

Form 3160-5  
(February 2005)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPPLICATE – Other instructions on page 2.**

## 1. Type of Well

 Oil Well     Gas Well     Other SWD ✓2. Name of Operator  
Fasken Oil and Ranch, Ltd.3a. Address  
303 West Wall St., Suite 1800, Midland, TX 797013b. Phone No. (include area code)  
432-687-17774. Location of Well (Footage, Sec., T, R, M., or Survey Description)  
1980' FNL & 1980' FEL, Sec 31, T19S, R34E ✓5. Lease Serial No  
NM-14496

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Ling Federal No. 1 ✓9. API Well No.  
30-025-28064 ✓10. Field and Pool or Exploratory Area SWD,  
Delaware Mountain Group ✓11. Country or Parish, State  
Lea, New Mexico ✓

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION					
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off		
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity		
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Tracer-Survey		
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon			
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal			

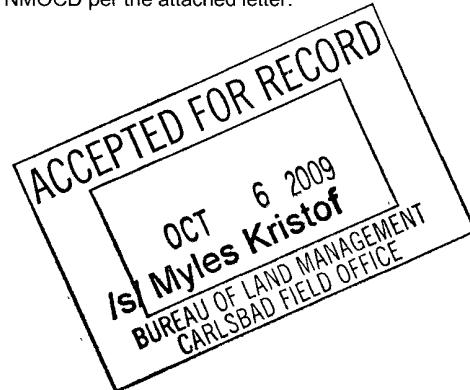
13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Fasken Oil and Ranch, Ltd. submitted a Tracer Survey for the Ling Federal No. 1 to the NMOCD per the attached letter.

Please see attached letter and tracer survey.

This is for your information only.

**RECEIVED**  
OCT 09 2009  
**HOBBSOCD**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Kim Tyson

Title Regulatory Analyst

Signature *Kim Tyson*

Date 09/30/2009

Approved by

**PETROLEUM ENGINEER**

Date

OCT 09 2009

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Title

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

*Sunburst graphic*

# New Mexico Energy, Minerals and Natural Resources Department

FILE  
cc: JWD/cb/cl  
DEL

Bill Richardson  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

**RECEIVED**

OCT 01 2008

FASKEN OIL AND  
RANCH, LTD.

Mark Fesmire  
Division Director  
Oil Conservation Division



**Administrative Order SWD-1142**  
September 29, 2008

APPLICATION OF FASKEN OIL & RANCH, LTD. FOR PRODUCED WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO

**ADMINISTRATIVE ORDER**  
**OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Fasken Oil & Ranch, Ltd. (OGRID 151416) made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Ling Federal Well No. 1 (API No. 30-025-28064) located 1980 feet from the North line and 1980 feet from the East line of Section 31, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations. Satisfactory information has been provided that affected parties as defined in Rule 701B(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met and the operator will be in compliance with the Division's Rule 40 after production wells surrounding this subject injection well are re-activated.

**IT IS THEREFORE ORDERED THAT:**

Fasken Oil & Ranch, Ltd. is hereby authorized to utilize its Ling Federal Well No. 1 (API No. 30-025-28064) located 1980 feet from the North line and 1980 feet from the East line of Section 31, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group through perforations from 5679 feet to 8303 feet and through plastic-lined tubing set with a packer located within 100 feet of the top of the injection interval.

**IT IS FURTHER ORDERED THAT:**

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Oil Conservation Division \* 1220 South St. Francis Drive

\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>



The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Within 6 months of beginning injection, the operator shall supply the Division with a copy of an injection [temperature and tracer survey] log run while injecting at this well's average injection rate, identifying the injection intervals within the perforated interval.

After installing injection tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 1136 psi**. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

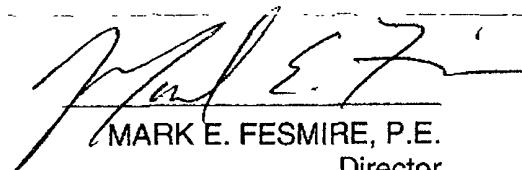
The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of injection to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1115 of the Division Rules and Regulations.

Without limitation on the duties of the operator as provided in Division Rules 19 and 116, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

In accordance with Rule No 705.C, the injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause shown. One year after injection operations into the well has ceased, the injection authority will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

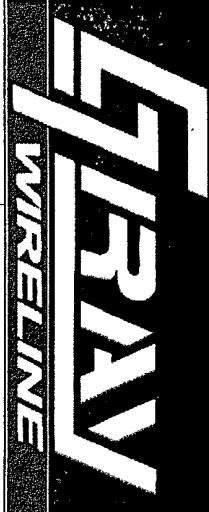
Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.



MARK E. FESMIRE, P.E.  
Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs  
Bureau of Land Management - Carlsbad



## INJECTION PROFILE

Company	FASKEN OIL & RANCH LTD.					
Well	LING FEDERAL #1					
Field	-----					
County	LEA	State				
Company	NEW MEXICO					
Well	-----					
Field	-----					
County	LEA	State				
State	NEW MEXICO					
Date	09/24/09					
Run Number	ONE					
Depth Driller	13,691' ( PBTD 8300' )					
Depth Logger	8279'					
Bottom Logged Interval	8579'					
Top Log Interval	5400'					
Open Hole Size	N/A					
Type Fluid	WATER					
Density / Viscosity	N/A					
Max. Recorded Temp:	100 DEG.					
Estimated Cement Top	N/A					
Time Well Ready	9 AM					
Time Logger on Bottom	10 AM					
Equipment Number	81					
Location	LEVELAND					
Recorded By	BOLES					
Witnessed By						
Borehole Record						
Run Number	Bit	From	To	Size	Weight	Tubing Record
				2.375"	0	Top
						Bottom
Casing Record	Size	Weight				
Surface String						
Prot. String						
Production String	5.5"	17# & 20#	0			
Liner						

&lt;&lt;&lt; Fold Here &gt;&gt;&gt;

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule

Comments

THIS LOG WAS CORROBORATED TO ENERTECH 03/11/09

## PERFORATIONS

PERFS: SEE COMMENTS

INJECTION WELL

## INJECTION WELL

SHUT-IN DATE 09/23/09      HOUR 3 P.M.      TOTAL S.I. TIME 1 HR  
 METERED INJ. RATE 1605 B/D      PRESSURE 1400 PSI      TEMP  
 TOTAL VOLUME TO DATE      FLUID LEVEL TUBING INJECTING

S.I. PRESS 0 PSI  
 FLUID TYPE WATER

## PRODUCER:

FLOWING	PUMPING	CHOKE SETTING	HOURS PROD.
FLUID LEVEL CSG.	TBG.	RATE	B/W
FLUID TYPE			

## FRAC OR ACID WELLS:

TIME FINISHED FRAC OR ACID	ACID %	FLUID - GALS	SAND #
RATE - BPM	PRESSURE		

## CONCLUSIONS

THIS SURVEY WAS RAN TO DETERMINE THE ZONES OF INJECTION.  
 THERE WAS NO INDICATION OF A CHANNEL FROM THE CASING SHOE.

PERFS: 5682-5702, 5782-90, 6020-40, 6078-6102, 6188-6196, 6210-34, 6370-94, 6490-6502, 6626-40, 6744-52, 6874-90,  
 7464-78, 7750-68, 7950-60, 7986-8006, 8010-20

THE TEMPERATURE AND TRACER INDICATE A POSSIBLE LOSS THROUGH AN UNPERFORATED INTERVAL FROM  
 BETWEEN 6240-6254'.

100% CASING RATE- 1605 B/D

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	6.67		TREJCT-20CC138 (TR_20_1) CCL-Probe (080749) 1 3/8" Probe Logging CCL	3.06	1 3/8	10.00
DET	5.00		TRDET-PROBE1 (080769T) 1 3/8" Probe Top Gamma	1.89	1 3/8	5.00
				3.46	1 3/8	15.00

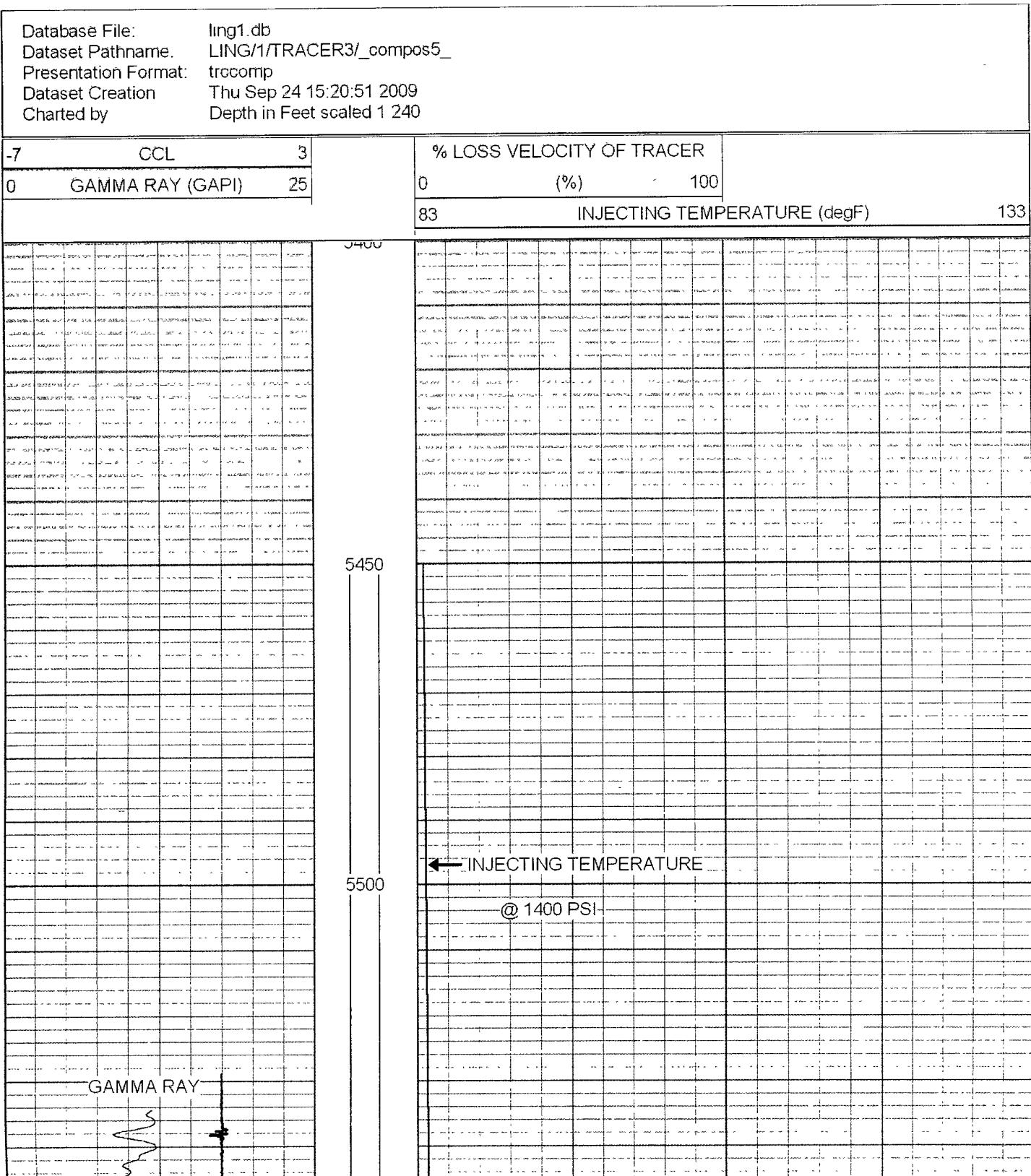
DET#2	0.00		TRDET #2 - Probe2 (080769B) 1 3/8" Probe Bottom Gamma	3.46	1.38	15.00
			XYC-PROBE (PROBE01) 1 3/8" Probe Caliper	3.43	1.38	20.00
XCAL	-3.93					
YCAL	-3.93					
TEMP	-5.18		TEMP-Probe (080510) Probe 1 3/8" Temp	1.00	1.38	4.00
Dataset: ling1.db: LING/1/TRACER3/pass17						
Total Length: 16.29 ft						
Total Weight: 69.00 lb						
O D: 1 3/8 in						

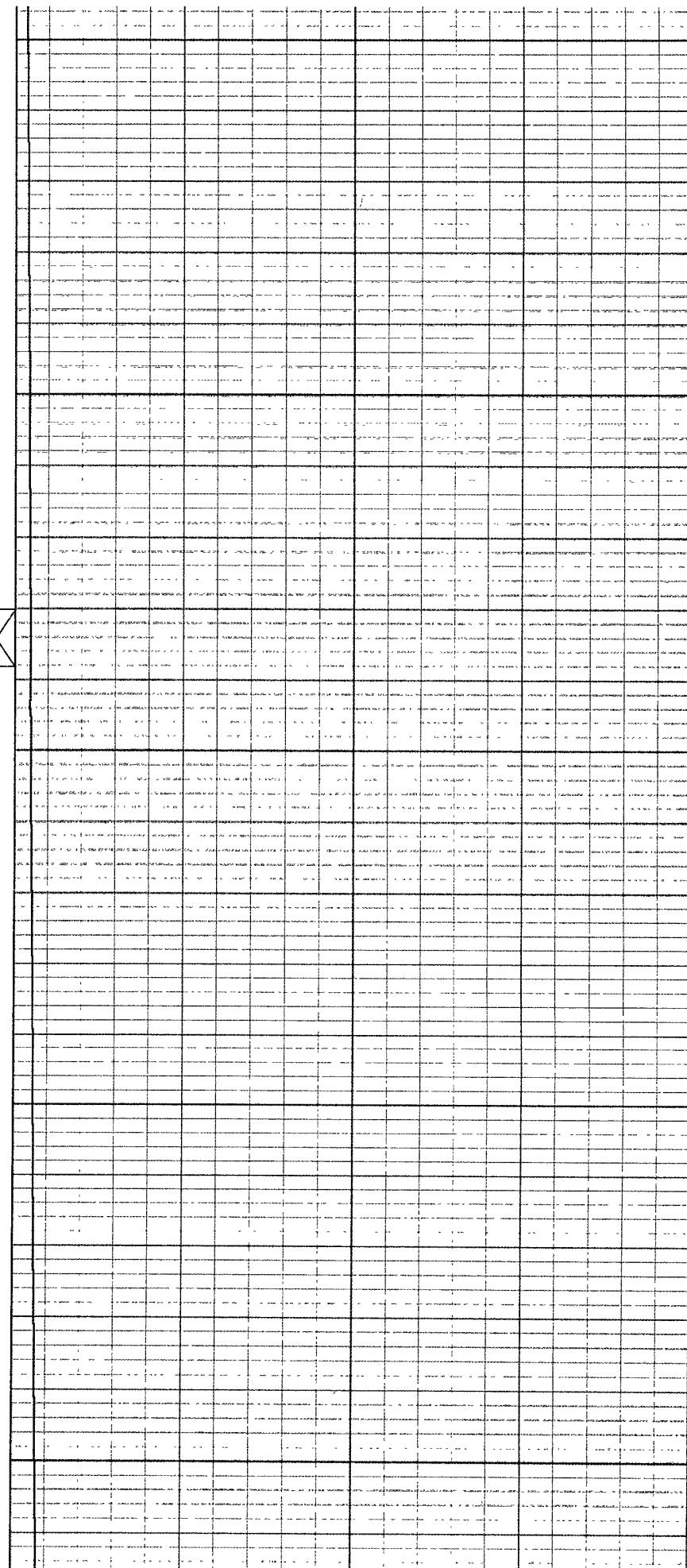
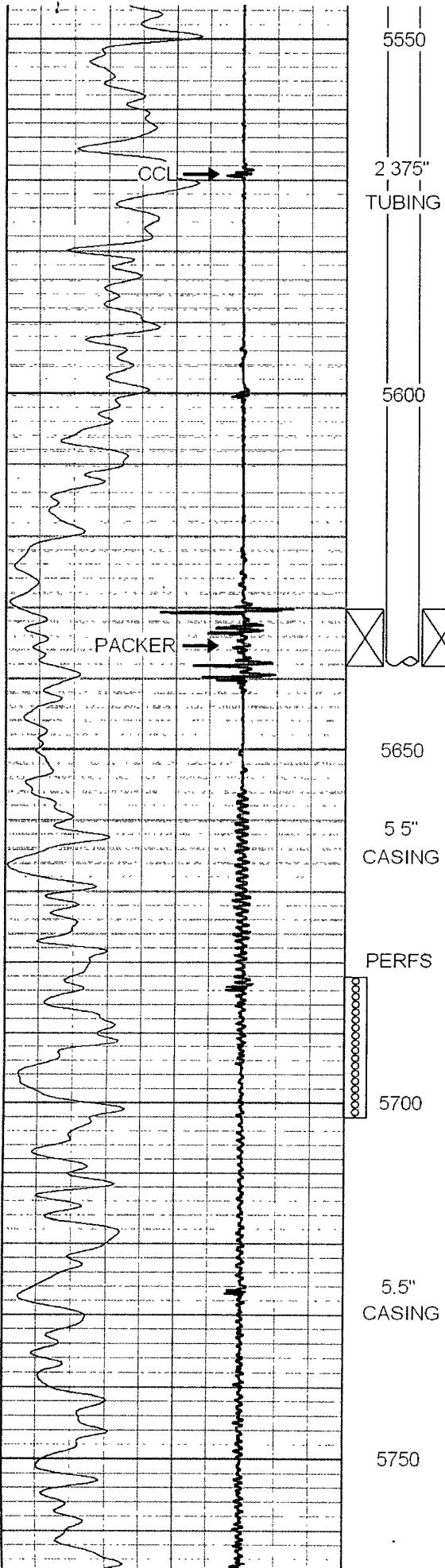
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Well:  
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Dataset: LING/1/TRACER3/\_tracer/\_shottabl\_1

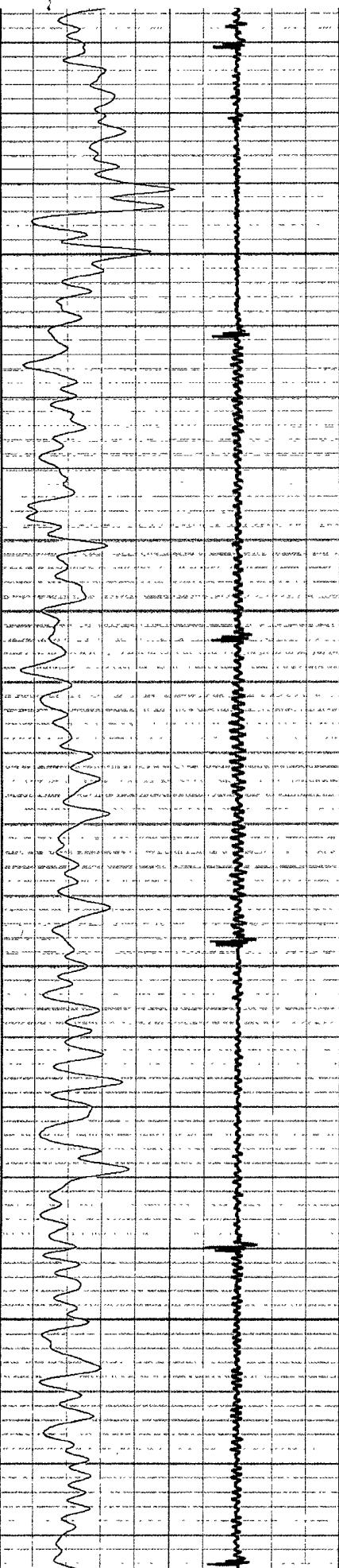
### TRACER RESULTS

#	Depth (ft)	Time	Integration	Flow (%)	Delta (%)	Comment
1	5670.00	14:23:16	1605.00	100.00		
2	5699.00	14:23:20	1605.00	100.00	0.00	
3	5735.00	14:23:28	1605.00	100.00	0.00	
4	5769.00	14:23:38	1605.00	100.00	0.00	
5	5798.00	14:23:44	484.00	30.16	69.84	
6	5823.00	14:23:48	484.00	30.16	0.00	
7	5843.00	14:23:54	484.00	30.16	0.00	
8	5882.00	14:23:58	484.00	30.16	0.00	
9	5912.00	14:24:03	484.00	30.16	0.00	
10	5938.00	14:24:09	484.00	30.16	0.00	
11	5970.00	14:24:16	484.00	30.16	0.00	
12	6000.00	14:24:27	484.00	30.16	0.00	
13	6028.00	14:24:33	484.00	30.16	0.00	
14	6074.00	14:24:41	484.00	30.16	0.00	
15	6108.00	14:24:49	484.00	30.16	0.00	
16	6144.00	14:24:55	484.00	30.16	0.00	
17	6170.00	14:24:59	484.00	30.16	0.00	
18	6206.00	14:25:06	484.00	30.16	0.00	

19	6240.00	14:25:15	245.00	15.26	14.89	
20	6254.00	14:25:24	100.00	6.23	9.03	
21	6274.00	14:25:36	100.00	6.23	0.00	
22	7875.00	14:25:44	100.00	6.23	0.00	
23	7914.00	14:25:53	100.00	6.23	0.00	
24	7942.00	14:25:58	100.00	6.23	0.00	
25	7974.00	14:26:03	100.00	6.23	0.00	
26	8003.00	14:26:08	68.00	4.24	1.99	
27	8020.00	14:26:13	0.00	0.00	4.24	







PERFS

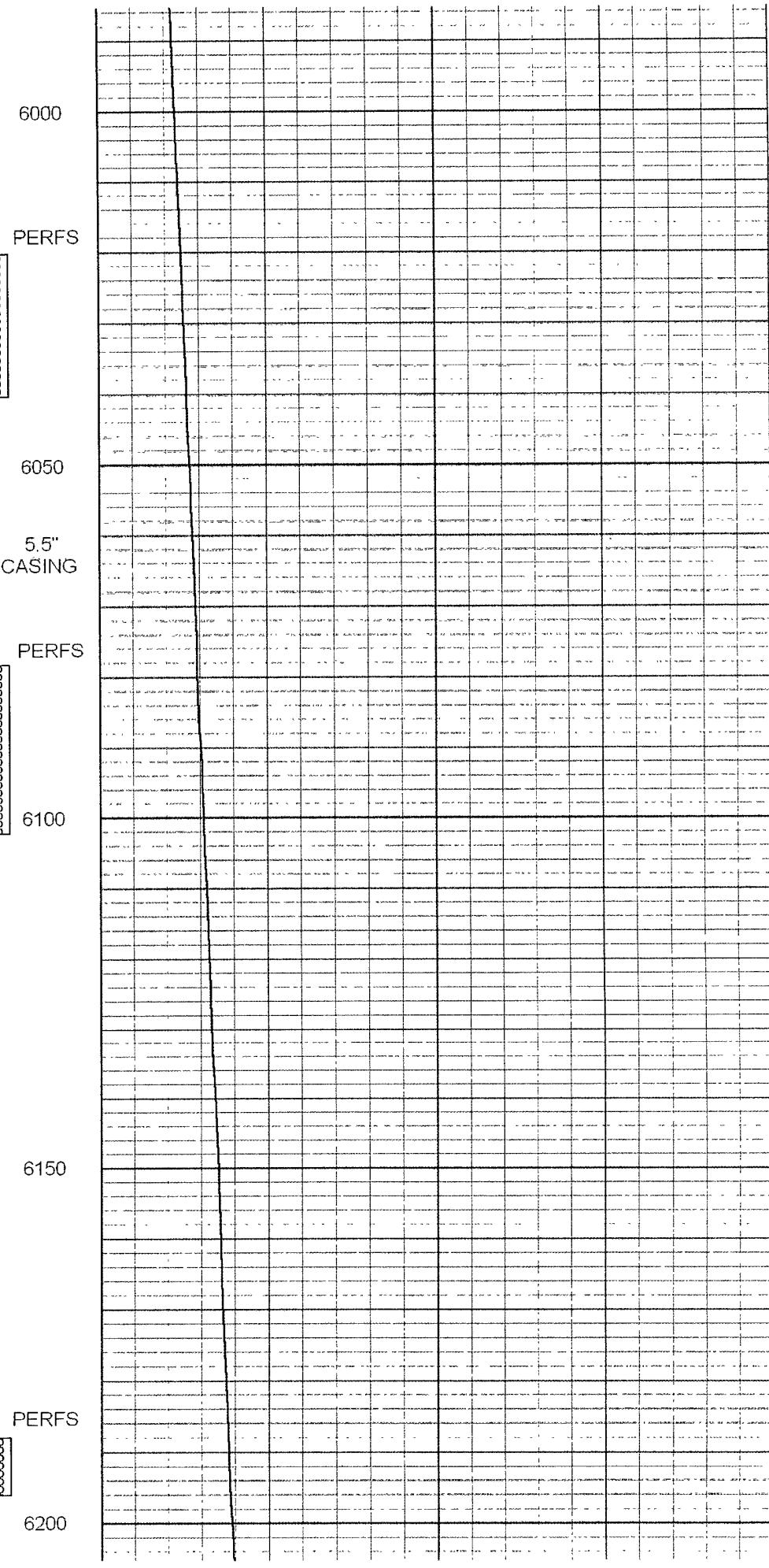
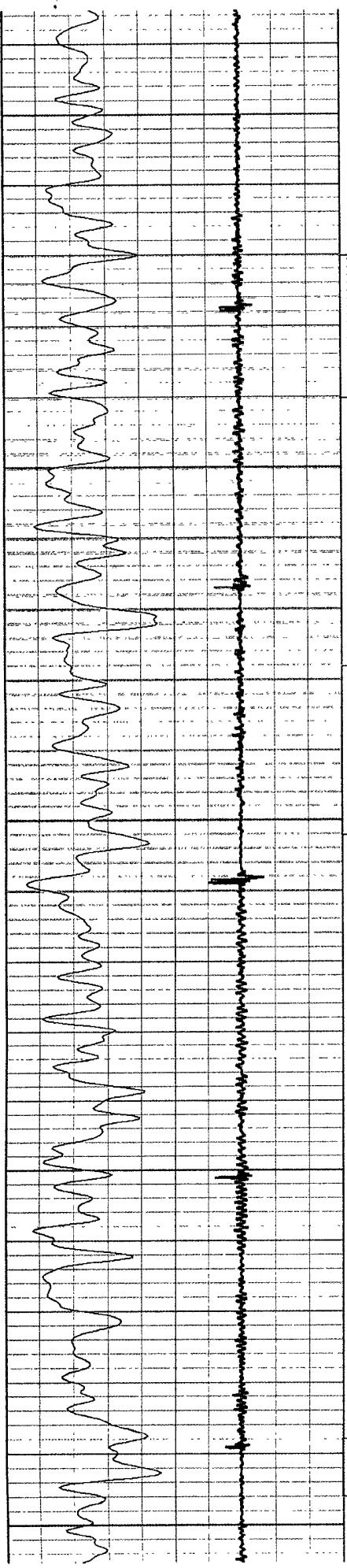
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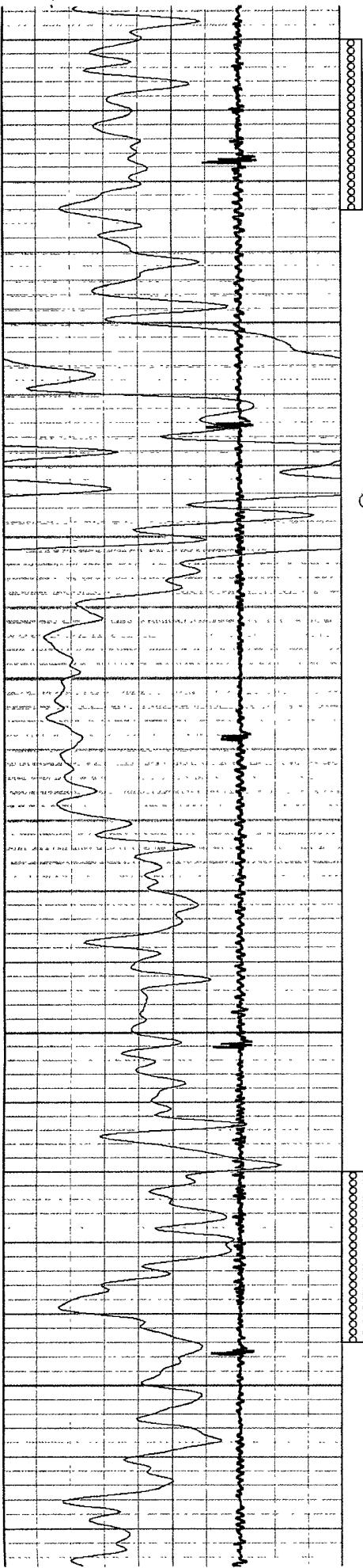
5850

5900

5950

70%





6250

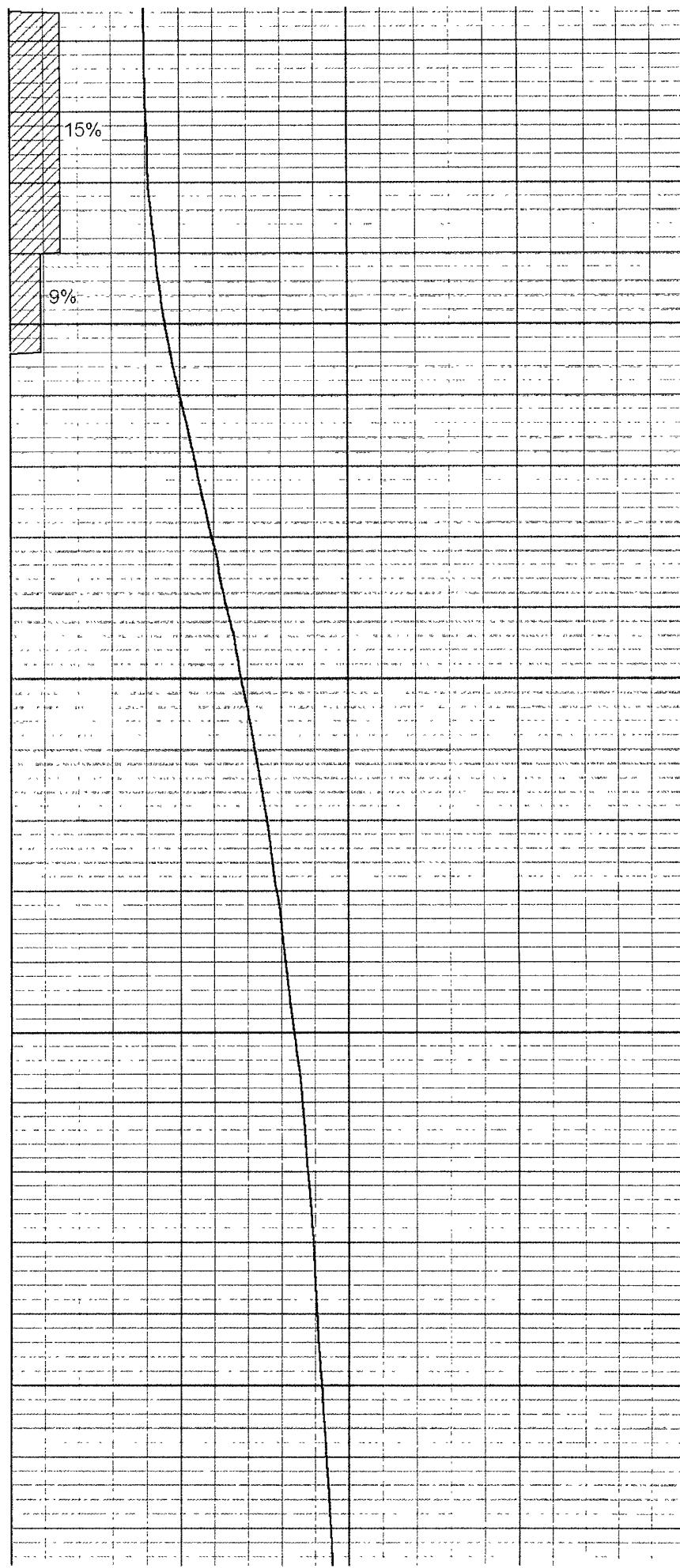
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CASING

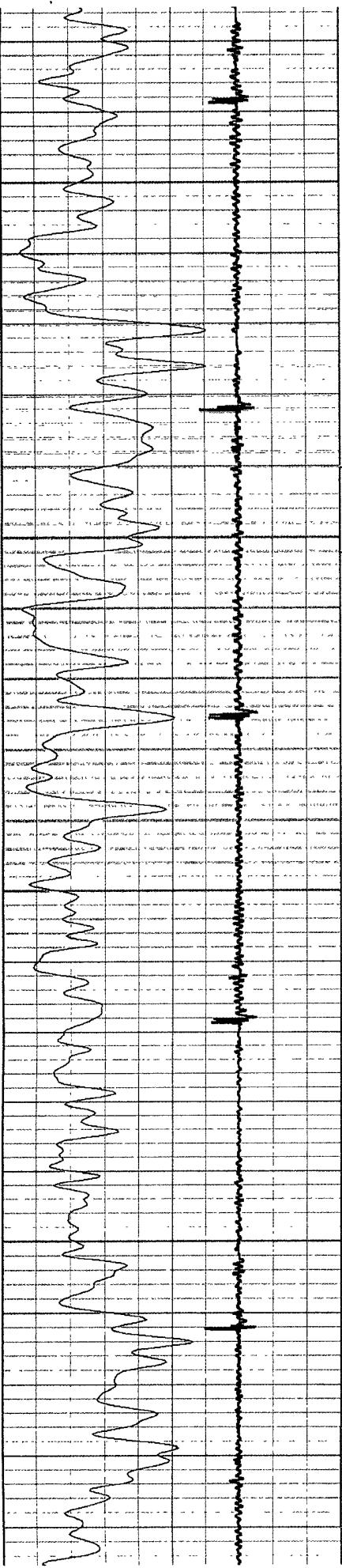
6300

6350

PERFS

6400





6450

5.5"  
CASING

PERFS

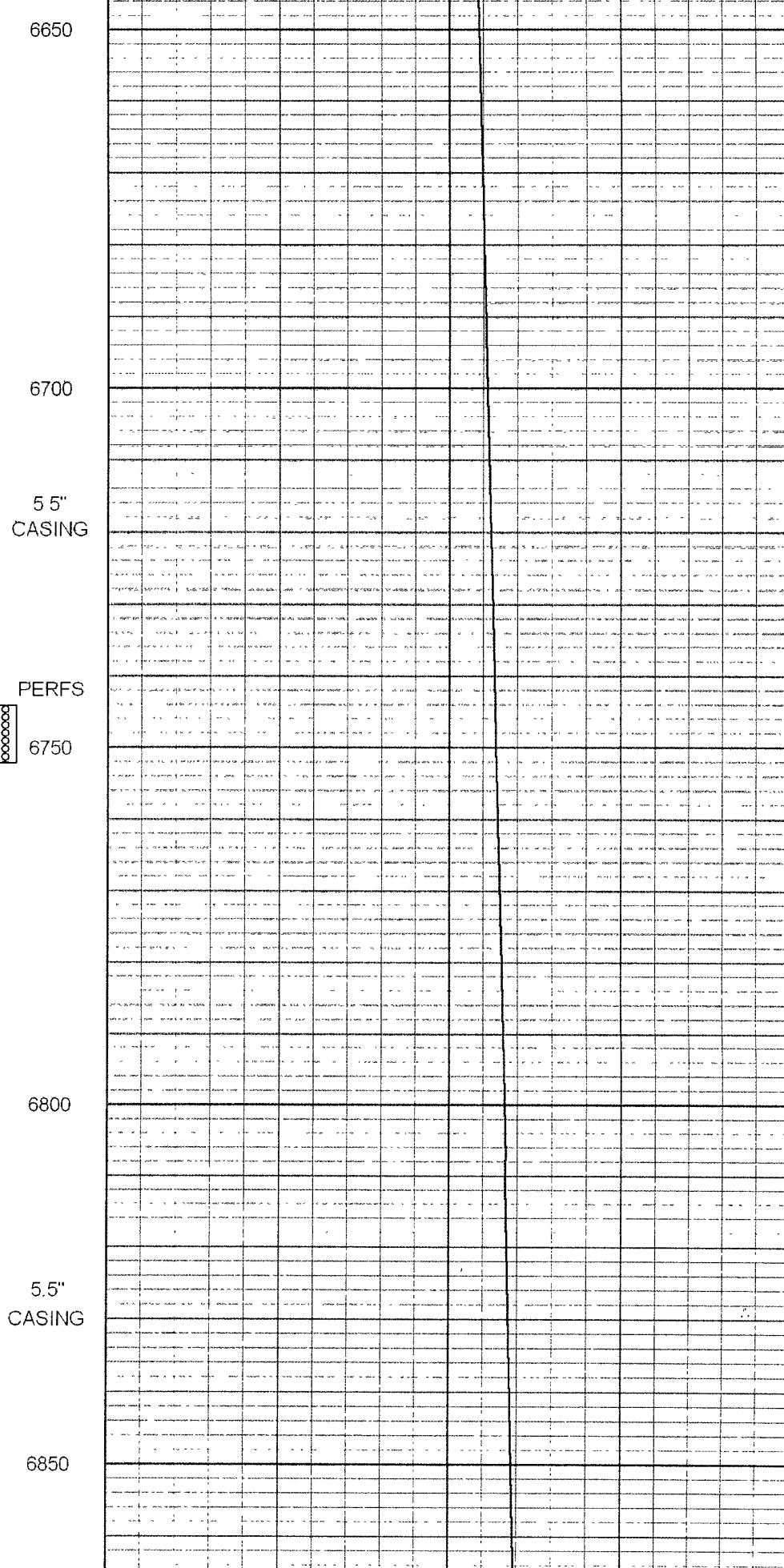
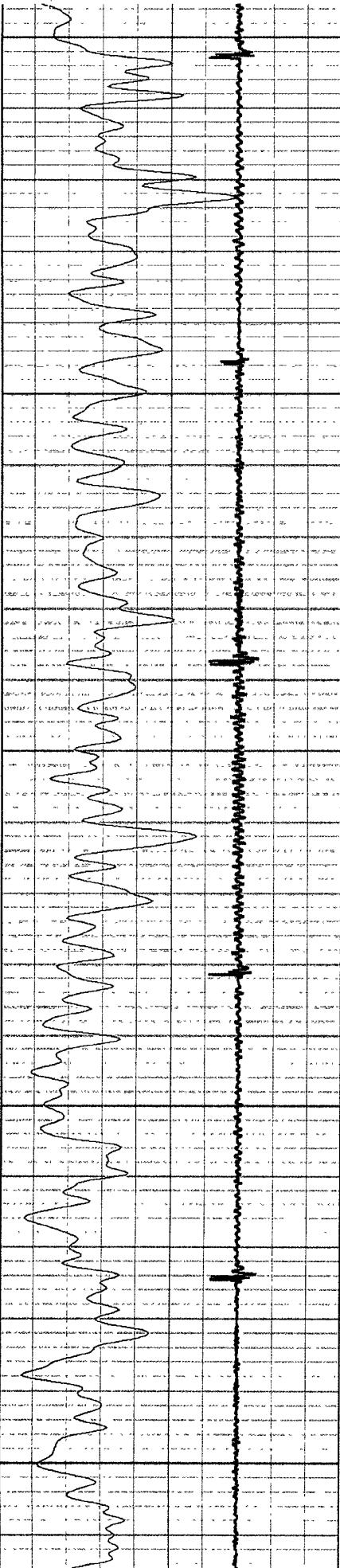
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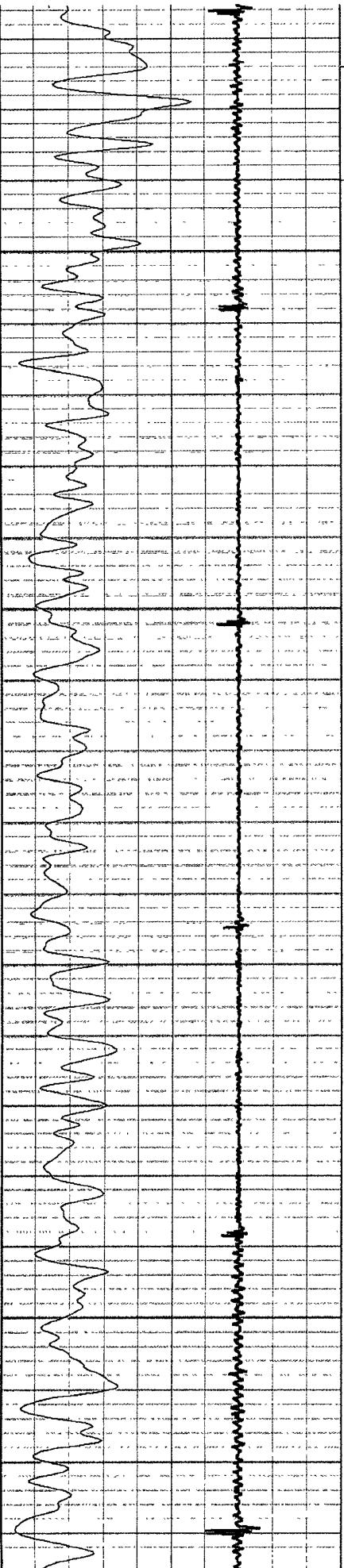
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5.5"  
CASING

6600

PERFS





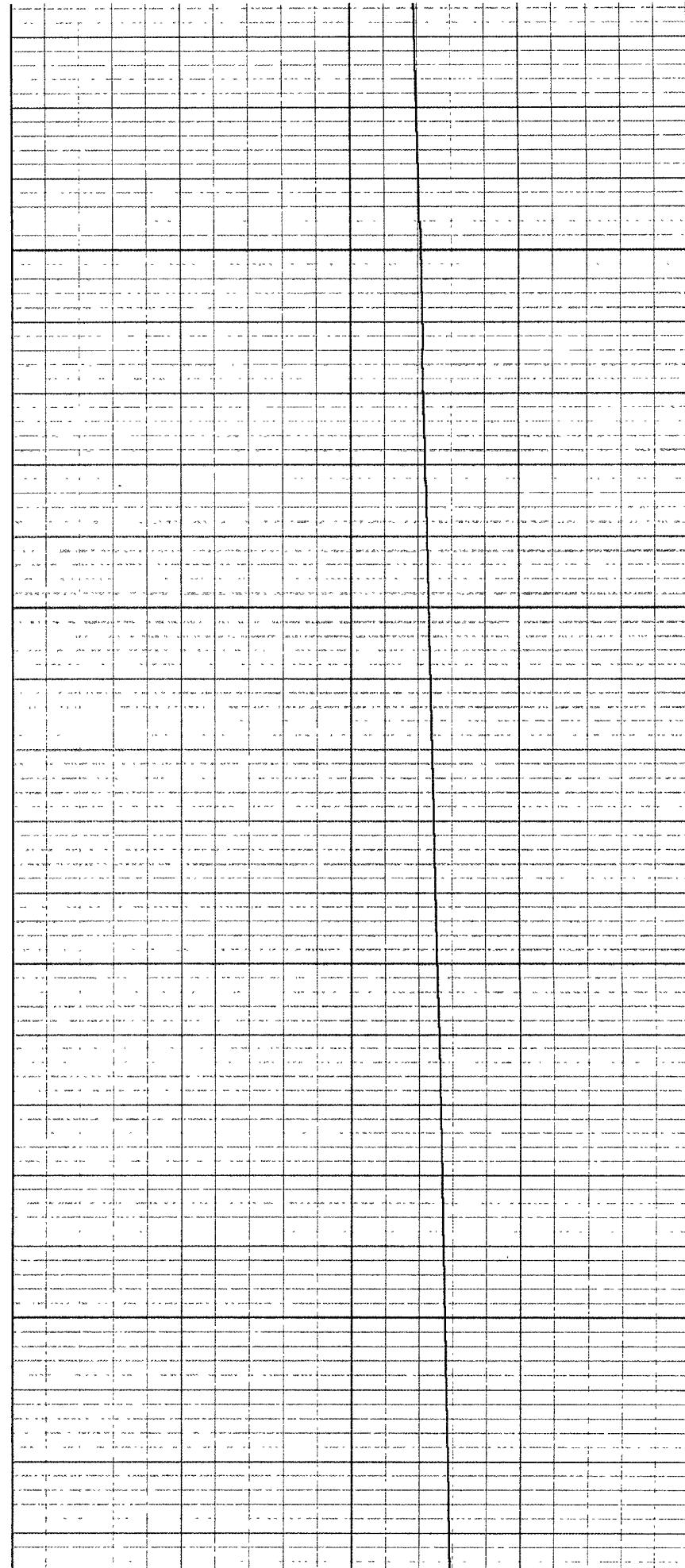
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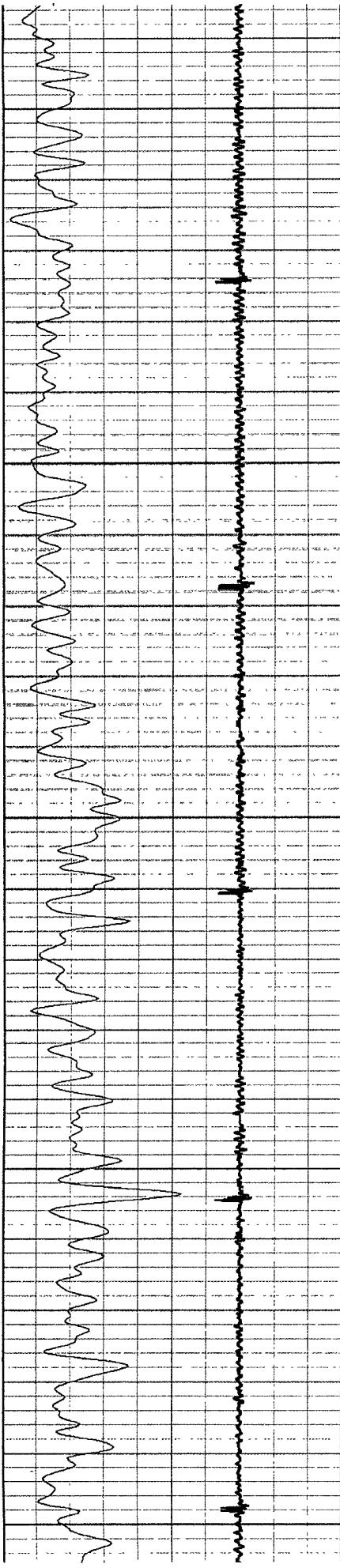
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6950

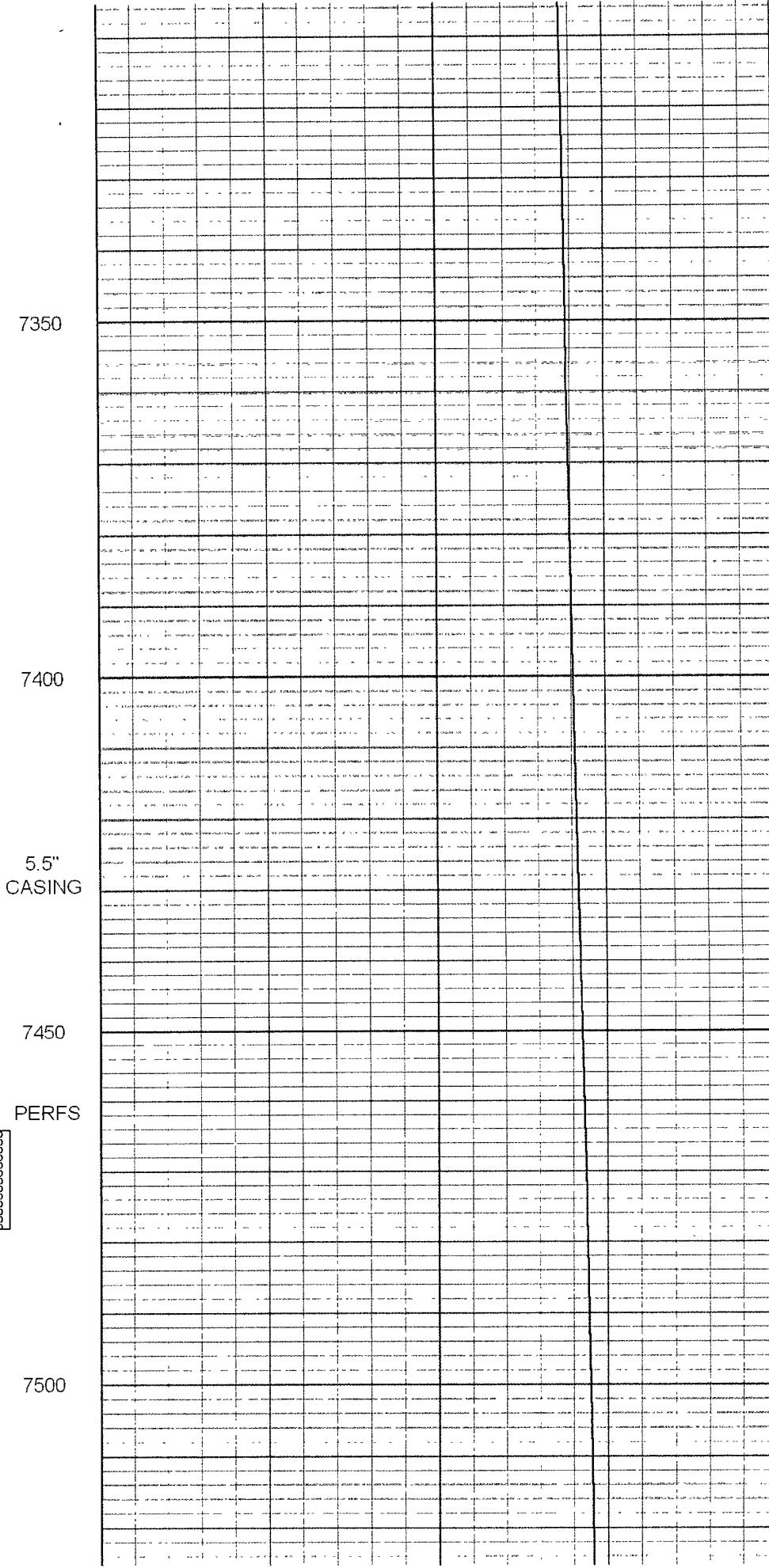
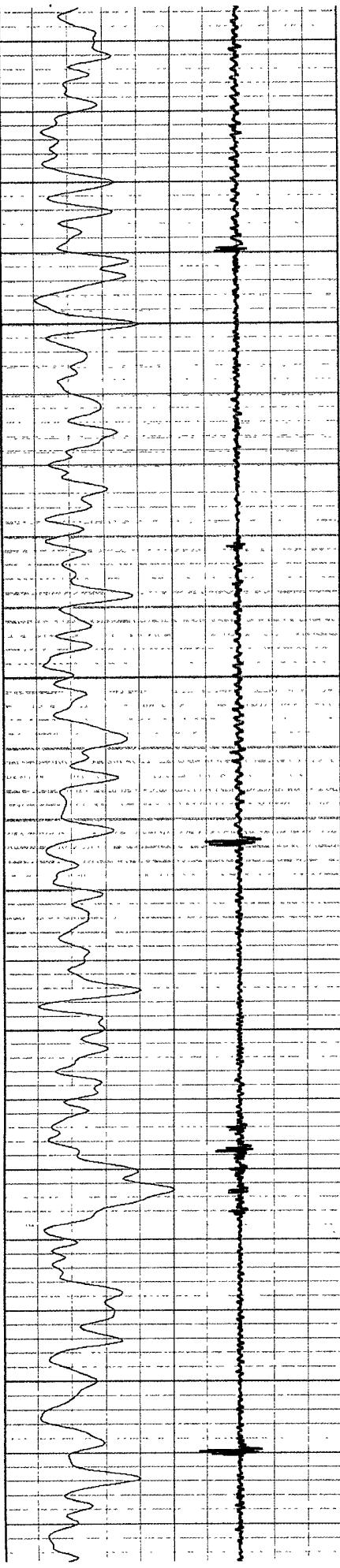
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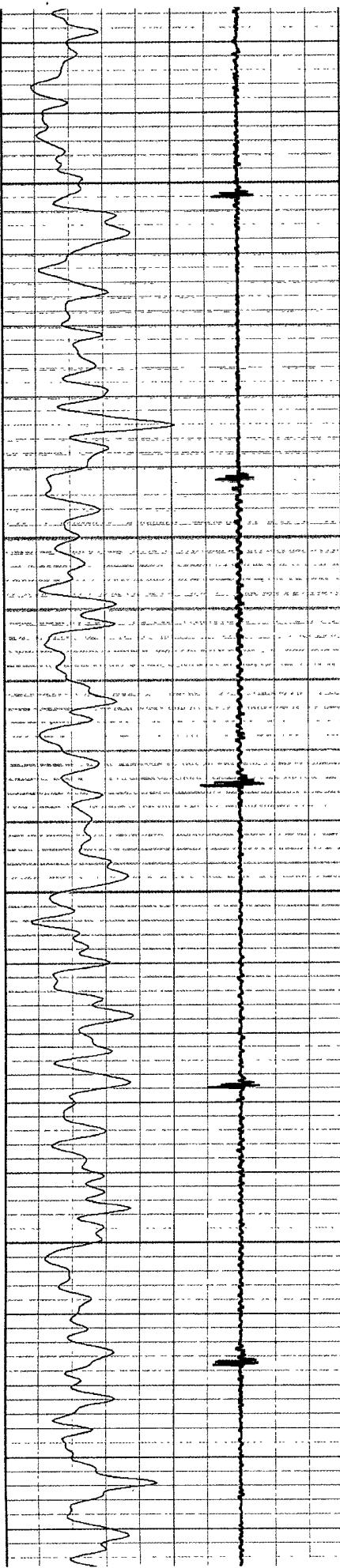
7050





7100  
7150  
7200  
7250  
7300





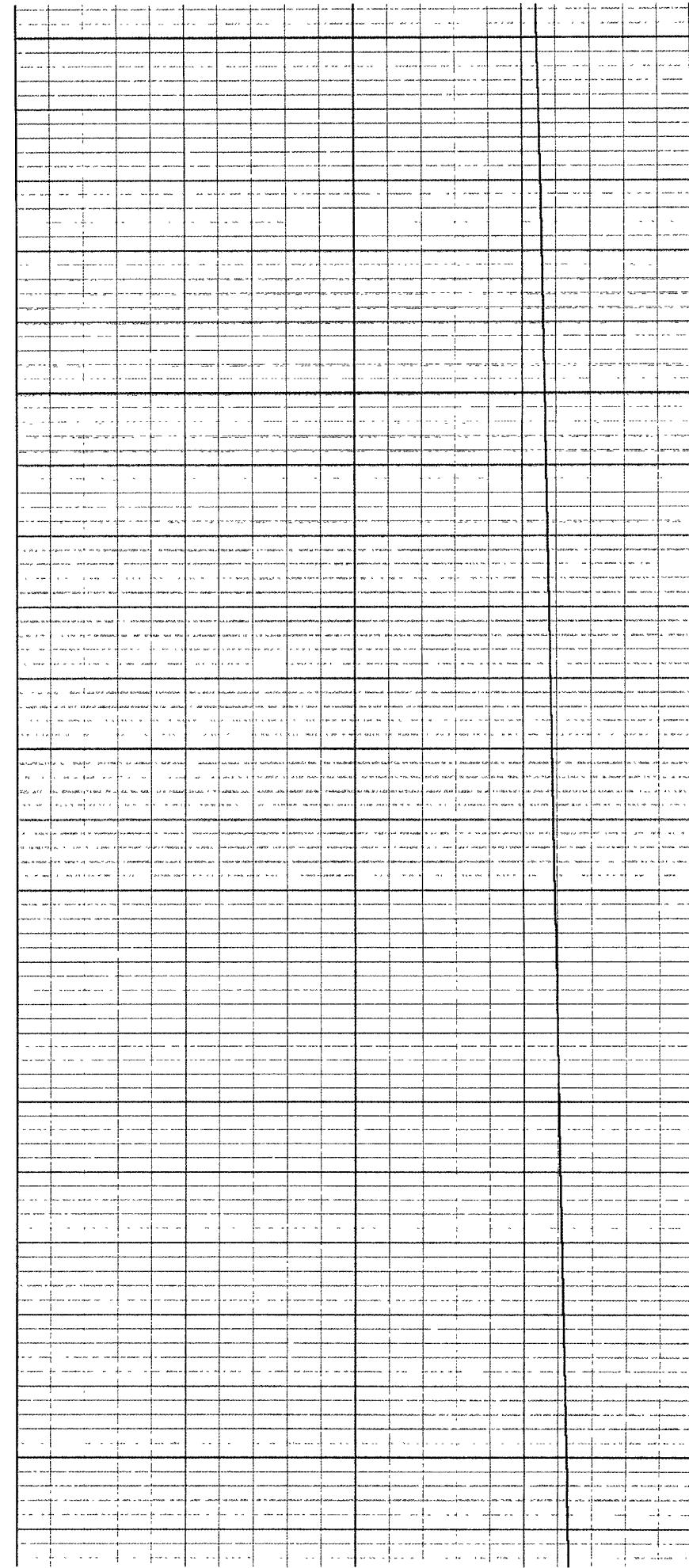
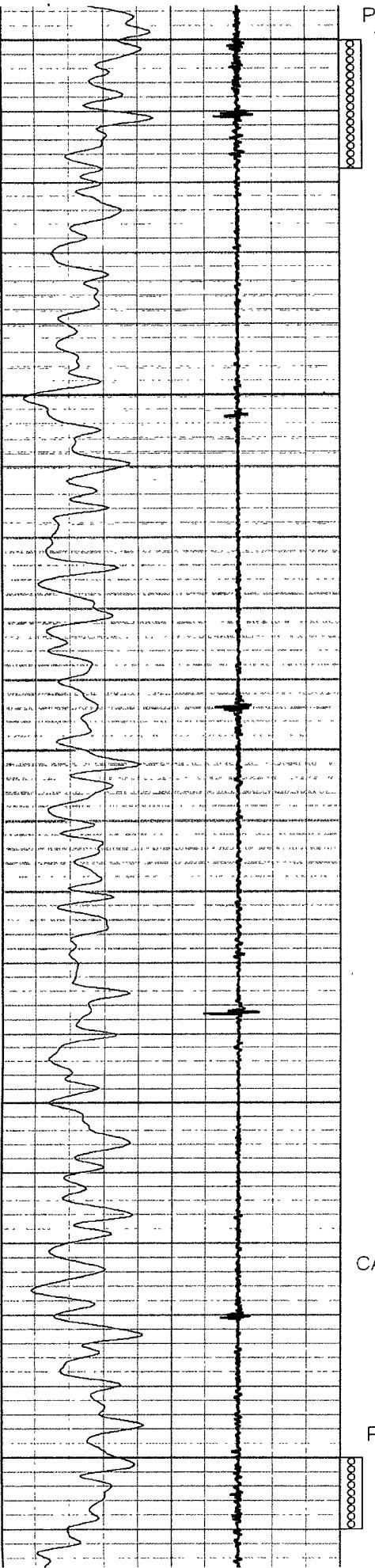
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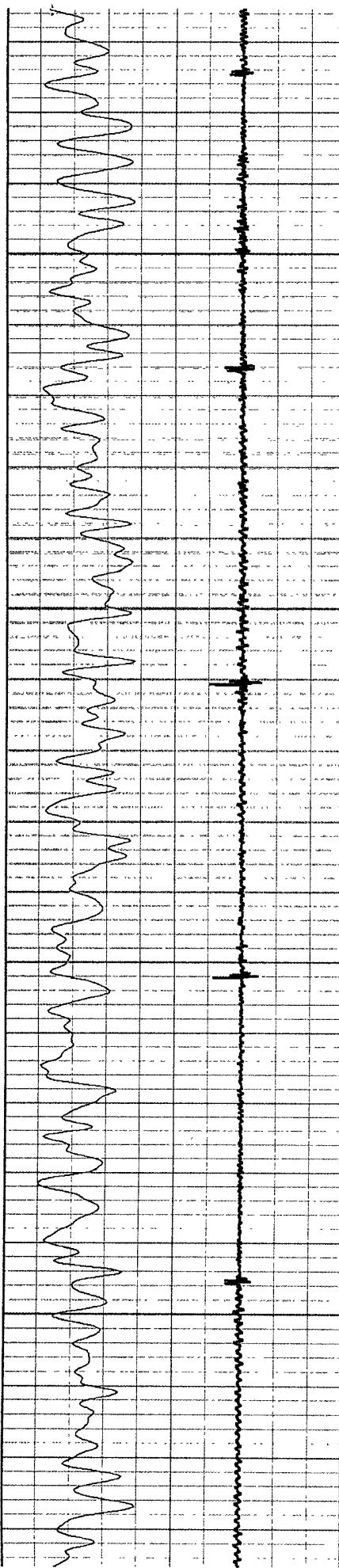
7600

7650

7700

5.5'  
CASING





PERFS

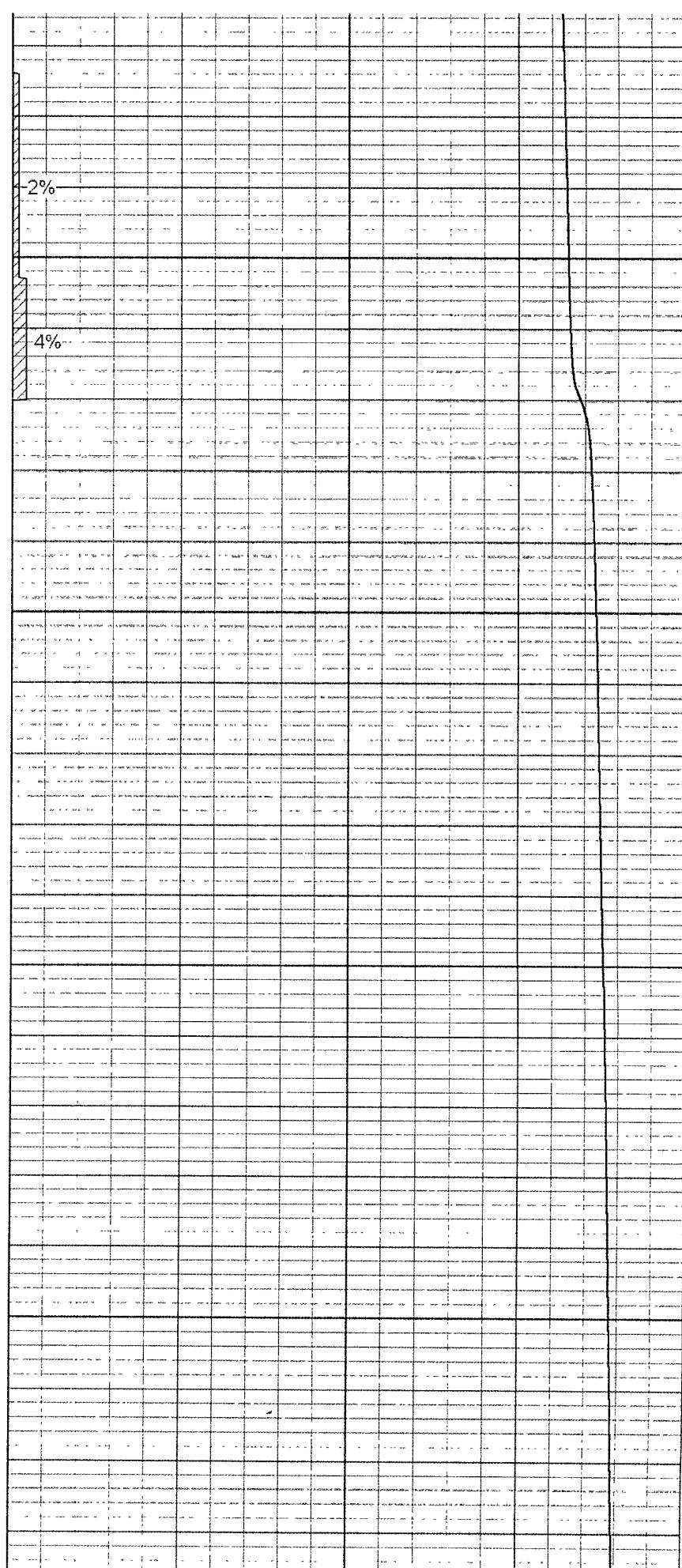
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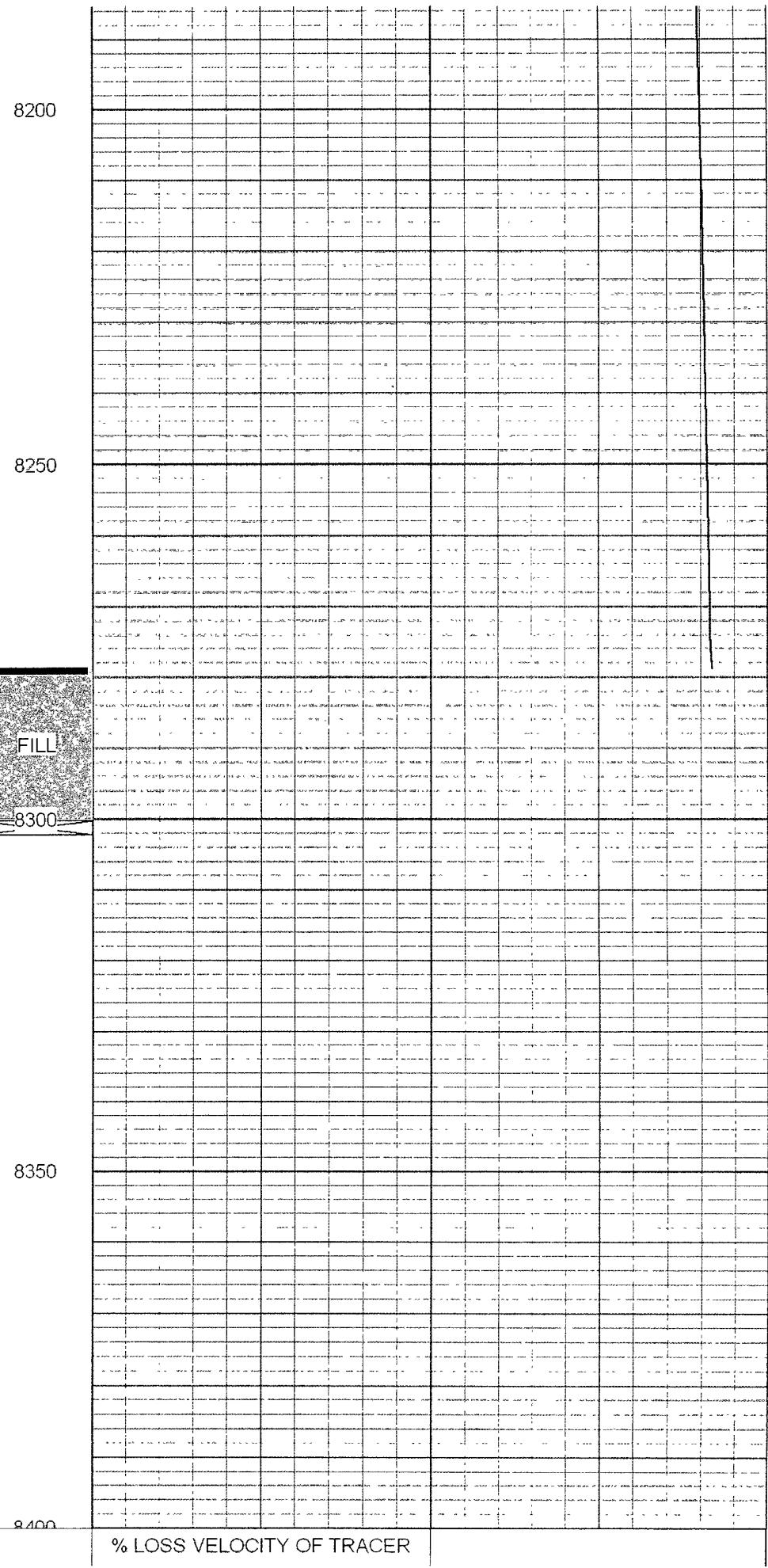
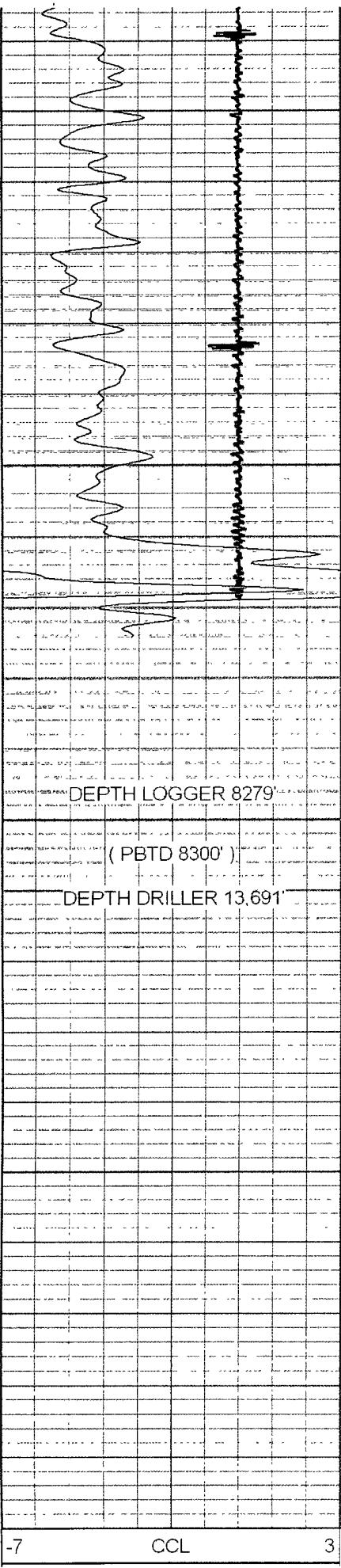
5.5"  
CASING

8050

8100

8150





0 GAMMA RAY (GAPI) 25

0 (%) 100  
83 INJECTING TEMPERATURE (degF) 133

## TRACER

Database File: lling1.db  
Dataset Pathname: LING/1/TRACER/\_profile2\_  
Presentation Format: trcprof  
Dataset Creation: Thu Sep 24 13 11:51 2009  
Charted by: Depth in Feet scaled 1:240

