

FORM MUST BE TYPED

SIDE ONE

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

Operator: License # 5144

Name: Mull Drilling Company, Inc.

Address P.O. Box 2758

City/State/Zip Wichita, KS 67201-2758

Purchaser: Koch Oil Company

Operator Contact Person: Mark Shreve

Phone (316) 264-6366 APR 2

Contractor: Name: Duke Drilling Co., Inc. CONFIDENTIAL

License: 5929

Wellsite Geologist: Casey Galloway

Designate Type of Completion
 New Well Re-Entry Workover

Oil SVD SIOV Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, MSV, Expl., Cathodic, etc.)

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

Operator: _____

Well Name: _____ APR 2

Comp. Date _____ Old Total Depth _____

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

2-23-93 3-3-93 3-20-93
Spud Date Date Reached TD Completion Date

API NO. 15- 135-23,734-6000

County Ness

E/2 - E/2 SE Sec. 5 Twp. 19 Rge. 24 ^E_W

1320 Feet from N (circle one) Line of Section

330 Feet from E/W (circle one) Line of Section

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

Lease Name Borger Well # 3

Field Name McDonald

Producing Formation Mississippi

Elevation: Ground 2320 KB 2329

Total Depth 4450' PSTD 4400'

Amount of Surface Pipe Set and Cemented at 247 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set 1618 Feet

If Alternate II completion, cement circulated from 1618

feet depth to surface w/ 300 sx cmt.

Drilling Fluid Management Plan DLTL 4-7-93
(Data must be collected from the Reserve Pit)

Fluid content 31,000 ppm Fluid volume 1280 bbls

Disastering method used Evaporation

Location of fluid disposal if hauled offsite: _____

Operator Name _____ RELEASED

Lease Name _____ License No. _____

Quarter Sec. _____ Twp. 19 Rge. 24 E/W

County _____ Docket No. _____

FROM CONFIDENTIAL

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 Mark A. Shreve
PATRICIA L. UNGLEICH
NOTARY PUBLIC
STATE OF KANSAS
My Appl. Exp. 3/27/95
Subscribed and sworn to before me this 2nd day of April
19 93
Notary Public Patricia L. Ungleich
Date Commission Expires March 27, 1995

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SVD/Rep NGPA
 KGS Plug Other
(Specify)

P1

SIDE TWO

Operator Name Mull Drilling Company, Inc. Lease Name Borger Well # 3
 Sec. 5 Twp. 19 Rge. 24 East County Ness
 West

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, when the shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates. Attach extra sheet if more space is needed. Attach copy of log.

CONFIDENTIAL

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	T/Anhydrite	1596	+ 733
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	B/Anhydrite	1633	+ 696
List All E.Logs Run:		Lansing	3748	-1419
DIL, Neutron/Density, Microlog		B/KC	4090	-1761
		Marmaton	4098	-1769
		Pawnee	4179	-1850
		Fort Scott	4256	-1927
		Cherokee	4282	-1953
		Mississippian	4349	-2020
		LTD	4541	-2122

CASING RECORD <input checked="" type="checkbox"/> New <input checked="" 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 1/4"	8-5/8"	20#	247'	60/40 poz	160	4%cc 2% gel
Production	7-7/8"	4 1/2"	14#	4449'	ASC	100	5#Gilsonite/sx
2nd Stage				1618'	60/40 pox	300	6%gel 1/2#FloSeal

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 checked="" type="checkbox"/> Plug Off Zone	4376-80'	Class "A"	50	10% Salt

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	
		Set CIBP at 4400'	110 gal 15% MCA	4376-80'
4	4376'-80'	Squeezed w/50 sacks	4376-80'	
4	4356'-60'			

TUBING RECORD		Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		2 3/8"	4382'			
Date of First, Resumed Production, SVD or Inj.		Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)				
3/20/93						
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	
	57	- 0 -	- 0 -	- 0 -	36°	

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval: 4356'-60'

ORIGINAL

RELEASED

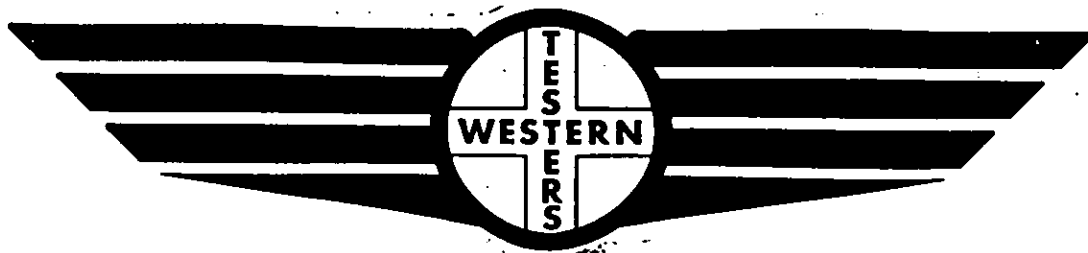
APR 28 1994

FROM CONFIDENTIAL

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY MULL DRILLING CO., INC. LEASE & WELLS NO. #3 BORGER STA. 5 1W1 19S R06E 24M 11551

DST REPORT

GENERAL INFORMATION

DATE : 3/1/93
CUSTOMER : MULL DRILLING CO., INC.
WELL : 3 TEST: 1
ELEVATION: 2320 GL
SECTION : 5
RANGE : 24W COUNTY: NESS
GAUGE SN#: 11018 RANGE : 4425
TICKET : 19058
LEASE : BORGER
GEOLOGIST: ?
FORMATION: MISSISSIPPI
TOWNSHIP : 19S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4327.00 ft TO: 4358.00 ft TVD: 4358.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4353.0 ft 4356.0 ft
TEMPERATURE: 122.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 192.0 ft I.D.: 2.700 in
DRILL PIPE LENGTH : 4115.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 31.0 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: 4322.0 ft SIZE: 6.630 in
PACKER DEPTH: 4327.0 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 RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.400 ppg
CHLORIDES : 6000 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 45.00 cp
WATER LOSS: 11.600 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR BLOW OFF BOTTOM IN 7 MIN.
FINAL FLOW PERIOD FAIR BLOW OFF BOTTOM IN 9 MIN.

ORIGINAL

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
660.0	100.0	0.0	0.0	0.0	CLEAN GASSY OIL
0.0	0.0	0.0	0.0	0.0	37 GRAVITY
210.0	35.0	25.0	0.0	40.0	HEAVY OIL & GAS CUT MUD
0.0	0.0	0.0	0.0	0.0	270' OF GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	9.8216 STB	TOTAL FLOW TIME:	95.0000 min.
GAS VOLUME:	2.2629 SCF	AVERAGE OIL RATE:	158.6492 STB/D
MUD VOLUME:	0.6448 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	10.4664 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2155.00			
Description	Duration	p1	p End
INITIAL FLOW	30.00	88.00	144.00
INITIAL SHUT-IN	60.00		1250.00
FINAL FLOW	60.00	200.00	333.00
FINAL SHUT-IN	60.00		1163.00
FINAL HYDROSTATIC PRESSURE: 2111.00			

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2164.00			
Description	Duration	p1	p End
INITIAL FLOW	35.00	80.00	148.00
INITIAL SHUT-IN	60.00		1255.00
FINAL FLOW	60.00	217.00	333.00
FINAL SHUT-IN	60.00		1191.00
FINAL HYDROSTATIC PRESSURE: 2133.00			

RELEASED

APR 28 1994

FROM CONFIDENTIAL

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 3/1/93	TICKET : 19058
CUSTOMER : MULL DRILLING CO., INC.	LEASE : BORGER
WELL : 3 TEST: 1	GEOLOGIST: ?
ELEVATION: 2320 GL	FORMATION: MISSISSIPPI
SECTION : 5	TOWNSHIP : 19S
RANGE : 24W COUNTY: NESS	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	80.00	80.00
5.00	82.00	2.00
10.00	84.00	2.00
15.00	97.00	13.00
20.00	113.00	16.00
25.00	122.00	9.00
30.00	135.00	13.00
35.00	148.00	13.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	776.00	776.00	0.00
6.00	1061.00	285.00	0.00
9.00	1112.00	51.00	0.00
12.00	1147.00	35.00	0.00
15.00	1169.00	22.00	0.00
18.00	1185.00	16.00	0.00
21.00	1193.00	8.00	0.00
24.00	1206.00	13.00	0.00
27.00	1222.00	16.00	0.00
30.00	1231.00	9.00	0.00
33.00	1235.00	4.00	0.00
36.00	1240.00	5.00	0.00
39.00	1244.00	4.00	0.00
42.00	1250.00	6.00	0.00
45.00	1255.00	5.00	0.00
48.00	1255.00	0.00	0.00
51.00	1255.00	0.00	0.00
54.00	1255.00	0.00	0.00

ORIGINAL

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1255.00	0.00	1.61
60.00	1255.00	0.00	1.58

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	217.00	217.00
5.00	217.00	0.00
10.00	217.00	0.00
15.00	220.00	3.00
20.00	233.00	13.00
25.00	244.00	11.00
30.00	253.00	9.00
35.00	260.00	7.00
40.00	273.00	13.00
45.00	282.00	9.00
50.00	302.00	20.00
55.00	322.00	20.00
60.00	333.00	11.00

FINAL SEUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	991.00	991.00	21.00
6.00	1034.00	43.00	11.00
9.00	1061.00	27.00	7.67
12.00	1087.00	26.00	6.00
15.00	1103.00	16.00	5.00
18.00	1114.00	11.00	4.33
21.00	1123.00	9.00	3.86
24.00	1130.00	7.00	3.50
27.00	1136.00	6.00	3.22
30.00	1143.00	7.00	3.00
33.00	1151.00	8.00	2.82
36.00	1156.00	5.00	2.67
39.00	1163.00	7.00	2.54
42.00	1169.00	6.00	2.43
45.00	1178.00	9.00	2.33

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

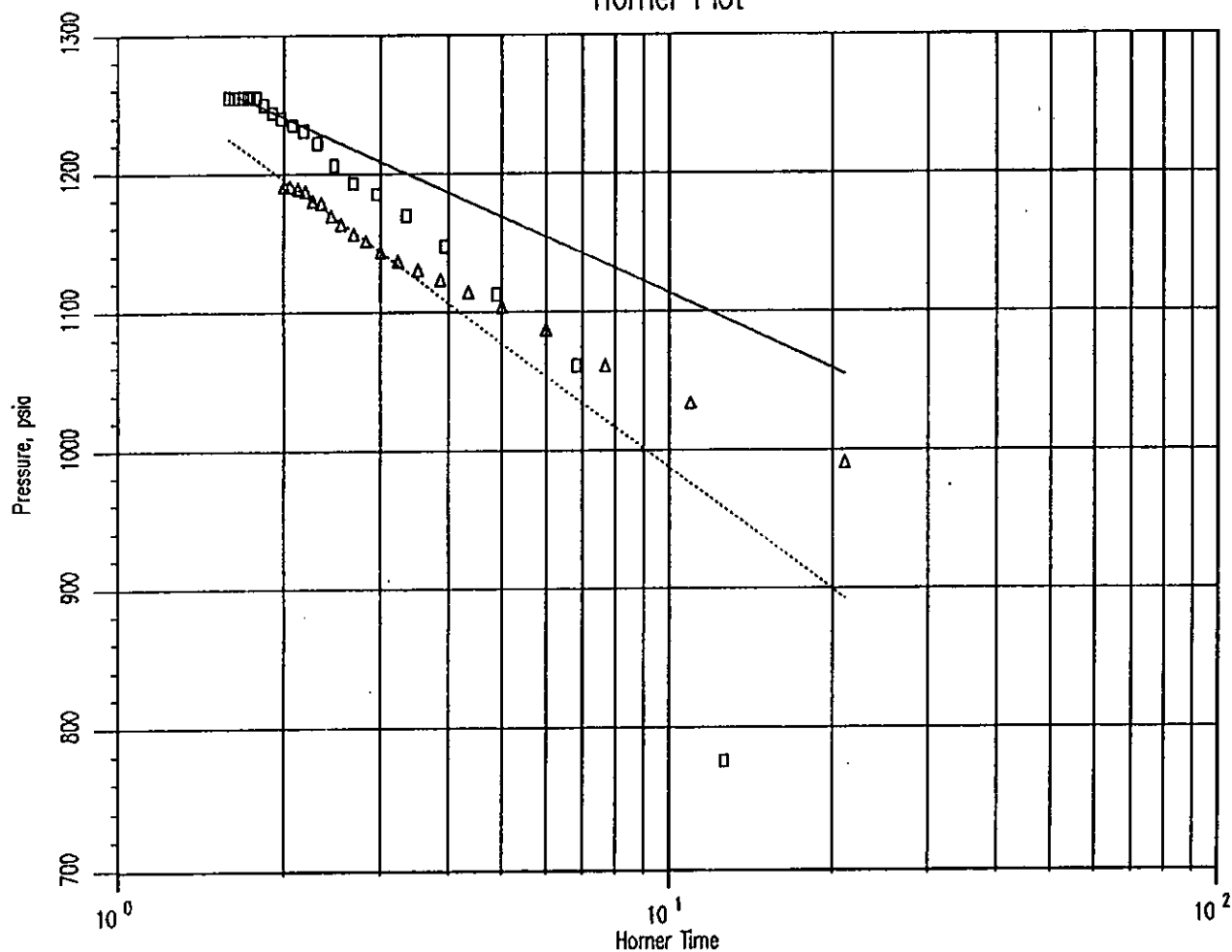
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
48.00	1180.00	2.00	0.00
51.00	1187.00	7.00	0.00
54.00	1189.00	2.00	0.00
57.00	1191.00	2.00	0.00
60.00	1191.00	0.00	0.00

DATE 3/1/93
 CUSTOMER MULL DRILLING CO., INC.
 WELL 3
 ELEVATION 2320 GL
 SECTION 5
 RANGE 24W
 GAUGE SN# 11018

TEST 1
 COUNTY NESS
 RANGE 4425

TICKET 19058
 LEASE BORGER
 GEOLOGIST ?
 FORMATION MISSISSIPPI
 TOWNSHIP 19S
 STATE KS
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.58	1.00
Slope	-181.18	-296.33
Pstar, psig	1295.00	1284.00
P1hr, psig	1258.85	1194.80
Skin	3.82	0.20
k, md	13.55	8.29
kh/u, md-ft/cp	189.62	115.94
ri, ft	14.13	14.47
DR, %	1.89	0.96
Drawdown Factor, %		5.100
Drawdown P*, %		0.849

— BUILD 1

..... BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 3/1/93	TICKET : 19058
CUSTOMER : MULL DRILLING CO., INC.	LEASE : BORGER
WELL : 3 TEST: 1	GEOLOGIST: ?
ELEVATION: 2320 GL	FORMATION: MISSISSIPPI
SECTION : 5	TOWNSHIP : 19S
RANGE : 24W COUNTY: NESS	STATE : KS
GAUGE SN#: 11018 RANGE : 4425	CLOCK : 12

Input Data

Porosity 0.170 Rw: 0.328 ft h: 10.000 ft
 go 158.6 STB GOR 527.0 SCF/STB

Pvt Data
 Evaluation Pressure : 1255.0
 Evaluation Temperature: 122.0

Oil Grav 37.00 API Gas Grav 1.20 API Pb 1255.00 PSIA
 Bo 1.332 RBL/STB Vis 1.000 cp Ct 3.4380E-004 1/PSI

Horner Results

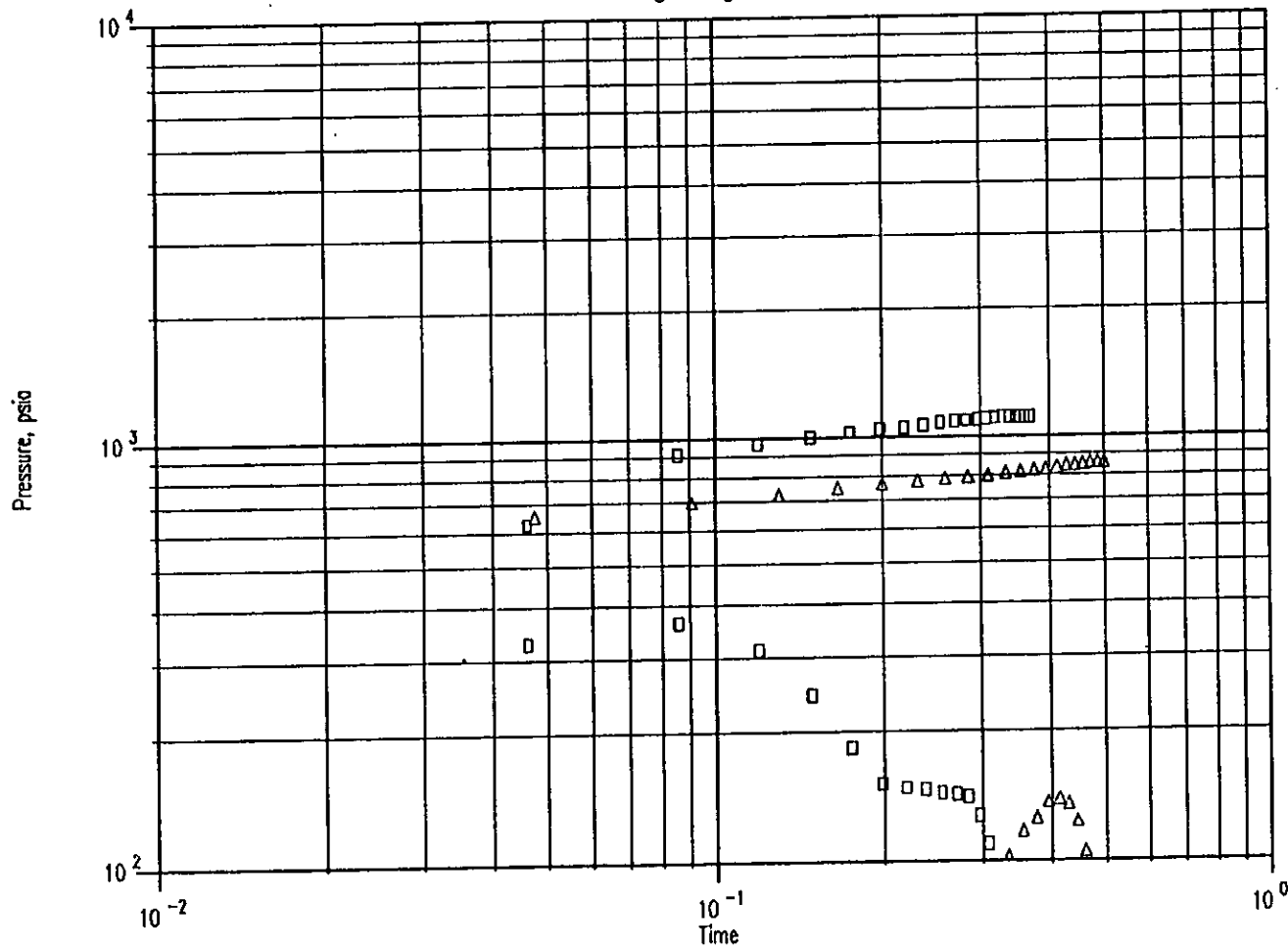
	Initial Shut-In	Final Shut-In
pseudo pressure time	0.58 hrs	1.00 hrs
slope	-181.18	-296.33
pstar	1295.00 psig	1284.00 psig
plhr	1258.85 psig	1194.80 psig
skin	3.82	0.20
permeability	13.55 md	8.29 md
transmissability	189.62 md-ft/cp	115.94 md-ft/cp
radius of investigation	14.13 ft	14.47 ft
Damage-Ratio	1.9 percent	0.96 percent
Drawdown Factor		5.100 percent
Drawdown P*		0.849 percent

DATE 3/1/93
 CUSTOMER MULL DRILLING CO., INC.
 WELL 3
 ELEVATION 2320 GL
 SECTION 5
 RANGE 24W
 GAUGE SN# 11018

TEST 1
 COUNTY NESS
 RANGE 4425

TICKET 19058
 LEASE BORGER
 GEOLOGIST ?
 FORMATION MISSISSIPPI
 TOWNSHIP 19S
 STATE KS
 CLOCK 12

Log-Log Plot



Phone 913-483-2627, Russell, Kansas

Phone 316-793-5861, Great Bend, Kansas

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

1434

Home Office P. O. Box 31

Russell, Kansas 67665

New

Date	3-3-93	Sec.	5	Twp.	19S	Range	24W	3-2 Called Out	7:30 PM	On Location	9:30 PM	3-3 Job Start	4:05 AM	Finish	4:50 AM
Lease	Border	Well No.	3	Location	Ness City, 4N 1 1/2 S WTS into			County	Ness	State	Ks.				
Contractor	Dukes 4											Owner	Same		
Type Job	Long String Btm Stage											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 listed.			
Hole Size	7 7/8		T.D.	4450											
Csg.	8 3/8 20"		Depth	247											
Csg. Size	5 1/2 15.514		Depth	4449											
Drill Pipe												Depth			
Tool	Arrow DV											Depth	1618		
Cement Left in Csg.												Shoe Joint	41'		
Press Max.	1000											Minimum			
Meas Line												Displace			
Perf.															

EQUIPMENT

No.	Cementer	Gary Keith
Pumptrk 158	Helper	
No.	Cementer	Ben
Pumptrk	Helper	
	Driver	Bill
Bulktrk 116	Driver	

DEPTH of Job

Reference:	Pump Truck	
	Mileage	
	Rotating Head	
	Sub Total	
	Tax	
	Total	

Remarks: Pump 500 gal mud flush. Mix cement
displace w/ mud and water. Land plug 1000 psi
Tool held.

Thank you
Way L. Hernd

Charge To	Mull Drilling Inc.		
Street	PO Box 421		
City	Ness City	State	Ks. 67560
The above was done to satisfaction and supervision of owner agent or contractor.			
Purchase Order No.	X Jerry Roane		
Amount Ordered	100 ASC	CEMENT	500 Gal Mud Flush
Consisting of	5# Gilsenite per sk		
Common			
Poz. Mix			
Gel.			
Chloride			
Quickset			
Handling	Wichita, Kansas		
Mileage			
Floating Equipment	1 Guide Shoe		
	1 Insert		
	6 Centralizers		
	1 Basket		
	1 Arrow DV Tool		
	5 1/2 Rotar		

RECEIVED
STATE CORPORATION COMMISSION
APR 2 1993

APR 2 1993
CONFIDENTIAL

RELEASED
APR 28 1993
FROM CONFIDENTIAL

Phone 913-483-2627, Russell, Kansas

Phone Plainville 913-434-2812

Phone 316-793-5861, Great Bend, Kansas

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

1435

Home Office P. O. Box 31

Russell, Kansas 67665

New

Date	3-3-93	Sec.	5	Twp.	19S	Range	24W	Called Out		On Location		Job Start	4:55 AM	Finish	6:30
Lease	Borger	Well No.	3	Location				Ness City 4W 1/2 S W 1/2 S into		County	Ness	State	Ks.		
Contractor	Duke 4														
Type Job	DV														
Hole Size	7 7/8		T.D. 4450												
Csg.	5 1/2 - 14"		Depth 4449												
Tbg. Size			Depth												
Drill Pipe			Depth												
Tool	Arrow DV		Depth 11618												
Cement Left in Csg.			Shoe Joint												
Press Max.	1500		Minimum												
Meas Line			Displace												
Perf.															

EQUIPMENT

Pumptrk	No.	Cementer	Gary
	158	Helper	
Pumptrk	No.	Cementer	Ben
		Helper	
Bulktrk		Driver	Bill
	199		
Bulktrk		Driver	

DEPTH of Job

Reference:	Pump Truck	
		Sub Total
		Tax
		Total

Remarks: Drop bomb. 5:10 Open DV 5:50 Bgn cement. Plug down 6:30. Flow held. Cement circulated.

Thank you
Stan L. Hena

Owner Same
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 listed.

Charge To Mull Drilling Inc.
Street
City State
The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.
X *Jerry Roane*
CEMENT

Amount Ordered 300 60/40 6% Gel 1/4 * F/osed
Consisting of
Common
Poz. Mix
Gel.
Chloride APR 2
Quickset

CONFIDENTIAL

Handling
Mileage
Sales Tax
RECEIVED
STATE CORPORATION COMMISSION
APR 2 1993
Sub Total
Total
CONSERVATION DIVISION
Wichita Kansas

Floating Equipment

RELEASED

APR 2 8 1994

FROM CONFIDENTIAL