



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 9178

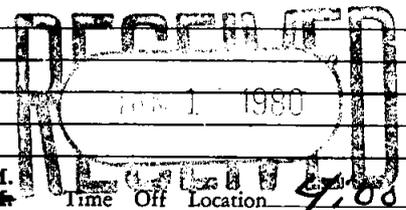
P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 262-5861

Elevation 1712 K.B. Formation Emporia Eff. Pay Ft.

District Pratt Date 1-14-81 Customer Order No.
COMPANY NAME MURTO oil & Royalty Company
ADDRESS 2525 Ridgeway Blvd. P.O. Box 12666 Ft. Worth, TX 76116
LEASE AND WELL NO Ray Road #2 COUNTY BARBER STATE KS Sec. 33 Twp 30.8 Rge 15W
Mail Invoice To Same Ray Road #2 No. Copies Requested Reg
Mail Charts To Same Address No. Copies Requested Reg

Formation Test No 1 Interval Tested from 3060 ft. to 3090 ft. Total Depth 3090 ft.
Packer Depth 3055 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3060 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set
Top Recorder Depth (Inside) 3078 ft. Recorder Number 2604 Cap 4150
Bottom Recorder Depth (Outside) 3087 ft. Recorder Number 13271 Cap 4400
Below Straddle Recorder Depth ft. Recorder Number Cap
Drilling Contractor H-30 #77 Drill Collar Length 180 I. D. 2.2 in.
Mud Type Gel Viscosity 34 Weight Pipe Length I. D. in.
Weight 9.4 Water Loss 560 cc. Drill Pipe Length 2860 I. D. 3.8 in.
Chlorides 35,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 30 ft. Size 5 1/2 in.
Did Well Flow? NO Reversed Out 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 - Gas to surface 4 min. Initial flow period
See attached flow sheet for gas measurements.
Recovered 120 ft. of sl. water cut Drly mud - chlorides 46,000 p.p.m.
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks:



Gas Sample # 613
Time On Location 7:15 A.M. Time Pick Up Tool 8:15 A.M. Time Off Location 9:00 P.M.
Time Set Packer(s) 10:05 A.M. Time Started Off Bottom 1:05 P.M. Maximum Temperature 98
Initial Hydrostatic Pressure (A) 1516 P.S.I.
Initial Flow Period Minutes 30 (B) 63 P.S.I. to (C) 63 P.S.I.
Initial Closed In Period Minutes 60 (D) 1181 P.S.I.
Final Flow Period Minutes 30 (E) 63 P.S.I. to (F) 63 P.S.I.
Final Closed In Period Minutes 60 (G) 1181 P.S.I.
Final Hydrostatic Pressure (H) 1495 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] Kent A. Aentech
Signature of Customer or his authorized representative
Western Representative Dave Sloan
Thank you

FIELD INVOICE
Open Hole Test \$ 625.00
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage 35 \$ 26.25
Fluid Sampler \$
Extra Charts \$
Insurance \$
TOTAL \$ 651.25



No 2377

GAS FLOW REPORT

Date 1-14-81 Ticket 9178 Company MURDO oil & Royalty Co.
Well Name and No. RAYMOAD #2 Dst No. 1 Interval Tested 3060-3090
County BARBER State KS Sec. 33 Twp. 30S Rg. 15W

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
PRE FLOW GAS TO SURFACE 4 min.					
10	5.0 ^{PSIG}	3/4" "	airline	OK. 175,000	C.F.P.D.
20	6.0	3/4" "		194,000	C.F.P.D.
30	6.0	3/4" "		194,000	C.F.P.D.

SECOND FLOW					
10	6.0 ^{PSIG}	3/4" "	airline	194,000	C.F.P.D.
20	6.0	3/4" "		194,000	C.F.P.D.
30	6.0	3/4" "		194,000	C.F.P.D.

GAS BOTTLE

Serial No. 613 Date Bottle Filled 1-14-81 Date to be Invoiced 1-14-81

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 1/2% 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 MURDO oil & Royalty Co
Authorized by [Signature]

WESTERN TESTING CO., INC.

Pressure Data

Date 1-14 Test Ticket No. 9178
 Recorder No. 2604 Capacity 4150 Location 3078 Ft.
 Clock No. _____ Elevation 1712 KB Well Temperature 98 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1538</u> P.S.I.		<u>10:05</u> A.M.	
B First Initial Flow Pressure	<u>89</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>66</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1195</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>92</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>66</u> P.S.I.			
G Final Closed-in Pressure	<u>1189</u> P.S.I.			
H Final Hydrostatic Mud	<u>1496</u> P.S.I.			

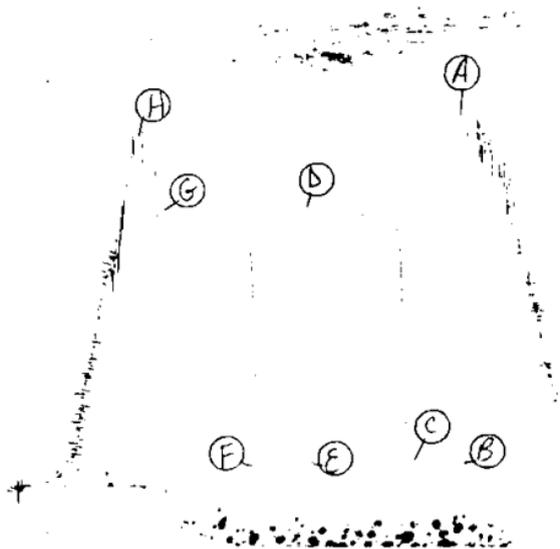
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>20</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>89</u>	0	<u>66</u>	0	<u>92</u>	0	<u>66</u>
P 2	<u>70</u>	3	<u>937</u>	5	<u>75</u>	3	<u>780</u>
P 3	<u>66</u>	6	<u>1136</u>	10	<u>66</u>	6	<u>1115</u>
P 4	<u>(</u>	9	<u>1157</u>	15	<u>(</u>	9	<u>1140</u>
P 5	<u>)</u>	12	<u>1167</u>	20	<u>)</u>	12	<u>1150</u>
P 6	<u>1</u>	15	<u>1173</u>	25	<u>)</u>	15	<u>1159</u>
P 7	<u>66</u>	18	<u>1178</u>	30	<u>66</u>	18	<u>1165</u>
P 8		21	<u>1182</u>	35		21	<u>1169</u>
P 9		24	<u>1186</u>	40		24	<u>1173</u>
P10		27	<u>1188</u>	45		27	<u>1176</u>
P11		30	<u>1189</u>	50		30	<u>1178</u>
P12		33	<u>1190</u>	55		33	<u>1180</u>
P13		36	<u>1191</u>	60		36	<u>1181</u>
P14		39	<u>1192</u>	65		39	<u>1182</u>
P15		42	<u>1193</u>	70		42	<u>1183</u>
P16		45	<u>1194</u>	75		45	<u>1184</u>
P17		48	<u>1195</u>	80		48	<u>1185</u>
P18		51	<u>(</u>	85		51	<u>1186</u>
P19		54	<u>)</u>	90		54	<u>1187</u>
P19		57	<u>)</u>			57	<u>1188</u>
P20		60	<u>1195</u>			60	<u>1189</u>

2604

TKT # 9178
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MUKSO
DST 1



Company Mirjo Oil & Royalty Company Lease & Well No. Ray Moad #2
 Elevation 1712 Kelly Bushing Location Emporia Effective Pay --- Ft. Ticket No. 9178
 Date 1/14/81 Sec. 33 Twp. 30S Range 15W County Barber State Kansas
 Test Approved by Kent A. Deutsch Western Representative Dave Sloan

Formation Test No. 1 Interval Tested from 3060 ft. to 3090 ft. Total Depth 3090 ft.
 Packer Depth 3055 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3060 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3078 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 3087 ft. Recorder Number 13271 Cap. 4400
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Drlg. Rig #77 Drill Collar Length 180 I. D. 2.2 in.
 Mud Type gel Viscosity 34 Weight Pipe Length - I. D. - in.
 Weight 9.4 Water Loss 56.0 cc. Drill Pipe Length 2860 I. D. 3.8 in.
 Chlorides 38,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
 Jars: Make - Serial Number - Anchor Length 30 ft. Size 5 1/2 OD in.
 Did Well Flow? NO Reversed Out - 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. Gas to surface four minutes on initial flow period. See attached sheet for gas measurements.

Recovered 120 ft. of slightly water cut drilling mud Chlorides 46,000 ppm
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: -

Time Set Packer(s) 10:05 A.M. Time Started Off Bottom 1:05 P.M. Maximum Temperature 98°
 Initial Hydrostatic Pressure (A) 1538 P.S.I.
 Initial Flow Period Minutes 30 (B) 89 P.S.I. to (C) 66 P.S.I.
 Initial Closed In Period Minutes 60 (D) 1195 P.S.I.
 Final Flow Period Minutes 30 (E) 92 P.S.I. to (F) 66 P.S.I.
 Final Closed In Period Minutes 60 (G) 1189 P.S.I.
 Final Hydrostatic Pressure (H) 1496 P.S.I.

GAS FLOW REPORT

Date 1/14/81 Ticket 9178 Company Murjo Oil & Royalty Company
 Well Name and No. Ray Moad #2 Dst No. 1 Interval Tested 3060'-3090'
 County Barber State Kansas Sec. 33 Twp. 30S Rg. 15W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla 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
PRE FLOW						
Gas to surface in four minutes.						
	10 min.	5.0 PSIG	3/4" orifice			175,000 CFPD
	20 min.	6.0 PSIG	3/4" orifice			194,000 CFPD
	30 min.	6.0 PSIG	3/4" orifice			194,000 CFPD

SECOND FLOW						
	10 min.	6.0 PSIG	3/4" orifice			194,000 CFPD
	20 min.	6.0 PSIG	3/4" orifice			194,000 CFPD
	30 min.	6.0 PSIG	3/4" orifice			194,000 CFPD

GAS BOTTLE

Serial No. 613 Date Bottle Filled 1/14/81 Date to be Invoiced 1/14/81

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 1/2% 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 Murjo Oil & Royalty Company
 Authorized by Kent A. Deutsch

WESTERN TESTING CO., INC.
Pressure Data

Date 1/14/81 Test Ticket No. 9178
 Recorder No. 2604 Capacity 4150 Location 3078 Ft.
 Clock No. -- Elevation 1712 Kelly Bushing Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1538</u> P.S.I.	Open Tool	<u>10:05A</u> M	
B First Initial Flow Pressure	<u>89</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
C First Final Flow Pressure	<u>66</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1195</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>92</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins.
F Second Final Flow Pressure	<u>66</u> P.S.I.			
G Final Closed-in Pressure	<u>1189</u> P.S.I.			
H Final Hydrostatic Mud	<u>1496</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>89</u>	<u>0</u>	<u>66</u>	<u>0</u>	<u>92</u>	<u>0</u>	<u>66</u>
P 2 <u>5</u>	<u>70</u>	<u>3</u>	<u>937</u>	<u>5</u>	<u>75</u>	<u>3</u>	<u>780</u>
P 3 <u>10</u>	<u>66</u>	<u>6</u>	<u>1136</u>	<u>10</u>	<u>66</u>	<u>6</u>	<u>1115</u>
P 4 <u>15</u>	<u>66</u>	<u>9</u>	<u>1157</u>	<u>15</u>	<u>66</u>	<u>9</u>	<u>1140</u>
P 5 <u>20</u>	<u>66</u>	<u>12</u>	<u>1167</u>	<u>20</u>	<u>66</u>	<u>12</u>	<u>1150</u>
P 6 <u>25</u>	<u>66</u>	<u>15</u>	<u>1173</u>	<u>25</u>	<u>66</u>	<u>15</u>	<u>1159</u>
P 7 <u>30</u>	<u>66</u>	<u>18</u>	<u>1178</u>	<u>30</u>	<u>66</u>	<u>18</u>	<u>1165</u>
P 8 _____		<u>21</u>	<u>1182</u>			<u>21</u>	<u>1169</u>
P 9 _____		<u>24</u>	<u>1186</u>			<u>24</u>	<u>1173</u>
P10 _____		<u>27</u>	<u>1188</u>			<u>27</u>	<u>1176</u>
P11 _____		<u>30</u>	<u>1189</u>			<u>30</u>	<u>1178</u>
P12 _____		<u>33</u>	<u>1190</u>			<u>33</u>	<u>1180</u>
P13 _____		<u>36</u>	<u>1191</u>			<u>36</u>	<u>1181</u>
P14 _____		<u>39</u>	<u>1192</u>			<u>39</u>	<u>1182</u>
P15 _____		<u>42</u>	<u>1193</u>			<u>42</u>	<u>1183</u>
P16 _____		<u>45</u>	<u>1194</u>			<u>45</u>	<u>1184</u>
P17 _____		<u>48</u>	<u>1195</u>			<u>48</u>	<u>1185</u>
P18 _____		<u>51</u>	<u>1195</u>			<u>51</u>	<u>1186</u>
P19 _____		<u>54</u>	<u>1195</u>			<u>54</u>	<u>1187</u>
P20 _____		<u>57</u>	<u>1159</u>			<u>57</u>	<u>1188</u>
WTC - 4		<u>60</u>	<u>1159</u>			<u>60</u>	<u>1189</u>



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 8964

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

Elevation 2146 ~~502~~ Formation MARMATON Eff. Pay Ft.

District GREAT BEND Date 1-17-81 Customer Order No.

COMPANY NAME MURDO OIL & ROYALTY COMPANY 76116

ADDRESS 2525 Ridgmar BLVD, PO. BOX 12666 Ft. Worth, Texas 76116

LEASE AND WELL NO. RAYMOND #2 COUNTY BARBER STATE KS Sec. 33 Twp. 30S Rge. 15W

Mail Invoice To FORT WORTH, TEXAS 76116 No. Copies Requested 5

Co. Name SAME Address No. Copies Requested 5/19

Mail Charts To 4357 Address No. Copies Requested 5/19

Formation Test No. #2 Interval Tested from 4357 ft. to 4375 ft. Total Depth 4375 ft.

Packer Depth 4352 ft. Size 6 5/8 in. Packer Depth 4357 ft. Size 6 5/8 in.

Packer Depth ft. Size in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4361 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 4364 ft. Recorder Number 1562 Cap. 3700

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor H-30 DRIL Rig 77 Drill Collar Length 182 I. D. 2.44 in.

Mud Type CHEMICAL Viscosity 501 Weight Pipe Length I. D. in.

Weight 1.6 Water Loss 28.8 cc. Drill Pipe Length 4143 I. D. 3.8 in.

Chlorides 20,000 P.P.M. Test Tool Length 30 ft. Tool Size 5 1/2 in.

Jars: Make BOWMAN Serial Number 414 Anchor Length 18 ft. Size 5 1/2 in.

Did Well Flow? GAS Reversed Out YES Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 2 1/4 in. Tool Joint Size 4 1/2 FH in.

Blow: 1st flow period Highest gage - 60's ticket # 2438 See attached

Recovered 4300 ft. of Clean Gassy Oil 41% GRAVITY Sheet for gas measurements

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Mileage from Pratt 30 Mi. Est.

Time On Location 9:00 A.M. Time Pick Up Tool 1:30 P.M. Time Off Location 12:30 A.M.

Time Set Packer(s) 3:20 P.M. Time Started Off Bottom 6:20 P.M. Maximum Temperature 117°

Initial Hydrostatic Pressure (A) 2273 P.S.I.

Initial Flow Period Minutes 30 (B) 237 P.S.I. to (C) 323 P.S.I.

Initial Closed In Period Minutes 60 (D) 1090 P.S.I.

Final Flow Period Minutes 30 (E) 377 P.S.I. to (F) 474 P.S.I.

Final Closed In Period Minutes 60 (G) 1080 P.S.I.

Final Hydrostatic Pressure (H) 2252 P.S.I.

COMPANY TERMS

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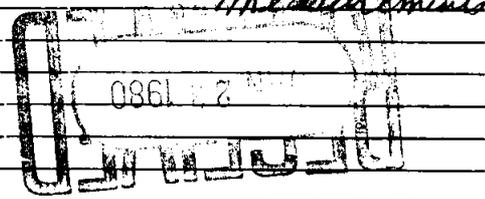
Test Approved By Kent A. Deibel Signature of Customer or his authorized representative

Western Representative Cliff Schenemann

THANK YOU!

FIELD INVOICE

Open Hole Test	\$ 600.00
Misrun	\$
Straddle Test	\$
Jars	\$ 300.00
Selective Zone	\$
Safety Joint	\$ 50.00
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub	\$ 30.00
Mileage 30M.	\$ 22.50
Fluid Sampler	\$
Extra Choke 25"	\$ 70.00
Insurance	\$
TOTAL	\$ 1072.50





No 2438

GAS FLOW REPORT

Date 1-17-81 Ticket # 8964 Company MURDO Oil & Royalty Company
Well Name and No. Raymond #2 Dst No. #2 Interval Tested 4357-4375
County Barber State KS Sec. 33 Twp. 30S Rg. 15W

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
<i>Gas to surface 5 min after OPEN 10.0 (changed per l. 8/27/81) PRE FLOW</i>					
10	1276	48" <i>PSIG</i>			9,450 CF/DAY <i>for 10.0 PSIG</i>
20	2476	48" <i>PSIG</i>			53,200 CF/DAY
30	2116	48" <i>PSIG</i>			48,700 CF/DAY
	<i>CLOSED</i>				

2ND OPEN			SECOND FLOW		
10	3163.0	48" <i>PSIG</i>	—	—	15,700 CF/DAY
20	2162.0	48" <i>PSIG</i>	—	—	12,700 CF/DAY
30	2162.0	48" <i>PSIG</i>	—	—	12,700 CF/DAY
	<i>CLOSED</i>				

GAS BOTTLE

Serial No. #50 Date Bottle Filled 1-17-81 Date to be Invoiced 2-17-81

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 1/2% 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 MURDO Oil & Royalty Co.
Authorized by Kent G. Denton

WESTERN TESTING CO., INC.
Pressure Data

Date 1-17 Test Ticket No. 8964
 Recorder No. 1563 Capacity 4200 Location 4361 Ft.
 Clock No. _____ Elevation 1712 KB Well Temperature 117 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	3178 <u>2273</u> P.S.I.		<u>3:20</u> P.M.	
B First Initial Flow Pressure	<u>248</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>323</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1107</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>399</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>491</u> P.S.I.			
G Final Closed-in Pressure	<u>1092</u> P.S.I.			
H Final Hydrostatic Mud	<u>2252</u> P.S.I.			

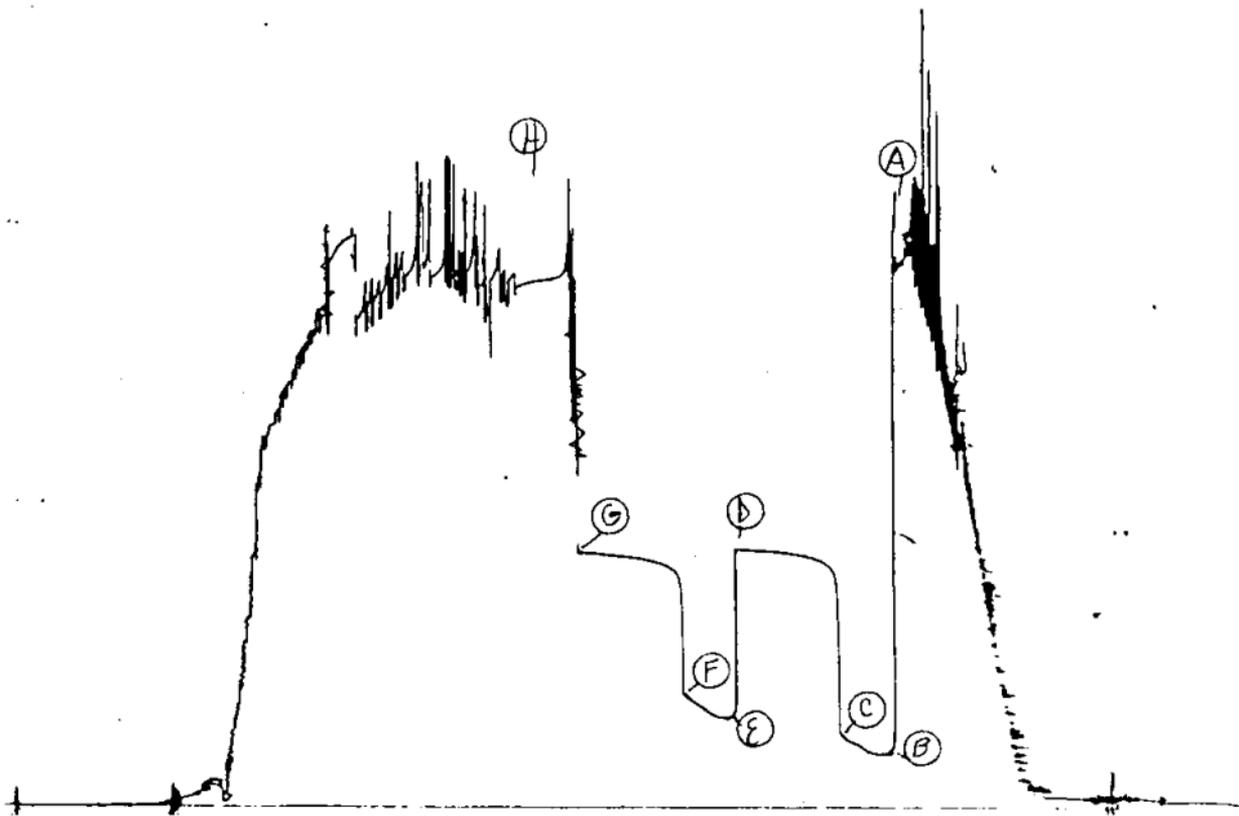
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>248</u>	0	<u>323</u>	0	<u>399</u>	0	<u>491</u>
P 2 5	<u>235</u>	3	<u>994</u>	5	<u>392</u>	3	<u>998</u>
P 3 10	<u>235</u>	6	<u>1032</u>	10	<u>394</u>	6	<u>1023</u>
P 4 15	<u>248</u>	9	<u>1049</u>	15	<u>412</u>	9	<u>1034</u>
P 5 20	<u>274</u>	12	<u>1059</u>	20	<u>438</u>	12	<u>1042</u>
P 6 25	<u>289</u>	15	<u>1068</u>	25	<u>463</u>	15	<u>1051</u>
P 7 30	<u>323</u>	18	<u>1074</u>	30	<u>491</u>	18	<u>1057</u>
P 8 35		21	<u>1080</u>	35		21	<u>1061</u>
P 9 40		24	<u>1083</u>	40		24	<u>1065</u>
P 10 45		27	<u>1086</u>	45		27	<u>1069</u>
P 11 50		30	<u>1091</u>	50		30	<u>1072</u>
P 12 55		33	<u>1094</u>	55		33	<u>1074</u>
P 13 60		36	<u>1097</u>	60		36	<u>1076</u>
P 14		39	<u>1098</u>	65		39	<u>1078</u>
P 15		42	<u>1099</u>	70		42	<u>1080</u>
P 16		45	<u>1100</u>	75		45	<u>1082</u>
P 17		48	<u>1102</u>	80		48	<u>1084</u>
P 18		51	<u>1104</u>	85		51	<u>1086</u>
P 19		54	<u>1105</u>	90		54	<u>1088</u>
P 20		57	<u>1106</u>			57	<u>1090</u>
		60	<u>1107</u>			60	<u>1092</u>

TRT. # 8964
I

1563



Company Murjo Oil & Royalty Company Lease & Well No. Ray Road #2
 Elevation 1712 Kelly Bushing Formation Marmaton Effective Pay - Ft. Ticket No. 8964
 Date 1/17/81 Sec. 33 Twp. 30S Range 15W County Barber State Kansas
 Test Approved by Kent A. Deutsch Western Representative Cliff Scheuermann

Formation Test No. 2 Interval Tested from 4357 ft. to 4375 Total Depth 4375 ft.
 Packer Depth 4352 ft. Size 6 5/8 in. Packer Depth 4357 ft. Size 6 5/8
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4361 ft. Recorder Number 1563 Cap 4200
 Bottom Recorder Depth (Outside) 4364 ft. Recorder Number 1562 Cap 3900
 Below Straddle Recorder Depth - ft. Recorder Number - Cap -
 Drilling Contractor H-30 Drilg. Rig #77 Drill Collar Length 182 I. D. 2.44 in.
 Mud Type chemical Viscosity 50 Weight Pipe Length - I. D. - in.
 Weight 9.6 Water Loss 28.8 cc. Drill Pipe Length 4143 I. D. 3.8 in.
 Chlorides 20,000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.
 Jars: Make WIC Serial Number 414 Anchor Length 18 ft. Size 5 1/2 in.
 Did Well Flow? Gas Reversed Out Yes 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: Initial flow period. Gas to surface in five minutes. See attached sheet for gas measurements.

Recovered 4300 ft. of clean gassy oil 41° gravity
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 3:20 ~~A.M.~~ P.M. Time Started Off Bottom 6:20 ~~A.M.~~ P.M. Maximum Temperature 117°
 Initial Hydrostatic Pressure _____ (A) 2273 P.S.I.
 Initial Flow Period _____ Minutes 30 (B) 248 P.S.I. to (C) 323 P.S.I.
 Initial Closed In Period _____ Minutes 60 (D) 1107 P.S.I.
 Final Flow Period _____ Minutes 30 (E) 399 P.S.I. to (F) 491 P.S.I.
 Final Closed In Period _____ Minutes 60 (G) 1092 P.S.I.
 Final Hydrostatic Pressure _____ (H) 2252 P.S.I.

GAS FLOW REPORT

Date 1/17/81 Ticket 8964 Company Murjo Oil & Royalty Company
 Well Name and No. Ray Moad #2 Dst No. 2 Interval Tested 4357' -4375'
 County Barber State Kansas Sec. 33 Twp. 30S Rg. 15W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla 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
PRE FLOW						
	10min.	10.0 PSIG	1/8" orifice			9,450 CFPD
	20 min.	24.0 PSIG	1/4" orifice			53,200 CFPD
	30 min.	21.0 PSIG	1/4" orifice			48,700 CFPD
		CLOSED				

Second opening.			SECOND FLOW			
	10 min.	3.0 PSIG	1/4" orifice			15,700 CFPD
	20 min.	2.0 PSIG	1/4" orifice			12,700 CFPD
	30 min.	2.0 PSIG	1/4" orifice			12,700 CFPD
		CLOSED				

GAS BOTTLE

Serial No. 50 Date Bottle Filled 1/17/81 Date to be Invoiced 1/17/81

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 Murjo Oil & Royalty Company
 Authorized by Kent A. Deutsch

WESTERN TESTING CO., INC.
Pressure Data

Date 1/17/81 Test Ticket No. 8964
 Recorder No. 1563 Capacity 4200 Location 4361 Ft.
 Clock No. - Elevation 1712 Kelly Bushing Well Temperature 117 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2273	P.S.I.	3:20P	M
B First Initial Flow Pressure	248	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	323	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	1107	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	399	P.S.I.	60	Mins. 60 Mins.
F Second Final Flow Pressure	491	P.S.I.		
G Final Closed-in Pressure	1092	P.S.I.		
H Final Hydrostatic Mud	2252	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of 6		of 20		of 6		of 20	
	mins.		mins.		mins.		mins.	
	and a		and a		and a		and a	
	final inc. of 0		final inc. of 0		final inc. of 0		final inc. of 0	
	Min.		Min.		Min.		Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	248	0	323	0	399	0	491	
P 2 5	235	3	994	5	392	3	998	
P 3 10	235	6	1032	10	394	6	1023	
P 4 15	248	9	1049	15	412	9	1034	
P 5 20	274	12	1059	20	438	12	1042	
P 6 25	289	15	1068	25	463	15	1051	
P 7 30	323	18	1074	30	491	18	1057	
P 8		21	1080			21	1061	
P 9		24	1083			24	1065	
P10		27	1086			27	1069	
P11		30	1091			30	1072	
P12		33	1094			33	1074	
P13		36	1097			36	1076	
P14		39	1098			39	1078	
P15		42	1099			42	1080	
P16		45	1100			45	1082	
P17		48	1102			48	1084	
P18		51	1104			51	1086	
P19		54	1105			54	1088	
P20		57	1106			57	1090	
		60	1107			60	1092	



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 8965

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

Elevation 1712 K^{ell}ushing Formation ~~WOLA~~ MISSISSIPPI Eff. Pay Ft.

District GREAT BEND Date 1-18-81 Customer Order No.

COMPANY NAME MURDO Oil & Royalty Company

ADDRESS 2525 ~~Kidman~~ ^{Kidman} BLVD PO BOX 12666, Fort Worth TEXAS 76116

LEASE AND WELL NO. MOAD #2 COUNTY BARBER STATE KS Sec. 33 Twp 30S Rge 15W

Mail Invoice To #2 Ray Mead SAME Co. Name Address No. Copies Requested 5

Mail Charts To SAME Address No. Copies Requested 5 19

Formation Test No. #3 Interval Tested from 4422 ft. to 4445 ft. Total Depth 4445 ft.

Packer Depth 4417 ft. Size 6 5/8 in. Packer Depth 4422 ft. Size 6 5/8 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4436 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 4439 ft. Recorder Number 1562 Cap. 3900

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Rig 77 Drill Collar Length 182 I. D. 2 3/4 in.

Mud Type CHEMICAL Viscosity 50 Weight Pipe Length - I. D. - in.

Weight 9.6 Water Loss 28.8 cc. Drill Pipe Length 4208 I. D. 3.8 in.

Chlorides 20000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.

Jars: Make POWER WTC Serial Number 414 Anchor Length 23 ft. Size 5 1/2 in.

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

Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Initial flow period NO BLOW NO BLOW 5 MIN THEN WEAK BLOW Building to 1 1/2"

2nd Fair BLOW STEADY 4" BLOW TRU OUT

Recovered 15 ft. of slightly G95 cut MUD

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Remarks: 1st BLOW - NO BLOW FIRST 5 MIN FLOATED TOOL TO BOTTOM

24 STANDS SOME SLIDING

BOTTOM RECORDER CLOCK STOPPED

Time On Location 1:30 P.M. Time Pick Up Tool 2:15 P.M. Time Off Location 12:00 A.M.

Time Set Packer(s) 4:15 P.M. Time Started Off Bottom 8:00 P.M. Maximum Temperature 118°

Initial Hydrostatic Pressure (A) 2305 P.S.I.

Initial Flow Period Minutes 30 (B) 86 P.S.I. to (C) 64 P.S.I.

Initial Closed In Period Minutes 60 (D) 193 P.S.I.

Final Flow Period Minutes 45 (E) 86 P.S.I. to (F) 75 P.S.I.

Final Closed In Period Minutes 90 (G) 193 P.S.I.

Final Hydrostatic Pressure (H) 2252 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

Table with 2 columns: Item and Amount. Includes Open Hole Test (\$600.00), Jars (\$300.00), Safety Joint (\$50.00), and TOTAL (\$950.00).

WESTERN TESTING CO., INC.

Pressure Data

Date 1-18 Test Ticket No. 8965
 Recorder No. 1563 Capacity 4200 Location 4436 Ft.
 Clock No. _____ Elevation 1712 KB Well Temperature 118 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2294</u> P.S.I.		<u>4:15</u> P	
B First Initial Flow Pressure	<u>108</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
C First Final Flow Pressure	<u>73</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins	<u>57</u> Mins.
D Initial Closed-in Pressure	<u>196</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins	<u>50</u> Mins.
E Second Initial Flow Pressure	<u>97</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins	<u>78</u> Mins.
F Second Final Flow Pressure	<u>78</u> P.S.I.			
G Final Closed-in Pressure	<u>203</u> P.S.I.			
H Final Hydrostatic Mud	<u>2261</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>19</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>10</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>26</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	<u>0</u>	<u>108</u>	<u>0</u>	<u>73</u>	<u>0</u>	<u>97</u>	<u>0</u>	<u>78</u>
P 2	<u>5</u>	<u>86</u>	<u>3</u>	<u>73</u>	<u>5</u>	<u>91</u>	<u>3</u>	<u>81</u>
P 3	<u>10</u>	<u>78</u>	<u>6</u>	<u>75</u>	<u>10</u>	<u>86</u>	<u>6</u>	<u>84</u>
P 4	<u>15</u>	<u>75</u>	<u>9</u>	<u>81</u>	<u>15</u>	<u>82</u>	<u>9</u>	<u>88</u>
P 5	<u>20</u>	<u>75</u>	<u>12</u>	<u>84</u>	<u>20</u>	<u>81</u>	<u>12</u>	<u>95</u>
P 6	<u>25</u>	<u>73</u>	<u>15</u>	<u>91</u>	<u>25</u>	<u>80</u>	<u>15</u>	<u>99</u>
P 7	<u>30</u>	<u>73</u>	<u>18</u>	<u>99</u>	<u>30</u>	<u>(</u>	<u>18</u>	<u>106</u>
P 8	<u>35</u>		<u>21</u>	<u>108</u>	<u>35</u>	<u>)</u>	<u>21</u>	<u>110</u>
P 9	<u>40</u>		<u>24</u>	<u>114</u>	<u>40</u>	<u>80</u>	<u>24</u>	<u>114</u>
P10	<u>45</u>		<u>27</u>	<u>123</u>	<u>45</u>	<u>78</u>	<u>27</u>	<u>121</u>
P11	<u>50</u>		<u>30</u>	<u>129</u>	<u>50</u>	<u>78</u>	<u>30</u>	<u>125</u>
P12	<u>55</u>		<u>33</u>	<u>136</u>	<u>55</u>		<u>33</u>	<u>129</u>
P13	<u>60</u>		<u>36</u>	<u>142</u>	<u>60</u>		<u>36</u>	<u>134</u>
P14			<u>39</u>	<u>149</u>	<u>65</u>		<u>39</u>	<u>140</u>
P15			<u>42</u>	<u>157</u>	<u>70</u>		<u>42</u>	<u>142</u>
P16			<u>45</u>	<u>166</u>	<u>75</u>		<u>45</u>	<u>143</u>
P17			<u>48</u>	<u>177</u>	<u>80</u>		<u>48</u>	<u>147</u>
P18			<u>51</u>	<u>183</u>	<u>85</u>		<u>51</u>	<u>149</u>
P19			<u>54</u>	<u>191</u>	<u>90</u>		<u>54</u>	<u>155</u>
P20			<u>57</u>	<u>196</u>			<u>57</u>	<u>159</u>
			<u>60</u>				<u>60</u>	<u>164</u>

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 8965

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.			

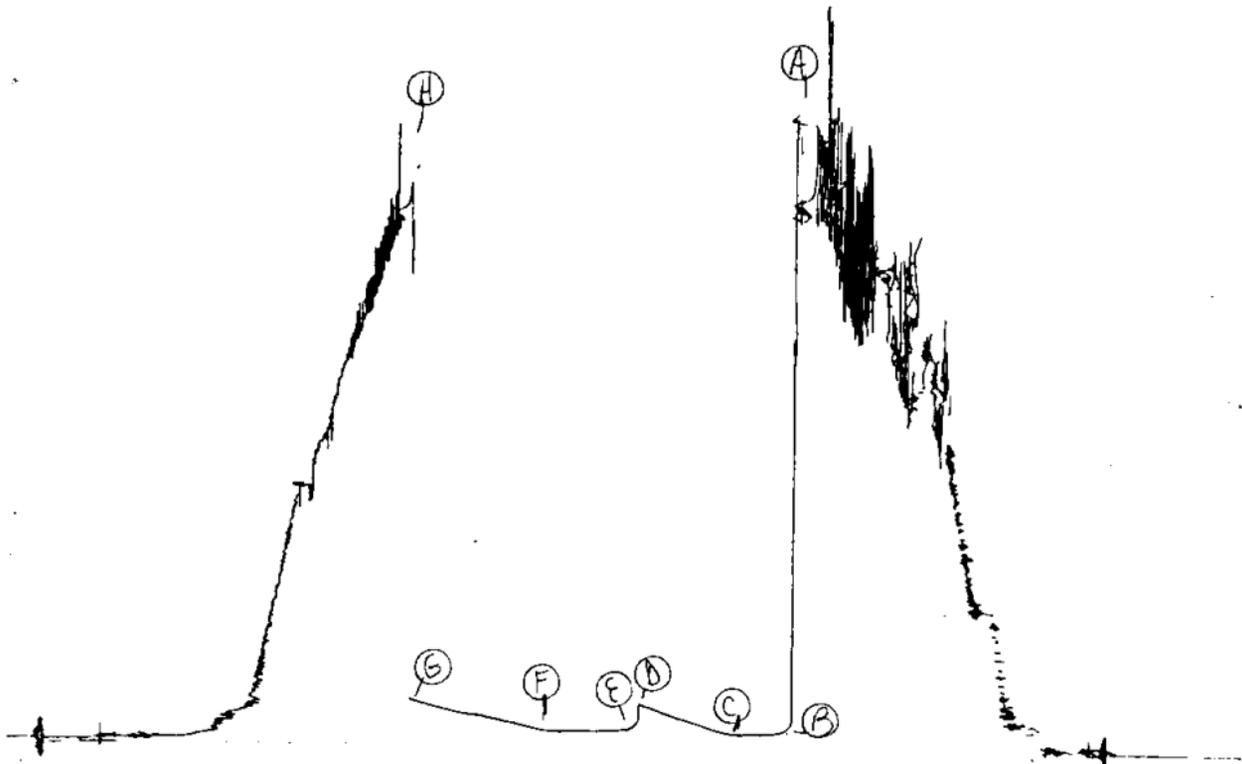
PRESSURE BREAKDOWN

Point	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	_____	_____	63	_____	_____	_____	63	170
P 2	_____	_____	66	_____	_____	_____	66	175
P 3	_____	_____	69	_____	_____	_____	69	181
P 4	_____	_____	72	_____	_____	_____	72	188
P 5	_____	_____	75	_____	_____	_____	75	194
P 6	_____	_____	78	_____	_____	_____	78	203
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 # 8965

1563

I



Company Murjo Oil & Royalty Company Lease & Well No. #2 Ray Moad
 Elevation 1712 Kelly Bushing Mississippi Effective Pay - Ft. Ticket No. 8965
 Date 1/18/81 Sec. 33 Twp. 30S Range 15W County Barber State Kansas
 Test Approved by Kent A Deutsch Western Representative Cliff Scheuerman

Formation Test No. 3 Interval Tested from 4422 ft. to 4445 ft. Total Depth 4445 ft.
 Packer Depth 4417 ft. Size 6 5/8 in. Packer Depth 4422 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4436 ft. Recorder Number 1563 Cap. 4200
 Bottom Recorder Depth (Outside) 4439 ft. Recorder Number 1562 Cap. 3900
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Rig #77 Drill Collar Length 182 I. D. 2 3/4 in.
 Mud Type Chemical Viscosity 50 Weight Pipe Length - I. D. - in.
 Weight 9.6 Water Loss 28.8 cc. Drill Pipe Length 4208 I. D. 3.8 in.
 Chlorides 20,000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.
 Jars: Make WIC Serial Number 414 Anchor Length 23 ft. Size 5 1/2 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: Initial flow period no blow first 5 minutes, then weak blow building to 1 1/2 inch. Final flow period fair blow steady 4 inch blow throughout.

Recovered 15 ft. of slightly gas cut mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Floated tool to bottom. 24 stands some sliding.

Time Set Packer(s) 4:15 ~~AM~~ P.M. Time Started Off Bottom 8:00 ~~AM~~ P.M. Maximum Temperature 118
 Initial Hydrostatic Pressure (A) 2294 P.S.I.
 Initial Flow Period Minutes 30 (B) 108 P.S.I. to (C) 73 P.S.I.
 Initial Closed In Period Minutes 57 (D) 196 P.S.I.
 Final Flow Period Minutes 50 (E) 97 P.S.I. to (F) 78 P.S.I.
 Final Closed In Period Minutes 78 (G) 203 P.S.I.
 Final Hydrostatic Pressure (H) 2261 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 1/18/81 Test Ticket No. 8965
 Recorder No. 1563 Capacity 4200 Location 4436 Ft.
 Clock No. -- Elevation 1712 Kelly Bushing Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2294</u> P.S.I.	Open Tool	<u>4:15P</u>	<u>M</u>
B First Initial Flow Pressure	<u>108</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>73</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
D Initial Closed-in Pressure	<u>196</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>50</u> Mins.
E Second Initial Flow Pressure	<u>97</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>78</u> Mins.
F Second Final Flow Pressure	<u>78</u> P.S.I.			
G Final Closed-in Pressure	<u>203</u> P.S.I.			
H Final Hydrostatic Mud	<u>2261</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>19</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>10</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>26</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u>	<u>0</u>	<u>73</u>	<u>0</u>	<u>97</u>	<u>0</u>	<u>78</u>
P 2	<u>5</u>	<u>3</u>	<u>73</u>	<u>5</u>	<u>91</u>	<u>3</u>	<u>81</u>
P 3	<u>10</u>	<u>6</u>	<u>75</u>	<u>10</u>	<u>86</u>	<u>6</u>	<u>84</u>
P 4	<u>15</u>	<u>9</u>	<u>81</u>	<u>15</u>	<u>82</u>	<u>9</u>	<u>88</u>
P 5	<u>20</u>	<u>12</u>	<u>84</u>	<u>20</u>	<u>81</u>	<u>12</u>	<u>95</u>
P 6	<u>25</u>	<u>15</u>	<u>91</u>	<u>25</u>	<u>80</u>	<u>15</u>	<u>99</u>
P 7	<u>30</u>	<u>18</u>	<u>99</u>	<u>30</u>	<u>80</u>	<u>18</u>	<u>106</u>
P 8		<u>21</u>	<u>108</u>	<u>35</u>	<u>80</u>	<u>21</u>	<u>110</u>
P 9		<u>24</u>	<u>114</u>	<u>40</u>	<u>80</u>	<u>24</u>	<u>114</u>
P10		<u>27</u>	<u>123</u>	<u>45</u>	<u>78</u>	<u>27</u>	<u>121</u>
P11		<u>30</u>	<u>129</u>	<u>50</u>	<u>78</u>	<u>30</u>	<u>125</u>
P12		<u>33</u>	<u>136</u>			<u>33</u>	<u>129</u>
P13		<u>36</u>	<u>142</u>			<u>36</u>	<u>134</u>
P14		<u>39</u>	<u>149</u>			<u>39</u>	<u>140</u>
P15		<u>42</u>	<u>157</u>			<u>42</u>	<u>142</u>
P16		<u>45</u>	<u>166</u>			<u>45</u>	<u>143</u>
P17		<u>48</u>	<u>177</u>			<u>48</u>	<u>147</u>
P18		<u>51</u>	<u>183</u>			<u>51</u>	<u>149</u>
P19		<u>54</u>	<u>191</u>			<u>54</u>	<u>155</u>
P20		<u>57</u>	<u>196</u>			<u>57</u>	<u>159</u>
						<u>60</u>	<u>164</u>

WESTERN TESTING CO., INC.
Pressure Data

Date 1/18/81

Test Ticket No. 8965

Recorder No. 1563

Capacity 4200

Location 4436 Ft.

Clock No. -- Elevation 1712 Kelly Bushing

Well Temperature 118 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2294</u> P.S.I.	Open Tool	<u>4:15P</u> M	
B First Initial Flow Pressure	<u>108</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>73</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
D Initial Closed-in Pressure	<u>196</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>50</u> Mins.
E Second Initial Flow Pressure	<u>97</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>78</u> Mins.
F Second Final Flow Pressure	<u>78</u> P.S.I.			
G Final Closed-in Pressure	<u>203</u> P.S.I.			
H Final Hydrostatic Mud	<u>2261</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: 19 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 10 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 26 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>170</u>
P 2						<u>66</u>	<u>175</u>
P 3						<u>69</u>	<u>181</u>
P 4						<u>72</u>	<u>188</u>
P 5						<u>75</u>	<u>194</u>
P 6						<u>78</u>	<u>203</u>
P 7							
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8966

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

Elevation 1712 KB Formation MIZNER Eff. Pay

District GREAT BEND Date 1-19-81 Customer Order No.

COMPANY NAME Murjo oil and Royalty Company

ADDRESS 2525 Highway 12666 Fortworth TEXAS 76116

LEASE AND WELL NO ROAD #2 COUNTY BARBER STATE KS Sec. 33 Twp. 30S Rge. 15E

Mail Invoice To SAME Co. Name Address No. Copies Requested 5

Mail Charts To SAME Address No. Copies Requested 5

Formation Test No. #4 Interval Tested from 4423 ft. to 4461 ft. Total Depth 4461 ft.

Packer Depth 4418 ft. Size 4418 in. 6 5/8 Packer Depth 4423 ft. Size 6 5/8 in.

Depth of Selective Zone Set Packer Depth ft. Size in.

Top Recorder Depth (Inside) 4452 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 4455 ft. Recorder Number 1562 Cap. 3900

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor H-30 DRI Rig # 77 Drill Collar Length 182 I. D. 2 3/4 in.

Mud Type FEAR-CHEMICAL Viscosity 48 Weight Pipe Length I. D. in.

Weight 9.1 Water Loss 28.4 cc. Drill Pipe Length 4209 I. D. 3.8 in.

Chlorides 22,000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.

Jars: Make BOUYER Serial Number 414 Anchor Length 38 ft. Size 5 1/2 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

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

Blow: STOPPED NO BLOW - Pushed Tool after 10 min - weak BLOW

final flow period weak BLOW TRY OUT

Recovered 5 ft. of Drilling MUD

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time On Location 7:00 A.M. Time Pick Up Tool 8:00 A.M. Time Off Location 3:00 P.M.

Time Set Packer(s) 10:05 A.M. Time Started Off Bottom 11:35 A.M. Maximum Temperature 116 °

Initial Hydrostatic Pressure (A) 2230 P.S.I.

Initial Flow Period Minutes 15 (B) 86 P.S.I. to (C) 96 P.S.I.

Initial Closed In Period Minutes 30 (D) 96 P.S.I.

Final Flow Period Minutes 15 (E) 86 P.S.I. to (F) 75 P.S.I.

Final Closed In Period Minutes 30 (G) 64 P.S.I.

Final Hydrostatic Pressure (H) 2120 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	\$ 300.00
Selective Zone	\$
Safety Joint	\$ 50.00
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage MC	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$ 70.00
TOTAL	\$ 950.00

WESTERN TESTING CO., INC.

Pressure Data

Date 1-19 Test Ticket No. 8966
 Recorder No. 1563 Capacity 4200 Location 4452 Ft.
 Clock No. Elevation 1712 KB Well Temperature 116 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2231</u> P.S.I.	<u>10:05</u> A	
B First Initial Flow Pressure	<u>108</u> P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>101</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>96</u> P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
E Second Initial Flow Pressure	<u>82</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>80</u> P.S.I.		
G Final Closed-in Pressure	<u>79</u> P.S.I.		
H Final Hydrostatic Mud	<u>2121</u> P.S.I.		

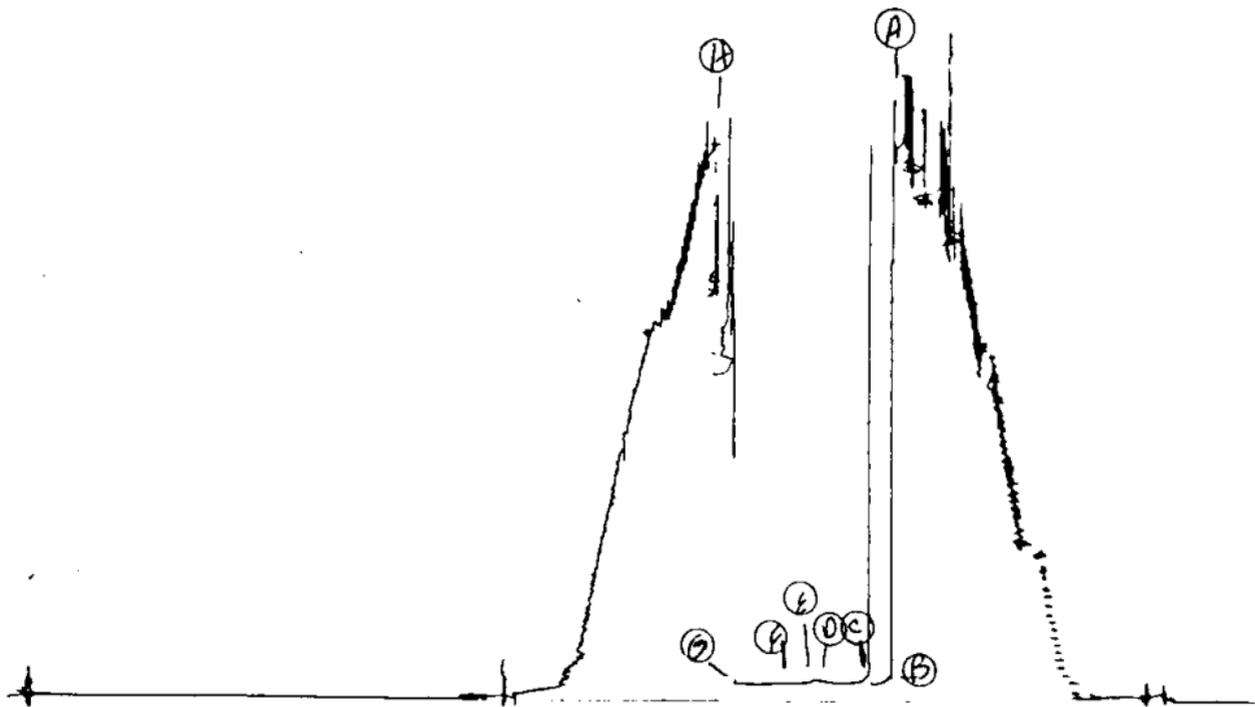
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>3</u> Inc.		Breakdown: <u>10</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 0	<u>108</u>	0	<u>101</u>	0	<u>82</u>	0	<u>80</u>
P 2 5	<u>86</u>	3	<u>88</u>	5	<u>82</u>	3	<u> </u>
P 3 10	<u>78</u>	6	<u>84</u>	10	<u>81</u>	6	<u> </u>
P 4 15	<u>Flushed Tool</u>	9	<u>83</u>	15	<u>80</u>	9	<u>80</u>
P 5 20		12	<u>82</u>	20		12	<u>79</u>
P 6 25		15	<u>81</u>	25		15	<u>78</u>
P 7 30		18	<u>82</u>	30		18	<u> </u>
P 8 35		21	<u>86</u>	35		21	<u> </u>
P 9 40		24	<u>92</u>	40		24	<u>78</u>
P10 45		27	<u>94</u>	45		27	<u>79</u>
P11 50		30	<u>96</u>	50		30	<u>79</u>
P12 55		33		55		33	
P13 60		36		60		36	
P14		39		65		39	
P15		42		70		42	
P16		45		75		45	
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

TKT # 8966

156

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Company Murjo Oil & Royalty Company Lease & Well No. #2 Ray Moad
 Elevation 1712 Kelly Bushing Formation Mizner Effective Pay - Ft. Ticket No. 8966
 Date 1/19/81 Sec. 33 Twp. 30S Range 15W County Barber State Kansas
 Test Approved by Kent A Deutsch Western Representative Cliff Scheuerman

Formation Test No. 4 Interval Tested from 4423 ft. to 4461 ft. Total Depth 4461 ft.
 Packer Depth 4418 ft. Size 6 5/8 in. Packer Depth 4423 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4452 ft. Recorder Number 1563 Cap 4200
 Bottom Recorder Depth (Outside) 4455 ft. Recorder Number 1562 Cap 3900
 Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor H-30 Drilling Rig #77 Drill Collar Length 182 I. D. 2 1/2 in.
 Mud Type Premix-Chemical Viscosity 48 Weight Pipe Length - I. D. - in.
 Weight 9.1 Water Loss 28.4 cc. Drill Pipe Length 4209 I. D. 3.8 in.
 Chlorides 22,000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.
 Jars: Make WTC Serial Number 414 Anchor Length 38 ft. Size 5 1/2 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: Initial flow period no blow - flushed tool after 10 minutes - weak blow. Final flow period weak blow throughout.

Recovered 5 ft. of drilling muc
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 10:05 A.M. Time Started Off Bottom 11:35 A.M. Maximum Temperature 116
P.M. P.M.
 Initial Hydrostatic Pressure (A) 2231 P.S.I.
 Initial Flow Period Minutes 15 (B) 108 P.S.I. to (C) 101 P.S.I.
 Initial Closed In Period Minutes 30 (D) 96 P.S.I.
 Final Flow Period Minutes 15 (E) 82 P.S.I. to (F) 80 P.S.I.
 Final Closed In Period Minutes 30 (G) 79 P.S.I.
 Final Hydrostatic Pressure (H) 2121 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 1/19/81 Recorder No. 1563 Capacity 4200 Test Ticket No. 8966
 Location 4452 Ft. Elevation 1712 KellyBushing Well Temperature 116 °F
 Clock No. --

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2231</u>	P.S.I.	<u>10:05A</u>	<u>M</u>
B First Initial Flow Pressure	<u>108</u>	P.S.I.	<u>15</u>	<u>15</u> Mins.
C First Final Flow Pressure	<u>101</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>96</u>	P.S.I.	<u>15</u>	<u>15</u> Mins.
E Second Initial Flow Pressure	<u>82</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
F Second Final Flow Pressure	<u>80</u>	P.S.I.		
G Final Closed-in Pressure	<u>79</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2121</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>3</u>		of <u>10</u>		of <u>3</u>		of <u>10</u>	
	mins. and a							
	final inc. of <u>0</u>							
	Min.		Min.		Min.		Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 <u>0</u>	<u>108</u>	<u>0</u>	<u>101</u>	<u>0</u>	<u>82</u>	<u>0</u>	<u>80</u>	
P 2 <u>5</u>	<u>86</u>	<u>3</u>	<u>88</u>	<u>5</u>	<u>82</u>	<u>3</u>	<u>80</u>	
P 3 <u>10</u>	<u>78</u>	<u>6</u>	<u>84</u>	<u>10</u>	<u>81</u>	<u>6</u>	<u>80</u>	
P 4 <u>15</u>	<u>101</u>	<u>9</u>	<u>83</u>	<u>15</u>	<u>80</u>	<u>9</u>	<u>80</u>	
P 5 _____		<u>12</u>	<u>82</u>			<u>12</u>	<u>79</u>	
P 6 _____		<u>15</u>	<u>81</u>			<u>15</u>	<u>78</u>	
P 7 _____		<u>18</u>	<u>82</u>			<u>18</u>	<u>78</u>	
P 8 _____		<u>21</u>	<u>86</u>			<u>21</u>	<u>78</u>	
P 9 _____		<u>24</u>	<u>92</u>			<u>24</u>	<u>78</u>	
P10 _____		<u>27</u>	<u>94</u>			<u>27</u>	<u>79</u>	
P11 _____		<u>30</u>	<u>96</u>			<u>30</u>	<u>79</u>	
P12 _____								
P13 _____								
P14 _____								
P15 _____								
P16 _____								
P17 _____								
P18 _____								
P19 _____								
P20 _____								



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 8967

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

Elevation 1712 Kelly Bushkin Formation VIOLA Eff. Pay Ft.

District GREAT BEND Date 1-20-81 Customer Order No.

COMPANY NAME MURJO Oil and Royalty Company

ADDRESS 2525 Ridgman BLVD APOBX 12666 Fortworth Texas 76116

LEASE AND WELL NO RAMROAD #2 COUNTY BARBER STATE KY Sec. 33 Twp. 30S Rge. 15W

Mail Invoice To SAME No. Copies Requested 5

Co. Name SAME Address

Mail Charts To SAME No. Copies Requested 5 1/2

Address

Formation Test No. #5 Interval Tested from 4464 ft. to 4523 ft. Total Depth 4523 ft.

Packer Depth 4459 ft. Size 6 5/8 in. Packer Depth 4464 ft. Size 6 5/8 in.

Packer Depth ft. Size in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4512 ft. Recorder Number 4563 Cap. 4200

Bottom Recorder Depth (Outside) 4515 ft. Recorder Number 1562 Cap. 3900

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor H-30 Rig #77 Drill Collar Length 182 I. D. 2 3/4 in.

Mud Type Bimix CHEMICAL Viscosity 62 Weight Pipe Length I. D. in.

Weight 9.3+ Water Loss 12.8 cc. Drill Pipe Length 4250 I. D. 3.8 in.

Chlorides 23000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.

Jars: Make BOWEN W/C Serial Number 414 Anchor Length 59 ft. Size 5 1/2 in.

Did Well Flow? NO Reversed Out YES 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.

Initial flow period

Blow: LET OPEN HARD STRONG BLOW OFF Bottom Bucket IMMEDIATELY & THROUGH

2nd OPEN STRONG BLOW DECREASING SLIGHTLY (C) weak Blow on skaton

Recovered 434 ft. of Gas out Muddy Saltwater slight show of oil

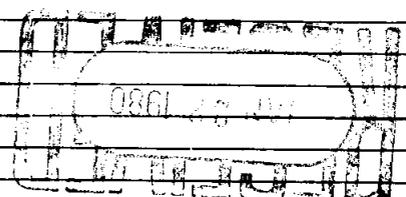
Recovered 2949 ft. of Gas out salt water 79,000 PPM CHLORIDES

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: RECORDER 1562 CLOCK STOPPED



Time On Location 1-19-81 10:00 P.M. Time Pick Up Tool 1-20-81 12:15 A.M. Time Off Location 10:00 A.M.

Time Set Packer(s) 2:15 A.M. Time Started Off Bottom 5:15 A.M. Maximum Temperature 119°

Initial Hydrostatic Pressure 2294 P.S.I. (A)

Initial Flow Period 30 Minutes (B) 963 P.S.I. to (C) 1597 P.S.I.

Initial Closed In Period 60 Minutes (D) 1639 P.S.I.

Final Flow Period 30 Minutes (E) 1649 P.S.I. to (F) 1649 P.S.I.

Final Closed In Period 60 Minutes (G) 1649 P.S.I.

Final Hydrostatic Pressure 2273 P.S.I. (H)

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! DARNALL

FIELD INVOICE

Open Hole Test	\$ 600.00
Misrun	\$
Straddle Test	\$
Jar	\$ 300.00
Selective Zone	\$
Safety Joint	\$ 65.00
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub	\$ 30.00
Mileage W/C	\$
Fluid Sampler	\$
14 Extra Charts	\$ 70.00
Insurance	\$
TOTAL DOLLARS	\$ 995.00

WESTERN TESTING CO., INC.

Pressure Data

Date 1-20 Recorder No. 1563 Capacity 4200 Test Ticket No. 8967
 Clock No. _____ Elevation 1712 KB Location 4512 Ft. _____
 Well Temperature 119 °F

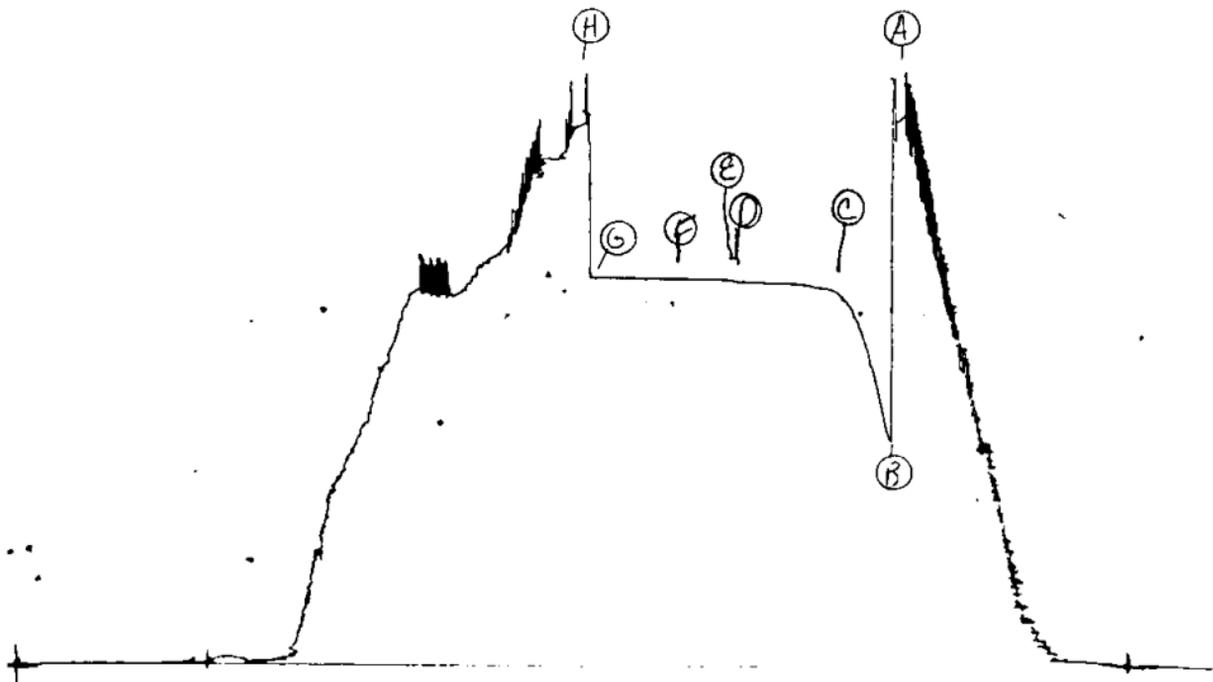
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2305</u> P.S.I.	<u>2:15 A</u> M	
B First Initial Flow Pressure	<u>972</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>1584</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1646</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>1650</u> P.S.I.	<u>60</u> Mins.	<u>51</u> Mins.
F Second Final Flow Pressure	<u>1657</u> P.S.I.		
G Final Closed-in Pressure	<u>1660</u> P.S.I.		
H Final Hydrostatic Mud	<u>2278</u> P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>17</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	<u>972</u>	<u>0</u>	<u>1584</u>	<u>0</u>	<u>1650</u>	<u>0</u>	<u>1657</u>	<u>0</u>
P 2	<u>1097</u>	<u>5</u>	<u>1608</u>	<u>3</u>	<u>1651</u>	<u>5</u>		<u>3</u>
P 3	<u>1248</u>	<u>10</u>	<u>1614</u>	<u>6</u>	<u>1653</u>	<u>10</u>		<u>6</u>
P 4	<u>1373</u>	<u>15</u>	<u>1618</u>	<u>9</u>	<u>1655</u>	<u>15</u>		<u>9</u>
P 5	<u>1479</u>	<u>20</u>	<u>1620</u>	<u>12</u>	<u>1656</u>	<u>20</u>		<u>12</u>
P 6	<u>1546</u>	<u>25</u>	<u>1623</u>	<u>15</u>	<u>1656</u>	<u>25</u>		<u>15</u>
P 7	<u>1584</u>	<u>30</u>	<u>1629</u>	<u>18</u>	<u>1657</u>	<u>30</u>		<u>18</u>
P 8		<u>35</u>	<u>1633</u>	<u>21</u>		<u>35</u>		<u>21</u>
P 9		<u>40</u>	<u>1635</u>	<u>24</u>		<u>40</u>		<u>24</u>
P10		<u>45</u>	<u>1637</u>	<u>27</u>		<u>45</u>		<u>27</u>
P11		<u>50</u>	<u>1637</u>	<u>30</u>		<u>50</u>		<u>30</u>
P12		<u>55</u>	<u>1638</u>	<u>33</u>		<u>55</u>		<u>33</u>
P13		<u>60</u>	<u>1639</u>	<u>36</u>		<u>60</u>		<u>36</u>
P14			<u>1640</u>	<u>39</u>		<u>65</u>		<u>39</u>
P15			<u>1641</u>	<u>42</u>		<u>70</u>		<u>42</u>
P16			<u>1642</u>	<u>45</u>		<u>75</u>		<u>45</u>
P17			<u>1643</u>	<u>48</u>		<u>80</u>		<u>48</u>
P18			<u>1644</u>	<u>51</u>		<u>85</u>		<u>51</u>
P19			<u>1645</u>	<u>54</u>		<u>90</u>		<u>54</u>
P20			<u>1645</u>	<u>57</u>				<u>57</u>
			<u>1646</u>	<u>60</u>				<u>60</u>

TKT # 896.7
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1363



Company Murjo Oil & Royalty Company Lease & Well No. #2 Ray Moad
 Elevation 1712 Kelly Bushing Viola Formation Effective Pay - Ft. Ticket No. 8967
 Date 1/20/81 Sec. 33 Twp. 30S Range 15W County Barber State Kansas
 Test Approved by Kent A Deutsch Western Representative Cliff Scheuerman

Formation Test No. 5 Interval Tested from 4464 ft. to 4523 ft. Total Depth 4523 ft.
 Packer Depth 4459 ft. Size 6 5/8 in. Packer Depth 4464 ft. Size 6 5/8 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4512 ft. Recorder Number 1563 Cap 4200
 Bottom Recorder Depth (Outside) 4515 ft. Recorder Number 1562 Cap 3900
 Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor H-30 Rig #77 Drill Collar Length 182 I. D. 2 1/4 in.
 Mud Type Premix-Chemical Viscosity 62 Weight Pipe Length - I. D. - in.
 Weight 9.3+ Water Loss 12.8 cc. Drill Pipe Length 4250 I. D. 3.8 in.
 Chlorides 23,000 P.P.M. Test Tool Length 32 ft. Tool Size 5 1/2 in.
 Jars: Make WIC Serial Number 414 Anchor Length 59 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out Yes 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: Initial flow period hard strong blow off bottom bucket immediately & throughout . Final flow period strong blow decreasing slightly - weak blow on shut-in.

Recovered 434 ft. of gas cut muddy salt water slight show of oil
 Recovered 2949 ft. of gas cut salt water Chlorides 79,000 PPM
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 2:15 ~~P.M.~~ A.M. Time Started Off Bottom 5:15 ~~P.M.~~ A.M. Maximum Temperature 119
 Initial Hydrostatic Pressure (A) 2305 P.S.I.
 Initial Flow Period Minutes 30 (B) 972 P.S.I. to (C) 1584 P.S.I.
 Initial Closed In Period Minutes 60 (D) 1646 P.S.I.
 Final Flow Period Minutes 30 (E) 1650 P.S.I. to (F) 1657 P.S.I.
 Final Closed In Period Minutes 51 (G) 1660 P.S.I.
 Final Hydrostatic Pressure (H) 2278 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 1/20/81 Test Ticket No. 8967
 Recorder No. 1563 Capacity 4200 Location 4512 Ft.
 Clock No. --- Elevation 1712 Kelly Bushing Well Temperature 119 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2305	P.S.I.	2:15A	M
B First Initial Flow Pressure	972	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	1584	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	1646	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	1650	P.S.I.	60	Mins. 51 Mins.
F Second Final Flow Pressure	1657	P.S.I.		
G Final Closed-in Pressure	1660	P.S.I.		
H Final Hydrostatic Mud	2278	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>17</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	0	0	972	0	1584	0	1657
P 2	5	3	1097	3	1608	3	1657
P 3	10	6	1248	6	1614	6	1657
P 4	15	9	1373	9	1618	9	1657
P 5	20	12	1479	12	1620	12	1657
P 6	25	15	1546	15	1623	15	1657
P 7	30	18	1584	18	1629	18	1658
P 8		21		21	1633	21	1658
P 9		24		24	1635	24	1659
P10		27		27	1637	27	1659
P11		30		30	1637	30	1660
P12		33		33	1638	33	1660
P13		36		36	1639	36	1660
P14		39		39	1640	39	1660
P15		42		42	1641	42	1660
P16		45		45	1642	45	1660
P17		48		48	1643	48	1660
P18		51		51	1644	51	1660
P19		54			1645		
P20		57			1645		
		60			1646		