CONFIDENTIAL RELEASED ORIGINAL

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 # 6111

Name: N-B Company, Inc.

Address P. O. Box 506

City/State/Zip Russell, KS 67665-0506

Purchaser:

Operator Contact Person: Kyle B. Branum

Phone (913) -483-5345

Contractor: Name: Emphasis Oil Operations

License: 8241

Wellsite Geologist: Peter Moreland

Designate Type of Completion
x New Well ___ Re-Entry ___ Workover

___ Oil ___ SWD ___ Temp. Abd.
___ Gas ___ Inj ___ Delayed Comp.
x Dry ___ Other (Core, Water Supply, etc.)

If OWWO: old well info as follows:
Operator:

Well Name:

Comp. Date ___ Old Total Depth ___

Drilling Method:
x Mud Rotary ___ Air Rotary ___ Cable

4/26/90 Spud Date | 5/5/90 Date Reached TD | ___ Completion Date

API NO. 15- 185-22,673-0000

County Stafford FROM CONFIDENTIAL

NE SE NW ___ Sec. 27 Twp. 25S Rge. 13 ___ East x West

3630 Ft. North from Southeast Corner of Section

2970 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

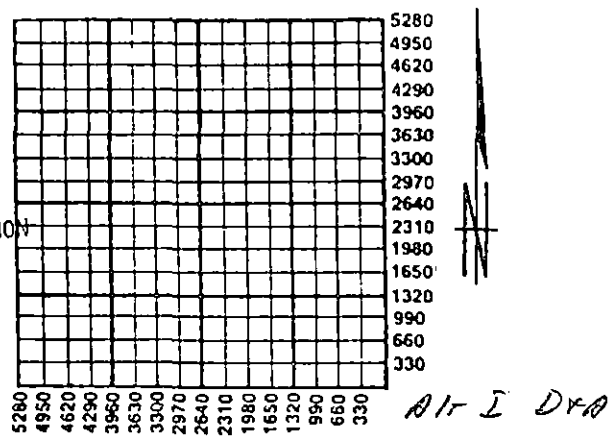
Lease Name Russell Well # 1-27

Field Name

Producing Formation

Elevation: Ground 1925' KB 1920'

Total Depth 4350' PBTD



Air I Dry

Amount of Surface Pipe Set and Cemented at 251 Feet

Multiple Stage Cementing Collar Used? ___ Yes x No

If yes, show depth set ___ Feet

If Alternate II completion, cement circulated from ___

feet depth to ___ w/ ___ sx cmt.

RECEIVED
STATE CORPORATION COMMISSION
7-16-90
JUL 16 1990
CONSERVATION DIVISION
Wichita, Kansas

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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 drillers time log 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. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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

Title VP Dunmore Oil Date 7/13/90

Subscribed and sworn to before me this 13 day of July, 19 90.

Notary Public

Date Commission Expires 9.24.90

K.C.C. OFFICE USE ONLY
F ✓ Letter of Confidentiality Attached
C ✓ Wireline Log Received
C ✓ Drillers Timelog Received

Distribution
✓ KCC ___ SWD/Rep ___ NGPA
___ KGS ___ Plug ___ Other (Specify)

Form ACO-1 (7-89)

ORIGINAL CONFIDENTIAL

SIDE TWO

Operator Name N-B Company, Inc. Lease Name Russell Well # 1-27

Sec. 27 Twp. 25S Rge. 13 ☐ East ☒ West County Stafford

RELEASED

AUG 2 1991

FROM CONFIDENTIAL

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.)	☒ Yes	☐ No
Samples Sent to Geological Survey	☐ Yes	☒ No
Cores Taken	☐ Yes	☒ No
Electric Log Run (Submit Copy.)	☒ Yes	☐ No

4 DST's taken, see attachment

Formation Description

☒ Log ☐ Sample

Name	Top	Bottom
ANHY	784	
LANSING	3708	
BKC	4002	
VIOLA	4228	
SIMPSON	4279	
ARBUCKLE	4344	
TD	4350	

CASING RECORD ☐ New ☐ 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

PERFORATION RECORD

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer At	Liner Run ☐ Yes ☐ No

Date of First Production	Producing Method ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain)				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas:

☐ Vented ☐ Sold ☐ Used on Lease
(If vented, submit ACO-18.)

METHOD OF COMPLETION

☐ Open Hole ☐ Perforation ☐ Dually Completed ☐ Commingled

☐ Other (Specify) _____

Production Interval

_____

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data CONFIDENTIAL

Well Name & No. RUSSELL #1-27 Test No. 1 Date 5/1/90

Company N-B COMPANY INC Zone Tested MARMATON

Address P.O. BOX 506 RUSSELL KS 67665 Elevation 1930 KB

Co. Rep./Geo. MY KYLE BRANUM Cont. EMPHASIS RIG #5 Est. Ft. of Pay 18

Location: Sec. 27 Twp. 25S Rge. 13W Co. STAFFORD State KANSAS

Interval Tested 4048-4075 Drill Pipe Size 4.5" XH

Anchor Length 27 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 4043 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 4048 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4075 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.2 lb/gal. Viscosity 43 Filtrate 11.2

Tool Open @ 6:11 PM Initial Blow FAIR BLOW AT 2"-THEN BUILDING TO BOTTOM OF BUCKET-ISI:BLED 2" FOR 5 MIN-NO BLOW BACK

Final Blow GOOD BLOW OFF BOTTOM OF BUCKET IN 10 MINUTES-BLED 2" FOR 5 MIN-BLOW BACK WEAK AT SURFACE IN 50 MIN-CONT. THROUGHOUT

Recovery — Total Feet 120 Flush Tool? _____

Rec. 60 Feet of SLIGHTLY OIL CUT MUD-10%OIL/ 10% GAS/ 80% MUD

Rec. 60 Feet of SLIGHTLY OIL CUT MUDDY WTR-40% WTR/ 10%OIL/10%GAS/ 40%

Rec. 0 Feet of _____

Rec. 330 Feet of GAS IN PIPE

Rec. 0 Feet of _____

BHT 120 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud	1981.4 PSI	AK1 Recorder No.	13615	Range	4575
(B) First Initial Flow Pressure	20.9 PSI	@ (depth)	4050	w/Clock No.	14389
(C) First Final Flow Pressure	23.6 PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	1175.4 PSI	@ (depth)	4072	w/Clock No.	27567
(E) Second Initial Flow Pressure	51.2 PSI	AK1 Recorder No.	0	Range	0
(F) Second Final Flow Pressure	63.5 PSI	@ (depth)	0	w/Clock No.	0
(G) Final Shut-In Pressure	1430.2 PSI	Initial Opening	15		
(H) Final Hydrostatic Mud	1951.2 PSI	Initial Shut-In	30		
		Final Flow	45		
		Final Shut-In	90		

RELEASED

AUG 21 1991

FROM CONFIDENTIAL

MR ROGER SELLS

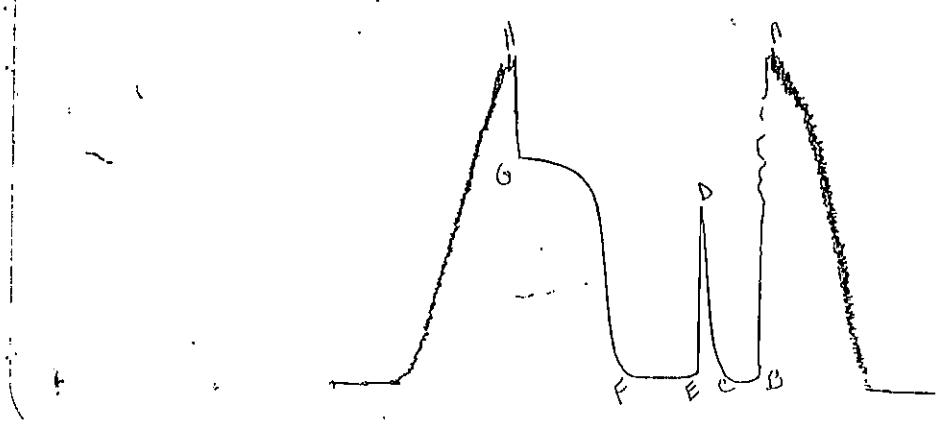
Our Representative _____

400

TOTAL PRICE $ _____

Printcraft Printers - Hays, KS

ORIGINAL DST# 1 RECORDER# 13163



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1980	1981.4	PSI
(B) First Initial Flow Pressure	22	20.9	PSI
(C) First Final Flow Pressure	22	23.6	PSI
(D) Initial Closed-In Pressure	1173	1175.4	PSI
(E) Second Initial Flow Pressure	45	51.2	PSI
(F) Second Final Flow Pressure	56	63.5	PSI
(G) Final Closed-In Pressure	1428	1430.2	PSI
(H) Final Hydrostatic Mud	1947	1951.2	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL No. 2866

TEST TICKET

Well Name & No. Russell 1-27 Test No. 1 Date 5-1-90

Company N-B Company, Inc. T59125 Zone Tested Arbuckle

Address P.O. Box 506 Russell, KS. Elevation 1930 KB

Co. Rep. / Geo. Kyle Braunm Cont. Emphasis Rig #5 Est. Ft. of Pay 18'

Location: Sec. 27 Twp. 25 Rge. 13 Co. Stafford State KS

No. of Copies 4 Distribution Sheet ____ Yes X No Turnkey ____ Yes X No

Interval Tested 4048-4075 Drill Pipe Size 4½ XH

Anchor Length 27' Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 4043 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 4048 Wt. Pipe I.D. — 2.7 Ft. Run ____

Total Depth 4075 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9.2 lb / gal. Viscosity 43 Filtrate 11.2

Tool Open @ 6:11 PM Initial Blow Fair, blowed 2" Fair building to Bottom of bucket@Shaten, Bld 2" 5 min. no blow back

Final Blow Good blow off bottom of bucket in 10 min. Bld 2" 5 min. blow back (weak at surface) Inc 50 min. Continued Thru o

Recovery — Total Feet 120' Flush Tool? ____

Rec. 60 Feet of Slightly Oil Cut Mud - 10% Oil, 10% gas, 80% M

Rec. 60 Feet of Slightly Oil Cut muddy Water - 40% water, 10% Oil, 10% gas, 40% M

Rec. 330 Feet of GAS

Rec. ____ Feet of ____

Rec. ____ Feet of ____

BHT 120 °F Gravity ____ °API @ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 10,000 ppm System

(A) Initial Hydrostatic Mud	1980 PSI	AK1 Recorder No.	13615	Range	4525
(B) First Initial Flow Pressure	22 PSI	@ (depth)	4050	w/Clock No.	14389
(C) First Final Flow Pressure	22 PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	1173 PSI	@ (depth)	4072	w/Clock No.	27567
(E) Second Initial Flow Pressure	45 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	56 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	1428 PSI	Initial Opening	15	Test	400.00
(H) Final Hydrostatic Mud	1947 PSI	Initial Shut-In	30	Jars	____
		Final Flow	45	Safety Joint	____
		Final Shut-In	90	Straddle	____
				Circ. Sub	X
				Sampler	____
				Extra Packer	____
				Other	____
				TOTAL PRICE $	400.00

Approved By Jeff Davis

Our Representative Royal Sells

Printcraft Printers - Hays, KS gave white

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data

Well Name & No. RUSSELL #1-27 Test No. 2 Date 5/2/90

Company N-B COMPANY INC Zone Tested SIMPSON SAND

Address P.O. BOX 506 RUSSELL KS 67665 Elevation 1930 KB

Co. Rep./Geo MY KYLE BRANUM Cont. EMPHASIS RIG #5 Est. Ft. of Pay 0

Location: Sec. 27 Twp. 25S Rge. 13W Co. STAFFORD State KANSAS

Interval Tested 4182-4226 Drill Pipe Size 4.5" XH

Anchor Length 44 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 4177 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 4182 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4226 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.2 lb/gal. Viscosity 52 Filtrate 10.4

Tool Open @ 5:24 PM Initial Blow VERY WEAK SURFACE BLOW BUILDING TO 3/4" - BLED 2"-NO BLOW BACK

Final Blow VERY WEAK SURFACE BLOW DYING IN 12 MINUTES

Recovery — Total Feet 3 Flush Tool? _____

Rec. 3 Feet of SLIGHTLY OIL SPECKED MUD

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

BHT 0 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud	2151.6 PSI	AK1 Recorder No.	13615	Range	4575
(B) First Initial Flow Pressure	30.9 PSI	@ (depth)	4184	w/Clock No.	14389
(C) First Final Flow Pressure	32.8 PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	60.2 PSI	@ (depth)	4223	w/Clock No.	27567
(E) Second Initial Flow Pressure	34.5 PSI	AK1 Recorder No.	0	Range	0
(F) Second Final Flow Pressure	35.6 PSI	@ (depth)	0	w/Clock No.	0
(G) Final Shut-In Pressure	47.8 PSI	Initial Opening	15		
(H) Final Hydrostatic Mud	2110.3 PSI	Initial Shut-In	30		
		Final Flow	15		
		Final Shut-In	30		

MR ROGER SELLS

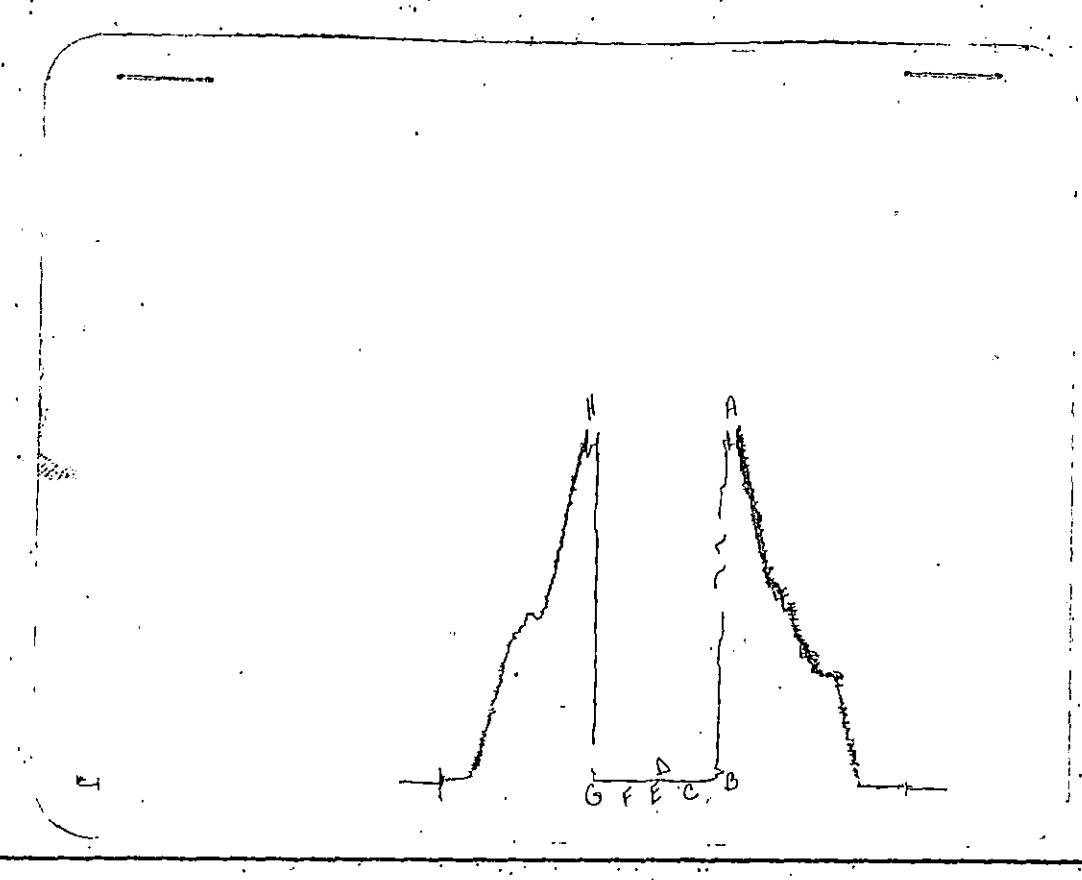
Our Representative _____

400

TOTAL PRICE $ _____

Printcraft Printers • Hays, KS

ORIGINAL DST# 2 RECORDER# 13615



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2146	2151.6	PSI
(B) First Initial Flow Pressure	33	30.9	PSI
(C) First Final Flow Pressure	33	32.8	PSI
(D) Initial Closed-In Pressure	56	60.2	PSI
(E) Second Initial Flow Pressure	33	34.5	PSI
(F) Second Final Flow Pressure	33	35.6	PSI
(G) Final Closed-In Pressure	45	47.8	PSI
(H) Final Hydrostatic Mud	2102	2110.3	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601 ORIGINAL No. 2867

TEST TICKET

Well Name & No. Russell 1-27 Test No. 2 Date 5-2-90

Company M-B Company Inc. T59125 Zone Tested Simpson Sand

Address P.O. Box 506 Russell, Ks. Elevation 1930 KB

Co. Rep. / Geo. Kyle Braun Cont. Emphasis Rig #5 Est. Ft. of Pay

Location: Sec. 27 Twp. 25 Rge. 13 Co. Stafford State Ks

No. of Copies 4 Distribution Sheet ___ Yes X No Turnkey ___ Yes X No

Interval Tested 4182 - 4226 Drill Pipe Size 4½ XH

Anchor Length 44 Top Choke — 1" ___ Bottom Choke — ¾" ___

Top Packer Depth 4177 Hole Size — 7⅞" ___ Rubber Size — 6¾" ___

Bottom Packer Depth 4182 Wt. Pipe I.D. — 2.7 Ft. Run ___

Total Depth 4226 Drill Collar — 2.25 Ft. Run ___

Mud Wt. 9.2 lb / gal. Viscosity 52 Filtrate 10.4

Tool Open @ 5:24 PM Initial Blow Very weak surface blow building to 3/4" in 2nd — No Blo's Back

Final Blow Very weak surface blow dying in 12 min.

Recovery — Total Feet 3' Flush Tool? ___

Rec. 3 Feet of Slightly Oil Specked Mud

Rec. ___ Feet of ___

Rec. ___ Feet of ___

Rec. ___ Feet of ___

Rec. ___ Feet of ___

BHT ___ °F Gravity ___ °API @ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 10,000 ppm System

(A) Initial Hydrostatic Mud	2146	PSI	AK1 Recorder No.	13615	Range	45-75	
(B) First Initial Flow Pressure	33	PSI	@ (depth)	4184	W/Clock No.	14385	
(C) First Final Flow Pressure	33	PSI	AK1 Recorder No.	10248	Range	4400	
(D) Initial Shut-In Pressure	56	PSI	@ (depth)	4223	W/Clock No.	27567	
(E) Second Initial Flow Pressure	33	PSI	AK1 Recorder No.		Range		
(F) Second Final Flow Pressure	33	PSI	@ (depth)		W/Clock No.		
(G) Final Shut-In Pressure	45	PSI	Initial Opening	15	Test	400.00	
(H) Final Hydrostatic Mud	2102	PSI	Initial Shut-In	30	Jars		
			Final Flow	15	Safety Joint		
			Final Shut-In	30	Straddle		
					Circ. Sub	X	
					Sampler		
					Extra Packer		
					Other		
					TOTAL PRICE $	400.00	

Approved By [signature]

Our Representative Roger L. Sell

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data

Well Name & No. RUSSELL #1-27 Test No. 3 Date 5/3/90

Company N-B COMPANY INC Zone Tested LOWER SIMPSON SND

Address P.O. BOX 506 RUSSELL KS 67665 Elevation 1930 KB

Co. Rep./Geo MY KYLE BRANUM Cont. EMPHASIS RIG #5 Est. Ft. of Pay 0

Location: Sec. 27 Twp. 25S Rge. 13W Co. STAFFORD State KANSAS

Interval Tested 4217-4243 Drill Pipe Size 4.5" XH

Anchor Length 26 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 4212 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 4217 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4243 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 8.9 lb/gal. Viscosity 49 Filtrate 11.0

Tool Open @ 8:37 Initial Blow FAIR BLOW BUILDING TO 4" AT SHUT-IN

BLED 2" FOR 5 MINUTES-NO BLOW BACK

Final Blow FAIR BLOW BUILDING TO 2 1/2" IN 3 MIN &

STAYING THOUGHOUT OPENING-BLED 2" FOR 5 MIN-NO BLOW BACK

Recovery — Total Feet 240 Flush Tool? _____

Rec. 240 Feet of MUD

Rec. 0 Feet of PACKER FAILURE - TOOL PLUGGED OF-MISRUN

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

BHT 0 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 0 PSI AK1 Recorder No. 13615 Range 4575

(B) First Initial Flow Pressure 0 PSI @ (depth) 4219 w/Clock No. 14389

(C) First Final Flow Pressure 0 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-In Pressure 0 PSI @ (depth) 4240 w/Clock No. 27567

(E) Second Initial Flow Pressure 0 PSI AK1 Recorder No. 0 Range 0

(F) Second Final Flow Pressure 0 PSI @ (depth) 0 w/Clock No. 0

(G) Final Shut-In Pressure 0 PSI Initial Opening 15

(H) Final Hydrostatic Mud 0 PSI Initial Shut-In 30

Final Flow 45

Final Shut-In 90

MR ROGER SELLS

Our Representative _____

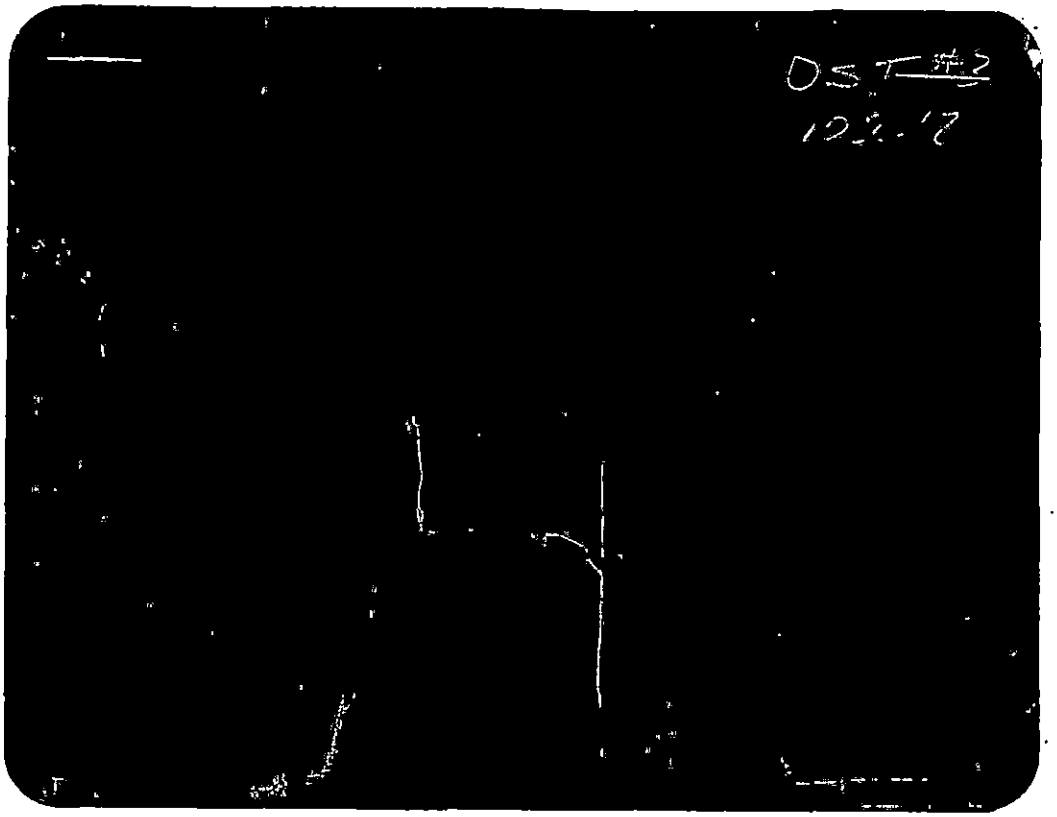
250

TOTAL PRICE $ _____

Printcraft Printers - Hays, KS

ORIGINAL

DST# _____ RECORDER# _____



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	0	0	PSI
(B) First Initial Flow Pressure	0	0	PSI
(C) First Final Flow Pressure	0	0	PSI
(D) Initial Closed-In Pressure	0	0	PSI
(E) Second Initial Flow Pressure	0	0	PSI
(F) Second Final Flow Pressure	0	0	PSI
(G) Final Closed-In Pressure	0	0	PSI
(H) Final Hydrostatic Mud	0	0	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET ORIGINAL № 2868

Name & No. Russell I-27 Test No. 3 Date 5-3-90

Company M-B Company, Inc. T59125 Zone Tested Lower Simpson Sand

Address P.O. Box 504 Russell, KS. Elevation 1930 KB

Surp. / Geo. Kyle Braum Cont. Emphasis Rig #5 Est. Ft. of Pay

Location: Sec. 27 Twp. 25 Rge. 13 Co. Stafford State Ks.

No. Copies 4 Distribution Sheet ___ Yes X No Turnkey ___ Yes X No

Interval Tested 4217-4243 Drill Pipe Size 4½ XH

Anchor Length 26' Top Choke — 1" ___ Bottom Choke — ¾" ___

Upper Packer Depth 4212 Hole Size — 7⅞" ___ Rubber Size — 6¾" ___

Lower Packer Depth 4217 Wt. Pipe I.D. — 2.7 Ft. Run ___

Total Depth 4243 Drill Collar — 2.25 Ft. Run ___

Mud Wt. 8.9 lb / gal. Viscosity 49 Filtrate 11.0

Tool Open @ 8:37 Initial Blow fair blow building to 4" @ shut-in of 2" 5 min. No blow back.

Final Flow fair blow building to 2½" in 3 min. & staying thru opening. Bled 2" 5 min. No blow back

Recovery — Total Feet 240' Flush Tool? ___

240 Feet of Mud

___ Feet of Packer Failure

___ Feet of Packer Failed off

___ Feet of Tool Plugged

___ Feet of Mis Run

___ °F Gravity ___ °API @ ___ °F Corrected Gravity ___ °API

___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 10,000 ppm System

Initial Hydrostatic Mud ___ PSI AK1 Recorder No. 13615 Range 4575

1st Initial Flow Pressure ___ PSI @ (depth) 4219 w/Clock No. 14389

1st Final Flow Pressure ___ PSI AK1 Recorder No. 10248 Range 4400

Initial Shut-In Pressure ___ PSI @ (depth) 4240 w/Clock No. 27367

2nd Initial Flow Pressure ___ PSI AK1 Recorder No. ___ Range ___

2nd Final Flow Pressure ___ PSI @ (depth) ___ w/Clock No. ___

Final Shut-In Pressure ___ PSI Initial Opening 15 Test 250 00 4000 00

Final Hydrostatic Mud ___ PSI Initial Shut-In 30 Jars ___

Final Flow 45 Safety Joint ___

Final Shut-In 90 Straddle ___

Circ. Sub X

Approved By Rick Owen Sampler ___

Representative Roger T. Sells Extra Packer ___

Other ___

TOTAL PRICE $ ___

Trilobite Printers - Hays, KS

TRILOBITE TESTING COMPANY

ORIGINAL

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. RUSSELL #1-27 Test No. 4 Date 5/3/90

Company N-B COMPANY INC Zone Tested LWR SIMPSON SAND

Address P.O. BOX 506 RUSSELL KS 67665 Elevation 1930 KB

Co. Rep./Geo. MY KYLE BRANUM Cont. EMPHASIS RIG #5 Est. Ft. of Pay 0

Location: Sec. 27 Twp. 25S Rge. 13W Co. STAFFORD State KANSAS

Interval Tested 4205-4243 Drill Pipe Size 4.5" XH

Anchor Length 38 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 4200 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 4205 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4243 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 8.9 lb/gal. Viscosity 49 Filtrate 11.0

1st Open @ _____ Initial Blow PACKER FAILURE-TRIED TO RE-SET PACKERS TWICE-NO GOOD-CAME OUT OF THE HOLE

2nd Blow _____

Recovery — Total Feet 110 Flush Tool? _____

1. 110 Feet of MUD
2. 0 Feet of _____
3. 0 Feet of _____
4. 0 Feet of _____
5. 0 Feet of _____

BHT 0 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

_____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

Initial Hydrostatic Mud	0 PSI	AK1 Recorder No.	13615	Range	4575
First Initial Flow Pressure	0 PSI	@ (depth)	4207	w/Clock No.	27501
First Final Flow Pressure	0 PSI	AK1 Recorder No.	10248	Range	4400
Initial Shut-In Pressure	0 PSI	@ (depth)	4240	w/Clock No.	27567
Second Initial Flow Pressure	0 PSI	AK1 Recorder No.	0	Range	0
Second Final Flow Pressure	0 PSI	@ (depth)	0	w/Clock No.	0
Final Shut-In Pressure	0 PSI	Initial Opening	15		
Final Hydrostatic Mud	0 PSI	Initial Shut-In	30		
		Final Flow	0		
		Final Shut-In	0		

MR ROGER SELLS

Our Representative _____

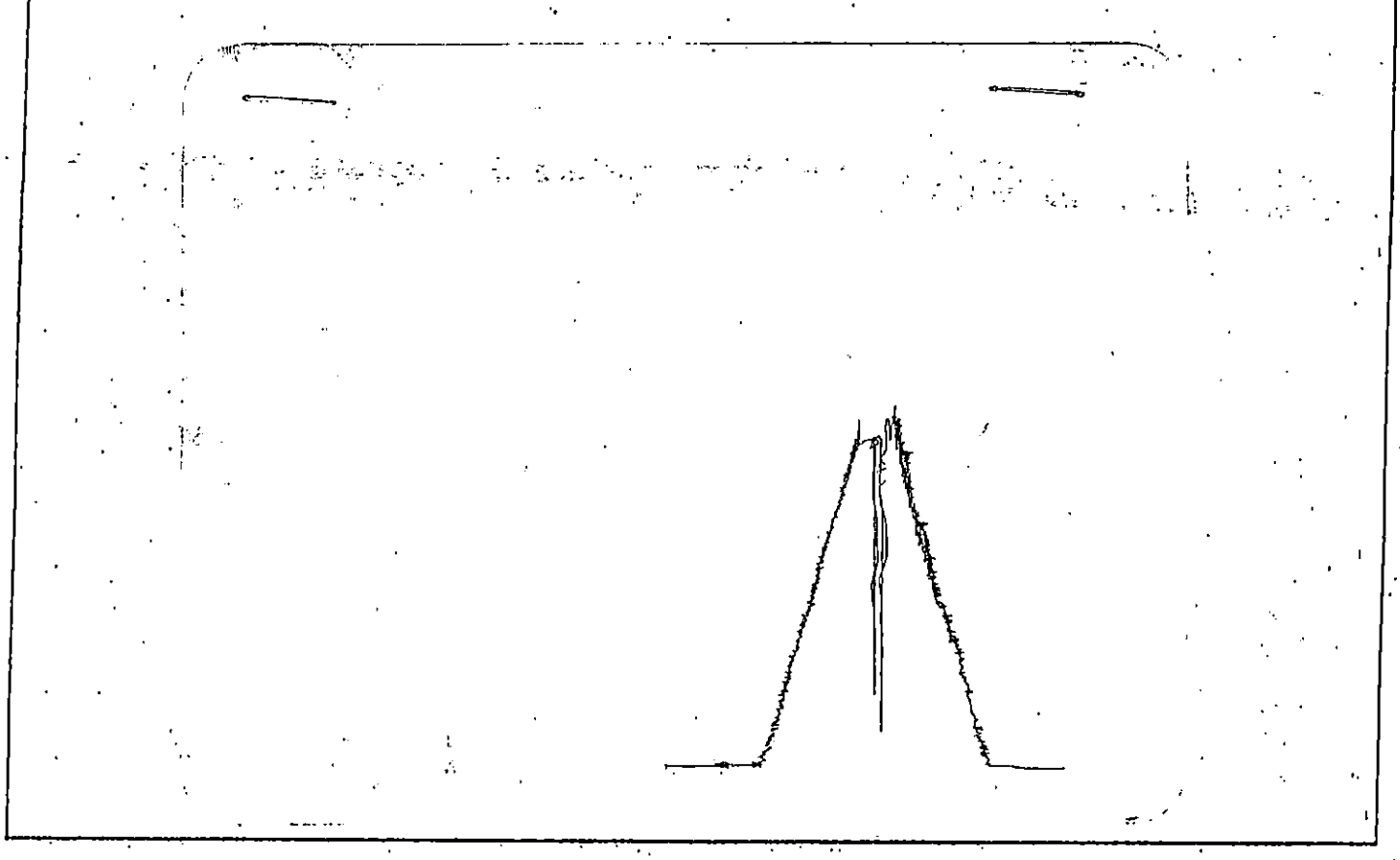
250

TOTAL PRICE $ _____

Printcraft Printers - Hays, KS

ORIGINAL

DST# 4 RECORDER# 13615



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading
(A) Initial Hydrostatic Mud		PSI
(B) First Initial Flow Pressure		PSI
(C) First Final Flow Pressure		PSI
(D) Initial Closed-in Pressure		PSI
(E) Second Initial Flow Pressure		PSI
(F) Second Final Flow Pressure		PSI
(G) Final Closed-in Pressure		PSI
(H) Final Hydrostatic Mud		PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET ORIGINAL No. 2869

Well Name & No. Russell 1-27 Test No. 4 Date 5-3-90

Company N-B Company, Inc. T59125 Zone Tested Lower Simpson Sa.

Address P.O. Box 556 Russell, KS. Elevation 1930 KB

Co. Rep. / Geo. Kyle Brannum Cont. Emphasis Rig #5 Est. Ft. of Pay

Location: Sec. 27 Twp. 25 Rge. 13 Co. Stafford State KS.

No. of Copies 4 Distribution Sheet ___ Yes X No Turnkey ___ Yes X No

Interval Tested 4205 - 4243 Drill Pipe Size 4½ XH

Anchor Length 38' Top Choke — 1" ___ Bottom Choke — ¾" ___

Top Packer Depth 4200 Hole Size — 7⅞" ___ Rubber Size — 6¾" ___

Bottom Packer Depth 4205 Wt. Pipe I.D. — 2.7 Ft. Run ___

Total Depth 4243 Drill Collar — 2.25 Ft. Run ___

Mud Wt. 8.9 lb / gal. Viscosity 49 Filtrate 11.0

Tool Open @ ___ Initial Blow Packer Failure - Tried to set packers twice. Not good - out of the hole.

Final Blow ___

Recovery — Total Feet 110' Flush Tool? ___

Rec. 110 Feet of Mud

Rec. ___ Feet of ___

Rec. ___ Feet of ___

Rec. ___ Feet of ___

Rec. ___ Feet of ___

BHT ___ °F Gravity ___ °API @ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 10,000 ppm System

(A) Initial Hydrostatic Mud	___ PSI	AK1 Recorder No.	13615	Range	4595
(B) First Initial Flow Pressure	___ PSI	@ (depth)	4207	w/Clock No.	27501
(C) First Final Flow Pressure	___ PSI	AK1 Recorder No.	10248	Range	4400
(D) Initial Shut-In Pressure	___ PSI	@ (depth)	4240	w/Clock No.	27567
(E) Second Initial Flow Pressure	___ PSI	AK1 Recorder No.	___	Range	___
(F) Second Final Flow Pressure	___ PSI	@ (depth)	___	w/Clock No.	___
(G) Final Shut-In Pressure	___ PSI	Initial Opening	15	Test	400.00
(H) Final Hydrostatic Mud	___ PSI	Initial Shut-In	30	Jars	___
		Final Flow	___	Safety Joint	___
		Final Shut-In	___	Straddle	___
				Circ. Sub	X
				Sampler	___
				Extra Packer	___
				Other	___
				TOTAL PRICE $	___

Approved By Jeff Owen

Our Representative Roger L Sells

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