DEPARTMENT OF ENERGY AND NATURAL RESOURCES

July 8, 2025

Cody Todd, P.E.
ExxonMobil Low Carbon Solutions Onshore (E1041)
22777 Springwoods Village Parkway
Spring, TX 77389

RE: Stratigraphic Test Well – New Drill
Denis Murrell Well No. 001
Wildcat-SO LA Lafayette Dist. Field, Iberville Parish
Application No. 46012
Docket No. IMD 2025-10

Dear Mr. Todd:

This Office has completed its review of the above-referenced Class V stratigraphic test well permit application and has found it to be administratively complete. Accordingly, the attached draft permit and fact sheet have been prepared. Incomplete portions of these documents will be completed when the information becomes available. Study the enclosed documents for inaccuracies and inconsistencies.

A public hearing will be held at the Carl F. Grant Civic Center, 24700 J. Gerald Berret Blvd., Plaquemine, LA 70764 at 3:00 pm on August 12, 2025. A link to the draft permit may be accessed on the Department of Energy and Natural Resources, Class VI Carbon Sequestration website beginning July 9, 2025. If through the public review process additional information is required, such matters must be resolved before issuance of the final permit.

A public hearing fee of $755.00 is being assessed per the requirements of Statewide Order No. 29-R-19/20, (LAC 43:XIX.703.A) and must be submitted to this Office by August 12, 2025. Refer to the invoice for payment options. Please indicate the application number and docket number referenced above when submitting the fee.

Yours very truly,

Gavin D. Broussard, Interim Director
Injection and Mining Division

FACT SHEET

Applicant:	ExxonMobil Low Carbon Solutions Onshore 22777 Springwoods Village Parkway Spring, TX 77389 (346) 220-7391
Project Proposal:	Permit to drill and complete one Class V Stratigraphic Test Well
Type of Facility:	N/A
Well Names:	Denis Murrell Well No. 001
Project Location:	Section 65, Township 10 South, Range 12 East Iberville Parish
Facility Local Address:	N/A
Application No.:	46012
Docket No.:	IMD 2025-10

Project Summary: The following information is prepared according to the requirements of Statewide Order No. 29-N-1, (LAC 43:XVII, Subpart 1) to briefly set forth the principal facts and significant policy questions considered in preparing a draft permit concerning an application by ExxonMobil Low Carbon Solutions Onshore (Exxon) to drill one Class V stratigraphic test (injection) well in Iberville Parish, Louisiana.

The application is for the drilling of one proposed Class V stratigraphic test (injection) well. The total depth of the well is at a depth of approximately 11,600 feet below ground level.

The acquisition of geotechnical data is proposed to occur in the drilling of this well. No disposal of waste via injection will occur.

General Information: Exxon proposes to collect geotechnical cores, fluid samples, static pressure measurements, and other applicable information.

The base of the lowermost underground source of drinking water (USDW) is approximately 910 feet below ground level. There are seven (7) registered water wells located within a one-mile radius of the proposed well location. The principal regional aquifers in the area are comprised of the Alluvial Aquifer system.

The complete application consists of the application form (Form UIC-25 Stratigraphic Test); technical attachments describing the geology, hydrology and construction.

The draft permit conditions were based on applicable rules and regulations as set forth in Statewide Order No. 29-N-1 (LAC: 43:XVII, Subpart 1) as amended. Such rules provide for the protection and non-endangerment of USDW regarding the permitting, drilling, completing, operating and maintaining of Classes I (nonhazardous waste), III, IV, and V injection well operations in the State of Louisiana.

Application Locations: An application package is available for inspection at the Louisiana Office of Conservation, Injection and Mining Division, LaSalle Building, 617 North Third Street, Room 817, Baton Rouge, LA 70802 from 8:00 am until 4:30 pm, Monday through Friday. To view, please ask for the ExxonMobil Low Carbon Solutions Onshore Class V Permit Application identified at the beginning of this document. In addition, the application package is available on the Louisiana Department of Energy and Natural Resources website, Injection & Mining and Class VI Carbon Sequestration webpage.

For any information concerning the application, call Holton Hinchliffe at (225) 342-8936, Monday through Friday, between the hours of 8:00 a.m. to 4:30 p.m.

Comment Period: The public comment period officially commences July 9, 2025, at 8:00 a.m. and concludes August 13, 2025, at 4:30 p.m. Submit all comments in writing to Holton Hinchliffe, Louisiana Office of Conservation, Injection and Mining Division, 617 N. 3rd St, Baton Rouge, LA 70802. Comments may also be e-mailed to info@la.gov. Please reference ExxonMobil Low Carbon Solutions Onshore Class V Permit, Application Number 46012.

_____ ____, 2025

Cody Todd, P.E.
ExxonMobil Low Carbon Solutions Onshore (E1041)
22777 Springwoods Village Parkway
Spring, TX 77389

*** * * APPROVAL TO CONSTRUCT * * ***

RE: Stratigraphic Test Well – New Drill
Denis Murrell Well No. 001
Wildcat-SO LA Lafayette Dist. Field
Iberville Parish

Application No. 46012
Serial No. _____
API No. _____

Dear Mr. Todd:

The application by ExxonMobil Low Carbon Solutions Onshore (ExxonMobil) to drill a Class V stratigraphic test well has met the interim requirements for permitting such a well. The issuance of this Permit to Construct constitutes a final permit decision regarding the construction of this well. You are hereby granted approval to perform the work as described in the application. The approved work must be completed by _____ __, 2026.

ExxonMobil is to notify the Conservation Enforcement Specialist (CES) for Iberville Parish, Sarah Hitchcock at (337) 298-8726, Monday through Friday, or by calling the Injection and Mining Division at (225) 342-5515 at least 72 hours prior to commencement of work. At least 48 hours before the casing test of the long string, contact the CES to schedule a witnessed casing test.

Within twenty (20) days after completion of the work, submit the documentation requested in the enclosed Reporting Requirements to the Injection and Mining Division. PLEASE READ THE ENCLOSURES CAREFULLY.

Please be reminded that for future work on the well, a work permit approval must be obtained from this office before repairing, stimulating, plugging, or otherwise working on this well.

Yours very truly,

Steven M. Giambrone
Office of Conservation

Gavin D. Broussard, Interim Director
Injection and Mining Division

OFFICE OF CONSERVATION

IMD REPORTING REQUIREMENTS >> Class V Stratigraphic Test

Drilling and construction of the well must be completed within one (1) year from the date of the permit approval letter, otherwise, the permit will expire. **Before the expiration of the permit, the operator must notify the Injection and Mining Division (IMD) if a time extension will be requested or if well will not be drilled**.

The approved application describes how the well is to be constructed. Changes in the approved construction, such as well surface location, well depth, or casing setting depths, will require prior written approval from IMD. Failure to obtain prior written approval will be cause for revoking the permit.

At least forty-eight (48) hours prior to commencement of work, the appropriate Conservation Enforcement Specialist (CES) identified below must be contacted. If you are unable to reach the CES, please call the Injection and Mining Division at (225) 342-5515 between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday.

Application No.	**46012**	Serial No.	
CES Name	**Sarah Hitchcock**	CES Phone No.	**(337) 298-8726**

Within twenty (20) days after completion of the well, the completion documents listed below must be filed with IMD for review and approval in compliance with the regulations. Please place the well's Serial Number on the log headings.

- A Class V Well History and Work Résumé Report (Form UIC-42 STRAT TEST) with an original signature from an authorized representative of the operating company and two photocopies of the form (front and back). The Form UIC-42 can be saved, filled-out, and printed by going to www.dnr.louisiana.gov/consforms >> Injection & Mining Division >> Stratigraphic Test & Remediation Wells >> Form UIC-42.
- Two (2) copies of the wellbore schematic depicting the completed well.
- Two (2) copies of the electric log used to identify the USDW.
- Two (2) copies of the cement bond log for each respective casing string.
- An original AFFIDAVIT OF TEST OF CASING IN WELL (Form CSG-T) signed by a company representative and witnessed by a third party for each casing. Provide a copy of the properly labeled pressure chart if the Form CSG-T does not have a witnessed signature. Include the well name, well serial number, casing size, test start time and stop time, date of test, and signature of company representative**.** The Form CSG-T can be downloaded from www.dnr.louisiana.gov/consforms >> Injection & Mining Division >> Stratigraphic Test & Remediation Wells >> Form CSG-T.

Send the above required documentation together in **ONE PACKAGE** to:

Office of Conservation- 9th Floor
Injection & Mining Division
617 North 3rd Street
Baton Rouge, LA 70802

046012

ExxonMobil

April 24, 2025

Holton Hinchliffe, P.E.
Louisiana Department of Energy and Natural Resources
Office of Conservation, Injection & Mining Division
617 North Third Street
Baton Rouge, LA 70802

RE: Class V Stratigraphic Test Well
Well Name: Denis Murrell
Well No: 1
Section 65, T-10S, R-12E
Iberville Parish, LA

Dear Mr. Hinchliffe,

ExxonMobil Low Carbon Solutions Onshore ("EMLCS") respectfully submits the attached UIC-25 Stratigraphic Test Class V Well permit application as well as the Form IMD-1 Request for Expedited Review. In support of this request, please find the following documentation:

- Form UIC-25 Stratigraphic Test
- Certified location plat showing the location of the Class V well
- Annotated copies of electronic well log(s) of the offset well(s) showing the depths of the USDW and injection zone(s)
- Work prognosis for drilling, completing, and testing the well
- Wellbore and wellhead schematics
- P&A procedure, schematic, and a third-party estimate
- Responses to the "IT Questions"

Please note, as per previous communication and guidance from Scott St. Romain, the injection zone log included with this application is not the nearest offset log that shows the injection zone; that well (SN 235632, ~7,500 ft offset) is highly deviated. In preference of a deviated well, the log included in this application is from the Grace D Murrell No. 5, a straight well located slightly further from the proposed Class V well (~10,060 ft offset). The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

EMLCS is currently working on financial security in the form of a performance bond. Once the third-party verified P&A estimate is approved by IMD, the financial surety will be finalized and submitted.

Please contact me at (346) 220-7391 or by email at cody.todd@exxonmobil.com if you have any questions regarding this application.

Best Regards,

Cody Todd, P.E.
UIC Lead

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

ATTACHMENTS

- Application Fee
- Form UIC-25 STRAT TEST
- Two original Form MD-10-R-A (Not Applicable)
- Attachment 1: Certified Location Plat
- Attachment 2: Annotated USDW Log
- Attachment 3: Annotated Zone Log
- Attachment 4: Schematic
- Attachment 5: Work Prognosis
- Attachment 6: Financial Surety
- Attachment 7: IT Questions Documentation
- Attachment 8: LELAP Laboratory Analysis
- Third Party P&A Procedure, Schematic, and Cost Estimate
- ¼ mile AoR Detailed Well Report

ExxonMobil

04601

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Denis Murrell No. 1
Iberville Parish, LA

ONE FORM UIC-25 STRAT TEST WITH ORIGINAL SIGNATURE

ExxonMobil

04601

CLASS V STRAT TEST WELL PERMIT APPLICATION

OFFICE OF CONSERVATION
INJECTION & MINING DIVISION
617 N. Third St., 9th FLOOR
BATON ROUGE, LA 70802

Injection-Mining@la.gov
(225) 342-5515

UIC-25 STRAT TEST **PLEASE READ APPLICATION INSTRUCTIONS** **TYPE ONLY**

1. APPLICATION TYPE: (Check One)

☑ DRILL AND COMPLETE NEW CLASS V WELL ☐ CONVERT AN EXISTING WELL TO CLASS V

☐ OTHER (SPECIFY):

2. IDENTIFY WELL USE

Stratigraphic Test Well

3. IDENTIFY FUTURE WELL USE (i.e. Conversion to Class VI, monitor well, P&A, etc.)

Monitor Well

4. OWNER/OPERATOR NAME	**5. OC OPERATOR CODE**
ExxonMobil Low Carbon Solutions Onshore	E1041

6. OWNER/OPERATOR MAILING ADDRESS	**7. CITY, STATE, ZIP CODE**
22777 Springwoods Village Parkway	Spring, TX, 77389

8. TELEPHONE NO	**9. E-MAIL ADDRESS**
346-220-7391	cody.todd@exxonmobil.com

10. WELL NAME	**11. WELL NO**	**12. WELL SERIAL NO (Well Conversions Only)**
Denis Murrell	1	

13. FIELD NAME	**14. FIELD CODE**
Wildcat - So LA Lafayette District	9727

15. PARISH NAME	**16. SECTION**	**17. TOWNSHIP**	**18. RANGE**
Iberville	65	10S	12E

19. LOCATION COORDINATES (GCS, NAD 27)				**20. STATE PLANE COORDINATES (LAMBERT, NAD 27)**	
LATITUDE:	30°	10 **MIN**	34.54 **SEC**	☐ **NORTH ZONE**	☑ **SOUTH ZONE**
LONGITUDE:	91°	14 **MIN**	01.94 **SEC**	**X:** 2,031,427	**Y:** 548,970

21. LEGAL LOCATION DESCRIPTION (FROM LOCATION PLAT):

SURFACE LOCATION being N 84°46'03"W 28,137.85' from USC&GS Monument "WHITECASTLE 2", located in Section 65, T10S-R12E, Iberville Parish, Louisiana.

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

046012

22. LIST PERMITS, LICENSES, OR APPROVALS THE APPLICANT HAS RECEIVED OR APPLIED FOR WHICH SPECIFICALLY AFFECT THE APPLICANT'S LEGAL OR TECHNICAL ABILITY TO CARRY OUT THE PROPOSED ACTIVITY. INCLUDE IDENTIFICATION NUMBER OF APPLICATIONS OR, IF ISSUED, THE IDENTIFICATION NUMBER OF THE PERMIT, LICENSE, OR OTHER APPROVALS.

Regulatory Program or Agency	Permits, Licenses, Construction, Project Approval Identification

23. WELL CASING / CEMENT DATA

CASING SIZE (OD-INCHES)	HOLE DIAMETER (INCHES)	CASING WEIGHT (LB/FT)	CASING GRADE	CASING SETTING DEPTHS TOP	CASING SETTING DEPTHS BOTTOM	TOTAL SACKS	SACKS CEMENT (Lead/Tail)	TYPE (Lead/Tail)	YIELD (CU FT/SACK) (Lead/Tail)	CEMENT TOP
20	20	79	X42	0	100	225		H	1.55	surface
9 5/8	12 1/4	47	L80	0	2,500	842	571/271	A/A	2.35/1.28	surface
5 1/2	8 1/2	17	L80	0	11,600	2,107	576/1,531	A/H	1.66/1.42	surface

ALL WELL DEPTHS SHOULD BE GIVEN IN MD

24. BASE OF USDW (FT):	25. REFERENCE E-LOG FOR USDW (SERIAL NUMBER):		
910	194333		
26. WELL TOTAL DEPTH (FT):	**27. PLUGBACK DEPTH (FT):**	**28. TUBING SIZE & DEPTH:**	**29. PACKER SIZE & DEPTH:**
11,600	4,100	NA	NA

INJECTIVITY TEST INFORMATION (IF APPLICABLE)

30. INJECTION ZONE DEPTHS		31. COMPLETION/PERFORATION DEPTHS	
Top: 4,082	**Bottom:** 11,376	**Top:** 4,150	**Bottom:** 7,270

32. REFERENCE E-LOG FOR INJECTION ZONE INFO (SERIAL NUMBER): 214206

33. WELL COMPLETION ☐ OPEN HOLE ☑ PERFORATIONS ☐ SCREEN

34. TEST MATERIAL (e.g. nitrogen, brine, etc):	35. MAXIMUM TEST PRESSURE (psi):	36. TOTAL INJECTION VOLUME (bbls):
Brine ***CO_2 is prohibited as a Class V test material***	4,750	10,000

37. Is the Well Located on Indian Lands or Other Lands Owned by or under the Jurisdiction or Protection of the Federal Government?	☐ YES ☑ NO
38. Is the Well Located on State Water Bottoms or Other Lands Owned by or under the Jurisdiction or Protection of the State of Louisiana?	☐ YES ☑ NO
39. If the proposed well is associated with a potential Class VI geologic sequestration project, does the applicant own the mineral rights at the proposed well locations?	☐ YES ☑ NO
40. If no, has written notification been provided to the mineral owner(s)?	☑ YES ☐ NO

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

41. AGENT OR CONTACT AUTHORIZED TO ACT ON BEHALF OF THE APPLICANT DURING THE PROCESSING OF THIS APPLICATION

NAME: Cody Todd, P.E.

COMPANY: ExxonMobil Low Carbon Solutions Onshore Storage LLC

MAILING ADDRESS: 22777 Springwoods Village Parkway, Spring, TX 77389

TELEPHONE NUMBER: 346-220-7391

E-MAIL ADDRESS: cody.todd@exxonmobil.com

42. CERTIFICATION BY WELL OWNER/OPERATOR

I certify that as the owner/operator of the injection well, the person identified in Item No. 37 above is authorized to act on my behalf during the processing of this application, to submit additional information as requested, and to give oral statements in support of this application. I will grant an authorized agent of the Office of Conservation entry onto the property to inspect the injection well and related appurtenances as per LSA-R.S. 30:4. I agree to operate the well in accordance with Office of Conservation guidelines. I further certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment or both (LSA-R.S. 30:17).

Print Name of Well Owner/Operator	Print Title of Company Official (as applicable)
Bruce Chalton	Vice President

Signature of Well Owner/Operator	Date
	4/24/25.

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

TWO ORIGINAL FORM MD-1O-R-A FOR EACH EXISTING WELL TO BE CONVERTED (IF CONVERSION IS PROPOSED)

- Not applicable – New Drill

ExxonMobil

Attachment 1

ONE ORIGINAL CERTIFIED LOCATION PLAT SHOWING THE LOCATION OF THE CLASS V WELL LOCATION

ExxonMobil

046012

ExxonMobil Low Carbon Solutions Onshore-
Denis Murrell No. 1 Well
Surveyed April 9, 2025 as follows:
SURFACE LOCATION being N 84°46'03"W 28,137.85' from USC&GS Monument "WHITECASTLE 2", located in Section 65,I T10S-R12E, Iberville Parish, Louisiana.

NOTE: This plat is not a property boundary survey and as such does not comply with the "Standards of Practice for Property Boundary Surveys" as adopted by the Louisiana Professional Engineering and Land Surveying Board; it is however in compliance with Statewide Order 29-B and 29-E. (Title 43 of the Louisiana Administrative Code)

There are no residential or commercial structures, not owned by the applicant, his lessor, or other predecessor in interest, within a 500' radius of the proposed location as of April 10, 2025.

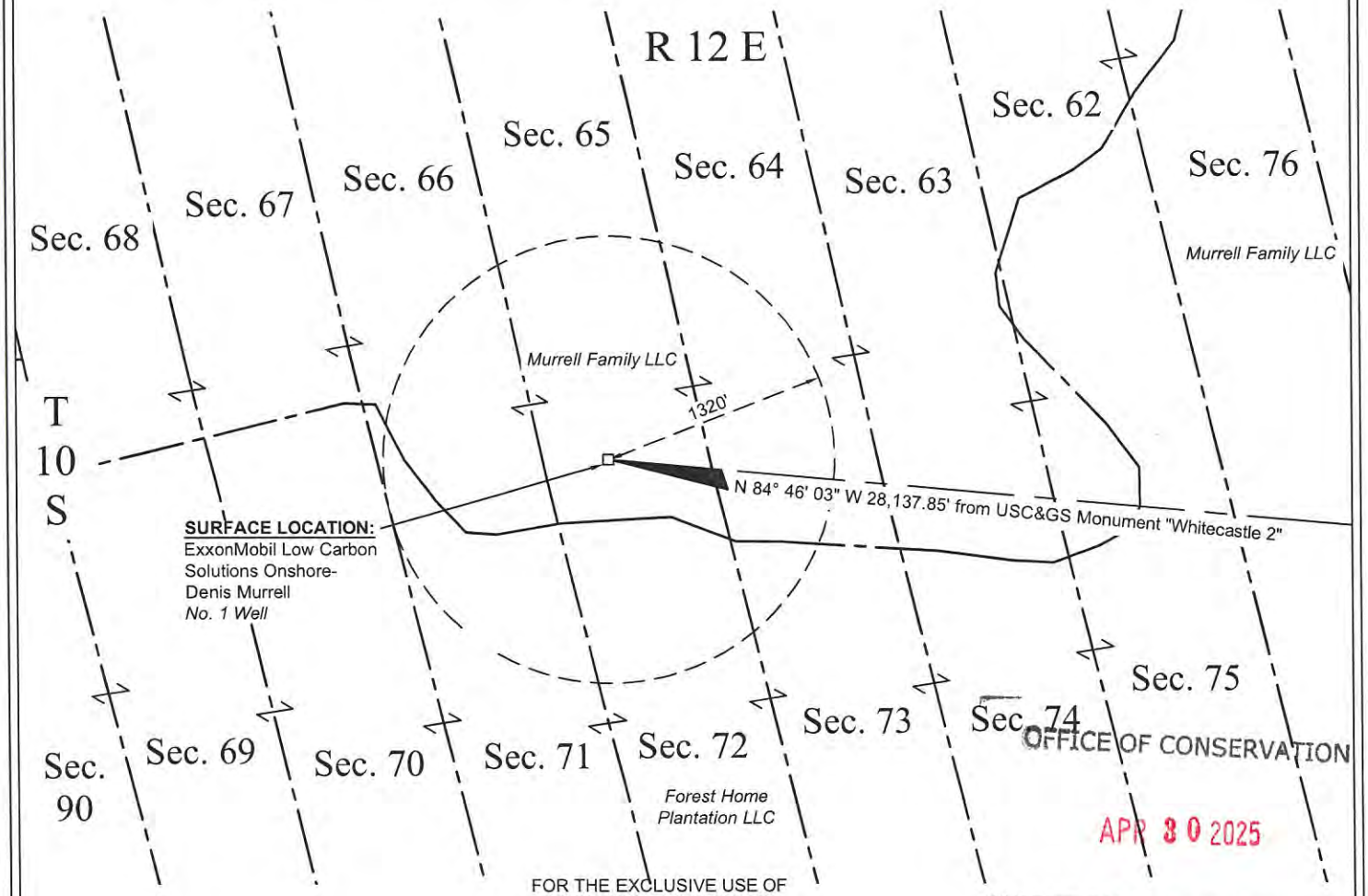
All bearings, distance, areas and coordinates refer to the North American Datum of 1927, Louisiana South Zone, US survey feet. Elevations refer to the North American Vertical Datum of 1988 and are derived from static and kinematic GPS observations unless otherwise note.

Denis Murrell No. 1 Well
X = 2,031,427.35' (NAD27 La S)
Y = 548,969.79'
LAT. 30° 10' 34.54" N (NAD27)
LONG. 91° 14' 01.94" W
X = 3,312,226.10' (NAD83/2011 La S)
Y = 609,675.58'
LAT. 30° 10' 35.23" N (NAD83/2011)
LONG. 91° 14' 02.33" W
ELEV. 5.8' (NAVD88)

LEGEND
☐ Proposed Well

NAD 27 LA. SOUTH ZONE

SCALE: 1"= 1000'
0' 500' 1000'



OFFICE OF CONSERVATION
APR 30 2025
INJECTION & MINING DIVISION

FOR THE EXCLUSIVE USE OF EXXONMOBIL LOW CARBON SOLUTIONS ONSHORE

I, Danielle B. McMath, Professional Land Surveyor, certify that the well location depicted and described in this plat was staked and surveyed in the field by me or under my direction with accuracy and precision to the nearest foot. I have properly examined this plat and have determined that it complies with existing local Louisiana codes, and has been properly site adapted to use in this area.

STATE OF LOUISIANA
04/23/2025
DANIELLE B. MCMATH
License No. 5297
PROFESSIONAL LAND SURVEYOR

Danielle B. McMath
Registration No. 5297

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq.
Lafayette, LA 705
Ph. 337-237-22
Fax. 337-232-3

REVISIONS	

DRAWN BY:DBM	PROJ. MGR.:DBM
DATE:04/10/2025	
JOB#:2258801.00C	SHEET 1 OF 1

WELL LOCATION PLAT
DENIS MURRELL
NO. 1 WELL
EXXONMOBIL LOW CARBON SOLUTIONS ONSHORE
SITUATED IN
SECTION 65, T10S-R12E
IBERVILLE PARISH, LOUISIANA

T:\2025\2258801\PLATS\Denis Murrell No.1.dwg

Attachment 2

AN ANNOTATED COPY OF AN ELECTRIC WELL LOG OF THE NEAREST OFFSET WELL THAT SHOWS THE UNDERGROUND SOURCE OF DRINKING WATER (USDW)

- See attached marked well log of the J SUPPLE'S SONS PLTG CO LTD No. 1 – SN 194333

ExxonMobil

046012

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

Marked USDW Log
Serial No. 194333
J SUPPLE'S SONS PLTG CO LTD No. 1

Schlumberger

DUAL INDUCTION-SFL COMPENSATED NEUTRON-LITHO DENSITY

A CSU Service

10-10-84 12-13-84 10-10-85

194333

COMPANY LGS EXPLORATION, INC.

194333

WELL J. SUPPLES & SONS PLANTING CO., LTD. NO. 1

FIELD WHITE CASTLE

COUNTY IBERVILLE STATE LOUISIANA

Location: SE-C SEC 95 30 N ALG S/L 1793', N W'LY 941' ... 94.

Other Services: FRD

ALNO	SEC	TWP	RANGE
33	94	10S	12E

Permanent Datum: GL Elev.: 10.0

Log Measured From RKB 20.5 Ft. Above Perm. Datum

Drilling Measured From SAME

Elev.: K.B. 30.50 D.F. 29.50 G.L. 10.0

Date	9-16-84	9-23-84	9-28-84
Run No.	1 (DIL SFL/GR)	2	3 (DIL SFL/GR)
Depth—Driller	1830	8520	9944
Depth—Logger (Schl.)	1832	8532	9958
Btm. Log Interval	1829	8529	9955
Top Log Interval	155	1830	8300
Casing—Driller	16 @ 156	10 3/4 @ 1832	10 3/4 @ 1832
Casing Logger	155	1830	1830
Bit Size	9 7/8	9 7/8	9 7/8
Type Fluid in Hole	GEL-CAUSTIC	LIGNOSULF.	LIGNOSULF.
Dens. / Visc.	8.7 / 41	9.6 / 40	9.6 / 42
pH / Fluid Loss	10.5 / - ml	10.5 / 4.0 ml	11.5 / 4.0 ml
Source of Sample	MUD PIT	PIT	MUD PIT
Rm @ Meas. Temp.	2.57 @ 80 F	.72 @ 110 F	0.76 @ 100 F
Rmf @ Meas. Temp.	2.70 @ 72 F	1.10 @ 80 F	0.85 @ 90 F
Rmc @ Meas. Temp.	3.86 @ 80 F	1.08 @ 110 F	1.14 @ 100 F
Source: Rmf / Rmc	M / C	M / C	M / C
Rm @ BHT	2.14 @ 96 F	0.55 @ 146 F	0.39 @ 200 F
TIME Circulation Stopped	1200/9-16	1900/9-23	1100/9-28
TIME Logger on Bottom	1500/9-16	0200/9-24	1545/9-28
Max. Rec. Temp.	96 F	146 F	200 F
Equip. / Location	8132 / OPEL.	8144 / OPEL.	8144 / OPEL.
Recorded By	GROOMS	GALLOW	SMITHSON-MASON
Witnessed By	MR. STEVENSON	STEVENSON	STEVENSON

... data were furnished by the customer

RUN NO.	TWO	ONE	THREE
Service Order No.		409006	457706
Fluid Level		FULL	FULL
Salinity, PPM CL.			1800

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Panel ... CSU

REMARKS

Panel		[illegible]			
Cartridge		DA 646	DA 1035		
Sonde		LC 1029	FC 1075		
Memorizer Panel		CPU 2522	BC-1118		
Centralizers: Enter Spring, Standoffs, In-line, or None	Type	BOLLFINDER	FINS		
	No.	ONE			
	S.O. inches	1/2"	1 1/2"		
G.R. Panel			BC 419		
G.R. Cartridge					
Tape Recorder (TTR)					
Depth Encoder (DRE)					
Pressure Wheel (CPW)					

LSN19410600000194333

RUN 1) ... INDUCTION FAILED @ 400'. SP IS BAD INTERMITTENTLY AS MARKED ON 5" LOG. RAN GR AS CORRELATION LOG TO REPLACE BAD SP AND PRESENT ON 1" LOG. AFTER CALS BAD ON MEDIUM INDUCTION AFTER FAILURE. BEFORE CALS ARE GOOD. REPEAT SECTION IS FROM FIRST ATEMPT AND IS DEPTH OFFSET FROM THE MAIN LOG AS MARKED. RUN 2) LOGGED AS PER CUSTOMER'S REQUEST.

CALIBRATION DATA

INDUCTION	S.B.R.		0.5	0.5		
	SONDE ERROR	When measured: At surface, enter "surface" Down hole, enter depth	SURFACE			
	Corrected For	Hole Size				
		Rm				
Speed - F.P.M.				60		
GR		BKG. CPS				
		Source CPS				
		T.C. - logged				

BOTTOM HOLE TEMPERATURE

Time Entering Hole	1400			
Time Bottom Reached	1500			
Time Last Off Bottom	1500			
Time Out of Hole	1600			
Distance TD to Therm.	30'			
Thermometer #1	96 F	F	°F	°F
Thermometer #2	F	F	F	F
Thermometer #3	F	F	F	F

RUN NO.	TWO*	THREE*		
Service Order No.	457726			
Fluid Level	FULL			
Salinity, PPM CL.	2600			
Speed - F.P.M.	30			

EQUIPMENT DATA

IE Module	BC-1118			
Ind. Cartridge	DA-1035			
Ind. Sonde	FC-1075			
NL Module	AB-175			
Dens. Cart.	D-1858			
Dens. Skid.	D-2837			
Dens. Sonde	B-3882			
Dens. Source	J-7054			
Dens. Calibrator				
Neut. Cart.	HA-1232			
Neut. Source	F-2072			
Neut. Calibrator				
GR Cart.	SA-478			
SBR				
S. O.:				

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

REMARKS

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

LOGGING DATA

RUN	DEPTH Top	DEPTH Bottom	CNP Porosity Scale	CNP Matrix	CNP Auto Corr. or Hole Size Setting	FDC Porosity Scale	FDC Grain Density	FDC Liquid Density	Hole Fluid
2)	1830	8529	50/0	SAND	AUTO	50/0	2.65	1.0	WATER

[X] Surface determined sonde errors used.
[ ] Sonde errors corrected for inch borehole signal at Rm —
[ ] Zeros set in hole at depth of feet.

LSC 160m. 10-18-81

Run 1

SENSOR MEASURE POINT TO TOOL ZERO

ILD	9.4	FEET	GR	32.9	FEET
ILM	5.7	FEET	SFL	6.4	FEET
SPAR	2.5	FEET	SP	2.5	FEET
TENS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SBR	.500000	OHMM	DSEC	5.50000	MMHO
FPHI	SPHI		MSEC	6.30000	MMHO
FNUM	.620000		FEXP	2.15000	
BS	9.87500	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

Run 2

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

STSG	58.5	FEET	GR	63.0	FEET
NCNL	54.0	FEET	SCNL	54.0	FEET
SS2	32.4	FEET	FCNL	54.0	FEET
LITH	32.9	FEET	SS1	32.4	FEET
LU	32.9	FEET	LS	32.9	FEET
CALI	33.5	FEET	LL	32.9	FEET
SPAR	0.0	FEET	SP	0.0	FEET
SFL	3.9	FEET	ILD	6.9	FEET
TENS	0.0	FEET	ILM	3.2	FEET
NRAT	54.0	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SHT	80.0000	DEGF	TD	10000.0	F
HC	CALI		PSNR	2.32200	
FD	1.00000	G/C3	MATR	SAND	
WMUD	9.60000	LB/G	MDEN	2.65000	G/C3
DHC	BS		LPCS	TWIN	
SBR	.500000	OHMM	DSEC	3.80000	MMHO
FEXP	2.15000		MSEC	3.70000	MMHO
BHS	OPEN		FNUM	.620000	
BS	9.87500	IN			

Run 3

SENSOR MEASURE POINT TO TOOL ZERO

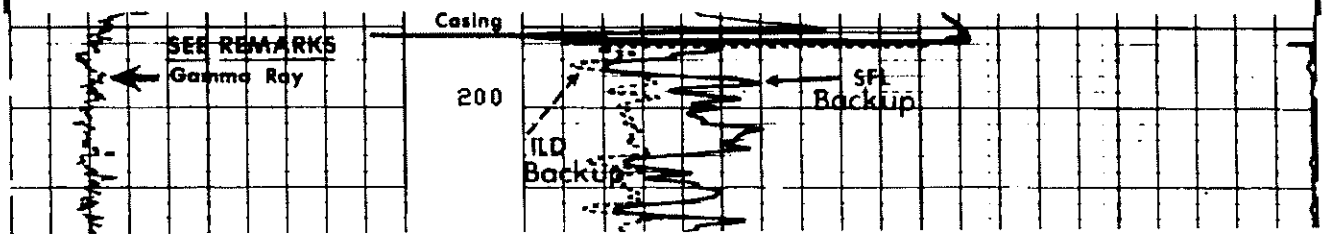
ILD	9.4	FEET	GR	32.9	FEET
ILM	5.7	FEET	SFL	6.4	FEET
SPAR	2.5	FEET	SP	2.5	FEET
TENS	2.5	FEET			

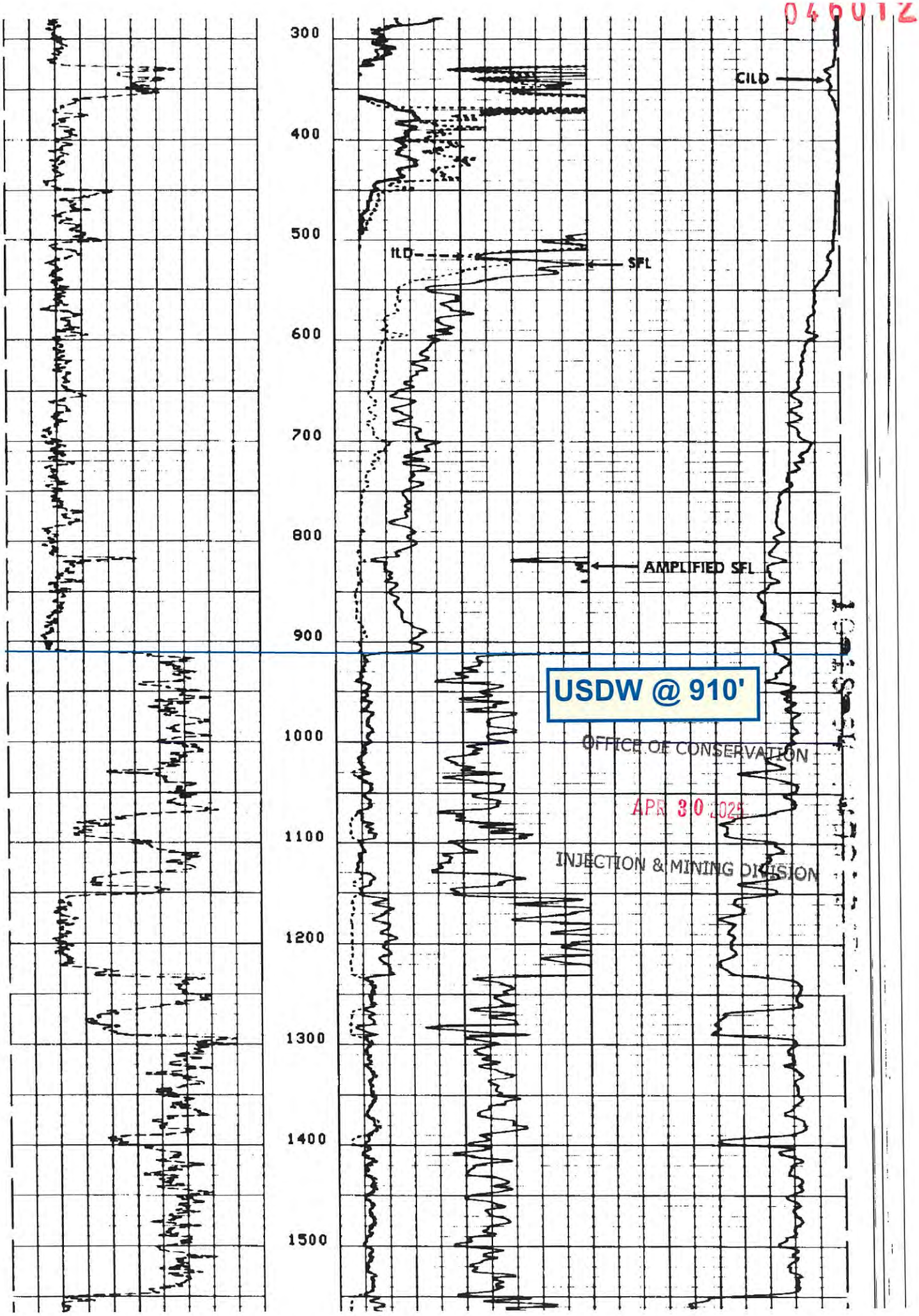
PARAMETERS

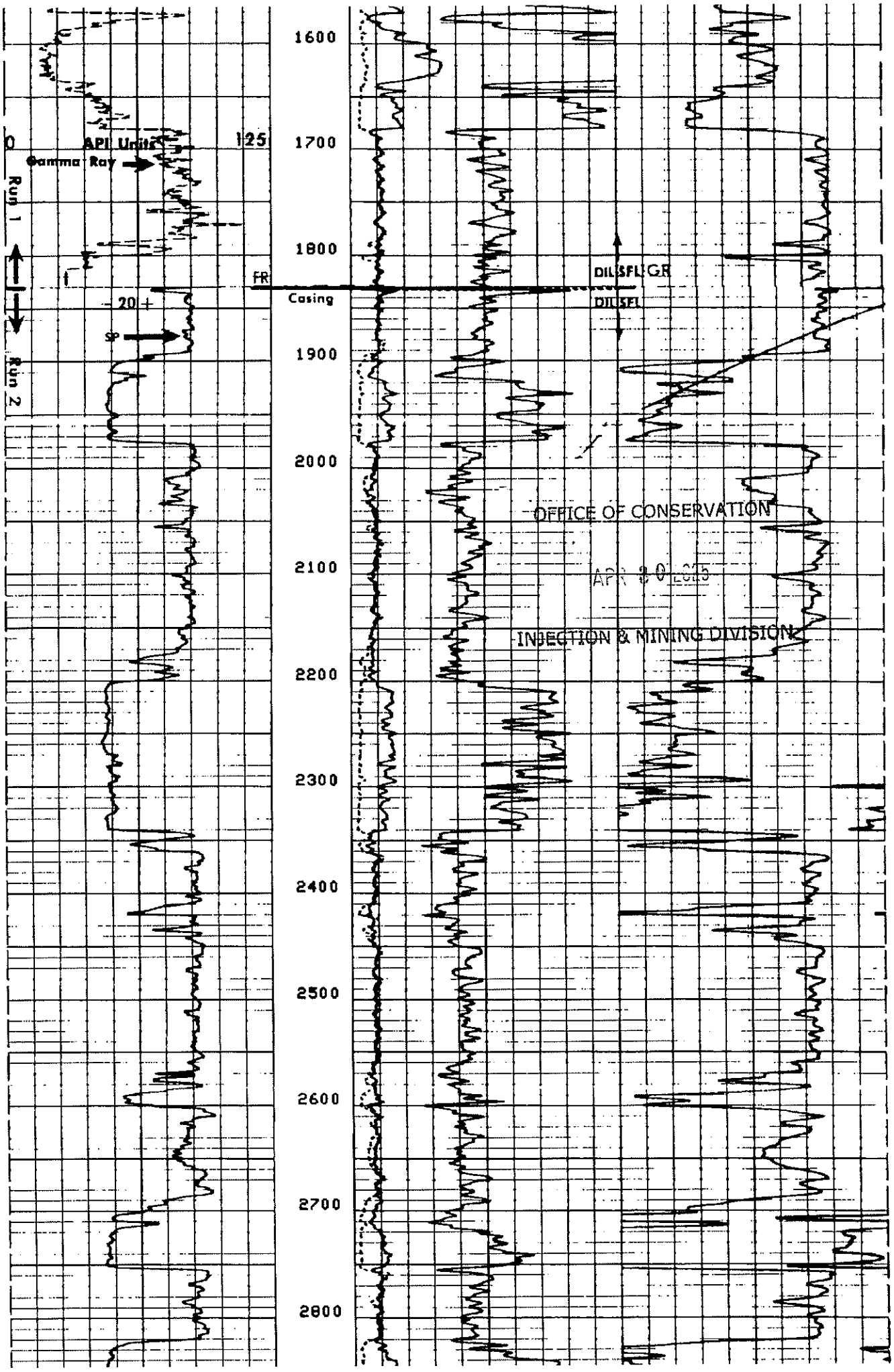
NAME	VALUE	UNIT	NAME	VALUE	UNIT
SBR	.500000	OHMM	DSEC	3.80000	MMHO
FPHI	SPHI		MSEC	3.70000	MMHO
FNUM	.620000		FEXP	2.15000	
BS	9.87500	IN	BHS	OPEN	

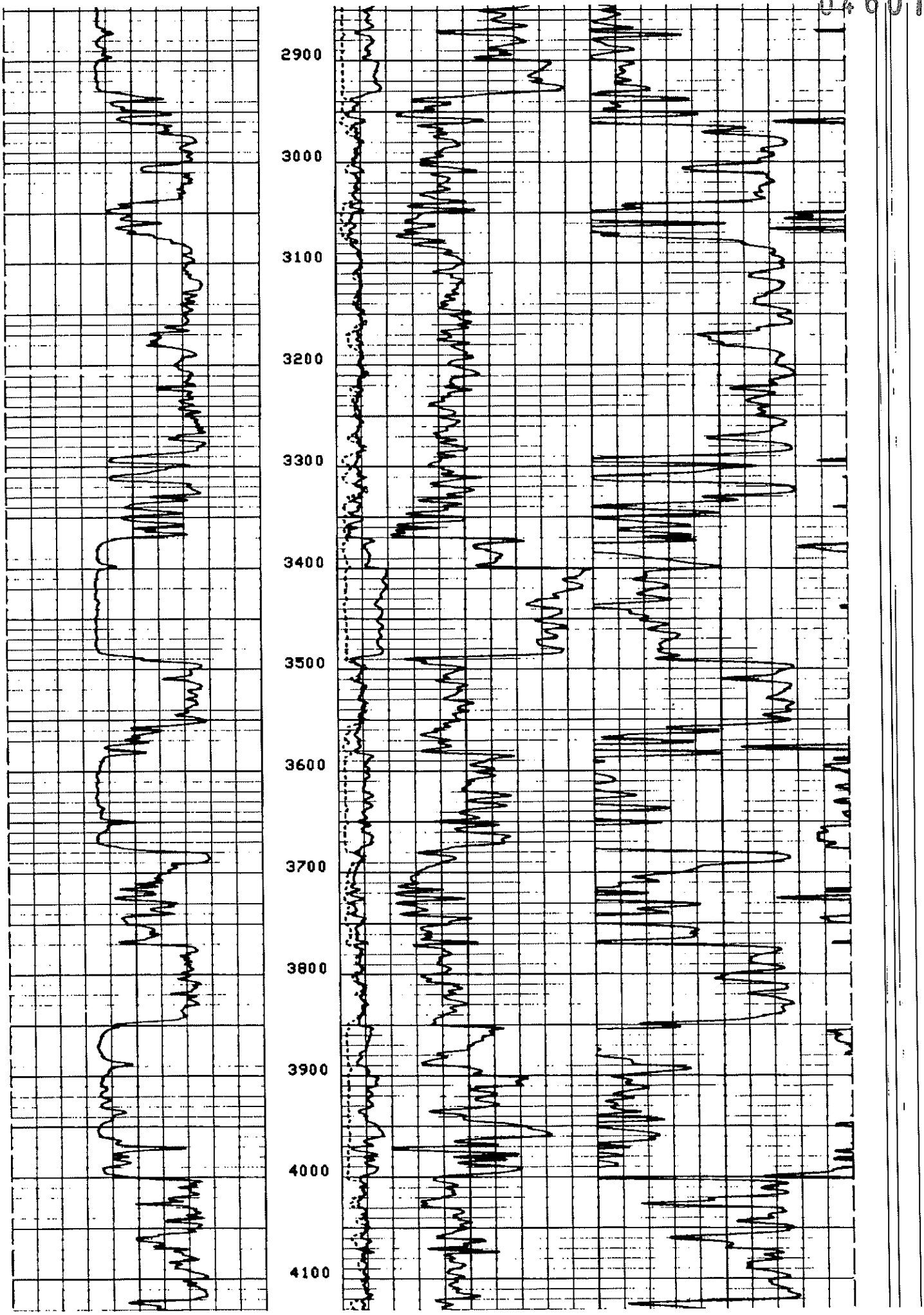
GR (GAPI)		ILD (OHMM)	SFLA(OHMM)	CILD(MMHO)	
0.0	125.00	0.0	10.000	4000.0	0.0
		0.0	2.0000		
		SFLA(OHMM)			

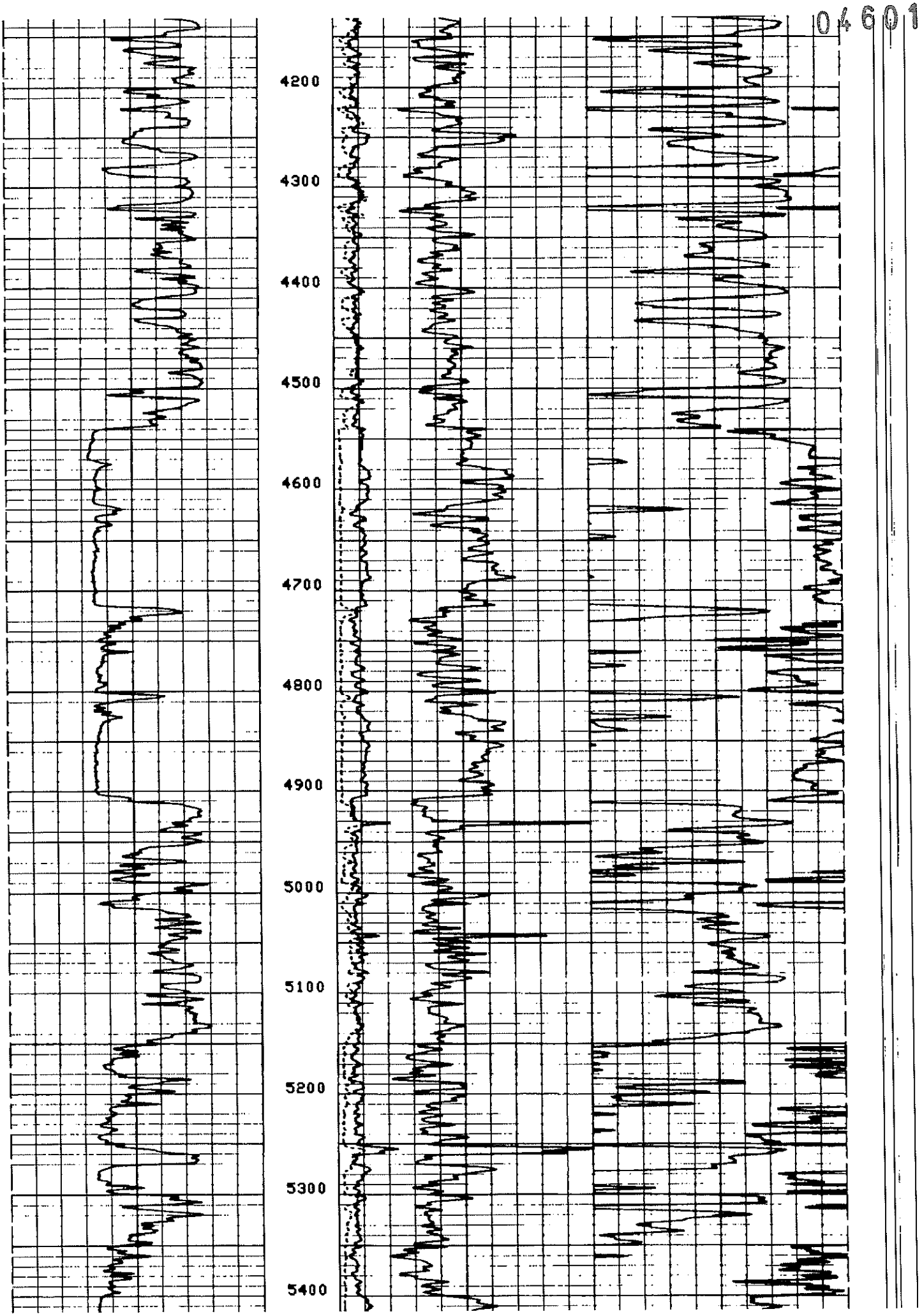
FILE 17 16-SEP-84 16:20
DATA ACQUIRED 16-SEP-84 16:12

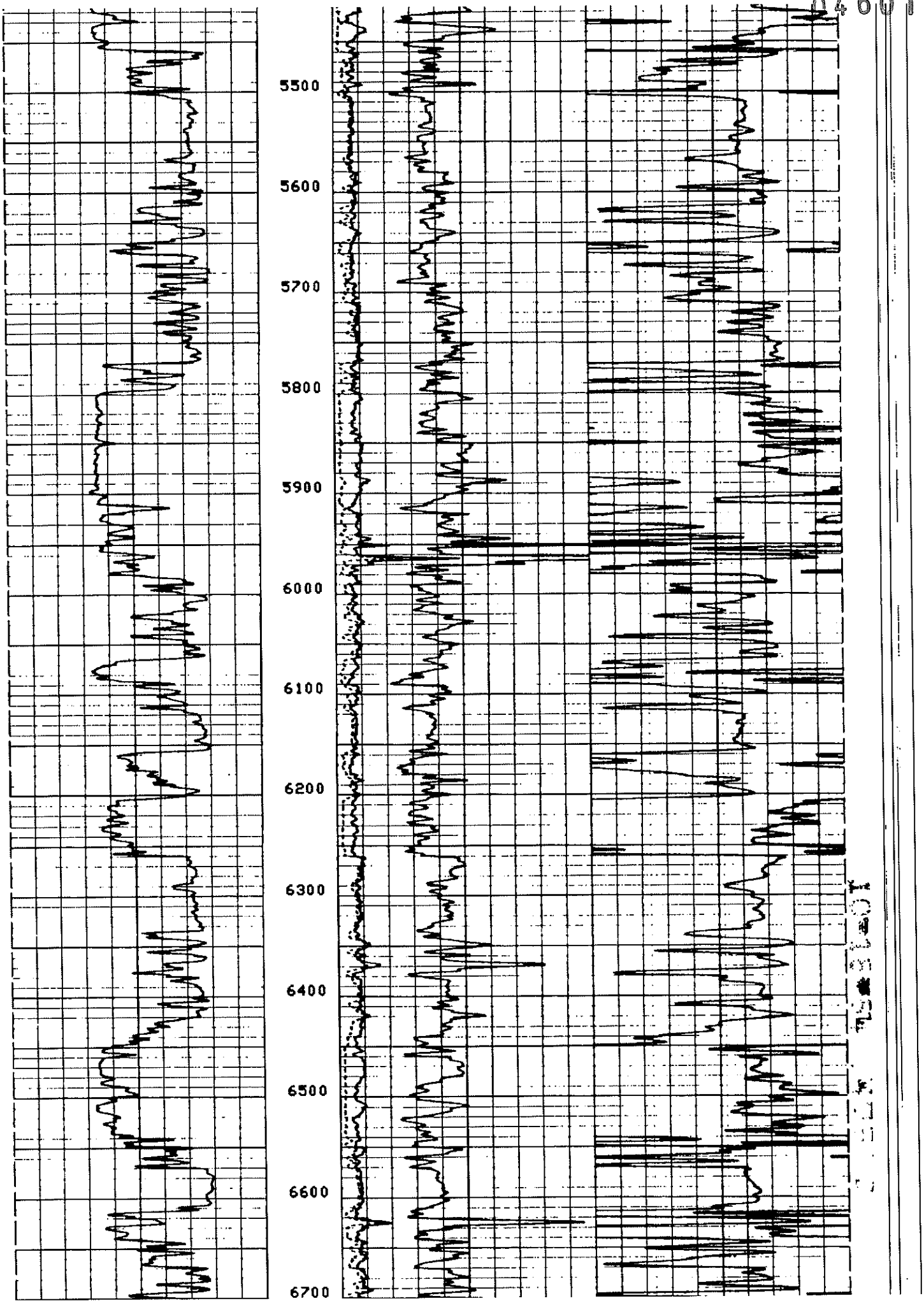


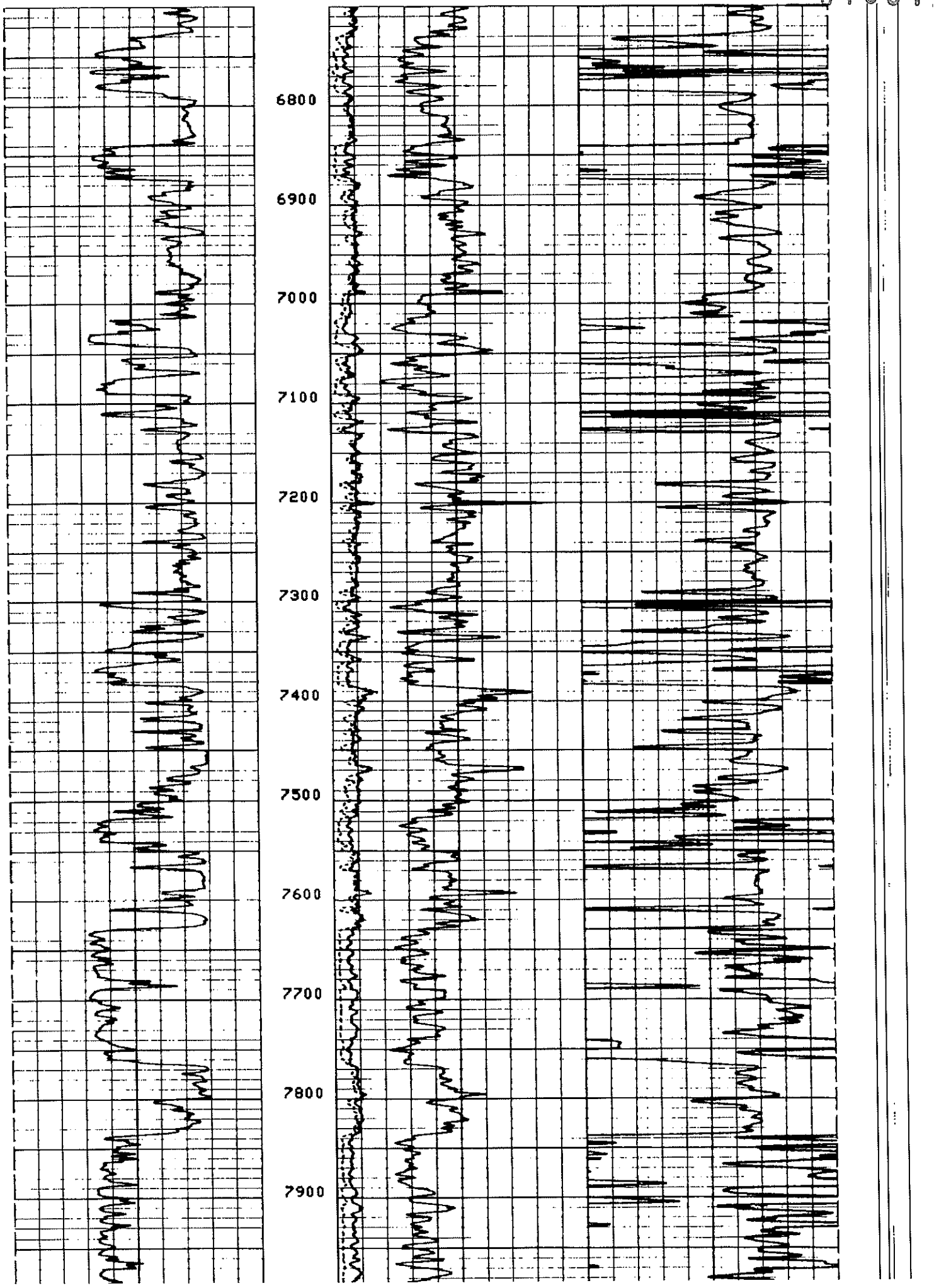

300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
CILD
ILD
SFL
AMPLIFIED SFL
USDW @ 910'
OFFICE OF CONSERVATION
APR 30 2025
INJECTION & MINING DIVISION

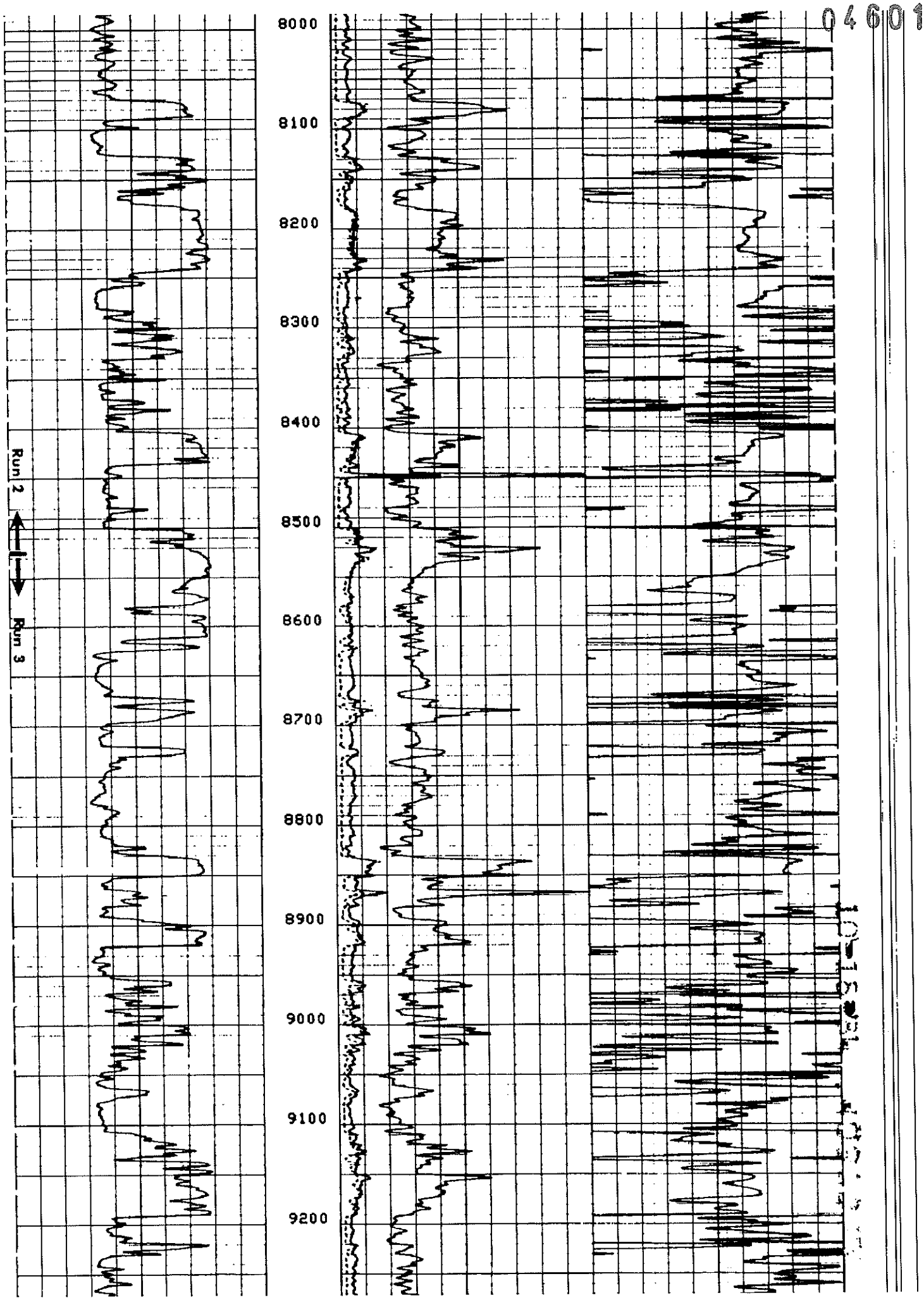

0
API Units
125
Gamma Ray
Run 1
Run 2
20
SP
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
FR
Casing
DILSFL/GR
DILSFL
OFFICE OF CONSERVATION
APR 30 2015
INJECTION & MINING DIVISION

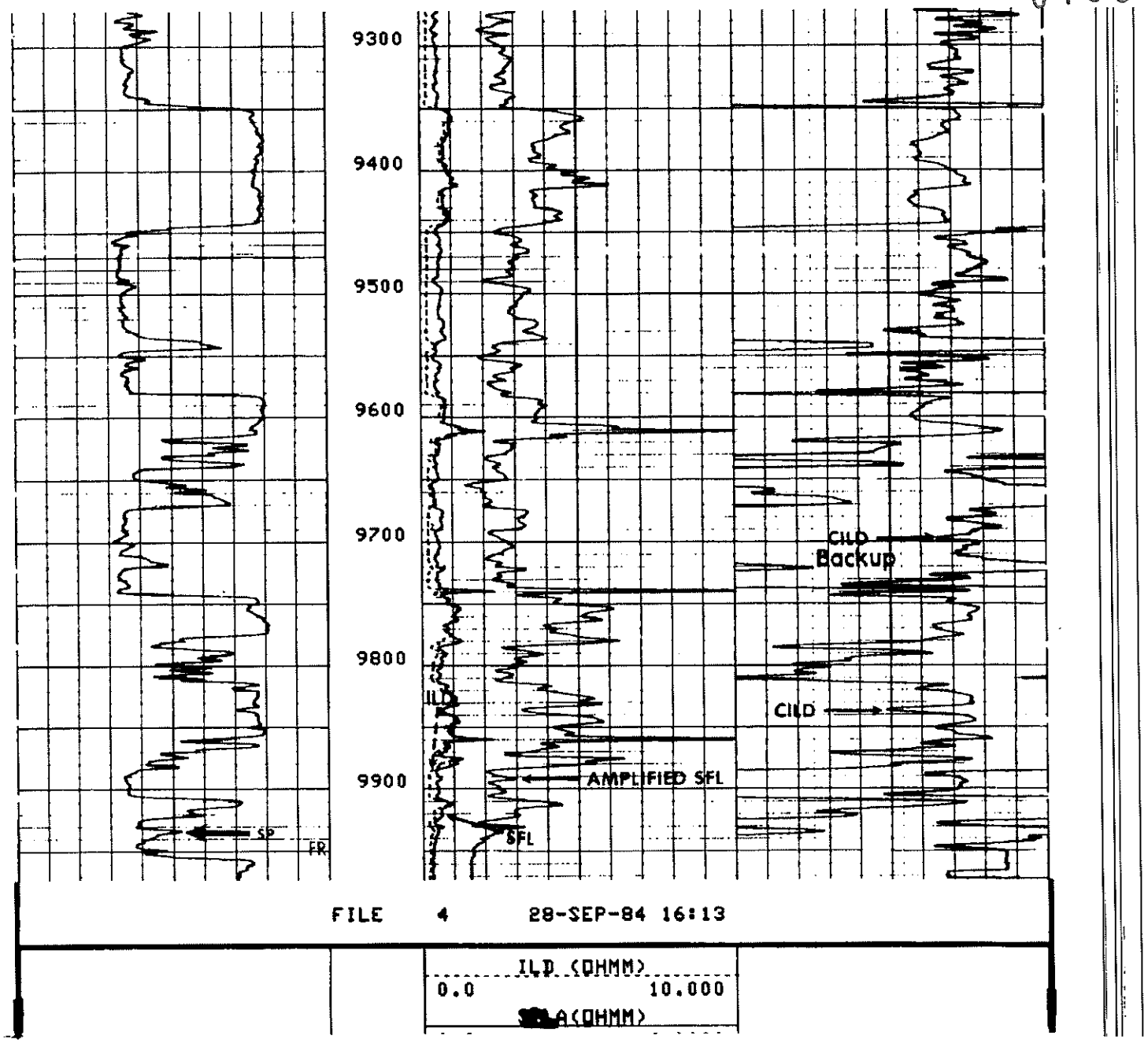

2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100


4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
5400


5500
5600
5700
5800
5900
6000
6100
6200
6300
6400
6500
6600
6700


6800
6900
7000
7100
7200
7300
7400
7500
7600
7700
7800
7900


8000
8100
8200
8300
8400
8500
8600
8700
8800
8900
9000
9100
9200
Run 2
Run 3


9300
9400
9500
9600
9700
9800
9900
CILD
Backup
CILD
AMPLIFIED SFL
SP
SFL
FR
FILE 4 28-SEP-84 16:13
ILD (OHMM)
0.0
10.000
A(OHMM)

Attachment 3

AN ANNOTATED COPY OF AN ELECTRIC WELL LOG OF THE OFFSET WELL THAT SHOWS THE INJECTION ZONE

- Please note, as per previous communication and guidance from Scott St. Romain, the injection zone log included with this application is not the nearest offset log that shows the injection zone; that well (SN 235632, ~7,500 ft offset) is highly deviated. In preference of a deviated well, the log included in this application is from the Grace D Murrell No. 5, a straight well located slightly further from the proposed Class V well (~10,060 ft offset).

046012

214206

Schlumberger

DUAL INDUCTION - SFL LONG-SPACING SONIC CALIPER GAMMA RAY

Company: TE[illegible]

Well: M[illegible] #5

Field: DOROY[illegible]

County: IBERVILLE State: LOUISIANA

RECEIVED APR 2 [illegible] LAFAYETTE DISTRICT OFFICE OFFICE OF CONSERVATION

CONFIDENTIAL

Location: N 69 DEG 03 53' W 20,455.62' FR USC&GS MON "WHITE CASTLE 1929", X=2,040,319.84 Y=553,734.41

Other Services: LDT CNL DIPMETER

API SERIAL NO	SECTION	TOWNSHIP	RANGE
1704720972	82	10S	12E

Permanent Datum	BHF	Elevation	0.00
Log Measured From	RKB	28.00	Ft. above Perm. Datum
Drilling Measured From	RKB		

Elevations: KB 0.00, DF 0.00, GL 7.40

Date	2-17-92	3-1-92
Run No	1 SUITE 1	2 SUITE 2
Depth-Driller	11680	13625
Depth-Logger	11680	13628
Btm. Log Interval	11674	13622
Top Log Interval	3003	11681
Casing-Driller	13 3/8 @ 2993	9 5/8 @ 11680
Casing-Logger	3003	11681
Bit Size	12 1/4	8 1/2
Fluid Type	LIGNO	LIGNO LIGCO
Dens. Visc.	11.6 45.0	16.8 45.0
Fluid Loss pH	5.9 10.0	2.9 11.5
Source of Sample	PIT	MUD PIT
Rm @ Meas. Temp.	1.190 @ 75	1.520 @ 79
Rmf @ Meas. Temp.	.952 @ 75	.730 @ 79
Rmc @ Meas. Temp.	1.425 @ 75	2.280 @ 79
Source Rmf Rmc	MEAS CALC	PRESS CALC
Rm @ BHT	.521 @ 180	.570 @ 214
Time Circ. Stopped	1500 2 17	0430 3 1
Logger on Btm	2200 2 17	1030 3 1
Max. Rec. Temp.	180	214
Equip. Location	NA HOUMA ES	8426 OPEL
Recorded By	POSNER JOUBERT	PARISH
Witnessed By	HINNERS	HINNERS

OFFICE OF CONSERVATION RECEIVED MAY 06 1992 GEOLOGICAL SECTION

CONFIDENTIAL

BEST COPY available

Marked Injection Zone Log
Grace D Murrell No. 5
Well Serial No. 214206
~10,060' away

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

31.2

SP	10.3
Deep Ind	9.5
Aux Meas SFL	6.5
Med Ind	6.0
Test Meas	
Status	
Tension	0.0

TOOL ZERO

DIT-E
DIS-HB 166
DIC-EB 259
MIH-ZA

04601

MAXIMUM STRING DIAMETER 3.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

MAXIMUM STRING DIAMETER 3.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

OP System Version: 4C1-04h

Output DLIS Files

DEFAULT BITE .005 FIELD 17-FEB-1992 21:58

PIP SUMMARY

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

Time Mark Every 60.0 S

SFL Averaged (SFLA)
0.0 (OHMM) 10.0

IL-Deep Resistivity (ILD)
0.0 (OHMM) 10.0

SP (SP)
-160.0 (MV) 40.0

SFL Averaged (SFLA)
0.0 (OHMM) 2.0

IL-Deep Conductivity (CILD)
4000.0 (MMHO) 0.0

2800
2900
3000
3100
3200
3300
3400
3500

Casing

SP

AMPLIFIED
SFL Averaged

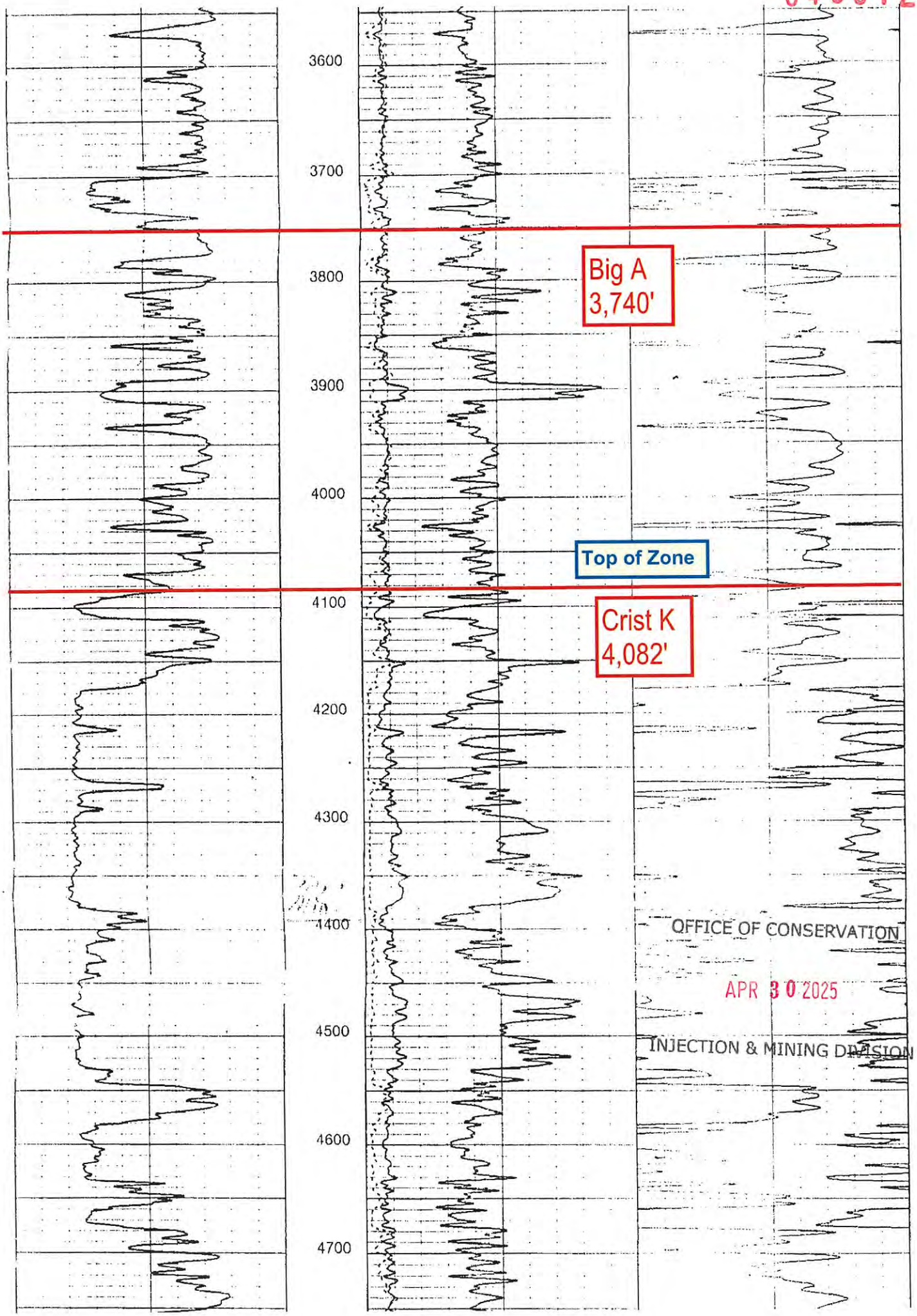
IL-Deep Resistivity

SFL Averaged

IL-Deep Conductivity

IL-Deep Conductivity
BACKUP

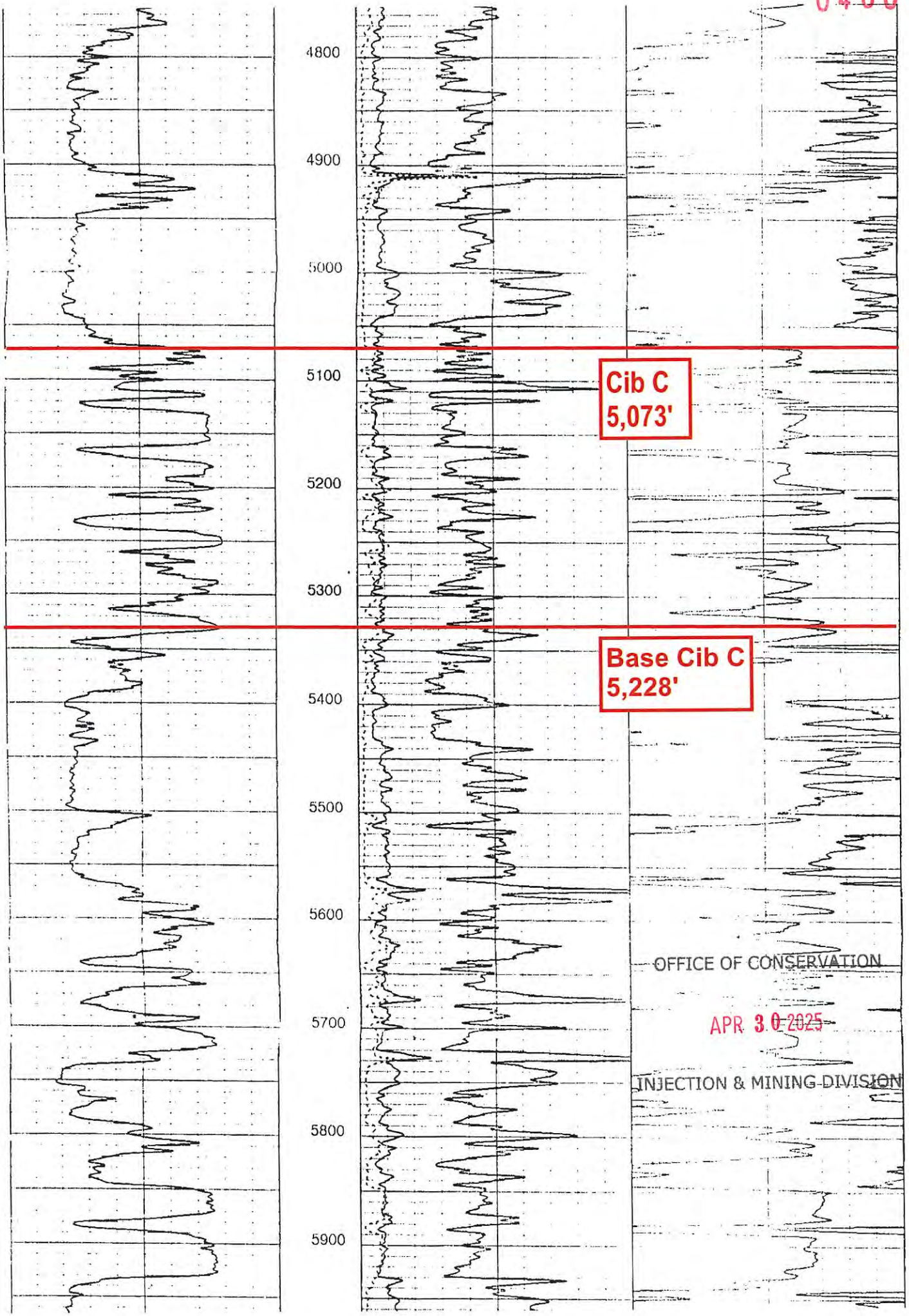
046012

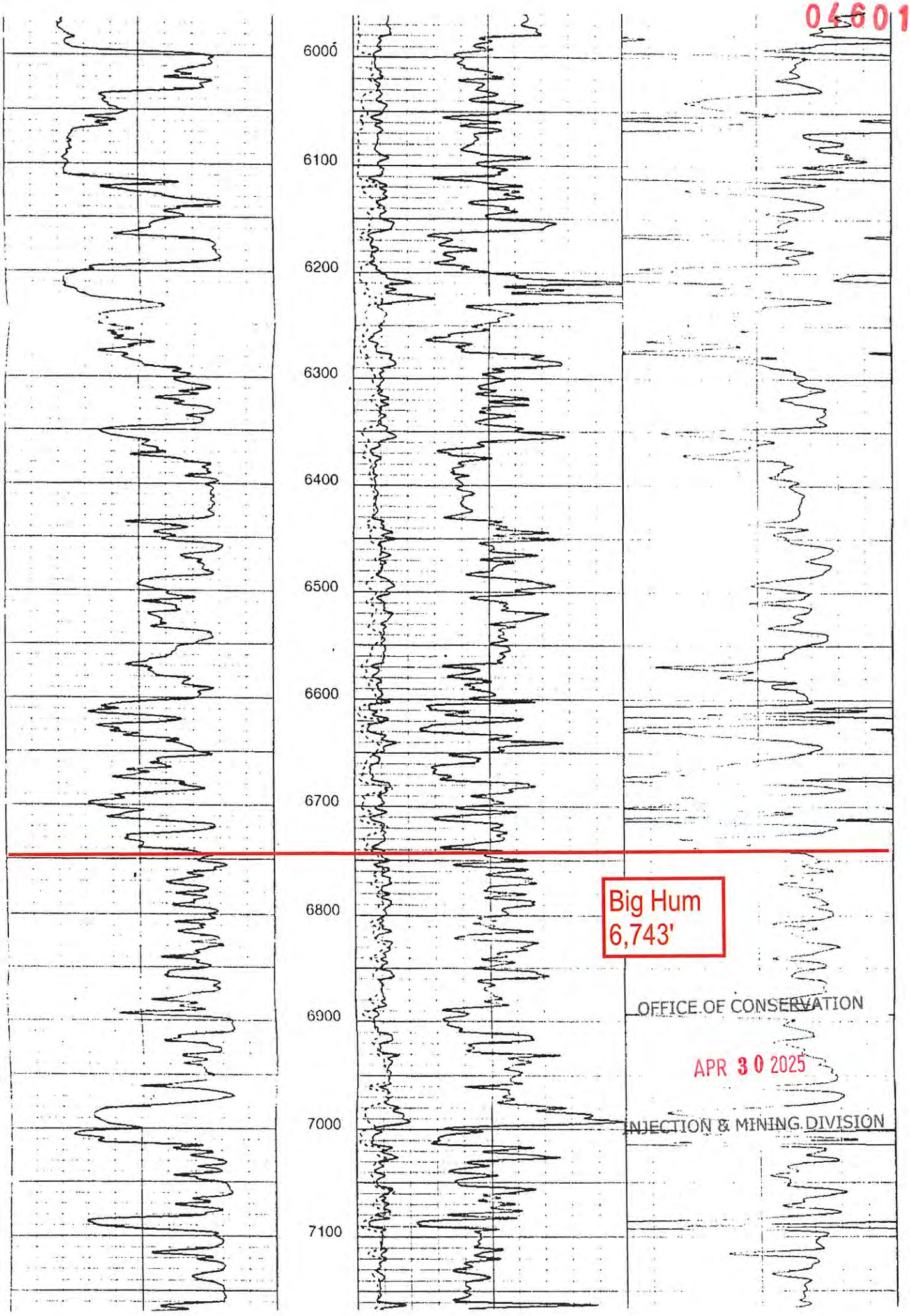


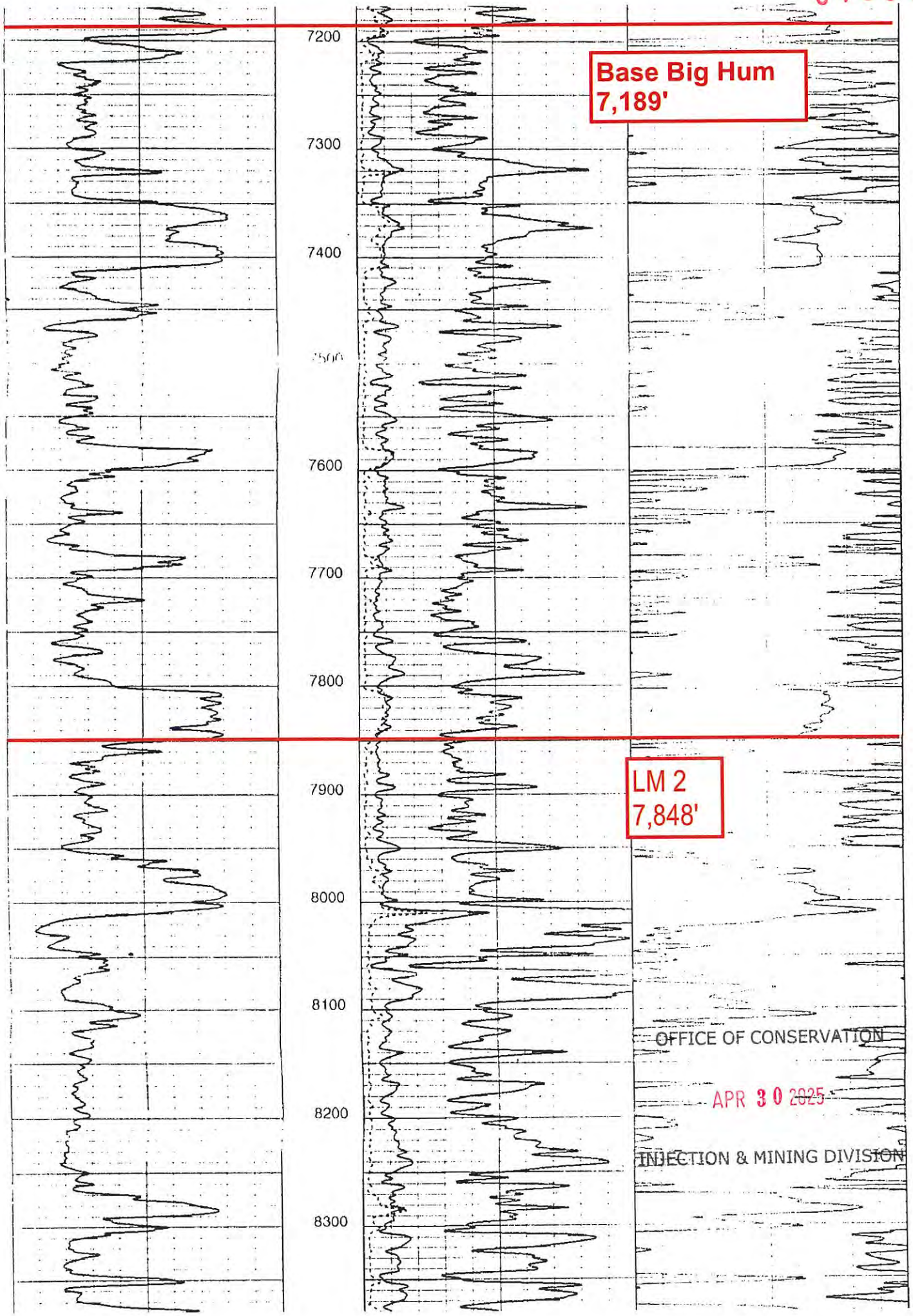
OFFICE OF CONSERVATION

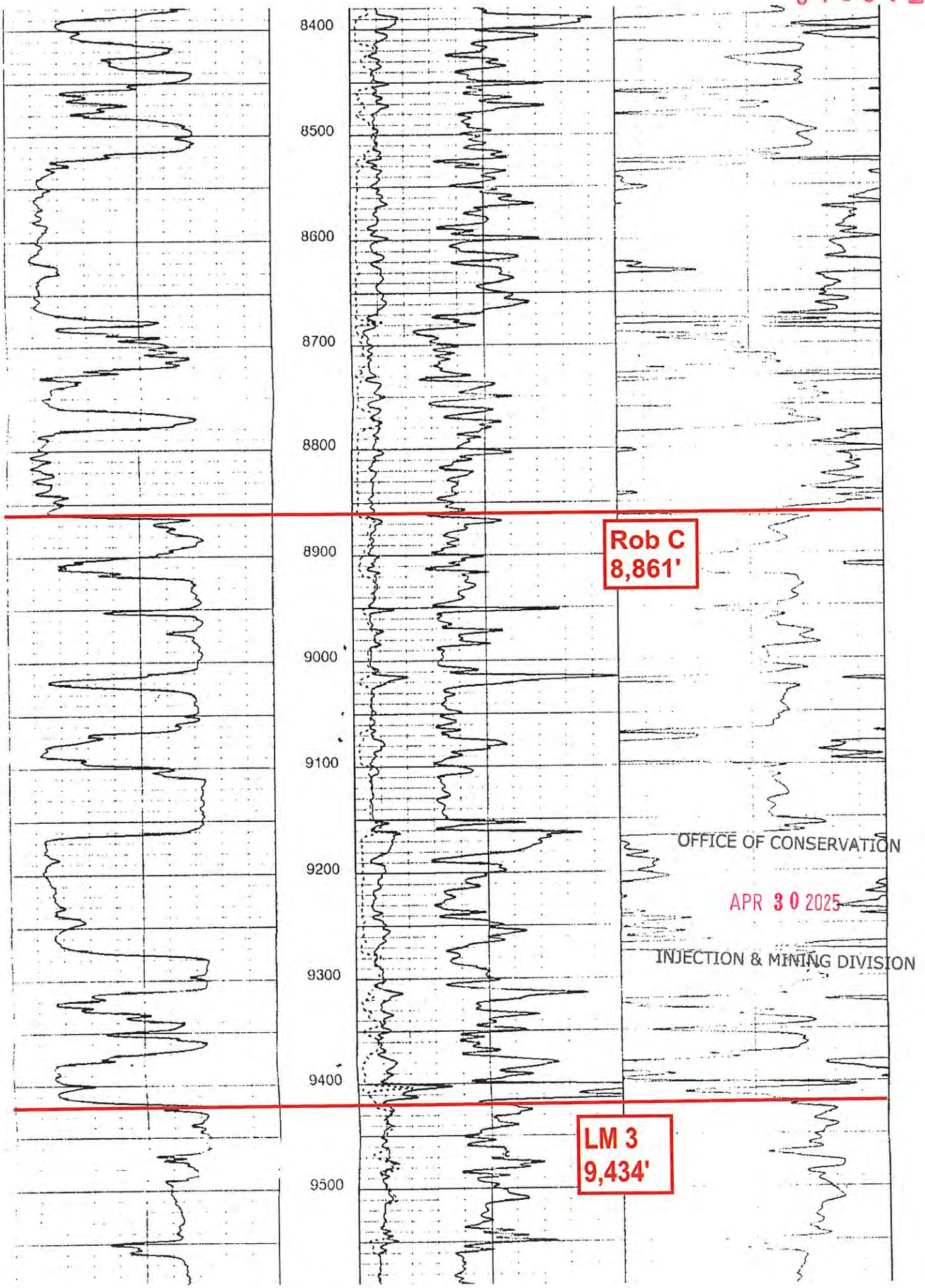
APR 30 2025

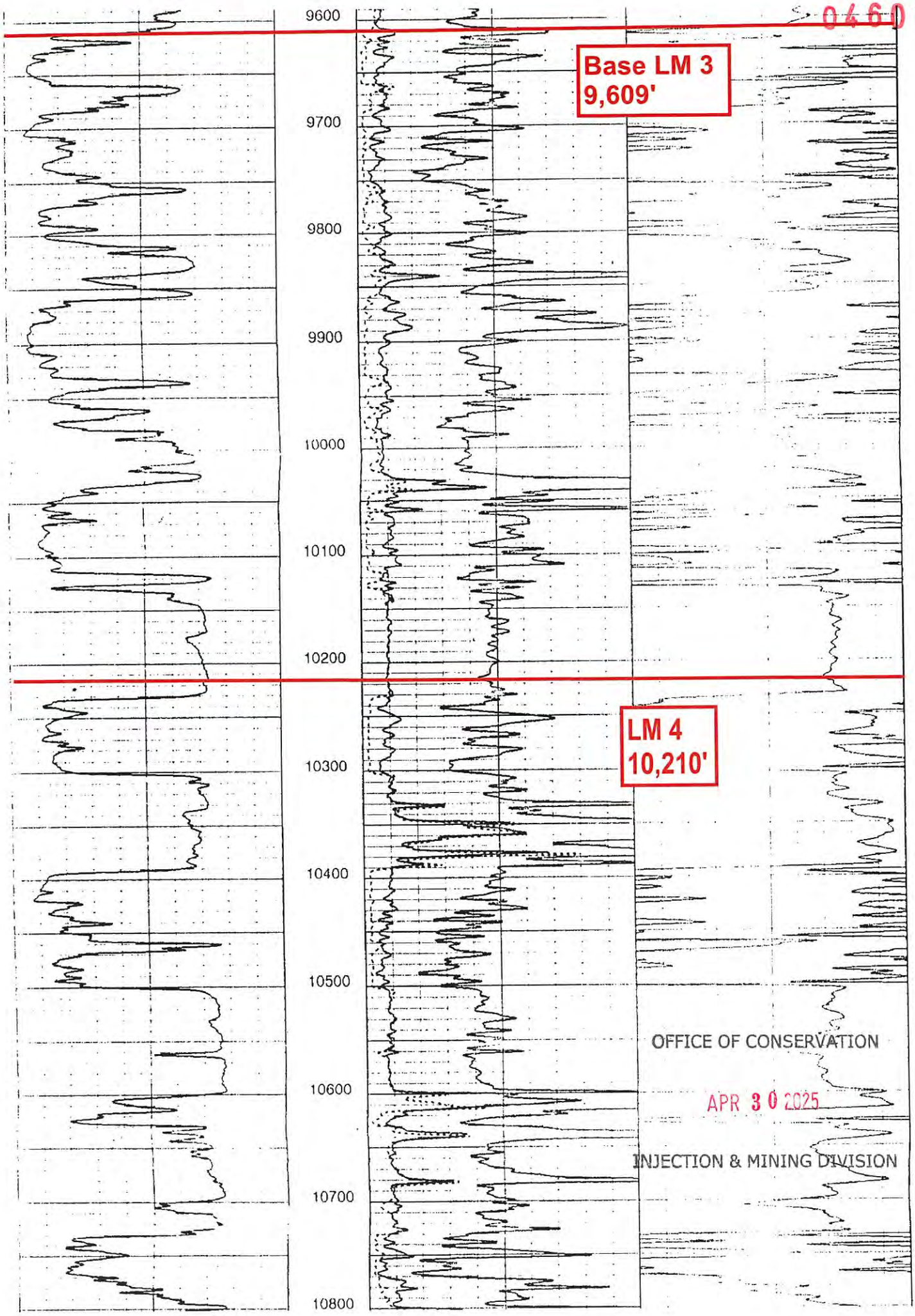
INJECTION & MINING DIVISION

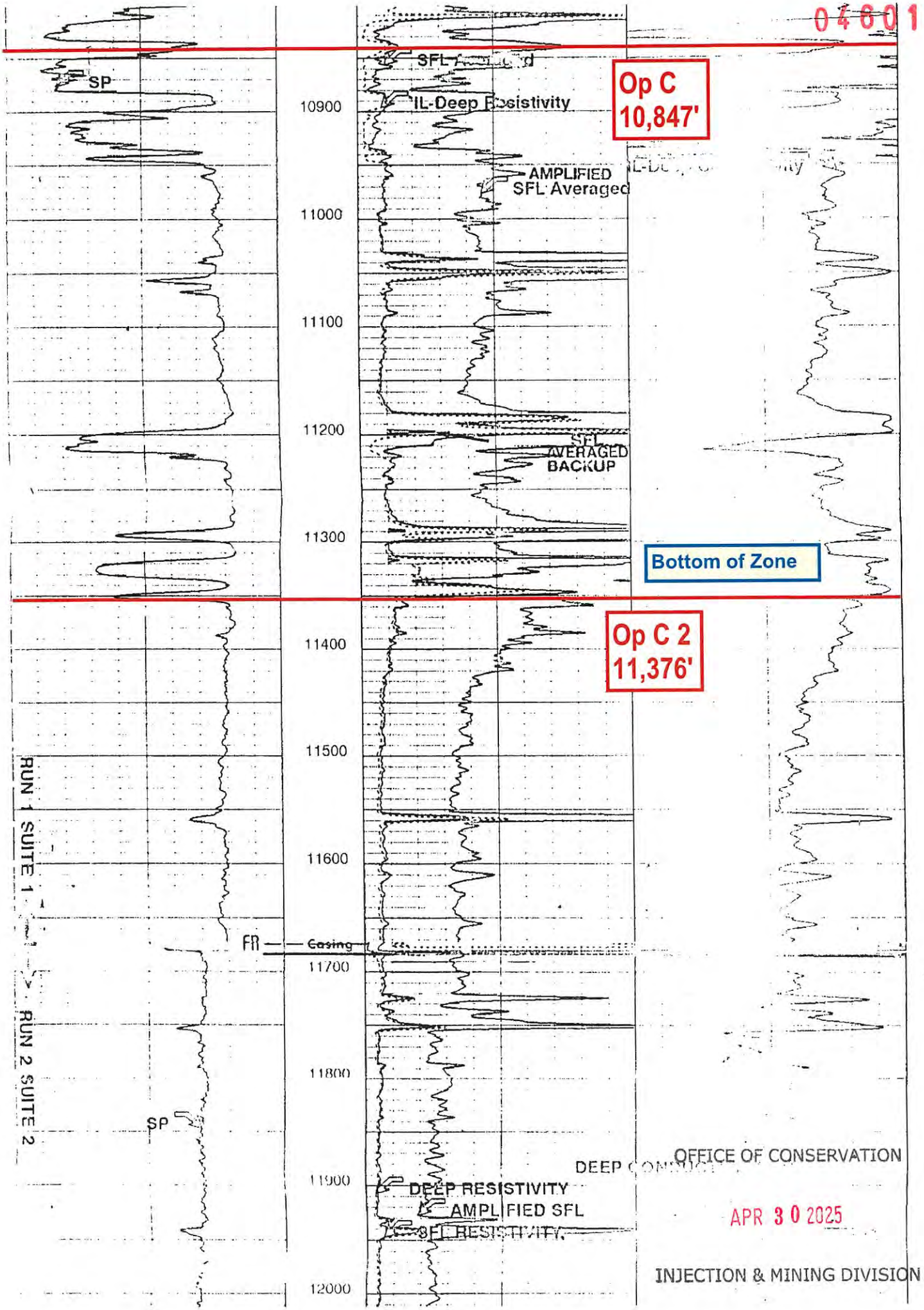



046012
6000
6100
6200
6300
6400
6500
6600
6700
6800
6900
7000
7100
Big Hum
6,743'
OFFICE OF CONSERVATION
APR 30 2025
INJECTION & MINING DIVISION







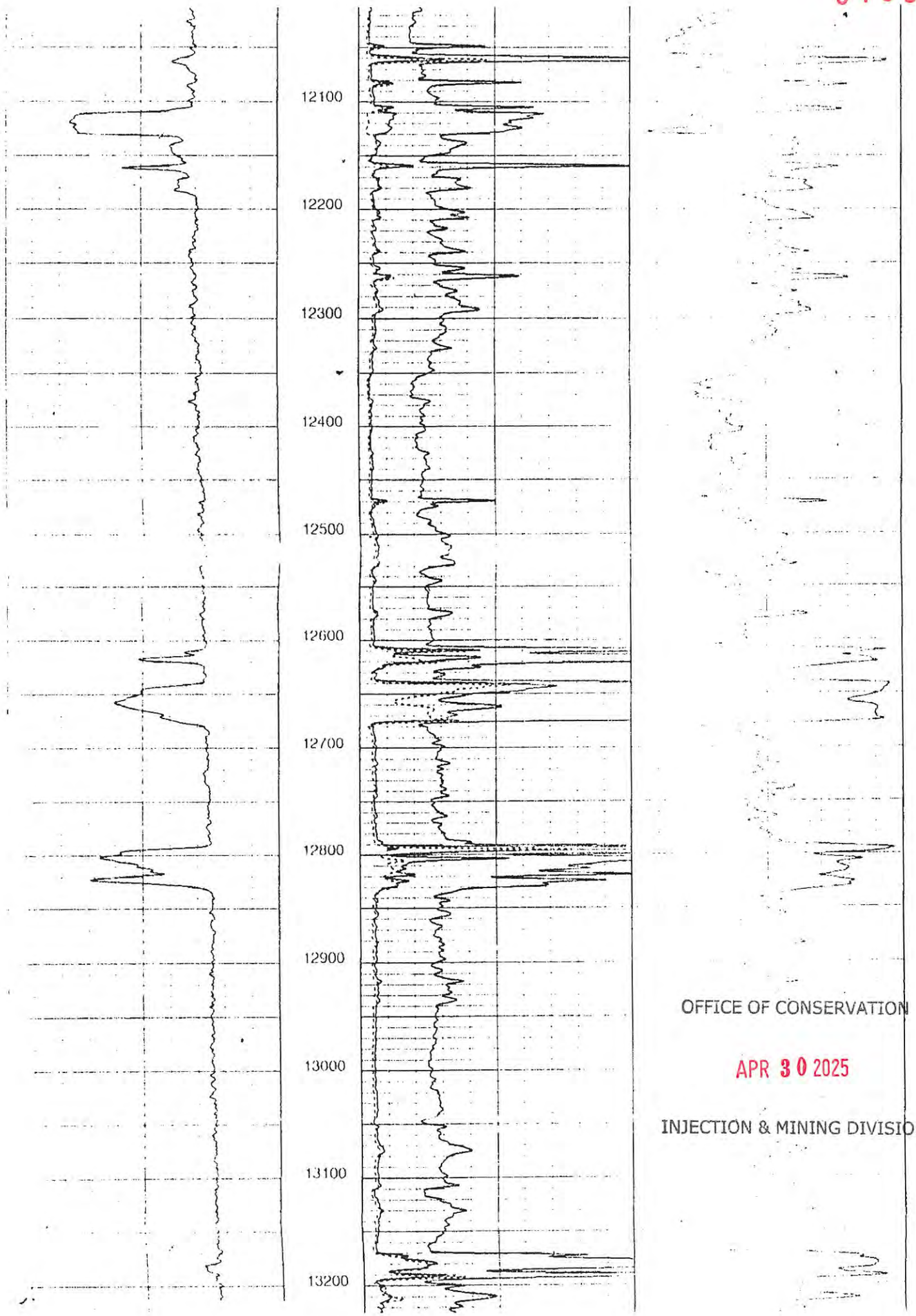


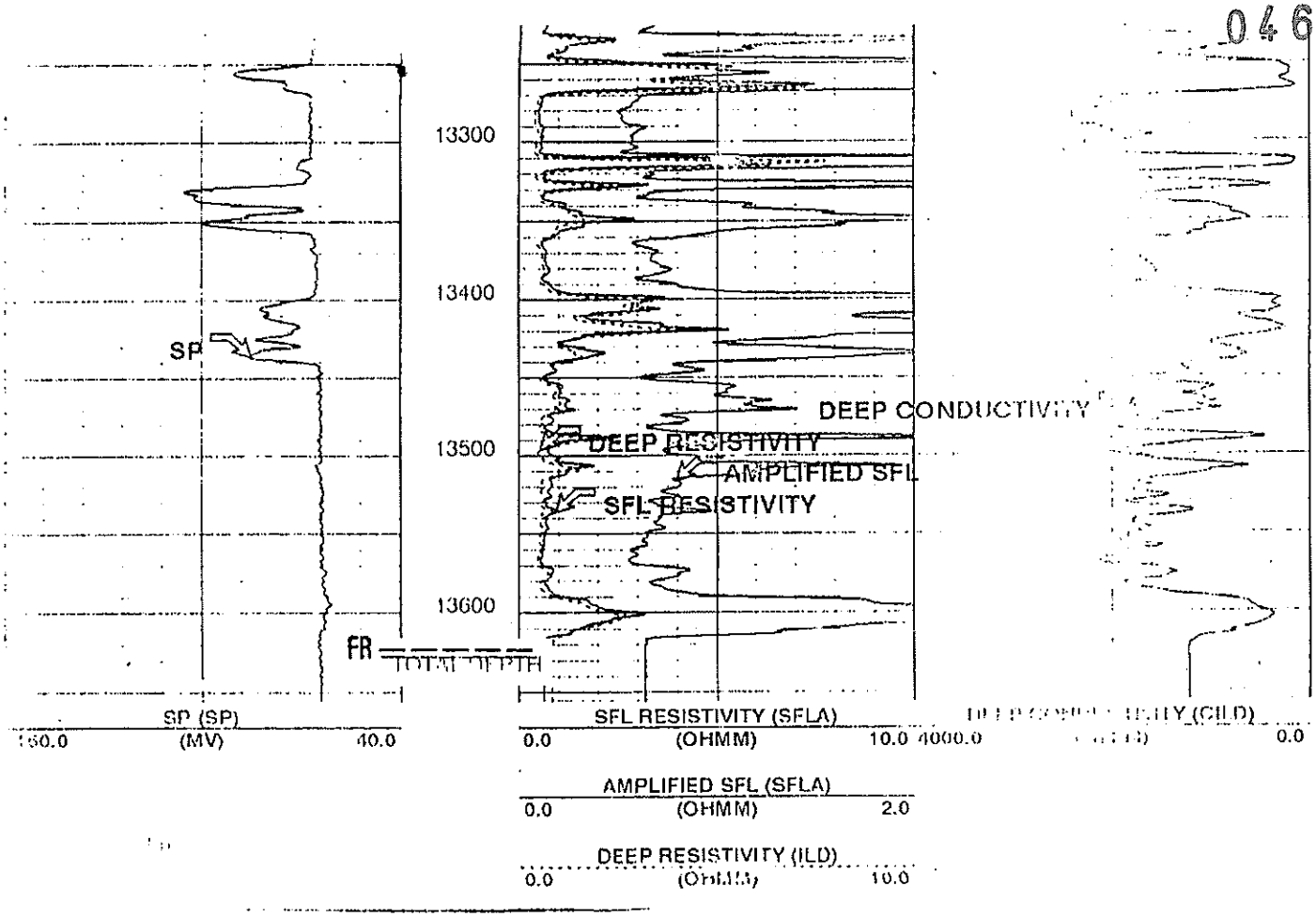
046012

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION





OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

Attachment 4

SCHEMATIC OF THE CLASS V-WELL SHOWING:

1. Casing diameter, specifications, material (PVC, steel, etc.) and depth,

2 Screen type, length, material, slot or opening size,

3. Injection tubing size inside casing (if any)'

4. Hole diameter (bit size),

5. Amount and type of cement used and depths to top and bottom of cement,

6. Wellhead showing all fittings,

7. Discharge line diameter and connection to wellhead,

8. Well house (if any).

The schematic is stamped and signed by a Louisiana-registered Professional Engineer (PE)

046012

PROPOSED WELLBORE DIAGRAM

Proposed Schematic TA

ExxonMobil

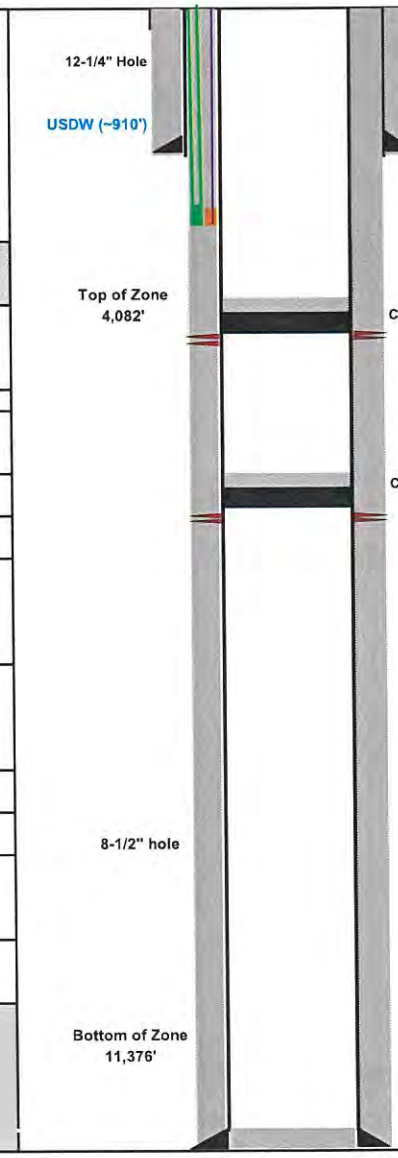
Location:
Latitude (Y): 30°10'34.54"N
Longitude (X): 91°14'01.94"W

FIELD: Wildcat - LA So Lafayette District
WELL: Denis Murrell No. 1
OPERATOR: ExxonMobil Low Carbon Solutions Onshore
PARISH: Iberville
STATE: LA
STATUS: Class V (To be Permitted)
PERMIT NO. TBD
WELL TYPE: Stratigraphic Test Well
SECTION: 65
TOWNSHIP: 10S
RANGE: 12E

(Drawing: Not to scale)

Formation Tops

Big A (3,740') (UCZ)
Crist K (4,082')
Cib C (5,073')
Base Cib C (5,228')
Big Hum (6,743')
Base Big Hum (7,189')
LM 2 (7,848')
Rob C (8,861')
LM 3 (9,434')
Base LM 3 (9,609')
LM 4 (10,210')
Op C (10,847')
Op C 2 (11,376')



20", 79ppf, X42 Conductor ± 100'
Tail Cement: 225 sx Class A, 15.6ppg, 1.55ft3/sk

9-5/8", 47ppf, L80, LTC set at ± 2,500'
Lead Cement: 571sx Class A, 12 ppg, 2.35 ft3/sk
Tail Cement: 271 sx Class A, 15 ppg, 1.28 ft3/sk
Centralizers installed as per drilling program

U-tube + Perf gun: Fluid sampling in permeable formation
Pressure Sensor on TEC line

Cast Iron Bridge Plug @ ~4,110' with 10' of cement
Perforation Interval
4,150' - 4,200'
Final PBTD of 4,100'

Cast Iron Bridge Plug @ ~7,180' with 10' of cement
Perforation Interval
7,220' - 7,270'

5-1/2", 17ppf, L80, set at ±11,600"
Lead Cement: 576 sx Class A, 12.5ppg, 1.66 ft3/sk
Tail Cement: 1,531 sx Class H, 13.5ppg, 1.42 ft3/sk
Centralizers installed as per drilling program

TD: ± 11,600'

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

STATE OF LOUISIANA
CODY M. TODD
License No. 47373
4-24-25
PROFESSIONAL ENGINEER

046012

PROPOSED WELLBORE DIAGRAM

FIELD: Wildcat - LA So Lafayette District
WELL: Denis Murrell No. 1
OPERATOR: ExxonMobil Low Carbon Solutions Onshore
PARISH: Iberville
STATE: LA
STATUS: Class V (To be Permitted)
PERMIT NO. TBD
WELL TYPE: Stratigraphic Test Well

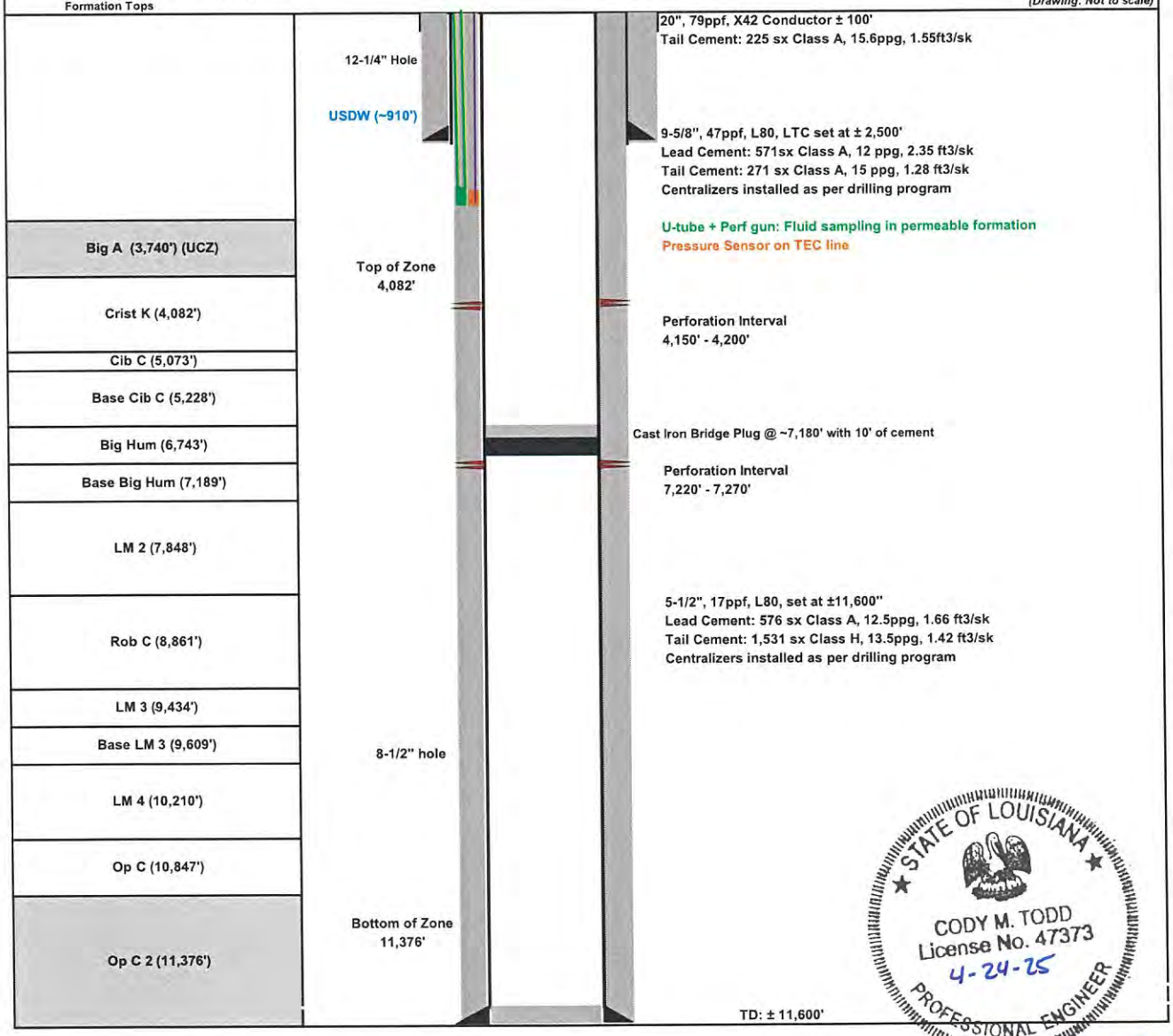
Location:
Latitude (Y): 30°10'34.54"N
Longitude (X): 91°14'01.94"W

SECTION: 65
TOWNSHIP: 10S
RANGE: 12E

Proposed Schematic Test 2

ExxonMobil

(Drawing: Not to scale)



STATE OF LOUISIANA
CODY M. TODD
License No. 47373
4-24-25
PROFESSIONAL ENGINEER

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

046012

PROPOSED WELLBORE DIAGRAM

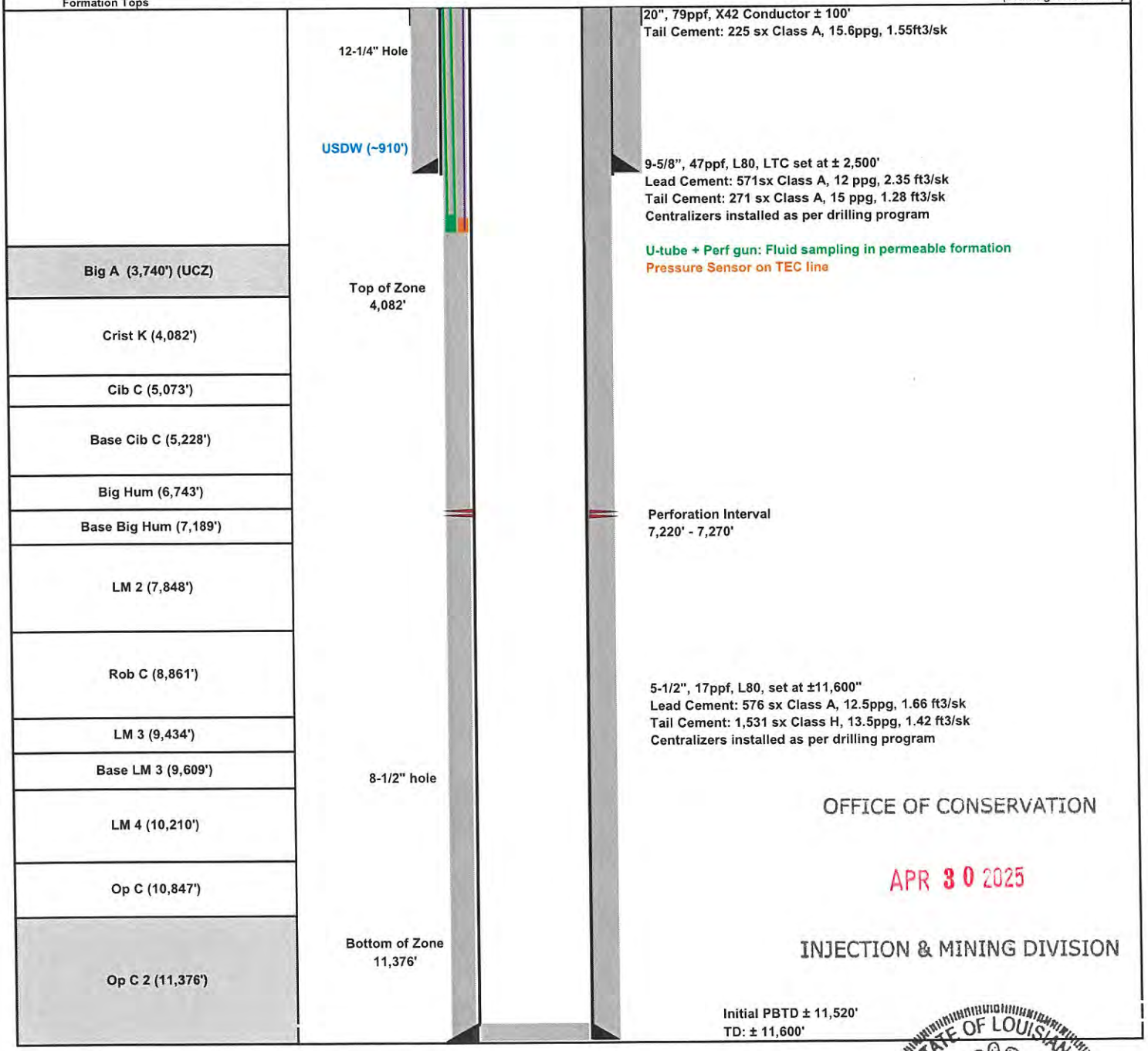
Location:
Latitude (Y): 30°10'34.54"N
Longitude (X): 91°14'01.94"W

FIELD: Wildcat - LA So Lafayette District
WELL: Denis Murrell No. 1
OPERATOR: ExxonMobil Low Carbon Solutions Onshore
PARISH: Iberville
STATE: LA
STATUS: Class V (To be Permitted)
PERMIT NO. TBD
WELL TYPE: Stratigraphic Test Well
SECTION: 65
TOWNSHIP: 10S
RANGE: 12E

Proposed Schematic Test 1

ExxonMobil

(Drawing: Not to scale)



OFFICE OF CONSERVATION

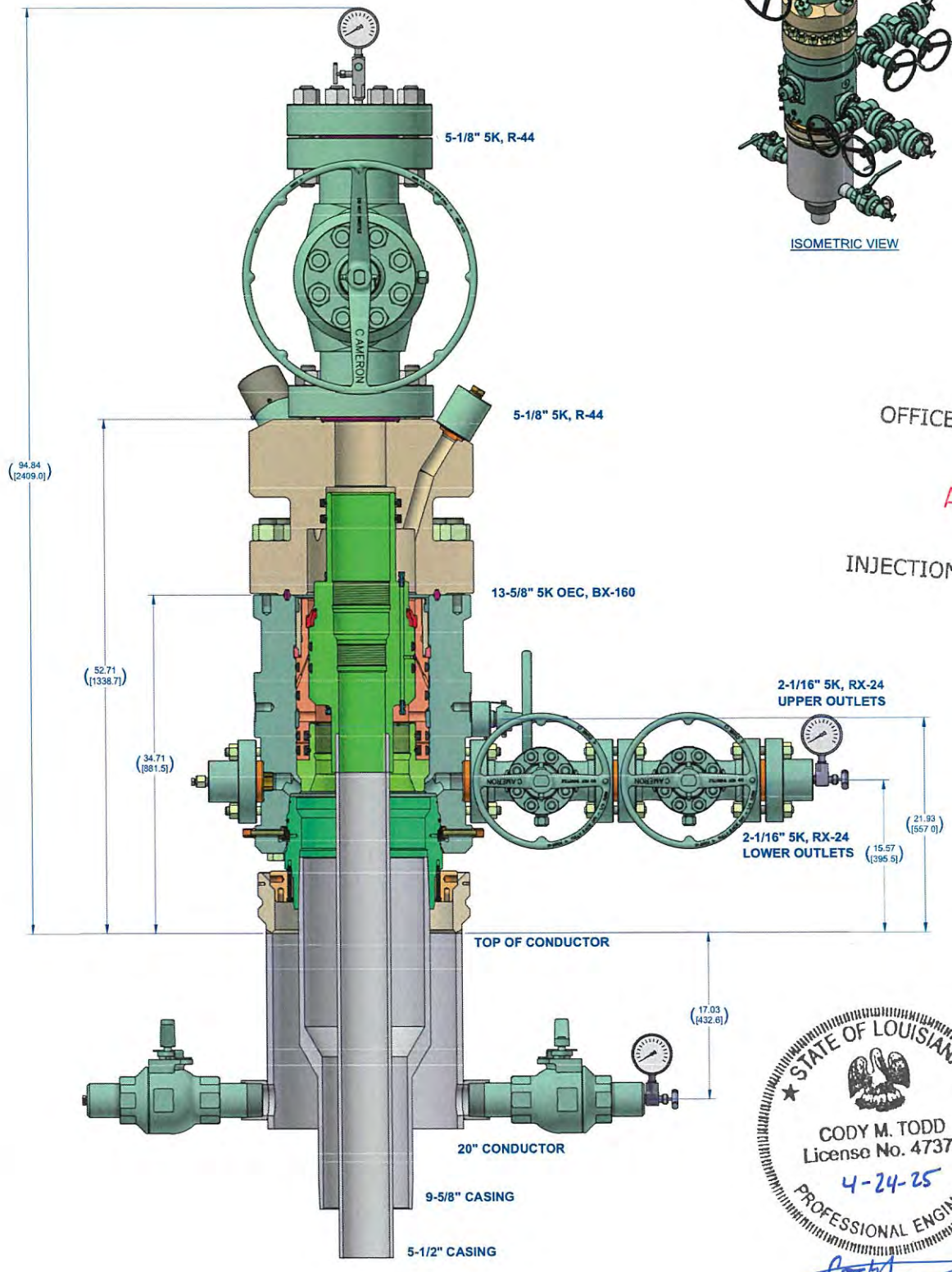
APR 30 2025

INJECTION & MINING DIVISION

STATE OF LOUISIANA
CODY M. TODD
License No. 47373
4-24-25
PROFESSIONAL ENGINEER

046012

ISOMETRIC VIEW



OFFICE OF CONSERVATI

APR 30 2025

INJECTION & MINING DIVIS

STATE OF LOUISIANA
CODY M. TODD
License No. 47373
4-24-25
PROFESSIONAL ENGINEER

APPRAISAL WELLS

CONFIDENTIAL

SURFACE TREATMENT	DO NOT SCALE		slb	SURFACE SYSTEMS
	DRAWN BY: A. MONISTERE	DATE: 6 Jun 24		
MATERIAL & HEAT TREAT	CHECKED BY: A. MONISTERE	DATE: 6 Jun 24	EXXONMOBIL ADAPT NST 2S WELLHEAD 20" X 9-5/8" X 5-1/2"	
	APPROVED BY: JC GONZALEZ	DATE: 6 Jun 24		
ESTIMATED WEIGHT	6617.3 LBS 3001.6 KG	INITIAL JOB S/N: 80642553	SHEET 1 of 2	SD-054562-01-50 REV 01

NOTES:
1: THIS IS A PROPOSAL DRAWING AND DIMENSIONS SHOWN ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.
2: DIGITALLY ENABLED SOLUTIONS, CHOKES AND ESD'S ARE AVAILABLE ON REQUEST.

Attachment 5

WORK PROGNOSIS FOR DRILLING, COMPLETING, AND TESTING THE WELL

ExxonMobil

ExxonMobil

DRILLING, COMPLETION, & TESTING PLAN

Denis Murrell No. 1

ExxonMobil Low Carbon Solutions Onshore Storage LLC

WELL INFORMATION

Location: **Lat:** 30°10'34.54"N (NAD 27) **Long:** 91°14'01.94"W (NAD 27)
(Section - 65; Township – 10S; Range – 12E; Iberville Parish; Louisiana)

Objective: The primary objective is a stratigraphic test of various formations as part of ExxonMobil's Carbon Sequestration project.

Operator: ExxonMobil Low Carbon Solutions Onshore
22777 Springwoods Village Parkway
Spring, Texas 77389

ExxonMobil

GEOLOGICAL PROGNOSIS

Formation	Estimated Depth, (KB), feet
Base of Underground Source of Drinking Water	Approx. 910'
Big A	3,740'
Crist K	4,082'
Cib C	5,073'
Base Cib C	5,228'
Big Hum	6,743'
Base Big Hum	7,189'
LM 2	7,848'
Rob C	8,861'
LM 3	9,434'
Base LM 3	9,609'
LM 4	10,210'
Op C	10,847'
Op C 2	11,376'

Coring Program

Sidewall cores are proposed to be collected from selected formations as desired. Additional whole cores may be collected in select formations.

Drilling Procedure

1. Pre-install 20" conductor at approximately ~100ft below ground level, cementing to surface with 225 sx of Class A, 1.55 ft^3/sack. Cut casing as necessary.
2. **Notify LDENR upon intent to spud the well a minimum of 48 hours before the planned spud time.**
3. Mobilize and rig up drilling rig and equipment.
4. Install load ring on conductor and nipple up flowline.
5. Spud and drill hole to ~2.500'
6. Circulate the hole clean. Pull out of hole with BHA.
7. Run open hole wireline logs per the Logging and Testing Program
   - **Note: The Open-hole logs will be submitted to LDENR for USDW determination and minimum surface casing depth requirement prior to setting the surface casing to ensure adequate isolation and protection of the USDW.**
8. Run 9-5/8 in. surface casing with centralizers to ±2,500'.
9. Cement 9-5/8 in. casing to surface. The proposed cement slurries are presented below, but the final slurries and volumes will be based on wellbore conditions:

   Slurry Specifications:

   Lead: Class A cement with additives
   Sacks: 571 sacks
   Yield: 2.35 ft^3/sack
   Density: 12 ppg

   Tail: Class A cement with additives
   Sacks: 271 sacks
   Yield: 1.28ft^3/sack
   Density: 15 ppg

   - **Note: If the cement is not circulated to surface, cement top off job may be performed. Notify LDENR if cement is not circulated to the surface, prior to conducting cement top up.**
10. Install wellhead and BOPs. Test BOPs.
11. Wait on cement 12 hours prior to testing casing.
12. **Pressure test the casing to a minimum of 600 psi for 30 minutes per LDENR regulations.**
    - **A maximum of 5% pressure loss is allowed over the 30 minutes test period.**
    - **The pressure test will be charted and recorded on form CSG-T (Casing Test affidavit) and submitted to LDENR.**
    - **Notify LDENR-IMD at least 48 hours prior to conducting the pressure test in the event staff wishes to witness the test.**

ExxonMobil

Logging and Testing Program

Cased Hole / Open Hole	Hole Size (inch)	Interval Depth (feet)	Individual Logging Tools	Interval
Open Hole	12-1/4	0 – 2,500	Gamma Ray, Resistivity, Spontaneous Potential Logs.	Surface (Open Hole).
Open Hole	8-1/2	2,500 – 11,600'	Gamma Ray, Resistivity, Density Porosity, Dipole Sonic, Spectroscopy, Image Log, Fluid and pressure samples	Production (Open Hole)
Cased Hole	12-1/4	0 – 2,500	Cement Bond Log, CCL, Gamma Ray	Surface (Cased Hole)
Case Holed	8-1/2	0 – 11,600'	Cement Bond Log, CCL, Gamma Ray	Production (Cased Hole)

Note: *SP Log will be run in open hole surface section but not in remainder of hole due to Oil Based Mud*

Note: *Additional logs may be run for data acquisition purposes*

ExxonMobil

13. Pick up 8-1/2 in. BHA and drill out shoe track, and 10ft of new formation.
14. Perform Formation Integrity Test.
15. Drill 8-1/2 in. hole to TD, taking cores in select formations as desired.
16. Run open hole wireline logs per the Logging and Testing Program
17. Run 9-5/8 in. cased hole wireline logs per the Logging and Testing Program
18. Run 5-1/2 in. production casing with centralizers to TD (± 11,600) and with the following equipment installed:
    - Casing mounted perforating guns, U-tube system for fluid sampling, and pressure array installed to ~3,200 ft.
19. Cement 5-1/2 in. production casing to surface. The proposed cement slurries are presented below, but the final slurries and volumes will be based on wellbore conditions:

    Slurry Specifications:

    Lead: Class A cement with additives

    Sacks: 576 sacks

    Yield: 1.66 ft^3/sack

    Density: 12.5 ppg

    Tail: Class H cement with additives

    Sacks: 1,531 sacks

    Yield: 1.42 ft^3/sack

    Density: 13.5 ppg

    - ***Note: If the cement is not circulated to surface, cement top off job may be performed. Notify LDENR if cement is not circulated to the surface, prior to conducting cement top up.***
    - ***Note: If casing packer and stage tool are required, the cement program will be modified to add the equipment.***
    - ***Note: The final cement slurry designs and volumes will be based on as-drilled hole conditions.***
20. Wait on cement 12 hours prior to testing casing.
21. **Pressure test the casing to a minimum of 1,000 psi for 30 minutes per LDENR regulations.**
    - **A maximum of 5% pressure loss is allowed over the 30 minutes test period.**
    - **The pressure test will be charted and recorded on form CSG-T (Casing Test affidavit) and submitted to LDENR.**
    - **Notify LDENR-IMD, at least 48 hours prior to conducting the pressure test in the event staff wishes to witness the test.**
22. Nipple down BOP and install dry hole tree.
23. Rig down and move out drilling rig.

ExxonMobil

Completion Procedure (Rigless Ops)

24. Rig up surface pressure equipment.
25. Rig up wireline unit and PCE.
26. Run cased hole wireline logs per the Logging and Testing program
    - **The CBL will be submitted to LDENR-IMD for confirmation of good cement prior to injection into the well. The CBL must show evidence of the minimum required interval of 60% bonded cement in the isolating shale immediately above the top of zone. If CBL does not show good bond, perform squeeze and re-run CBL.**
27. Pick up guns and RIH.
28. Perforate ~ 7,220' – 7,270' and POOH

    Note: Actual perforation depths are subject to change based on the open hole logs of the well itself
29. RIH with P/T gauge on wireline to perforation interval to take bottomhole P/T reading.
30. Rig up surface iron and pumping equipment.
31. Perform step rate fall off test
    - The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
    - The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

    Note: The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

    Note: A detailed step rate fall off test procedure for all tests will be provided to IMD along with the Fluid Source Analysis prior to injection
32. POOH with P/T gauge.
33. Pick up 5-1/2" cast iron bridge plug and set at ~7,180' (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.
34. RIH wireline cement bailer and spot 10' of cement on top of CIBP
35. Pick up guns and RIH
36. Perforate ~4,150' – 4,200' and POOH

    Note: Actual perforation depths are subject to change based on the open hole logs of the well itself
37. RIH with P/T gauge on wireline to perforation interval.
38. Perform step rate fall off test

ExxonMobil

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

39. POOH with P/T gauge.
40. Pick up 5-1/2" cast iron bridge plug and set at ~4,110' (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.
    - **Notify LDENR-IMD CES at least 48 hours prior to conducting the final pressure test which will serve as the well's MIT**
41. RIH wireline cement bailer and spot 10' of cement on top of CIBP for a final PBTD of 4,100'
42. Rig down wireline unit.
43. Install the TA plug in the wellhead.
44. Demob equipment from location.

Attachment 6

FINANCIAL SURETY

- Financial Surety in the form of a performance bond covering the third party estimated P&A cost, once approved, will be submitted to LDENR prior to a permit to construct being issued.

Attachment 7

IT QUESTIONS DOCUMENTATION

ExxonMobil

1. **Have the potential and real adverse environmental effects of the proposed project been avoided to the maximum extent possible?**

The potential and real adverse environmental effects of the proposed Class V Stratigraphic Test Well (Well) have been minimized or avoided to the maximum extent practicable. The proposed well was specifically located in an agricultural field and the access road is existing. The potential and real adverse environmental impacts that may occur are in relation to underground sources of drinking water (USDW) and to the surface environment. Preservation, avoidance, and minimization of the potential effects caused by the proposed activity is described below.

Standard USDW Protections

a) Well design, drilling, installation, and testing will conform with all applicable standards.

b) Ensure the USDW is protected by setting surface casing below the lowermost USDW formation and cementing the casing to surface in accordance with applicable standards.

c) The surface cased section will be drilled vertically which minimizes the length of casing passing through any USDW at the site and minimizes complications of cementing.

d) Pressure testing of the surface casing will be conducted to ensure no leaks or potential for migration of fluids to the USDW.

e) Production casing will be cemented from the surface to the total depth of the well to seal off the formations and prevent migration of fluids outside of the injection zone.

f) A cement bond log (CBL) will be run to confirm the integrity of the cement (i.e., assurance that there are no channels adjacent to the casing which would permit migration of fluids up the wellbore from the injection zone).

g) Permanent monitors may be installed in the well and surrounding locations for both seismic and USDW monitoring.

h) Should it be required, the well will be plugged and abandoned in accordance with all applicable regulations.

Standard Environmental Protections

The construction of the proposed Well will incorporate best management practices (BMPs), engineering practices, and regulatory requirements to help ensure that any potential and real adverse environmental effects occurring as the result of proposed Well are avoided to the maximum extent possible. The following BMPs, engineering practices, and regulatory requirements will be utilized as applicable for the proposed Well:

a) Ensure all work sites and equipment access routes return to a clean and safe condition when the work is completed.

b) Contractors will be required to develop and implement a Stormwater Prevention Pollution Plan (SWPPP) to minimize runoff of stormwater and runoff of any fill materials into adjacent waterways during construction.

c) Solid and/or hazardous waste generated during construction shall be temporarily stored on-site in accordance with applicable local, state, and federal regulations prior to off-site transport and shall be disposed of at an authorized state/federally approved treatment, storage, or disposal facility.

d) Air emissions generated from the proposed facilities are expected to be minor and only last during construction activities.

e) Any temporary noise impacts from the project are expected to be minor, and no noise mitigation is expected to be necessary.

f) There is no anticipated wetland impacts associated with this Well as it is in an existing agricultural field. A routine wetland was conducted by a third party on April 16, 2025, on the proposed well pad and access road. The conclusion is the well pad and access road as proposed will not have impacts to any jurisdictional features.

g) An U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) report was run and identified two (2) proposed threatened species. A routine biological survey was conducted by a third party on April 16, 2025, in the area and along proposed well pad and access road. The conclusion is proposed well pad and access road will not impact any threatened and endangered species. No bald eagles or nests were observed within the vicinity of the project areas during the field survey. Suitable habitat or rookeries for wading birds were not observed.

h) A Phase I, cultural resource study was conducted for the well pad and access road on April 16, 2025, and there were no findings.

2. **Does a cost benefit analyses of the environmental impact costs versus the social and economic benefits of the proposed project demonstrate that the latter outweighs the former?**

Yes, the potential social and economic benefits of the proposed project outweigh the potential environmental impact costs. The data gathered from the proposed Well may be used in support of developing a site for the geological sequestration of carbon dioxide (CO_2), if the subsurface data gathered from the Well is favorable. If the subsurface is favorable and a geological CO_2 sequestration site were to be developed it would provide significant economic and social benefits to the region.

Further, CO_2 sequestration is a type of project that the Louisiana Legislature has determined to be favored as a matter of Louisiana public policy. Specifically, the Louisiana Legislature has recognized the many benefits offered by carbon capture and sequestration (CCS)

projects, stating that "[i]t is declared to be in the public interest for a public purpose and the policy of Louisiana that . . . [t]he geologic storage of carbon dioxide will benefit the citizens of the state and the state's environment by reducing greenhouse gas emissions." See La. R.S. 30:1 102(A). The Center for Climate and Energy Solution states that in 2022, the United States (U.S.) emitted nearly 6 billion metric tons of greenhouse gases and CO_2 accounted for 79% of all the greenhouse gases released. Per Louisiana's 2021 Greenhouse Gas Inventory, over 92% of all Louisiana greenhouse gas emissions (as of 2018) were CO_2. Per Louisiana's Climate Action Plan, Louisiana has an objective of net zero CO_2 emissions by 2050. A CCS Project specifically aids Louisiana in achieving the net zero CO_2 emission goal set forth in Louisiana's Climate Action Plan and can address the primary sector (industry) cited as the dominant source of CO_2 emissions per Louisiana's 2021 Greenhouse Gas Inventory Report.

3. **Are there alternative projects which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?**

   There are no alternative projects that would offer more protection to the environmental than the proposed project without unduly curtailing non-environmental benefits and meet the objectives of the Project. Site-specific information and data concerning the suitability of this Area of Interest (AOI) for the possible future sequestration and storage of CO_2 is not currently available. Such information, including core samples, fluid samples, and static pressure measurements, is required to support any future application to construct and operate a Class VI well. *E.g.,* LAC 43:XVII.3607.C.2; 40 C.F.R. 146.82. The necessary site-specific subsurface data cannot be obtained through means other than drilling a test well to collect the data within the AOI. Accordingly, there is no alternative project that would provide greater environmental protection without unduly curtailing the non-environmental benefits and objectives of the proposed project.

4. **Are there alternative sites which would offer more protection to the environment than the proposed site without unduly curtailing non-environmental benefits?**

   There are no alternative sites which would offer more protection to the environment than the proposed site without unduly curtailing non-environmental benefits and meet the objectives of the Project. This Well is uniquely positioned in the AOI to evaluate the feasibility of developing a geological CO_2 sequestration project within a particular subsurface geology. As outlined in the application, this Well is to serve as a future monitoring well and is therefore also uniquely positioned at a suitable monitoring location. Since the Well is needed to collect data concerning the feasibility of the AOI for potential future geological CO_2 sequestration, the Project only considered alternative sites within the AOI. Sites outside the AOI would frustrate the purpose of the Project because data collected from outside the AOI could not be used to evaluate the AOI for potential geological CO_2 sequestration. Nor would data collected from outside the AOI be responsive to the regulatory requirements associated with an application to construct and operate a Class VI well. In addition, as discussed above, the AOI was screened for environmental and cultural sensitivities, which were to be avoided to the maximum extent practical. The construction of the Well along with all access roads has been designed to the minimal practical footprint to safely construct, operate, maintain, and close the Well.

Within the AOI, the proposed Well site was selected due to the following metrics: proximity to existing roads, proximity to the existing CCS pipeline network, suitable monitoring location, and to maximize data collection. Wetlands were avoided as the Well was positioned within an agricultural field.

5. **Are there mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?**

No, there are currently no other mitigating measures which would offer more protection to the environment without unduly curtailing non-environmental benefits. Not drilling an appraisal well will limit the ability to evaluate the AOI for potential for CO_2 sequestration, which assists in meeting the state and national objectives of reducing greenhouse gases in the atmosphere. As discussed in the response to Question 1, the proposed Well will be designed and constructed as per applicable regulations and guidance from the Louisiana Office of Conservation (Injection & Mining Division). Surface activities shall comply with Louisiana Department of Energy & Natural Resources (LDENR), Louisiana Department of Environmental Quality, and all other applicable agency regulations.

All efforts will be made to avoid and/or mitigate any impacts to the USDW and any surface impacts associated with the Well. To the extent necessary, the Project will prepare a SWPPP and apply for coverage under the appropriate Storm Water General Permit for the construction activities associated with the Well. Moreover, the Project will mitigate any unavoidable impacts to wetlands by purchasing the appropriate wetland mitigation credits from an authorized Mitigation Bank in accordance with the US Army Corps of Engineers, the Office of Coastal Management, and/or LDENR.

Air and noise emissions associated with construction of the Well will be temporary, and they are not expected to exceed regulatory thresholds or impact local communities. The Project will use BMPs to mitigate any air or noise impacts associated with such construction.

The Project will comply with all applicable regulations and standards and implement any additional measures necessary to ensure compliance while ensuring safe and protective operation during the life of the Well.

Attachment 8

LABAROTY ANALYSIS OF INJECTION TEST FLUID

- The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Denis Murrell No. 1
Iberville Parish, LA

P&A PROCEDURE, SCHEMATIC, AND THIRD-PARTY COST ESTIMATE

ExxonMobil

ExxonMobil

Plugging Procedure, Schematics & Cost Estimate

Denis Murrell No. 1

ExxonMobil Low Carbon Solutions Onshore Storage LLC

WELL INFORMATION

Location: **Lat:** 30°10'34.54"N (NAD 27) **Long:** 91°14'01.94"W (NAD 27)
(Section - 65; Township – 10S; Range – 12E; Iberville Parish; Louisiana)

Operator: ExxonMobil Low Carbon Solutions Onshore
22777 Springwoods Village Parkway
Spring, Texas 77389

ExxonMobil

Plugging and Abandonment Work Prognosis

1. Submit a UIC-17 to P&A the well and await work permit number.
2. Provide Office of Conservation a minimum of 60 day notice of intent to plug the well with the final plugging plan sealed with a P.E. certification.
3. Provide 48 hour notice prior to initiating any site activity or beginning P&A procedure.
4. Move in and rig up workover rig.
5. Nipple down tree.
6. Rig up BOP and pressure test.
7. Run in hole with workstring to 1,100 (~200ft below base of USDW plug).
8. Circulate with 9ppg WBM or inhibited brine.
9. Pump viscous pill as a base for balanced cement plug.
10. Pull out of hole to top of viscous pill.
11. Pump balanced cement plug from 960 ft to 860 ft.
    a. The proposed cement slurries are presented below, but the slurries, depths, and volumes will be based on as drilled logs for bottom of the plug starting in a confining shale formation below the USDW extending to a minimum of 50 ft above the base of the USDW. Plug will be a minimum of 100' extending at least 50' below the base of the USDW and 50' above.
    b. Slurry Specifications:
        - Class H with additives
        - Sacks: 15 sacks
        - Yield: 1.06 ft3/sack
        - Density: 16.4 ppg
12. Wait on cement.
13. Tag cement for top of plug verification.

    Note: The bottom plug immediately above top perfs will have been set and tested to 300 psi for 30 minutes without losing more than 5% pressure under the Permit to Construct.
14. Pull out of hole to base of surface cement plug.
15. Pump balanced cement plug from 6ft to 36ft BGL.

    The proposed cement slurries are presented below but the slurries, depths, and volumes will ensure that the surface plug is 30ft or greater and allows for the casing to be cut at least 5ft below ground level.

    a. Slurry Specifications:
        - Class H with additives
        - Sacks: 5 sacks
        - Yield: 1.06 ft3/sack
        - Density: 16.4 ppg
16. Rig down BOP.
17. Cut wellhead at least 5 ft below ground level.
18. Weld 1/2in steel plate across all annuli and include well serial number and P&A date.
19. Within 30 days after plugging, a plugging report (Form UIC-P&A) shall be submitted to LDENR.

046012

PROPOSED WELLBORE DIAGRAM

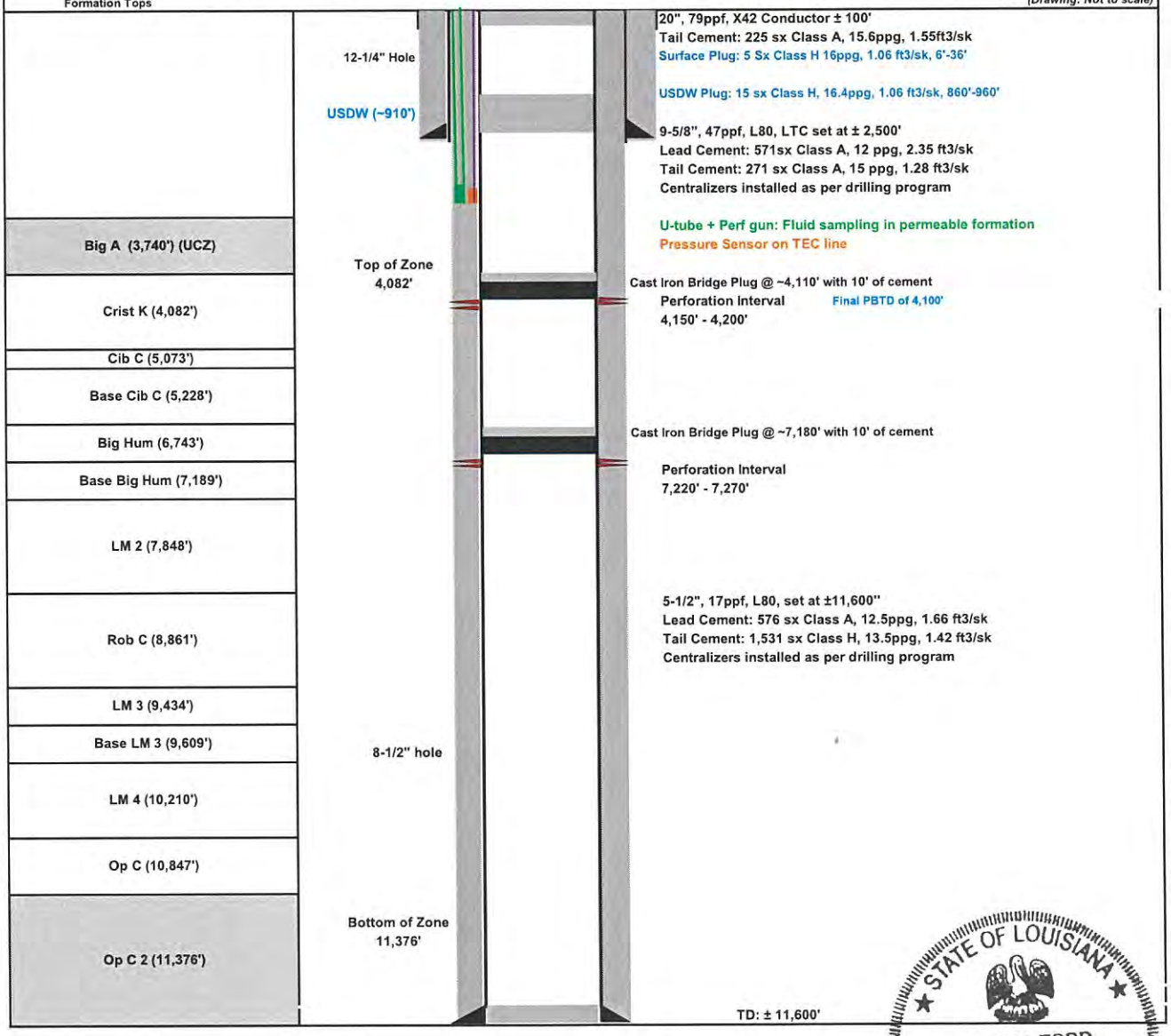
Location:
Latitude (Y): 30°10'34.54"N
Longitude (X): 91°14'01.94"W

FIELD: Wildcat - LA So Lafayette District
WELL: Denis Murrell No. 1
OPERATOR: ExxonMobil Low Carbon Solutions Onshore
PARISH: Iberville
STATE: LA
STATUS: Class V (To be Permitted)
PERMIT NO. TBD
WELL TYPE: Stratigraphic Test Well
SECTION: 65
TOWNSHIP: 10S
RANGE: 12E

Proposed Schematic Test P&A

ExxonMobil

(Drawing: Not to scale)



STATE OF LOUISIANA
CODY M. TODD
License No. 47373
4-24-25
PROFESSIONAL ENGINEER

OFFICE OF CONSERVATION

APR 30 2025

INJECTION & MINING DIVISION

LONQUIST

April 22, 2025

Re: P&A Cost Verification

Please find attached the estimated cost to P&A the Denis Murrel No. 1 Well as per the attached procedure. Lonquist has verified this cost estimate.

P&A Cost Estimate

Item	Days/# of Jobs	Rate	Cost Estimate
Rig Mob/Demob	2	$ 6,500	$ 13,000
Rig	3	$ 6,500	$ 19,500
Workstring Cost	3	$ 4,200	$ 12,600
Equipment Rentals	3	$ 1,000	$ 3,000
Trucking Loads	2	$ 1,500	$ 3,000
P&A Disposal	1	$ 14,000	$ 14,000
Cement	1	$ 1,750	$ 1,750
Cement Pumping Services	2	$ 5,000	$ 10,000
Forklift Rental Costs	1	$ 3,250	$ 3,250
Pipe Rack Costs	1	$ 2,500	$ 2,500
Welding and Casing Cutting	1	$ 5,000	$ 5,000
Waste Management/Disposal/Vacuum Trucks	1	$ 4,500	$ 4,500
Surface Restoration & Remediation	1	$ 4,605	$ 4,605
Supervision Expenses	3	$ 1,500	$ 4,500
PM Costs and Reports	1	$ 4,000	$ 4,000
Subtotal			$ 105,205
10% Project Contingency			$ 10,521
Project Total			**$ 115,726**

Andy Ellis
Sr. Vice President
Office: 713-559-9954
1415 Louisiana St., Suite 3800, Houston, Texas, 77002
andy@lonquist.com · www.lonquist.com

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Denis Murrell No. 1
Iberville Parish, LA

¼ MILE AOR DETAIL WELL REPORT

ExxonMobil

Louisiana Department of Energy and Natural Resources (DENR)

SONRIS/2000

SRCN4188_WELLS -- WELLS IN AREA OF REVIEW (AOR)

Report run on: Apr 23, 2025 2:23 PM

Centerpoint: X - 2,031,427, Y - 548,970 (NAD 27 S)

No legacy wells within 1/4 mile AOR

Note: Wellbore sizes with an asterisk symbol (*) next to it are assumed values based on the casing size and these assumed values have been substituted in place of a null (or zero) value everywhere a null (or zero) value previously existed as the wellbore size.