Company Darrah Oil Company (John J. Darrah, Jr.) Lease & Well No. Conrad #3

Elevation - Formation Viola Effective Pay - Ft. Ticket No. 9527

Date 2/26/81 Sec. 30 Twp. 28S Range 9W County Kingman State Kansas

Test Approved by Richard A Robba Western Representative Jeff Piotrowski

Formation Test No. 1 Interval Tested from 4404 ft. to 4449 ft. Total Depth 4449 ft.

Packer Depth 4399 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4404 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4407 ft. Recorder Number 5673 Cap. 5400

Bottom Recorder Depth (Outside) 4446 ft. Recorder Number 1565 Cap. 4900

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Rig #1 Drill Collar Length 360 I. D. 2.2 in.

Mud Type Starch Viscosity 54 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 48.0 cc. Drill Pipe Length 4024 I. D. 3.8 in.

Chlorides 56,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 45 ft. Size 5½OD in.

Did Well Flow? No Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Strong throughout test

Recovered 2785 ft. of salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 8:58 ~~A.M.~~ ~~P.M.~~ Time Started Off Bottom 10:58 ~~A.M.~~ ~~P.M.~~ Maximum Temperature 135

Initial Hydrostatic Pressure			(A)	2308	P.S.I.	
Initial Flow Period	Minutes	20	(B)	63	P.S.I. to (C)	751 P.S.I.
Initial Closed In Period	Minutes	30	(D)	1319	P.S.I.	
Final Flow Period	Minutes	40	(E)	792	P.S.I. to (F)	1313 P.S.I.
Final Closed In Period	Minutes	30	(G)	1311	P.S.I.	
Final Hydrostatic Pressure			(H)	2281	P.S.I.	

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WESTERN TESTING CO., INC.
Pressure Data

Date 2/26/81 Test Ticket No. 9527

Recorder No. 5673 Capacity 5400 Location 4407 Ft.

Clock No. - Elevation - Well Temperature 135 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2308 P.S.I.	Open Tool	8:58A M	
B First Initial Flow Pressure	63 P.S.I.	First Flow Pressure	20 Mins.	20 Mins.
C First Final Flow Pressure	751 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1319 P.S.I.	Second Flow Pressure	40 Mins.	40 Mins.
E Second Initial Flow Pressure	792 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	1313 P.S.I.			
G Final Closed-in Pressure	1311 P.S.I.			
H Final Hydrostatic Mud	2281 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.

Point Mins.	Press.
P 1 0	63
P 2 5	290
P 3 10	486
P 4 15	653
P 5 20	751
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	751
3	1300
6	1302
9	1304
12	1305
15	1308
18	1310
21	1312
24	1314
27	1316
30	1319

Second Flow Pressure
Breakdown: 8 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	792
5	896
10	1014
15	1105
20	1176
25	1232
30	1272
35	1300
40	1313

Final Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	1313
3	1319
6	1322
9	1322
12	1322
15	1322
18	1319
21	1316
24	1314
27	1312
30	1311

5673
DST #1

Jk # 9527
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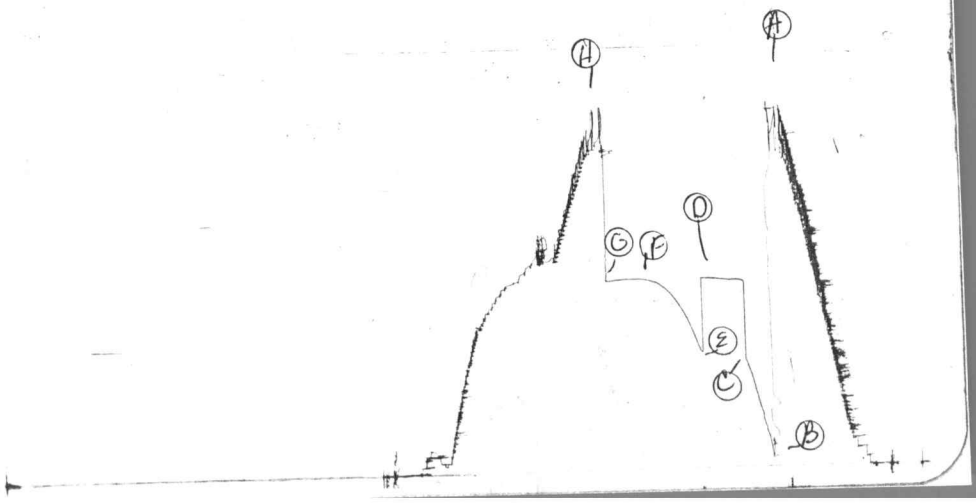

Company Darrah Oil Company (John J. Darrah, Jr.) Lease & Well No. Conrad #3

Elevation - Formation Mississippi Effective Pay - Ft. Ticket No. 9528

Date 2/26/81 Sec. 30 Twp. 28S Range 9W County Kingman State Kansas

Test Approved by Richard A Robba Western Representative Jeff Piotrowski

Formation Test No. 2 Interval Tested from 3918 ft. to 4173 ft. Total Depth 4449 ft.

Packer Depth 3913 ft. Size 6 3/4 in. Packer Depth 4173 ft. Size 6 3/4 in.

Packer Depth 3918 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3921 ft. Recorder Number 5673 Cap. 5400

Bottom Recorder Depth (Outside) 3960 ft. Recorder Number 1565 Cap. 4900

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Rig #1 Drill Collar Length TP 270 I. D. 2.2 in.

Mud Type Starch Viscosity 54 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 48.0 cc. Drill Pipe Length 3898 I. D. 3.8 in.

Chlorides 56,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length DP210 - 45 ft. Size 5½OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Strong throughout test

Recovered 240 ft. of gas cut mud

Recovered 240 ft. of gassy muddy water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 3:50 ~~A.M.~~ P.M. Time Started Off Bottom 5:00 ~~A.M.~~ P.M. Maximum Temperature 130

Initial Hydrostatic Pressure (A) 2067 P.S.I.

Initial Flow Period Minutes 20 (B) 96* P.S.I. to (C) 160* P.S.I.

Initial Closed In Period Minutes 30 (D) 1434 P.S.I.

Final Flow Period Minutes 20 (E) 224* P.S.I. to (F) 265* P.S.I.

Final Closed In Period Minutes - (G) - P.S.I.

Final Hydrostatic Pressure (H) 2040 P.S.I.

WTC

WESTERN TESTING CO., INC.
Pressure Data

Date 2/26/81 Test Ticket No. 9528

Recorder No. 5673 Capacity 5400 Location 3921 Ft.

Clock No. - Elevation - Well Temperature 130 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2067 P.S.I.	Open Tool	3:50P M	
B First Initial Flow Pressure	96* P.S.I.	First Flow Pressure	20 Mins.	20 Mins.
C First Final Flow Pressure	160* P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1434 P.S.I.	Second Flow Pressure	20 Mins.	20 Mins.
E Second Initial Flow Pressure	224* P.S.I.	Final Closed-in Pressure	- Mins.	- Mins.
F Second Final Flow Pressure	265* P.S.I.			
G Final Closed-in Pressure	- P.S.I.			
H Final Hydrostatic Mud	2040 P.S.I.			

*Pressures questionable due to plugging action

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.

Point Mins.	Press.
P 1 0	96*
P 2 5	100*
P 3 10	142*
P 4 15	157*
P 5 20	160*
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	160*
3	710
6	1137
9	1268
12	1322
15	1354
18	1378
21	1400
24	1419
27	1430
30	1434

Second Flow Pressure
Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	224*
5	224*
10	240*
15	246*
20	265*

Final Shut-In
Breakdown: 0 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.

WTC - 4

5673
DST #2

JK # 9528

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