



WESTERN TESTING CO., Inc.  
P. O. Box 1599  
WICHITA, KANSAS  
67201

DATE 11/27/79

Banks Oil Company  
360 Sutton Place  
Wichita, Kansas 67202

CHARGE TO

Well Report No. 4069  
Unit No.  
District

FOR CUSTOMER'S USE ONLY

Register No.	Voucher No.
Terms Approved	Price Approved
Calculations Checked	
Adjustments	
Accounting Distribution	
Audited	Final Approval

Your Order No.	Owner	Contractor	Audited	Final Approval
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Well No.	Farm	County	Sec.	Twp.	Range
#1	Cameron "A"	Clark	1	30S	21W

One drill stem test from 5177' to 5205' (Test 1)	\$ 600.00
Jars	275.00
Safety Joint	35.00
	<hr/>
	\$ 910.00

**POSTED**

Discount \$ 9.10	1% Discount Allowed on This Invoice If Paid by 20th of Following Month	Invoice No. 4069
IN REMITTING PLEASE GIVE OUR INVOICE NUMBER		

SEND ALL REMITTANCES TO POST OFFICE BOX 1599, WICHITA, KANSAS 67201



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 4069

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 2348 KB Formation I N O I A Eff. Pay Ft.

District PRATT Date 11-27-79 Customer Order No.

COMPANY NAME BANKS Oil Co.

ADDRESS 360 Sutton Place Wichita KANSAS 67202

LEASE AND WELL NO. Cameron #1-A COUNTY CLARK STATE KANSAS Sec. 1 Twp 30s Rge 21w

Mail Invoice To SAME Co. Name SAME Address No. Copies Requested

Mail Charts To SAME Address No. Copies Requested

Formation Test No. 1 Interval Tested from 5177 ft. to 5205 ft. Total Depth 5205 ft.

Packer Depth 5200 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 5205 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5210 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 5213 ft. Recorder Number 6074 Cap. 5200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor D R Hauer Drilling Co Drill Collar Length 290 I. D. 2 1/4 in.

Mud Type Premium Starch Viscosity 48 Weight Pipe Length I. D. in.

Weight 7.7 Water Loss 4.8 cc. Drill Pipe Length 4757 I. D. 3.8 in.

Chlorides 31,000 P.P.M. Test Tool Length 52 ft. Tool Size 5200 in.

Jars: Make WTC Serial Number 407 Anchor Length 28 ft. Size 5200 in.

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

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 in.

Blow: Strong blow on initial flow period - gas to surface at start of final flow - see flow chart

Recovered 260 ft. of gas & mud and oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 12:30 A.M. Time Started Off Bottom 4:15 A.M. Maximum Temperature 131°F

Initial Hydrostatic Pressure (A) 2743 P.S.I.

Initial Flow Period Minutes 30 (B) 62 P.S.I. to (C) 52 P.S.I.

Initial Closed In Period Minutes 45 (D) 1277 P.S.I.

Final Flow Period Minutes 60 (E) 83 P.S.I. to (F) 52 P.S.I.

Final Closed In Period Minutes 70 (G) 1298 P.S.I.

Final Hydrostatic Pressure (H) 2712 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 [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] Thank you

FIELD INVOICE

Open Hole Test \$ 600.00
Misrun \$
Straddle Test \$
Jars \$ 275.00
Selective Zone \$
Safety Joint \$ 35.00
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$

TOTAL \$ 910.00



**GAS FLOW REPORT**

**Nº 1058**

Date 11-27-79 Ticket 4069 Company BANKS Oil Co  
 Well Name and No. CAMERON J-A Dst No. 1 Interval Tested 5177-5205  
 County CLARK State KANSAS Sec. 1 Twp. 30S Rg. 21W

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**

<u>12:30 A.M.</u>					<u>Tool open</u>
<u>1:00</u>					<u>Shut in</u>

**SECOND FLOW**

Time	Inches of Water	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
<u>1:45 A.M.</u>					<u>Tool open</u>
<u>10</u>	<u>5"</u>	<u>1/2</u>			<u>14,100 C.F.P.D.</u>
<u>20</u>	<u>5"</u>	}			}
<u>30</u>	<u>5"</u>				
<u>40</u>	<u>5"</u>				
<u>50</u>	<u>5"</u>				
<u>60</u>	<u>5"</u>				

**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 1% per month, equal to 12% 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 11-27-79 Test Ticket No. 4069  
 Recorder No. 2606 Capacity 4150 Location 5210 Ft.  
 Clock No. \_\_\_\_\_ Elevation 2348 KB Well Temperature 131 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2742</u>	P.S.I.	<u>12:30</u> A M	
B First Initial Flow Pressure	<u>62</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1277</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>81</u>	P.S.I.	<u>90</u> Mins.	<u>93</u> Mins.
F Second Final Flow Pressure	<u>69</u>	P.S.I.		
G Final Closed-in Pressure	<u>1311</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2693</u>	P.S.I.		

### PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>31</u> 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	<u>0</u>	<u>0</u>	<u>52</u>	<u>0</u>	<u>81</u>	<u>0</u>	<u>69</u>
P 2	<u>5</u>	<u>3</u>	<u>198</u>	<u>5</u>	<u>81</u>	<u>3</u>	<u>189</u>
P 3	<u>10</u>	<u>6</u>	<u>381</u>	<u>10</u>	<u>73</u>	<u>6</u>	<u>334</u>
P 4	<u>15</u>	<u>9</u>	<u>519</u>	<u>15</u>	<u>69</u>	<u>9</u>	<u>435</u>
P 5	<u>20</u>	<u>12</u>	<u>645</u>	<u>20</u>	<u>64</u>	<u>12</u>	<u>533</u>
P 6	<u>25</u>	<u>15</u>	<u>742</u>	<u>25</u>	<u>62</u>	<u>15</u>	<u>616</u>
P 7	<u>30</u>	<u>18</u>	<u>832</u>	<u>30</u>	<u>62</u>	<u>18</u>	<u>686</u>
P 8	<u>35</u>	<u>21</u>	<u>911</u>	<u>35</u>	<u>62</u>	<u>21</u>	<u>744</u>
P 9	<u>40</u>	<u>24</u>	<u>977</u>	<u>40</u>	<u>62</u>	<u>24</u>	<u>804</u>
P 10	<u>45</u>	<u>27</u>	<u>1035</u>	<u>45</u>	<u>62</u>	<u>27</u>	<u>848</u>
P 11	<u>50</u>	<u>30</u>	<u>1089</u>	<u>50</u>	<u>62</u>	<u>30</u>	<u>896</u>
P 12	<u>55</u>	<u>33</u>	<u>1128</u>	<u>55</u>	<u>66</u>	<u>33</u>	<u>933</u>
P 13	<u>60</u>	<u>36</u>	<u>1170</u>	<u>60</u>	<u>69</u>	<u>36</u>	<u>973</u>
P 14		<u>39</u>	<u>1209</u>	<u>65</u>		<u>39</u>	<u>1000</u>
P 15		<u>42</u>	<u>1234</u>	<u>70</u>		<u>42</u>	<u>1033</u>
P 16		<u>45</u>	<u>1277</u>	<u>75</u>		<u>45</u>	<u>1062</u>
P 17		<u>48</u>		<u>80</u>		<u>48</u>	<u>1087</u>
P 18		<u>51</u>		<u>85</u>		<u>51</u>	<u>1104</u>
P 19		<u>54</u>		<u>90</u>		<u>54</u>	<u>1127</u>
P 20		<u>57</u>				<u>57</u>	<u>1147</u>
		<u>60</u>				<u>60</u>	<u>1166</u>

(Cont)

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Test Ticket No. 4069

Order No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_  
 No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_

	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	_____ P.S.I.	Open Tool	_____ M	
First Initial Flow Pressure	_____ P.S.I.	First Flow Pressure	_____ Mins	_____ Min
First Final Flow Pressure	_____ P.S.I.	Initial Closed-in Pressure	_____ Mins	_____ Min
Initial Closed-in Pressure	_____ P.S.I.	Second Flow Pressure	_____ Mins	_____ Min
Second Initial Flow Pressure	_____ P.S.I.	Final Closed-in Pressure	_____ Mins	_____ Min
Second Final Flow Pressure	_____ P.S.I.			
Final Closed-in Pressure	_____ P.S.I.			
Final Hydrostatic Mud	_____ P.S.I.			

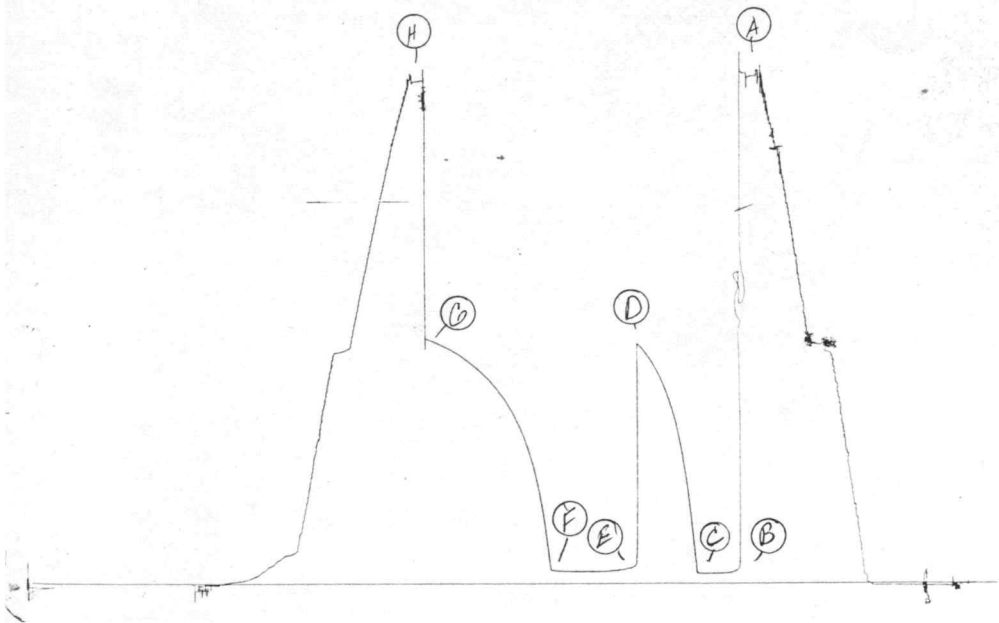
**PRESSURE BREAKDOWN**

	First Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
nt is.	Press.	Point Minutes	Press.	Point Minutes	Press.
_____	_____	63	_____	63	1184
_____	_____	66	_____	66	1201
_____	_____	69	_____	69	1217
_____	_____	72	_____	72	1230
_____	_____	75	_____	75	1246
_____	_____	78	_____	78	1259
_____	_____	81	_____	81	1267
_____	_____	84	_____	84	1275
_____	_____	87	_____	87	1288
_____	_____	90	_____	90	1290
_____	_____	93	_____	93	1311
_____	_____	96	_____	96	.
_____	_____	99	_____	99	_____
_____	_____	102	_____	102	_____
_____	_____	105	_____	105	_____
_____	_____	108	_____	108	_____
_____	_____	111	_____	111	_____
_____	_____	114	_____	114	_____
_____	_____	117	_____	117	_____
_____	_____	120	_____	120	_____

2600

"U.S.I." 1

IN# 4069  
I



Company Banks Oil Company Lease & Well No. Cameron #1"A"  
 Elevation 2348 Kelly Bushing Inola Effective Pay --- Ft. Ticket No. 4069  
 Date 11/27/79 1 Twp. 30S Range 21W County Clark State Kansas  
 Test Approved by Scott Banks Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 5177 ft. to 5205 ft. Total Depth 5205 ft.  
 Packer Depth 5200 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 4205 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -  
 Top Recorder Depth (Inside) 5210 ft. Recorder Number 2606 Cap. 4150  
 Bottom Recorder Depth (Outside) 5213 ft. Recorder Number 6074 Cap. 5200  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -  
 Drilling Contractor D. R. Lauck Drilling Co. Drill Collar Length 390 I. D. 2 1/4 in.  
 Mud Type premix starch Viscosity 48 Weight Pipe Length - I. D. - in.  
 Weight 9.9 Water Loss 4.8 cc. Drill Pipe Length 4757 I. D. 3.8 in.  
 Chlorides 31,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.  
 Jars: Make WTC Serial Number 407 Anchor Length 28 ft. Size 5 1/2 OD in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong blow on initial flow period. Gas to surface at start of final flow. See attached sheet for gas measurements.

Recovered 260 ft. of gas and mud cut oil  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set	<u>12:30</u>	<u>A.M.</u> <del>P.M.</del>	Time Started Off Bottom	<u>4:15</u>	<u>A.M.</u> <del>P.M.</del>	Maximum Temperature	<u>131<sup>0</sup></u>
Initial Hydrostatic Pressure			(A)	<u>2742</u>	P.S.I.		
Initial Flow Period	Minutes		<u>30</u>	(B)	<u>62</u>	P.S.I. to (C)	<u>52</u> P.S.I.
Initial Closed In Period	Minutes		<u>45</u>	(D)	<u>1277</u>	P.S.I.	
Final Flow Period	Minutes		<u>60</u>	(E)	<u>81</u>	P.S.I. to (F)	<u>69</u> P.S.I.
Final Closed In Period	Minutes		<u>93</u>	(G)	<u>1311</u>	P.S.I.	
Final Hydrostatic Pressure			(H)	<u>2693</u>	P.S.I.		

## GAS FLOW REPORT

Date 11/27/79 Ticket 4069 Company Banks Oil Company  
 Well Name and No. Cameron #1"A" Dst No. 1 Interval Tested 5177'-5205'  
 County Clark State Kansas Sec. 1 Twp. 30S Rg. 21W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Meria Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
<b>PRE FLOW</b>						
12:30 AM		TOOL OPEN				
1:00		SHUT - IN				

<b>SECOND FLOW</b>						
1:45 AM TOOL OPEN						
	10 min.	5" of water	1/2" orifice			14,100 CFPD
	20 min.	5" of water	1/2" orifice			14,100 CFPD
	30 min.	5" of water	1/2" orifice			14,100 CFPD
	40 min.	5" of water	1/2" orifice			14,100 CFPD
	50 min.	5" of water	1/2" orifice			14,100 CFPD
	60 min.	5" of water	1/2" orifice			14,100 CFPD

### GAS BOTTLE

Serial No. -- Date Bottle Filled --- Date to be Invoiced 11/27/79

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 Banks Oil Company  
 Authorized by Scott Banks

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 11/27/79 Test Ticket No. 4069  
 Recorder No. 2606 Capacity 4150 Location 5210 Ft.  
 Clock No. ---- Elevation 2348 Kelly Bushing Well Temperature 131<sup>0</sup> °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2742	P.S.I.	12:30A	M
B First Initial Flow Pressure	62	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	52	P.S.I.	45	Mins. 45 Mins.
D Initial Closed-in Pressure	1277	P.S.I.	60	Mins. 60 Mins.
E Second Initial Flow Pressure	81	P.S.I.	90	Mins. 93 Mins.
F Second Final Flow Pressure	69	P.S.I.		
G Final Closed-in Pressure	1311	P.S.I.		
H Final Hydrostatic Mud	2693	P.S.I.		

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 15 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: 12 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 31 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	62	0	52	0	81	0	69
P 2 5	62	3	198	5	81	3	189
P 3 10	54	6	381	10	73	6	334
P 4 15	52	9	519	15	69	9	435
P 5 20	52	12	645	20	64	12	533
P 6 25	52	15	742	25	62	15	616
P 7 30	52	18	832	30	62	18	686
P 8		21	911	35	62	21	744
P 9		24	977	40	62	24	804
P10		27	1035	45	62	27	848
P11		30	1089	50	62	30	896
P12		33	1128	55	66	33	933
P13		36	1170	60	69	36	973
P14		39	1209			39	1000
P15		42	1345			42	1033
P16		45	1277			45	1062
P17						48	1087
P18						51	1104
P19						54	1127
P20						57	1147
						60	1166

**WESTERN TESTING CO., INC.**

**Pressure Data**

Date 11/27/79 Test Ticket No. 4069  
 Recorder No. 2606 Capacity 4150 Location 5210 Ft.  
 Clock No. ---- Elevation 2348 Kelly Bushing Well Temperature 131<sup>0</sup> °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2742</u> P.S.I.	Open Tool	<u>12:30A</u> M	
B First Initial Flow Pressure	<u>62</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1277</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>81</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>93</u> Mins.
F Second Final Flow Pressure	<u>69</u> P.S.I.			
G Final Closed-in Pressure	<u>1311</u> P.S.I.			
H Final Hydrostatic Mud	<u>2693</u> P.S.I.			

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 15 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: 12 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 31 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						<u>63</u>	<u>1184</u>
P 2						<u>66</u>	<u>1201</u>
P 3						<u>69</u>	<u>1217</u>
P 4						<u>72</u>	<u>1230</u>
P 5						<u>75</u>	<u>1246</u>
P 6						<u>78</u>	<u>1259</u>
P 7						<u>81</u>	<u>1267</u>
P 8						<u>84</u>	<u>1275</u>
P 9						<u>87</u>	<u>1288</u>
P10						<u>90</u>	<u>1290</u>
P11						<u>93</u>	<u>1311</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

# Banks Oil Gas Production

B.T. Gauge Numbers		2606	Ticket Number			
Initial Hydrostatic		Pressure 2742	Elevation		23484B . ft.	
Final Hydrostatic		2692	Production Rate		Initial Final m cu. ft.	
1st Flow	Initial	-----	62	14,100	m cu. ft.	
	Final	30				
		52	Hole Size		7.875 in.	
Initial Closed In Pressure		45	1277		Footage Tested ft.	
2nd Flow	Initial	-----	81	Mud Weight		9.9 lbs. gal.
	Final	60		Gas Viscosity		.018 cp
Final Closed In Pressure		90	1311		Gas Gravity —	
Extrapolated Static Pressure		Initial			Gas Compressibility	
		Final	450 - 1659		.82 —	
Slope Psi <sup>2</sup> /cycle		Initial				
		Final	<del>2549781</del> 2549781			

Remarks: \_\_\_\_\_

## SUMMARY

Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637 Q_e ZT}{m}$	4.3558	<del>0.7840</del>	md. ft. cp
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	.0784	<del>.01568</del>	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$	.1568	<del>.03379</del>	md.
Permeability	$K_1 = \frac{Kh}{h_1}$	.0568	.	md.
Indicated Flow Capacity	$(Kh)_2 = \frac{3200 Q_e \mu ZT \log(0.472 b/r_w)}{P_s^2 - P_f^2}$	.0337	>	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}} \frac{Kh}{(Kh)_2}$		2.3201	—
Indicated Flow Rate	$OF_1 = \frac{Q_e}{P_s^2 - P_f^2} P_s^2$		14.0242	MCFD
			14.0121	MCFD
Theoretical Potential Rate	$OF_3 = OF_1 DR \quad \text{Max.}$		32.5384	MCFD
	$OF_4 = OF_2 DR \quad \text{Min.}$		32.5103	MCFD
Approx. Radius of Investigation	$b \approx \sqrt{Kt} \text{ or } \sqrt{Kt_0}$		1.1879	ft.
	$b_1 \approx \sqrt{K_1 t} \text{ or } \sqrt{K_1 t_0}$		1.1879	ft.
Potentiometric Surface *	Pot. = (EI - GD) + (2.319 Ps)		985.221	ft.

**NOTICE:**

These calculations are based upon information furnished by you and taken from Drill Stem Tests pressure charts, and are furnished you for your information. In furnishing such calculations and evaluations based thereon, Western Testing Co., Inc., is merely expressing its opinion. You agree that Western Testing Co., Inc., make no warranty express or implied as to the accuracy of such calculations or opinions, and that Western Testing Co., Inc., shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.