30.00	44.00	44.00
FINAL SHUT-IN	30.00		670.00

FINAL HYDROSTATIC PRESSURE: 1256.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1317.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	59.00	59.00
INITIAL SHUT-IN	30.00		713.00
FINAL FLOW	30.00	64.00	64.00
FINAL SHUT-IN	33.00		681.00

FINAL HYDROSTATIC PRESSURE: 1317.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 3-18-95	TICKET : 21412
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : WAITE
WELL : #3	GEOLOGIST: TIM J. LAUER
ELEVATION: 1435 KB	FORMATION: SQUIRREL-CHEROKEE SD
SECTION : 31	TOWNSHIP : 26S
RANGE : 7E	STATE : KS
GAUGE SN#: 11018	CLOCK : 12
COUNTY: BUTLER	
RANGE : 4425	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	59.00	59.00
5.00	59.00	0.00
10.00	59.00	0.00
15.00	59.00	0.00
20.00	59.00	0.00
25.00	59.00	0.00
30.00	59.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	91.00	91.00	0.00
6.00	198.00	107.00	0.00
9.00	309.00	111.00	0.00
12.00	418.00	109.00	0.00
15.00	514.00	96.00	0.00
18.00	578.00	64.00	0.00
21.00	631.00	53.00	0.00
24.00	667.00	36.00	0.00
27.00	695.00	28.00	0.00
30.00	713.00	18.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	64.00	64.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

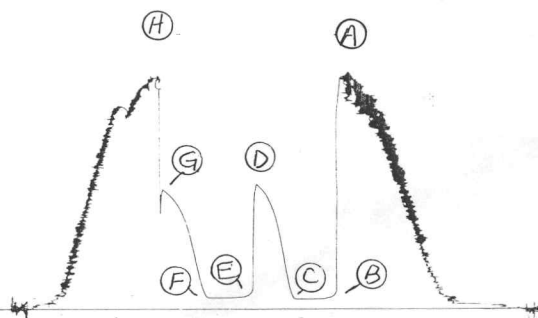
Time (min)	Pressure	Delta P
5.00	64.00	0.00
10.00	64.00	0.00
15.00	64.00	0.00
20.00	64.00	0.00
25.00	64.00	0.00
30.00	64.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	64.00	64.00	0.00
6.00	136.00	72.00	0.00
9.00	268.00	132.00	0.00
12.00	361.00	93.00	0.00
15.00	450.00	89.00	0.00
18.00	515.00	65.00	0.00
21.00	564.00	49.00	0.00
24.00	603.00	39.00	0.00
27.00	632.00	29.00	0.00
30.00	655.00	23.00	0.00
33.00	681.00	26.00	0.00

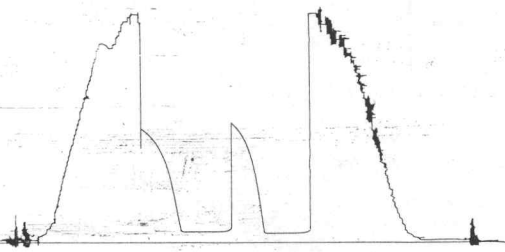
DST #1
RSC #14018
INSIDE

Ticket # 21412
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DST #1
RSC #13629
OUTSIDE

Ticket # 21412
O



DST REPORT

GENERAL INFORMATION

DATE	: 3-18-95	TICKET	: 21413
CUSTOMER	: RANGE OIL COMPANY, INC.	LEASE	: WAITE
WELL	: #3	TEST:	2
ELEVATION:	1435 KB	GEOLOGIST:	TIM J. LAUER
SECTION	: 31	FORMATION:	MISSISSIPPI
RANGE	: 7E	TOWNSHIP	: 26S
GAUGE SN#:	11018	STATE	: KS
		CLOCK	: 12
	COUNTY: BUTLER		
	RANGE : 4425		

WELL INFORMATION

PERFORATION INTERVAL FROM:	2723.00 ft	TO:	2730.00 ft	TVD:	2730.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	2712.0 ft		2727.0 ft		
TEMPERATURE:	109.0				
DRILL COLLAR LENGTH:	210.0 ft	I.D.:		2.200 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	2489.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	24.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	7.0 ft	ANCHOR SIZE:		5.500 in	
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:		0.750 in	
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :		4.5 F.H.	
PACKER DEPTH:	2718.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	2723.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	

MUD INFORMATION

DRILLING CON. :	GLAVES DRILLING RIG2	VISCOSITY :	58.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.200 cc
WEIGHT :	9.600 ppg		
CHLORIDES :	1000 ppm	SERIAL NUMBER:	
JARS-MAKE :	NOT RAN	REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW: WEAK BUILDING BLOW - 1/4 TO 1 INCH
FINAL FLOW: WEAK BUILDING BLOW - 1/4 TO 1/2 INCH

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	30 FEET GAS ABOVE FLUID
5.0	100.0	0.0	0.0	0.0	FREE OIL
25.0	2.0	0.0	0.0	98.0	VERY SLI OIL CUT MUD
60.0	1.0	0.0	40.0	59.0	HVY WATER CUT MUD W/OIL
0.0	0.0	0.0	0.0	0.0	SCUM-CHLORIDES 23000 ppm

RATE INFORMATION

OIL VOLUME:	0.0287	STB		
GAS VOLUME:	0.0000	SCF		
MUD VOLUME:	0.2816	STB		
WATER VOLUME:	0.1128	STB		
TOTAL FLUID :	0.4231	STB		
			TOTAL FLOW TIME:	90.0000 min.
			AVERAGE OIL RATE:	2.3667 STB/D
			AVERAGE WATER RATE:	4.4032 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1370.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	37.00	39.00
INITIAL SHUT-IN	30.00		896.00
FINAL FLOW	60.00	51.00	56.00
FINAL SHUT-IN	60.00		896.00

FINAL HYDROSTATIC PRESSURE: 1350.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1407.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	16.00	16.00
INITIAL SHUT-IN	30.00		905.00
FINAL FLOW	60.00	34.00	45.00
FINAL SHUT-IN	60.00		901.00

FINAL HYDROSTATIC PRESSURE: 1364.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 3-18-95	TICKET : 21413
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : WAITE
WELL : #3	GEOLOGIST: TIM J. LAUER
ELEVATION: 1435 KB	FORMATION: MISSISSIPPI
SECTION : 31	TOWNSHIP : 26S
RANGE : 7E	STATE : KS
GAUGE SN#: 11018	CLOCK : 12
COUNTY: BUTLER	
RANGE : 4425	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	16.00	16.00
5.00	16.00	0.00
10.00	16.00	0.00
15.00	16.00	0.00
20.00	16.00	0.00
25.00	16.00	0.00
30.00	16.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	164.00	164.00	11.00
6.00	850.00	686.00	6.00
9.00	886.00	36.00	4.33
12.00	896.00	10.00	3.50
15.00	899.00	3.00	3.00
18.00	904.00	5.00	2.67
21.00	905.00	1.00	2.43
24.00	905.00	0.00	2.25
27.00	905.00	0.00	2.11
30.00	905.00	0.00	2.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	34.00	34.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	34.00	0.00
10.00	34.00	0.00
15.00	34.00	0.00
20.00	34.00	0.00
25.00	34.00	0.00
30.00	34.00	0.00
35.00	36.00	2.00
40.00	38.00	2.00
45.00	41.00	3.00
50.00	43.00	2.00
55.00	44.00	1.00
60.00	45.00	1.00

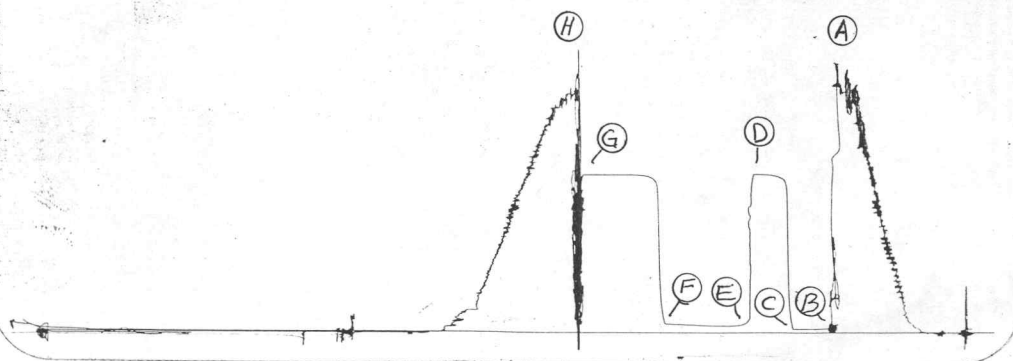
FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	152.00	152.00	21.00
6.00	754.00	602.00	11.00
9.00	876.00	122.00	7.67
12.00	890.00	14.00	6.00
15.00	896.00	6.00	5.00
18.00	899.00	3.00	4.33
21.00	900.00	1.00	3.86
24.00	901.00	1.00	3.50
27.00	901.00	0.00	3.22
30.00	901.00	0.00	3.00
33.00	901.00	0.00	2.82
36.00	901.00	0.00	2.67
39.00	901.00	0.00	2.54
42.00	901.00	0.00	2.43
45.00	901.00	0.00	2.33
48.00	901.00	0.00	2.25
51.00	901.00	0.00	2.18
54.00	901.00	0.00	2.11
57.00	901.00	0.00	2.05
60.00	901.00	0.00	2.00

DST #2
RSC #11018
INSIDE

Ticket # 21413

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DST #2
RSC #13629
OUTSIDE

Ticket # 21413

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