WESTERN

P. O. BOX 793 PHONE 793-7903
GREAT BEND, KANSAS

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET 23352

Formation Morrow Sd, Elevation 2559 Ground Level Eff. Pay ____ Ft.

District Great Bend Date 9-23-77 Customer Order No. ____

COMPANY NAME Rains & Williamson Oil Co, Inc.

ADDRESS 435 Page Court Bldg. 220 W. Douglas, Wichita, Kansas

LEASE AND WELL NO. Brown-English "A" #1 COUNTY Clark STATE Kansas Sec. 4 Twp. 31S Rge. 24W

Mail Inv. To Same as above No. Copies Requested 5
Co. Name Address

Mail Charts To Same as above No. Copies Requested 5
Address

Formation Test No. 1 O.K. X Misrun ____ Interval Tested From 5454' to 5475' Total Depth 5475'

Size Main Hole 7⅞ Rat Hole ____ Conv. ____ B.T. X Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Top Packer Depth 5449 Ft. Size 6¾ Bottom Packer Depth 5454 Ft. Size 6¾

Straddle ____ Conv. ____ B.T. ____ Damaged ____ Yes ____ No Packer Depth ____ Ft. Size ____

Tool Size 5½ OD Tool Joint Size 4½ FH Anchor Length 21 Ft. Size 5½ OD Surface Choke Size ¾ In. Bottom Choke Size ¾ In.

RECORDERS Depth 5467 Ft. Clock No. 6895 Depth 5470 Ft. Clock No. 6861

Top Make Kuster Cap. 3150 No. 1565 Inside / Outside Bottom Make Kuster Cap. 6000 No. 1560 Inside / Outside

Below Straddle: Depth ____ Rec. No. ____ Clock No. ____ Inside / Outside Depth ____ Ft. Rec. No. ____ Clock No. ____ Inside / Outside

Time Set Packer 12:58 AM

Tool Open I.F.P. From 11:00 M. to 11:30 M. Hr. 30 Min. From (B) 97 105 P.S.I. To (C) 165 164 P.S.I.

Tool Closed I.C.I.P. From 11:30 M. to 2:30 M. Hr. 60 Min. (D) 1306 1332 P.S.I.

Tool Open F.F.P. From 2:30 M. to 4:00 M. Hr. 90 Min. From (E) 180 213 P.S.I. To (F) 387 400 P.S.I.

Tool Closed F.C.I.P. From 4:00 M. to 5:00 M. Hr. 60 Min. (G) 1291 1316 P.S.I.

Initial Hydrostatic Pressure (A) 2843 2831 P.S.I. Final Hydrostatic Pressure (H) 2827 P.S.I. 2828 Maximum Temp. 123

INFORMATION

FLOW Strong blow — Gas to surface in 11 min (110,000 CFPD max.)
See attached sheet for gas measurements.

Mud Well Flow X Yes ____ No Recovery Total Ft. 1685' Total Fluid, — 865' oil, — (Gravity 39)
820' Heavy foggy oil

Reversed Out ____ Yes X No Mud Type Starch Viscosity 40 Weight 9.6 Water Loss 11.2 cc. Chlorides 44,000 ppm

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ____ Jars: Size ____ In. Make ____ Ser. No. ____

Dual Packers Yes Did Packers Hold? Yes Did Tool Plug? No Where? ____

DRILLING CONTRACTOR Rains & Williamson Rig #2 Length Drill Pipe 5099 ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½ FH

Length Weight Pipe ____ ft. I.D. Weight Pipe ____ In. Tool Joint Size ____ In. Length Drill Collars 376 ft. I.D. Drill Collars 2¼ In.

Tool Joint Size 4½ FH In. Length D.S.T. Tool 42 ft.

Remarks

INVOICE SECTION

Open Hole Test	$ 440 00
Straddle Test	$ ____
Jars	$ ____
Selective Zone	$ ____
Safety Joint	$ ____
Misrun	$ ____
Evaluation	$ ____
Packer	$ ____
Circ. Sub.	$ ____
	$ ____
Total	$ 440 00

Disc 8.80

COMPANY TERMS

Western Testing Co., Inc., shall not be liable for damage 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, or 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 10% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Jay R. Dirks Western Representative Vernon Wondra
Signature of Customer or his Authorized Representative Jay R. Dirks Operator's Time Thank You Hrs.

Phone 316 262-5861
316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 218

Date 9-23-77 Ticket 23352 Company Rains + Williamson Oil Co,

Well Name and No. Brown-English "A" #1 Dst No. 1 Interval Tested 54-54 — 54'16

County Clark State Kansas Sec. 4 Twp. 31 S Rg. 24 W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	~~P.S.I. on Pitot Tester~~ Orifice	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
Gas to surface at 1:10 AM						
1:20	10 min	27 Hg/0 "	1/2 " orifice			31,900 CFPD
1:30	20 min	40 Hg/0 "	1/2 "			39,600 CFPD
1:46	30 min	50 Hg/0 "	1/2 "			44,300 CFPD
SECOND FLOW						
Tool open at 3:30 AM orifice						
2:40	10 min	60 Hg/0 "	3/4 " orifice			110,000 CFPD
2:50	20 min	5 Hg/0 "	3/4 "			31,600 CFPD
3:00	30 min	11 Hg/0 "	1/2 "			20,900 CFPD
3:10	40 min	8 Hg/0 "	1/2 "			17,200 CFPD
3:20	50 min	22 Hg/0 "	1/2 "			29,400 CFPD
3:30	60 min	4 Hg/0 "	1/2 "			12,500 CFPD
3:40	70 min	62 Hg/0 "	1/2 "			49,400 CFPD
3:50	80 min	4 Hg/0 "	1/2 "			12,500 CFPD
4:00	90 min	1 Hg/0 "	1/2 "			6,270 CFPD
		Gas to surface in 11 min				

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 Rains & Williamson Oil Co, Inc

Authorized by Jay R. Dirks
Western Rep.
Jay R. Dirks

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 9-23-77 Test Ticket No. 23352

Recorder No. 1565 Capacity 3150 Location 5467 Ft.

Clock No. 4895 Elevation 2559 Ground Level Well Temperature 123 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2831 P.S.I.		Open Tool	12:58A M	
B	First Initial Flow Pressure	105 P.S.I.		First Flow Pressure	30 Mins.	25 Mins.
C	First Final Flow Pressure	164 P.S.I.		Initial Closed-in Pressure	60 Mins.	60 Mins.
D	Initial Closed-in Pressure	1332 P.S.I.		Second Flow Pressure	90 Mins.	85 Mins.
E	Second Initial Flow Pressure	213 P.S.I.		Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	400 P.S.I.				
G	Final Closed-in Pressure	1316 P.S.I.				
H	Final Hydrostatic Mud	2828 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 5 Inc.		Breakdown: 20 Inc.		Breakdown: 17 Inc.		Breakdown: 20 Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	105	0	164	0	213	0	400
P 2 5	100	3	205	5	197	3	572
P 3 10	104	6	313	10	193	6	1070
P 4 15	125	9	1195	15	197	9	1213
P 5 20	144	12	1259	20	215	12	1242
P 6 25	164	15	1278	25	229	15	1259
P 7 30		18	1291	30	264	18	1271
P 8 35		21	1299	35	300	21	1278
P 9 40		24	1306	40	300	24	1284
P10 45		27	1310	45	287	27	1290
P11 50		30	1315	50	329	30	1294
P12 55		33	1317	55	333	33	1296
P13 60		36	1321	60	335	36	1300
P14		39	1323	65	367	39	1302
P15		42	1324	70	353	42	1305
P16		45	1326	75	355	45	1307
P17		48	1328	80	381	48	1309
P18		51	1329	85	400	51	1311
P19		54	1330	90		54	1313
P20		57	1331			57	1314
		60	1332			60	1316

Phone 316 262-5861
316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 218

Date 9-[illegible]-71 Ticket 23352 Company Russ + Williamson Oil Co.

Well Name and No. Brown-English "A" #1 Dst No. 1 Interval Tested [illegible]

County Clark State Kansas Sec. 4 Twp. [illegible] Rg. [illegible]

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			
to Surface at 11:00 Am						
1:00	10 min	21 4/10"	1/2"			31,100 MCFPD
1:20	20 min	40 4/10"	1/2"			31,100 MCFPD
1:40	30 min	20 4/10"	1/2"			44,200 MCFPD
			SECOND FLOW			
to Flow at 3:30 Am orifice						
2:40	10 min	60 4/10"	1/4"			110,100 MCFD
2:50	20 min	5 4/10"	3/4"			31,100 MCFD
3:00	30 min	11 4/10"	1/2"			24,900 MCFD
3:10	40 min	8 4/10"	1/2"			17,400 MCFD
3:20	50 min	22 4/10"	1/2"			49,100 MCFD
3:30	60 min	4 4/10"	1/2"			12,400 MCFD
3:40	10 min	22 4/10"	1/2"			49,400 MCFD
3:50	20 min	4 4/10"	1/2"			12,300 MCFD
4:00	10 min	1 4/10"	1/2"			4,300 MCFD
		Gas to surface in 11 Min				

GAS BOTTLE

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

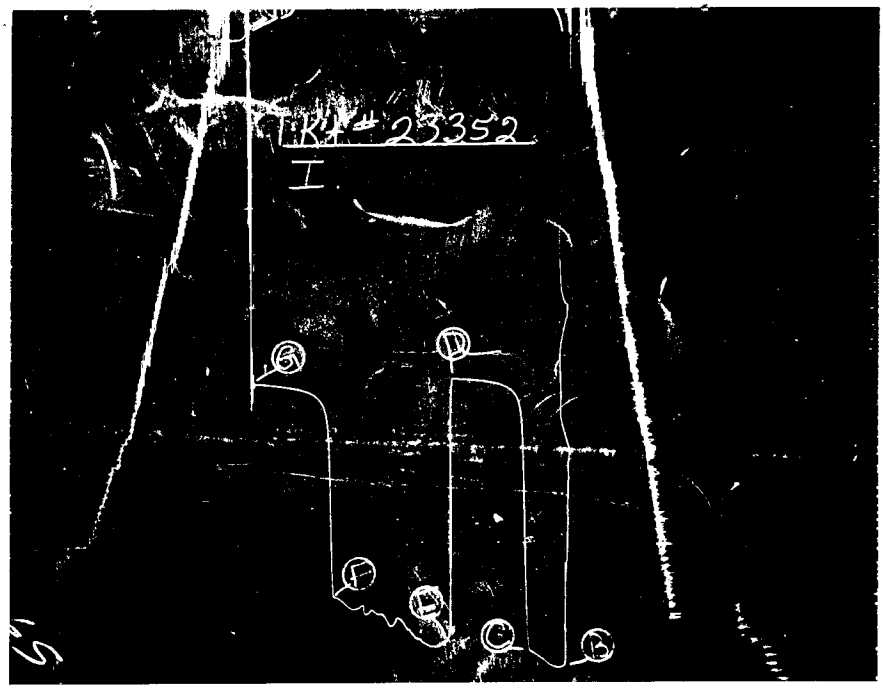
Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By 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

FORM WTC 9


RK-23352
I
G
D
F
E
C
B

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Rains & Williamson Oil Co., Inc. Lease & Well No. Brown-English A-#1

Elevation 2559 Ground Level Formation Morrow Sand Effective Pay - Ft. Ticket No. 23352

Date 9-23-77 Sec. 4 Twp. 31S Range 24W County Clark State Kansas

Test Approved by Jay R. Dirks Western Representative Vernon Wondra

Formation Test No. 1 O.K. X Misrun - Interval Tested From 5454' to 5475' Total Depth 5475'

Size Main Hole 7 7/8 Rat Hole - Conv. - B.T. X Damaged - Yes X No Conv. - B.T. X Damaged - Yes X

Top Packer Depth 5449 Ft. Size 6 3/4 Bottom Packer Depth 5454 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 21 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4

RECORDERS Depth 5467 Ft. Clock No. 6895 Depth 5470 Ft. Clock No. 6861

Top Make Kuster Cap. 3150 No. 1565 Inside ~~Outside~~ Bottom Make Kuster Cap. 6000 No. 1560 Inside Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 12:58A M

Tool Open I.F.P. From 1:00A M. to 1:30A M. - Hr. 30 Min. From (B) 105 P.S.I. To (C) 164 P.S

Tool Closed I.C.I.P. From 1:30A M. to 2:30A M. - Hr. 60 Min (D) 1332 P.S

Tool Open F.F.P. From 2:30A M. to 4:00A M. - Hr. 90 Min. From (E) 213 P.S.I. To (F) 400 P.S

Tool Closed F.C.I.P. From 4:00A M. to 5:00A M. - Hr. 60 Min. (G) 1316 P.S

Initial Hydrostatic Pressure (A) 2831 P.S.I. Final Hydrostatic Pressure (H) 2828 P.S.I. Maximum Temp. 123

INFORMATION

BLOW Strong blow, gas to surface in eleven minutes. See attached sheet for gas measurements

Did Well Flow X Yes - No Recovery Total Ft. 1685' total fluid, 865' oil, (gravity 39) 820' heavy foggy oil.

Reversed Out - Yes X No Mud Type Starch Viscosity 40 Weight 9.6 Water Loss 11.2 cc. Chlorides 44,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Rains-Williamson Rig #2 Length Drill Pipe? 5099 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 376 Ft. I.D. Drill Collars 2¼ In

Tool Joint Size 4½FH In. Length D.S.T. Tool 42 Ft.

Remarks: -

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

GAS FLOW REPORT

Date 9-23-77 Ticket 23352 Company Rains & Williamson Oil Co., Inc.

Well Name and No. Brown-English A #1 Dst No. 1 Interval Tested 5454' to 5475'

County Clark State Kansas Sec. 4 Twp. 31S Rg. 24W

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
Gas to surface at 1:10			**PRE FLOW**			
1:20	10 Min.	27" of water ½" Orifice				31,900 C.F.P.D.
1:30	20 Min.	40"of Water ½"Orifice				39,600 C.F.P.D.
1:40	30 Min.	50"of Water ½"Orifice				44,300 C.F.P.D.
Tool open at 3:30 A.M.			**SECOND FLOW**			
2:40	10 Min.	60"of Water3/4"Orifice				110,000 C.F.P.D.
2:50	20 Min.	5"of Water3/4"Orifice				31,600 C.F.P.D.
3:00	30 Min.	11"of Water ½" Orifice				20,900 C.F.P.D.
3:10	40 Min.	8"of Water ½" Orifice				17,200 C.F.P.D.
3:20	50 Min.	22"of Water ½" Orifice				29,400 C.F.P.D.
3:30	60 Min.	4"of Water ½" Orifice				12,500 C.F.P.D.
3:40	70 Min.	62"of Water ½" Orifice				49,400 C.F.P.D.
3:50	80 Min.	4"of Water ½" Orifice				12,500 C.F.P.D.
4:00	90 Min.	1"of Water ½" Orifice				6,270 C.F.P.D.
		Gas to surface in eleven minutes				

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced 9-23-77

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COMPANY'S NAME Rains & Williamson Oil Co., Inc.

Authorized by Jay R. Dirks

FORM WTC 6

WESTERN TESTING CO., INC.

Pressure Data

Date 9-23-77 Test Ticket No. 23352

Recorder No. 1565 Capacity 3150 Location 5467 F

Clock No. 6895 Elevation 2559 Ground Level Well Temperature 123 °

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2831 P.S.I.	Open Tool	12:58A M	
B	First Initial Flow Pressure	105 P.S.I.	First Flow Pressure	30 Mins.	25 Min
C	First Final Flow Pressure	164 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Min
D	Initial Closed-in Pressure	1332 P.S.I.	Second Flow Pressure	90 Mins.	85 Min
E	Second Initial Flow Pressure	213 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Min
F	Second Final Flow Pressure	400 P.S.I.			
G	Final Closed-in Pressure	1316 P.S.I.			
H	Final Hydrostatic Mud	2828 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 5 Inc.		Breakdown: 20 Inc.		Breakdown: 17 Inc.		Breakdown: 20 Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	105	0	164	0	213	0	400
P 2 5	100	3	205	5	197	3	572
P 3 10	104	6	313	10	193	6	1070
P 4 15	125	9	1195	15	197	9	1213
P 5 20	144	12	1259	20	215	12	1242
P 6 25	164	15	1278	25	229	15	1259
P 7		18	1291	30	264	18	1271
P 8		21	1299	35	300	21	1278
P 9		24	1306	40	300	24	1284
P10		27	1310	45	287	27	1290
P11		30	1315	50	329	30	1294
P12		33	1317	55	333	33	1296
P13		36	1321	60	335	36	1300
P14		39	1323	65	367	39	1302
P15		42	1324	70	353	42	1305
P16		45	1326	75	355	45	1307
P17		48	1328	80	381	48	1309
P18		51	1329	85	400	51	1311
P19		54	1330			54	1313
P20		57	1331			57	1314
		60	1332			60	1316