

30-23s-22w
Computer inventoried

RELEASED

CONFIDENTIAL 15-083-21451

NOV 06 2000

WELL NAME:

Cook Z-1

COMPANY:

Slawson Exploration Company Inc

LOCATION:

30-23S-22W

Hodgeman County Kansas

DATE:

09/26/97

NOV 06 2000
CONFIDENTIAL

FROM CONFIDENTIAL

NOV 17 1997
CONFIDENTIAL

TRILOBITE TESTING L.L.C.

PERATOR : Slawson Exploration CO
 WELL NAME: Cook Z-1
 LOCATION : 30-23S-22W
 INTERVAL : 4530.00 To 4611.00 ft

DATE 9-22-97
 KB 2375.00 ft
 GR 2370.00 ft
 TD 4611.00 ft
 TICKET NO: 10367
 DST #1
 FORMATION: Mississippi
 TEST TYPE: CONV

REORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 30 Rec.	11057	11057	2342			PF Fr. 0450 to 0520 hr
I 20 Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 0520 to 0540 hr
F 20 Clock(hrs)	12 hr	12 HR	Elec			SF Fr. 0540 to 0600 hr
S 20 Depth(ft)	4606.0	4606.0	4542.0	0.0	0.0	FS Fr. 0600 to 0620 hr

	Field	1	2	3	4	
Init Hydro	2309.0	2296.0	2263.0	0.0	0.0	T STARTED 0250 hr
First Flow	78.0	99.0	26.0	0.0	0.0	T ON BOTM 0447 hr
Final Flow	89.0	94.0	49.0	0.0	0.0	T OPEN 0450 hr
In Shut-in	168.0	157.0	160.0	0.0	0.0	T PULLED 0620 hr
Init Flow	100.0	121.0	56.0	0.0	0.0	T OUT 0830 hr
Final Flow	112.0	112.0	64.0	0.0	0.0	
Fl Shut-in	157.0	150.0	131.0	0.0	0.0	
Final Hydro	2287.0	2296.0	2253.0	0.0	0.0	
Inside/Outside	0	0	I			

RECOVERY

Net Fluid 120.00 ft of 120.00 ft in DC and 0.00 ft in DP
 120.00 ft of Oil Cut Mud
 0.00 ft of 15%oil 85%mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA-----
 Tool Wt. 5000.00 lbs
 Wt Set On Packer 26000.00 lbs
 Wt Pulled Loose 65000.00 lbs
 Initial Str Wt 55000.00 lbs
 Unseated Str Wt 55000.00 lbs
 Bot Choke 0.75 in
 Hole Size 7.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.50 in
 D.C. Length 248.00 ft
 D.P. Length 4354.00 ft

BLOW DESCRIPTION

Initial Flow:
 Surface blow built to 1 1/4"

Initial Shut In:

Final Flow:
 Surface blow 1/4"

Final Shut In:
 No return

SAMPLES:
 SENT TO:

RELEASED

0000 0 6 2000

FROM CONFIDENTIAL

MUD DATA-----
 Mud Type Chemical
 Weight 9.30 lb/cf
 Vis. 52.00 S/L
 W.L. 8.60 in3
 F.C. 0.00 in
 Mud Drop N

Amt. of fill 0.00 ft
 Btm. H. Temp. 0.00 F
 Hole Condition good
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out N
 Tool Chased N
 Tester Shane McBride
 Co. Rep. Richard Robba
 Contr. Mallard
 Rig #
 Unit #
 Pump T.

Test Successful: Y

*** TOOL DIAGRAM *** CONV

WELL NAME: Cook Z-1

LOCATION : 30-23S-22W

TICKET No. 10367 D.S.T. No. 1 DATE 9-22-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 21

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 18

TOTAL TOOL 39

DRILL COLLAR ANCHOR IN INTERVAL

A.C. ANCHOR STND.Stands Single Total

A.P. ANCHOR STND.Stands 1 Single Total 63

TOTAL ASSEMBLY 102

A.C. ABOVE TOOLS.Stands4 Single Total 248

A.P. ABOVE TOOLS.Stands69 Single 1 Total 4291

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4641

TOTAL DEPTH 4611

TOTAL DRILL PIPE ABOVE K.B. 30

REMARKS:

P.O. SUB

C.O. SUB 1' 4510

S.I. TOOL 5' 4516

HMV 5' 4521

JARS

SAFETY JOINT

PACKER top 4525

PACKER bottom 4530

DEPTH 4530

STUBB 1' 4531

ANCHOR 10' perf 4541

1' c.o 4542

Alpine Rec. @ 4542

63' drillpipe 4605

1' c.o 4606

T.C.
DEPTH

Ak-1 Reco. @ 4606

BULLNOSE 5' bullplug 4611

T.D. 4611

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10367 DST #1 Cook Z-1 Slawson Ex. Co.

DATE: 09/22/97 TIME: 14:48:31

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	119.00	2263.4	0.0	112.92		
***** Start Flow 1	0.00	26.6	0.0	112.99		
	1.00	29.7	3.1	112.99		
	2.00	32.1	5.5	112.97		
	3.00	34.0	7.4	112.94		
	4.00	35.2	8.6	112.90		
	5.00	36.4	9.8	112.87		
	6.00	37.7	11.1	112.83		
	7.00	38.9	12.3	112.82		
	8.00	39.9	13.3	112.80		
	9.00	41.1	14.5	112.78		
	10.00	42.0	15.4	112.79		
	11.00	42.9	16.3	112.79		
	12.00	43.7	17.1	112.79		
	13.00	44.7	18.1	112.80		
	14.00	45.4	18.8	112.82		
	15.00	46.1	19.5	112.83		
	16.00	46.7	20.1	112.85		
	17.00	47.1	20.5	112.86		
	18.00	47.7	21.1	112.89		
	19.00	48.6	22.0	112.91		
	20.00	49.3	22.7	112.93		
	21.00	50.0	23.4	112.96		
	22.00	50.7	24.1	112.99		
	23.00	44.7	18.1	113.02		
	24.00	45.6	19.0	113.05		
	25.00	45.9	19.3	113.08		
	26.00	46.7	20.1	113.11		
	27.00	47.2	20.6	113.15		
	28.00	48.0	21.4	113.19		
	29.00	48.7	22.1	113.23		
***** End Flow 1	30.00	48.9	22.3	113.27		
***** Start Shutin 1	0.00	48.9	0.0	113.27	0.0000	0.002
	1.00	52.9	3.9	113.31	31.0000	0.003
	2.00	56.7	7.8	113.34	16.0000	0.003
	3.00	60.9	12.0	113.39	11.0000	0.004
	4.00	64.9	15.9	113.43	8.5000	0.004
	5.00	69.1	20.2	113.46	7.0000	0.005
	6.00	73.9	25.0	113.49	6.0000	0.005
	7.00	78.3	29.4	113.53	5.2857	0.006
	8.00	82.8	33.9	113.55	4.7500	0.007
	9.00	87.5	38.6	113.59	4.3333	0.008
	10.00	92.3	43.4	113.63	4.0000	0.009
	11.00	97.8	48.8	113.66	3.7273	0.01
	12.00	103.1	54.1	113.70	3.5000	0.011
	13.00	108.9	60.0	113.73	3.3077	0.012
	14.00	115.2	66.3	113.76	3.1429	0.013
	15.00	121.8	72.8	113.79	3.0000	0.015
	16.00	128.8	79.9	113.82	2.8750	0.017
	17.00	136.3	87.4	113.86	2.7647	0.019
	18.00	144.2	95.3	113.89	2.6667	0.021

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: 10367 DST #1 Cook Z-1 Slawson Ex. Co.
 DATE: 09/22/97 TIME: 14:48:31

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Shut-in 1	19.00	152.7	103.8	113.92	2.5789	0.023
	20.00	160.2	111.3	113.96	2.5000	0.026
***** Start Flow 2	0.00	56.6	0.0	113.98		
	1.00	57.0	0.4	114.01		
	2.00	57.6	1.0	114.04		
	3.00	57.8	1.3	114.07		
	4.00	58.3	1.8	114.09		
	5.00	58.7	2.2	114.12		
	6.00	59.2	2.7	114.15		
	7.00	59.6	3.0	114.18		
	8.00	59.9	3.4	114.21		
	9.00	60.5	3.9	114.24		
	10.00	61.1	4.5	114.27		
	11.00	61.4	4.9	114.30		
	12.00	61.6	5.0	114.33		
	13.00	62.1	5.5	114.37		
	14.00	62.4	5.9	114.40		
	15.00	62.8	6.2	114.43		
	16.00	63.1	6.5	114.46		
	17.00	63.4	6.9	114.50		
	18.00	63.9	7.4	114.53		
***** End Flow 2	19.00	64.3	7.7	114.55		
***** Start Shutin 2	0.00	64.3	0.0	114.55	0.0000	0.004
	1.00	66.4	2.1	114.59	50.0000	0.004
	2.00	69.1	4.9	114.62	25.5000	0.005
	3.00	71.9	7.6	114.65	17.3333	0.005
	4.00	74.7	10.4	114.68	13.2500	0.006
	5.00	77.5	13.3	114.71	10.8000	0.006
	6.00	80.5	16.2	114.75	9.1667	0.006
	7.00	83.4	19.1	114.78	8.0000	0.007
	8.00	86.4	22.2	114.81	7.1250	0.007
	9.00	89.6	25.3	114.84	6.4444	0.008
	10.00	92.8	28.5	114.87	5.9000	0.009
	11.00	96.1	31.8	114.90	5.4545	0.009
	12.00	99.6	35.3	114.94	5.0833	0.01
	13.00	103.1	38.9	114.97	4.7692	0.011
	14.00	106.7	42.4	115.00	4.5000	0.011
	15.00	110.4	46.2	115.04	4.2667	0.012
	16.00	114.4	50.1	115.06	4.0625	0.013
	17.00	118.3	54.0	115.09	3.8824	0.014
	18.00	122.6	58.3	115.12	3.7222	0.015
	19.00	127.0	62.7	115.16	3.5789	0.016
***** End Shut-in 2	20.00	131.3	67.0	115.19	3.4500	0.017
***** Final Hydro.	212.00	2252.8	0.0	115.29		

TEST HISTORY

10367 DST #1 Cook Z-1 Slawson Ex. Co.

Flag Points

t (Min.) P (PSig)

A: 0.00 2263.36
 B: 0.00 26.60
 C: 30.00 48.92
 D: 20.00 160.21
 E: 0.00 56.56
 F: 19.00 64.28
 G: 20.00 131.25
 Q: 0.00 2252.78

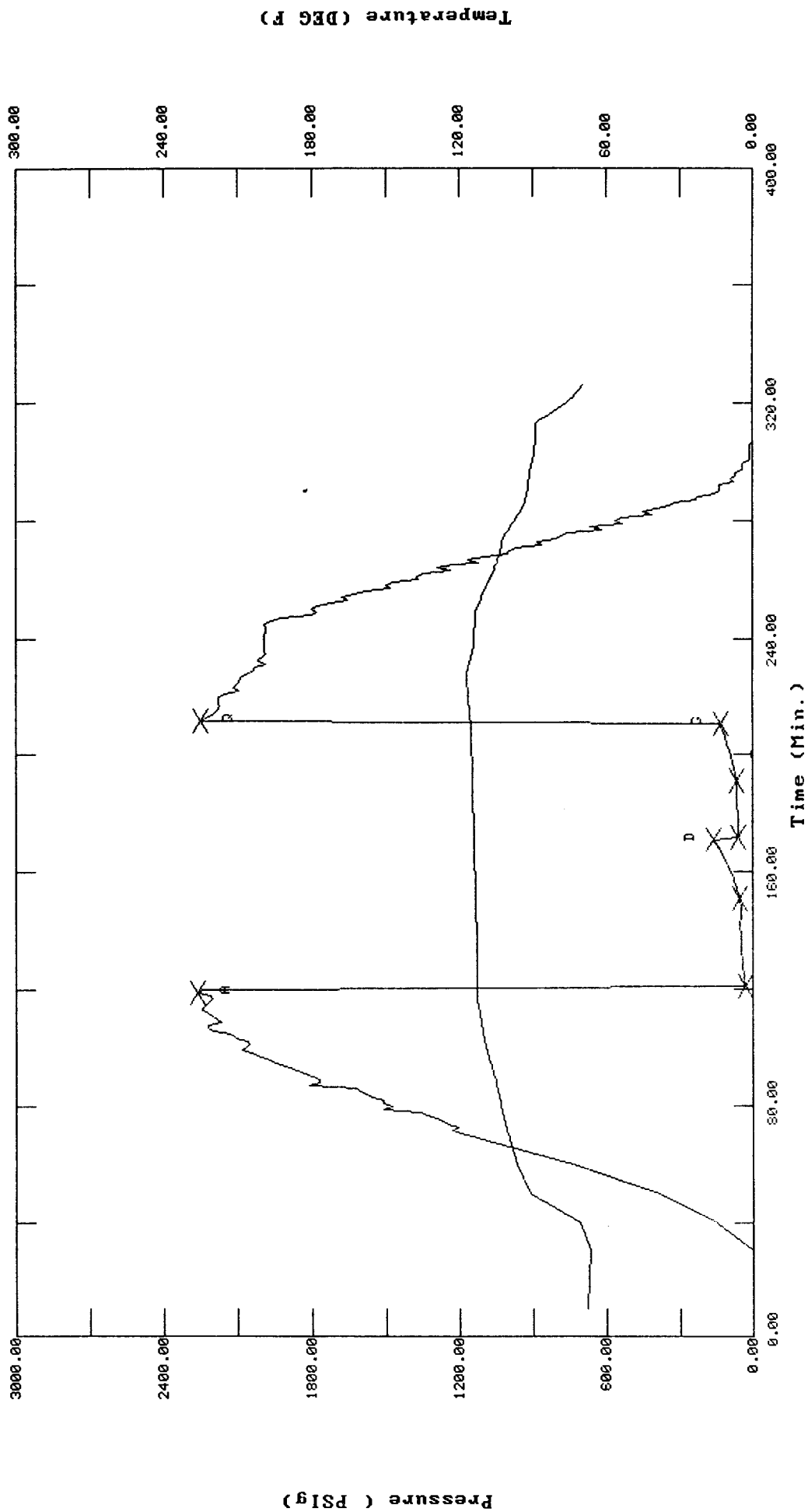
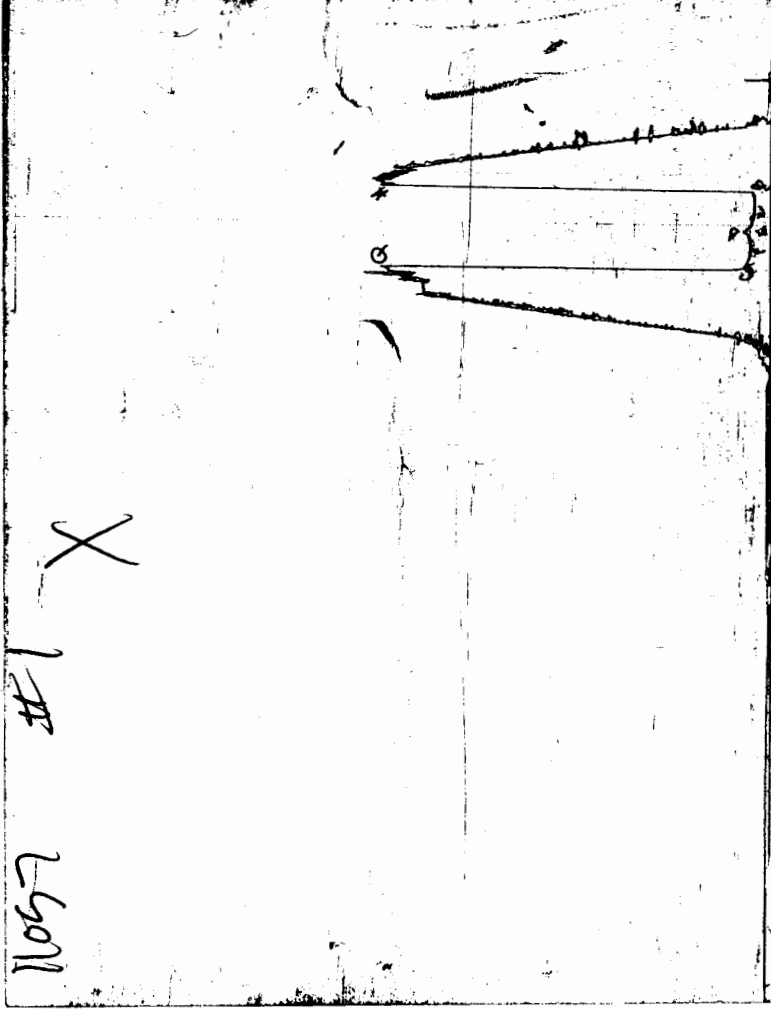


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 10367

Well Name & No.	<u>Cook Z-1</u>	Test No.	<u>1</u>	Date	<u>9-22-97</u>
Company	<u>Slawson Exco.</u>	Zone Tested	<u>miss</u>		
Address	<u>200 N. Harvey St. 1412 OKLA OK C. 7, 73102</u>	Elevation	<u>2375</u>	KB	<u>2370</u> GL
Co. Rep / Geo.	<u>Richard Robbe</u>	Cont.	<u>Marlwood</u>	Est. Ft. of Pay	<u>Por.</u> %
Location: Sec.	<u>30</u>	Twp.	<u>23</u>	Rge.	<u>22</u> Co. <u>Hodgeman</u> State <u>KS</u>
No. of Copies	<u>Norm</u>	Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	<u>4530'</u>	<u>4611'</u>	Initial Str Wt./Lbs.	<u>55,000</u>	Unseated Str Wt./Lbs.	<u>55,000</u>	
Anchor Length		<u>81'</u>	Wt. Set Lbs.	<u>2,000</u>	Wt. Pulled Loose/Lbs.	<u>65,000</u>	
Top Packer Depth		<u>4525'</u>	Tool Weight	<u>5000</u>			
Bottom Packer Depth		<u>4530'</u>	Hole Size — 7 7/8"	<u>✓</u>	Rubber Size — 6 3/4"	<u>✓</u>	
Total Depth		<u>4611'</u>	Wt. Pipe Run	<u>—</u>	Drill Collar Run	<u>248'</u>	
Mud Wt.	<u>9.3</u>	LCM		Drill Pipe Size	<u>4 1/2 x 11</u>	Ft. Run	<u>4354'</u>
Vis.	<u>52</u>	WL	<u>8.6</u>				
Blow Description	<u>Surface blow built to 1 1/4" in.</u>						
	<u>No return</u>						
	<u>Surface blow 1/4"</u>						

Recovery — Total Feet	<u>120'</u>	GIP	<u>—</u>	Ft. in DC	<u>120'</u>	Ft. in DP	<u>—</u>
Rec.	<u>120'</u>	Feet Of	<u>0.1 Cut Mud</u>	%gas	<u>15%</u>	%oil	<u>85%</u>
Rec.		Feet Of		%gas		%oil	
Rec.		Feet Of		%gas		%oil	
Rec.		Feet Of		%gas		%oil	
Rec.		Feet Of		%gas		%oil	

BHT	<u>116'</u>	°F Gravity	<u>—</u>	°API D@	<u>—</u>	°F Corrected Gravity	<u>—</u>	°API
RW	<u>—</u>	@	<u>—</u>	°F Chlorides	<u>—</u>	ppm Recovery	<u>4,000</u>	ppm System

(A) Initial Hydrostatic Mud	<u>2309</u>	<u>2263</u>	PSI	Recorder No.	<u>2342</u>	T-Started	<u>02:50 AM</u>
(B) First Initial Flow Pressure	<u>78</u>	<u>26</u>	PSI	(depth)	<u>4542'</u>	T-Open	<u>04:50 AM</u>
(C) First Final Flow Pressure	<u>89</u>	<u>48</u>	PSI	Recorder No.	<u>11057</u>	T-Pulled	<u>06:20 AM</u>
(D) Initial Shut-in Pressure	<u>168</u>	<u>160</u>	PSI	(depth)	<u>4608'</u>	T-Out	<u>08:30 AM</u>
(E) Second Initial Flow Pressure	<u>100</u>	<u>56</u>	PSI	Recorder No.			
(F) Second Final Flow Pressure	<u>112</u>	<u>64</u>	PSI	(depth)			
(G) Final Shut-in Pressure	<u>157</u>	<u>131</u>	PSI	Initial Opening	<u>30</u>	Test	<u>X</u>
(H) Final Hydrostatic Mud	<u>2287</u>	<u>2252</u>	PSI	Initial Shut-in	<u>20</u>	Jars	

AK-1 Air-Pipe

Final Flow	<u>20</u>	Safety Joint	
Final Shut-in	<u>20</u>	Straddle	

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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.

Approved By Richard A Robbe
Our Representative Slawson Exco.

Circ. Sub	<u>X</u>	<u>N/C</u>
Sampler		
Extra Packer		
Elect. Rec.	<u>X</u>	
Other		
TOTAL PRICE \$		

TRILOBITE TESTING L.L.C.

OPERATOR : Slawson Exploration Co

DATE 9/22/97

WELL NAME: Cook Z-1

KB 2375.00 ft

TICKET NO: 10368

DST #2

LOCATION : 30-23S-22W Hodgemen Co KS

GR 2370.00 ft

FORMATION: Mississippian

INTERVAL : 4610.00 To 4623.00 ft

TD 4623.00 ft

TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
F 30	Rec.	11057	11057	2342			PF Fr. 1445 to 1515 hr
I 45	Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 1515 to 1600 hr
F 45	Clock(hrs)	24 hr	24 hr	Elect			SF Fr. 1600 to 1645 hr
S 90	Depth(ft)	4618.0	4618.0	4611.0	0.0	0.0	FS Fr. 1645 to 1815 hr

	Field	1	2	3	4	
1. Init Hydro	2309.0	2320.0	0.0	0.0	0.0	T STARTED 1320 hr
2. First Flow	56.0	48.0	0.0	0.0	0.0	T ON BOTM 1440 hr
3. Final Flow	78.0	77.0	0.0	0.0	0.0	T OPEN 1445 hr
4. In Shut-in	1141.0	1127.0	0.0	0.0	0.0	T PULLED 1815 hr
5. Init Flow	123.0	125.0	0.0	0.0	0.0	T OUT 2035 hr
6. Final Flow	145.0	135.0	0.0	0.0	0.0	
7. Fl Shut-in	1174.0	1158.0	0.0	0.0	0.0	TOOL DATA-----
8. Final Hydro	2287.0	2282.0	0.0	0.0	0.0	Tool Wt. 4000.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 67000.00 lbs
						Initial Str Wt 55000.00 lbs
						Unseated Str Wt 60000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 248.00 ft
						D.P. Length 4346.00 ft

RECOVERY

Pot Fluid 293.00 ft of 248.00 ft in DC and 45.00 ft in DP

120.00 ft of Gas in pipe

195.00 ft of Clean Gassy Oil 10%gas 90%oil

50.00 ft of Slightly mud cut gassy oil

3.00 ft of 15%gas 65%oil 20%mud

38.00 ft of Mud cut gassy oil 15%gas 45%oil 40%mud

3.00 ft of

3.00 ft of

3.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 37.50

BLOW DESCRIPTION

Initial Flow:

Surface blow built to 6 1/4"

Initial Shutin:

Bleed off blow for 2 min

weak return in 5 min died in 12 min

Final Flow:

Surface blow built to 5 1/4"

Final Shutin:

Bleed off for 2 min - weak surface

return in 6 min - died in 10 min

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/cf
Vis.	52.00 S/L
W.L.	8.60 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	119.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Shane McBride
Co. Rep.	Richard Robba
Contr.	Mallard
Rig #	
Unit #	
Pump T.	

Test Successful: Y

Operator.....: Slawson Exploration Co
Well Name.....: Cook Z-1
DST Number.....: 2

Location.: 30-23S-22W Hodgeman KS Recorder No...: 11057
Test Type: conv Recorder Depth: 4618
Formation: Mississippian Test Interval.: 4610-4623

RESERVOIR CALCULATIONS: Fluid calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay.....:	6.00 ft
Porosity.....:	12.00 %
Bottom Hole Temp.....:	119.00 F
Specific Gravity.....:	0.029
API Gravity.....:	37.50
Compressibility.....:	0.000003 /psi
Viscosity.....:	5.3114 cp
Total Recovery.....:	293.00 ft
Total Flowing Time.....:	75.00 min.
Flow Rate.....:	45.93 bbls/d
Final Flowing Pressure.....:	135.00 psi
Horner Slope.....:	795.6100 psi/cycle
Extrapolated Pressure.....:	1367.44 psi
Formation Volume Factor.....:	1.51 Reservoir/Surface
Well Bore Radius.....:	3.94 in

RESULTS:

Effective Permeability.....:	12.579969 md
Flow Capacity.....:	75.4798 md.ft
Transmissibility.....:	14.2109 md.ft/cp
Skin Factor.....:	-3.1208
Radius of Investigation.....:	81.81196 ft
Damage Ratio.....:	0.3636
Productivity Index.....:	0.0373 bbls/psi.d
Productivity Index W/O Damage..:	0.0135 bbls/psi.d

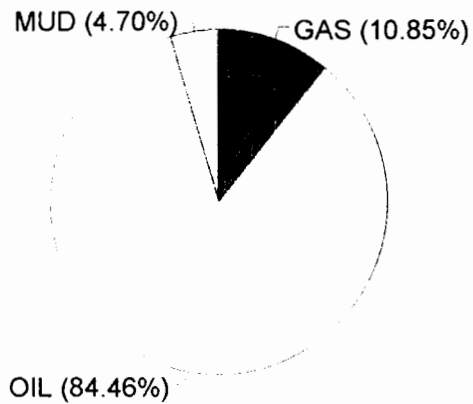
CALCULATED RECOVERY ANALYSIS

DST 2

TICKET 10368

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	150	10	15	90	135		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	45	10	4.5	90	40.5		0		0
COLLARS 2	60	15	9	65	39		0	20	12
3	38	15	5.7	45	17.1		0	40	15.2
4			0		0		0		0
5			0		0		0		0
TOTAL	293		34.2		231.6		0		27.2

			HRS OPEN		BBL/DAY
BBL OIL=	2.392074	*	1.25	=	45.92782
BBL WATER=	0	*		=	0
BBL MUD=	0.133008				
BBL GAS =	0.307188				



AK-1 Recorder Increments Listings

Test: Slawson Exploration Co - Cook Z-1 - DST #2
Date: 9-2-97

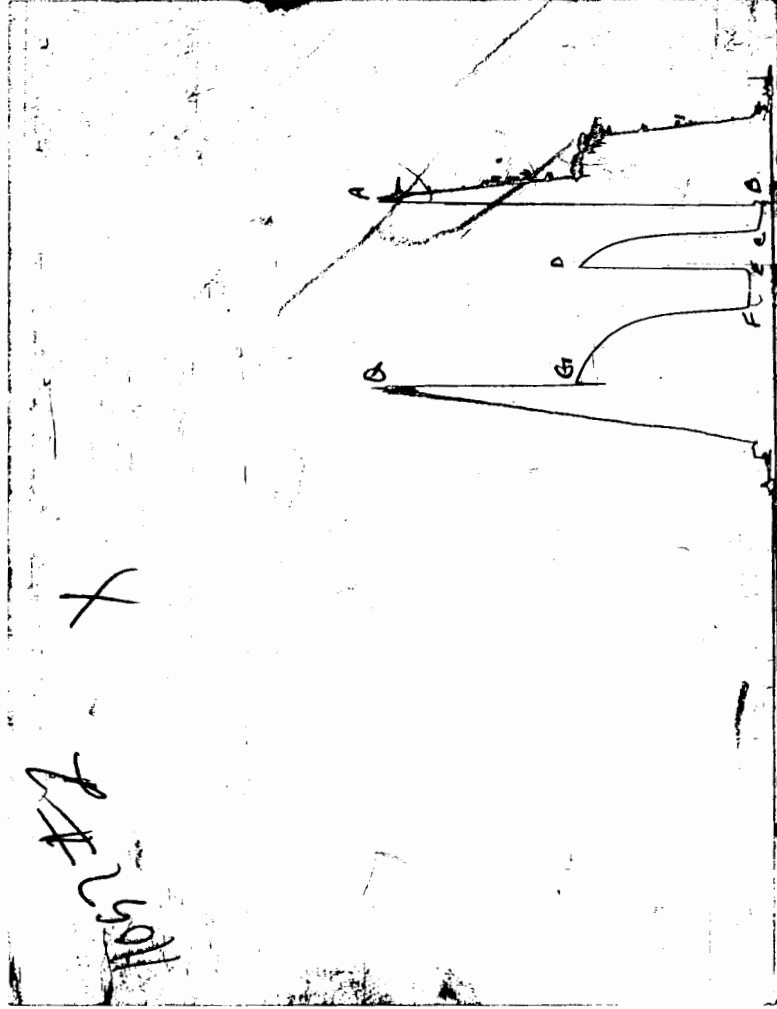
	Time	Pressure PSIg	<> Pressure
***Start Flow 1	0	48.0	48.0
	5	51.0	3.0
	9	53.0	2.0
	14	56.0	3.0
	18	63.0	7.0
	23	68.0	5.0
	27	75.0	7.0
	32	77.0	2.0

	Time	Pressure PSIg	Log Hom T	<> Pressure	(T+dT)/dT
***Start Shutin 1	0	77.0	0.000	77.0	0.0
	5	473.0	1.041	396.0	11.0
	9	751.0	0.778	278.0	6.0
	14	867.0	0.637	116.0	4.3
	18	944.0	0.544	77.0	3.5
	23	991.0	0.477	47.0	3.0
	27	1033.0	0.426	42.0	2.7
	32	1065.0	0.385	32.0	2.4
	36	1091.0	0.352	26.0	2.3
	41	1127.0	0.325	36.0	2.1

	Time	Pressure PSIg	<> Pressure
***Start Flow 2	0	125.0	125.0
	5	125.0	0.0
	9	125.0	0.0
	14	125.0	0.0
	18	126.0	1.0
	23	128.0	2.0
	27	128.0	0.0
	32	131.0	3.0
	36	133.0	2.0
	41	135.0	2.0

	Time	Pressure PSIg	Log Hom T	<> Pressure	(T+dT)/dT
***Start Shutin 2	0	135.0	0.000	135.0	0.0
	5	338.0	1.247	203.0	17.7
	9	585.0	0.970	247.0	9.3
	14	710.0	0.817	125.0	6.6
	18	800.0	0.713	90.0	5.2
	23	851.0	0.637	51.0	4.3
	27	893.0	0.577	42.0	3.8
	32	937.0	0.529	44.0	3.4
	36	965.0	0.489	28.0	3.1
	41	988.0	0.455	23.0	2.9
	45	1014.0	0.426	26.0	2.7
	50	1038.0	0.401	24.0	2.5
	54	1058.0	0.378	20.0	2.4
	59	1075.0	0.358	17.0	2.3
	63	1089.0	0.341	14.0	2.2
	68	1104.0	0.325	15.0	2.1
	72	1117.0	0.310	13.0	2.0
	77	1130.0	0.297	13.0	2.0
	81	1139.0	0.285	9.0	1.9
	86	1150.0	0.274	11.0	1.9
	90	1158.0	0.263	8.0	1.8

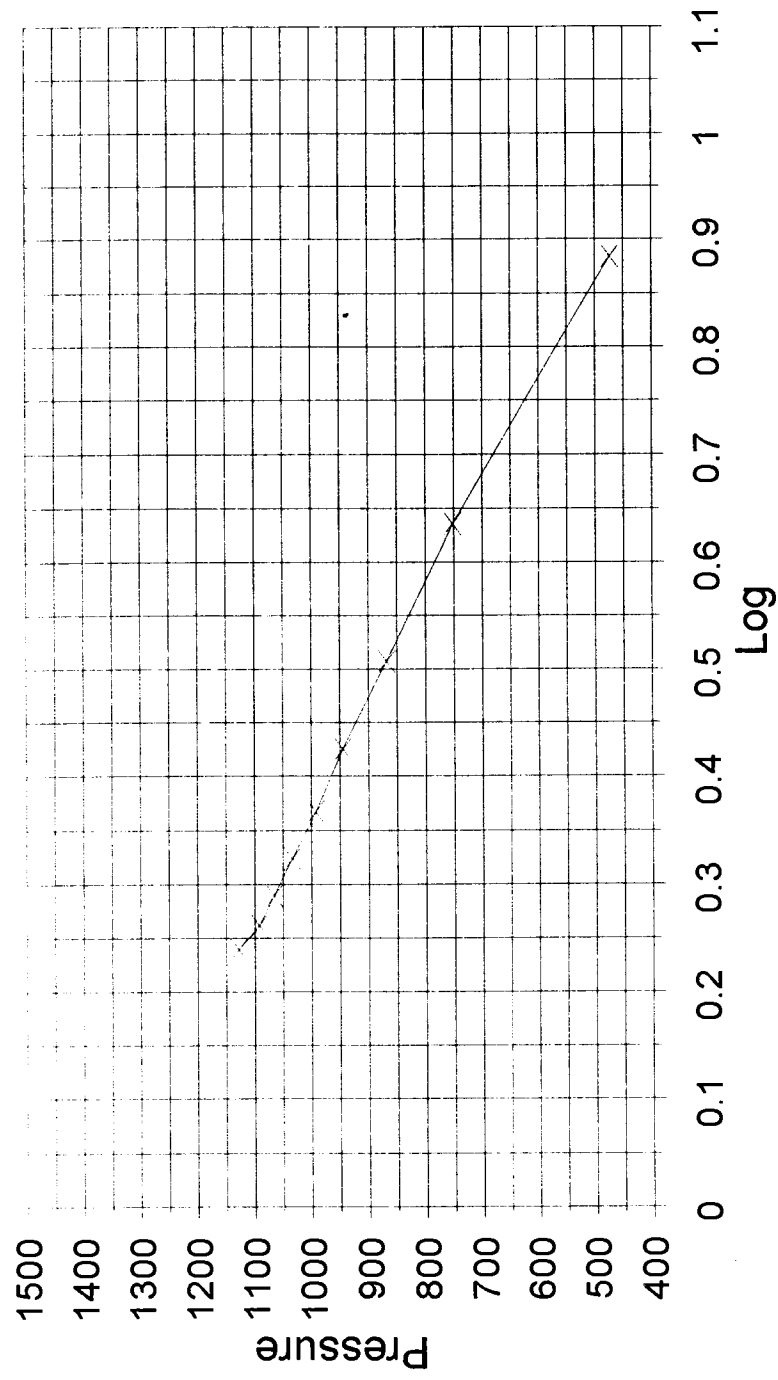
CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

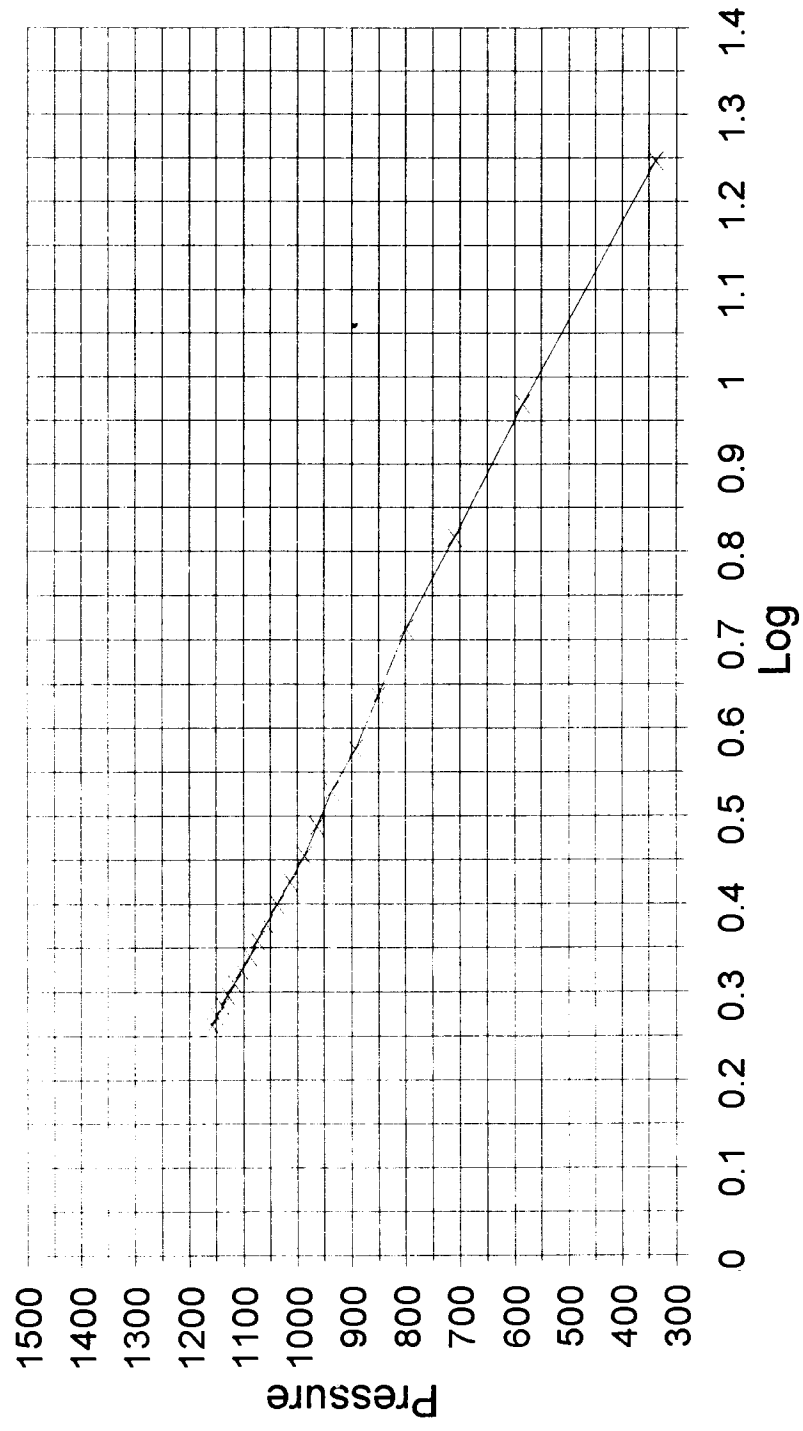
Horner Plot: Shut-in #1

P* 1371.52 Slope 1015.729



Horner Plot: Shut-in #2

$P^* 1367.44$ Slope 795.610



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 10368

Well Name & No. <u>Cook 2-1</u>	Test No. <u>2</u>	Date <u>9-22-97</u>
Company <u>Stinson E. Co</u>	Zone Tested <u>miss</u>	
Address <u>200 W. Harney Ste. 1412 OKla OK City 73102</u>	Elevation <u>2375</u>	KB <u>2370</u> GL
Co. Rep / Geo. <u>Richard Lobba</u>	Cont. <u>Mallard</u>	Est. Ft. of Pay <u>10</u> Por. <u>12</u> %
Location: Sec. <u>30</u>	Twp. <u>23</u>	Rge. <u>22</u> Co. <u>Hodgeman</u> State <u>Ks</u>
No. of Copies <u>None</u>	Distribution Sheet (Y, N) _____	Turnkey (Y, N) <u>N</u> Evaluation (Y, N) _____

Interval Tested <u>4610'</u>	<u>4623'</u>	Initial Str Wt./Lbs. <u>55,000</u>	Unseated Str Wt./Lbs. <u>60,000</u>
Anchor Length _____	<u>13'</u>	Wt. Set Lbs. <u>26,000</u>	Wt. Pulled Loose/Lbs. <u>67,000</u>
Top Packer Depth _____	<u>4605'</u>	Tool Weight <u>4,000</u>	
Bottom Packer Depth _____	<u>4610'</u>	Hole Size — <u>7 7/8"</u> ✓	Rubber Size — <u>6 3/4"</u> ✓
Total Depth _____	<u>4623'</u>	Wt. Pipe Run _____	Drill Collar Run <u>248</u>
Mud Wt. <u>9.3</u> LCM _____	Vis. <u>52</u> WL <u>8.6</u>	Drill Pipe Size <u>4 1/2 x 4</u>	Ft. Run <u>4346'</u>

Blow Description Surface blow built to 6 1/4" in.

I.S.I. Bleed off blow for 2 min. Weak return in 5 min died in 12 min

F.F.I. Surface blow built to 5 1/4" in.

F.S.I. Bleed off for 2 min Weak Surface return in 6 min died in 10 min.

Recovery — Total Feet <u>293'</u>	GIP <u>120'</u>	Ft. in DC <u>248'</u>	Ft. in DP <u>45'</u>
Rec. <u>195'</u>	Feet Of <u>Clear Gassy O.I.</u>	10 %gas 90 %oil	%water %mud
Rec. <u>60'</u>	Feet Of <u>Slip Mud Cut gassy O.I.</u>	15 %gas 65 %oil	%water 20 %mud
Rec. <u>38'</u>	Feet Of <u>Mud Cut gassy O.I.</u>	15 %gas 45 %oil	%water 40 %mud
Rec. _____	Feet Of _____	%gas %oil	%water %mud
Rec. _____	Feet Of _____	%gas %oil	%water %mud
BHT <u>119</u>	°F Gravity <u>38</u>	°API D@ <u>65</u>	°F Corrected Gravity <u>37.5</u> °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud <u>2309</u>	PSI Recorder No. <u>2342</u>	T-Started <u>13:20 P.m.</u>
(B) First Initial Flow Pressure <u>56</u>	PSI (depth) <u>464'</u>	T-Open <u>14:45 P.m.</u>
(C) First Final Flow Pressure <u>78</u>	PSI Recorder No. <u>11057</u>	T-Pulled <u>18:15 P.m.</u>
(D) Initial Shut-in Pressure <u>1141</u>	PSI (depth) <u>4618'</u>	T-Out <u>20:35 P.m.</u>
(E) Second Initial Flow Pressure <u>123</u>	PSI Recorder No. _____	
(F) Second Final Flow Pressure <u>145</u>	PSI (depth) _____	
(G) Final Shut-in Pressure <u>1174</u>	PSI Initial Opening <u>30</u>	Test <u>X</u>
(H) Final Hydrostatic Mud <u>2287</u>	PSI Initial Shut-in <u>45</u>	Jars _____

AK-1

ALP:we

Final Flow 45 Safety Joint _____

Final Shut-in 90 Straddle _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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.

Approved By Richard A. Lobba

Our Representative Shane M. B...

Circ. Sub X N/C

Sampler _____

Extra Packer _____

Elect. Rec. X

Other _____

TOTAL PRICE \$ _____

TRILOBITE TESTING L.L.C.

OPERATOR : Slawson Exploration CO
WELL NAME: Cook Z-1
LOCATION : 30-23S-22W
INTERVAL : 4622.00 To 4638.00 ft

DATE 9-23-97
KB 2375.00 ft TICKET NO: 10369 DST #3
GR 2370.00 ft FORMATION: Mississippi
TD 4638.00 ft TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	11057	11057	2342			PF Fr. 0600 to 0630 hr
SI 20	Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0	IS Fr. 0630 to 0650 hr
SF 20	Clock(hrs)	18 hr	18 hr	Elec			SF Fr. 0650 to 0710 hr
FS 20	Depth(ft)	4630.0	4630.0	4623.0	0.0	0.0	FS Fr. 0710 to 0730 hr

	Field	1	2	3	4	
A. Init Hydro	2309.0	2273.0	2314.0	0.0	0.0	T STARTED 0350 hr
B. First Flow	44.0	56.0	15.0	0.0	0.0	T ON BOTM 0557 hr
31. Final Flow	56.0	67.0	39.0	0.0	0.0	T OPEN 0600 hr
C. In Shut-in	1051.0	1026.0	1076.0	0.0	0.0	T PULLED 0730 hr
D. Init Flow	56.0	94.0	49.0	0.0	0.0	T OUT 0920 hr
E. Final Flow	67.0	104.0	61.0	0.0	0.0	
F. Fl Shut-in	705.0	608.0	702.0	0.0	0.0	TOOL DATA-----
3. Final Hydro	2287.0	2273.0	2233.0	0.0	0.0	Tool Wt. 4000.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 26000.00 lbs
						Wt Pulled Loose 65000.00 lbs
						Initial Str Wt 55000.00 lbs
						Unseated Str Wt 55000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.50 in
						D.C. Length 248.00 ft
						D.P. Length 4385.00 ft

RECOVERY

Bot Fluid 125.00 ft of 125.00 ft in DC and 0.00 ft in DP
10.00 ft of Gassy Oil
0.00 ft of 5%gas 95%oil
85.00 ft of Oil Cut Mud
0.00 ft of 15%oil 85%mud
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:
Surface blow built to 3/4"

Initial Shutin:
No return

Final Flow:
Weak 1/4" blow

Final Shutin:
No return

SAMPLES:
SENT TO:

MUD DATA-----
Mud Type Chemical
Weight 9.20 lb/cf
Vis. 62.00 S/L
W.L. 10.40 in3
F.C. 0.00 in
Mud Drop Y 10.0 ft

Amt. of fill 0.00 ft
Btm. H. Temp. 117.00 F
Hole Condition good
% Porosity 0.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00
Cushion Type
Reversed Out N
Tool Chased N
Tester Shane McBride
Co. Rep. Richard Robba
Contr. Mallard
Rig #
Unit #
Pump T.

Test Successful: Y

*** TOOL DIAGRAM *** CONV

WELL NAME: Cook Z-1

LOCATION : 30-23S-22W

TICKET No. 10369 D.S.T. No. 3 DATE 9-23-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 21

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 16

TOTAL TOOL 37

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 37

C. ABOVE TOOLS.Stands4 Single Total 248

P. ABOVE TOOLS.Stands70 Single 1 Total 4385

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4670

TOTAL DEPTH 4638

TOTAL DRILL PIPE ABOVE K.B. 32

REMARKS:

P.O. SUB	4601
C.O. SUB 1'	4602
S.I. TOOL 5'	4607
HMV 5'	4612
JARS	
SAFETY JOINT	
PACKER top	4617
PACKER bottom	4622
DEPTH 4622	
STUBB 1'	4623
ANCHOR Alpine Rec. @ 4623	
7' perf	4630
Ak-1 Rec. @ 4630	
3'perf	4633
Ak-1 Rec. @ 4635	
T.C.	
DEPTH	
BULLNOSE 5' bullplug	4638
T.D.	4638

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10369 DST #3 Cook Z-1 Slawson Ex. Co.

DATE: 09/23/97

TIME: 15:46:54

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	129.00	2313.5	0.0	109.98		
***** Start Flow 1	0.00	15.4	0.0	110.00		
	1.00	18.0	2.5	109.98		
	2.00	20.1	4.6	109.94		
	3.00	21.8	6.4	109.89		
	4.00	23.2	7.8	109.84		
	5.00	24.7	9.2	109.81		
	6.00	26.0	10.6	109.78		
	7.00	27.5	12.1	109.78		
	8.00	28.9	13.4	109.82		
	9.00	29.6	14.2	110.03		
	10.00	30.9	15.4	110.36		
	11.00	31.3	15.9	110.69		
	12.00	30.5	15.1	110.98		
	13.00	31.5	16.1	111.23		
	14.00	32.5	17.0	111.43		
	15.00	33.3	17.9	111.61		
	16.00	34.3	18.9	111.77		
	17.00	36.1	20.6	111.91		
	18.00	36.6	21.1	112.05		
	19.00	37.4	22.0	112.19		
	20.00	37.8	22.4	112.33		
	21.00	38.3	22.9	112.48		
	22.00	39.0	23.6	112.63		
	23.00	39.9	24.4	112.78		
	24.00	40.7	25.3	112.91		
	25.00	34.7	19.3	113.02		
	26.00	35.9	20.5	113.12		
	27.00	36.5	21.1	113.22		
	28.00	37.3	21.8	113.30		
	29.00	38.1	22.7	113.38		
***** End Flow 1	30.00	38.7	23.2	113.45		
***** Start Shutin 1	0.00	38.7	0.0	113.45	0.0000	0.001
	1.00	44.5	5.8	113.52	31.0000	0.002
	2.00	51.4	12.7	113.58	16.0000	0.003
	3.00	59.2	20.5	113.64	11.0000	0.003
	4.00	68.4	29.7	113.69	8.5000	0.005
	5.00	79.6	41.0	113.74	7.0000	0.006
	6.00	92.9	54.2	113.78	6.0000	0.009
	7.00	109.3	70.7	113.81	5.2857	0.012
	8.00	130.4	91.7	113.85	4.7500	0.017
	9.00	158.4	119.8	113.88	4.3333	0.025
	10.00	195.6	156.9	113.91	4.0000	0.038
	11.00	248.7	210.0	113.95	3.7273	0.062
	12.00	326.0	287.3	113.99	3.5000	0.106
	13.00	435.2	396.6	114.03	3.3077	0.189
	14.00	576.9	538.2	114.08	3.1429	0.333
	15.00	723.0	684.3	114.13	3.0000	0.523
	16.00	845.1	806.4	114.18	2.8750	0.714
	17.00	934.4	895.7	114.23	2.7647	0.873
	18.00	997.1	958.5	114.29	2.6667	0.994

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10369 DST #3 Cook Z-1 Slawson Ex. Co.

DATE: 09/23/97

TIME: 15:46:54

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Shut-in 1	19.00	1042.6	1003.9	114.34	2.5789	1.087
	20.00	1076.0	1037.3	114.39	2.5000	1.158
***** Start Flow 2	0.00	48.8	0.0	114.36		
	1.00	50.2	1.4	114.36		
	2.00	50.9	2.1	114.34		
	3.00	51.4	2.7	114.31		
	4.00	52.6	3.9	114.28		
	5.00	53.3	4.5	114.27		
	6.00	53.6	4.9	114.26		
	7.00	54.0	5.3	114.27		
	8.00	54.5	5.7	114.28		
	9.00	54.7	6.0	114.30		
	10.00	55.1	6.4	114.32		
	11.00	55.6	6.9	114.35		
	12.00	56.1	7.3	114.37		
	13.00	56.7	8.0	114.40		
	14.00	57.3	8.6	114.44		
	15.00	58.1	9.3	114.48		
	16.00	58.7	9.9	114.51		
	17.00	59.3	10.6	114.54		
	18.00	59.8	11.1	114.58		
***** End Flow 2	19.00	60.5	11.7	114.62		
***** Start Shutin 2	0.00	60.5	0.0	114.62	0.0000	0.004
	1.00	62.2	1.7	114.65	50.0000	0.004
	2.00	68.2	7.7	114.68	25.5000	0.005
	3.00	74.7	14.2	114.72	17.3333	0.006
	4.00	82.1	21.6	114.77	13.2500	0.007
	5.00	90.0	29.5	114.80	10.8000	0.008
	6.00	99.2	38.7	114.84	9.1667	0.01
	7.00	109.6	49.1	114.88	8.0000	0.012
	8.00	121.6	61.1	114.92	7.1250	0.015
	9.00	135.5	74.9	114.96	6.4444	0.018
	10.00	151.8	91.3	115.00	5.9000	0.023
	11.00	171.4	110.9	115.04	5.4545	0.029
	12.00	194.7	134.2	115.08	5.0833	0.038
	13.00	223.2	162.7	115.12	4.7692	0.050
	14.00	258.8	198.3	115.17	4.5000	0.067
	15.00	303.6	243.1	115.21	4.2667	0.092
	16.00	359.9	299.4	115.26	4.0625	0.130
	17.00	430.2	369.7	115.31	3.8824	0.185
	18.00	514.4	453.9	115.36	3.7222	0.265
	19.00	607.7	547.2	115.42	3.5789	0.369
***** End Shut-in 2	20.00	702.2	641.7	115.47	3.4500	0.493
***** Final Hydro.	223.00	2232.8	0.0	115.72		

TEST HISTORY

10369 DST #3 Cook Z-1 Slawson Ex. Co.

Flag Points

t (Min.) P (PSig)

A: 0.00 2313.55
 B: 0.00 15.43
 C: 30.00 38.68
 D: 20.00 1076.03
 E: 0.00 48.75
 F: 19.00 60.50
 G: 20.00 702.22
 Q: 0.00 2232.81

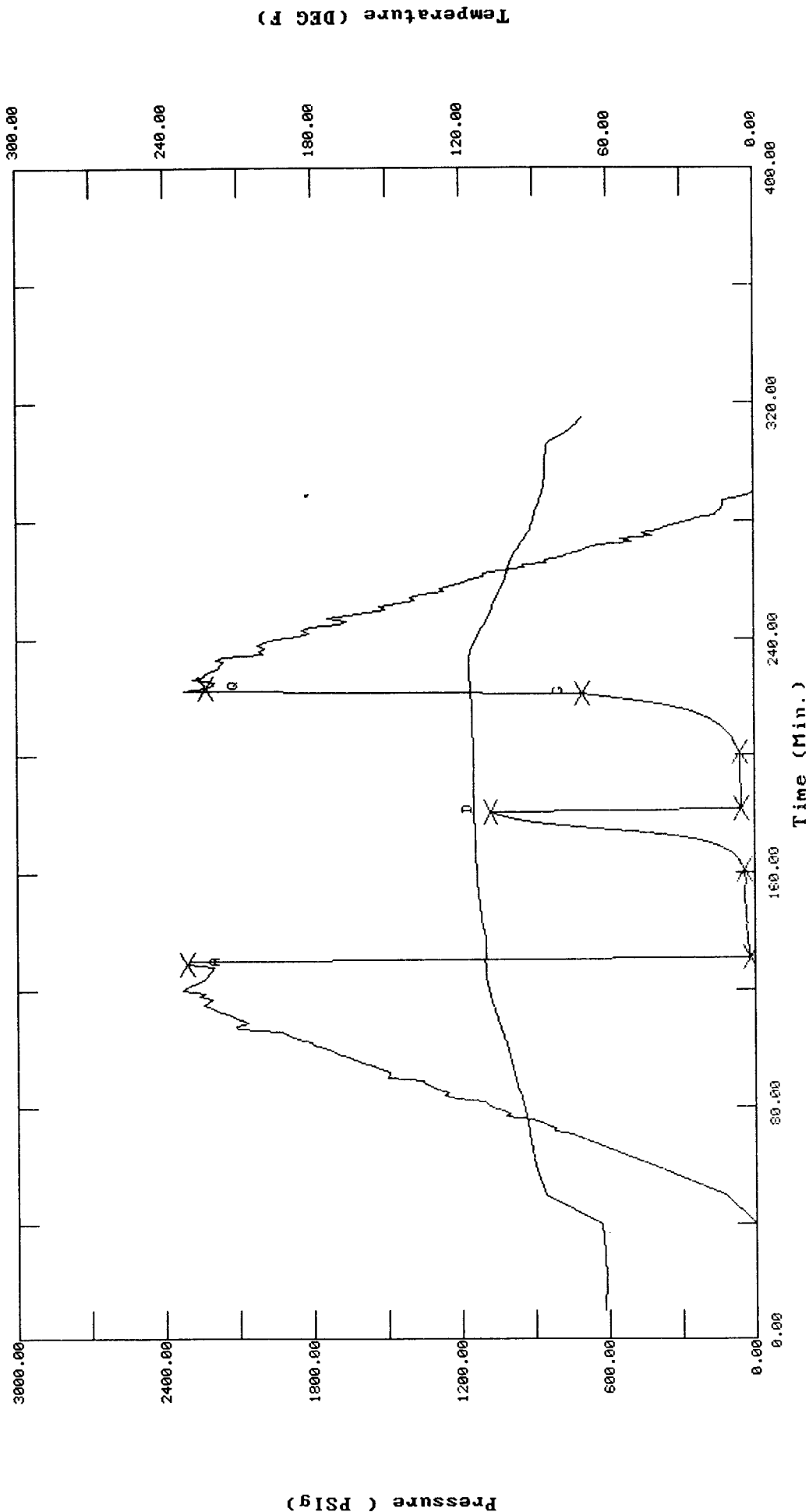
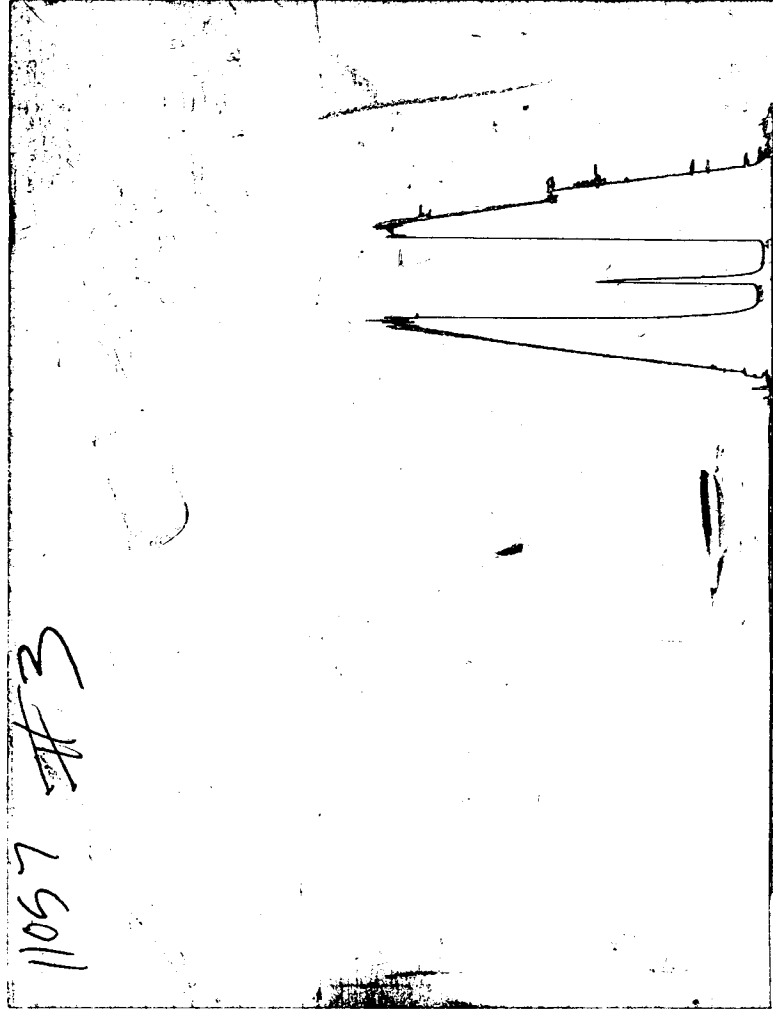


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 10369

Well Name & No. <u>Cook 2-1</u>	Test No. <u>3</u>	Date <u>9-23-97</u>
Company <u>Stawson Ex Co.</u>	Zone Tested <u>MISS</u>	
Address <u>200 W. Harvey St 1412 OKla, OK City 73102</u>	Elevation <u>2375</u>	KB <u>2370</u> GL
Co. Rep / Geo. <u>Richard Lobba</u>	Cont. <u>Mallard</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>30</u> Twp. <u>23</u> Rge. <u>22</u>	Co. <u>Hodgeman</u>	State <u>KS</u>
No. of Copies <u>NA</u>	Distribution Sheet (Y, N) <u>N</u>	Turnkey (Y, N) <u>N</u> Evaluation (Y, N) _____

Interval Tested <u>4622'</u>	<u>4638'</u>	Initial Str Wt./Lbs. <u>55,100</u>	Unseated Str Wt./Lbs. <u>55,000</u>
Anchor Length _____	<u>16'</u>	Wt. Set Lbs. <u>26,100</u>	Wt. Pulled Loose/Lbs. <u>68,000</u>
Top Packer Depth _____	<u>4617'</u>	Tool Weight <u>4,000</u>	
Bottom Packer Depth _____	<u>4622'</u>	Hole Size — 7 7/8" ☒	Rubber Size — 6 3/4" ☒
Total Depth _____	<u>4638'</u>	Wt. Pipe Run _____	Drill Collar Run <u>248'</u>
Mud Wt. <u>9.2</u> LCM _____ Vis. <u>62</u> WL <u>10.4</u>		Drill Pipe Size <u>4 1/2 X H</u>	Ft. Run <u>4385'</u>
Blow Description <u>Surface blows built to 3/4" in.</u>			

ISI: No return
FIF: Weak 14" in blow
ST: No return

Recovery — Total Feet <u>125'</u>	GIP _____	Ft. in DC <u>125'</u>	Ft. in DP _____
Rec. <u>40'</u>	Feet Of <u>clean stlty grassy soil</u>	5 %gas <u>75</u> %oil _____ %water _____ %mud _____	
Rec. <u>85'</u>	Feet Of <u>stlty & cut mud</u>	%gas <u>15</u> %oil _____ %water <u>85</u> %mud _____	
Rec. _____	Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	
Rec. _____	Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	
Rec. _____	Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	
BHT <u>117°</u>	°F Gravity <u>37</u>	°API D@ <u>60</u>	°F Corrected Gravity <u>37</u> °API _____
RW _____ @ _____	°F Chlorides _____	ppm Recovery Chlorides <u>4,000</u>	ppm System _____
(A) Initial Hydrostatic Mud <u>2309</u>	<u>2313</u> PSI	Recorder No. <u>2342</u>	T-Started <u>03:50 AM.</u>
(B) First Initial Flow Pressure <u>44</u>	<u>15</u> PSI	(depth) <u>4623'</u>	T-Open <u>06:00 AM.</u>
(C) First Final Flow Pressure <u>56</u>	<u>38</u> PSI	Recorder No. <u>11057</u>	T-Pulled <u>07:30 AM.</u>
(D) Initial Shut-in Pressure <u>1051</u>	<u>1076</u> PSI	(depth) <u>4630'</u>	T-Out <u>09:20 AM.</u>
(E) Second Initial Flow Pressure <u>56</u>	<u>48</u> PSI	Recorder No. <u>11058</u>	
(F) Second Final Flow Pressure <u>67</u>	<u>60</u> PSI	(depth) <u>4635'</u>	
(G) Final Shut-in Pressure <u>705</u>	<u>702</u> PSI	Initial Opening <u>30</u>	Test <u>X</u>
(H) Final Hydrostatic Mud <u>2287</u>	<u>2232</u> PSI	Initial Shut-in <u>20</u>	Jars _____

AK-1 Aline

Final Flow 20 Safety Joint _____
Final Shut-in 20 Straddle _____

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Approved By Richard P. Lobba
Our Representative Steve McBride

Circ. Sub X N/C
Sampler _____
Extra Packer _____
Elect. Rec. X
Other _____
TOTAL PRICE \$ _____