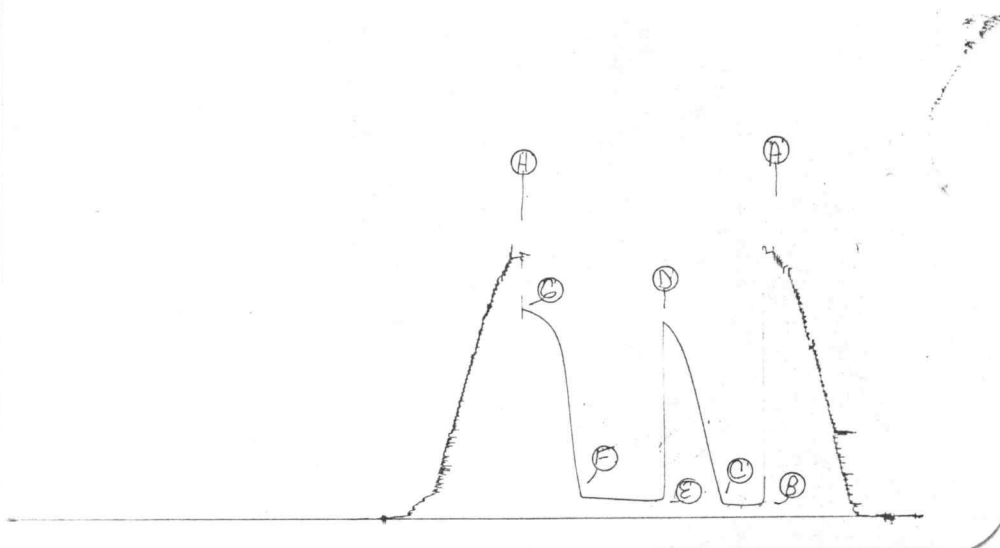


TKT # 5012

DST # 1

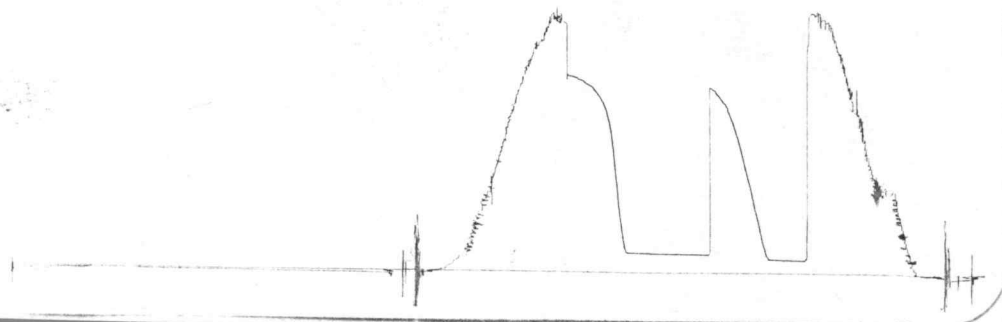
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TKT # 5012

6074
128731

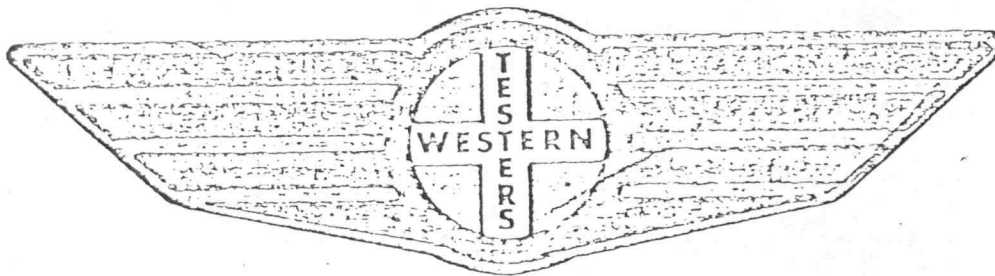
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FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 8/27/84

CUSTOMER: ATTICA GAS VENTURE CORP. INC.

WELL: 1

TEST: 1

ELEVATION (KB): 1370

FORMATION: STALNAKER

SECTION: 7

TOWNSHIP: 33S

RANGE: 8W

COUNTY: HARPER

STATE: KANSAS

GAUGE SN #6074

RANGE: 5100

CLOCK: 12

TICKET #5012

LEASE: MOORE

GEOLOGIST: SCHIERLING

INTERVAL TEST FROM: 3600 FT TO: 3671 FT TOTAL DEPTH: 3671 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3595 FT SIZE: 6 5/8 IN PACKER DEPTH: 3600 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: KAW

MUD TYPE: PREMIX

VISCOSITY: 35

WEIGHT: 9.2

WATER LOSS (CC): 11.5

CHLORIDES (P.P.M.): 18000

JARS - MAKE: W.T.C.

SERIAL NUMBER: 421

DID WELL FLOW? NO

REVERSED OUT? NO

DRILL COLLAR LENGTH:

FT

I.D.:

IN

WEIGHT PIPE LENGTH: 285

FT

I.D.: 2.25

IN

DRILL PIPE LENGTH: 3287

FT

I.D.: 3.8

IN

TEST TOOL LENGTH: 28

FT

TOOL SIZE: 5 1/2

IN

ANCHOR LENGTH: 71

FT

SIZE: 5 1/2

IN

SURFACE CHOKE SIZE: 3/4

IN

BOTTOM CHOKE SIZE: 3/4

IN

MAIN HOLE SIZE: 7 7/8

IN

TOOL JOINT SIZE: 4 1/2 FH

IN

BLOW: INITIAL FLOW PERIOD; STRONG BLOW. GAS TO SURFACE
AFTER SHUT-IN 35 MINUTES. SEE ATTACHED GAS SHEET.

RECOVERED: 210	FT	OF: GAS CUT DRILLING MUD
RECOVERED: 60	FT	OF: GAS CUT WATERY MUD; 12% WATER
RECOVERED:	FT	OF: CHLORIDES 108000 PPM
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	ET	OF:

REMARKS:

TIME SET PACKER(S): 5:05 P.M.

TIME STARTED OFF BOTTOM: 8:05 P.M.

WELL TEMPERATURE: 122 °F

INITIAL HYDROSTATIC PRESSURE:

(A) 1783

PSI

INITIAL FLOW PERIOD MIN: 30

(B) 80

PSI TO (C) 99 PSI

INITIAL CLOSED IN PERIOD MIN: 45

(D) 1291

PSI

FINAL FLOW PERIOD MIN: 60

(E) 116

PSI TO (F) 141 PSI

FINAL CLOSED IN PERIOD MIN: 45

(G) 1376

PSI

FINAL HYDROSTATIC PRESSURE

(H) 1720

PSI

WESTERN TESTING COMPANY INC.
PRESSURE DATA

DATE: 8/27/84
CUSTOMER: ATTICA GAS VENTURE CORP. INC.
WELL: 1 TEST: 1
ELEVATION (KB): 1370 FORMATION: STALNAKER
SECTION: 7 TOWNSHIP: 33S
RANGE: 8W COUNTY: HARPER STATE: KANSAS
GAUGE SN #6074 RANGE: 5100 CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 1783 PSI
(B) FIRST INITIAL FLOW PRESSURE: 80 PSI
(C) FIRST FINAL FLOW PRESSURE: 99 PSI
(D) INITIAL CLOSED-IN PRESSURE: 1291 PSI
(E) SECOND INITIAL FLOW PRESSURE: 116 PSI
(F) SECOND FINAL FLOW PRESSURE: 141 PSI
(G) FINAL CLOSED-IN PRESSURE: 1376 PSI
(H) FINAL HYDROSTATIC PRESSURE: 1720 PSI
WELL TEMPERATURE: 122 °F
OPEN TOOL: 5:05 P.M.

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	30 MIN	30 MIN
INITIAL CLOSED-IN PRESSURE:	45 MIN	45 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	45 MIN	45 MIN

PRESSURE BREAKDOWN								
PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	80	0	99	0	116	0	141
2	5	80	3	152	5	116	3	220
3	10	80	6	251	10	116	6	380
4	15	80	9	362	15	116	9	624
5	20	93	12	478	20	118	12	880
6	25	96	15	598	25	121	15	1069
7	30	99	18	707	30	124	18	1168
8			21	821	35	127	21	1224
9			24	917	40	130	24	1265
10			27	1013	45	133	27	1293
11			30	1085	50	136	30	1315
12			33	1148	55	139	33	1333
13			36	1195	60	141	36	1348
14			39	1237			39	1360
15			42	1268			42	1370
16			45	1291			45	1376
17								
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WESTERN TESTING COMPSNY INC.
GAS FLOW REPORT

DATE: 8/27/84

CUSTOMER: ATTICA GAS VENTURE CORP. INC.

WELL: 1

TEST: 1

ELEVATION (KB): 1370

FORMATION: STALNAKER

SECTION: 7

TOWNSHIP: 33S

RANGE: 8W

COUNTY: HARPER

STATE: KANSAS

GAUGE SN #6074

RANGE: 5100

CLOCK: 12

TICKET #5012

LEASE: MOORE

GEOLOGIST: SCHIERLING

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

SECOND FLOW

45	MERLA	1/4"	12" WTR	5860 CFPD
55		1/8"	14" WTR	1980 " "
65		"	20"	2360 " "
75		"	19"	2300 " "
85		"	17" WTR	2180 " "
95		"	15" WTR	2050 " "

GAS BOTTLE SN #:

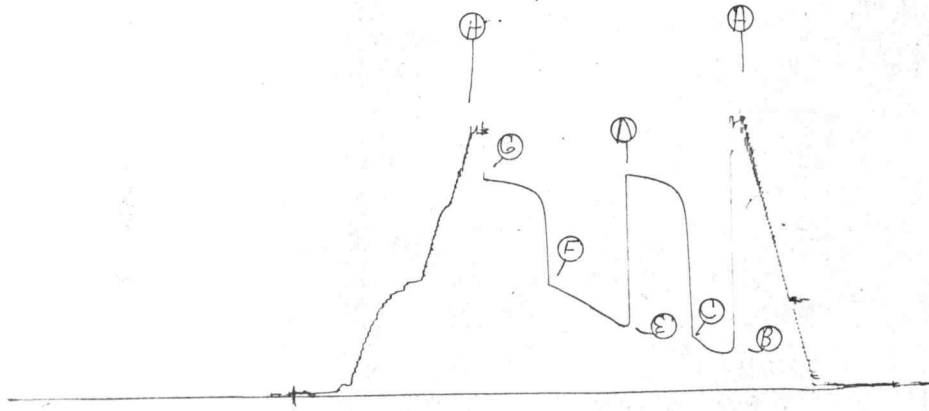
DATE BOTTLE FILLED:

DATE TO BE INVOICED:

TKT #5013

#5013, 1/1/10

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TKT#5013

PST#2

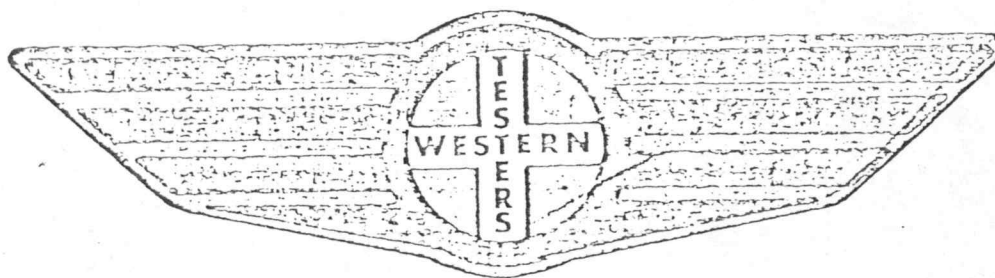
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FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

ATTICA GAS VENTURE CORP. INC. Lease and Well No. #1 WORK Sec. Twp. Rge. Test No. Date

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 8/28/84

CUSTOMER: ATTICA GAS VENTURE CORP. INC.

WELL: 1

TEST: 2

ELEVATION (KB): 1370

FORMATION: STALNAKER

SECTION: 7

TOWNSHIP: 33S

RANGE: 8W

COUNTY: HARPER

STATE: KANSAS

GAUGE SN #6074

RANGE: 5100

CLOCK: 12

TICKET #5013

LEASE: MOORE

GEOLOGIST: SCHIERLING

INTERVAL TEST FROM: 3600 FT TO: 3677 FT TOTAL DEPTH: 3677 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3595 FT SIZE: 6 5/8 IN PACKER DEPTH: 3600 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: KAW

MUD TYPE: PREMIX

VISCOSITY: 35

WEIGHT: 9.2

WATER LOSS (CC): 11.5

CHLORIDES (P.P.M.): 18000

JARS - MAKE: W.T.C.

SERIAL NUMBER: 421

DID WELL FLOW?

REVERSED OUT?

DRILL COLLAR LENGTH:

FT I.D.: IN

WEIGHT PIPE LENGTH: 240

FT I.D.: 2.25 IN

DRILL PIPE LENGTH: 3332

FT I.D.: 3.8 IN

TEST TOOL LENGTH: 28

FT TOOL SIZE: 5 1/2 IN

ANCHOR LENGTH: 77

FT SIZE: 5 1/2 IN

SURFACE CHOKE SIZE: 3/4

IN BOTTOM CHOKE SIZE: 3/4 IN

MAIN HOLE SIZE: 7 7/8

IN TOOL JOINT SIZE: 4 1/2 FH IN

BLOW: STRONG BLOW. GAS TO SURFACE 27 MINUTES. SEE
ATTACHED GAS SHEET.

RECOVERED: 130	FT	OF: GAS CUT DRILLING MUD
RECOVERED: 1570	FT	OF: SALT WATER
RECOVERED:	FT	OF: CHLORIDES 114000 PPM
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:

REMARKS:

TIME SET PACKER(S): 5:45 A.M.

TIME STARTED OFF BOTTOM: 8:45 A.M.

WELL TEMPERATURE: 124 °F

INITIAL HYDROSTATIC PRESSURE:

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 45

FINAL FLOW PERIOD MIN: 60

FINAL CLOSED IN PERIOD MIN: 45

FINAL HYDROSTATIC PRESSURE

(A) 1806	PSI
(B) 249	PSI TO (C) 361 PSI
(D) 1431	PSI
(E) 435	PSI TO (F) 715 PSI
(G) 1416	PSI
(H) 1743	PSI

WESTERN TESTING COMPANY INC.
GAS FLOW REPORT

DATE: 8/28/84
CUSTOMER: ATTICA GAS VENTURE CORP. INC.
WELL: 1 TEST: 2
ELEVATION (KB): 1370 FORMATION: STALNAKER
SECTION: 7 TOWNSHIP: 33S
RANGE: 8W COUNTY: HARPER STATE: KANSAS
GAUGE SN #6074 RANGE: 5100 CLOCK: 12

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

30	MERLA	1/8"	6" WTR	1290 CFPD
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SECOND FLOW

10	MERLA	1/8"	28" WTR	2790 CFPD
20		1/4"	32" WTR	9500 " "
30		1/4"	32" WTR	9500 " "
40		"	30" WTR	9200 " "
50		"	30" WTR	9200 " "
60		1/4"	30" WTR	9200 " "

GAS BOTTLE SN #:
DATE BOTTLE FILLED:
DATE TO BE INVOICED:

Gas Production

B.T. Gauge Numbers			6074	Ticket Number	5013
Initial Hydrostatic			Pressure 1806	Elevation	ft.
Final Hydrostatic			1743	Production Initial	1,290 m cu. ft.
1st Flow	Initial	Time — — — —	249	Rate Final	9,200 m cu. ft.
	Final	30	361	Hole Size	7,875 in.
Initial Closed In Pressure		45	1431	Footage Tested	28 ft.
2nd Flow	Initial	— — — —	435	Mud Weight	9.2 lbs. gal.
	Final	60	715	Gas Viscosity	cp
Final Closed In Pressure		45	1416	Gas Gravity	—
Extrapolated Static Pressure	Initial		1505 - 1168	Gas Compressibility	—
	Final		1485 - 1291		
Slope Psi ² /cycle	Initial		336,896		
	Final		195,307		

Remarks: _____

SUMMARY		BT Gauge Number Depth	997		
Product	Equation	Initial	Final	Units	
Transmissability	$\frac{Kh}{\mu} = \frac{1637 Q_e ZT}{m}$	112.262	133.918	md. ft. cp	
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	2.020	2.410	md. ft.	
Average Effective Permeability	$K = \frac{Kh}{h}$	.101	.120	md.	
	$K_1 = \frac{Kh}{h_1}$	-----	-----	md.	
Indicated Flow Capacity	$(Kh)_s = \frac{3200 Q_e \mu ZT \log(0.472 b/r_w)}{P_s^2 - P_r^2}$	.678	.898	md. ft.	
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}} \frac{Kh}{(Kh)_s}$	2.978	2.682	—	
Indicated Flow Rate	$OF_1 = \frac{Q_e}{P_s^2 - P_r^2} \frac{P_s^2}{P_r^2}$	1,368	11,976	MCFD	
		1,328	10,496	MCFD	
Theoretical Potential Rate	$OF_3 = OF_1 DR \quad \text{Max.}$	4,076	32,128	MCFD	
	$OF_4 = OF_2 DR \quad \text{Min.}$	3,957	28,159	MCFD	
Approx. Radius of Investigation	$b \approx \sqrt{Kt} \text{ or } \sqrt{Kt_0}$	1.741	2.689	ft.	
	$b_1 \approx \sqrt{K_1 t} \text{ or } \sqrt{K_1 t_0}$			ft.	
Potentiometric Surface	$\ast \text{ Pot.} = (EI - GD) + (2.319 Ps)$	1258.095	1212.715	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.