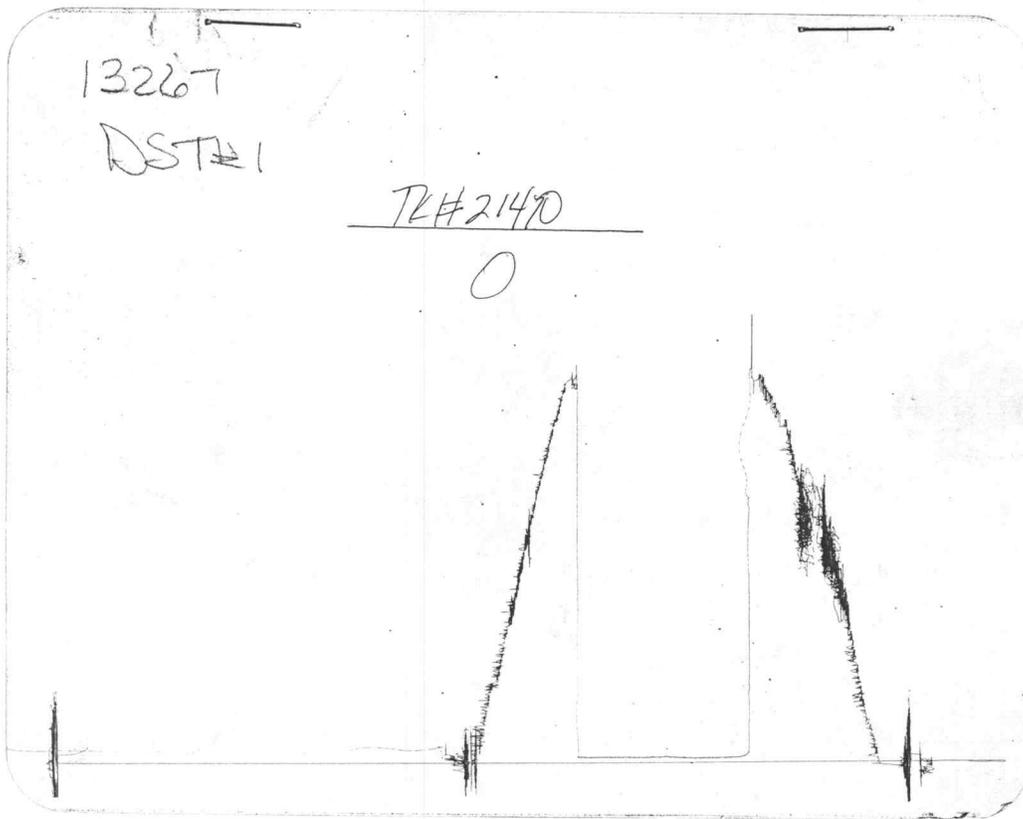


Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 11/7/95 TICKET : 21470
CUSTOMER : LANDMARK OIL/VESS OIL LEASE : OWEN
WELL : #1-16 TEST: 1 GEOLOGIST: CRAIG CAULK
ELEVATION: 3108 G R FORMATION: L KANSAS CITY H
SECTION : 16 TOWNSHIP : 12S
RANGE : 33W COUNTY: LOGAN STATE : KS
GAUGE SN#: 13266 RANGE : 4050 CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4210.00 ft TO: 4241.00 ft TVD: 4241.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4213.0 ft 4216.0 ft
TEMPERATURE: 112.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4187.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 23.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 31.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 4205.0 ft SIZE: 6.750 in
PACKER DEPTH: 4210.0 ft SIZE: 6.750 in
PACKER DEPTH: 4.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : L.D. DRLG.
MUD TYPE : LSND VISCOSITY : 43.00 cp
WEIGHT : 9.000 ppg WATER LOSS: 10.400 cc
CHLORIDES : 4000 ppm
JARS-MAKE : NO SERIAL NUMBER: NO
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD VERY WEAK SURFACE BLOW.
FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
3.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB	TOTAL FLOW TIME: 60.0000 min.
GAS VOLUME: 0.0000 SCF	AVERAGE OIL RATE: 0.0000 STB/D
MUD VOLUME: 0.0421 STB	AVERAGE WATER RATE: 0.0000 STB/D
WATER VOLUME: 0.0000 STB	
TOTAL FLUID : 0.0421 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2039.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	50.00
INITIAL SHUT-IN	30.00		50.00
FINAL FLOW	30.00	50.00	50.00
FINAL SHUT-IN	30.00		50.00

FINAL HYDROSTATIC PRESSURE: 2039.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2060.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	90.00	43.00
INITIAL SHUT-IN	30.00		43.00
FINAL FLOW	30.00	42.00	40.00
FINAL SHUT-IN	30.00		39.00

FINAL HYDROSTATIC PRESSURE: 2040.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 11/7/95	TICKET : 21470
CUSTOMER : LANDMARK OIL/VESS OIL	LEASE : OWEN
WELL : #1-16 TEST: 1	GEOLOGIST: CRAIG CAULK
ELEVATION: 3108 G R	FORMATION: L KANSAS CITY H
SECTION : 16	TOWNSHIP : 12S
RANGE : 33W COUNTY: LOGAN	STATE : KS
GAUGE SN#: 13266 RANGE : 4050	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	90.00	90.00
5.00	63.00	-27.00
10.00	55.00	-8.00
15.00	49.00	-6.00
20.00	47.00	-2.00
25.00	45.00	-2.00
30.00	43.00	-2.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	43.00	43.00	0.00
6.00	43.00	0.00	0.00
9.00	43.00	0.00	0.00
12.00	43.00	0.00	0.00
15.00	43.00	0.00	0.00
18.00	43.00	0.00	0.00
21.00	43.00	0.00	0.00
24.00	43.00	0.00	0.00
27.00	43.00	0.00	0.00
30.00	43.00	0.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	42.00	42.00

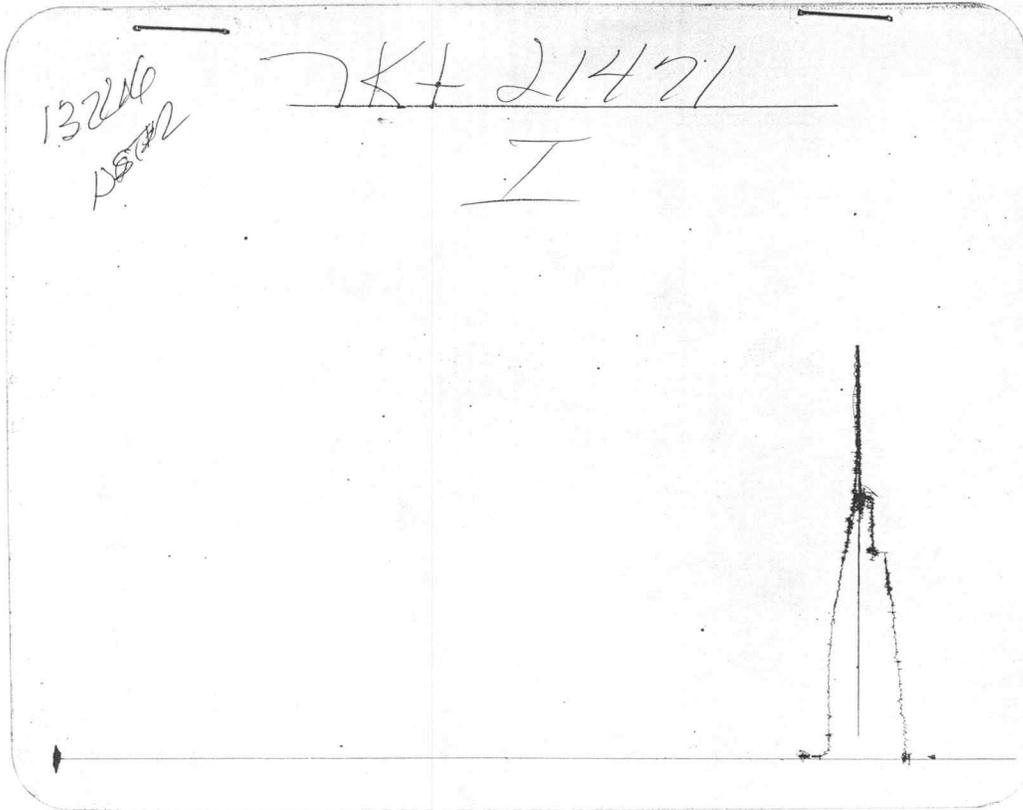
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

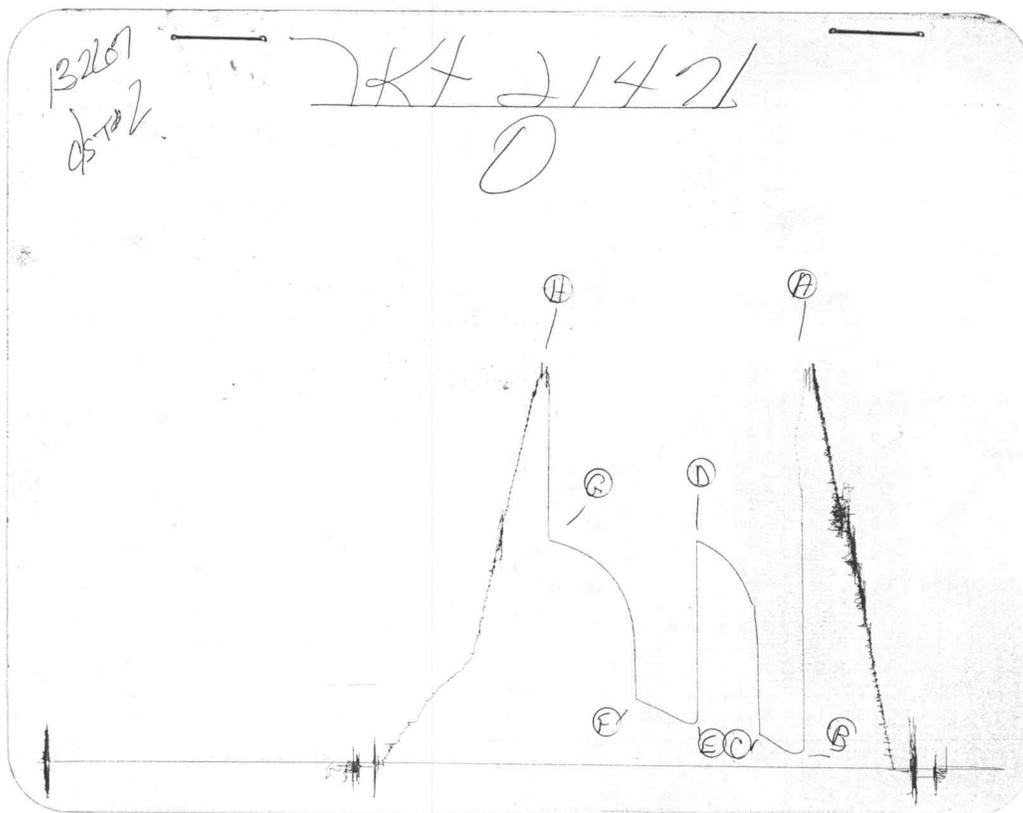
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	42.00	0.00
10.00	41.00	-1.00
15.00	41.00	0.00
20.00	40.00	-1.00
25.00	40.00	0.00
30.00	40.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	40.00	40.00	0.00
6.00	40.00	0.00	0.00
9.00	40.00	0.00	0.00
12.00	40.00	0.00	0.00
15.00	40.00	0.00	0.00
18.00	39.00	-1.00	0.00
21.00	39.00	0.00	0.00
24.00	39.00	0.00	0.00
27.00	39.00	0.00	0.00
30.00	39.00	0.00	0.00



Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 11-8-95 TICKET : 21471
CUSTOMER : LANDMARK OIL/VESS OIL LEASE : OWEN
WELL : #1-16 TEST: 2 GEOLOGIST: CRAIG CAULK
ELEVATION: 3108 G R FORMATION: L KANSAS CITY "J"
SECTION : 16 TOWNSHIP : 12S
RANGE : 33W COUNTY: LOGAN STATE : KS
GAUGE SN#: 13267 RANGE : 4050 CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4264.00 ft TO: 4298.00 ft TVD: 4298.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4267.0 ft 4270.0 ft
TEMPERATURE: 119.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4241.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 23.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 34.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 4259.0 ft SIZE: 6.750 in
PACKER DEPTH: 4264.0 ft SIZE: 6.750 in
PACKER DEPTH: 4.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : L.D. DRLG.
MUD TYPE : LSND VISCOSITY : 46.00 cp
WEIGHT : 9.300 ppg WATER LOSS: 12.800 cc
CHLORIDES : 6000 ppm
JARS-MAKE : NO SERIAL NUMBER: NO
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW OFF BOTTOM OF BUCKET IN 3 MINUTES ON
INITIAL FLOW PERIOD. STRONG BLOW OFF BOTTOM OF
BUCKET ON FINAL FLOW PERIOD.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
886.0	80.0	20.0	0.0	0.0	GASSY OIL
186.0	60.0	0.0	10.0	30.0	MUDDY WATER
0.0	0.0	0.0	0.0	0.0	961' OF GAS ABOVE FLUID.
0.0	0.0	0.0	0.0	0.0	38 GRAVITY @ 60 DEG. F.

RATE INFORMATION

OIL VOLUME:	11.5072 STB		
GAS VOLUME:	13.9559 SCF	TOTAL FLOW TIME:	75.0000 min.
MUD VOLUME:	0.7827 STB	AVERAGE OIL RATE:	233.8192 STB/D
WATER VOLUME:	0.2609 STB	AVERAGE WATER RATE:	7.1558 STB/D
TOTAL FLUID :	12.5508 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2083.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	70.00	172.00
INITIAL SHUT-IN	45.00		1197.00
FINAL FLOW	45.00	222.00	344.00
FINAL SHUT-IN	60.00		1186.00

FINAL HYDROSTATIC PRESSURE: 2042.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2083.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	72.00	138.00
INITIAL SHUT-IN	45.00		1197.00
FINAL FLOW	45.00	226.00	352.00
FINAL SHUT-IN	60.00		1184.00

FINAL HYDROSTATIC PRESSURE: 2063.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 11-8-95	TICKET	: 21471
CUSTOMER	: LANDMARK OIL/VESS OIL	LEASE	: OWEN
WELL	: #1-16	TEST:	2
ELEVATION:	3108 G R	GEOLOGIST:	CRAIG CAULK
SECTION	: 16	FORMATION:	L KANSAS CITY "J"
RANGE	: 33W	TOWNSHIP	: 12S
GAUGE SN#:	13267	STATE	: KS
	COUNTY: LOGAN	CLOCK	: 12
	RANGE : 4050		

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	72.00	72.00
5.00	72.00	0.00
10.00	72.00	0.00
15.00	91.00	19.00
20.00	91.00	0.00
25.00	135.00	44.00
30.00	138.00	3.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	672.00	672.00	11.00
6.00	851.00	179.00	6.00
9.00	931.00	80.00	4.33
12.00	1011.00	80.00	3.50
15.00	1038.00	27.00	3.00
18.00	1060.00	22.00	2.67
21.00	1085.00	25.00	2.43
24.00	1104.00	19.00	2.25
27.00	1115.00	11.00	2.11
30.00	1130.00	15.00	2.00
33.00	1146.00	16.00	1.91
36.00	1158.00	12.00	1.83
39.00	1174.00	16.00	1.77
42.00	1186.00	12.00	1.71
45.00	1197.00	11.00	1.67

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	226.00	226.00
5.00	226.00	0.00
10.00	238.00	12.00
15.00	257.00	19.00
20.00	271.00	14.00
25.00	289.00	18.00
30.00	307.00	18.00
35.00	321.00	14.00
40.00	338.00	17.00
45.00	352.00	14.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	788.00	788.00	16.00
6.00	855.00	67.00	8.50
9.00	906.00	51.00	6.00
12.00	939.00	33.00	4.75
15.00	981.00	42.00	4.00
18.00	1010.00	29.00	3.50
21.00	1032.00	22.00	3.14
24.00	1052.00	20.00	2.88
27.00	1071.00	19.00	2.67
30.00	1087.00	16.00	2.50
33.00	1103.00	16.00	2.36
36.00	1115.00	12.00	2.25
39.00	1128.00	13.00	2.15
42.00	1138.00	10.00	2.07
45.00	1146.00	8.00	2.00
48.00	1154.00	8.00	1.94
51.00	1162.00	8.00	1.88
54.00	1170.00	8.00	1.83
57.00	1176.00	6.00	1.79
60.00	1184.00	8.00	1.75

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 11-8-95	TICKET : 21471
CUSTOMER : LANDMARK OIL/VESS OIL	LEASE : OWEN
WELL : #1-16 TEST: 2	GEOLOGIST: CRAIG CAULK
ELEVATION: 3108 G R	FORMATION: L KANSAS CITY "J"
SECTION : 16	TOWNSHIP : 12S
RANGE : 33W COUNTY: LOGAN	STATE : KS
GAUGE SN#: 13267 RANGE : 4050	CLOCK : 12

Input Data

Porosity 0.150 Rw: 0.328 ft h: 6.000 ft

qo 233.8 STB GOR 281.3 SCF/STB

Pvt Data

Evaluation Pressure : 1197.0

Evaluation Temperature: 119.0

Oil Grav 38.00 API	Gas Grav 0.65 API	Pb 1197.00 PSIA
Bo 1.134 RBL/STB	Vis 1.000 cp	Ct 2.8421E-004 1/PSI

Horner Results

Initial Shut-In

Final Shut-In

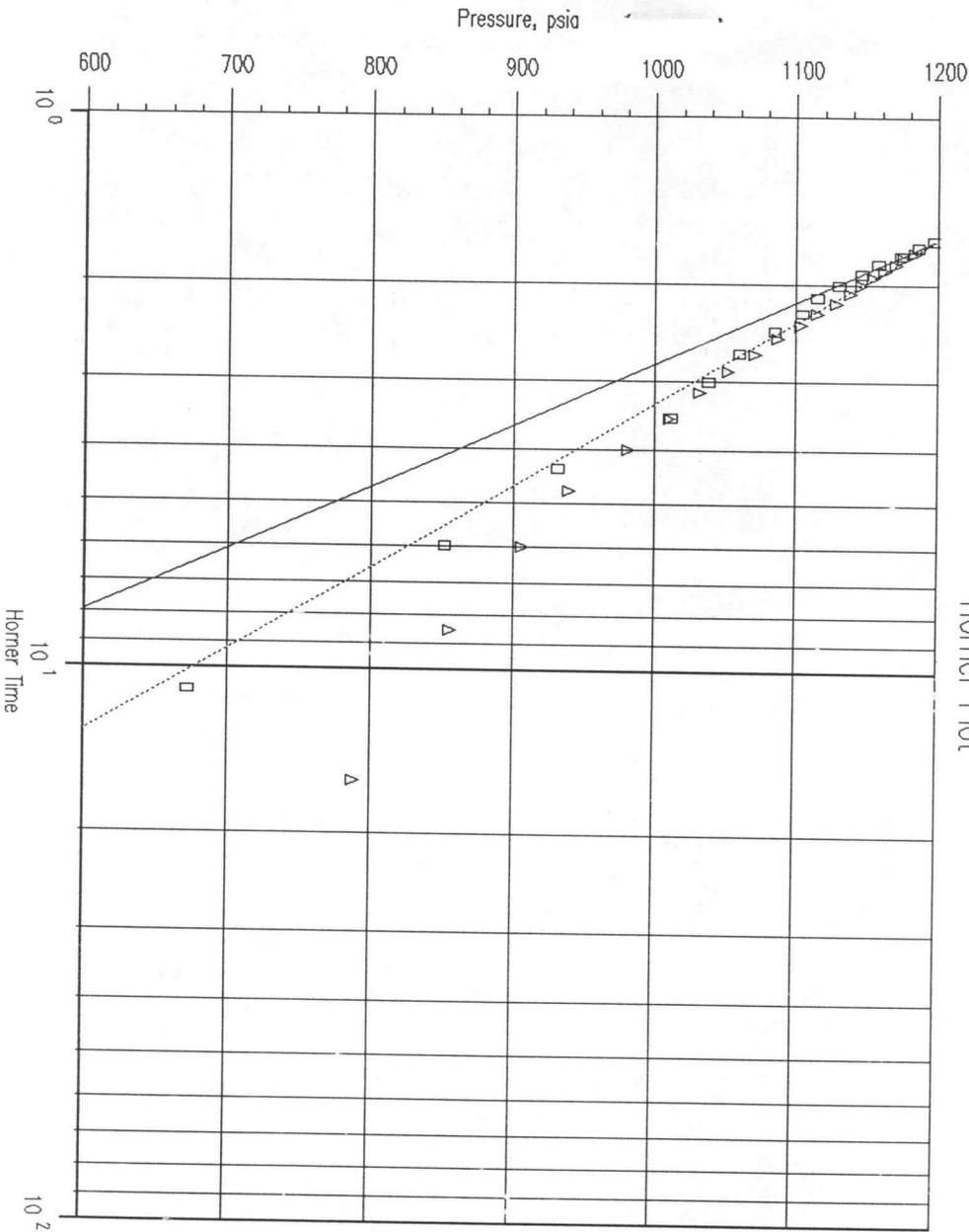
	Initial Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	0.75 hrs
slope	-881.44	-669.47
pstar	1392.17 psig	1346.07 psig
plhr	1236.96 psig	1183.36 psig
skin	-1.49	-1.76
permeability	7.88 md	10.37 md
transmissability	48.89 md-ft/cp	64.37 md-ft/cp
radius of investigation	10.04 ft	14.11 ft
Damage-Ratio	0.41 percent	0.4 percent
Drawdown Factor		1.086 percent
Drawdown P*		3.312 percent

DATE 11-8-95
 CUSTOMER LANDMARK OIL/VESS OIL
 WELL #1-16
 ELEVATION 3108 G R
 SECTION 16
 RANGE 33W
 GAUGE SN# 13267

TEST 2
 COUNTY LOGAN
 RANGE 4050

TICKET 21471
 LEASE OWEN
 GEOLOGIST CRAIG CAULK
 FORMATION L KANSAS CITY "J"
 TOWNSHIP 12S
 STATE KS
 CLOCK 12

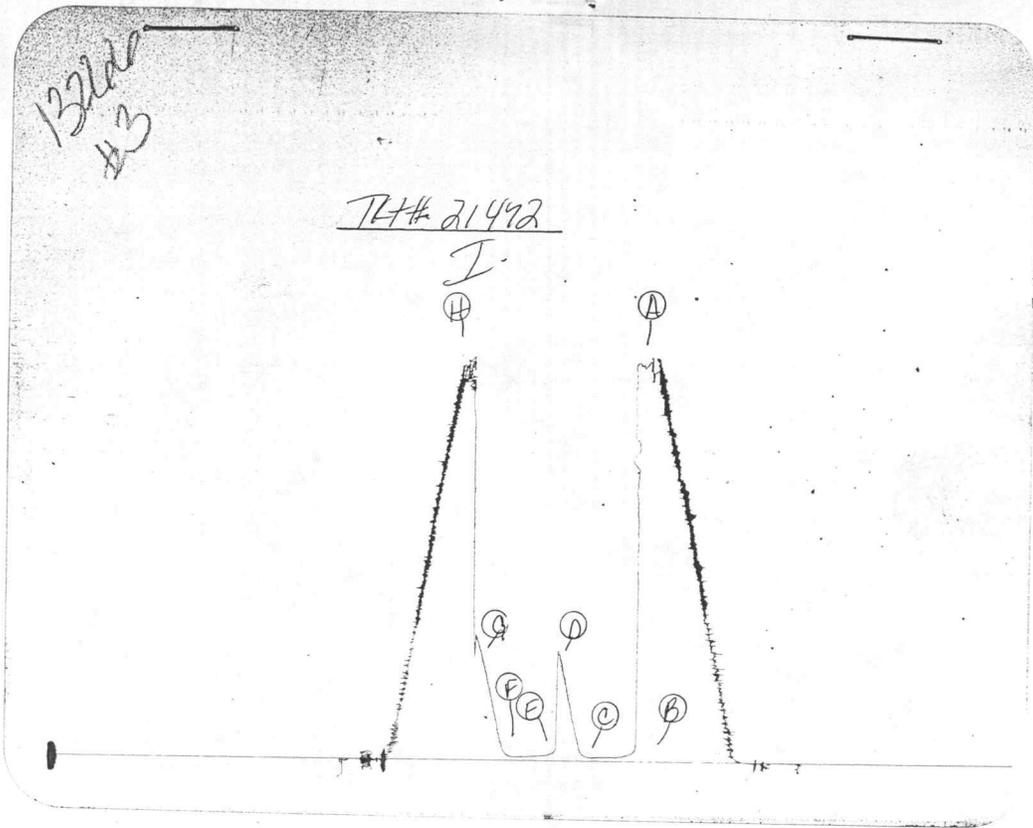
Horner Plot



Result

	#1	#2
tp, hrs	0.50	0.75
Slope	-881.44	-669.47
Pstar, psig	1392.17	1346.07
P1hr, psig	1236.96	1183.36
Skin	-1.49	-1.76
k, md	7.88	10.37
kh/u, md-ft/cp	48.89	64.37
ri, ft	10.04	14.11
DR, %	0.41	0.40
Drawdown Factor, %		1.086
Drawdown P*, %		3.312

— BUILD 1
 BUILD 2



Inside Recorder



Outside Recorder

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 21472

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Open Tool	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2085</u>	P.S.I.			
B. First Initial Flow Pressure	<u>63</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>18</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D. Initial Closed-in Pressure	<u>578</u>	P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E. Second Initial Flow Pressure	<u>53</u>	P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
F. Second Final Flow Pressure	<u>20</u>	P.S.I.			
G. Final Closed-in Pressure	<u>658</u>	P.S.I.			
H. Final Hydrostatic Mud	<u>2070</u>	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ 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>63</u>	0	<u>18</u>	0	<u>53</u>	0	<u>20</u>
P 2	<u>35</u>	3	<u>22</u>	5	<u>33</u>	3	<u>26</u>
P 3	<u>27</u>	6	<u>28</u>	10	<u>24</u>	6	<u>47</u>
P 4	<u>20</u>	9	<u>53</u>	15	<u>23</u>	9	<u>108</u>
P 5	<u>20</u>	12	<u>152</u>	20	<u>22</u>	12	<u>201</u>
P 6	<u>20</u>	15	<u>226</u>	25	<u>21</u>	15	<u>299</u>
P 7	<u>18</u>	18	<u>335</u>	30	<u>20</u>	18	<u>407</u>
P 8		21	<u>425</u>	35		21	<u>494</u>
P 9		24	<u>524</u>	40		24	<u>318</u>
P 10		27	<u>578</u>	45		27	<u>658</u>
P 11		30		50		30	
P 12		33		55		33	
P 13		36		60		36	
P 14		39		65		39	
P 15		42		70		42	
P 16		45		75		45	
P 17		48		80		48	
P 18		51		85		51	
P 19		54		90		54	
P 20		57		95		57	
		60		100		60	

DST REPORT

GENERAL INFORMATION

DATE : 11/8/95 TICKET : 21472
CUSTOMER : LANDMARK OIL/VESS OIL LEASE : OWEN
WELL : #1-16 TEST: 3 GEOLOGIST: CRAIG CAULK
ELEVATION: 3108 G R FORMATION: L KANSAS CITY K
SECTION : 16 TOWNSHIP : 12S
RANGE : 33W COUNTY: LOGAN STATE : KS
GAUGE SN#: 13266 RANGE : 4000 CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4286.00 ft TO: 4322.00 ft TVD: 4322.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4289.0 ft 4292.0 ft
TEMPERATURE: 119.0

DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4263.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 23.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 36.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 4381.0 ft SIZE: 6.750 in
PACKER DEPTH: 4386.0 ft SIZE: 6.750 in
PACKER DEPTH: 4.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : L.D. DRLG.
MUD TYPE : LSND VISCOSITY : 46.00 cp
WEIGHT : 9.300 ppg WATER LOSS: 12.800 cc
CHLORIDES : 6000 ppm
JARS-MAKE : NO SERIAL NUMBER: NO
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW.
FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0701	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0701	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2009.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	25.00	25.00
INITIAL SHUT-IN	30.00		578.00
FINAL FLOW	30.00	25.00	25.00
FINAL SHUT-IN	30.00		628.00

FINAL HYDROSTATIC PRESSURE: 1989.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2085.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	63.00	18.00
INITIAL SHUT-IN	27.00		578.00
FINAL FLOW	30.00	53.00	20.00
FINAL SHUT-IN	27.00		658.00

FINAL HYDROSTATIC PRESSURE: 2070.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 11/8/95	TICKET	: 21472
CUSTOMER	: LANDMARK OIL/VESS OIL	LEASE	: OWEN
WELL	: #1-16	TEST:	3
ELEVATION:	3108 G R	GEOLOGIST:	CRAIG CAULK
SECTION	: 16	FORMATION:	L KANSAS CITY K
RANGE	: 33W	TOWNSHIP	: 12S
GAUGE SN#:	13266	STATE	: KS
	COUNTY: LOGAN	CLOCK	: 12
	RANGE : 4000		

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	63.00	63.00
5.00	35.00	-28.00
10.00	24.00	-11.00
15.00	20.00	-4.00
20.00	20.00	0.00
25.00	20.00	0.00
30.00	18.00	-2.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	22.00	22.00	0.00
6.00	28.00	6.00	0.00
9.00	53.00	25.00	0.00
12.00	152.00	99.00	0.00
15.00	226.00	74.00	0.00
18.00	335.00	109.00	0.00
21.00	435.00	100.00	0.00
24.00	534.00	99.00	0.00
27.00	578.00	44.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	53.00	53.00
5.00	33.00	-20.00

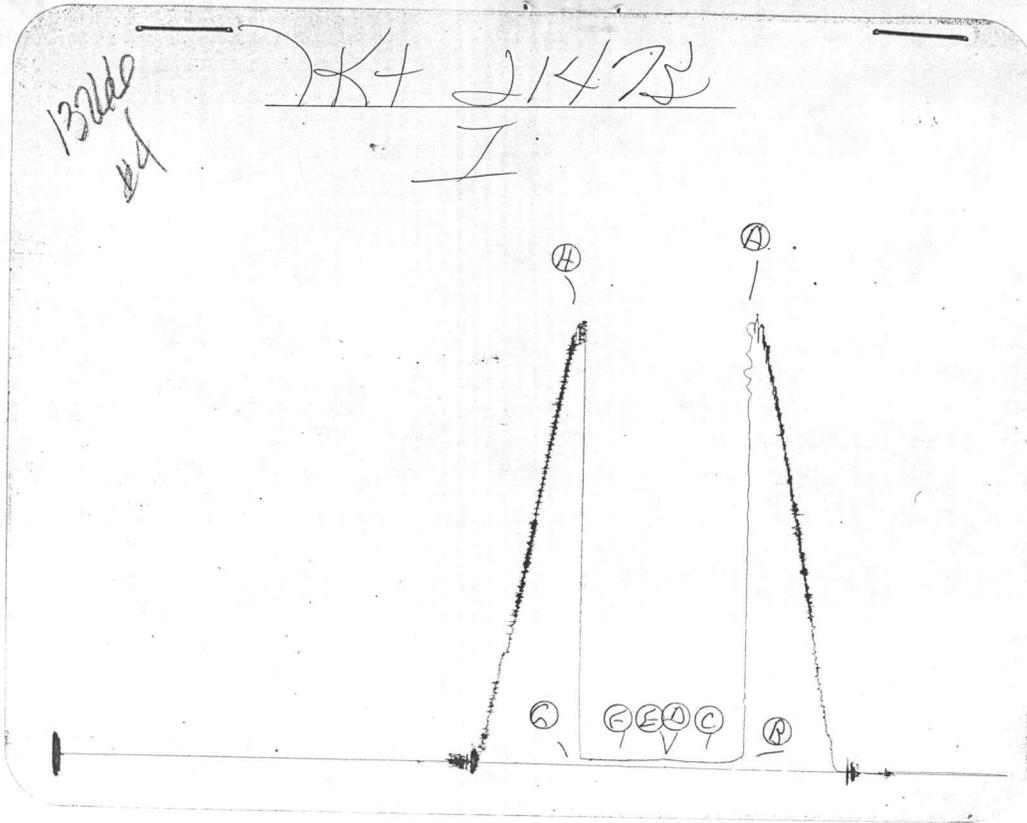
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

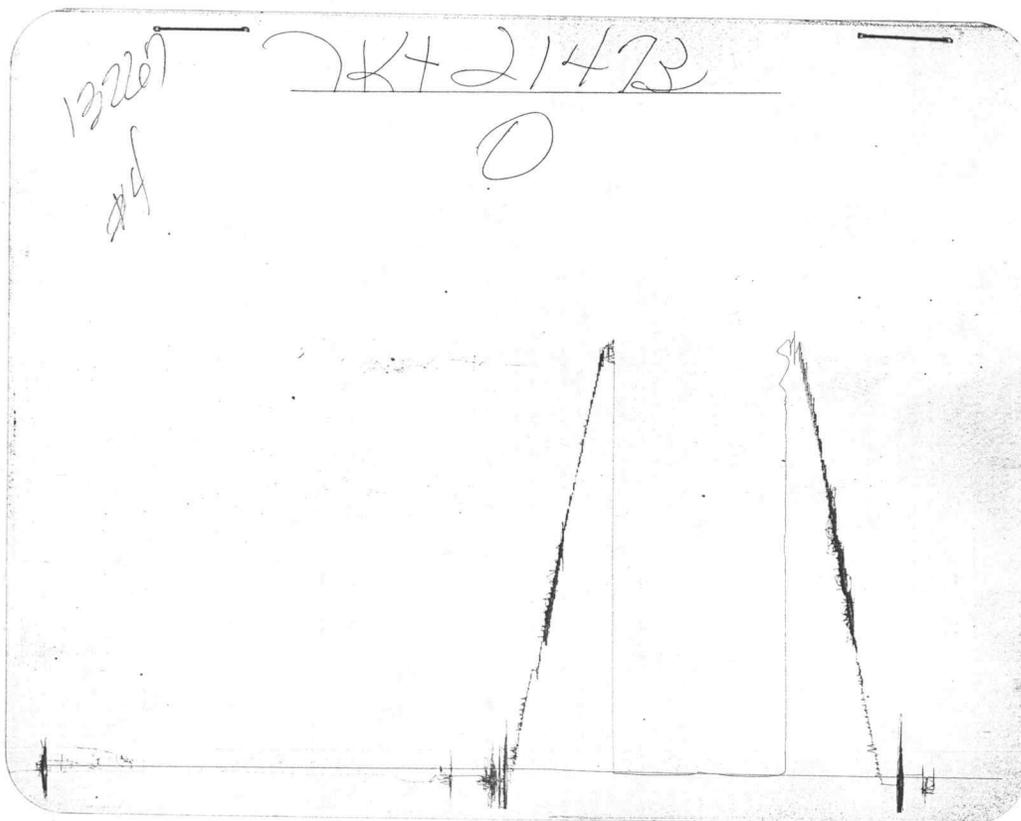
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
10.00	24.00	-9.00
15.00	23.00	-1.00
20.00	22.00	-1.00
25.00	21.00	-1.00
30.00	20.00	-1.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	26.00	26.00	0.00
6.00	47.00	21.00	0.00
9.00	108.00	61.00	0.00
12.00	201.00	93.00	0.00
15.00	299.00	98.00	0.00
18.00	407.00	108.00	0.00
21.00	494.00	87.00	0.00
24.00	578.00	84.00	0.00
27.00	658.00	80.00	0.00



Inside Recorder



Outside Recorder

WESTERN TESTING CO., INC.
Pressure Data

Date 11-10-95

Test Ticket No. 21473

Recorder No. _____ Capacity _____ Location _____ Ft. _____

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2271</u>	P.S.I.		M
B First Initial Flow Pressure		P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure		P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure		P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure		P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure		P.S.I.		
G Final Closed-in Pressure		P.S.I.		
H Final Hydrostatic Mud	<u>2249</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	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.
	Press.	Point Minutes						
P 1	<u>63</u>	0	<u>38</u>	0	<u>46</u>	0	<u>40</u>	0
P 2	<u>50</u>	5	<u>38</u>	3	<u>41</u>	5	<u>40</u>	3
P 3	<u>42</u>	10	<u>38</u>	6	<u>41</u>	10	<u>40</u>	6
P 4	<u>38</u>	15	<u>38</u>	9	<u>41</u>	15	<u>40</u>	9
P 5	<u>38</u>	20	<u>38</u>	12	<u>41</u>	20	<u>40</u>	12
P 6	<u>38</u>	25	<u>40</u>	15	<u>40</u>	25	<u>40</u>	15
P 7	<u>38</u>	30	<u>42</u>	18	<u>40</u>	30	<u>40</u>	18
P 8		35	<u>48</u>	21		35	<u>40</u>	21
P 9		40	<u>46</u>	24		40	<u>40</u>	24
P10		45	<u>47</u>	27		45	<u>41</u>	27
P11		50	<u>48</u>	30		50	<u>41</u>	30
P12		55		33		55		33
P13		60		36		60		36
P14		65		39		65		39
P15		70		42		70		42
P16		75		45		75		45
P17		80		48		80		48
P18		85		51		85		51
P19		90		54		90		54
P20		95		57		95		57
		100		60		100		60

DST REPORT

GENERAL INFORMATION

DATE : 11/10/95
CUSTOMER : LANDMARK OIL/VESS OIL
WELL : #1-16 TEST: 4
ELEVATION: 3108 G.L.
SECTION : 16
RANGE : 332 COUNTY: LOGAN
GAUGE SN#: 13266 RANGE : 4000
TICKET : 21473
LEASE : OWEN
GEOLOGIST: CRAIG CAULK
FORMATION: JOHNSON
TOWNSHIP : 12S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4584.00 ft TO: 4638.00 ft TVD: 4638.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4587.0 ft 4590.0 ft
TEMPERATURE: 122.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4561.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 23.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 54.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 4579.0 ft SIZE: 6.750 in
PACKER DEPTH: 4584.0 ft SIZE: 6.750 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : L.D. DRLG.
MUD TYPE : LSND VISCOSITY : 49.00 cp
WEIGHT : 9.500 ppg WATER LOSS: 12.800 cc
CHLORIDES : 6000 ppm
JARS-MAKE : NO SERIAL NUMBER: NO
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW.
FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
3.0	1.0	0.0	0.0	99.0	SLI. OIL SPOTTED MUD
0.0	0.0	0.0	0.0	0.0	OIL 1%

RATE INFORMATION

OIL VOLUME:	0.0004 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	1.0099 STB/D
MUD VOLUME:	0.0417 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.0421 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2280.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	30.00	30.00
INITIAL SHUT-IN	30.00		40.00
FINAL FLOW	30.00	30.00	30.00
FINAL SHUT-IN	30.00		30.00

FINAL HYDROSTATIC PRESSURE: 2258.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2271.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	63.00	38.00
INITIAL SHUT-IN	30.00		48.00
FINAL FLOW	30.00	46.00	40.00
FINAL SHUT-IN	30.00		41.00

FINAL HYDROSTATIC PRESSURE: 2249.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 11/10/95	TICKET	: 21473
CUSTOMER	: LANDMARK OIL/VESS OIL	LEASE	: OWEN
WELL	: #1-16	TEST:	4
ELEVATION:	3108 G.L.	GEOLOGIST:	CRAIG CAULK
SECTION	: 16	FORMATION:	JOHNSON
RANGE	: 332	TOWNSHIP	: 12S
GAUGE SN#:	13266	STATE	: KS
	COUNTY: LOGAN	CLOCK	: 12
	RANGE : 4000		

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	63.00	63.00
5.00	50.00	-13.00
10.00	42.00	-8.00
15.00	38.00	-4.00
20.00	38.00	0.00
25.00	38.00	0.00
30.00	38.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	38.00	38.00	11.00
6.00	38.00	0.00	6.00
9.00	38.00	0.00	4.33
12.00	38.00	0.00	3.50
15.00	40.00	2.00	3.00
18.00	42.00	2.00	2.67
21.00	44.00	2.00	2.43
24.00	46.00	2.00	2.25
27.00	47.00	1.00	2.11
30.00	48.00	1.00	2.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	46.00	46.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	41.00	-5.00
10.00	41.00	0.00
15.00	41.00	0.00
20.00	41.00	0.00
25.00	40.00	-1.00
30.00	40.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	40.00	40.00	11.00
6.00	40.00	0.00	6.00
9.00	40.00	0.00	4.33
12.00	40.00	0.00	3.50
15.00	40.00	0.00	3.00
18.00	40.00	0.00	2.67
21.00	40.00	0.00	2.43
24.00	40.00	0.00	2.25
27.00	41.00	1.00	2.11
30.00	41.00	0.00	2.00