

FORM MUST BE TYPED

SIDE ONE

ORIGINAL

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACD-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 3180

Name: Deutsch Oil Company

Address 107 North Market - Suite 1115

City/State/Zip Wichita, Kansas 67202

Purchaser: KN ENERGY

Operator Contact Person: Kent Deutsch

Phone (316) 267-7551

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: Bruce Becker

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBTB
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____

04-17-95 04-25-95 04-25-95
Spud Date Date Reached TD Completion Date

API NO. 15-145-21425 0000

County Pawnee County, Kansas

C-E/2 SE - NE - Sec. 36 Twp. 23S Rge. 16 XX^E

3300 Feet from N (circle one) Line of Section

330 Feet from W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, S, NW or SW (circle one)

Lease Name Martin Well # 1-36

Field Name _____

Producing Formation ARBUCKLE

Elevation: Ground 2047' KB 2056'

Total Depth 4131' PBTB _____

Amount of Surface Pipe Set and Cemented at 260.84 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cnt.

Drilling Fluid Management Plan ALT 1 JH 1-10-96
(Data must be collected from the Reserve Pit)

Chloride content 60,000 ppm Fluid volume 480 bbls

Desludging method used TRUCK

Location of fluid disposal if hauled offsite: _____

Operator Name BULLSEYE ROUSABOULT SERVICE

Lease Name CLARK License No. 31056

NW Quarter Sec. 10 Twp. 26 S Rng. 12 1/4

County PRATT Docket No. D-21405

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Kent Deutsch

Title OWNER Date 8/1/95

Subscribed and sworn to before me this 1st day of August 19 95.

Notary Public D. Dapine & Stan

Date Commission Expires 10-1-97

K.C.C. OFFICE USE ONLY

F Letter of Confidentiality Attached

C Wireline Log Received

G Geologist Report Received

RECEIVED

KANSAS CORPORATION COMMISSION Distribution

KCC SWD/Rep NGPA

KGS Plug Other

(Specify)

AUG 02 1995

SIDE TWO

Operator Name Deutsch Oil Company Lease Name Martin Well # 1-36
 Sec. 36 Twp. 23S Rge. 16 East West
 County Pawnee County, Kansas

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	HEEBNER	3506	-1450
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	BROWN LIME	3640	-1584
List All E.Logs Run:	DIGL CAL SONIC CDDSNL	LANSING	3648	-1592
		BASE K.C.	3899	-1843
		ARBuckle	4106	-2050

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/2	8-5/8"	24#	260.84	60/40 Poz	175	3%cc 2%gel
Production	7-7/8"	5-1/2"	14#	4130	60/40 Poz	250	3%cc 2%gel

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	4108 to 4124	NONE	

TUBING RECORD	Size <u>2 7/8"</u>	Set At <u>4091 Ft.</u>	Packer At <u>NONE</u>	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	<u>WAITING ON PIPELINE</u>			
Producing Method	<input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls. <u>0</u>	Gas Mcf <u>3630</u>	Water Bbls. <u>0</u>	Gas-Oil Ratio

Disposition of Gas:	METHOD OF COMPLETION	Production Interval
<input type="checkbox"/> Vented <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, submit ACD-18.)	<input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify)	<u>4108-4124</u>

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE : 4-19-95
CUSTOMER : DEUTSCH OIL CO.
WELL : #1-36 TEST: 1
ELEVATION: 2058 KB
SECTION : 36
RANGE : 16W COUNTY: PAWNEE
GAUGE SN#: 11018 RANGE : 4425

API# 15-145-21425
TICKET : 21420
LEASE : MARTIN
GEOLOGIST: BARKER
FORMATION: HER., KRY., WINFIELD
TOWNSHIP : 23S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2019.00 ft TO: 2090.00 ft TVD: 2090.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 2022.0 ft 2067.0 ft
TEMPERATURE: 95.0

DRILL COLLAR LENGTH:	120.0 ft	I.D.:	2.200 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	1879.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	71.0 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 :	4.5XH
PACKER DEPTH:	2014.0 ft	SIZE:	6.630 in
PACKER DEPTH:	2019.0 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. : DUKE DRILLING RIG #4
MUD TYPE : CHEMICAL VISCOSITY : 0.00 cp
WEIGHT : 0.000 ppg WATER LOSS: 0.000 cc
CHLORIDES : 0 ppm
JARS-MAKE : SERIAL NUMBER:
DID WELL FLOW?: NO REVERSED OUT?: NO

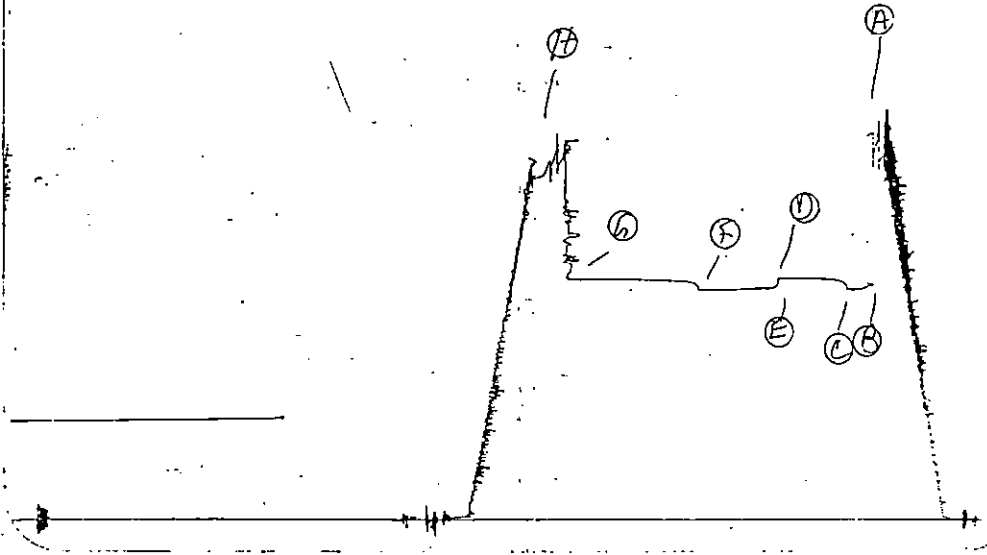
COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK BLOW DEAD IN 10 MINUTES.
FINAL FLOW PERIOD-WEAK BLOW DEAD IN 8 MINUTES.

DST #5
R02#11628
INSIDE

KT 21424
I

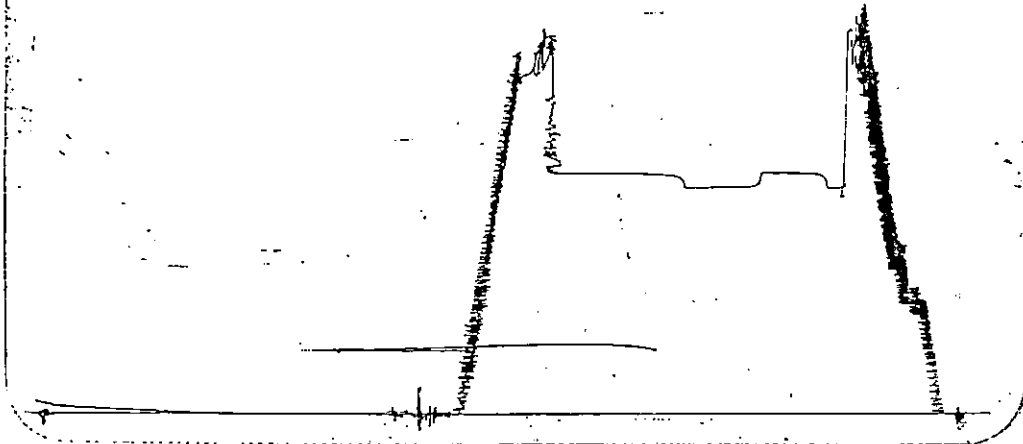


Inside Recorder

DST #5
R02#13629
OUTSIDE

KT 21424

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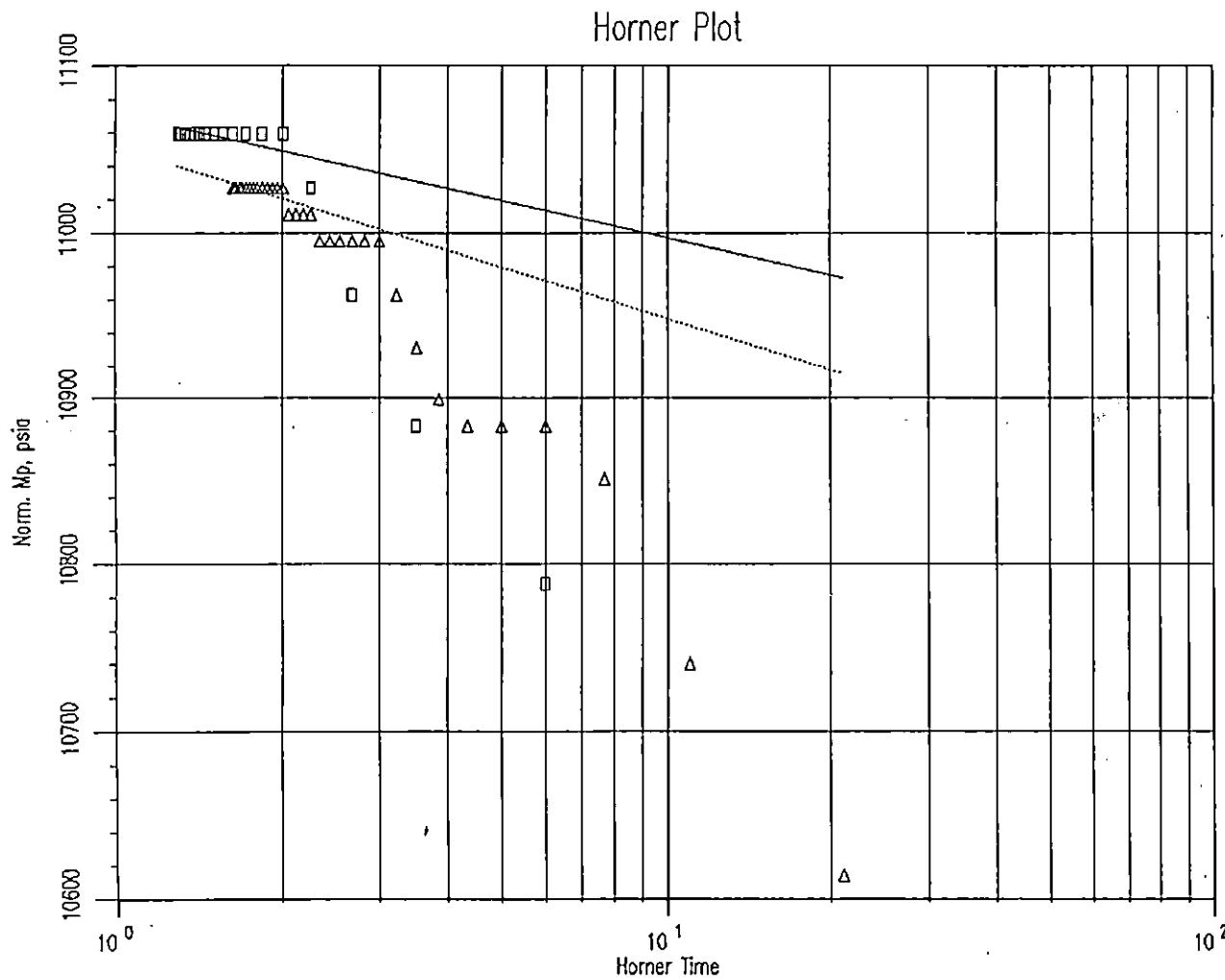


Outside Recorder

DATE 4-24-95
 CUSTOMER DEUTSCH OIL CO.
 WELL #1-36
 ELEVATION 2058 KB
 SECTION 36
 RANGE 16W
 GAUGE SN# 11018

TEST 5
 COUNTY PAWNEE
 RANGE 4425

TICKET 21424
 LEASE MARTIN
 GEOLOGIST DEUTSCH
 FORMATION ARBUCKLE
 TOWNSHIP 23S
 STATE KS
 CLOCK 12



Result

	#1	#2
tp, hrs	0.25	1.00
Slope	-74.13	-103.56
Pstar, psig	1372.74	1371.54
P1hr, psig	11064.11	11020.89
Skin	10.57	6.06
k, md	145.72	104.31
kh/u, md-ft/cp	256917.79	183902.34
ri, ft	39.96	67.61
DR, %	2.88	2.13
Drawdown Factor, %		0.001
Drawdown P*		0.001

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 4-24-95	TICKET : 21424
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 5	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: ARBUCKLE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

Input Data

Porosity 0.170 Rw: 0.328 ft h: 21.000 ft

qg 3420000.0 STB

Pvt Data

Evaluation Pressure : 85.0
 Evaluation Temperature: 126.0

Gas Grav 0.65 API Vis 0.012 cp Ct 1.1888E-002 1/PSI
 Bg 0.034 RBL/STB

Horner Results

	Inital Shut-In	Final Shut-In
pseudo pressure time	0.25 hrs	1.00 hrs
slope	-74.13	-103.56
pstar	1372.74 psig	1371.54 psig
plhr	11064.11 psig	11020.89 psig
skin	10.57	6.06
permeability	145.72 md	104.31 md
transmisability	256917.79 md-ft/cp	183902.34 md-ft/cp
radius of investigation	39.96 ft	67.61 ft
Damage-Ratio	2.9 percent	2.1 percent
Drawdown Factor		0.001 percent
Drawdown P*		0.001 percent

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
78.00	1370.00	0.00	1.77
81.00	1370.00	0.00	1.74
84.00	1370.00	0.00	1.71
87.00	1370.00	0.00	1.69
90.00	1370.00	0.00	1.67
93.00	1370.00	0.00	1.65
96.00	1370.00	0.00	1.63

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	1320.00	1320.00
5.00	1320.00	0.00
10.00	1320.00	0.00
15.00	1320.00	0.00
20.00	1315.00	5.00
25.00	1312.00	3.00
30.00	1310.00	2.00
35.00	1308.00	2.00
40.00	1308.00	0.00
45.00	1308.00	0.00
50.00	1308.00	0.00
55.00	1308.00	0.00
60.00	1308.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1344.00	1344.00	21.00
6.00	1352.00	8.00	11.00
9.00	1359.00	7.00	7.67
12.00	1361.00	2.00	6.00
15.00	1361.00	0.00	5.00
18.00	1361.00	0.00	4.33
21.00	1362.00	1.00	3.86
24.00	1364.00	2.00	3.50
27.00	1366.00	2.00	3.22
30.00	1368.00	2.00	3.00
33.00	1368.00	0.00	2.82
36.00	1368.00	0.00	2.67
39.00	1368.00	0.00	2.54
42.00	1368.00	0.00	2.43
45.00	1368.00	0.00	2.33
48.00	1369.00	1.00	2.25
51.00	1369.00	0.00	2.18
54.00	1369.00	0.00	2.11
57.00	1369.00	0.00	2.05
60.00	1370.00	1.00	2.00
63.00	1370.00	0.00	1.95
66.00	1370.00	0.00	1.91
69.00	1370.00	0.00	1.87
72.00	1370.00	0.00	1.83
75.00	1370.00	0.00	1.80

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4-24-95	TICKET	: 21424
CUSTOMER	: DEUTSCH OIL CO.	LEASE	: MARTIN
WELL	: #1-36	TEST: 5	GEOLOGIST: DEUTSCH
ELEVATION	: 2058 KB	FORMATION:	ARBUCKLE
SECTION	: 36	TOWNSHIP	: 23S
RANGE	: 16W	COUNTY: PAWNEE	STATE : KS
GAUGE SN#:	11018	RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1323.00	1323.00
5.00	1315.00	-8.00
10.00	1311.00	-4.00
15.00	1311.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1355.00	1355.00	6.00
6.00	1361.00	6.00	3.50
9.00	1366.00	5.00	2.67
12.00	1370.00	4.00	2.25
15.00	1372.00	2.00	2.00
18.00	1372.00	0.00	1.83
21.00	1372.00	0.00	1.71
24.00	1372.00	0.00	1.63
27.00	1372.00	0.00	1.56
30.00	1372.00	0.00	1.50
33.00	1372.00	0.00	1.45
36.00	1372.00	0.00	1.42
39.00	1372.00	0.00	1.38
42.00	1372.00	0.00	1.36
45.00	1372.00	0.00	1.33
48.00	1372.00	0.00	1.31
51.00	1372.00	0.00	1.29

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 4-24-95	TICKET : 21424
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 5	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: ARBUCKLE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.250	60 PSIG	2700000 SCF/D
10 MIN	MERLA	1.250	60 PSIG	2700000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	1.250	74 PSIG	3200000 SCF/D
20 MIN	MERLA	1.250	80 PSIG	3420000 SCF/D
30 MIN	MERLA	1.250	80 PSIG	3420000 SCF/D
40 MIN	MERLA	1.250	80 PSIG	3420000 SCF/D
50 MIN	MERLA	1.250	80 PSIG	3420000 SCF/D
60 MIN	MERLA	1.250	80 PSIG	3420000 SCF/D

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2189.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1323.00	1311.00
INITIAL SHUT-IN	51.00		1372.00
FINAL FLOW	60.00	1320.00	1308.00
FINAL SHUT-IN	96.00		1370.00
FINAL HYDROSTATIC PRESSURE:	2098.00		

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

WATER MIST. SEE GAS SHEET ATTACHED.
GAS SAMPLE TAKEN, GAS BURNED.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
90.0	0.0	10.0	90.0	0.0	GASSY SULFUR WATER

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	0.7088 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.0000 STB	AVERAGE WATER RATE:	21.8138 STB/D
WATER VOLUME:	1.1361 STB		
TOTAL FLUID :	1.1361 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2066.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	1300.00	1292.00
INITIAL SHUT-IN	45.00		1350.00
FINAL FLOW	60.00	1284.00	1284.00
FINAL SHUT-IN	90.00		1341.00

FINAL HYDROSTATIC PRESSURE: 2042.00

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE	: 4-24-95	TICKET	: 21424
CUSTOMER	: DEUTSCH OIL CO.	LEASE	: MARTIN
WELL	: #1-36	TEST: 5	GEOLOGIST: DEUTSCH
ELEVATION	: 2058 KB	FORMATION	: ARBUCKLE
SECTION	: 36	TOWNSHIP	: 23S
RANGE	: 16W	COUNTY: PAWNEE	STATE : KS
GAUGE SN#	: 11018	RANGE : 4425	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4109.00 ft	TO:	4131.00 ft	TVD:	4131.0 ft
DEPTH OF SELECTIVE ZONE:	TEST TYPE: GAS				
DEPTH OF RECORDERS:	4112.0 ft	-	4128.0 ft		
TEMPERATURE:	126.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in		
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in		
DRILL PIPE LENGTH :	4083.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	26.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	22.0 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 :	4.5XH		
PACKER DEPTH:	4104.0 ft	SIZE:	6.630 in		
PACKER DEPTH:	4109.0 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. :	DUKE DRILLING RIG #4	VISCOSITY :	52.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.000 cc
WEIGHT :	9.500 ppg	SERIAL NUMBER:	12369
CHLORIDES :	8000 ppm	REVERSED OUT?:	NO
JARS-MAKE :	WESTERN		
DID WELL FLOW?:	NO		

COMMENTS

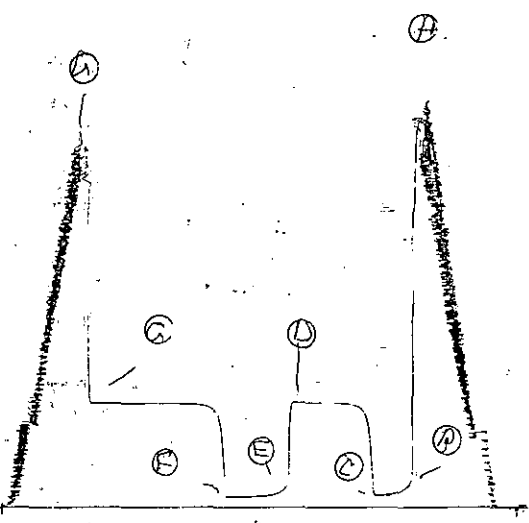
Comment

INITIAL FLOW PERIOD-STRONG BLOW BOTTOM OF BUCKET
IMMEDIATELY GAS TO SURFACE IN 2 MINUTES.
FINAL FLOW PERIOD-GAS TO SURFACE THROUGHOUT WITH

DST #4
RSC#11017
INSIDE

KT 21422

L



Inside Recorder

DST #4
RSC#13629
OUTSIDE

KT 21422

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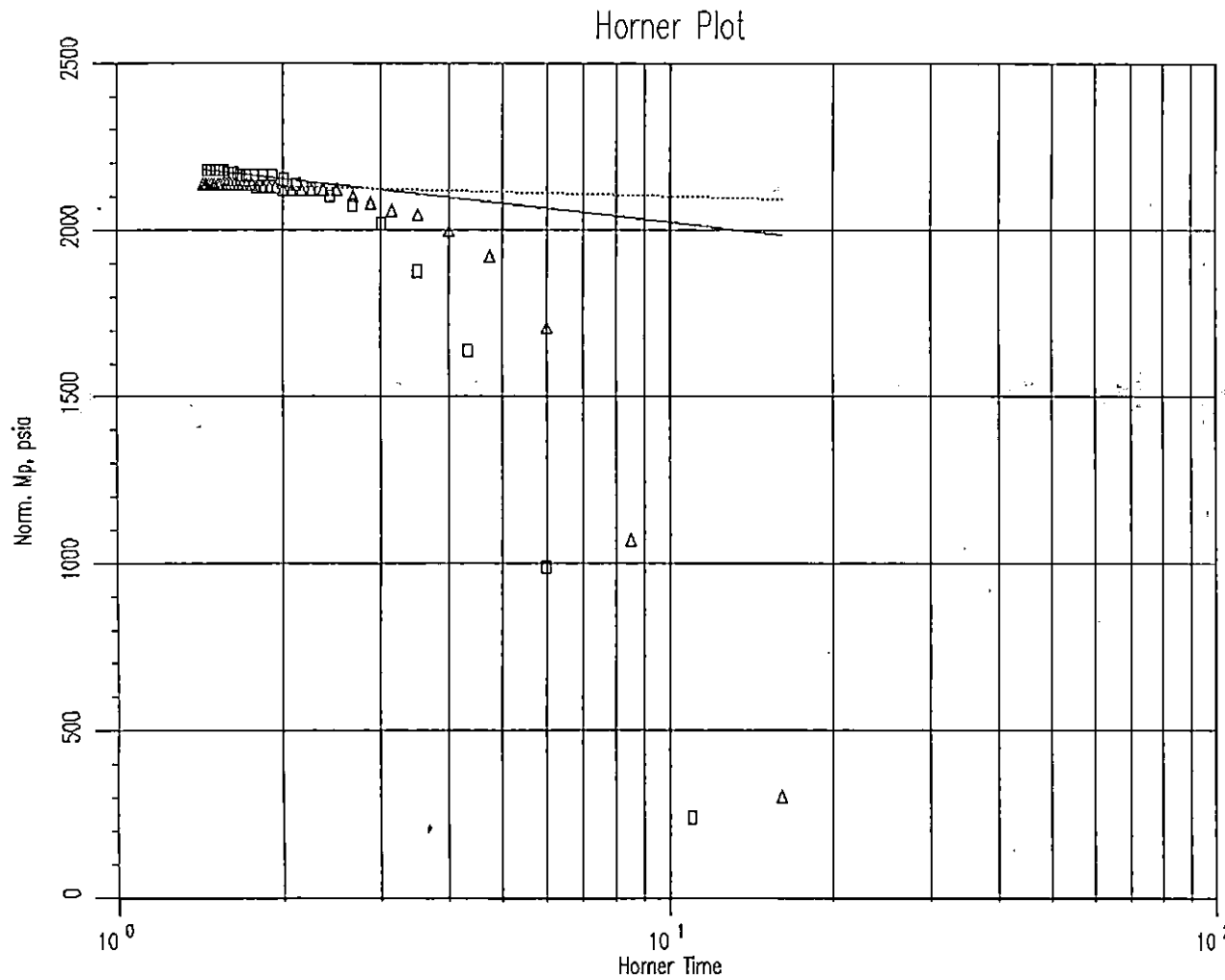


Outside Recorder

DATE 4-24-95
 CUSTOMER DEUTSCH OIL CO.
 WELL #1-36
 ELEVATION 2058 KB
 SECTION 36
 RANGE 16W
 GAUGE SN# 11018

TEST 4
 COUNTY PAWNEE
 RANGE 4425

TICKET 21423
 LEASE MARTIN
 GEOLOGIST DEUTSCH
 FORMATION CONGLOMERATE
 TOWNSHIP 23S
 STATE KS
 CLOCK 12



Result

	#1	#2
tp, hrs	0.50	0.75
Slope	-188.93	-42.90
Pstar, psig	612.50	603.10
P1hr, psig	2179.53	2135.08
Skin	10.93	53.81
k, md	1.08	4.74
kh/u, md-ft/cp	4199.35	18492.74
ri, ft	4.74	12.19
DR, %	4.81	16.40
Drawdown Factor, %		0.010
Drawdown P*		0.015

— BUILD 1

..... BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 4-24-95	TICKET : 21423
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 4	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: CONGLOMERATE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

Input Data

Porosity 0.180 Rw: 0.328 ft h: 46.000 ft

qg 144000.0 STB

Pvt Data
 Evaluation Pressure : 85.0
 Evaluation Temperature: 120.0

Gas Grav 0.65 API Vis 0.012 cp Ct 1.1892E-002 1/PSI
 Bg 0.034 RBL/STB

Horner Results

	Initial Shut-In	Final Shut-In
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pseudo pressure time	0.50 hrs	0.75 hrs
slope	-188.93	-42.90
pstar	612.50 psig	603.10 psig
plhr	2179.53 psig	2135.08 psig
skin	10.93	53.81
permeability	1.08 md	4.74 md
transmissability	4199.35 md-ft/cp	18492.74 md-ft/cp
radius of investigation	4.74 ft	12.19 ft
Damage-Ratio	4.8 percent	16 percent
Drawdown Factor		0.010 percent
Drawdown P*		0.015 percent

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
54.00	601.00	0.00	1.83
57.00	601.00	0.00	1.79
60.00	602.00	1.00	1.75
63.00	602.00	0.00	1.71
66.00	602.00	0.00	1.68
69.00	602.00	0.00	1.65
72.00	602.00	0.00	1.63
75.00	602.00	0.00	1.60
78.00	602.00	0.00	1.58
81.00	602.00	0.00	1.56
84.00	602.00	0.00	1.54
87.00	602.00	0.00	1.52
90.00	602.00	0.00	1.50
93.00	602.00	0.00	1.48
96.00	602.00	0.00	1.47
99.00	602.00	0.00	1.45
102.00	602.00	0.00	1.44
105.00	602.00	0.00	1.43

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	608.00	0.00	1.50
63.00	608.00	0.00	1.48
66.00	608.00	0.00	1.45

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	127.00	127.00
5.00	93.00	-34.00
10.00	76.00	-17.00
15.00	67.00	-9.00
20.00	53.00	-14.00
25.00	53.00	0.00
30.00	53.00	0.00
35.00	53.00	0.00
40.00	53.00	0.00
45.00	53.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	227.00	227.00	16.00
6.00	426.00	199.00	8.50
9.00	538.00	112.00	6.00
12.00	571.00	33.00	4.75
15.00	582.00	11.00	4.00
18.00	589.00	7.00	3.50
21.00	591.00	2.00	3.14
24.00	594.00	3.00	2.88
27.00	597.00	3.00	2.67
30.00	600.00	3.00	2.50
33.00	600.00	0.00	2.36
36.00	600.00	0.00	2.25
39.00	600.00	0.00	2.15
42.00	600.00	0.00	2.07
45.00	600.00	0.00	2.00
48.00	601.00	1.00	1.94
51.00	601.00	0.00	1.88

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4-24-95	TICKET : 21423
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36	TEST: 4
ELEVATION: 2058 KB	GEOLOGIST: DEUTSCH
SECTION : 36	FORMATION: CONGLOMERATE
RANGE : 16W	TOWNSHIP : 23S
COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018	RANGE : 4425
	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	167.00	167.00
5.00	111.00	-56.00
10.00	89.00	-22.00
15.00	78.00	-11.00
20.00	73.00	-5.00
25.00	71.00	-2.00
30.00	71.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	202.00	202.00	11.00
6.00	409.00	207.00	6.00
9.00	527.00	118.00	4.33
12.00	564.00	37.00	3.50
15.00	585.00	21.00	3.00
18.00	593.00	8.00	2.67
21.00	597.00	4.00	2.43
24.00	600.00	3.00	2.25
27.00	602.00	2.00	2.11
30.00	604.00	2.00	2.00
33.00	606.00	2.00	1.91
36.00	606.00	0.00	1.83
39.00	606.00	0.00	1.77
42.00	606.00	0.00	1.71
45.00	606.00	0.00	1.67
48.00	607.00	1.00	1.63
51.00	607.00	0.00	1.59
54.00	608.00	1.00	1.56
57.00	608.00	0.00	1.53

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 4-24-95 CUSTOMER : DEUTSCH OIL CO. WELL : #1-36 TEST: 4 ELEVATION: 2058 KB SECTION : 36 RANGE : 16W COUNTY: PAWNEE GAUGE SN#: 11018 RANGE : 4425	TICKET : 21423 LEASE : MARTIN GEOLOGIST: DEUTSCH FORMATION: CONGLOMERATE TOWNSHIP : 23S STATE : KS CLOCK : 12
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PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	1.000	25" WATER	129000 SCF/D
20 MIN	MERLA	1.000	27" WATER	134000 SCF/D
30 MIN	MERLA	1.000	23" WATER	123000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.000	37" WATER	157000 SCF/D
10 MIN	MERLA	1.000	35" WATER	150000 SCF/D
20 MIN	MERLA	1.000	33" WATER	144000 SCF/D
30 MIN	MERLA	1.000	33" WATER	144000 SCF/D
40 MIN	MERLA	1.000	33" WATER	144000 SCF/D

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2150.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	167.00	71.00
INITIAL SHUT-IN	66.00		608.00
FINAL FLOW	45.00	127.00	53.00
FINAL SHUT-IN	105.00		602.00
FINAL HYDROSTATIC PRESSURE:	2029.00		

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

GAS SHEET ATTACHED.
GAS SAMPLE TAKEN, GAS BURNED.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
50.0	0.0	5.0	0.0	95.0	GAS CUT DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.1969	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.6663	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.6663	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2100.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	90.00	44.00
INITIAL SHUT-IN	60.00		600.00
FINAL FLOW	45.00	78.00	50.00
FINAL SHUT-IN	90.00		600.00

FINAL HYDROSTATIC PRESSURE: 2160.00

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE	: 4-24-95	TICKET	: 21423
CUSTOMER	: DEUTSCH OIL CO.	LEASE	: MARTIN
WELL	: #1-36	TEST: 4	GEOLOGIST: DEUTSCH
ELEVATION	: 2058 KB	FORMATION	: CONGLOMERATE
SECTION	: 36	TOWNSHIP	: 23S
RANGE	: 16W	COUNTY: PAWNEE	STATE : KS
GAUGE SN#	: 11018	RANGE : 4425	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4010.00 ft TO: 4050.00 ft TVD: 4050.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 4013.0 ft 4047.0 ft
TEMPERATURE: 120.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	3984.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	26.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	40.0 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 :	4.5XH
PACKER DEPTH:	4005.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4010.0 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. :	DUKE DRILLING RIG #4	VISCOSITY :	52.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.000 cc
WEIGHT :	9.500 ppg	SERIAL NUMBER:	12369
CHLORIDES :	8000 ppm	REVERSED OUT?:	NO
JARS-MAKE :	WESTERN		
DID WELL FLOW?:	NO		

COMMENTS

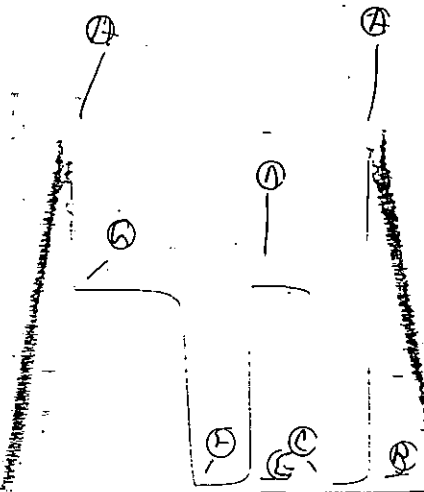
Comment

INITIAL FLOW PERIOD-STRONG BLOW BOTTOM OF BUCKET
IN 1 MINUTE. GAS TO SURFACE IN 4 MINUTES.
FINAL FLOW PERIOD-GAS TO SURFACE THROUGHOUT. SEE

DST #3
Roc #11518
INSIDE

K4 2/4/88

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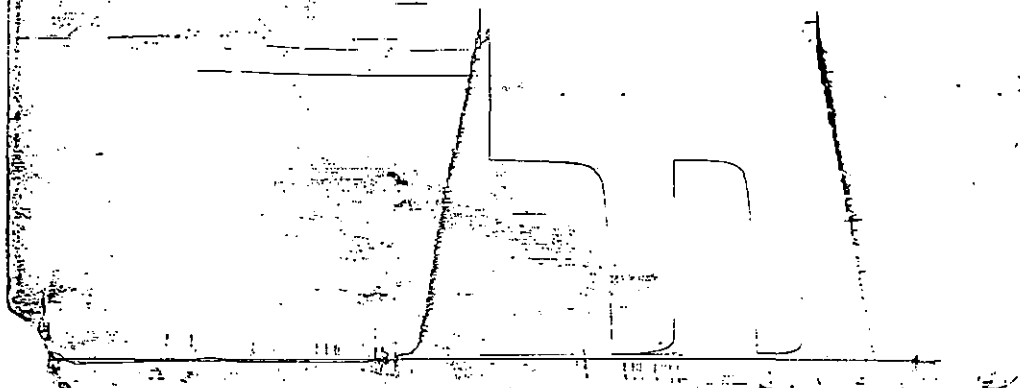


Inside Recorder

DST #3
Roc #13629
OUTSIDE

K4 2/4/88

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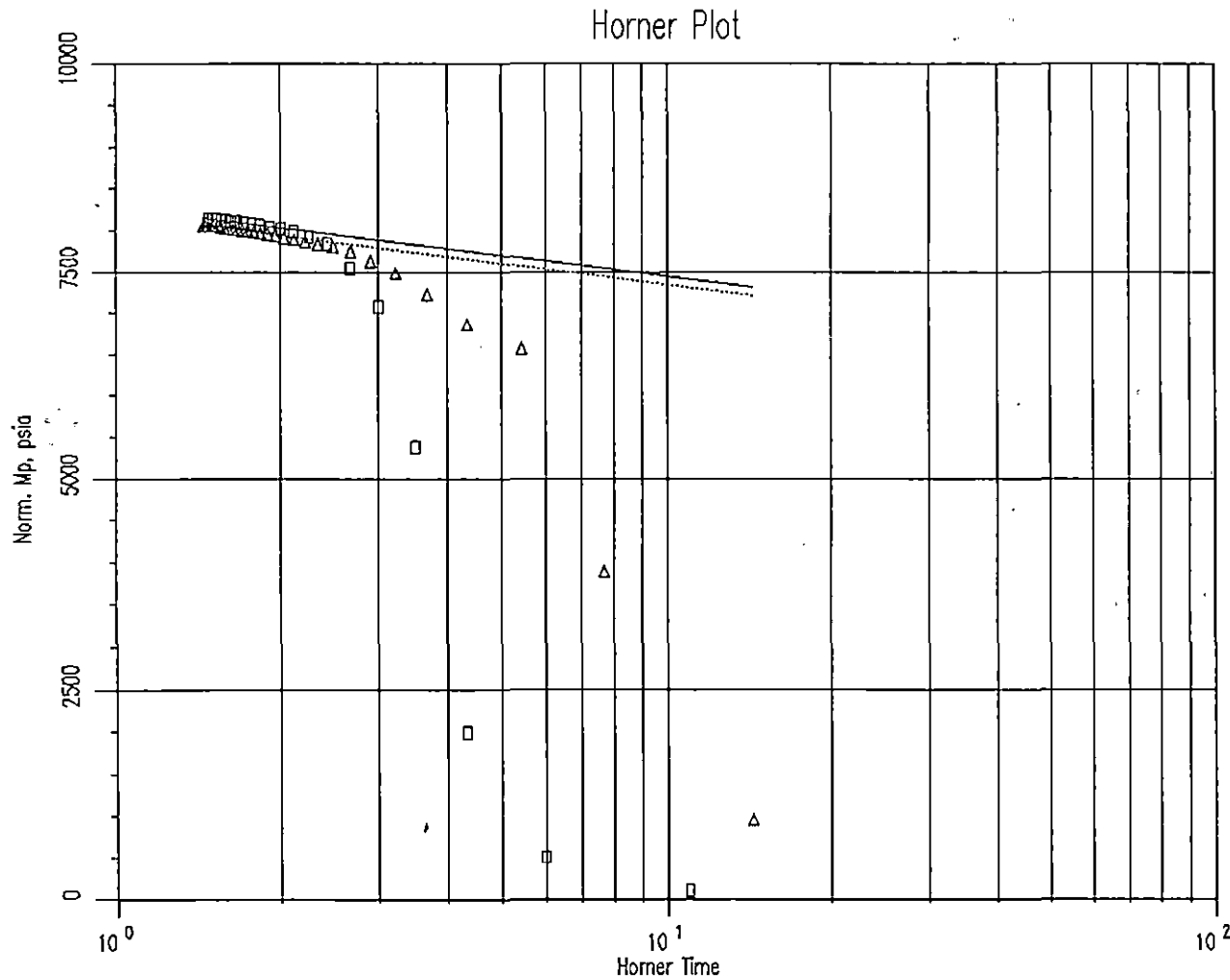


Outside Recorder

DATE 4-22-95
 CUSTOMER DEUTSCH OIL CO.
 WELL #1-36
 ELEVATION 2058 KB
 SECTION 36
 RANGE 16W
 GAUGE SN# 11018

TEST 3
 COUNTY PAWNEE
 RANGE 4425

TICKET 21422
 LEASE MARTIN
 GEOLOGIST DEUTSCH
 FORMATION L/KAN CITY B ZONE
 TOWNSHIP 23S
 STATE KS
 CLOCK 12



Result

	#1	#2
tp, hrs	0.50	0.67
Slope	-841.93	-849.62
Pstar, psig	1186.88	1180.54
P1hr, psig	8138.20	8009.85
Skin	8.94	8.58
k, md	0.46	0.46
kh/u, md-ft/cp	234.74	232.61
ri, ft	4.66	5.35
DR, %	4.10	4.01
Drawdown Factor, %		0.005
Drawdown P*		0.005

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 4-22-95	TICKET : 21422
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 3	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: L/KAN CITY B ZONE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

Input Data

Porosity	0.080	Rw:	0.328 ft	h:	6.000 ft
qg	36000.0 STB				
Pvt Data					
Evaluation Pressure :	85.0				
Evaluation Temperature:	118.0				
Gas Grav	0.65 API				
Bg	0.034 RBL/STB	Vis	0.012 cp	Ct	1.1901E-002 1/PSI

Horner Results

	Initial Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	0.67 hrs
slope	-841.93	-849.62
pstar	1186.88 psig	1180.54 psig
plhr	8138.20 psig	8009.85 psig
skin	8.94	8.58
permeability	0.46 md	0.46 md
transmissability	234.74 md-ft/cp	232.61 md-ft/cp
radius of investigation	4.66 ft	5.35 ft
Damage-Ratio	4.1 percent	4 percent
Drawdown Factor		0.005 percent
Drawdown P*		0.005 percent

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1167.00	1.00	1.67
63.00	1167.00	0.00	1.63
66.00	1168.00	1.00	1.61
69.00	1168.00	0.00	1.58
72.00	1169.00	1.00	1.56
75.00	1170.00	1.00	1.53
78.00	1170.00	0.00	1.51
81.00	1170.00	0.00	1.49
84.00	1170.00	0.00	1.48
87.00	1170.00	0.00	1.46
90.00	1170.00	0.00	1.44

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
60.00	1176.00	0.00	1.50
63.00	1176.00	0.00	1.48

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	133.00	133.00
5.00	76.00	-57.00
10.00	62.00	-14.00
15.00	58.00	-4.00
20.00	58.00	0.00
25.00	58.00	0.00
30.00	58.00	0.00
35.00	58.00	0.00
40.00	58.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	402.00	402.00	14.33
6.00	812.00	410.00	7.67
9.00	1057.00	245.00	5.44
12.00	1080.00	23.00	4.33
15.00	1108.00	28.00	3.67
18.00	1128.00	20.00	3.22
21.00	1139.00	11.00	2.90
24.00	1148.00	9.00	2.67
27.00	1152.00	4.00	2.48
30.00	1154.00	2.00	2.33
33.00	1156.00	2.00	2.21
36.00	1158.00	2.00	2.11
39.00	1160.00	2.00	2.03
42.00	1162.00	2.00	1.95
45.00	1163.00	1.00	1.89
48.00	1164.00	1.00	1.83
51.00	1165.00	1.00	1.78
54.00	1166.00	1.00	1.74
57.00	1166.00	0.00	1.70

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4-22-95	TICKET : 21422
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 3	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: L/KAN CITY B ZONE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	118.00	118.00
5.00	80.00	-38.00
10.00	64.00	-16.00
15.00	58.00	-6.00
20.00	58.00	0.00
25.00	58.00	0.00
30.00	58.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	127.00	127.00	11.00
6.00	293.00	166.00	6.00
9.00	580.00	287.00	4.33
12.00	956.00	376.00	3.50
15.00	1097.00	141.00	3.00
18.00	1132.00	35.00	2.67
21.00	1154.00	22.00	2.43
24.00	1161.00	7.00	2.25
27.00	1165.00	4.00	2.11
30.00	1167.00	2.00	2.00
33.00	1169.00	2.00	1.91
36.00	1171.00	2.00	1.83
39.00	1172.00	1.00	1.77
42.00	1173.00	1.00	1.71
45.00	1174.00	1.00	1.67
48.00	1174.00	0.00	1.63
51.00	1175.00	1.00	1.59
54.00	1175.00	0.00	1.56
57.00	1176.00	1.00	1.53

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 4-22-95	TICKET : 21422
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 3	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: L/KAN CITY B ZONE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
25 MIN	MERLA	0.750	5" WATER	31600 SCF/D
30 MIN	MERLA	0.750	5" WATER	31600 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.500	15" WATER	24500 SCF/D
20 MIN	MERLA	0.500	25" WATER	30500 SCF/D
30 MIN	MERLA	0.500	30" WATER	34300 SCF/D
40 MIN	MERLA	0.500	33" WATER	36000 SCF/D
45 MIN	MERLA	0.500	33" WATER	36000 SCF/D

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1846.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	118.00	58.00
INITIAL SHUT-IN	63.00		1176.00
FINAL FLOW	40.00	133.00	58.00
FINAL SHUT-IN	90.00		1170.00

FINAL HYDROSTATIC PRESSURE: 1786.00

DST REPORT (CONTINUED)

COMMENTS -- (CONTINUED)

Comment

GAS SHEET ATTACHED.
GAS SAMPLE TAKEN, GAS WAS LIT AND BURNED.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
40.0	0.0	10.0	0.0	90.0	GASSY MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	70.0000 min.
GAS VOLUME:	0.3150 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.5049 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.5049 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1820.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	40.00	22.00
INITIAL SHUT-IN	60.00		1150.00
FINAL FLOW	45.00	38.00	27.00
FINAL SHUT-IN	90.00		1150.00

FINAL HYDROSTATIC PRESSURE: 1790.00

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE	: 4-22-95	TICKET	: 21422
CUSTOMER	: DEUTSCH OIL CO.	LEASE	: MARTIN
WELL	: #1-36	TEST:	3
ELEVATION	: 2058 KB	GEOLOGIST	: DEUTSCH
SECTION	: 36	FORMATION	: L/KAN CITY B ZONE
RANGE	: 16W	COUNTY	: PAWNEE
GAUGE SN#	: 11018	RANGE	: 4425
		STATE	: KS
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3644.00 ft	TO:	3690.00 ft	TVD:	3690.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	GAS
DEPTH OF RECORDERS:	3647.0 ft		3687.0 ft		
TEMPERATURE:	118.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH:	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH:	3618.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH:	26.0 ft	TOOL SIZE:		5.500 in	
ANCHOR LENGTH:	46.0 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:		4.5XH	
PACKER DEPTH:	3639.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3644.0 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.:	DUKE DRILLING RIG #4	VISCOSITY:	51.00 cp
MUD TYPE:	CHEMICAL	WATER LOSS:	12.000 cc
WEIGHT:	9.400 ppg	SERIAL NUMBER:	12369
CHLORIDES:	7800 ppm	REVERSED OUT?:	NO
JARS-MAKE:	WESTERN		
DID WELL FLOW?:	NO		

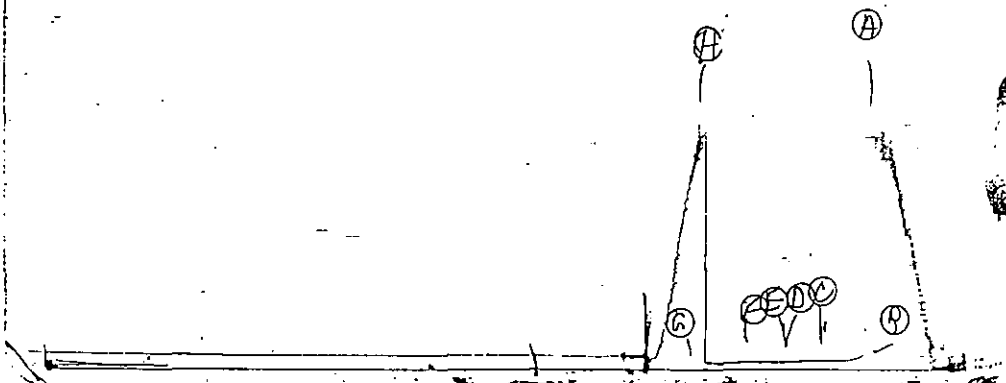
COMMENTS

Comment

INITIAL FLOW PERIOD-STRONG BLOW BOTTOM OF BUCKET
IN 5 MINUTES. GAS TO SURFACE IN 25 MINUTES.
FINAL FLOW PERIOD-GAS TO SURFACE THROUGHOUT. SEE

DST #2
Roc #11018
INSIDE

KTJ/KJ
I

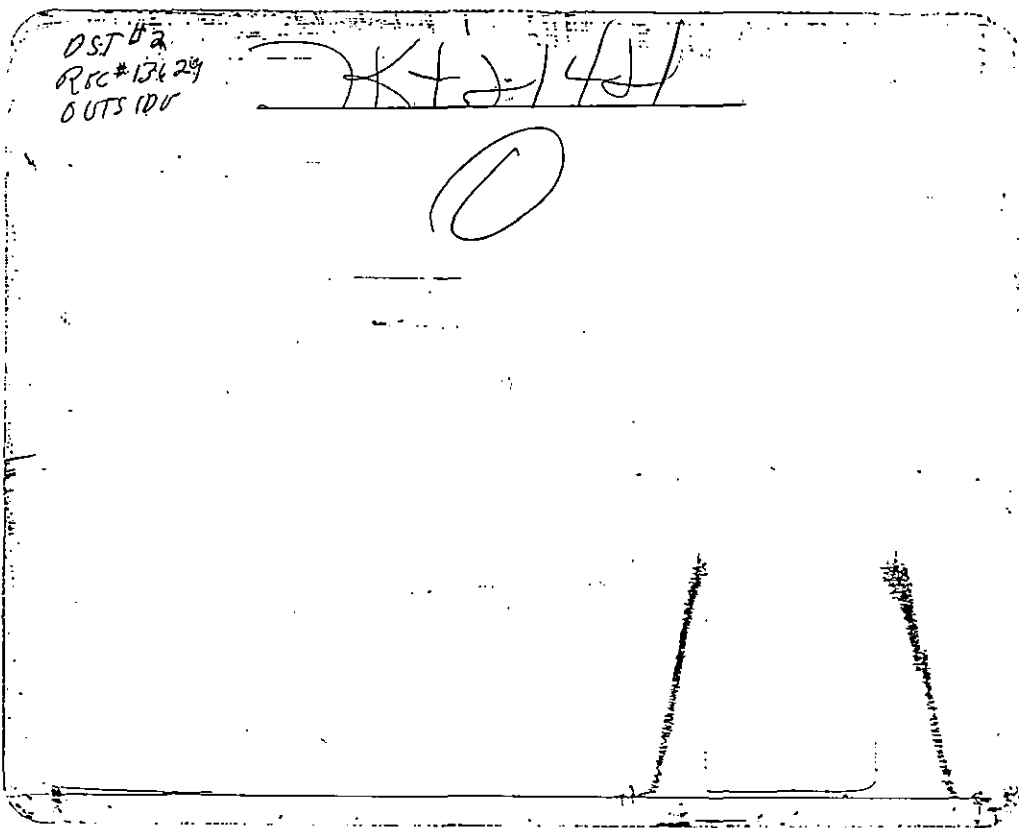


Inside Recorder

DST #2
Roc #13429
OUTSIDE

KTJ/KJ

O



Outside Recorder

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	44.00	0.00
10.00	44.00	0.00
15.00	44.00	0.00
20.00	44.00	0.00
25.00	44.00	0.00
30.00	44.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	44.00	44.00	0.00
6.00	44.00	0.00	0.00
9.00	44.00	0.00	0.00
12.00	40.00	-4.00	0.00
15.00	36.00	-4.00	0.00
18.00	37.00	1.00	0.00
21.00	38.00	1.00	0.00
24.00	40.00	2.00	0.00
27.00	40.00	0.00	0.00
30.00	40.00	0.00	0.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4-21-95	TICKET : 21421
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 2	GEOLOGIST: DEUTSCH
ELEVATION: 2058 KB	FORMATION: WABAUNSEE
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	67.00	67.00
5.00	67.00	0.00
10.00	56.00	-11.00
15.00	51.00	-5.00
20.00	51.00	0.00
25.00	51.00	0.00
30.00	51.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	51.00	51.00	0.00
6.00	51.00	0.00	0.00
9.00	51.00	0.00	0.00
12.00	51.00	0.00	0.00
15.00	51.00	0.00	0.00
18.00	50.00	-1.00	0.00
21.00	49.00	-1.00	0.00
24.00	48.00	-1.00	0.00
27.00	46.00	-2.00	0.00
30.00	44.00	-2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	44.00	44.00

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	
GAS VOLUME:	0.0000	SCF	
MUD VOLUME:	0.1403	STB	
WATER VOLUME:	0.0000	STB	
TOTAL FLUID :	0.1403	STB	
			TOTAL FLOW TIME: 60.0000 min.
			AVERAGE OIL RATE: 0.0000 STB/D
			AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1300.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	22.00	24.00
INITIAL SHUT-IN	30.00		28.00
FINAL FLOW	30.00	24.00	24.00
FINAL SHUT-IN	30.00		30.00

FINAL HYDROSTATIC PRESSURE: 1280.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1322.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	67.00	51.00
INITIAL SHUT-IN	30.00		44.00
FINAL FLOW	30.00	44.00	44.00
FINAL SHUT-IN	30.00		40.00

FINAL HYDROSTATIC PRESSURE: 1322.00

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	DRILLING 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:	0.1403 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.1403 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1300.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	22.00	24.00
INITIAL SHUT-IN	30.00		28.00
FINAL FLOW	30.00	24.00	24.00
FINAL SHUT-IN	30.00		30.00

FINAL HYDROSTATIC PRESSURE: 1280.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1322.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	67.00	51.00
INITIAL SHUT-IN	30.00		44.00
FINAL FLOW	30.00	44.00	44.00
FINAL SHUT-IN	30.00		40.00

FINAL HYDROSTATIC PRESSURE: 1322.00

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE	: 4-21-95	TICKET	: 21421
CUSTOMER	: DEUTSCH OIL CO.	LEASE	: MARTIN
WELL	: #1-36	TEST: 2	GEOLOGIST: DEUTSCH
ELEVATION	: 2058 KB	FORMATION	: WABAUNSEE
SECTION	: 36	TOWNSHIP	: 23S
RANGE	: 16W	COUNTY: PAWNEE	STATE : KS
GAUGE SN#	: 11018	RANGE : 4425	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2779.00 ft TO: 2811.00 ft TVD: 2811.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 2782.0 ft 2808.0 ft
TEMPERATURE: 98.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	2759.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	32.0 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 :	4.5XH
PACKER DEPTH:	2774.0 ft	SIZE:	6.630 in
PACKER DEPTH:	2779.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

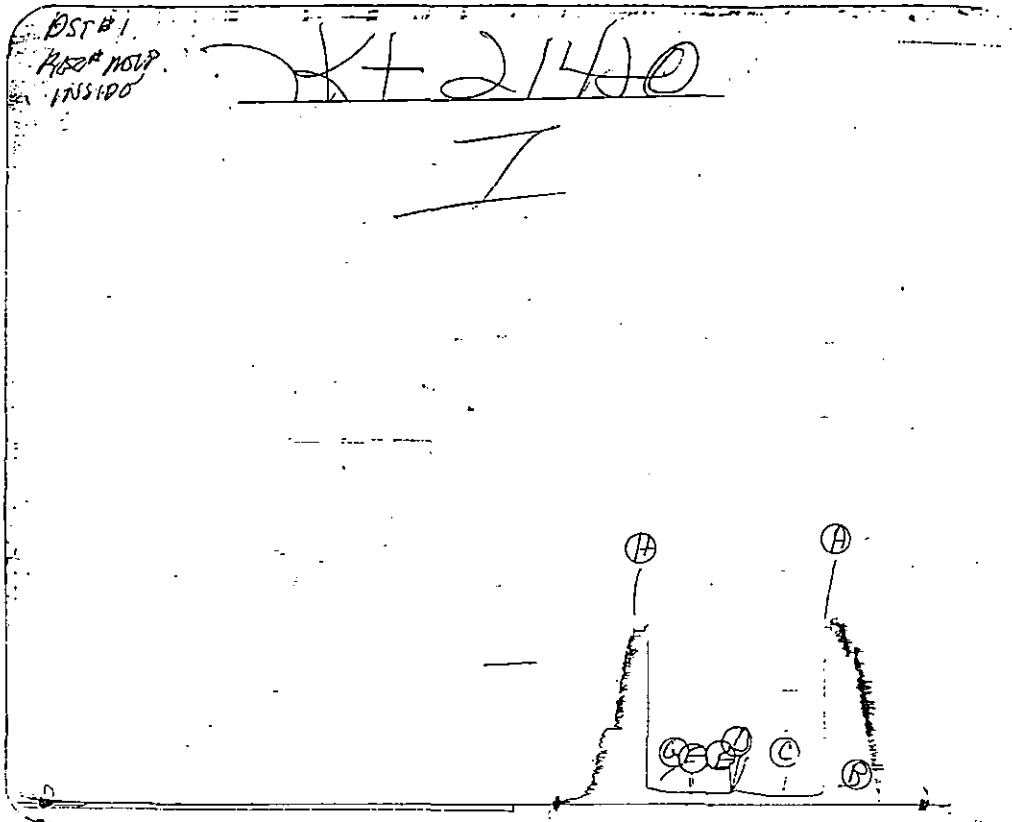
MUD INFORMATION

DRILLING CON. :	DUKE DRILLING RIG #4	VISCOSITY :	47.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.000 cc
WEIGHT :	8.700 ppg	SERIAL NUMBER:	
CHLORIDES :	2000 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

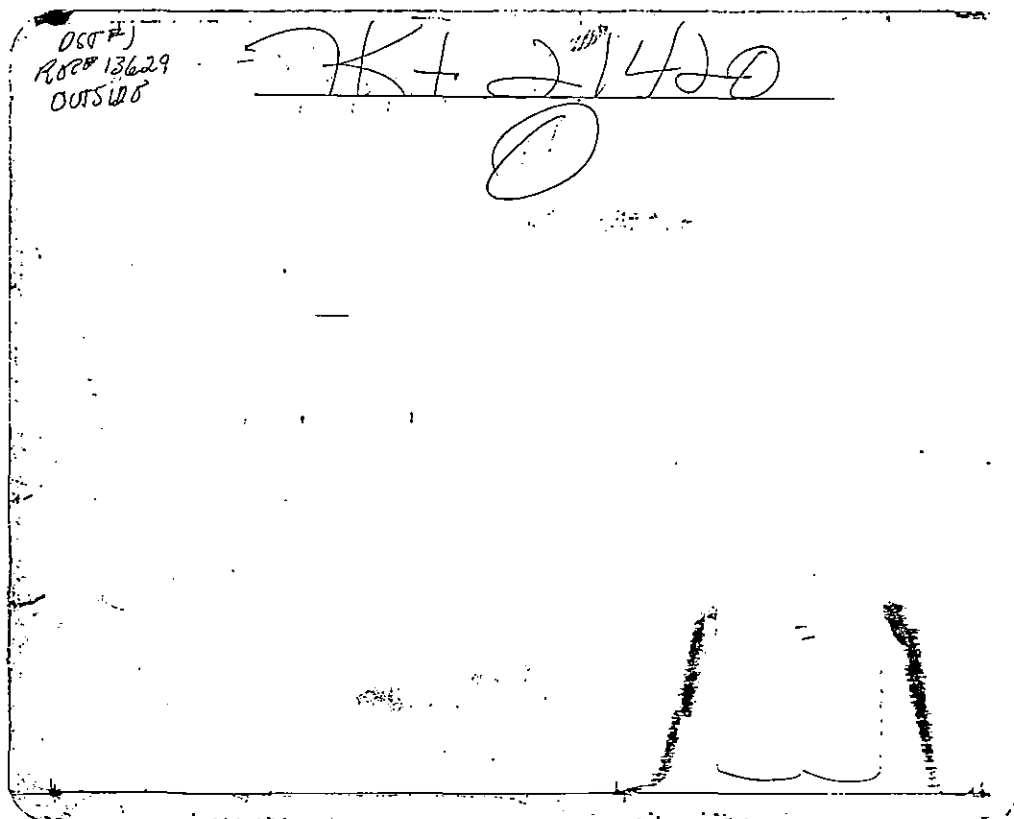
COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK BLOW DEAD IN 15 MINUTES.
FINAL FLOW PERIOD-WEAK BLOW DEAD IN 5 MINUTES.



Inside Recorder



Outside Recorder

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	67.00	67.00
5.00	67.00	0.00
10.00	67.00	0.00
15.00	67.00	0.00
20.00	67.00	0.00
25.00	67.00	0.00
30.00	67.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	67.00	67.00	0.00
6.00	67.00	0.00	0.00
9.00	67.00	0.00	0.00
12.00	67.00	0.00	0.00
15.00	69.00	2.00	0.00
18.00	71.00	2.00	0.00
21.00	73.00	2.00	0.00
24.00	78.00	5.00	0.00
27.00	82.00	4.00	0.00
30.00	89.00	7.00	0.00
33.00	94.00	5.00	0.00
36.00	96.00	2.00	0.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4-19-95	TICKET : 21420
CUSTOMER : DEUTSCH OIL CO.	LEASE : MARTIN
WELL : #1-36 TEST: 1	GEOLOGIST: BARKER
ELEVATION: 2058 KB	FORMATION: HER., KRY., WINFIELD
SECTION : 36	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	53.00	53.00
5.00	53.00	0.00
10.00	53.00	0.00
15.00	53.00	0.00
20.00	53.00	0.00
25.00	53.00	0.00
30.00	53.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	53.00	53.00	0.00
6.00	53.00	0.00	0.00
9.00	53.00	0.00	0.00
12.00	53.00	0.00	0.00
15.00	56.00	3.00	0.00
18.00	62.00	6.00	0.00
21.00	64.00	2.00	0.00
24.00	67.00	3.00	0.00
27.00	71.00	4.00	0.00
30.00	73.00	2.00	0.00
33.00	78.00	5.00	0.00
36.00	85.00	7.00	0.00

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
60.0	0.0	0.0	0.0	100.0	DRILLING 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:	0.2821	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.2821	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1080.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	40.00	40.00
INITIAL SHUT-IN	30.00		160.00
FINAL FLOW	30.00	42.00	42.00
FINAL SHUT-IN	30.00		171.00

FINAL HYDROSTATIC PRESSURE: 1060.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1056.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	53.00	53.00
INITIAL SHUT-IN	36.00		85.00
FINAL FLOW	30.00	67.00	67.00
FINAL SHUT-IN	36.00		96.00

FINAL HYDROSTATIC PRESSURE: 1011.00

ALLIED CEMENTING CO., INC.

1003

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT:

Meat Board

DATE <u>4.17.95</u>	SEC. <u>36</u>	TWP. <u>23</u>	RANGE <u>16</u>	CALLED OUT <u>8:30 am</u>	ON LOCATION <u>10:15 am</u>	JOB START <u>2:30 pm</u>	JOB FINISH <u>2:45 pm</u>
LEASE <u>Martin</u>		WELL # <u>F-36</u>	LOCATION <u>Macksville 4N to Stafford, 3W, 1/2N</u>		COUNTY <u>Furness</u>	STATE <u>Kansas</u>	

OLD OR (NEW) (Circle one)

CONTRACTOR <u>Fuko Drilling Co. Inc.</u>
TYPE OF JOB <u>Surface</u>
HOLE SIZE <u>12 1/4</u> T.D. <u>260'</u>
CASING SIZE <u>8 5/8 24#</u> DEPTH <u>260'</u>
TUBING SIZE _____ DEPTH _____
DRILL PIPE _____ DEPTH _____
TOOL _____ DEPTH _____
PRES. MAX _____ MINIMUM _____
MEAS. LINE _____ SHOE JOINT _____
CEMENT LEFT IN CSG. <u>15'</u>
PERFS. Disp <u>15.9 BBLs</u>

OWNER Dutch Oil
CEMENT

AMOUNT ORDERED 175 cu 40/40 po2, 2% gel, 3% cc

COMMON	<u>105</u>	@	<u>6.10</u>	<u>640.50</u>
POZMIX	<u>70</u>	@	<u>3.15</u>	<u>220.50</u>
GEL	<u>3</u>	@	<u>9.50</u>	<u>28.50</u>
CHLORIDE	<u>6</u>	@	<u>28.00</u>	<u>168.00</u>
_____	_____	@	_____	_____
_____	_____	@	_____	_____
_____	_____	@	_____	_____
_____	_____	@	_____	_____
_____	_____	@	_____	_____
_____	_____	@	_____	_____
HANDLING	<u>175 cu</u>	@	<u>1.05</u>	<u>183.75</u>
MILEAGE	<u>35</u>			<u>245.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER <u>J.D. Drilling</u>
<u>181</u> HELPER <u>Tim Tuckman</u>
BULK TRUCK _____
_____ DRIVER _____
BULK TRUCK _____
<u>101</u> DRIVER <u>Bob Burhann</u>

TOTAL \$1486.25

REMARKS:

Held safety meeting. Rig was just starting to drill when arrived. 70' at 11:20 am, 132' at 12 noon, 260' at 1:00 pm. Dropped one shot cone out of hole, with D.P. Ran 6 jts 8 5/8 casing. Circulate hole w/ rig pump. Rig up to discharge, mixed 175 cu 40/40 po2, 2% gel, 3% cc. stop pump, release plug & displace down 15.9 bbls cement to surface, plug down, close valves, release, job complete. Circ 3 bbl cement. Thank you.

SERVICE

DEPTH OF JOB <u>260'</u>
PUMP TRUCK CHARGE _____ <u>445.00</u>
EXTRA FOOTAGE _____ @ _____
MILEAGE <u>35</u> @ <u>2.35</u> <u>82.25</u>
PLUG <u>8 5/8 wiper</u> @ _____ <u>45.00</u>
_____ @ _____
_____ @ _____

TOTAL \$572.25

CHARGE TO: Fuko Drilling Co. Inc.
STREET Box 823
CITY Meat Board STATE Ka ZIP 67530

FLOAT EQUIPMENT

_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____

TOTAL _____

RECEIVED
KANSAS CORPORATION COMMISSION

AUG 03 1995

CONSERVATION DIVISION
WICHITA, KS

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Rich Wheeler

TAX -0-
TOTAL CHARGE \$2058.50
DISCOUNT \$411.70 IF PAID IN 30 DAYS

Net \$ 1646.80

ALLIED CEMENTING CO., INC.

1297

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Med. Lodge, Ks

ORIGINAL

DATE <u>4-25-95</u>	SEC. <u>36</u>	TWP. <u>23S</u>	RANGE <u>16W</u>	CALLED OUT <u>11:00 A.M.</u>	ON LOCATION <u>1:00 P.M.</u>	JOB START <u>6:30 P.M.</u>	JOB FINISH <u>7:45 P.M.</u>
LEASE <u>MARTIN</u> WELL# <u>1-36</u> LOCATION <u>Maxville, Ks., 3n-3w</u>				COUNTY <u>Polk</u>		STATE <u>KS.</u>	

OLD OR NEW (Circle one) NEW

CONTRACTOR Duke #4

TYPE OF JOB Production Casing

HOLE SIZE 7 7/8 T.D. 4131

CASING SIZE 5 1/2 DEPTH

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 4131

TOOL DEPTH

PRES. MAX 2000# MINIMUM 450#

MEAS. LINE SHOE JOINT 1 Ft.

CEMENT LEFT IN CSG.

PERFS.

OWNER Deutsch Oil Co.

CEMENT

AMOUNT ORDERED 250 60/40 2% Gel

150 ASC w/ 5# Kol-Seal

COMMON	<u>150</u>	@	<u>6.10</u>	<u>915.00</u>
POZMIX	<u>100</u>	@	<u>3.15</u>	<u>315.00</u>
GEL	<u>4</u>	@	<u>9.50</u>	<u>38.00</u>
CHLORIDE		@		
<u>ASC</u>	<u>150</u>	@	<u>7.85</u>	<u>1177.50</u>
<u>KOL-SEAL</u>	<u>750#</u>	@	<u>.38</u>	<u>285.00</u>
		@		
		@		
HANDLING	<u>400</u>	@	<u>1.05</u>	<u>420.00</u>
MILEAGE	<u>400 x 40</u>	@	<u>.04</u>	<u>640.00</u>

TOTAL \$3790.50

EQUIPMENT

PUMP TRUCK CEMENTER Harry D.

255-265 HELPER Carl B.

BULK TRUCK

258-252 DRIVER Tim S.

BULK TRUCK

54212 DRIVER J. D. (Gt. Bend)

SERVICE

DEPTH OF JOB	<u>4131'</u>		
PUMP TRUCK CHARGE			<u>1090.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>40</u>	@	<u>2.35</u>
PLUG Rubber	<u>5 1/2"</u>	@	<u>50.00</u>
ROTATING HEAD		@	<u>75.00</u>
		@	

TOTAL \$1309.00

FLOAT EQUIPMENT

<u>3 BSKT</u>			
<u>5 1/2 Float Shoe</u>	@	<u>239.00</u>	<u>239.00</u>
<u>4-Baskets</u>	@	<u>127.00</u>	<u>508.00</u>
<u>21-Centerizers</u>	@	<u>56.00</u>	<u>1176.00</u>
	@		
	@		

TOTAL \$1923.00

TAX - 0 -

TOTAL CHARGE \$7022.50

DISCOUNT \$1404.50 IF PAID IN 30 DAYS

RECEIVED
KANSAS CORPORATION COMMISSION

AUG 03 1995

CONSERVATION DIVISION
WICHITA, KS

REMARKS:

15 SKS. Rathole, cement w/ 225 SKS. 60/40/2% Gel

150 SKS ASC w/ 5# Kol-Seal per SK.

Cement In. Wash out Pump lines

Displace Plug w/ Fresh H₂O, Displace

Plug w/ Fresh H₂O, Displaced Plug to

4130' Float Held.

CHARGE TO: Deutsch Oil Co.

STREET 1115 Biting Bldg

CITY Wichita STATE Ks ZIP 67202

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Rich Wheeler