Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.

HOBBS OCD

FEB 06 2017

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM0149956

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: INJECTION

8. Well Name and No.
ZIA AGI D 2

2. Name of Operator
DCP MIDSTREAM, LP

Contact: ALBERTO A GUTIERREZ
E-Mail: aag@geolex.com

9. API Well No.
30-025-42207

3a. Address
370 17TH STREET SUITE 2500
DENVER, CO 80202

3b. Phone No. (include area code)
Ph: 505-842-8000

10. Field and Pool or Exploratory Area
DEVONIAN EXPL.

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T19S R32E Mer NMP NWSW 1893FSL 950FWL
32.643951 N Lat, 103.811116 W Lon

11. County or Parish, State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.

DCP Midstream is submitting this request for permission to finish the final completion of its Zia AGI D #2 within the NMOCC-approved injection zone within the Devonian, Wristen, Fusselman, and Montoya Formations (injection zone) consistent with the approved APD for this well. In order to obtain this approval, DCP is required to assess the presence or absence of commercially-recoverable hydrocarbon potential of the approved injection zone. To accomplish this Geolex has conducted for DCP an extensive analysis of the detailed well logs for the well including a full suite of geophysical logs, mud logs, collection and analysis of sidewall core samples retrieved from the NMOCC-approved injection zone from 13,625? to 14,750? (see Attachments A and B). In addition, the well was swabbed to remove over 500 bbls of formation fluid and 10 samples were collected which showed no visible evidence of hydrocarbons (no sheen or phase separation). TPH has already been analyzed (Attachment C), and the rest of the reservoir fluid chemistry will be reported to the BLM as soon as available. All visual inspection and TPH results (Attachment C) clearly demonstrate the

No Hydrocarbon Report

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #361970 verified by the BLM Well Information System
For DCP MIDSTREAM, LP, sent to the Hobbs
Committed to AFMSS for processing by DEBORAH MCKINNEY on 01/17/2017 ()

Name *(Printed/Typed)* ALBERTO A GUTIERREZ — Title CONSULTANT TO DCP MIDSTREM, LP

Signature (Electronic Submission) — Date 12/22/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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. Office

ACCEPTED FOR RECORD
JAN 26 2017
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD 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)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #361970 that would not fit on the form

32. Additional remarks, continued

lack of commercially-recoverable hydrocarbons in the NMOCC-approved injection zone. The results of this detailed analysis, which are summarized on this form and its three attachments (Attachments A, B and C) clearly demonstrate that the proposed injection zone does not contain any commercially-recoverable hydrocarbons and will serve as a suitable injection zone for the proposed injection fluid.

The injection zone has been extensively analyzed using all available data obtained during the drilling of the Zia AGI D #2 in November to December 2016. The results of these analyses clearly demonstrate that the minor indications of trace hydrocarbons detected in isolated thin portions of the proposed injection zone are not commercially-recoverable and the zones are wet with very high residual water saturations. These values range from 2 to 26 ppm TPHs. Based on the analyses detailed in the attachments to this form, DCP requests BLM concurrence that there are no commercially-recoverable hydrocarbons in the injection zone, and approval proceed with reservoir testing, and final completion of the well. DCP will conduct an extensive series of injection tests to confirm and better understand the injection characteristics of the approved injection zone. BLM will be notified of these tests, and the test results will also be provided to the BLM following analysis by DCP and their consultants. This work will be conducted under the currently-approved APD, completion NOI Sundry, and BLM conditions of approval. Furthermore, this work will be conducted under the current BLM bond for this well, which is Bond number 105982905 already on file with the BLM.

ATTACHMENT A

DEMONSTRATION OF NO COMMERCIALLY-RECOVERABLE HYDROCARBONS IN THE DEVONIAN THROUGH UPPER MONTOYA PERMITTED INJECTION INTERVAL

EVALUATION OF GEOPHYSICAL LOGS, SIDEWALL CORE, AND FORMATION FLUID SAMPLES

Sec. 19- Twp. 19S-32E
Lea County, New Mexico

Prepared For:
DCP Midstream LP

Prepared By:
Geolex, Inc.
500 Marquette, NW Suite 1350
Albuquerque, NM 87102

December 22, 2016

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SUMMARY OF FACTORS CONSIDERED IN RESERVOIR EVALUATION FOR COMMERCIALLY-RECOVERABLE HYDROCARBONS AND INJECTION SUITABILITY

- The successful evaluation of commercially-recoverable hydrocarbon potential and reservoir properties using sidewall cores requires the careful considerations of the limitations of the samples obtained since each actual sidewall is only representative of a small portion of the sampled formation at each sample location.

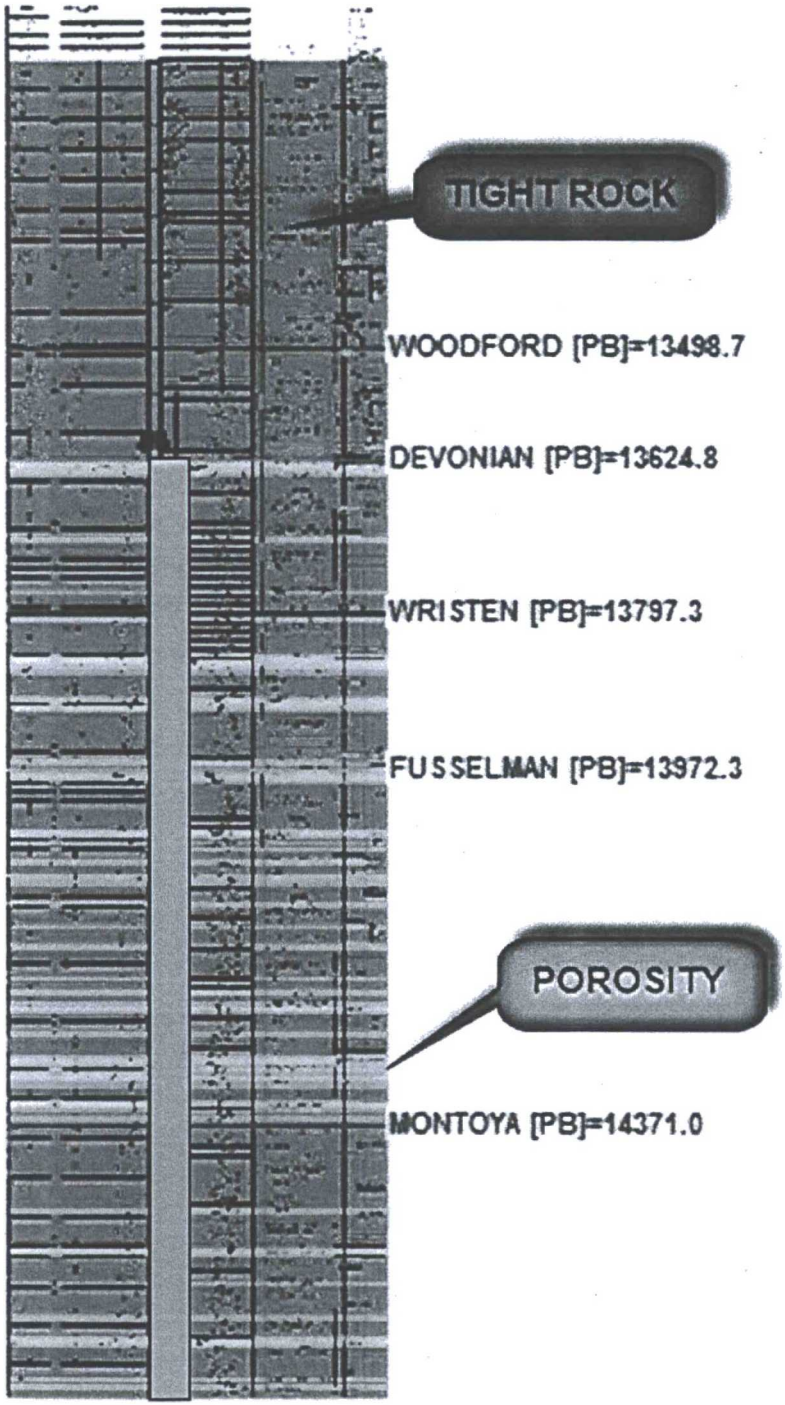
- The overall evaluation of the reservoir requires the simultaneous consideration of various data types and sources in order to arrive at a reasonable conceptual model of predicted injection performance. These additional data types are evaluated and considered in this analysis and include the complete geophysical log suite for the well including the triple combo, porosity, and resistivity logs, mudlogs, drilling condition reports, and on-site observations. The overall evaluation and recommendations included herein for completion are the result of the analyses and evaluation of these multiple data types.

- Obviously injection and fall off testing will result in direct observation of injection pressures at varying flowrates and will be considered in addition to the analyses presented herein to predict the ultimate injection performance of the reservoir.

- In the following pages, we have divided the injection interval into 1 complete log segment and 4 log composite segments to integrate the results of the sidewall core analyses and mudlog monitoring, the lithologic architecture of the interval, and the preliminary proposed injection perforations. These consolidated log composites along with the supporting data form the basis for the determination of no commercially-recoverable hydrocarbons in the proposed injection zone.

- Attachment B includes the detailed evaluation of the mudlog and sidewall cores; which are also discussed in conjunction with the geophysical logs on the following pages. In addiction to the geophysical logs and mudlogs, formation fluid samples that were collected after swabbing over 500bbls from the injection zone provide further confirmation of the lack of commercially-recoverable hydrocarbons (Attachment C) within the NMOCC-approved injection zone from the Devonian top at 13,625' to 14,750' in the Devonian, Wristen, Fusselman and Montoya Formations.

The NMOCC-approved injection interval (blue bar) is composed of tight limestones and dolomitic carbonates (darker shading), interspersed with porous carbonates (yellow shading) that are locally solution-enhanced by late-stage diagenesis. Open-hole injection is proposed for the entire interval from the top of the Devonian through the upper Montoya, to a total depth of approximately 14,750 feet MD. Tight facies (caprock) occur above the injection zone, with no porosity evident all the way up to and including the Chester (Upper Mississippian) Formation.



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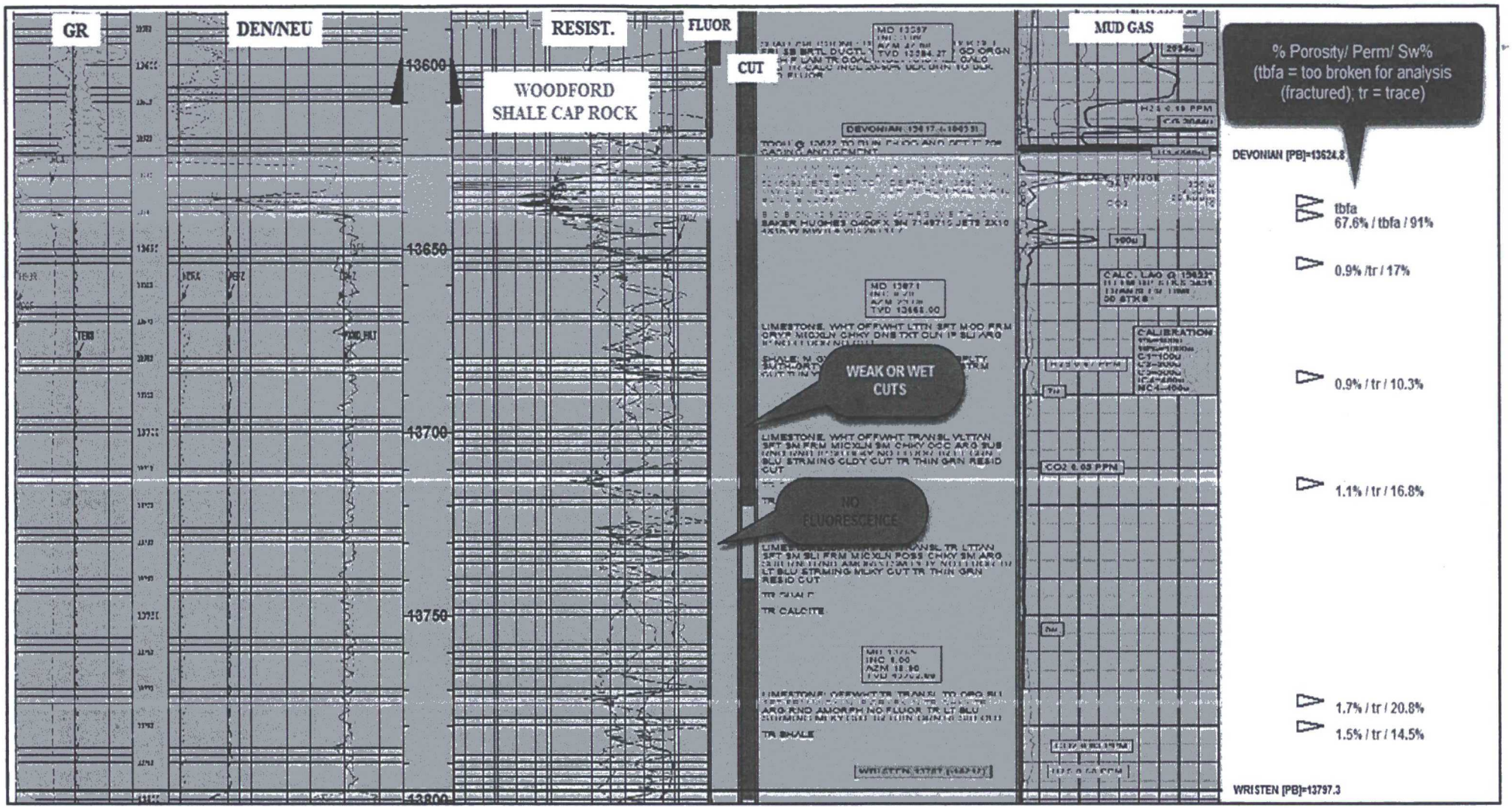

For each of the composite log sections through the NMOCC-approved injection interval, yellow shading denotes porous rock, and light brown shading indicates tight (cap) rock. This section of the injection zone, which shows the Devonian Thirtyone Formation, is characterized by no shows of fluorescence, and weak cuts that generally denote wet rock. There are no significant shows of mud gas through the Devonian; gas shows above are from shale gas in the Woodford Formation. Sidewall core analytical data (far right track) demonstrate no oil saturation in any of the 43 cores collected through the entire injection interval.

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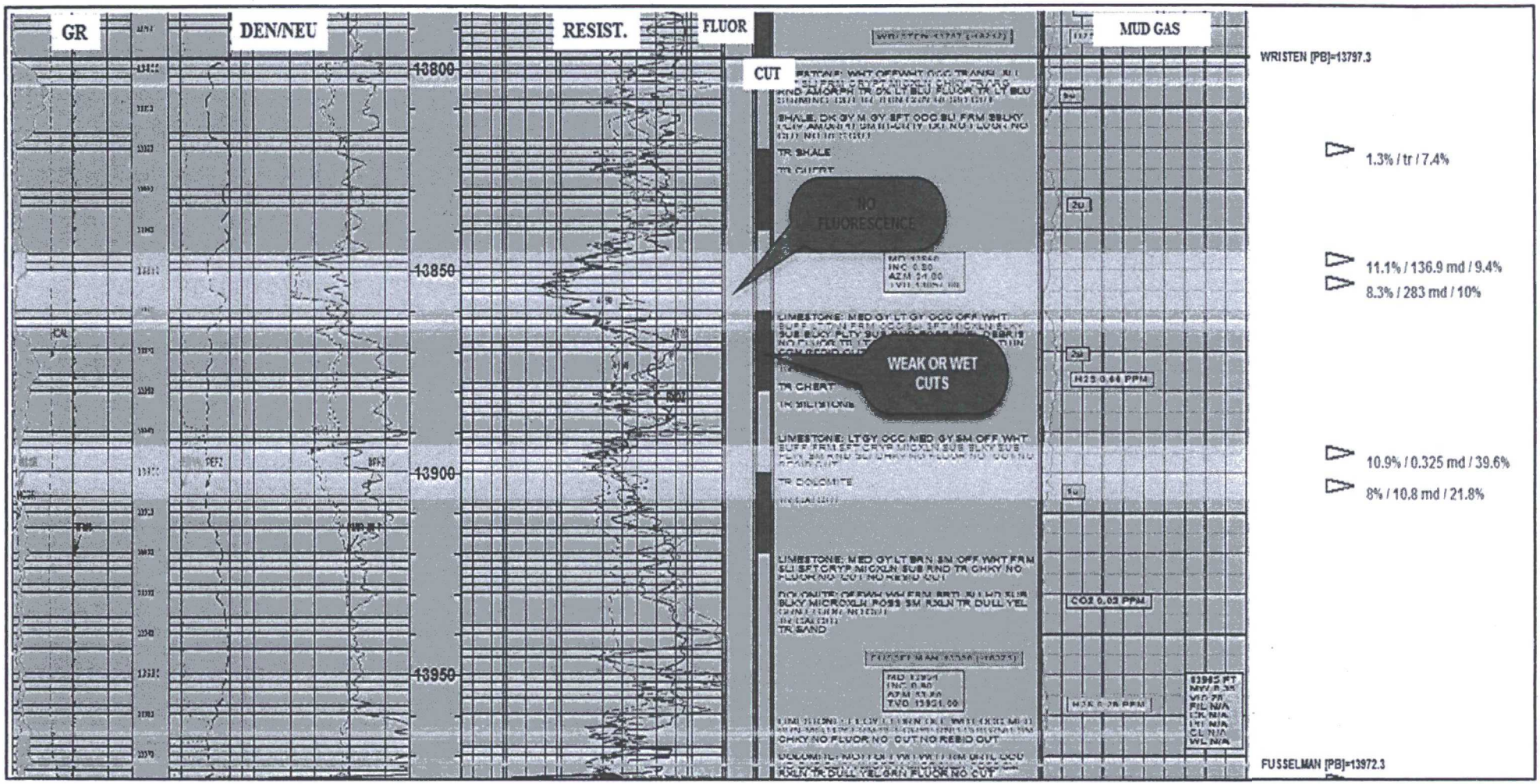

The log composite through the Wristen (Upper Silurian) section shows no sample fluorescence, sporadic weak cuts, and no mud gas. Sidewall core analyses show no oil saturation across this formation.

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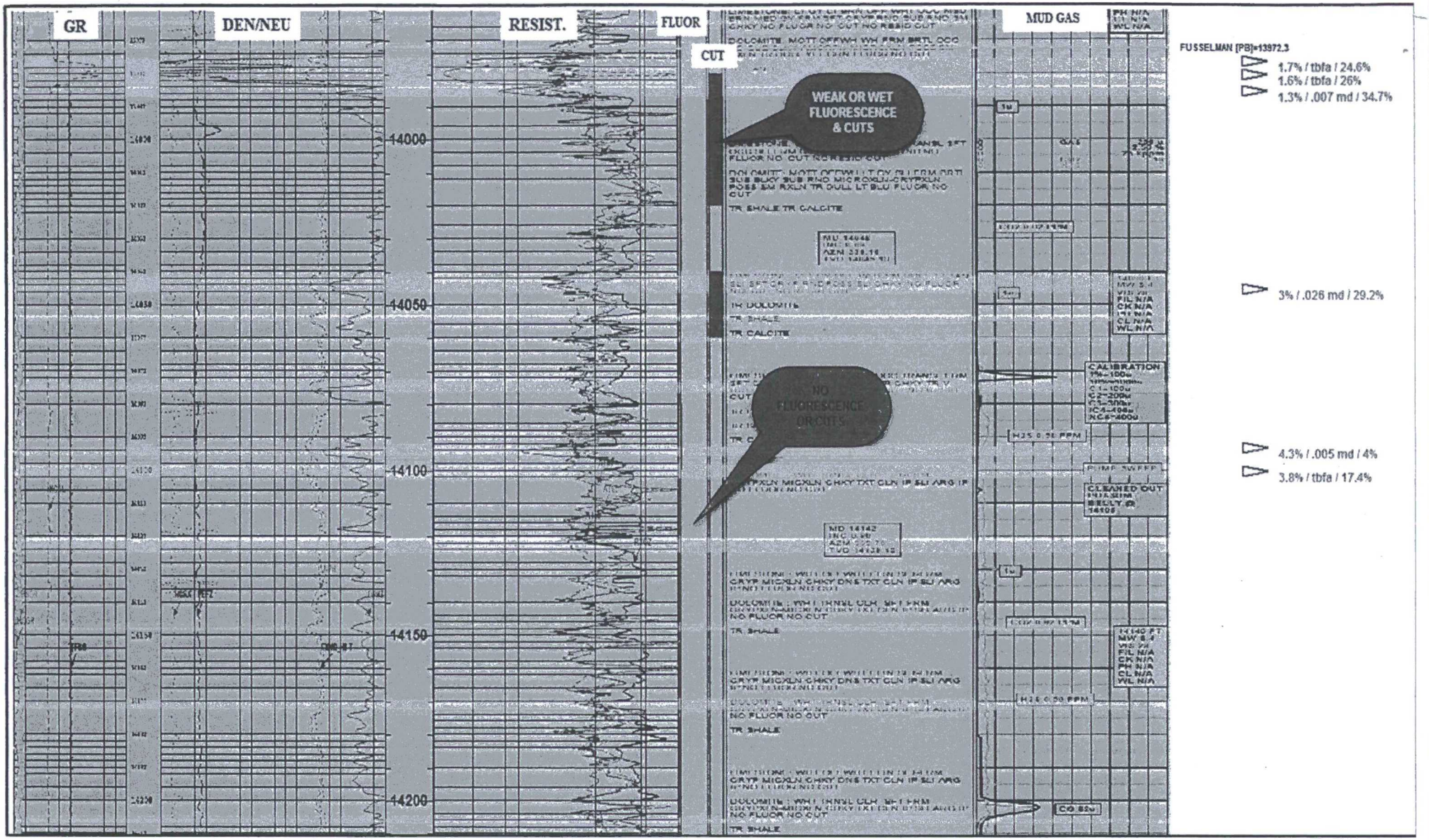

The upper half of the Fusselman (Lower Silurian) section only shows weak cuts and very weak fluorescence in the upper part of the section, with no fluorescence, cuts, or mud gas (other than connection gas) below. No oil saturations were reported in any of the sidewall cores.

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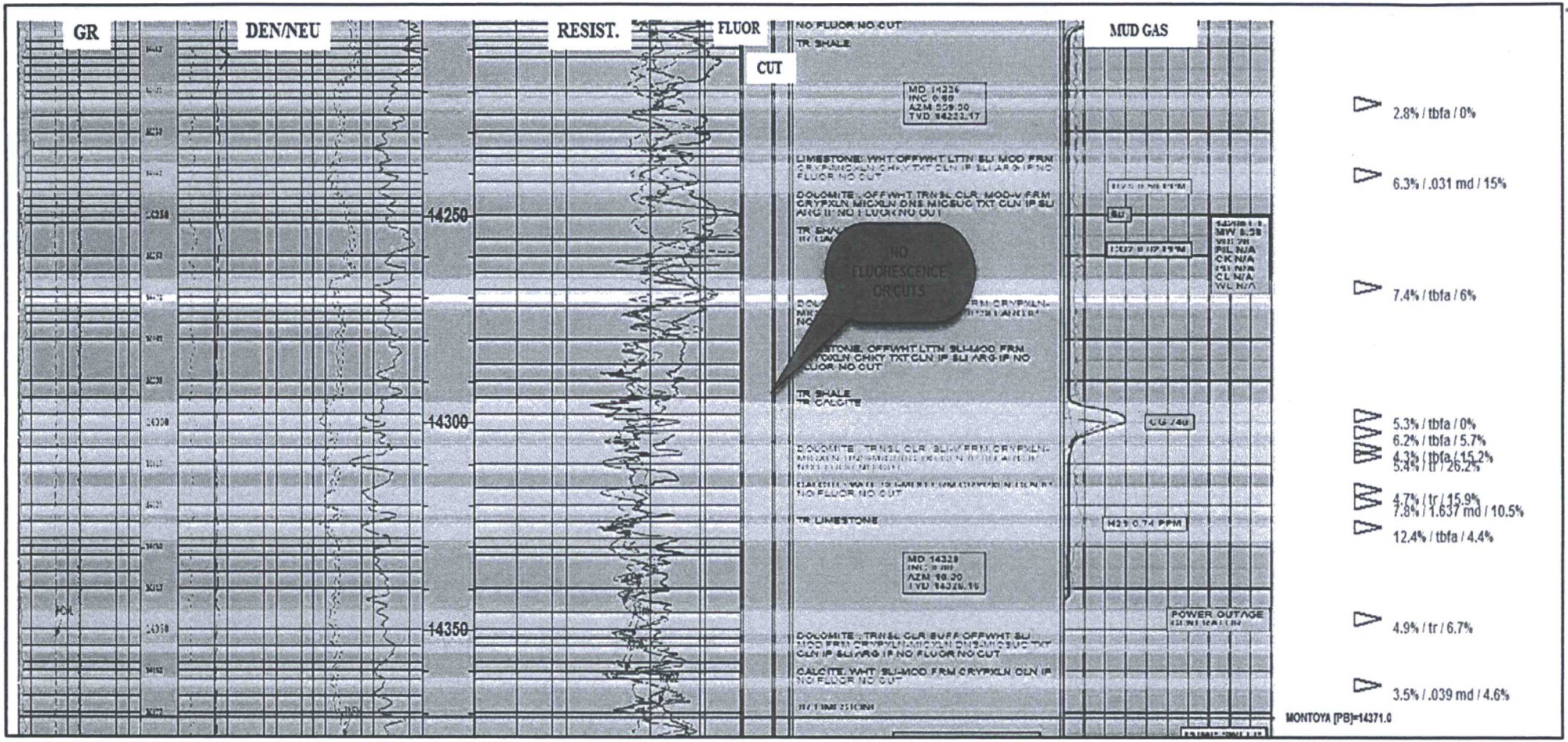

The lower half of the Fusselman Formation is devoid of any sample shows, cuts, or core oil saturation.

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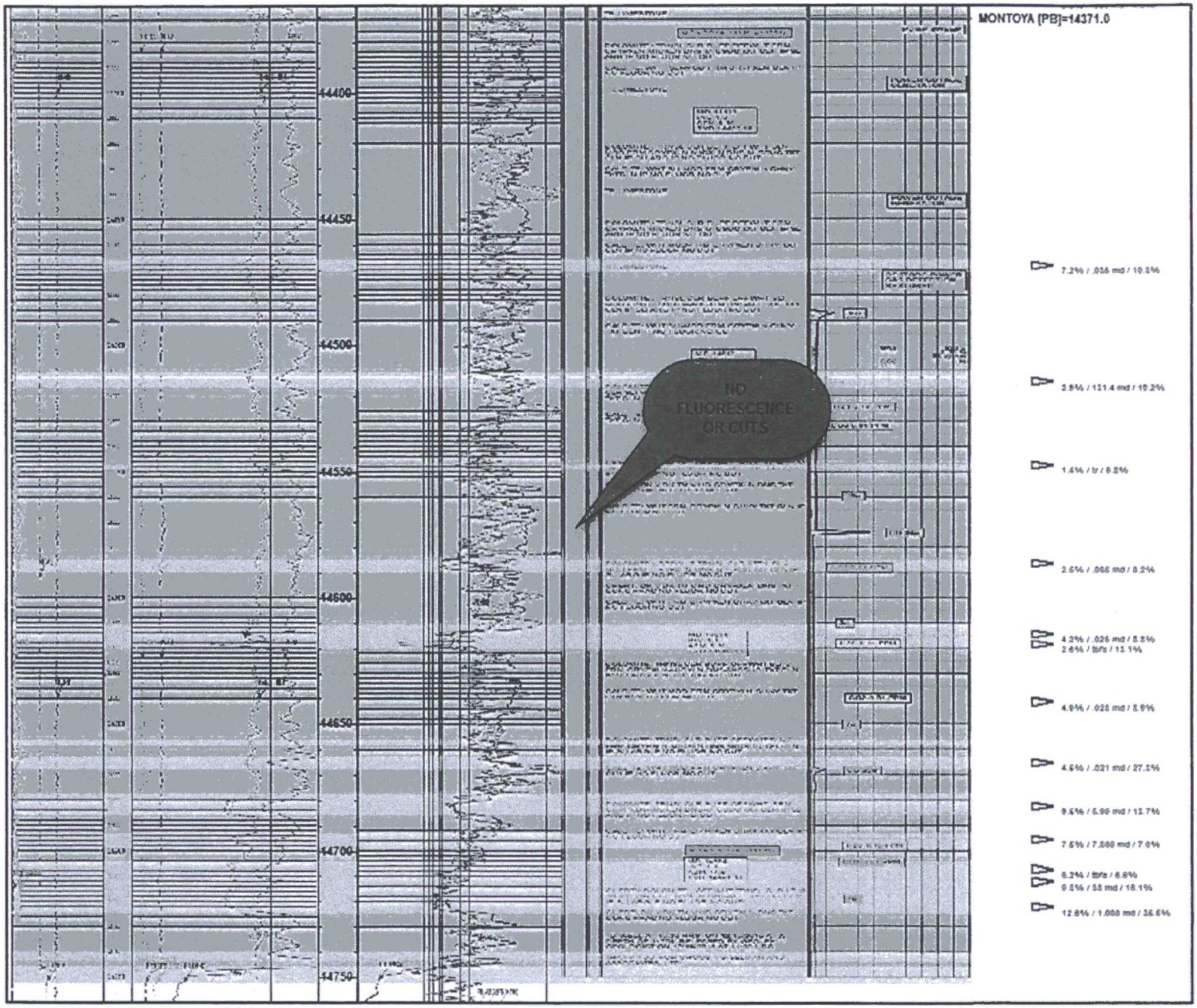
The Montoya Formation (Upper Ordovician) is devoid of any sample fluorescence, cuts, or mud gas, and like the rest of the injection interval, does not have any oil saturation detected in sidewall cores.



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RESERVOIR CHARACTERISTICS OF THE NMOCC-APPROVED INJECTION INTERVAL CONCLUSIVELY DEMONSTRATE LACK OF COMMERCIALLY-RECOVERABLE HYDROCARBONS

- ✓ The NMOCC-approved injection zone is comprised of the porous carbonates of the Devonian Thirtyone, Wristen, Fusselman, and upper Montoya Formations in the Zia AGI D #2 well. This interval is clearly not productive of commercially-recoverable hydrocarbons in the area. Porosity in these carbonates ranges from isolated vugs and interstitial dolomite porosity, to secondarily solution-enhanced porosity.

- ✓ Mudlog sample shows throughout the injection interval are essentially absent and the few shows which were noted were very weak. Sample cuts, in the few places found, were likewise weak and very localized, with either no or minor natural gas shows at these locations. ***Sample cuts indicate wet formation conditions over the entire injection interval. These factors clearly demonstrate a lack of any movable (commercially-recoverable) hydrocarbons.***

- ✓ Sidewall core results only indicate mineral fluorescence, with no shows of hydrocarbon fluorescence across the entire NMOCC-approved injection interval of 13,625' (top Devonian) to 14,750' (Upper Montoya). ***When these results are combined with the lack and quality of mudlog shows, this interval clearly lacks any commercially-recoverable hydrocarbons.***

- ✓ Formation gas shows are absent over the entire injection interval; the only gas shows are from the tight Woodford Shale that forms the first cap rock above the injection interval. ***This is another independent confirmation of the lack of commercially-recoverable hydrocarbons over the NMOCC-approved injection interval.***

- ✓ The well was swabbed to remove over 500 bbls of formation fluid as required by the BLM COAs on the completion sundry. The swabbing resulted in only a minor lowering of the water level of less than 8% of fluid column in the well due to the high permeability of the injection zone. All of the fluid sampled was aqueous with some samples having a slight sour gas smell but no visible sheens or phase separated hydrocarbons observed after settling for over 24 hours. Ten fluid samples were taken from the last 100 bbls. swabbed. These samples have TPH that range from 2.4 – 26.1 ppm. ***The swabbing results confirm the lack of commercially recoverable hydrocarbons in the NMOCC-approved injection zone from 13,625' to 14,750'.***

END OF ATTACHMENT A

ATTACHMENT B

MUDLOG EVALUATION FROM 13,590' TO 14,750' (TD)

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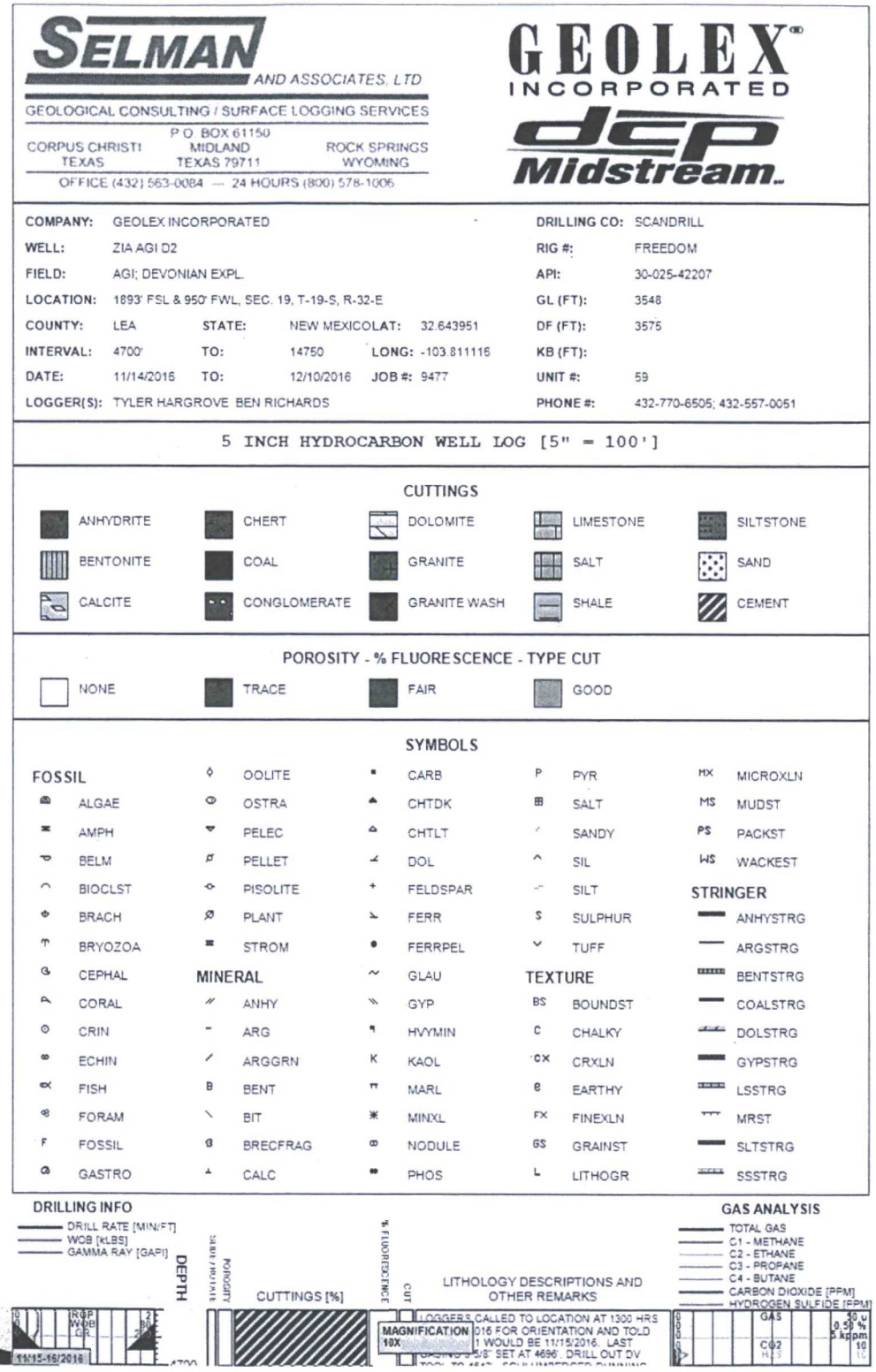
Selman Mudlog Header

- **The contents of the mudlog, including all symbols and readings, are described here.**
- **Fluorescence from sidewall cores collected across the injection interval were analyzed by Weatherford Laboratories.**
- **Sidewall core results show no notable sample fluorescence or shows across the entire injection interval. Sidewall core locations are discussed below.**



SELMAN AND ASSOCIATES, LTD
GEOLOGICAL CONSULTING / SURFACE LOGGING SERVICES
CORPUS CHRISTI TEXAS | P.O. BOX 61150 MIDLAND TEXAS 79711 | ROCK SPRINGS WYOMING
OFFICE (432) 563-0084 — 24 HOURS (800) 578-1006

GEOLEX® INCORPORATED
dcp Midstream

COMPANY:	GEOLEX INCORPORATED				DRILLING CO:	SCANDRILL	
WELL:	ZIA AGI D2				RIG #:	FREEDOM	
FIELD:	AGI; DEVONIAN EXPL.				API:	30-025-42207	
LOCATION:	1893' FSL & 950' FWL, SEC. 19, T-19-S, R-32-E				GL (FT):	3548	
COUNTY:	LEA	STATE:	NEW MEXICO	LAT: 32.643951	DF (FT):	3575	
INTERVAL:	4700'	TO:	14750	LONG: -103.811116	KB (FT):		
DATE:	11/14/2016	TO:	12/10/2016	JOB #: 9477	UNIT #:	59	
LOGGER(S):	TYLER HARGROVE BEN RICHARDS				PHONE #:	432-770-6505; 432-557-0051	

5 INCH HYDROCARBON WELL LOG [5" = 100']

CUTTINGS
ANHYDRITE, CHERT, DOLOMITE, LIMESTONE, SILTSTONE
BENTONITE, COAL, GRANITE, SALT, SAND
CALCITE, CONGLOMERATE, GRANITE WASH, SHALE, CEMENT

POROSITY - % FLUORESCENCE - TYPE CUT
NONE, TRACE, FAIR, GOOD

SYMBOLS

FOSSIL: ALGAE, AMPH, BELM, BIOCLST, BRACH, BRYOZOA, CEPHAL, CORAL, CRIN, ECHIN, FISH, FORAM, FOSSIL, GASTRO, OOLITE, OSTRA, PELEC, PELLET, PISOLITE, PLANT, STROM

MINERAL: ANHY, ARG, ARGGRN, BENT, BIT, BRECFRAG, CALC, CARB, CHTDK, CHTLT, DOL, FELDSPAR, FERR, FERRPEL, GLAU, GYP, HVYMIN, KAOL, MARL, MINXL, NODULE, PHOS, PYR, SALT, SANDY, SIL, SILT, SULPHUR, TUFF

TEXTURE: BOUNDST, CHALKY, CRXLN, EARTHY, FINEXLN, GRAINST, LITHOGR, MICROXLN, MUDST, PACKST, WACKEST

STRINGER: ANHYSTRG, ARGSTRG, BENTSTRG, COALSTRG, DOLSTRG, GYPSTRG, LSSTRG, MRST, SLTSTRG, SSSTRG

DRILLING INFO: DRILL RATE [MIN/FT], WOB [KLBS], GAMMA RAY [GAPI]
DEPTH
CUTTINGS [%]
% FLUORESCENCE
LITHOLOGY DESCRIPTIONS AND OTHER REMARKS
GAS ANALYSIS: TOTAL GAS, C1 - METHANE, C2 - ETHANE, C3 - PROPANE, C4 - BUTANE, CARBON DIOXIDE [PPM], HYDROGEN SULFIDE [PPM]

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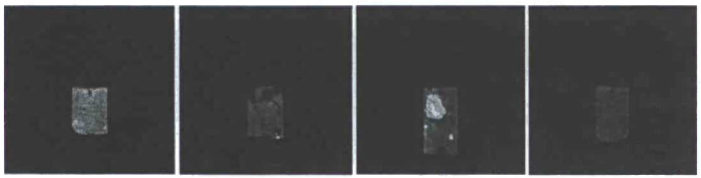
Interval from 13,590' to 13,800'

- **The top of the injection interval is primarily composed of limestone.**
- **Minor gas detections are shown on the mudlog near the top of the injection zone that do not exceed 25u/2.5 kppm. The rest of this section shows no notable gas detections.**
- **Sidewall cores collected at 13,637', 13,641', 13,654', 13,685', 13,714', 13,773', and 13,780' have no notable fluorescence or shows.**



13,637' 13,641' 13,654' 13,685'

13,714' 13,773' 13,780'

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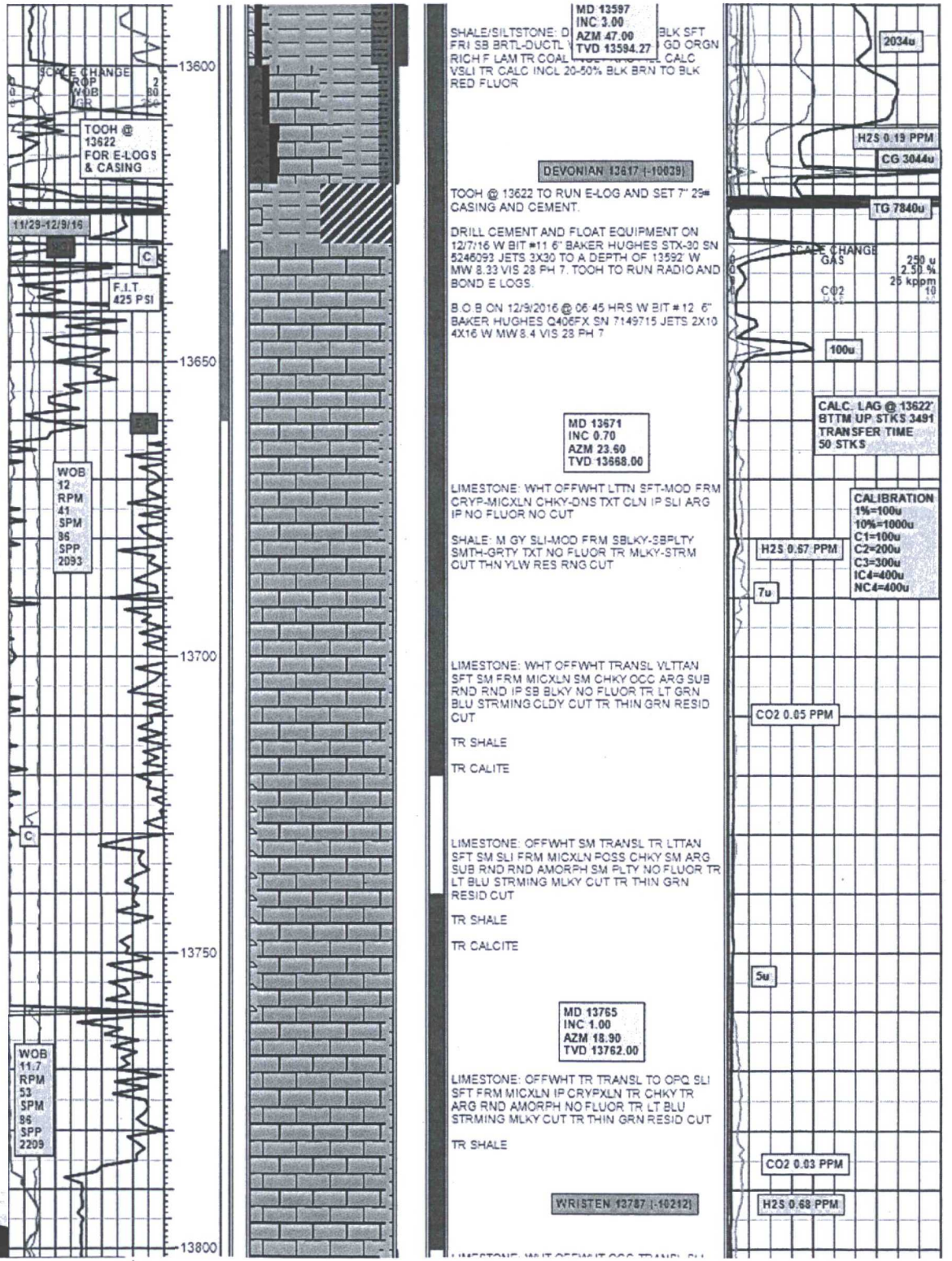
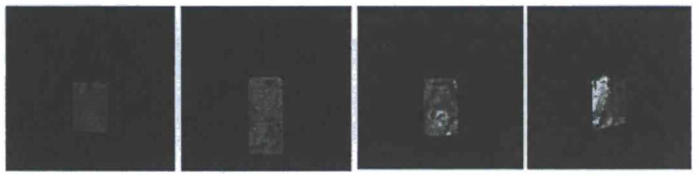


Interval from 13,800' to 14,010'

- **This section of the injection zone is primarily composed of limestone.**
- **There are no natural gas readings across this interval, with minor H_2S showings.**
- **Sidewall cores collected at 13,820', 13,847', 13,853', 13,895', 13,903', 13,976', 13,980', and 13,985' have no notable fluorescence or shows.**



13,820' 13,847' 13,853' 13,895'

13,903' 13,976' 13,980' 13,985'

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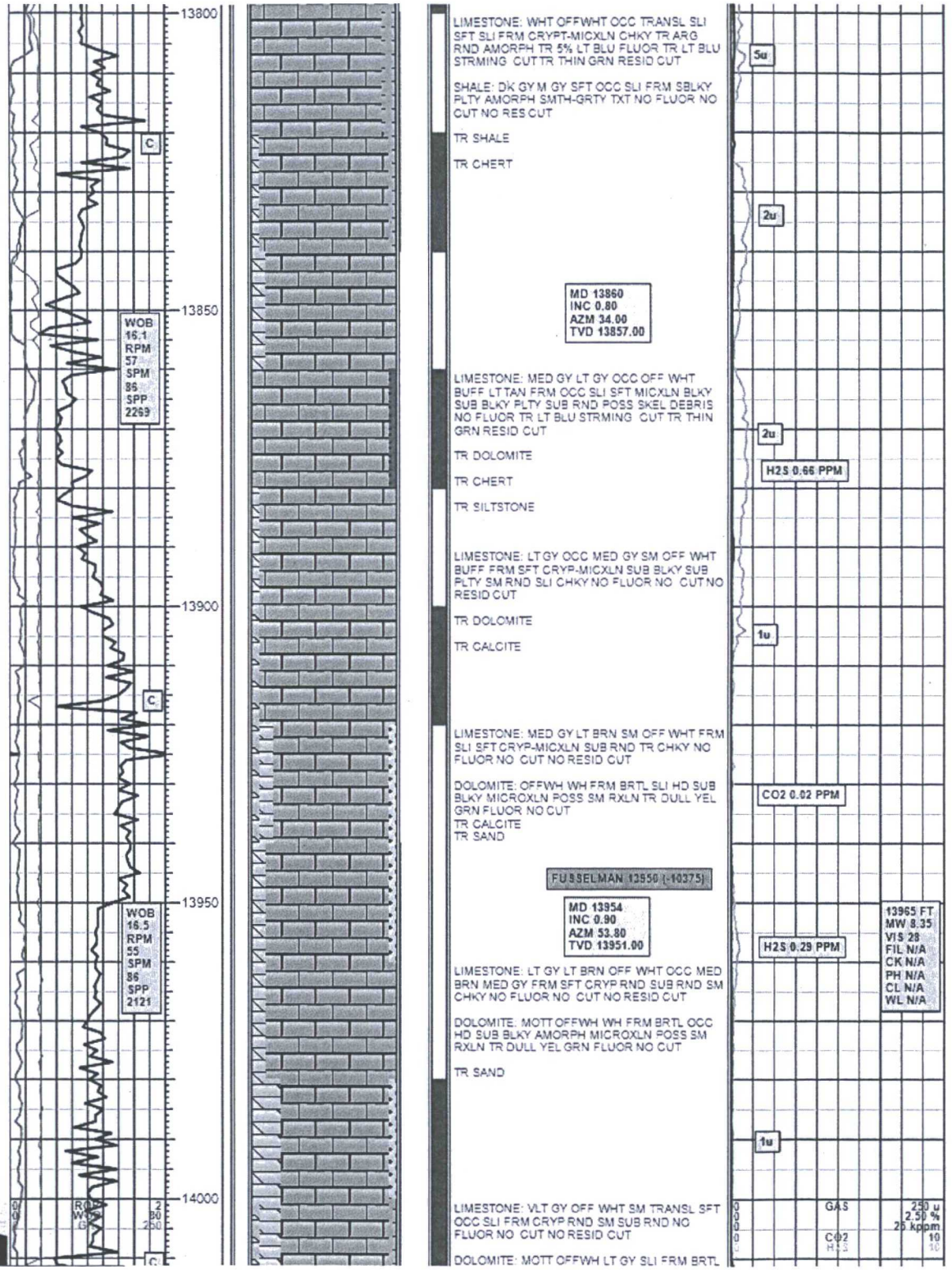


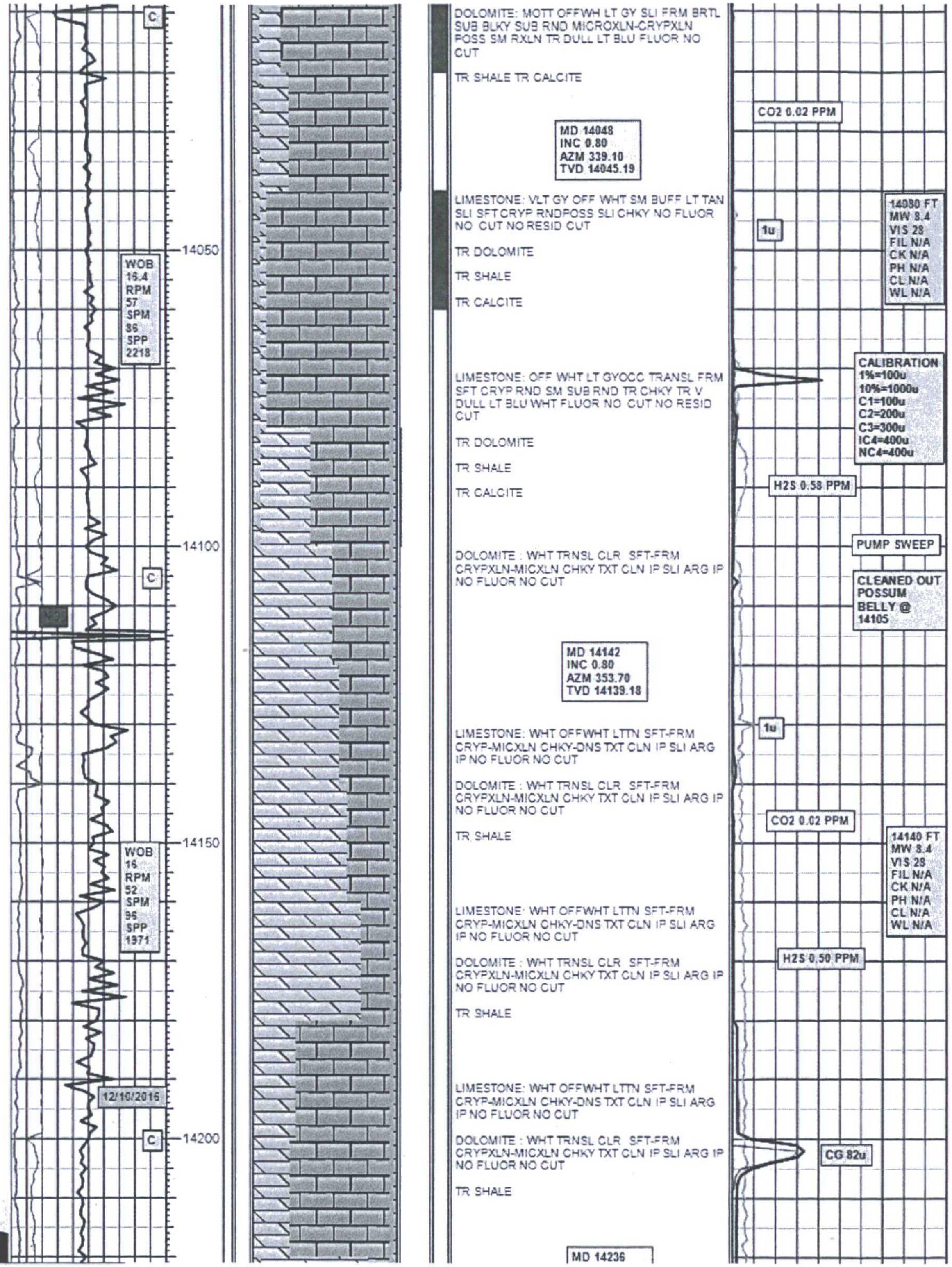
Interval from 14,010' to 14,220'

- This section of the injection zone is primarily composed of limestone and dolomite.
- There are two minor localized natural gas showings at 14,072' and 14,203'. The total gas for both of these shows does not exceed 22 u/2.2 kppm.
- Sidewall cores collected at 14,045', 14,093', and 14,100' have no notable fluorescence or shows.


14,045'


14,093'


14,100'



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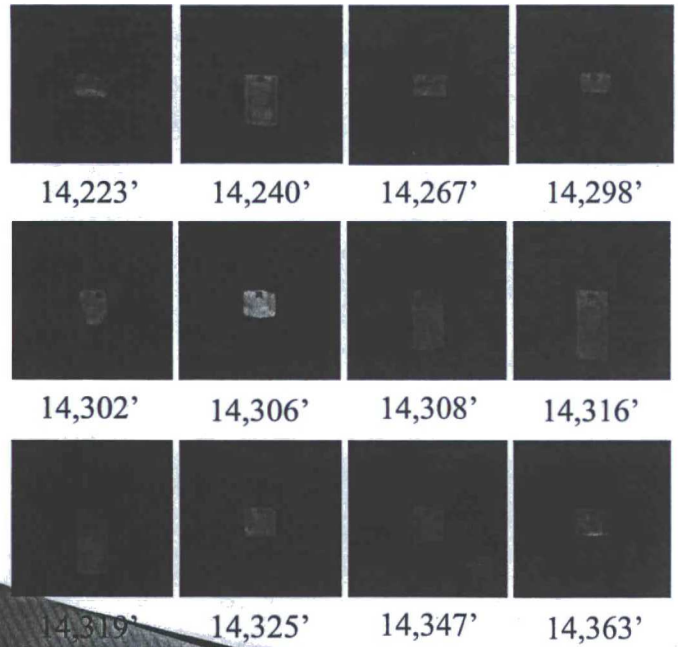
Interval from 14,220' to 14,430'

- **This section of the injection zone is primarily composed of dolomite.**
- **There is 1 minor localized natural gas detection around 14,300', which does not exceed 15u/1.5 kppm.**
- **Sidewall cores collected at 14,223', 14,240', 14,267', 14,298', 14,302', 14,306', 14,308', 14,316', 14,319', 14,325', 14,347', and 14,363' have no notable fluorescence or shows.**



14,223' 14,240' 14,267' 14,298'

14,302' 14,306' 14,308' 14,316'

14,319' 14,325' 14,347' 14,363'

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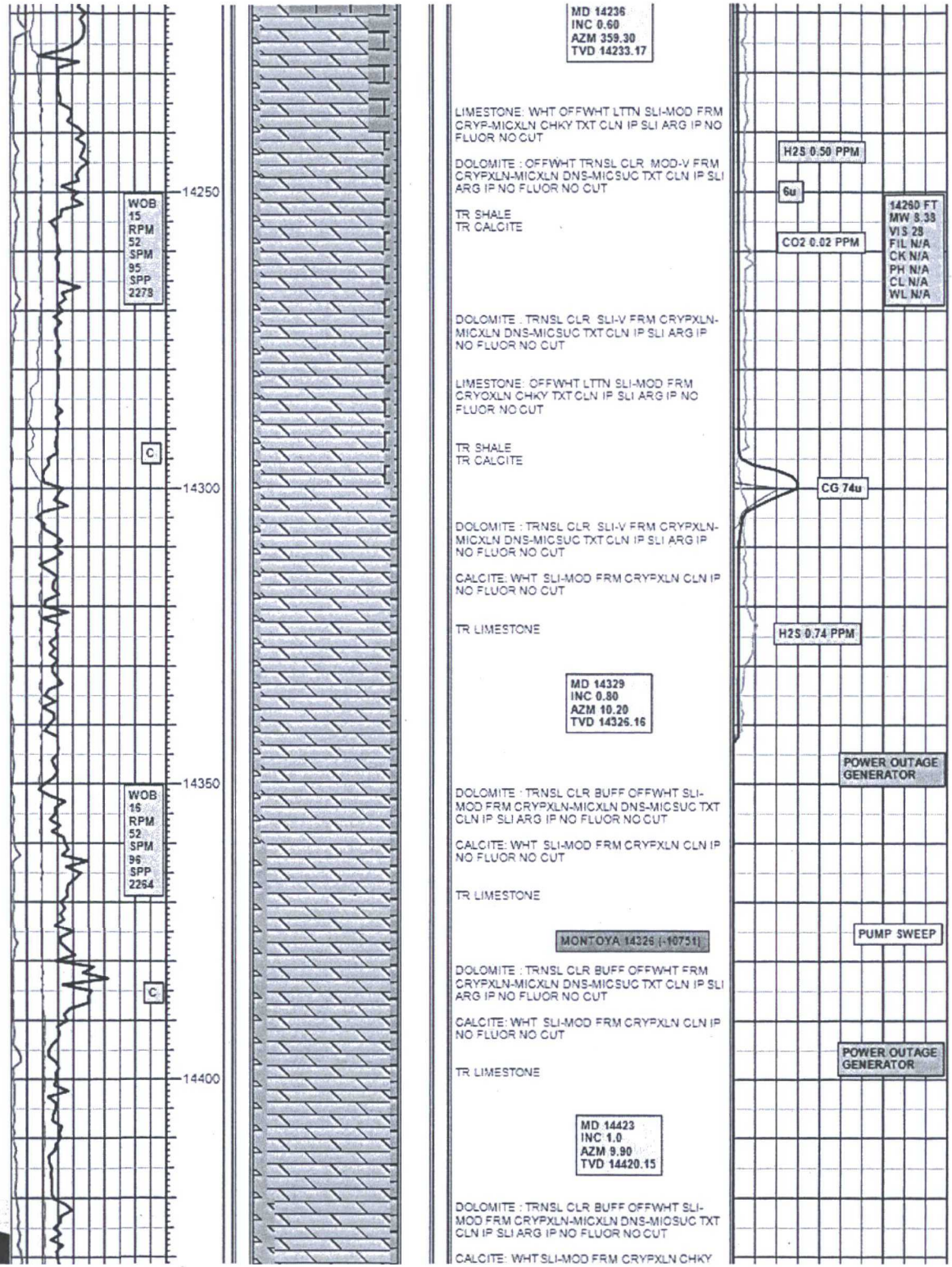

Interval from 14,430' to 14,640'

- **This section of the injection zone is primarily composed of dolomite.**
- **There is one minor localized natural gas detection around 14,574', which does not exceed 20u/2.0 kppm.**
- **Sidewall cores collected at 14,468', 14,514', 14,547', 14,586', 14,614', and 14,618 have no notable fluorescence or shows.**

14,468' 14,514' 14,547'

14,586' 14,614' 14,618'

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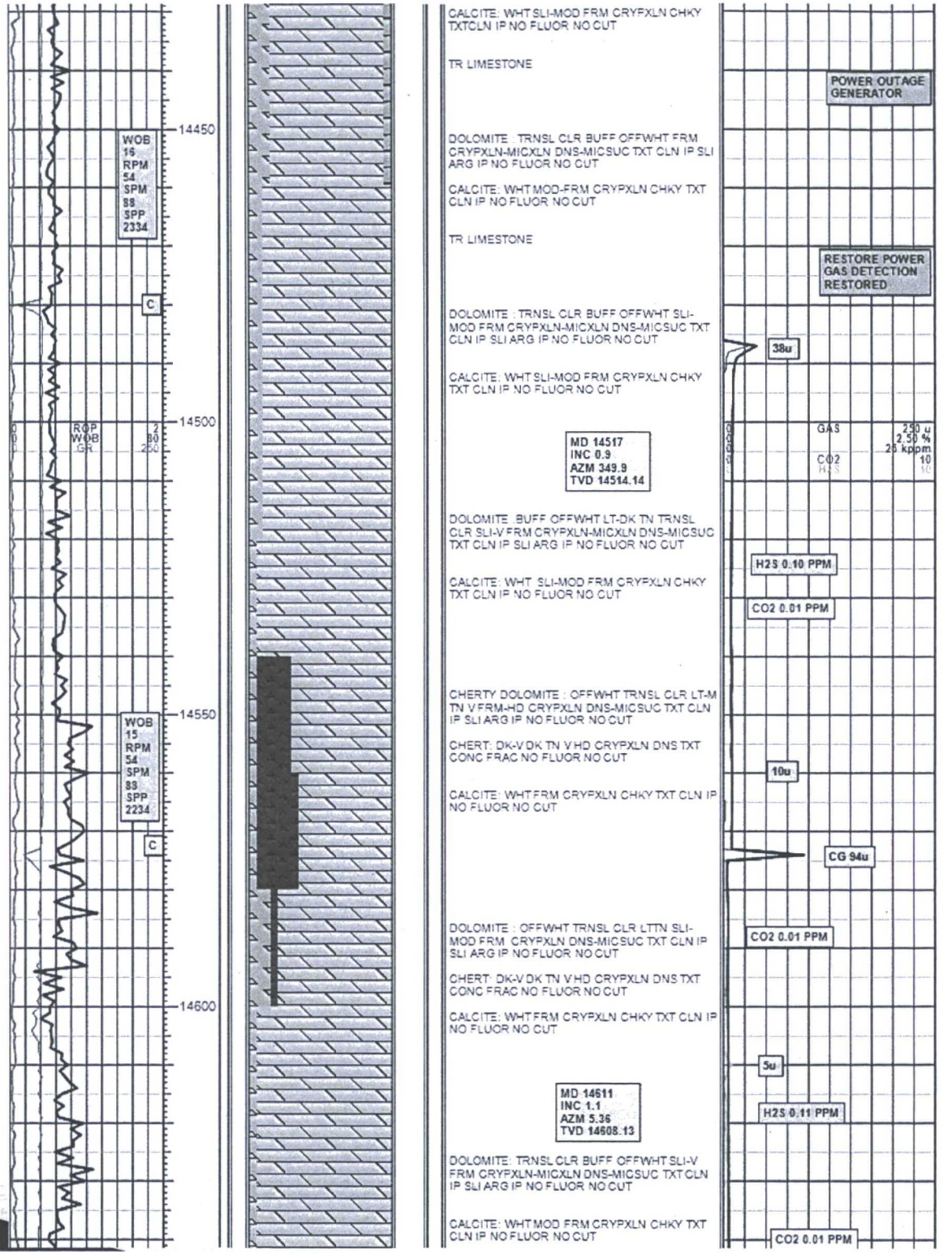
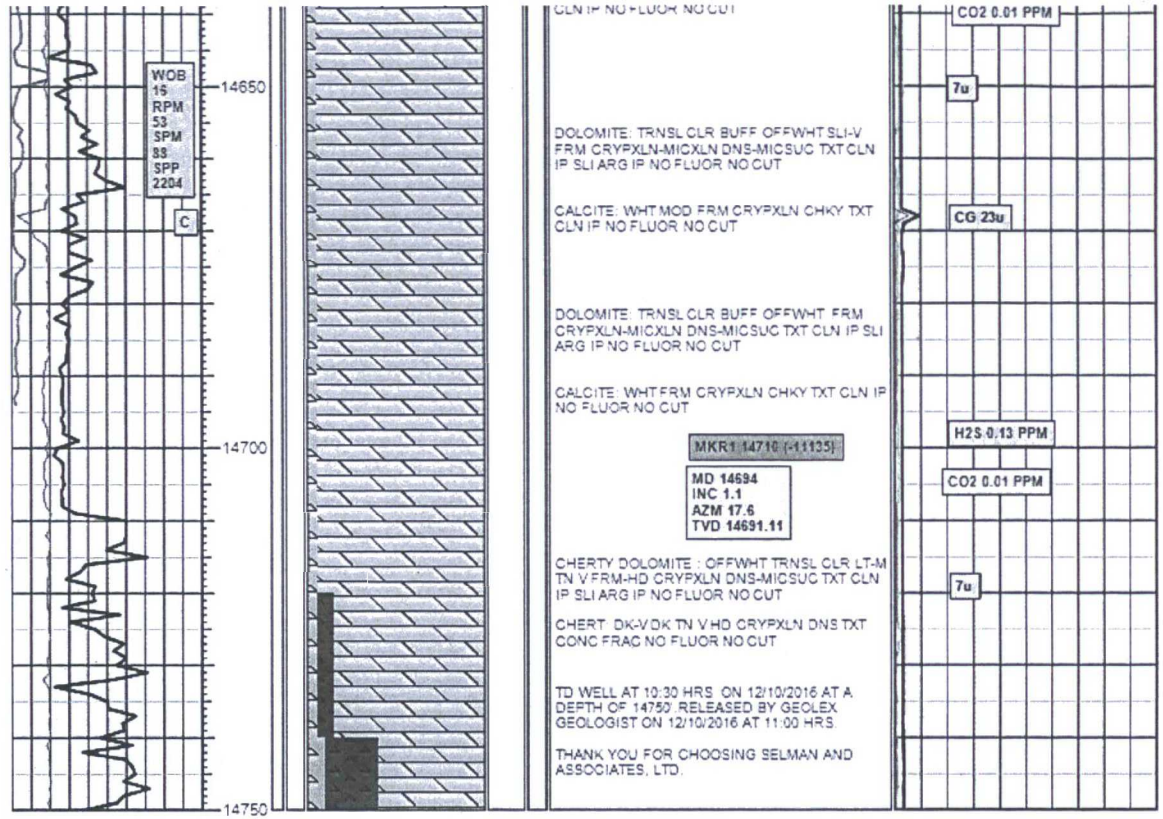


Interval from 14,640' to 14,750' (TD)

- **This section of the injection zone is primarily composed of dolomite.**
- **There is little to no significate natural gas shown across this interval.**
- **Sidewall cores collected at 14,641', 14,665', 14,682', 14,695', 14,707', 14,712', and 14,722' have no notable fluorescence or shows.**



14,641' 14,665' 14,682'

14,695' 14,707' 14,712' 14,722'

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ATTACHMENT C

FORMATION FLUID EVALUATION ACROSS INJECTION INTERVAL

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ZIA AGI D #2 INJECTION ZONE FORMATION-FLUID RESULTS			
SAMPLE #	DRO	EXT DRO	TPH
1-402 bbls	20.5	5.58	26.1
2-415 bbls	12.1	3.65	15.8
3-435 bbls	6.53	2.3	8.8
4-445 bbls	1.48	1	2.5
5-455 bbls	2.1	1	3.1
6-470 bbls	2.94	1.09	4.0
7-480 bbls	3.59	1.06	4.7
8-490 bbls	3.08	1	4.1
9-500 bblos	1.43	1	2.4
10-515 bbls	3.01	1	4.0

- Total petroleum hydrocarbons from the last 100 barrels of swabbed fluid range from 2.4 to 26.1 ppm. Laboratory Analytical results are on the following pages.

- This clearly demonstrates there are no commercially available hydrocarbons.

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 22, 2016

ALBERTO GUTIERREZ

GEOLEX, INC.

500 MARQUETTE AVE. NW #1350

ALBUQUERQUE, NM 87102

RE: DCP ZIA AGI D #2 (FORMATION WATER)

Enclosed are the results of analyses for samples received by the laboratory on 12/21/16 13:23.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NO. 1 402 BBLS	H602848-01	Wastewater	21-Dec-16 08:25	21-Dec-16 13:23
NO. 2 415 BBLS	H602848-02	Wastewater	21-Dec-16 08:45	21-Dec-16 13:23
NO. 3 435 BBLS	H602848-03	Wastewater	21-Dec-16 09:02	21-Dec-16 13:23
NO. 4 445 BBLS	H602848-04	Wastewater	21-Dec-16 09:35	21-Dec-16 13:23
NO. 5 455 BBLS	H602848-05	Wastewater	21-Dec-16 09:50	21-Dec-16 13:23
NO. 6 470 BBLS	H602848-06	Wastewater	21-Dec-16 10:10	21-Dec-16 13:23
NO. 7 480 BBLS	H602848-07	Wastewater	21-Dec-16 10:25	21-Dec-16 13:23
NO. 8 490 BBLS	H602848-08	Wastewater	21-Dec-16 10:44	21-Dec-16 13:23
NO. 9 500 BBLS	H602848-09	Wastewater	21-Dec-16 11:00	21-Dec-16 13:23
NO. 10 515 BBLS	H602848-10	Wastewater	21-Dec-16 11:11	21-Dec-16 13:23

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 1 402 BBLS

H602848-01 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**20.5**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	**5.58**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*48.3 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*44.5 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 2 415 BBLS

H602848-02 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**12.1**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	**3.65**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*42.2 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*41.6 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 3 435 BBLS

H602848-03 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**6.53**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	**2.30**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*70.4 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*80.3 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 4 445 BBLS

H602848-04 (Wastewater)

Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
DRO >C10-C28	**1.48**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	<1.00		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*71.2 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*84.7 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 5 455 BBLS

H602848-05 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**2.10**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	<1.00		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*72.8 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*89.7 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 6 470 BBLS

H602848-06 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**2.94**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	**1.09**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*78.9 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*87.4 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 7 480 BBLS

H602848-07 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**3.59**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	**1.06**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*60.9 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*76.5 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 8 490 BBLS

H602848-08 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**3.08**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	<1.00		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*59.9 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*67.9 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 9 500 BBLS

H602848-09 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**1.43**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	<1.00		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*65.5 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*81.0 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

NO. 10 515 BBLS

H602848-10 (Wastewater)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Petroleum Hydrocarbons by GC FID										
DRO >C10-C28	**3.01**		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
EXT DRO >C28-C35	<1.00		1.00	mg/L	0.1	6122108	MS	21-Dec-16	8015B	
Surrogate: 1-Chlorooctane			*70.2 %*	*34.8-131*		*6122108*	MS	*21-Dec-16*	*8015B*	
Surrogate: 1-Chlorooctadecane			*82.9 %*	*30.4-167*		*6122108*	MS	*21-Dec-16*	*8015B*	

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GEOLEX, INC. 500 MARQUETTE AVE. NW #1350 ALBUQUERQUE NM, 87102	Project: DCP ZIA AGI D #2 (FORMATION W Project Number: 16-012 Project Manager: ALBERTO GUTIERREZ Fax To:	Reported: 22-Dec-16 10:23

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6122108 - General Prep - Organics										
Blank (6122108-BLK1)				Prepared & Analyzed: 21-Dec-16						
GRO C6-C10	ND	1.00	mg/L							
DRO >C10-C28	ND	1.00	mg/L							
EXT DRO >C28-C35	ND	1.00	mg/L							
Surrogate: 1-Chlorooctane	*2.68*		mg/L	*5.00*		*53.7*	*34.8-131*			
Surrogate: 1-Chlorooctadecane	*5.22*		mg/L	*5.00*		*104*	*30.4-167*			
LCS (6122108-BS1)				Prepared & Analyzed: 21-Dec-16						
GRO C6-C10	49.8	1.00	mg/L	50.0		99.6	77.1-111			
DRO >C10-C28	53.9	1.00	mg/L	50.0		108	84.8-116			
EXT DRO >C28-C35	ND	1.00	mg/L	0.00			0-0			
Surrogate: 1-Chlorooctane	*4.63*		mg/L	*5.00*		*92.7*	*34.8-131*			
Surrogate: 1-Chlorooctadecane	*5.99*		mg/L	*5.00*		*120*	*30.4-167*			
LCS Dup (6122108-BSD1)				Prepared & Analyzed: 21-Dec-16						
GRO C6-C10	50.1	1.00	mg/L	50.0		100	77.1-111	0.541	8.98	
DRO >C10-C28	54.1	1.00	mg/L	50.0		108	84.8-116	0.383	9.66	
EXT DRO >C28-C35	ND	1.00	mg/L	0.00			0-0		20	
Surrogate: 1-Chlorooctane	*4.67*		mg/L	*5.00*		*93.4*	*34.8-131*			
Surrogate: 1-Chlorooctadecane	*5.98*		mg/L	*5.00*		*120*	*30.4-167*			

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Geolex, Inc.	**BILL TO**
Project Manager: Alberto A Gutierrez	**P.O. #:**
Address: 500 Marquette Ave. NW #1350	**Company:** Geolex, Inc.
City: Albuquerque **State:** NM **Zip:** 87102	**Attn:** Liz Hill
Phone #: (505) 842-8000 **Fax #:** aag@geolex.com	**Address:** 500 Marquette 1350
Project #: 16-012 **Project Owner:** Geolex	**City:** Albuquerque
Project Name: DCP Zia AGI D #2 (formation water)	**State:** NM **Zip:** 87102
Project Location: Sec 19(L) T19S R32E Lea Co., NM	**Phone #:** (505) 842-8000
Sampler Name: Dale Littlejohn	**Fax #:** liz@geolex.com

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cations / Anions	TDS	PH	Conductivity	TPH 8015 (GRO, DRO, ER)							
H602848																									
1	No. 1 402 bbls	G	4	✓						✓	✓		12/21/16	825	✓	✓	✓	✓	✓							
2	No. 2 415 bbls	G	4	✓						✓	✓			845	✓	✓	✓	✓	✓							
3	No. 3 435 bbls	G	4	✓						✓	✓			902	✓	✓	✓	✓	✓							
4	No. 4 445 bbls	G	4	✓						✓	✓			935	✓	✓	✓	✓	✓							
5	No. 5 455 bbls	G	4	✓						✓	✓			950	✓	✓	✓	✓	✓							
6	No. 6 470 bbls	G	4	✓						✓	✓			1010	✓	✓	✓	✓	✓							
7	No. 7 480 bbls	G	4	✓						✓	✓			1025	✓	✓	✓	✓	✓							
8	No. 8 490 bbls	G	4	✓						✓	✓			1044	✓	✓	✓	✓	✓							
9	No. 9 500 bbls	G	4	✓						✓	✓			1100	✓	✓	✓	✓	✓							
10	No. 10 515 bbls	G	4	✓						✓	✓			1111	✓	✓	✓	✓	✓							

Relinquished By: Dale T. Littlejohn	**Date:** 12/21/16 **Time:** 1323	**Received By:** Jodi Henson	**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
			Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:** RUSH TPH only
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.8°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** AA	#75

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326