Company Petro-Dynamics, Ltd. Lease & Well No. Reida #1

Elevation 1472 Kelly Bushing Formation Mississippian Effective Pay - Ft. Ticket No. 15091

Date 1/12/82 Sec. 16 Twp. 31S Range 6W County Harper State Kansas

Test Approved by M. M. Armstrong Western Representative Karl L West, Jr.

Formation Test No. 1 Interval Tested from 4244 ft. to 4293 ft. Total Depth 4293 ft.

Packer Depth 4239 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4244 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4246 ft. Recorder Number 1051 Cap. 4250

Bottom Recorder Depth (Outside) 4249 ft. Recorder Number 15640 Cap. 6600

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

Drilling Contractor H-30 Rig #7 Drill Collar Length 111 I. D. 2.26 in.

Mud Type Starch Salt Clay Viscosity 55 Weight Pipe Length - I. D. - in.

Weight 9.9 Water Loss 24.0 cc. Drill Pipe Length 4200 I. D. 3.8 in.

Chlorides 36,000 P.P.M. Test Tool Length 30 ft. Tool Size 5½OD in.

Jars: Make WIC Serial Number 409 Anchor Length 49 ft. Size 5½OD 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 4½XH in.

Blow: Initial flow period strong blow. Final flow period gas in 4 minutes. See attached sheet for gas measurements.

Recovered 130 ft. of mud (heavily gas cut)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: slid 2 ft on initial flow.

Time Set Packer(s) 1:35 ~~A.M.~~ P.M. Time Started Off Bottom 5:20 ~~A.M.~~ P.M. Maximum Temperature 128

Initial Hydrostatic Pressure			(A)	2292	P.S.I.	
Initial Flow Period	Minutes	20	(B)	194*	P.S.I. to (C)	269* P.S.I.
Initial Closed In Period	Minutes	72	(D)	1511	P.S.I.	
Final Flow Period	Minutes	40	(E)	141	P.S.I. to (F)	73 P.S.I.
Final Closed In Period	Minutes	99	(G)	1533	P.S.I.	
Final Hydrostatic Pressure			(H)	2252	P.S.I.	

JK # 15091

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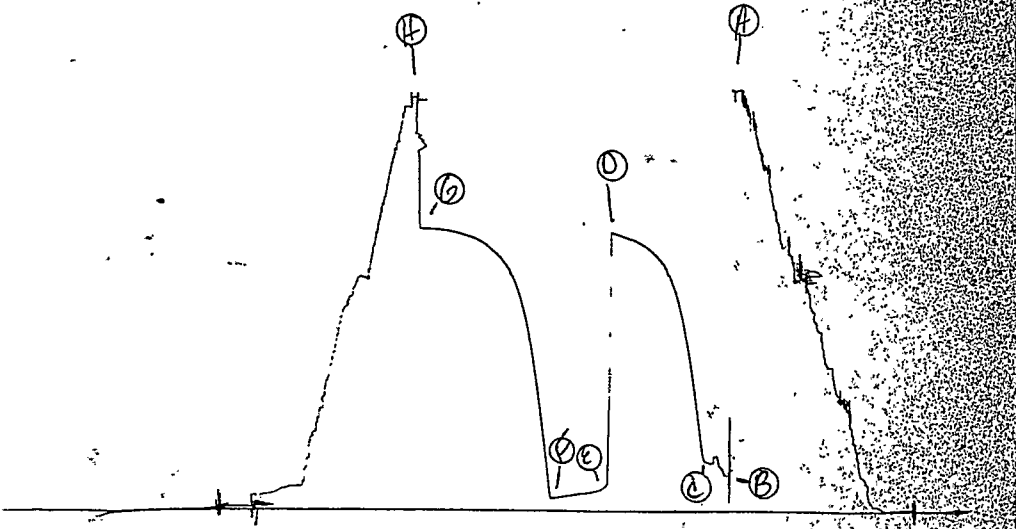

GAS FLOW REPORT

Date 1/12/82 Ticket 15091 Company Petro-Dynamics, Ltd.

Well Name and No. Reida #1 Dst No. 1 Interval Tested 4244-4293

County Harper State Kansas Sec. 16 Twp. 31S Rg. 6W

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			
						STRONG BLOW- NO GAS
			SECOND FLOW			
	4 Min	3.5 PSIG	¼" Orifice			17,100 C.F.P.D. gas to surface
	10 Min	4.0 PSIG	¼" Orifice			18,500 C.F.P.D.
	20 Min	6.0 PSIG	¼" Orifice			22,900 C.F.P.D.
	30 Min	8.0 PSIG	¼" Orifice			27,000 C.F.P.D.
	40 Min	9.0 PSIG	¼" Orifice			29,000 C.F.P.D.
	45 Min	9.5 PSIG	¼" Orifice			29,900 C.F.P.D.

GAS BOTTLE

Serial No. 607 Date Bottle Filled 1/12/82 Date to be Invoiced 1/12/82

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 Petro-Dynamics, Ltd

Authorized by M. M. Armstrong

FORM WTC 6

WESTERN TESTING CO., INC.
Pressure Data

Date 1/12/82 Test Ticket No. 15091

Recorder No. 1051 Capacity 4250 Location 4246 Ft.

Clock No. - Elevation 1472 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2292 P.S.I.	Open Tool	1:35P M	
B First Initial Flow Pressure	194* P.S.I.	First Flow Pressure	30 Mins.	20 Mins.
C First Final Flow Pressure	269* P.S.I.	Initial Closed-in Pressure	60 Mins.	72 Mins.
D Initial Closed-in Pressure	1511 P.S.I.	Second Flow Pressure	45 Mins.	40 Mins.
E Second Initial Flow Pressure	141 P.S.I.	Final Closed-in Pressure	90 Mins.	99 Mins.
F Second Final Flow Pressure	73 P.S.I.			
G Final Closed-in Pressure	1533 P.S.I.			
H Final Hydrostatic Mud	2252 P.S.I.			

*Pressures questionable due to plugging action.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	194*
P 2	5	202*
P 3	10	282*
P 4	15	262*
P 5	20	269*
P 6		
P 7		
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 24 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	269*
3	407
6	538
9	674
12	802
15	917
18	1032
21	1121
24	1191
27	1250
30	1303
33	1342
36	1369
39	1392
42	1411
45	1430
48	1445
51	1457
54	1469
57	1477
60	1484

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Second Flow Pressure
Breakdown: 8 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	141
5	115
10	104
15	97
20	94
25	88
30	83
35	77
40	73

Final Shut-In
Breakdown: 33 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	73
3	243
6	392
9	540
12	678
15	819
18	940
21	1044
24	1133
27	1200
30	1255
33	1303
36	1335
39	1366
42	1390
45	1411
48	1428
51	1447
54	1461
57	1473
60	1483

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WESTERN TESTING CO., INC.
Pressure Data

Date 1/12/82 Test Ticket No. 15091

Recorder No. 1051 Capacity 4250 Location 4246 Ft.

Clock No. - Elevation 1472 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2292 P.S.I.	Open Tool	1:35P M	
B First Initial Flow Pressure	194* P.S.I.	First Flow Pressure	30 Mins.	20 Mins.
C First Final Flow Pressure	269* P.S.I.	Initial Closed-in Pressure	60 Mins.	72 Mins.
D Initial Closed-in Pressure	1511 P.S.I.	Second Flow Pressure	45 Mins.	40 Mins.
E Second Initial Flow Pressure	141 P.S.I.	Final Closed-in Pressure	90 Mins.	99 Mins.
F Second Final Flow Pressure	73 P.S.I.			
G Final Closed-in Pressure	1533 P.S.I.			
H Final Hydrostatic Mud	2252 P.S.I.			

*Pressures questionable due to plugging action.

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 4 Inc.		Breakdown: 24 Inc.		Breakdown: 8 Inc.		Breakdown: 33 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		63	1491			63	1491
P 2		66	1501			66	1498
P 3		69	1508			69	1504
P 4		72	1511			72	1511
P 5						75	1515
P 6						78	1520
P 7						81	1525
P 8						84	1527
P 9						87	1529
P10						90	1531
P11						93	1532
P12						96	1533
P13						99	1533
P14							
P15							
P16							
P17							
P18							
P19							
P20							

WTC - 4

Company Petro-Dynamics, Ltd. Lease & Well No. Reida #1

Elevation 1472 Kelly Bushing Formation Mississippian Effective Pay - Ft. Ticket No. 15092

Date 1/13/82 Sec. 16 Twp. 31S Range 6W County Harper State Kansas

Test Approved by M. M. Armstrong Western Representative Karl L West, Jr.

Formation Test No. 2 Interval Tested from 4296 ft. to 4320 ft. Total Depth 4320 ft.

Packer Depth 4291 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4296 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set - [illegible]

Top Recorder Depth (Inside) 4297 ft. Recorder Number 1051 Cap. 4250

Bottom Recorder Depth (Outside) 4300 ft. Recorder Number 15640 Cap. 6600

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

Drilling Contractor Lo H-30 Rig #7 Drill Collar Length 111 I. D. 2.26 in.

Mud Type Starch Salt Clay Viscosity 50 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 24.0 cc. Drill Pipe Length 4231 I. D. 3.8 in.

Chlorides 42,000 P.P.M. Test Tool Length 30 ft. Tool Size 5½OD in.

Jars: Make WIC Serial Number 406 Anchor Length 24 ft. Size 5½OD 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 4½XH in.

Blow: Initial flow period strong blow. Final flow period gas to surface. See attached sheet for gas measurements.

Recovered 30 ft. of gas & oil cut mud - 31% gas; 14% oil; 55% mud

Recovered 315 ft. of gas & mud cut oil - 23% oil; 56% gas; 21% mud

Recovered 165 ft. of Gas & oil cut salt water

Recovered ft. of

Recovered ft. of

Remarks: Gas to surface on initial shut-in.

Time Set Packer(s) 10:45 ~~A.M.~~ ~~P.M.~~ Time Started Off Bottom 3:15 ~~A.M.~~ P.M. Maximum Temperature 131

Initial Hydrostatic Pressure ..... (A) 2325 P.S.I.

Initial Flow Period ..... Minutes 25 (B) 175 P.S.I. to (C) 133 P.S.I.

Initial Closed In Period ..... Minutes 63 (D) 1494 P.S.I.

Final Flow Period ..... Minutes 55 (E) 215 P.S.I. to (F) 209 P.S.I.

Final Closed In Period ..... Minutes 120 (G) 1479 P.S.I.

Final Hydrostatic Pressure ..... (H) 2271 P.S.I.

Job # 15092

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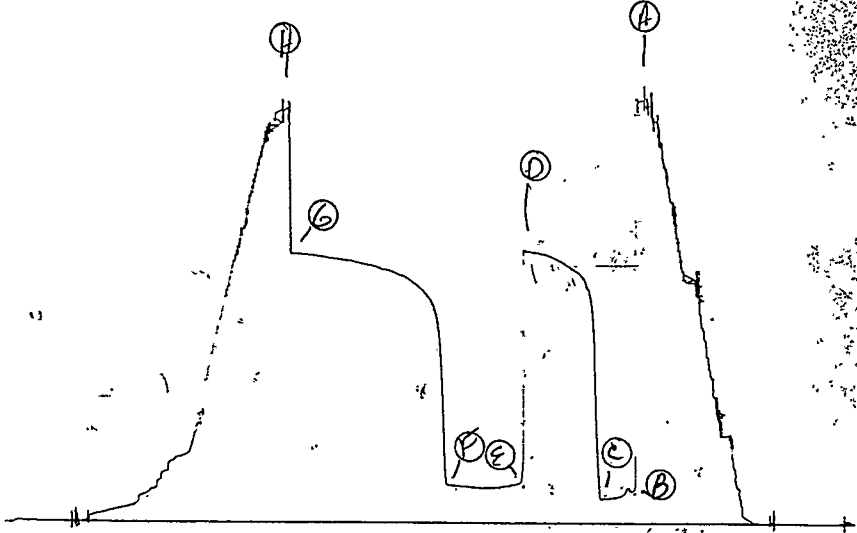

GAS FLOW REPORT

Date 1/13/82 Ticket 15092 Company Petro-Dynamics, Ltd.

Well Name and No. Reida #1 Dst No. 2 Interval Tested 4296-4320

County Harper State Kansas Sec. 16 Twp. 31S Rg. 6W

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						
						Strong blow - No gas to surface
SECOND FLOW						
	5 Min	2.0 PSIG	¼" Orifice			12,700 C.F.P.D.
	10 Min	5.5 PSIG	¼" Orifice			21,800 C.F.P.D.
	20 Min	6.0 PSIG	¼" Orifice			22,900 C.F.P.D.
	30 Min	6.0 PSIG	¼" Orifice			22,900 C.F.P.D.
	40 Min	6.0 PSIG	¼" Orifice			22,900 C.F.P.D.
	50 Min	5.0 PSIG	¼" Orifice			20,700 C.F.P.D.
	60 Min	4.5 PSIG	¼" Orifice			19,500 C.F.P.D.

GAS BOTTLE

Serial No. ? Date Bottle Filled 1/13/82 Date to be Invoiced 1/13/82

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 Petro-Dynamics, Ltd.

Authorized by M. M. Armstrong

FORM WTC 6

WESTERN TESTING CO., INC.
Pressure Data

Date 1/13/82 Test Ticket No. 15092

Recorder No. 1051 Capacity 4250 Location 4297 Ft.

Clock No. - Elevation 1472 Kelly Bushing Well Temperature 131 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2325 P.S.I.	Open Tool	10:45A M	
B First Initial Flow Pressure	175 P.S.I.	First Flow Pressure	30 Mins.	25 Mins.
C First Final Flow Pressure	133 P.S.I.	Initial Closed-in Pressure	60 Mins.	63 Mins.
D Initial Closed-in Pressure	1494 P.S.I.	Second Flow Pressure	60 Mins.	55 Mins.
E Second Initial Flow Pressure	215 P.S.I.	Final Closed-in Pressure	120 Mins.	120 Mins.
F Second Final Flow Pressure	209 P.S.I.			
G Final Closed-in Pressure	1479 P.S.I.			
H Final Hydrostatic Mud	2271 P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	175
P 2 5	189
P 3 10	151
P 4 15	140
P 5 20	135
P 6 25	133
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

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

Point Minutes	Press.
0	133
3	418
6	756
9	1024
12	1218
15	1287
18	1333
21	1362
24	1379
27	1397
30	1410
33	1423
36	1438
39	1449
42	1460
45	1467
48	1474
51	1478
54	1482
57	1486
60	1489
63	1494

Second Flow Pressure
Breakdown: 11 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	215
5	210
10	203
15	198
20	194
25	193
30	191
35	194
40	199
45	201
50	206
55	209

Final Shut-In
Breakdown: 40 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	209
3	619
6	904
9	1087
12	1169
15	1217
18	1250
21	1272
24	1296
27	1311
30	1328
33	1343
36	1357
39	1363
42	1372
45	1383
48	1391
51	1392
54	1402
57	1409
60	1415

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WESTERN TESTING CO., INC.
Pressure Data

Date 1/13/82 Test Ticket No. 15092

Recorder No. 1051 Capacity 4250 Location 4297 Ft.

Clock No. - Elevation 1472 Kelly Bushing Well Temperature 131 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2325	P.S.I.
B	First Initial Flow Pressure	175	P.S.I.
C	First Final Flow Pressure	133	P.S.I.
D	Initial Closed-in Pressure	1494	P.S.I.
E	Second Initial Flow Pressure	215	P.S.I.
F	Second Final Flow Pressure	209	P.S.I.
G	Final Closed-in Pressure	1479	P.S.I.
H	Final Hydrostatic Mud	2271	P.S.I.

	Time Given	Time Computed
Open Tool	10:45A M	
First Flow Pressure	30 Mins.	25 Mins.
Initial Closed-in Pressure	60 Mins.	63 Mins.
Second Flow Pressure	60 Mins.	55 Mins.
Final Closed-in Pressure	120 Mins.	120 Mins.

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1	
P 2	
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

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

Point Minutes	Press.

Second Flow Pressure
Breakdown: 11 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.

Final Shut-In
Breakdown: 40 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
63	1417
66	1424
69	1429
72	1434
75	1439
78	1442
81	1445
84	1447
87	1449
90	1453
93	1456
96	1459
99	1463
102	1467
105	1470
108	1472
111	1474
114	1476
117	1478
120	1479

WTC - 4