



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 1239

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation _____ Formation mud Eff. Pay _____ Ft.

District Dodge City Date 7-30-83 Customer Order No. _____

COMPANY NAME Luff Exploration Co.

ADDRESS 1580 Lincoln St. #850 Denver, Co. 80203

LEASE AND WELL NO. LGK #G26 COUNTY Comanche STATE Ko. Sec. 26 Twp. 31 Rge. 16

Mail Invoice To #26 "G" LGK No. Copies Requested _____

Co. Name _____ Address _____

Mail Charts To _____ No. Copies Requested _____

Formation Test No. 1 Interval Tested From 4882 ft. to 4939 ft. Total Depth 4939 ft.

Packer Depth 4827 ft. Size 65/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4882 ft. Size 65/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4916 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 4920 ft. Recorder Number 3052 Cap. 4500

Below Saddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor H-30 Rig 45 Drill Collar Length 489 I. D. 2.2 in.

Mud Type chem. Viscosity 58 Weight Pipe Length in 4 inch 31' I. D. 3.8 in.

Weight 9.1 Water Loss 12.8 cc. Drill Pipe Length 4364 I. D. 3.8 in.

Chlorides 14,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 422 Anchor Length 26 ft. Size 5 1/2 in.

Did Well Flow? yes 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 4 1/2 in.

Blow: G-T-S 2 min See flow chart!

Recovered 220 ft. of Free Oil w/ 35 gravity @ 79°

Recovered 120 ft. of 40% gas 30% oil 30% only mud

Recovered 120 ft. of 15% gas 80% oil 5% only mud

Recovered 60 ft. of 15% gas 80% oil 3% only oil

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks Water mist 15 min into FFP

Flowing at Heavy Oil Mist in 19 min FFP.

Pulled 105705 + Hung Till daylight.

Time On Location 12:15 A.M. Time Pick Up Tool 2:45 A.M. Time Off Location 12:30 A.M.

Time Set Packer(s) 5:00 A.M. Time Started Off Bottom 8:15 A.M. Maximum Temperature Broke

Initial Hydrostatic Pressure _____ (A) 2471 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 937 P.S.I. to (C) 980 P.S.I.

Initial Closed In Period _____ Minutes 60 (D) 1528 P.S.I.

Final Flow Period _____ Minutes 30 (E) 1002 P.S.I. to (F) 1055 P.S.I.

Final Closed In Period _____ Minutes 120.75 (G) 1517 P.S.I.

Final Hydrostatic Pressure _____ (H) 2340 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Raymond P. Parker
Signature of Customer or his authorized representative

Western Representative Mike Rigus Thank You!

FIELD INVOICE

Open Hole Test \$ 55.00
Misrun \$ _____
Straddle Test \$ _____
Jars \$ 300.00
Selective Zone \$ _____
Safety Joint \$ 65.00
Standby \$ _____
Evaluation \$ 50.00
Extra Packer \$ _____
Circ. Sub. \$ _____
Mileage \$ _____
Fluid Sampler \$ _____
Extra Charts \$ _____
Insurance \$ _____
Telecopier \$ 250.00
TOTAL \$ 1060.00



GAS FLOW REPORT

N^o 3684

Date 7-30-83 Ticket 1239 Company Luff Exploration Co.
 Well Name and No. LGK #626 Dst No. 1 Interval Tested 4882-4939
 County Comanche State KS Sec. 26 Twp. 31 Rg. 16

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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PRE FLOW

2	05	2"			517,000 CFD
05	26				3,880,000 "
10	45				5,690,000 "
15	50				6,160,000 "
20	60				7,120,000 "
25	60				7,120,000 "
30	60				7,120,000 "

SECOND FLOW

05	30	2"			4,260,000 CFD
10	45				5,690,000 "
15	50				6,160,000 "
20	65				7,600,000 "
25	70				8,060,000 "
30	80				9,010,000 "

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 7-30 Test Ticket No. 1239
 Recorder No. 1566 Capacity 4300 Location 4916 Ft.
 Clock No. Elevation Well Temperature °F

Point Pressure
 A Initial Hydrostatic Mud 2478 P.S.I.
 B First Initial Flow Pressure 950 P.S.I.
 C First Final Flow Pressure 980 P.S.I.
 D Initial Closed-in Pressure 1530 P.S.I.
 E Second Initial Flow Pressure 1011 P.S.I.
 F Second Final Flow Pressure 1067 P.S.I.
 G Final Closed-in Pressure 1517 P.S.I.
 H Final Hydrostatic Mud 2332 P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

Time Given 5:00 P M
 Time Computed
 30 Mins. 30 Mins.
 60 Mins. 60 Mins.
 30 Mins. 30 Mins.
 75 Mins. 81 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 7 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 21 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 7 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 28 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.
P 1 0	950
P 2 5	950
P 3 10	958
P 4 15	970
P 5 20	979
P 6 25	980
P 7 30	980
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Point Minutes	Press.
0	980
3	1509
6	1517
9	1524
12	1526
15	1528
18	1529
21	1530
24	1530
27	
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	1530
60	1530

Point Minutes	Press.
0	1011
5	1011
10	1020
15	1036
20	1071
25	1074 ok
30	1067
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	

Point Minutes	Press.
0	1067
3	1494
6	1504
9	1509
12	1511
15	1512
18	1513
21	1514
24	1515
27	1516
30	1517
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	1517

WESTERN TESTING CO., INC.

Pressure Data

Date _____ Test Ticket No. 1239

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

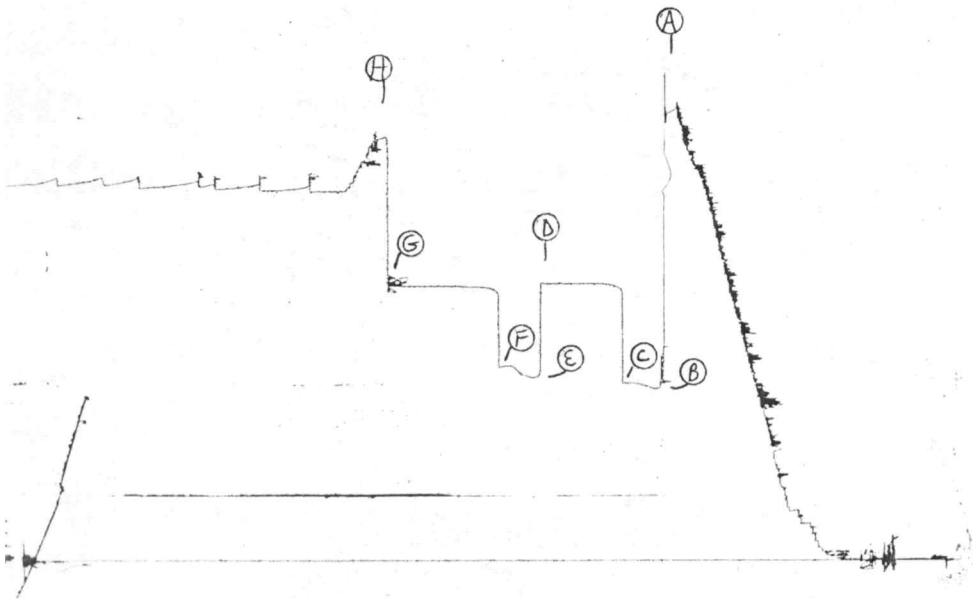
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud _____ P.S.I.	Open Tool _____ M		
B First Initial Flow Pressure _____ P.S.I.	First Flow Pressure _____ Mins. _____ Mins.		
C First Final Flow Pressure _____ P.S.I.	Initial Closed-in Pressure _____ Mins. _____ Mins.		
D Initial Closed-in Pressure _____ P.S.I.	Second Flow Pressure _____ Mins. _____ Mins.		
E Second Initial Flow Pressure _____ P.S.I.	Final Closed-in Pressure _____ Mins. _____ Mins.		
F Second Final Flow Pressure _____ P.S.I.			
G Final Closed-in Pressure _____ P.S.I.			
H Final Hydrostatic Mud _____ P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 _____	_____	63 _____	_____	_____	_____	63 _____	1517
P 2 _____	_____	66 _____	_____	_____	_____	66 _____	1517
P 3 _____	_____	69 _____	_____	_____	_____	69 _____	
P 4 _____	_____	72 _____	_____	_____	_____	72 _____	
P 5 _____	_____	75 _____	_____	_____	_____	75 _____	
P 6 _____	_____	78 _____	_____	_____	_____	78 _____	
P 7 _____	_____	81 _____	_____	_____	_____	81 _____	
P 8 _____	_____	84 _____	_____	_____	_____	84 _____	
P 9 _____	_____	87 _____	_____	_____	_____	87 _____	
P10 _____	_____	90 _____	_____	_____	_____	90 _____	
P11 _____	_____	93 _____	_____	_____	_____	93 _____	
P12 _____	_____	96 _____	_____	_____	_____	96 _____	
P13 _____	_____	99 _____	_____	_____	_____	99 _____	
P14 _____	_____	102 _____	_____	_____	_____	102 _____	
P15 _____	_____	105 _____	_____	_____	_____	105 _____	
P16 _____	_____	108 _____	_____	_____	_____	108 _____	
P17 _____	_____	111 _____	_____	_____	_____	111 _____	
P18 _____	_____	114 _____	_____	_____	_____	114 _____	
P19 _____	_____	117 _____	_____	_____	_____	117 _____	
P20 _____	_____	120 _____	_____	_____	_____	120 _____	

TKT # 1239

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WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7/30/83
CUSTOMER: LUFF EXPLORATION COMPANY
WELL: 26
ELEVATION (KB): 0
SECTION: 26
RANGE: 16W
GAUGE SN #1566

TEST: 1
FORMATION: MISSISSIPPI
TOWNSHIP: 31S
COUNTY: COMANCHE
RANGE: 4300

TICKET #1239
LEASE: "G" LGK
GEOLOGIST: PALMER
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4882 FT TO: 4939 FT TOTAL DEPTH: 4939 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4877 FT SIZE: 6 5/8 IN PACKER DEPTH: 4882 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: H-30
MUD TYPE: CHEMICAL
WEIGHT: 9.1

VISCOSITY: 58
WATER LOSS (CC): 12.8

CHLORIDES (P.P.M.): 14000
JARS - MAKE: WTC

SERIAL NUMBER: 422

DID WELL FLOW? YES

REVERSED OUT? NO

DRILL COLLAR LENGTH: 489

FT I.D.: 2.2 IN

WEIGHT PIPE LENGTH:

FT I.D.: IN

DRILL PIPE LENGTH: 4364

FT I.D.: 3.8 IN

TEST TOOL LENGTH: 29

FT TOOL SIZE: 5 1/2 IN

ANCHOR LENGTH: 26

FT SIZE: 5 1/2 IN

SURFACE CHOKE SIZE: 3/4

IN BOTTOM CHOKE SIZE: 3/4 IN

MAIN HOLE SIZE: 7 7/8

IN TOOL JOINT SIZE: 4 1/2 IN

BLOW: GAS TO SURFACE IN 2 MINUTES.
SEE ATTACHED GAS SHEET.

RECOVERED: 220	FT	OF: FREE OIL GRAVITY 35 @ 79 DEGREES F.
RECOVERED: 120	FT	OF: 40% GAS; 30% OIL; 30% DRILLING MUD
RECOVERED: 120	FT	OF: 15% GAS; 80% OIL; 5% DRILLING MUD
RECOVERED: 60	FT	OF: 15% GAS; 82% OIL; 3% DRILLING MUD
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:

REMARKS: DRILL PIPE LENGTH IN ANCHOR 31 FT. I.D. 3.8 IN.
WATER MIST 15 MINUTES INTO FINAL FLOW PERIOD.
FLOWING HEAVY OIL MIST IN 19 MINUTES
FINAL FLOW PERIOD.

TIME SET PACKER(S): 5:00 PM
WELL TEMPERATURE: 0 'F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD
INITIAL CLOSED IN PERIOD
FINAL FLOW PERIOD
FINAL CLOSED IN PERIOD
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 8:15 PM

(A) 2478	PSI
(B) 950	PSI TO (C) 980 PSI
(D) 1530	PSI
(E) 1011	PSI TO (F) 1067 PSI
(G) 1517	PSI
(H) 2332	PSI

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 7/30/83
CUSTOMER: LUFF EXPLORATION COMPANY
WELL: 26 TEST: 1
ELEVATION (KB): 0 FORMATION: MISSISSIPPI
SECTION: 26 TOWNSHIP: 31S
RANGE: 16W COUNTY: COMANCHE STATE: KANSAS
GAUGE SN #1566 RANGE: 4300 CLOCK: 12

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

2	MERLA	2	0.5 PSIG	517000 CFPD
5		2	26 PSIG	3880000 CFPD
10		2	45 PSIG	5690000 CFPD
15		2	50 PSIG	6160000 CFPD
20		2	60 PSIG	7120000 CFPD
25		2	60 PSIG	7120000 CFPD
30		2	60 PSIG	7120000 CFPD

SECOND FLOW

5	MERLA	2	30 PSIG	4260000 CFPD
10		2	45 PSIG	5690000 CFPD
15		2	50 PSIG	6160000 CFPD
20		2	65 PSIG	7600000 CFPD
25		2	70 PSIG	8060000 CFPD
30		2	80 PSIG	9010000 CFPD

GAS BOTTLE SN #:
DATE BOTTLE FILLED:
DATE TO BE INVOICED: 7/30/83