

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

ORIGINAL

Operator: License # 5184
Name: Shields Oil Producers, Inc.
Address Shields Bldg.
City/State/Zip Russell, KS 67665
Purchaser: None
Operator Contact Person: Burton Beery
Phone (785) 483-3141
Contractor: Name: Company Tools
License: 5184
Wellsite Geologist: Francis Whisler

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
_____ Deepening _____ Re-perf. _____ Conv. to Inj/SWD
_____ Plug Back _____ PBSD
_____ Commingled _____ Docket No. _____
_____ Dual Completion _____ Docket No. _____
_____ Other (SWD or Inj?) Docket No. _____
9-22-97 9-27-97 None
Spud Date Date Reached TD Completion Date

API NO. 15- 141-20,340-00-00
County Osborne
-SW -SW -NW Sec. 5 Twp. 10 Rge. 12 E
2970 Feet from N (circle one) Line of Section
4950 Feet from W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name Kendig "D" Well # 1
Field Name Wildcat
Producing Formation None
Elevation: Ground 1782 KB 1787
Total Depth 3100 PBSD None
Amount of Surface Pipe Set and Cemented at 217 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sx cat.

Drilling Fluid Management Plan D+A, 4-2-98 U.C.
(Data must be collected from the Reserve Pit)
Chloride content 41,000 ppm Fluid volume 375 bbls
Dewatering method used Evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name _____
Lease Name _____ License No. _____
_____ Quarter Sec. _____ Twp. _____ S. Rng. _____ E/W
County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Burton Beery
Title Superintendent Date 11-4-97
Subscribed and sworn to before me this 4th day of November, 1997.
Notary Public Leslie Phillips
Date Commission Expires _____



K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other (Specify)

Operator Name Shields Oil Producers, Inc. Lease Name Kendig "D" Well # 1

Sec. 5 Twp. 10 Rge. 12 East West County Osborne

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input checked="" type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	905	+ 882
Electric Log Run (Submit Copy.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Howard Lime	2720	- 933
List All E.Logs Run:		Topeka Lime	2758	- 971
		Heebner Shale	2989	-1202
		Toronto Lime	3013	-1226
		Lansing-Kansas City	3045	-1258
		Total Depth	3100	-1313

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4	8 5/8	23	217	60/40 Poz Mix	150	2% Gel 3% C.C.

ADDITIONAL CEMENTING/SQUEEZE RECORD					
Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)		Depth

TUBING RECORD Size Set At Packer At Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. D+A Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil N-A Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity

Disposition of Gas: Vented Sold Use on Lease (If vented, submit A) METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) _____ Production Interval _____

Shields

ORIGINAL

15-141-20340-00-00

OIL PRODUCERS, INC.

R. L. SHIELDS, President



Russell, Kansas

15-5-97

FORM ACO-1 DRILL STEM TESTS

SHIELDS OIL PRODUCERS, INC. LEASE Kendig "D" #1
 D.S.T. #1 3048-3083 Times: 30-60
 I.H.P. 1554 I.F.P. 36 I.S.I.P. _____
 F.F.P. 36 F.S.I.P. 1192 F.H.P. 1540
 Recovery: 10' Drlg. Mud

D.S.T. #2 3085-3100 Times: 30-60
 I.H.P. 1503 I.F.P. 16 I.S.I.P. _____
 F.F.P. 16 F.S.I.P. 1151 F.H.P. 1490
 Recovery: 10' Watery Mud

D.S.T. #3 _____ Times: _____
 I.H.P. _____ I.F.P. _____ I.S.I.P. _____
 F.F.P. _____ F.S.I.P. _____ F.H.P. _____
 Recovery:

D.S.T. #4 _____ Times: _____
 I.H.P. _____ I.F.P. _____ I.S.I.P. _____
 F.F.P. _____ F.S.I.P. _____ F.H.P. _____
 Recovery:

D.S.T. #5 _____ Times: _____
 I.H.P. _____ I.F.P. _____ I.S.I.P. _____
 F.F.P. _____ F.S.I.P. _____ F.H.P. _____
 Recovery:

D.S.T. #6 _____ Times: _____
 I.H.P. _____ I.F.P. _____ I.S.I.P. _____
 F.F.P. _____ F.S.I.P. _____ F.H.P. _____
 Recovery:

ALLIED CEMENTING CO., INC.

9435

REMIT TO: P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT: *R*

DATE <u>9-28-97</u>	SEC. <u>5</u>	TWP. <u>10S</u>	RANGE <u>12W</u>	CALLED OUT	ON LOCATION	JOB START <u>2:30 AM</u>	JOB FINISH <u>3:30 AM</u>
LEASE <u>Rendig</u>	WELL # <u>D-1</u>	LOCATION <u>Luvay 6 1/2 N E 15</u>			COUNTY <u>Osborne</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Shields Drly

TYPE OF JOB plug

HOLE SIZE 7 7/8 T.D. 3100

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

EQUIPMENT 153 Dave

PUMP TRUCK # _____ CEMENTER Paul HELPER _____

BULK TRUCK # _____ DRIVER _____

BULK TRUCK # 213 DRIVER Darin

OWNER _____

CEMENT AMOUNT ORDERED 200 69 100 6 1/2 gel

1/4 16 flow seal per sk

COMMON	<u>120</u>	@	<u>6.35</u>	<u>762.00</u>
POZMIX	<u>80</u>	@	<u>3.25</u>	<u>260.00</u>
GEL	<u>10</u>	@	<u>9.50</u>	<u>95.00</u>
CHLORIDE		@		
<u>Flow seal</u>	<u>50#</u>	@	<u>1.15</u>	<u>57.50</u>
		@		
		@		
		@		
		@		
HANDLING		@	<u>1.05</u>	<u>210.00</u>
MILEAGE	<u>44/56</u>	@		<u>232.00</u>
TOTAL				<u>1616.50</u>

REMARKS:

25 sk @ 920 ✓

100 sk @ 630

40 @ 270

10 @ 40 w/c plug

10 @ mouse hole

15 Rat hole

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____ 470.00

EXTRA FOOTAGE @ _____

MILEAGE 29 @ 2.85 82.65

PLUG & Dry Hole @ _____ 23.00

TOTAL 575.65

CHARGE TO: Shields Oil producers

STREET Shields Drly

CITY Russell STATE Ks ZIP 67665

FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
TOTAL _____		

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Eldo S. Mesac

PRINTED NAME _____

ALLIED CEMENTING CO., INC. 5071

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

ORIGINAL

SERVICE POINT: Russell

DATE <u>9-22-77</u>	SEC. <u>S</u>	TWP. <u>10</u>	RANGE <u>12</u>	CALLED OUT <u>9:30 PM</u>	ON LOCATION <u>10:30 PM</u>	JOB START	JOB FINISH <u>12:30 AM</u>
LEASE <u>Kendig</u>	WELL # <u>D-1</u>	LOCATION <u>G 1/2 N LURAY</u>	COUNTY <u>Osborne</u>	STATE <u>Ks</u>			

OLD OR NEW (Circle one) NEW

CONTRACTOR Shields Prlg

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4 T.D. 220

CASING SIZE 8 1/2 DEPTH 217

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

OWNER _____

CEMENT

AMOUNT ORDERED 150 60/40 3% CC 2% Gel

COMMON	<u>90</u>	@	<u>6.35</u>	<u>571.50</u>
POZMIX	<u>60</u>	@	<u>3.25</u>	<u>195.00</u>
GEL	<u>3</u>	@	<u>9.50</u>	<u>28.50</u>
CHLORIDE	<u>5</u>	@	<u>28.00</u>	<u>140.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER Bill

177 HELPER DAve

BULK TRUCK DRIVER

DRIVER

BULK TRUCK DRIVER Jason

DRIVER

HANDLING	@	<u>105</u>	<u>157.50</u>
MILEAGE <u>29m</u>		<u>04</u>	<u>174.00</u>

TOTAL 1266.50

REMARKS:

Cem. of 150 sks 60/40 3-2

pumping of 123 bbls

Cement did cure ✓

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			<u>470.00</u>
EXTRA FOOTAGE	@		
MILEAGE <u>29m</u>	@	<u>285</u>	<u>82.65</u>
PLUG <u>wood-8 1/2</u>	@		<u>48.00</u>

TOTAL 597.65

CHARGE TO: Shields Oil Prod., Inc.

STREET Shields Bldg.

CITY Russell STATE Ks ZIP 67665

FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		

TOTAL _____

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Burton Beery

COMPANY Shields Oil Prod FARM Kendig O WELL NO. 1
 SEC. TWP. RGE. LOC. COUNTY Oshorne STATE Ks.
 CONTRACTOR Shields Drilling SIZE HOLE 7 7/8 DRILL PIPE 4 1/2
 REMARKS: SIZE PUMP LINERS 6" LENGTH STROKE 14 1/2

ORIGINAL 15-141-20340-00-00

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
21	4:16		
	19	3	
	23	4	
	26	3	
	28	2	
05	31	3	CONN.
	4:32		
	53	1	
	55	2	
	56	1	
10	58	2	
	5:21	3	
	03	2	
	05	2	
	06	1	
15	08	2	
	09	1	
	10	1	
	11	1	
	12	1	
20	14	2	
	2:26		
	30	4	
	33	3	
	37	4	
25	40	3	
	42	2	
	45	3	
	48	3	
	51	3	
30	53	2	
	56	3	
	6:04		
	06	2	
	08	2	
35	11	3	
	14	3	CONN.
	1:21		
	24	3	
	27	3	
40	30	3	
	33	3	
	37	4	
	40	3	
	44	4	
45	48	4	
	52	4	
	56	4	
	7:01	4	
	2	2	
50	4	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
21	7:04		
	5	1	
	7	2	
	8	1	
	10	2	
55	12	2	
	13	1	
	14	1	
	16	2	✓
	20	4	
60	22	2	
	24	2	
	26	2	
	30	4	
	33	3	
65	37	4	
	41	4	
	46	5	CONN.
	5:58		
	58	2	
	5:58	2	
70	2	2	
	5	3	
	9	4	
	12	3	
	15	3	
75	17	2	
	19	2	
	21	2	
	23	2	
	25	2	
80	27	2	
	30	3	
	32	2	
	34	2	
	37	3	
85	39	2	
	42	3	
	46	4	
	49	3	
	53	4	
90	57	3	
	59	3	
	9:02	3	
	4	2	
	6	2	
95	7	2	
	10	2	
	11	1	
	13	2	CONN.
9	29/21	2	
2800	23	2	

8110-1-10-18
 11/13/18
 11/13/18

COMPANY Shields Oil Prod FARM Ken Lig D WELL NO. 1
 SEC. TWP. RGE. LOC. COUNTY Osborne STATE Ks
 CONTRACTOR Shields Drlg SIZE HOLE 7 7/8 DRILL PIPE 4 1/2
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 14

@ 2733 48
87
-12

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2900	2:11		
	14	3	
	17	3	
	21	4	
	24	3	
5	28	4	
	31	3	
	35	4	
	39	4	
	42	3	
2910	46	4	
	50	4	
	54	4	
	56	2	
	58	2	
15	3:01	3	
	05	4	
	09	4	
	13	4	conn. Ser Rig
	26	50	
2920	34	4	
	38	4	
	42	4	
	47	5	
	52	5	
26	55	3	
	58	3	
	6:01	3	
	04	3	
	07	3	
2930	10	3	
	14	4	
	18	4	
	22	4	
	27	5	
36	32	5	
	36	4	
	41	5	
	44	3	
	47	3	
2940	49	2	
	52	3	
	55	3	
	57	2	
	5:01	4	
48	05	4	
	08	3	
	11	3	
	14	3	
	17	3	conn.
2950	2:24	3	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2950	5:14		
	28	4	
	30	2	
	33	3	
	34	1	
58	35	1	
	37	2	
	40	3	
	42	2	
	44	2	
2960	47	3	
	49	2	
	51	2	
	53	2	
	55	2	
65	57	2	
	59	2	
	6:00	1	
	02	2	
	04	2	
2970	06	2	
	09	3	
	12	3	
	15	3	
	19	4	
75	23	4	
	26	3	
	28	2	
	31	3	
	35	4	
2980	38	3	Conn.
	42	2	
	44	2	
	46	2	
	49	3	
	53	4	Vis 46 wt 8.9
85	56	3	w 18.4
	59	3	
	7:02	3	
	06	4	
	10	4	
2990	13	3	
	15	2	
	17	2	
	21	4	
	26	5	
98	33	7	
	37	4	
	41	4	
	44	3	
	47	3	
3000	51	4	

2989
1787
-1202

Francis Be out tonight

COMPANY Shields Oil Prod. FARM Hendig D WELL NO. 1
 SEC. TWP. .RGE. LOC. COUNTY Osborne STATE KS
 CONTRACTOR Shields Drilling Co. SIZE HOLE 7 7/8 DRILL PIPE 4 1/2
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 14

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
3000	7:57		
01	55	4	
	59	4	
	8:03	4	
	06	3	
05	11	5	
	14	3	
	17	3	
	20	3	
	22	2	
3010	26	4	
	29	3	
	33	3	Conn.
	37 40	3	
	44	4	
15	47	3	
	52	5	
	58	6	
	4:03	5	
	7	4	
3020	11	4	
	16	5	
	22	6	
	28	6	
	32	4	
25	35	3	
	38	3	
	41	3	
	43	2	
	48	5	
3030	53	5	
	56	3	
	58	2	
	10:00	2	
	02	2	
35	04	2	
	06	2	
	08	2	
	10	2	
	12	2	
3040	14	2	
	16	2	
	18	2	
	20	2	Conn.
	24 26	2	
45	28	2	
	33	5	
	37	4	
	41	4	
	45	4	
3050	50	5	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
3050	50 55	5	
	59	4	
	11:03	4	
	08	5	
55	13	5	CFS
	22 27	4	Vis 45 WT 8.9
	32	5	
	34	2	
	36	2	
3060	38	2	
	42	4	
	49	4	
	53	4	
	57	4	
65	1:03	6	
	10	9	
	15	5	
	20	5	
	24	4	
3070	29	5	
	34	5	
	38	4	
	42	4	
	46	4	CON
75	50 58	2	
	2:02 02	2	
	05	3	
	09	4	
	14	5	
3080	17	5	Wake Cool
	20	3	
	25	5	
	30	5	CFS DST #1
12	48 50	4	35' Anchor
85	59	6	
	03	5	
	08	5	
	12	4	
	18	6	
3090	23	5	
	28	5	
	29	1	
	29 1/2	1 1/2	
	30	1 1/2	
95	32	2	
	35	3	
	38 1/2	3 1/2	
	44	5 1/2	
	49	5	
3100	54	5	CFS DST #2
			15' Anchor

had
50
9
7.2

15-141-20340-00-00

FRANCIS C. WHISLER
CERTIFIED PETROLEUM GEOLOGIST
837 EAST 1ST
RUSSELL, KANSAS 67665

ORIGINAL



SHIELDS OIL PRODUCERS, INC.
RUSSELL, KANSAS

GEOLOGICAL REPORT

Kendig D-1

SW SW NW Sec. 5

Twp. 10 South, Rge. 12 West

Osborne County, Kansas

15-141-20340-00-00

Sept. 28, 1997

SHIELDS OIL PRODUCERS, INC.

P O Box 709
Russell, Kansas

Geological Report: Kendig D-1
SW SW NW Sec. 5, 10S, 12W
Osborne County, Kansas

Contractor: Shields Drilling Co., Inc.

Drilling Commenced: Sept. 22, 1997

Drilling Completed: Sept. 27, 1997

Casing Record: 8 5/8" surface casing set at 217' with 150 sx.

Samples: Saved and examined from 2700' to 3100', RTD.
Zones of interest are described in this report.

Drilling Time: Recorded and plotted from 2700' to 3100', RTD.
A copy of the plotted drilling time/lithology log is included with this report.

Drillstem Tests: 2 by Swift Formation Testers

Electric Logs: None

Well Status: Plugged and abandoned

Elevations: Kelly Bushing: 1787'
Ground Level: 1782'
Measurements From: K. B.

Formations:	Rotary Depths:	Datums:
Anhydrite	905-37	+ 882
Howard Lime	2720	- 933
Topeka Lime	2758	- 971
Heebner Shale	2989	-1202
Toronto Lime	3013	-1226
Lansing-Kansas City	3045	-1258
C zone porosity	3091	-1304
Total Depth	3100	-1313

Lithology, Zones of Interest & Test Data:

Lansing-Kansas City:

3045-3055: LS-white, buff, dense with very rare stain, poor saturation.
 A zone Only a trace of pin hole porosity and no free oil or odor.
 Tested by drillstem test #1.

3074-3081: LS-white, buff, dense to fossiliferous with fair porosity and
 B zone barren porosity. Some pin hole porosity. Very rare light
 oil stain with no free oil or odor. Some white, brown
 vitreous chert. Tested by drillstem test #1.

DRILLSTEM TEST No. 1: 3048 to 3083: 30-60 with weak intermittant blow
 throughout test

Recovery: 10' of mud

FP: 36-36

BHP: 1192

3091-3100: LS-white, fine oolitic with abundant barren porosity. Rare
 C zone light oil stain and poor saturation. No free oil but question-
 able faint odor. Some dense lime and some white brown vitreous
 and oolitic chert. Porosity break from 3091-97. Tested by
 drillstem test #2.

DRILLSTEM TEST No. 2: 3085 to 3100: 30-60 with very weak blow 10 min. Flushed
 tool-no blow.

Recovery: 10' of watery mud

FP: 16-16

BHP: 1151

Remarks & Recommendations:

The Kendig D-1 ran 4 feet lower than the "show hole" (Steinle-Yarnell #1)
 on top of the LKC and 2 feet lower on the "C" zone porosity. Poor shows of oil
 were encountered and two drillstem tests were taken. Test results were negative.
 It was decided that the Kendig D-1 should be plugged and abandoned as a dry hole.

Respectfully submitted;

Francis C. Whisler

Francis C. Whisler

60
2758(-971)

80

2800

20

40

60

80

2900

20

40

60

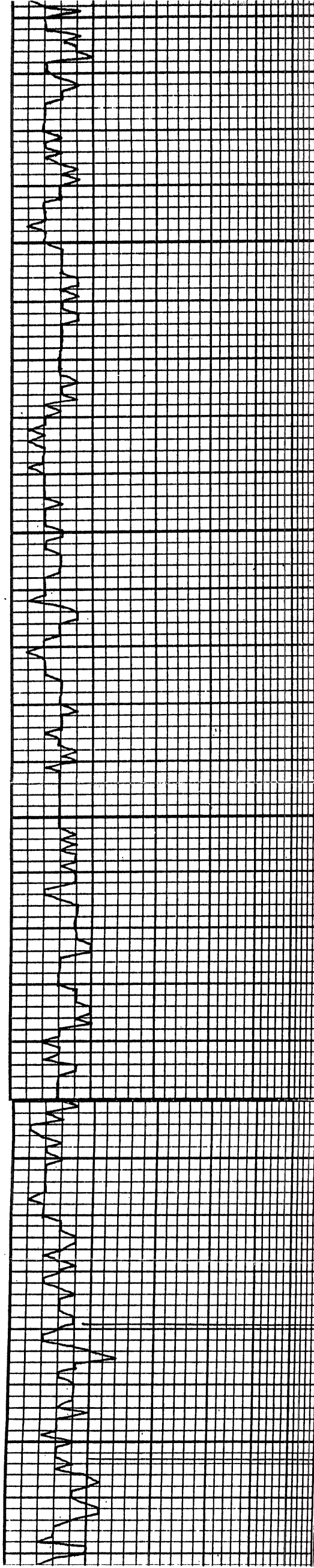
80

HEEBNER
2989(-1202)

3000

TORONTO
3013(-1226)

20



LS - wht lt Gry dns
to chky 15-141-20340-00-00

AA
? Gry chky

LS - AA w/ some blk carb sh

LS - AA w/ Gry carb sh

LS - more Gry dns

LS - AA

LS - more wht lt Gry dns
to chky w/ blk fiss sh

LS - AA w/ blk cht

AA w/ Gry blk cht
& blk sh

AA w/ more blk cht

more wht chky LS
& wht Gry dns LS

LS - AA w/ lt Gry chky
LS

LS - wht dns to chky

LS - AA w/ blk fiss sh

LS - more Gry dns to
chky & mottled

AA w/ foss ϕ
& blk carb sh

AA

LS - dns to chky &
mottled

LS - AA

LS - wht buff lt Gry
dns to foss ϕ

dns to fair ϕ para
fiss

more lt Gry dns
w/ Gry cht

LS - AA w/ cht - AA

sh - blk carb
w/ Gry dns LS

sh - blk Gry
w/ LS - AA

LS - wht dns w/ some wht cht

AA w/ Gry carb sh

VIS. 46
WT. 8.9
WL 8.4

HEEBNER
2989(-1202)

3000

TORONTO
3013(-1226)

20

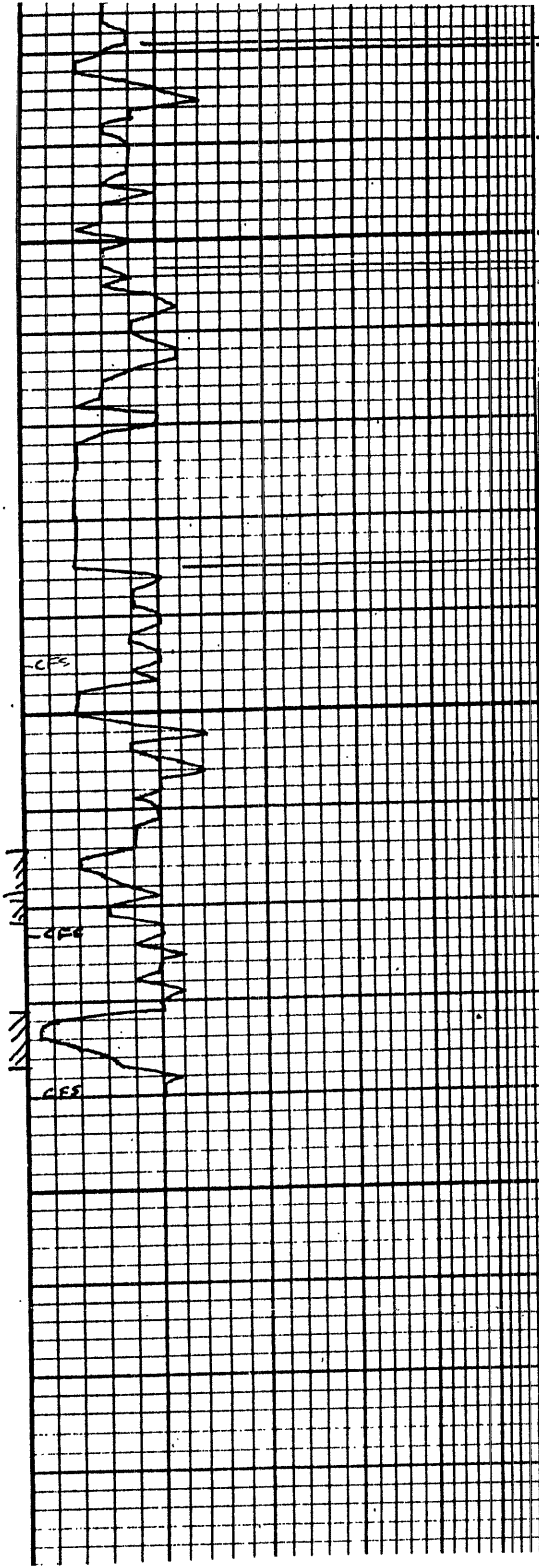
40
LANSING
3045(-1258)

60

80

3100

TD 3100
(-1313)



15-141-20340-00-00

Sh - Blk Carb
w/Grv dms Ls

Sh - Blk Grv
w/Ls - AA

Ls - wht dms w/some wnt ckt

AA w/Grv & brn sh

Sh - Grv & brn w/
Wht dms Ls - AA

Ls - wht buff dms w/vy Rare
stn - poor sat. NFO or Odor
only trace of p.h.φ

Vis. 45
Wt. 8.9

Sh - Grv blk & brn

Ls - lt Grv buff dms
w/ shs - AA

Ls - wht buff dms to foss φ w/
vy R. lt stn. poor sat. NFO or
odor. Some ultr ckt. Some p.h.
por

Vis. 50
Wt. 9
Wt. 7.2

Ls - Grv buff x lndms w/
sh - Grv brn Fgn

Ls - wht f oalc w/ Abnt barren
φ: R lt stn - poor sat.
?? Ft. odor some dms Ls
& some wht-brn ultr ckt

DST #1: 3048-83 (A & B)

30-60 wk Blow
Rec. 10' MUD
FP: 36-36
BHP: 1192

DST #2: 3085-3100 (C 3rd)

30-60 wk Blow 10 min.
Flush tool

Rec. 10' WM
FP: 16-16
BHP: 1151