

Knighton Oil Co.
Geneke 1

5-26s-14w
15-151-10898-0001

Superior Testers Enterprises, Inc.
R.R. 3, Box 295B, Great Bend, Kansas 67530
(316) 792-6902

Date 8-5-1988 Location NW-NW-SE 5-26-14 Elevation 2016 K.B. County Pratt

Company Knighton Oil Company Inc Number of Copies 5

Charts Mailed to 710 Petroleum Building Wichita Kansas 67202

Drilling Contractor Duke Drilling Rig #1

Length Drill Pipe 3241 I.D. Drill Pipe 3.81 Tool Joint Size 4 1/2" F.H.

Length Weight Pipe 942 I.D. Weight Pipe 2.76 Tool Joint Size 4 1/2" F.H.

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 4197 Bottom Packer Depth 4202 Number of Packers 2 Packer Size 634

TESTED FROM 4202 TO 4239 ANCHOR LENGTH 37 TOTAL DEPTH 4239 Hole Size 7 7/8

LEASE & WELL NO. Geneke #1 FORMATION TESTED _____ TEST NO. 1

Mud Weight 9.3 Viscosity 64 Water Loss 10.9 Chlorides - Pits 37000 D.S.T. _____

Maximum Temp. 110 °F Initial Hydrostatic Pressure (A) 2253 P.S.I. Final Hydrostatic Pressure (H) 2209 P.S.I.

Tool Open I.F.P. from 7:25 pm to 7:55 pm 30 min

Tool Closed I.C.I.P. from 7:55 pm to 8:40 pm 45 min

Tool Open F.F.P. from 8:40 pm to 9:40 pm 60 min

Tool Closed F.C.I.P. from 9:40 pm to 10:25 pm 45 min

Initial Blow Strong blow - Gas to surface in 8 min.

Final Blow Strong blow -

Total Feet Recovered 20 Gravity of Oil _____ Corrected

<u>20</u> Feet of <u>MUD</u>	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water
_____ Feet of _____	% Gas	% Oil	% Mud	% Water

Remarks _____

Extra Equipment - Jars NONE Safety Joint NONE Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 11087 Clock No. 47441 Depth 4236 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 906 Clock No. 47442 Depth 4236 Insurance NONE

Price of Job _____

Tool Operator Gene Audig

Approved By _____

Superior Testers Enterprises, 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 for at cost by the party for whom the test is made.

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

GAS FLOW REPORT

Date 8-5-1988 Ticket # 10227 Company Knighton Oil Company Inc.
 Well Name and No. GEREKE #1 DST No. 1 Interval Tested 4202-4239
 County Pratt State KANSAS Sec. 5 Twp. 26 South Rg. 14 West

Time Gauge Pre-Flow	Time Gauge in Min.	Inches of Water on Orifice Well Tester	Inches of Mercury on Orifice Well Tester	P.S.I. on Orifice Well Tester	P.S.I. on Pitot Tester	Choke Size	Gas Rate MCF
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PRE FLOW

7:33	GAS to Surface						
7:35	10					1 inch	81.6
7:45	10					1 inch	81.6
7:55	10					1 inch	81.6

SECOND FLOW

8:40	OPENED tool						
8:50	12					1 inch	93.6
9:00	12					1 inch	89.8
9:10	12					1 inch	89.8
9:20	12					1 inch	89.8
9:30	12					1 inch	89.8
9:40	12					1 inch	89.8

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____ Test Ticket # _____

Requisition and Provisions for high pressure steel gas bottles. Superior Testers Enterprises, 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 Superior Testers Enterprises, Inc. within thirty (30) days free of charge or be invoiced in the amount of \$125.00 (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 _____

Authorized by _____

KEC

COMPANY Knighthon Oil Company Inc LEASE - WELL NO Gereke #1 SEC 5 TWP 26 RGE 14 TEST NO. 1 DATE 8-5-1988

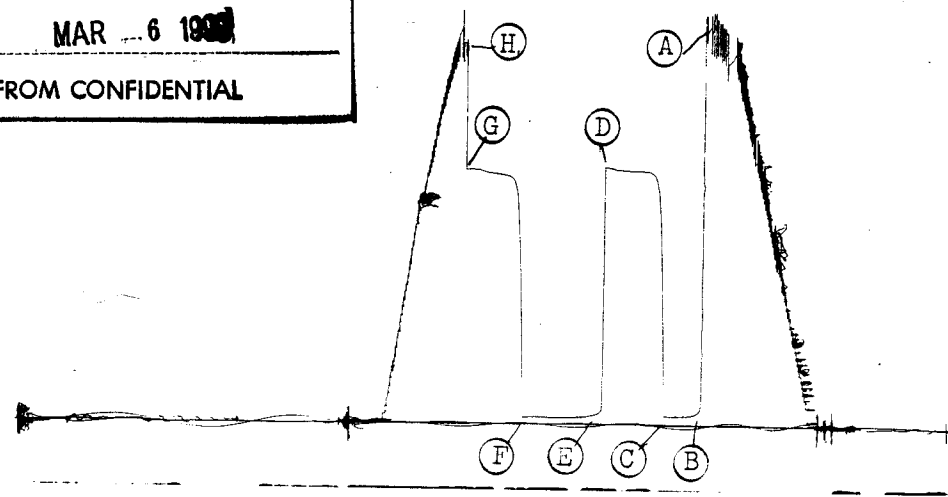
12227

DST
11087

908

D.S.T.#

RELEASED
Date: MAR 6 1988
FROM CONFIDENTIAL



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2253</u>	<u>2242</u>	P.S.I.
(B) First Initial Flow Pressure	<u>55</u>	<u>55</u>	P.S.I.
(C) First Final Flow Pressure	<u>55</u>	<u>52</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1463</u>	<u>1471</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>44</u>	<u>59</u>	P.S.I.
(F) Second Final Flow Pressure	<u>44</u>	<u>39</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1463</u>	<u>1450</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2209</u>	<u>2171</u>	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : KNIGHTON OIL COMPANY WELL NAME : GEREKE #1
ADDRESS : 710 PETROLEUM, WICHITA LOCATION : NW-NW-SE 5-26-14
STATE & COUNTY : KANSAS, PRATT FIELD :
ELEV. (GR) : 2011 (KB) : 2016 TEST DATE : 8-5-1988

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3241
TEST INT. KB : 4202 to 4239 DRILL PIPE O.D. (in) : 3.82
ANCHOR LENGTH(ft) : 37 WEIGHT PIPE LENGTH(ft) : 942
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kg) : 4239 DRILL COLLAR LENGTH(ft) :
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D. (in) : 2.259
MUD WEIGHT : 9.3 TOP PACKER DEPTH(kb) : 4197
MUD VISCOSITY : 64 BOTTOM PACKER DEPTH(kb) : 4202
MUD CHLORIDES : 37000 DUAL PACKERS :
SURFACE CHOKE : 3/4 PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4 PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2 TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2 REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 110 TEST TICKET NUMBER : 10227

EXTRA EQUIPMENT :

ELEMENT SERIAL NO. : 11087
RANGE : 0 - 4350 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1094.24 * Defl. + 5.06

SURFACE BLOW

1st Opening : STRONG BLOW-GAS TO SURFACE IN 8 MIN..
2nd Opening : STRONG BLOW

RECOVERY

Recovered 20 feet of MUD

REMARKS :

GAS TO SURFACE IN 8 MIN. MAX. GAUGED 89.6 mcf-SEE GAUGE READING

WITNESSED BY : BOB DOUGLAS TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : KNIGHTON OIL COMPANY
 DATE OF TEST : 8-5-1988
 DEPTH : 4236.0

WELL NAME : GEREKE #1
 LOCATION : NW-NW-SE 5-26-14
 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:1					
Depth : 4236.0 ft-kb					
- 0:00	0.0	2.000	2193.53	5.16	2198.69
-1ST HYDROSTATIC	0.0	2.040	2237.30	5.05	2242.36
-7:25 1ST FLOW	0.0	.050	59.77	-4.71	55.07
- 7:30	5.0	.049	58.68	-4.71	53.96
- 7:35	10.0	.049	58.68	-4.71	53.96
- 7:40	15.0	.047	56.49	-4.73	51.76
- 7:45	20.0	.046	55.40	-4.74	50.66
- 7:50	25.0	.046	55.40	-4.74	50.66
- 7:53	28.0	.048	57.58	-4.72	52.86
-7:53 END FLOW	0.0	.048	57.58	-4.72	52.86
- 7:56	3.0	.911	1001.91	1.39	1003.30
- 7:59	6.0	1.211	1330.18	2.78	1332.97
- 8:02	9.0	1.294	1421.00	3.17	1424.18
- 8:05	12.0	1.311	1439.61	3.25	1442.86
- 8:08	15.0	1.315	1443.98	3.27	1447.25
- 8:11	18.0	1.315	1443.98	3.27	1447.25
- 8:14	21.0	1.316	1445.08	3.27	1448.35
- 8:17	24.0	1.317	1446.17	3.28	1449.45
- 8:20	27.0	1.318	1447.27	3.28	1450.55
- 8:23	30.0	1.320	1449.45	3.29	1452.75
- 8:26	33.0	1.321	1450.55	3.30	1453.85
- 8:29	36.0	1.324	1453.83	3.31	1457.14
- 8:32	39.0	1.325	1454.93	3.32	1458.24
- 8:35	42.0	1.332	1462.58	3.35	1465.93
- 8:38	45.0	1.336	1466.96	3.37	1470.33
- 8:40	47.0	1.337	1468.06	3.37	1471.43
-8:40 1ST SHUT-IN	0.0	1.337	1468.06	3.37	1471.43
-8:40 2ND FLOW	0.0	.054	64.15	-4.68	59.47
- 8:45	5.0	.050	59.77	-4.71	55.07
- 8:50	10.0	.043	52.11	-4.76	47.36
- 8:55	15.0	.039	47.74	-4.79	42.95
- 9:00	20.0	.038	46.64	-4.79	41.85
- 9:05	25.0	.037	45.55	-4.80	40.75
- 9:10	30.0	.036	44.45	-4.81	39.65
- 9:15	35.0	.036	44.45	-4.81	39.65
- 9:20	40.0	.036	44.45	-4.81	39.65
- 9:25	45.0	.037	45.55	-4.80	40.75
- 9:30	50.0	.038	46.64	-4.79	41.85
- 9:35	55.0	.037	45.55	-4.80	40.75
- 9:39	59.0	.036	44.45	-4.81	39.65

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : KNIGHTON OIL COMPANY
 DATE OF TEST : 8-5-1988
 DEPTH : 4236.0

WELL NAME : GEREKE #1
 LOCATION : NW-NW-SE 5-26-14
 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 1					
-9:39 END FLOW	0.0	.036	44.45	-4.81	39.65
- 9:42	3.0	.829	912.18	.81	913.00
- 9:45	6.0	1.197	1314.86	2.72	1317.58
- 9:48	9.0	1.268	1392.55	3.05	1395.60
- 9:51	12.0	1.284	1410.06	3.13	1413.19
- 9:54	15.0	1.290	1416.63	3.15	1419.78
- 9:57	18.0	1.293	1419.91	3.17	1423.08
- 10:00	21.0	1.297	1424.29	3.19	1427.47
- 10:03	24.0	1.300	1427.57	3.20	1430.77
- 10:06	27.0	1.303	1430.85	3.21	1434.07
- 10:09	30.0	1.306	1434.13	3.23	1437.36
- 10:12	33.0	1.313	1441.79	3.26	1445.05
- 10:15	36.0	1.317	1446.17	3.28	1449.45
- 10:18	39.0	1.318	1447.27	3.28	1450.55
- 10:21	42.0	1.318	1447.27	3.28	1450.55
- 10:24	45.0	1.318	1447.27	3.28	1450.55
-10:24 2ND SHUT-IN	0.0	1.318	1447.27	3.28	1450.55
-2ND HYDROSTATIC	0.0	1.975	2166.18	5.22	2171.40

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : KNIGHTON OIL COMPANY
DATE OF TEST : 8-5-1988

WELL NAME : GEREKE #1
LOCATION : NW-NW-SE 5-26-14

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered :

Recovered 20 feet of MUD

GAS RECOVERY

Measured With : ORFICE TESTER
(INCHES OF WATER)

Riser : 2 INCH

Time (min.)	Reading	Surface Choke (in.)	Cubic feet/day
7:35	10.00	1.00	81600
7:45	10.00	1.00	81600
7:55	10.00	1.00	81600
8:50	13.00	1.00	93600
9:00	12.00	1.00	89800
9:10	12.00	1.00	89800
9:20	12.00	1.00	89800
9:30	12.00	1.00	89800
9:40	12.00	1.00	89800

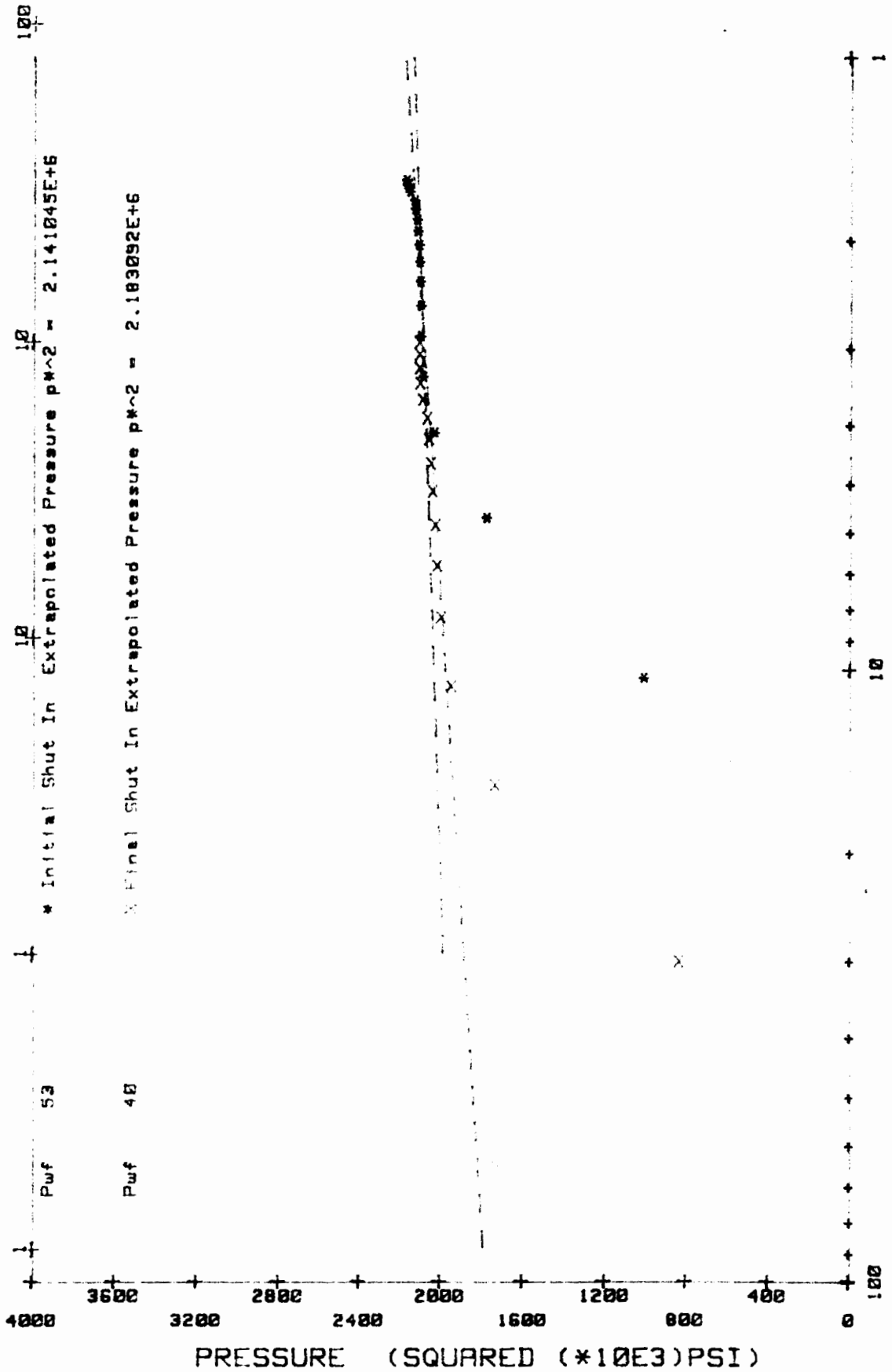
FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi-1)	Pore Space Saturation
Oil			
Gas	.2	9.2E-6	100
Water			

LOCATION : NW-NW-SE 5-26-14

DATE : 8-5-1988

GAUGE # : 11087



TIME (MINUTES) : (T+dt)/dt - (Semilog scale)

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : KNIGHTON OIL COMPANY
 WELL NAME : GEREKE #1
 LOCATION : NW-NW-SE 5-26-14
 STATE & COUNTY : KANSAS, PRATT
 DATE OF TEST : 8-5-1988
 TEST INT. KB : 4202 to 4239
 TOTAL INTERVAL (ft) K.B. : 37.00
 ELEV. (GR) : 2011 (KB) : 2016
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	4236.0 ft-kb		
-7:53 END FLOW	0.00	0.00	52.86
	3.00	10.33	1003.30
	6.00	5.67	1333.70
	9.00	4.11	1425.11
	12.00	3.33	1443.83
	15.00	2.87	1448.24
	18.00	2.56	1448.24
	21.00	2.33	1449.34
	24.00	2.17	1450.44
	27.00	2.04	1451.54
	30.00	1.93	1453.74
	33.00	1.85	1454.85
	36.00	1.78	1458.15
	39.00	1.72	1459.25
	42.00	1.67	1466.96
	45.00	1.62	1471.37
	47.00	1.60	1472.47
-8:40 1ST SHUT-IN	0.00	0.00	1472.47

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : KNIGHTON OIL COMPANY
 WELL NAME : GEREKE #1
 LOCATION : NW-NW-SE 5-26-14
 STATE & COUNTY : KANSAS, PRATT
 DATE OF TEST : 8-5-1988
 TEST INT. KB : 4202 to 4239
 TOTAL INTERVAL (ft) K.B. : 37.00
 ELEV.(GR) : 2011 (KB) : 2016
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	4236.0 ft-kb		
-9:39 END FLOW	0.00	0.00	39.65
	3.00	30.00	913.00
	6.00	15.50	1318.28
	9.00	10.67	1396.48
	12.00	8.25	1414.10
	15.00	6.80	1420.70
	18.00	5.83	1424.01
	21.00	5.14	1428.41
	24.00	4.63	1431.72
	27.00	4.22	1435.02
	30.00	3.90	1438.33
	33.00	3.64	1446.04
	36.00	3.42	1450.44
	39.00	3.23	1451.54
	42.00	3.07	1451.54
	45.00	2.93	1451.54
-10:24 2ND SHUT-IN	0.00	0.00	1451.54

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : KNIGHTON OIL COMPANY WELL NAME : GEREKE #1
DATE OF TEST : 8-5-1988 LOCATION : NW-NW-SE 5-26-14
DST. NO : 1 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (GAS)

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1463.0
Slope of Build-up Curve (psi/log cycle): 103360.8
Effective Producing Time (min): 28.0

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : KNIGHTON OIL COMPANY WELL NAME : GEREKE #1
 DATE OF TEST : 8-5-1988 LOCATION : NW-NW-SE 5-26-14
 DST. NO : 1 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

TRANSMISSIBILITY

Oil (md.ft/cp): 0.00
 Gas (md.ft/cp): 418.87

EFFECTIVE PERMEABILITY

Oil (md): 0.00
 Gas (md): 7.12

TOTAL MOBILITY (md/cp): 35.60

TOTAL COMPRESSIBILITY (psi⁻¹): 9.20E-04

ESTIMATED DAMAGE RATIO: 2.38

CALCULATED DAMAGE RATIO: 3.38

Reservoir Temperature (F): 110.00
 Formation Porosity :18
 Formation thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi⁻¹): 4.80E-07
 Calculated Skin Factor : 8.84

PRODUCTION WITH DAMAGE REMOVED (MCF/D): 303.29

PRODUCTIVITY INDEX (MCF/psi):06

Final Flow Pressure (psi): 40.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 18.02

Total Flowing Time (min): 87.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1477.53

Slope of Build-up Curve (psi/log cycle): 199924.69

Effective Producing Time (min): 87.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.