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MALJAMAR AGI #2
TWELVE POINT SURFACE USE PLAN OF OPERATION FOR BLM

EXECUTIVE SUMMARY

On behalf of Frontier Field Services, LLC (Frontier), Geolex®, Inc. (Geolex) has prepared and is hereby submitting a complete application for approval to permit to drill (APD) a Class II acid gas injection well (Maljamar AGI #2) adjacent to Maljamar AGI #1 and the Frontier Gas Plant. The Frontier Gas Plant and AGI wells are located on approximately 19 acres near Maljamar in Lea County, New Mexico (Figure 1). This is the required 12-point Surface Use Plan of Operations (SUPO) supporting the APD.

NAME OF WELL: Maljamar AGI #2

LEGAL DESCRIPTION:
Surface: 400 FSL, 2100'FEL, Section 21, T17S, R32E, NMPM, Lea County, New Mexico
Bottom Hole: 350 FSL, 650 feet FWL, Section 21, T17S and R32E NMPM, Lea County, New Mexico
(See Nine Point Drilling Plan)

I. EXISTING ROADS

A. Proposed Well Site Location
See Figure 1

B. Existing Roads
From the intersection of Maljamar (Co. 126) and Conoco Roads, go west 2000 feet on Conoco Road, then south on lease road to pad (Figures 1 and 2).

C. Existing Road Maintenance or Improvement Plan
There is approximately 160 feet of an existing tract leading into the well pad off the existing road that will need to be resurfaced with caliche. The existing tract has a dirt surface; therefore, caliche will be needed to resurface it. No new access road leading to the existing tract will be needed as shown on Figure 3.

II. NEW OR RECONSTRUCTED ACCESS ROADS

A. Route Location:
No new lease road will be built, only a resurfaced tract with caliche will be needed (See Figure 3). Drill pad will extend to the existing tract edge, which extends 160 feet to the existing lease road edge.

B. Width
12 feet wide

C. Maximum Grade
Grade to match existing topography or as per BLM requirements

D. Turnout Ditches
As required by BLM stipulations

E. Culverts, Cattle Guards and Surfacing Equipment
Though none are anticipated, if required, culverts and cattle guards will be ser per BLM specifications.

III. LOCATION OF EXISTING WELLS

Figure 4 shows existing wells in the surrounding area (also see Attachment 1 of 9-Point Drilling Plan). Frontier Maljamar AGI #2 is located 395 feet directly NW of AGI #1.

IV. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES

A. Existing production facilities – N/A, well is for Acid Gas Injection.

B. Existing Acid Gas Compression Facility
Compression facilities for the AGI have been built on a parcel located south of Frontier's existing flare (see Figure 5), which currently supply AGI #1 and will also supply AGI #2.

C. Rehabilitation of Disturbed Areas
Following the construction, those access areas required for AGI operations will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in with the surrounding topography

V. LOCATION AND TYPES OF WATER SUPPLY

A. Location and Type of Water Supply
Freshwater and brine water will be hauled from commercial facilities

B. Water Transportation System
Water hauling to the location will be over the existing and proposed roads.

VI. CONSTRUCTION MATERIALS

A. Materials
On site caliche from previous construction activities will be used to the extent practicable. If this is not sufficient, caliche will be hauled from a BLM approved pit.

B. Land Ownership
Federally Owned

C. Materials Foreign to the Site
No construction materials foreign to this area are anticipated for this drill site.

D. Access Roads
A resurfaced tract with on-site caliche, or hauled in from a BLM approved pit, will be needed (Figure 5). No new access road leading to the resurfaced tract is needed.

VII. METHODS FOR HANDLING WASTE

A. Cuttings
A closed loop system will be used. Cuttings will be contained in the roll off bins and disposed of at CRI or other off-site licensed facility (See Attachment 2 to 9-Point Drilling Plan).

B. Drilling Fluids
Drilling fluids will be contained in the steel pits, frac tanks and disposed of at licensed disposal sites.

C. Produced Fluids
Produced formation water will be contained in the steel pits of the closed loop system.

D. Sewage
Portable facilities will contain sewage during drilling and waste will be disposed of in compliance with current laws and regulations pertaining to the disposal of human waste.

E. Garbage
Portable containers will be utilized for garbage disposal during the drilling of this well. Garbage will be hauled off-site for disposal at an approved facility.

F. Cleanup of Well Site
Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate the completion rig. Reasonable cleanup will be performed prior to the final restoration of the site.

VIII. ANCILLARY FACILITIES

None required

IX. WELL SITE LAYOUT

A. Rig Orientation and Layout
Figures 3 and 6 shows the dimensions of the well pad, closed loop system, and the location of major rig components. Minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B. Locations of Access Road
See Figure 2.

C. Lining of the Pits
There will be no reserve pits. This will be a closed loop system (see Attachment 2 to 9-Point Drilling Plan.

X. PLANS FOR SURFACE RECLAMATION

A. Reserve Pit Cleanup
Not applicable-- closed loop drilling fluid system will be used.

B. Restoration Plans

There are no plans to downsize the drilling pad area once Maljamar AGI #2 is complete. Upon completion the well pad will be fenced-in and all access roads will be preserved; therefore, no interim remediation is required.

C. Rehabilitation's Timetable
Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

XI. SURFACE OWNERSHIP
Federal BLM

XII. OTHER INFORMATION

A. Terrain: Flat with some low dunes.

B. Soil: Caliche and sand.

C. Vegetation: Sparse, primarily mesquite with very little grass.

D. Surface Use: Primarily grazing.

E. Surface Water: There are no ponds, lakes, perennial streams or rivers within five miles of the well site except for the BLM wetlands located approximately one mile to the east of the drill site.

F. Residences and Buildings: The only nearby facilities are the Frontier Field Services Gas Processing Plant located immediately to the west and a Conoco warehouse on Conoco Rd.

G. Historical Sites: None observed

H. Archeological Resources
Frontier Field Services has had an independent archeological survey performed, and it was transmitted to the BLM on July 20, 2011. No cultural resources were found in the survey.

I. Well signs will be posted at the drilling site.

J. Open Pits: No open pits will be used for drilling or production. Any open top tanks will be netted.

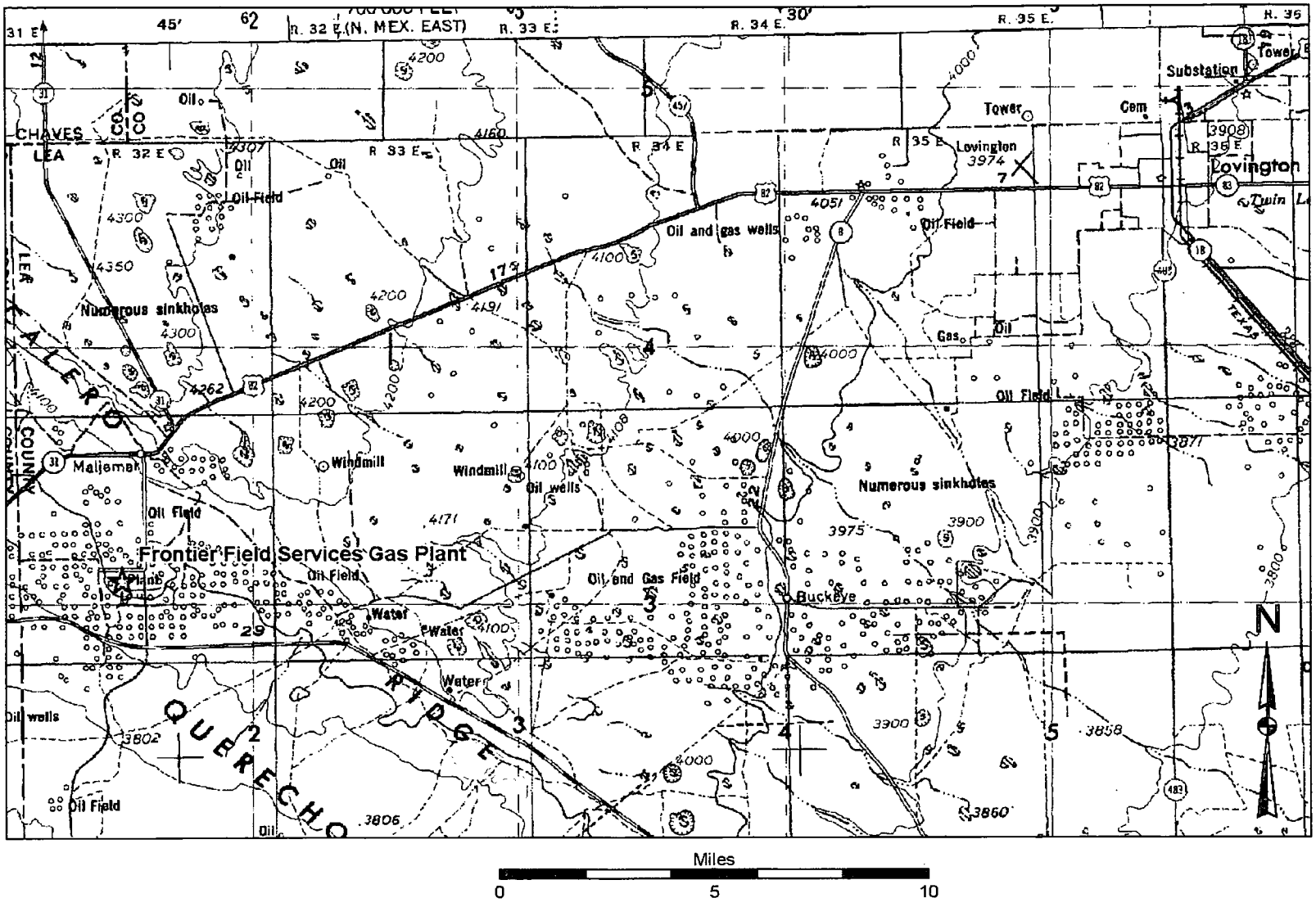


Figure 1: Location of Frontier Field Services Gas Plant

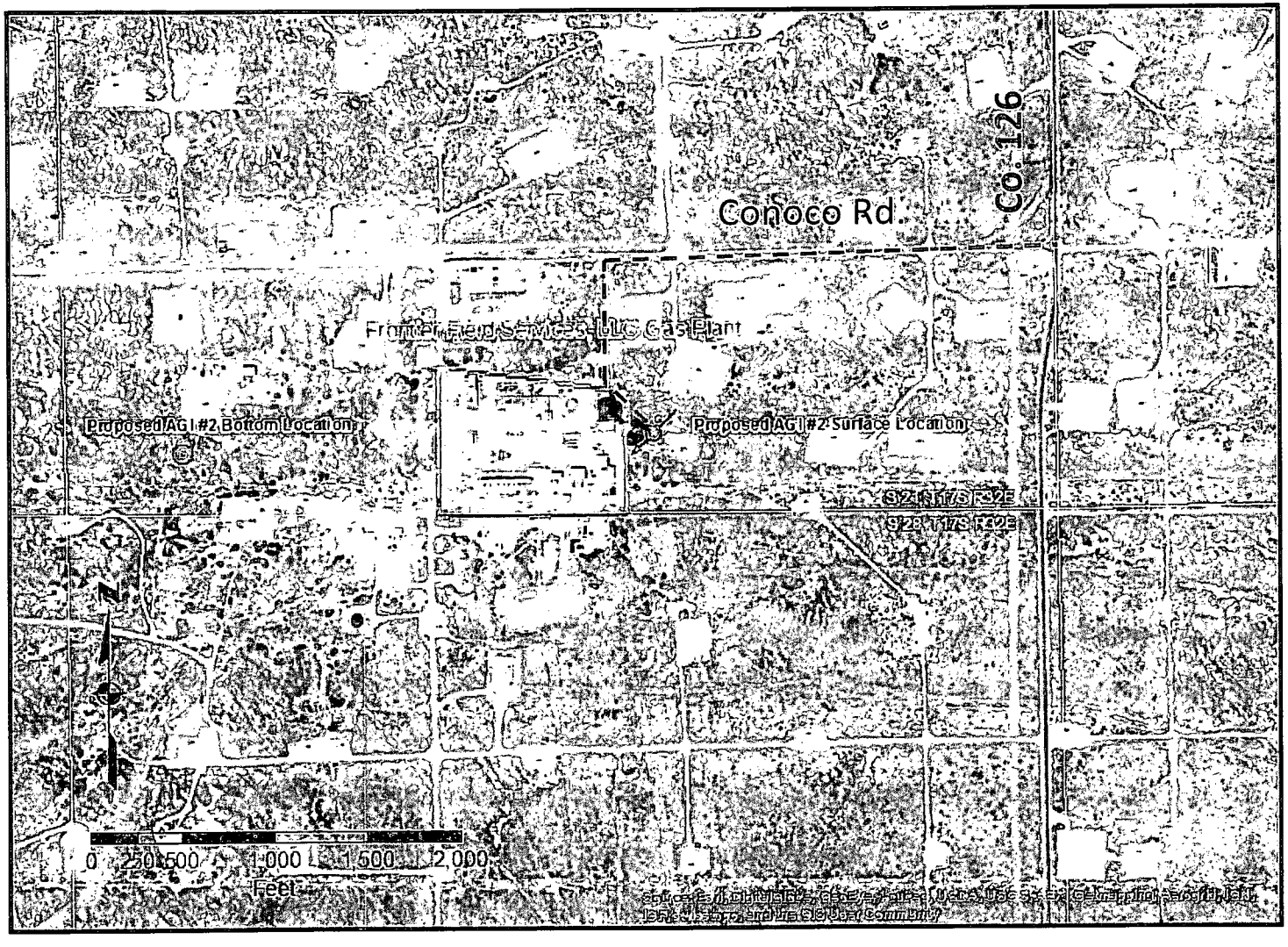


Figure 2: Locations of Surface and Bottomhole Locations of Proposed Maljamar AGI #2

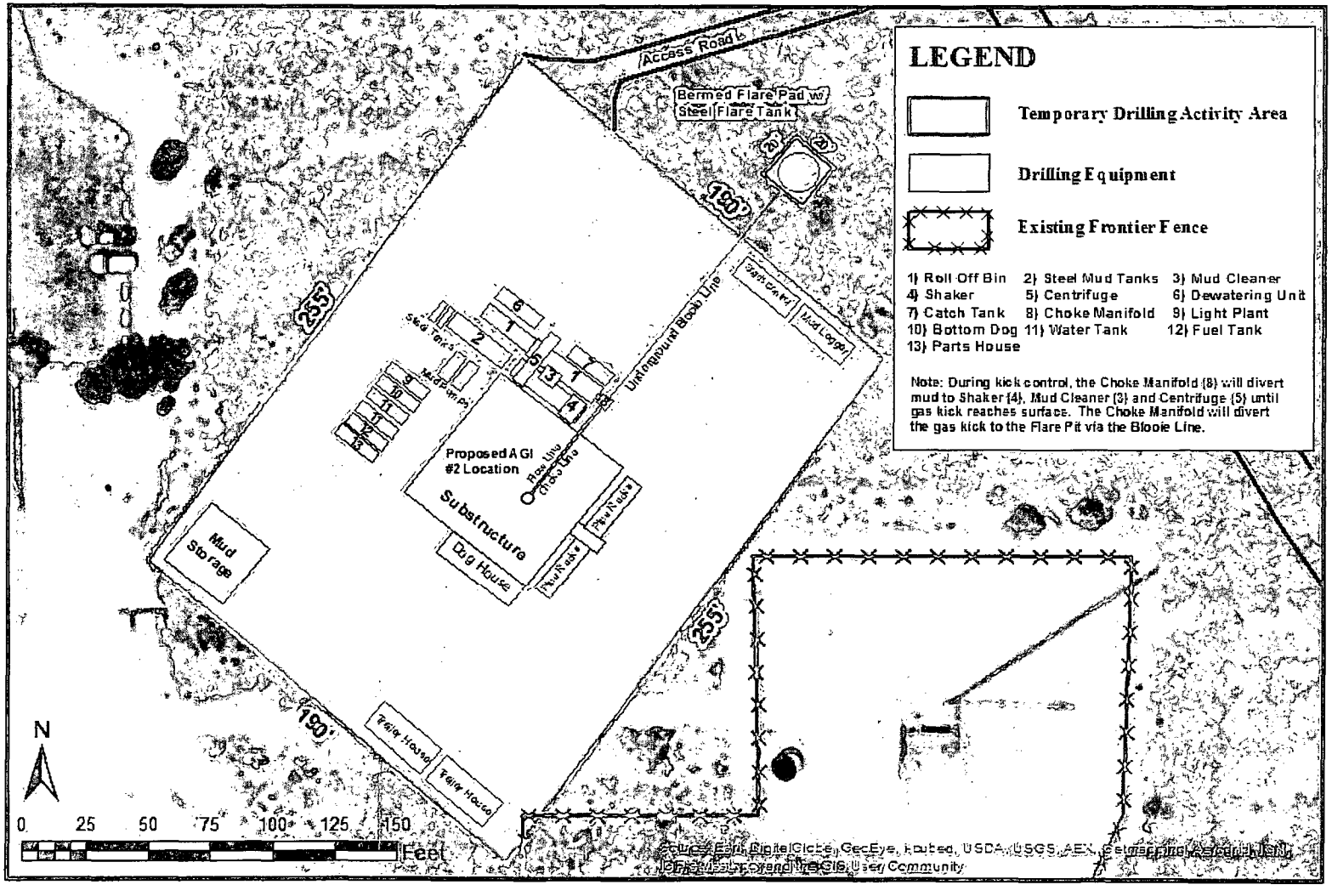


Figure 3: Proposed Well Site Layout, Maljamar AGI #2

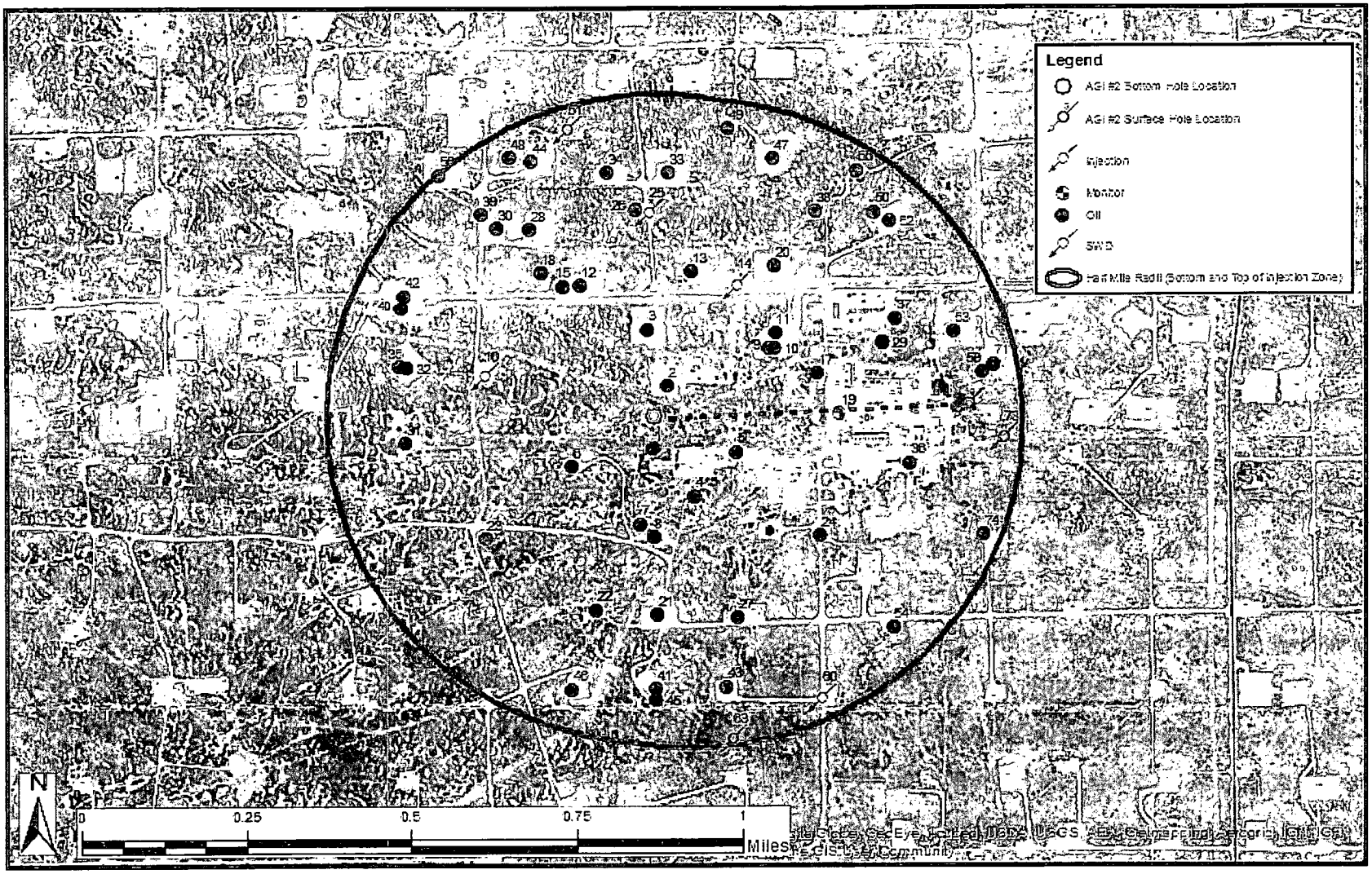


Figure 4: Wells within One-Half Mile of Bottom Hole Location of Proposed Maljamar AGI #2

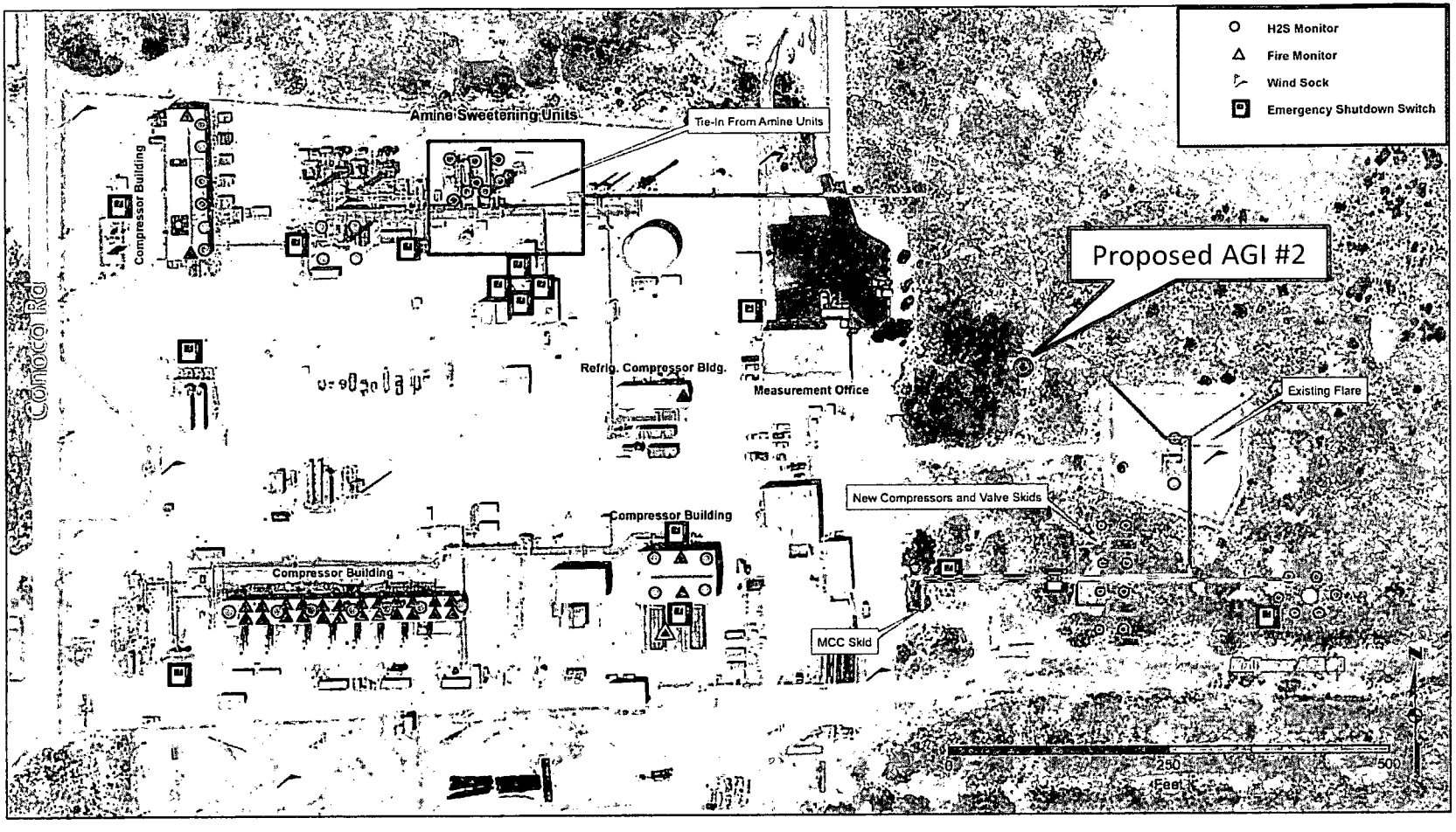


Figure 5: Existing Surface Compressor Facilities

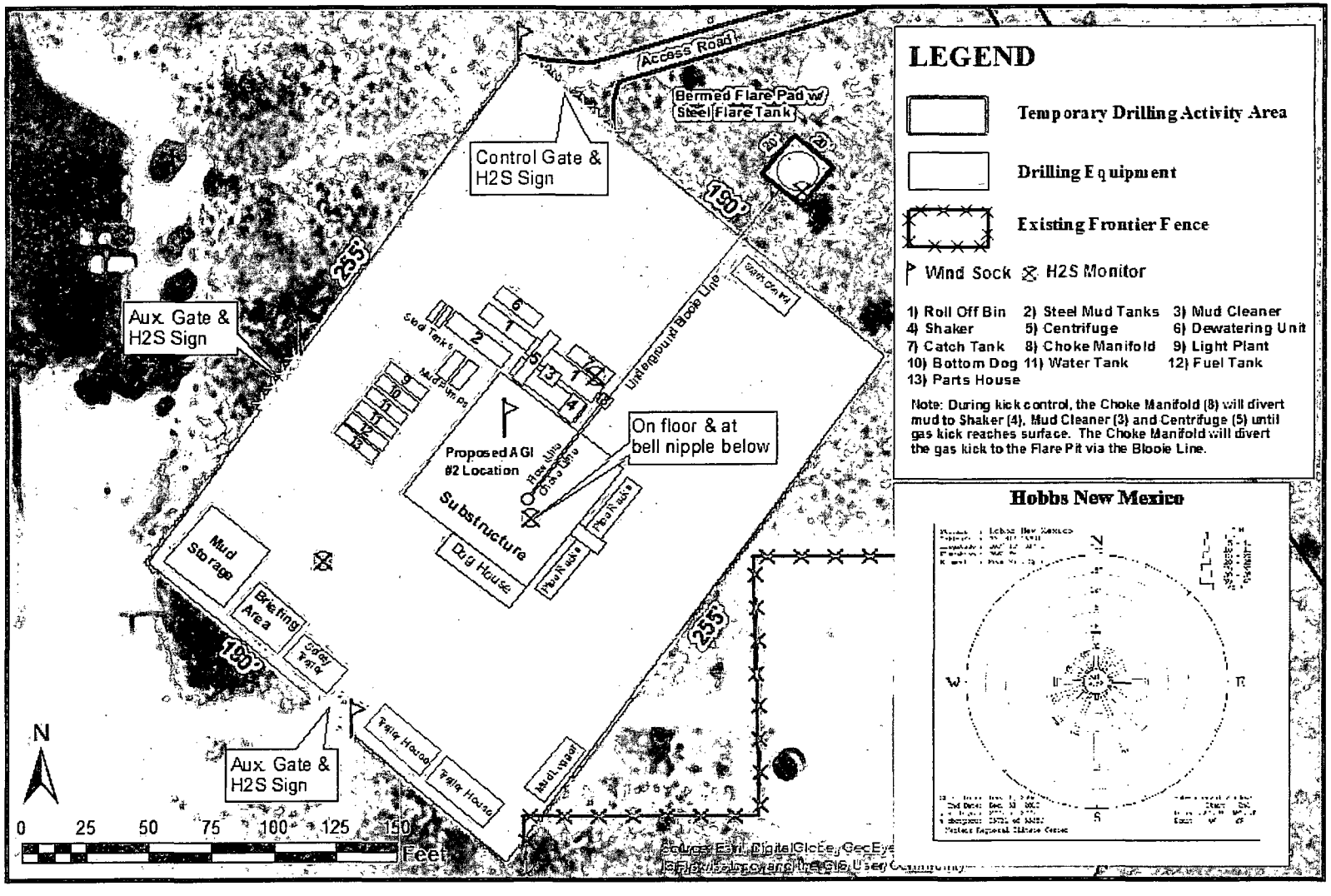


Figure 6: Site Plat Showing H_2S Safety Features and Closed Loop System

See COA For #2 well

Attachment 6:
Demonstration of No Hydrocarbons

Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

FORM APPROVED
OMB No 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No.
LC 029509BB

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☑ Other

8. Well Name and No.
Maljamar AGI#1

2 Name of Operator
Frontier Field Services

9. API Well No
30-025-40420

3a. Address
4200Skelly Dr , St. 700, Tulsa OK 7413N/A5

3b Phone No. *(include area code)*
918-384-8408

10. Field and Pool, or Exploratory Area
Exploratory (Lower Wolfcamp)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
130'FSL, 1813'FEL Sec 2N/A1, T 17S, R 32E, NMPM, Lea Co. NM
Acid Gas Injection Well, Unorthodox Location

11 County or Parish, State
Lea

12. CHECK 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	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other demonstration of no recoverable hydrocarbons
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The above-referenced AGI well (Maljamar AGI #1 (AGI #30-025-40420) was drilled in March-June, 2012 at the approved location pursuant to an approved APD dated 1/3/2012 and NMOCD Order R-13443 The final perforation and completion of the well is scheduled to take place over the next three weeks in September-October 2012. After the well is perforated it will be tested and a sample of the formation fluid in the injection zone will be collected It is anticipated that injection operations will commence prior to year end.

The summary formation evaluation for the purpose of establishing that the zone is void of recoverable hydrocarbons is included as Attachment A As per your request, we have also included a copy of the log suite that was run across for the well including the mud log (Attachment B). Based on all of the attached information we are confident you will concur with our assessment that the pore space in the Lower Wolfcamp Formation at this location is wet and completely void of recoverable hydrocarbons

I hereby certify that the analysis of the NMOCD-approved injection zone within the Lower Wolfcamp in this well contains no recoverable hydrocarbons and that completion into this zone for acid gas injection is appropriate and should be permitted.

Operator to provide an analysis of the formation fluids to the BLM.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Alberto A Gutierrez, RG

Title Consultant to Frontier Field Services LLC and AkA Energy

Signature Digitally signed by Alberto A Gutierrez DN: cn=Alberto A Gutierrez, o=Geolex Inc., ou, email=aag@geolex.com, c=US Date: 2012.09.24 10:20:55 -06'00'

Date 9/24/12 9/24/12

APPROVED
SEP 25 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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 _____

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)

SEP 26 2012

ATTACHMENT A

EVALUATION OF GEOPHYSICAL LOGS, SIDEWALL CORE AND FORMATION MICROIMAGING RESULTS, AND INJECTION POTENTIALS: AKA ENERGY GROUP MALJAMAR AGI #1

Sec. 21-Twp. 17S-32E

Lea County, New Mexico

Prepared for
AKA Energy Group
Frontier Field Services, LLC

by
Geolex, Inc.
500 Marquette Avenue NW Suite 1350
Albuquerque, NM 87102

August 8, 2012

SUMMARY OF FACTORS TO CONSIDER IN RESERVOIR AND CAP ROCK EVALUATION

- The successful evaluation of reservoir and cap rock characteristics using sidewall cores requires the careful consideerations oof the limitations of the samples obtained since each actual sidewall is only representative of 1- 1 ½ inches of the sampled formation. The overall evaluation of the cap rock and 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, resistivity and formation microimager (FMI) logs, mudlogs, drilling condition reports and on-site observations. The overall evaluation and recommendations included herein for completion is the result of the analyses and evaluation of these multiple data types.

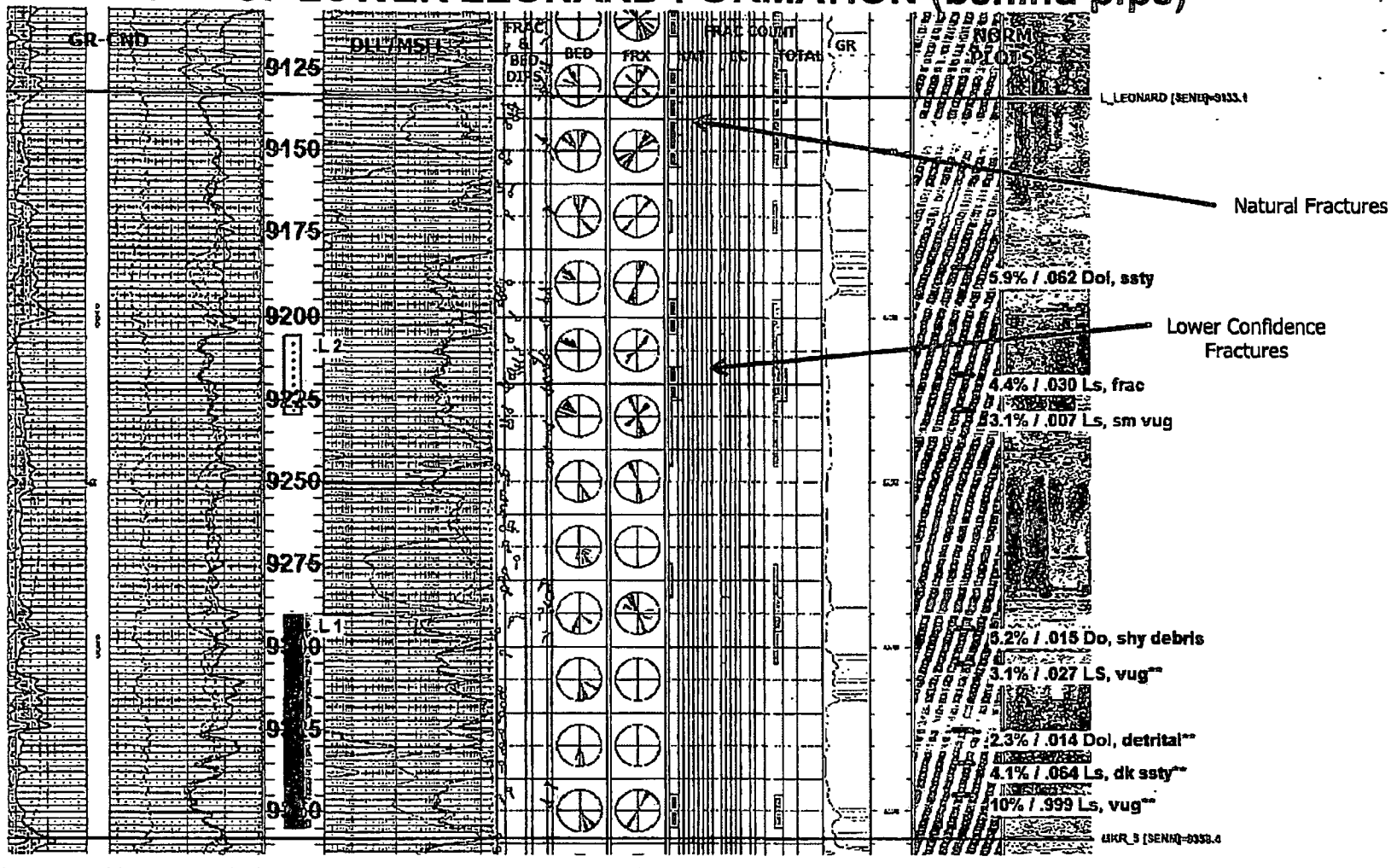
- The facies that were sampled in the lower Leonard to Wolfcamp are dominated by shelf margin detrital carbonates, which are variously composed of lithoclasts and bioclasts in either a carbonate or, more typically, shaley or silty matrix.

- Because of the nature of the facies being sampled, it is not always certain whether the sidewall core has sampled tighter clasts, the matrix, or a combination of both. Some of these detrital carbonates contain lithoclasts that are larger than the size of the sampled core, and porosity is more commonly found in the interparticle matrix.

- Therefore, porosity-permeability measurements of sidewall cores do not always "see" the true parameters of the rock being sampled, and generally result in pessimistically low porosity and permeability measurements when considered in isolation. For this reason it is equally important to consider the corresponding log signatures and drilling notes and experience. In addition, log-indicated porosity may be influenced by the directional nature of some porosity, like isolated vugs or fractures, and may not always read true on a single logging pass. This is aided by the utilization of the FMI log to evaluate strike and dip and fracture orientation.

- In the following slides, I have indicated which core samples sampled obvious detrital carbonate, based upon the white and blue-light core photographs, direct examination and (to a lesser extent), the lithologic descriptions provided by Weatherford Labs. It is critical to note that this does not rule out the fact that other cores may include detrital carbonate since any particular sidewall core may have simply sampled only the tighter, clastic fraction of the rock, or perhaps, a locally tighter slope facies. The borehole image processed log is also included on each log composite, to identify major fractured zones. Its value in identifying rock textures is possible in most cases by examining the normalized image tracks.

ANALYSES OF LOWER LEONARD FORMATION (behind pipe)



On this and subsequent slides, yellow shading denotes porosity >5% in carbonates; the numbers and notations on the right refer to measured sidewall core porosity / permeability (% and md, respectively) and a brief lithologic description. Core points with double asterisks calculated Sws of greater than 40%, which is generally considered water productive in this area. The solid blue bars denote the preferred injection intervals. The lower part of the lower Leonard section (L1) reads almost consistently wet, with porosity up to 10%. Anything with porosity over 4% should be adequate for injection purposes. Some of the lower porosity rock may be in the clastic fraction of these detrital carbonates. This portion of the section will be behind pipe and not perforated. The CRA joint was set at 9474' and initial injection intervals will be below this level.

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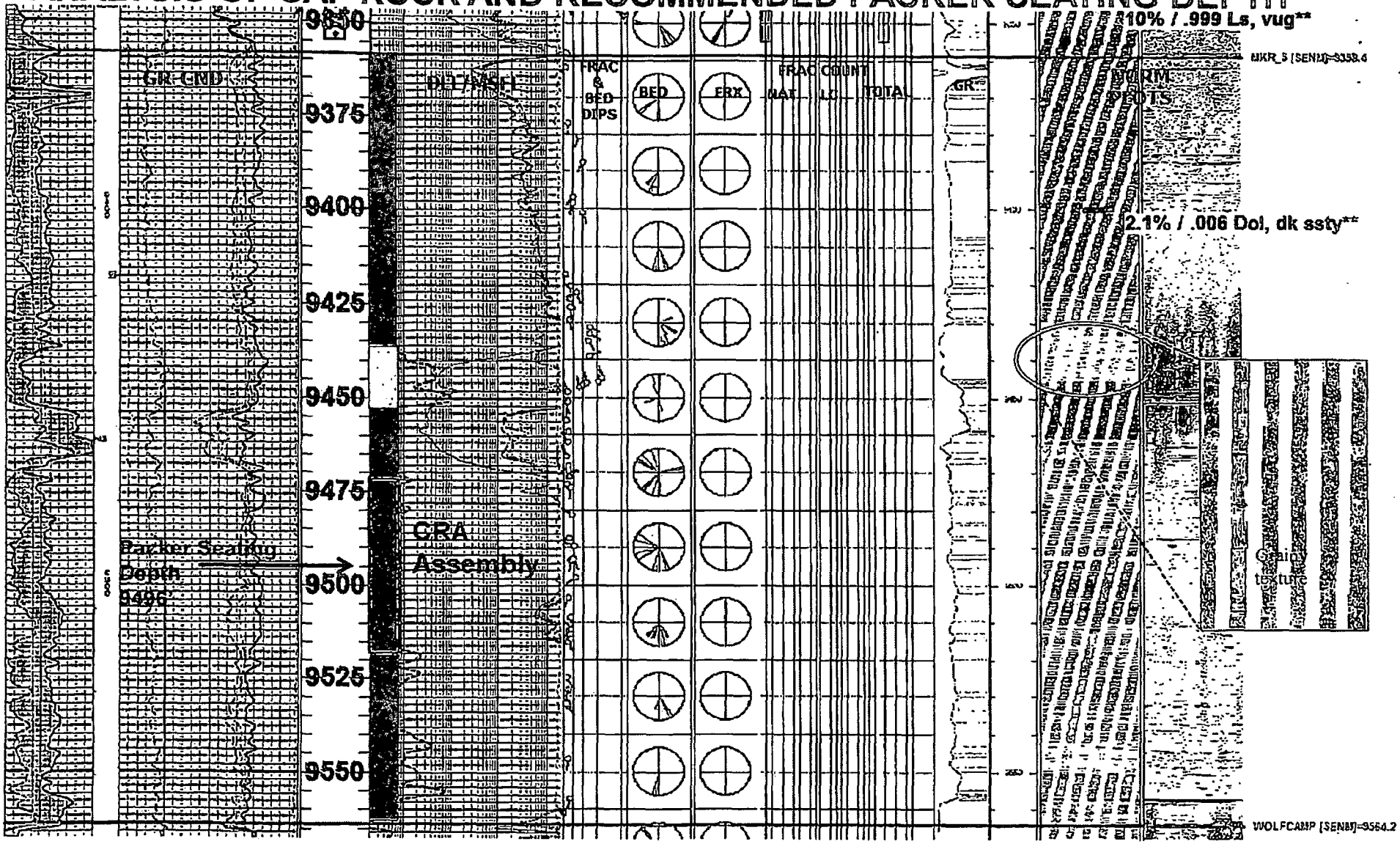
FRONTIER

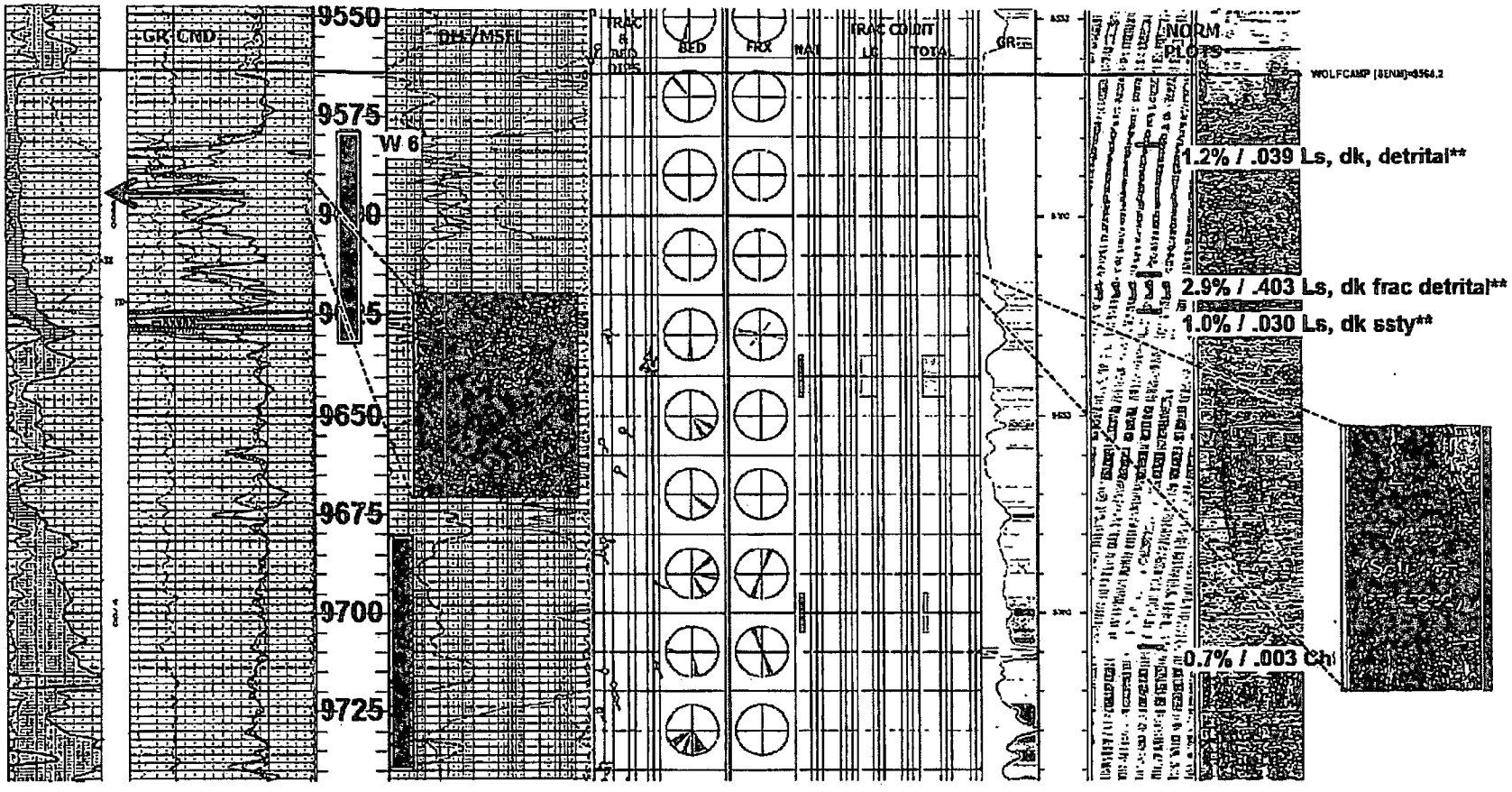
ANALYSIS OF CAP ROCK AND RECOMMENDED PACKER SEATING DEPTH



GEOLEX INCORPORATED

The intervals indicated by the brown bars appear to be dominated by dark, silty and shaley slope facies, with very low to trace permeability. The green bar denotes a tight lime grainstone, which can be seen on the image plot (green circle) This interval will make an excellent caprock for injection zones below which is why CRA assembly was set here and packer will be set at 9496'.

ANALYSIS OF UPPERMOST RECOMMENDED INJECTION ZONE – W 6



Upper Wolfcamp zone W6 is the uppermost recommended injection zone. This zone was washed out (see caliper log-blue arrow). The FMI image here indicates large voids (black) in the rock which could have caused it to slough. Tracking of the density and neutron curves support that interpretation because a simple washout would not cause the neutron log to go off-scale with the density log. One core sample through this interval recovered fractured (large fracture), detrital carbonate with good permeability, The image log there shows up as a large void, probably a solution-enlarged vug or small sinkhole. All the core samples calculated wet. The cherty zone below (brown bar) represents another caprock interval separating W6 from the underlying Wolfcamp zones.

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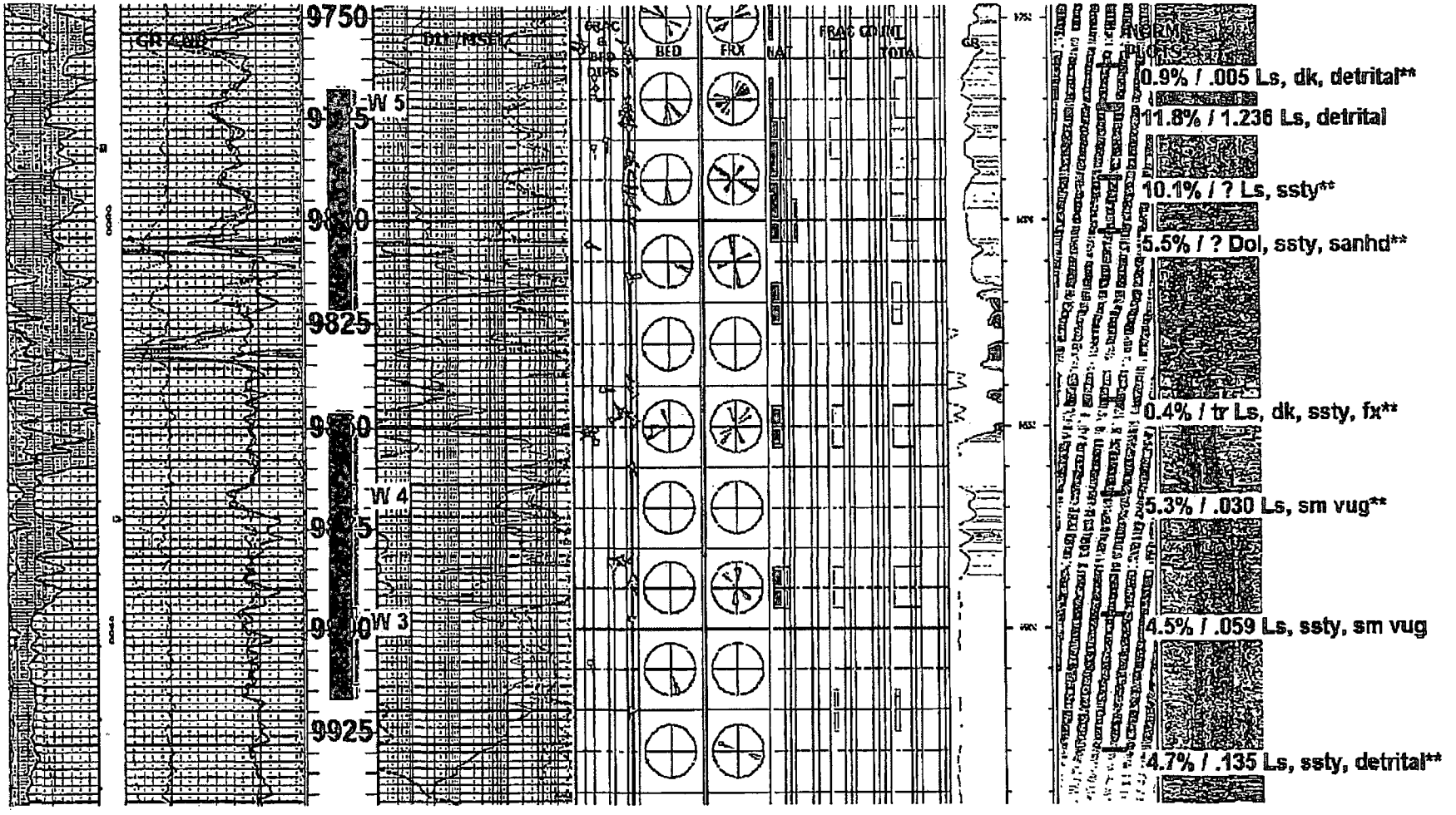
FRONTIER

ANALYSIS OF MIDDLE RECOMMENDED INJECTION ZONES – W 5, W 4 AND W 3



Despite the apparent thinner-bedded nature of the porosity through these intervals, the core results here gave the best, consistent porosity readings over 4%. The FMI shows pervasive fracturing that ties the porous beds together. Zones W5, W4 and W3 should all be perforated by shooting across the entire intervals indicated in blue.

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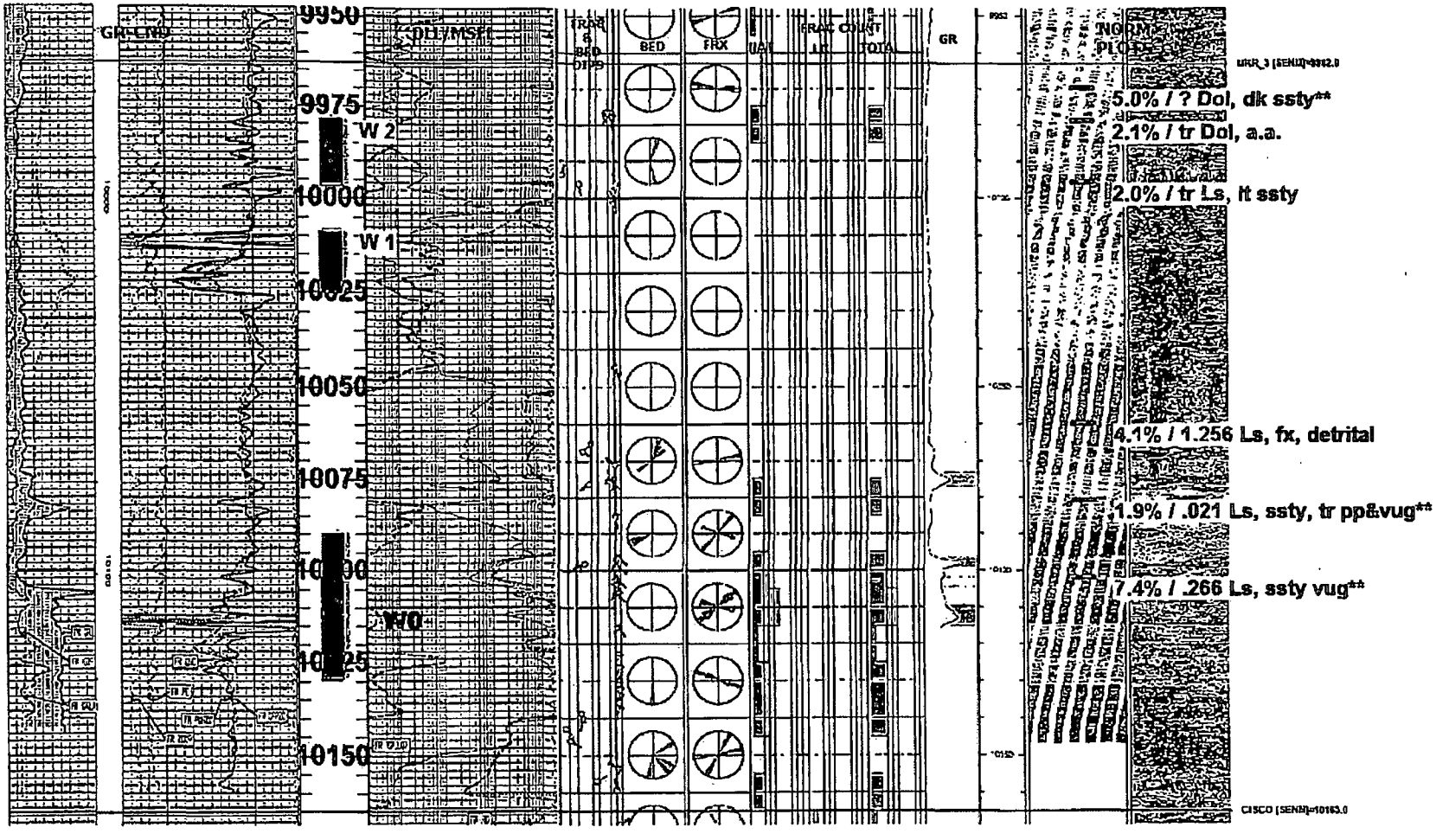
FRONTIER

ANALYSIS OF LOWERMOST RECOMMENDED INJECTION ZONES – W 2, W 1, AND W 0



Similarly, these lower Wolfcamp zones should be perforated across the three intervals with the blue bars. The lowest recommended perforation interval (W0) has been added on the basis of the density of fracturing, and primary porosities in core up to 7.4%. The fractures would serve to effectively inter-connect porosity across the interval.

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FRONTIER

SUMMARY OF RECOMMENDED PERFORATIONS

9579'-9632'	**Upper Wolfcamp (W 6); good caprock**
9768'-9821'	**Middle Wolfcamp (W 5); good fracturing**
9850'-9917'	**Middle Wolfcamp (W 3, W 4); some fracturing**
9979'-9997'	**Middle Wolfcamp (W 2); some fracturing**
10009'-10025'	**Lower Wolfcamp (W 1); good primary porosity**
10090'-10130'	**Lowest Wolfcamp; (W 0); heavily fractured**

All zones perforated 4spf at 90°

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FRONTIER field services

CONCLUSIONS AND RECOMMENDATIONS

- Sidewall core results are expectedly mixed, but indicate that the predominant facies types over the intervals of interest are detrital carbonates with locally high matrix porosity and permeability and significant fracture porosity and permeability.
- Core measurements, compared with log-indicated porosity and permeability and FMI-measured fractures, indicate the following perforating and testing priority for the various units of the Wolfcamp. The lower Leonard will be left behind pipe as a potential injection zone if needed in the future:

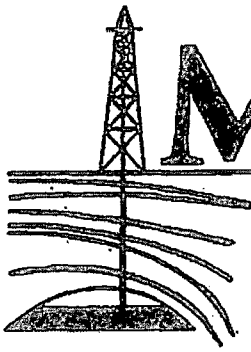
1. The W3 through W5 intervals are the best overall, potential injection zones, and are capped by at least 75-85 feet of tight, shaley and cherty facies.

2. The lower Wolfcamp section, which includes zones W1 and W2 and W 0, could be added to the first intervals, and collectively perforated and tested.

3. Zone W6 is probably a sequence of solution-enlarged porosity, and should be perforated and used even if the first lower Wolfcamp zones test adequately for injection purposes in order to comply with OCD's requirement that the uppermost perforations be no more than 100' below the packer. It is capped by a suitably thick section of tight, shaley and silty carbonates.

END OF ATTACHMENT A

ATTACHMENT B MUDLOG 9000'-TD



McNEESE
FIELD SERVICES, INC.
Office 432-682-0990

Scale: 5" / 100'
Measured Depth Log

Well Name	MALJAMAR AGI #1A		
Location	130' FSL & 1813' FEL, SEC 21, T17S, R32E		
State	NM	**County**	LEA
Country	USA	**Rig**	UNITED DRILLING #41
API Number	30-025-40420		
		Field	WILDCAT
		Drilling Completed	06/09/2012
Ground Elevation	4016'	**K.B. Elevation**	4031'
Logged Interval	5461' To 10183'	**Total Depth**	10183'

Operator

Company PB ENERGY

Geologist

Name TOM SHARP

Company GEOLEX

Other

LOGGER - DJ JONES

JOB #805

djones@mfsinc-us.com
(361)728-4874

Dates Logged:
04/28/12 - 06/09/12

Rock Types

- UNKNOWN
- ANHYDRITE
- GYPSUM
- SALT
- SIDERITE or LIMONITE
- LIMESTONE
- DOLOMITE
- CHERT
- COAL
- MARLSTONE
- CLAYSTONE
- SHALE
- SHALE GRAY
- SHALE COLORED
- SILTSTONE
- SANDSTONE
- CONGLOMERATE
- BRECCIA
- TILL
- BENTONITE
- TUFF
- IGNEOUS
- METAMORPHIC

Accessories

Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHOIPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA
- FOSSIL
- GASTROPOD
- OOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOROID

Minerals

- ANHYDRITIC
- ARGILLACEOUS
- ARGILLITE GRAIN
- BENTONITE
- BITUMENOUS SUBSTANCE
- BRECCIA FRAGMENTS
- CALCAREOUS
- CARBONACEOUS FLAKES
- CHTDK
- CHTLT
- COAL - THIN BEDS
- DOLOMITIC
- FELDSPAR
- FERRUGINOUS PELLET
- FERRUGINOUS
- GLAUCONITE
- GYPSIFEROUS
- HEAVY MINERAL
- KAOLIN
- MARLSTONE
- MINERAL CRYSTALS
- NODULES
- PHOSPHATE PELLETS
- PYRITE
- SALT CAST
- SANDY
- SILICEOUS
- SILTY
- TUFFACEOUS

Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOL) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

Porosity

- EARTHY
- FENESTRAL
- FRACTURE
- INTERCRYSTALLINE
- INTEROOLITIC
- MOLDIC
- ORGANIC
- PINPOINT
- VUGGY

Engineering

- BIT
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL
- FAULT
- FORMATION TOP
- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS
- WIRELINE TESTED - LEFT
- WIRELINE TESTED - RT

Rounding

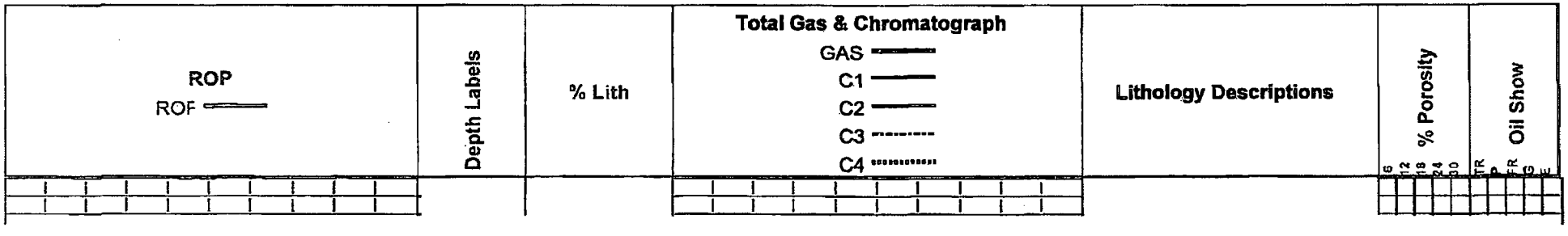
- ANGULAR
- ROUNDED
- SUBANG
- SUBRND

Textures

- BOUNDSTONE
- CHALKY
- CRYPTOXLN
- EARTHY
- FINELYXLN
- GRAINSTONE
- LITHOGRAPHIC
- MICROXLN
- MUDSTONE
- PACKSTONE
- WACKESTONE

Sorting

- MODERATE
- POOR
- WELL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ROF
Depth Labels
% Lith
Total Gas & Chromatograph
GAS
C1
C2
C3
C4
Lithology Descriptions
% Porosity
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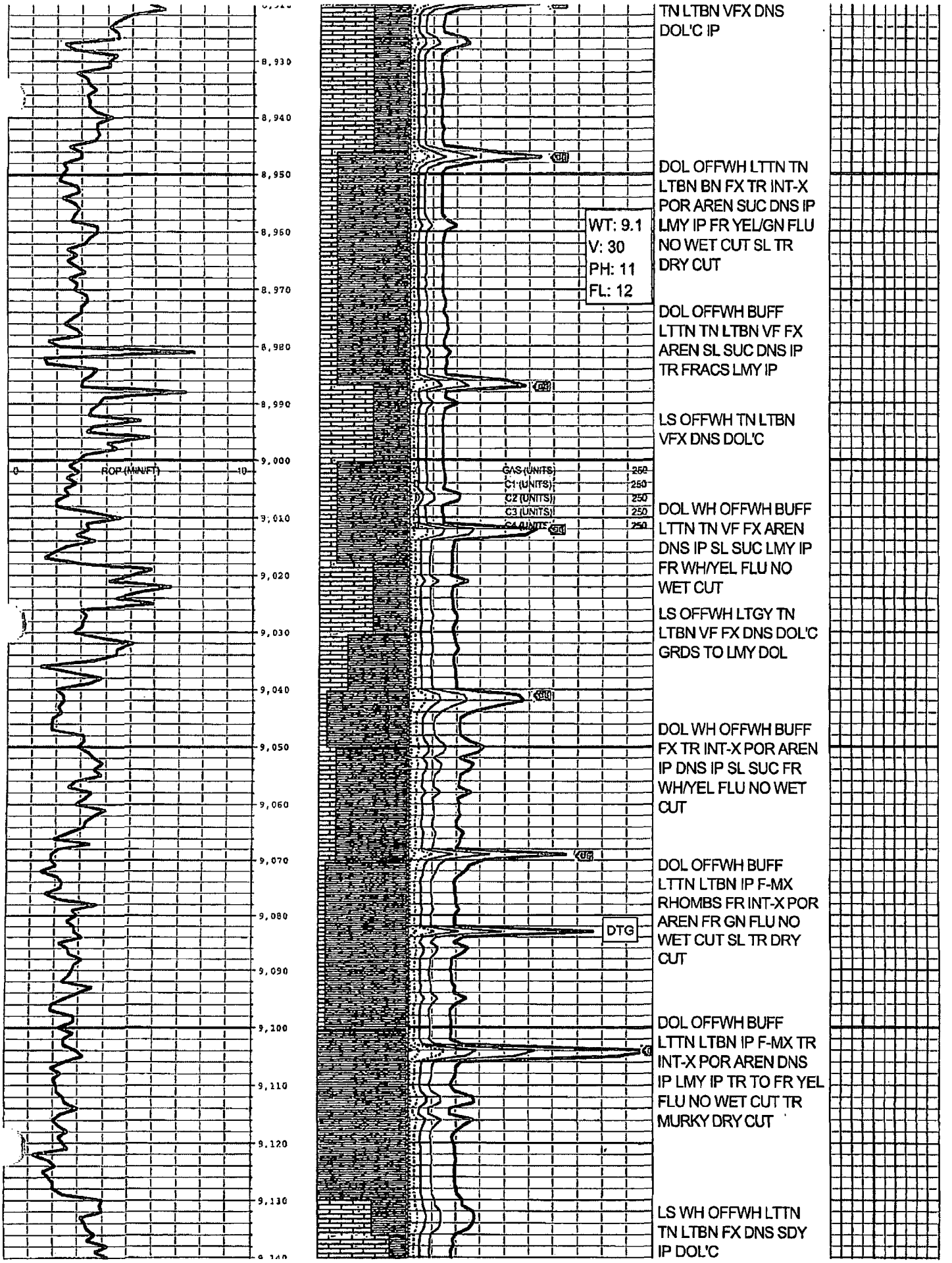
18
24
30
Oil Show
TR
P
FR
G
E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C3 (UNITS)
C4 (UNITS)
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250
250
250
250
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DOL OFFWH LTTN TN LTBN BN FX TR INT-X POR AREN SUC DNS IP LMY IP FR YEL/GN FLU NO WET CUT SL TR DRY CUT
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LS OFFWH TN LTBN VFX DNS DOL'C
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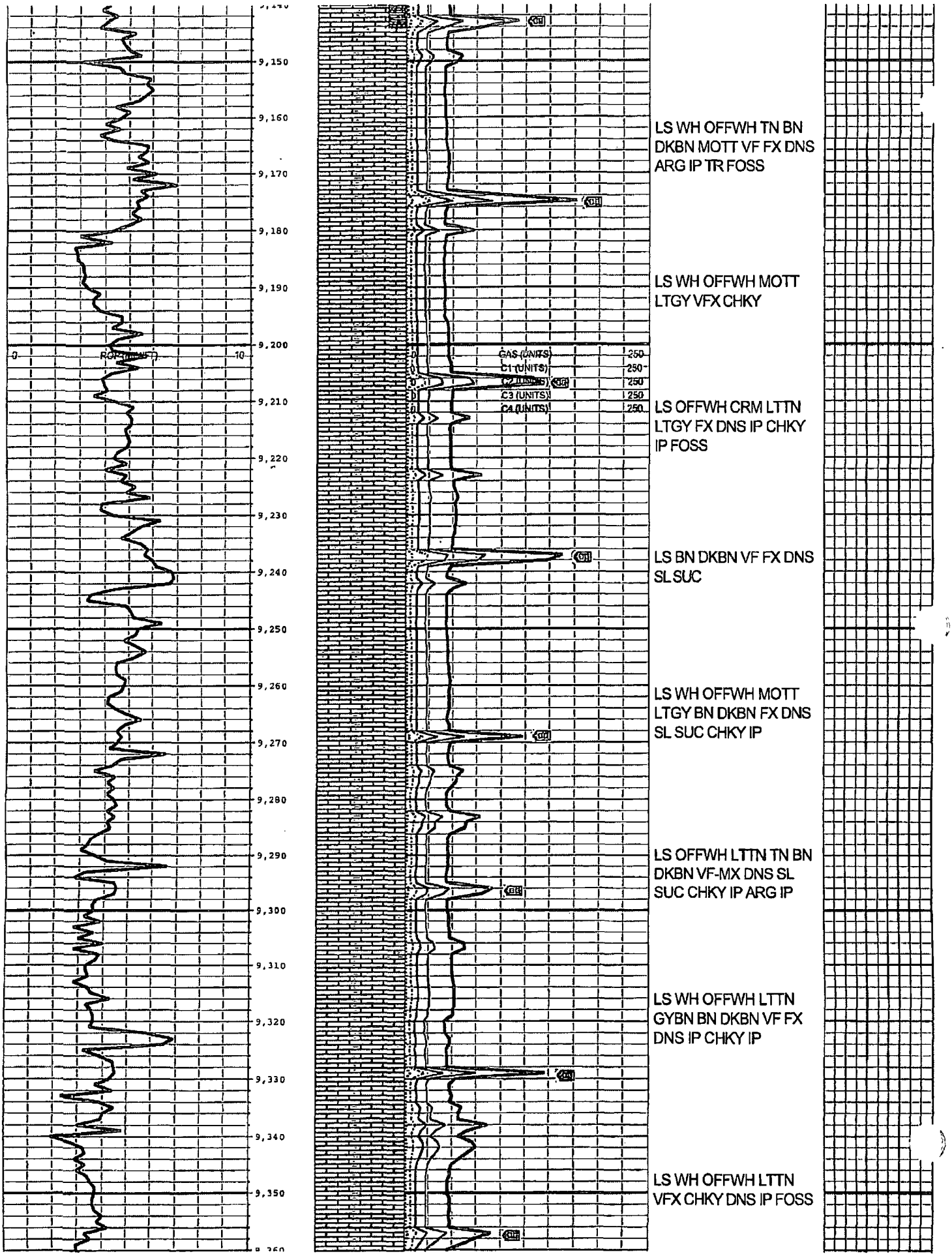
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C3 (UNITS)
C4 (UNITS)
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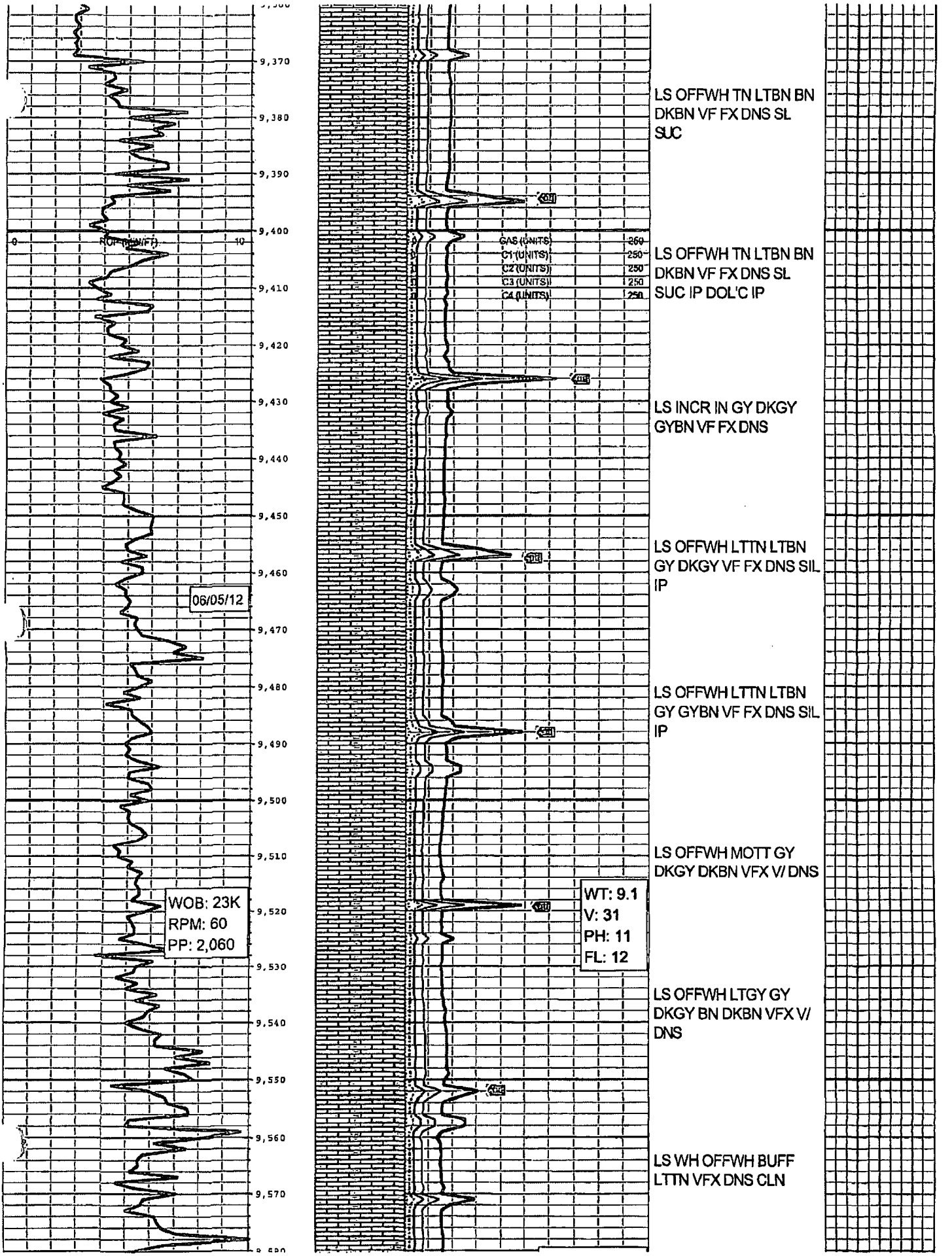
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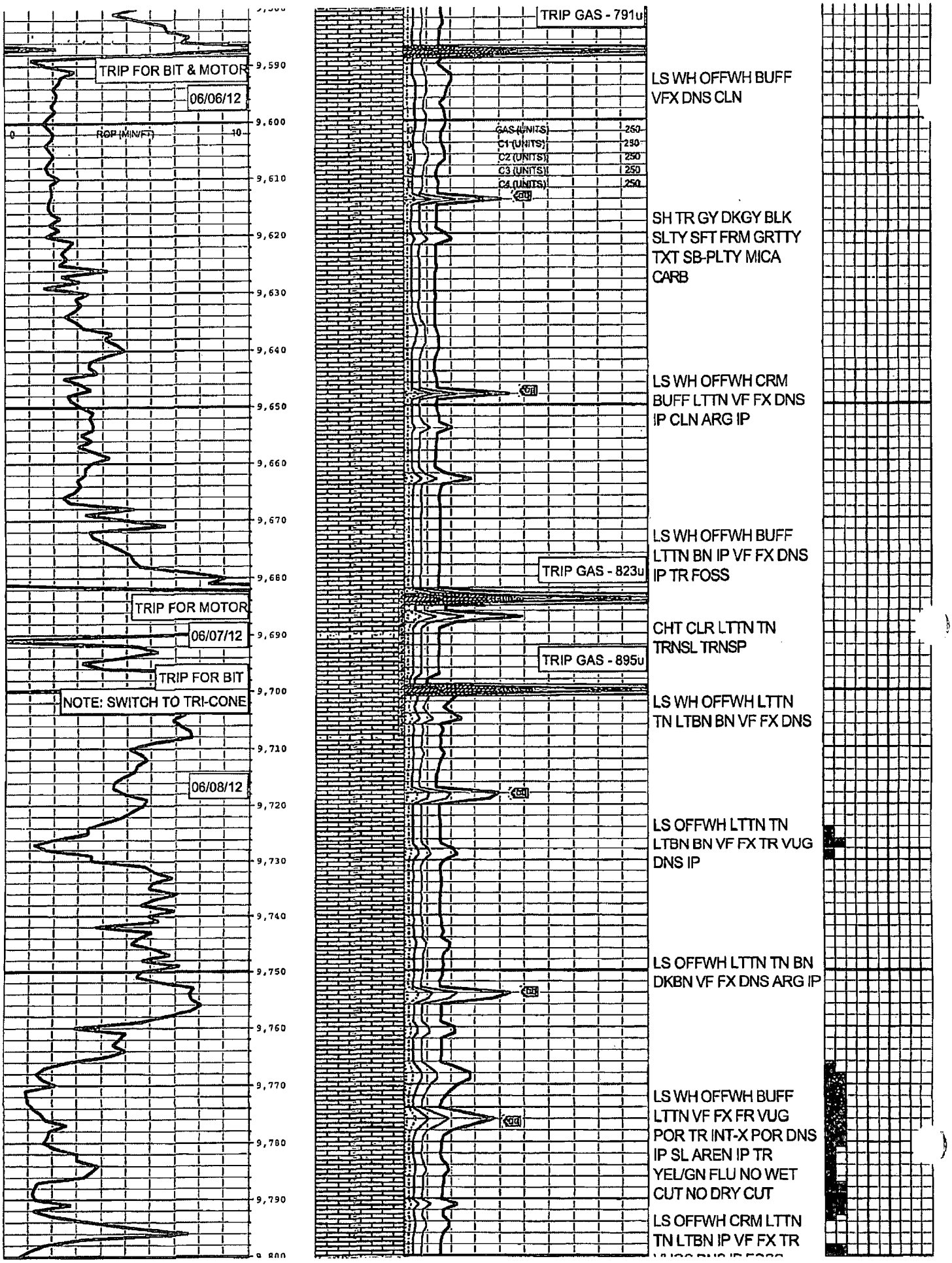
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TRIP FOR BIT
NOTE: SWITCH TO TRI-CONE
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06/08/12
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C3 (UNITS)
C4 (UNITS)
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SH TR GY DKGY BLK SLTY SFT FRM GRTTY TXT SB-PLTY MICA CARB
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TRIP GAS - 823u
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CHT CLR LTTN TN TRNSL TRNSP
TRIP GAS - 895u
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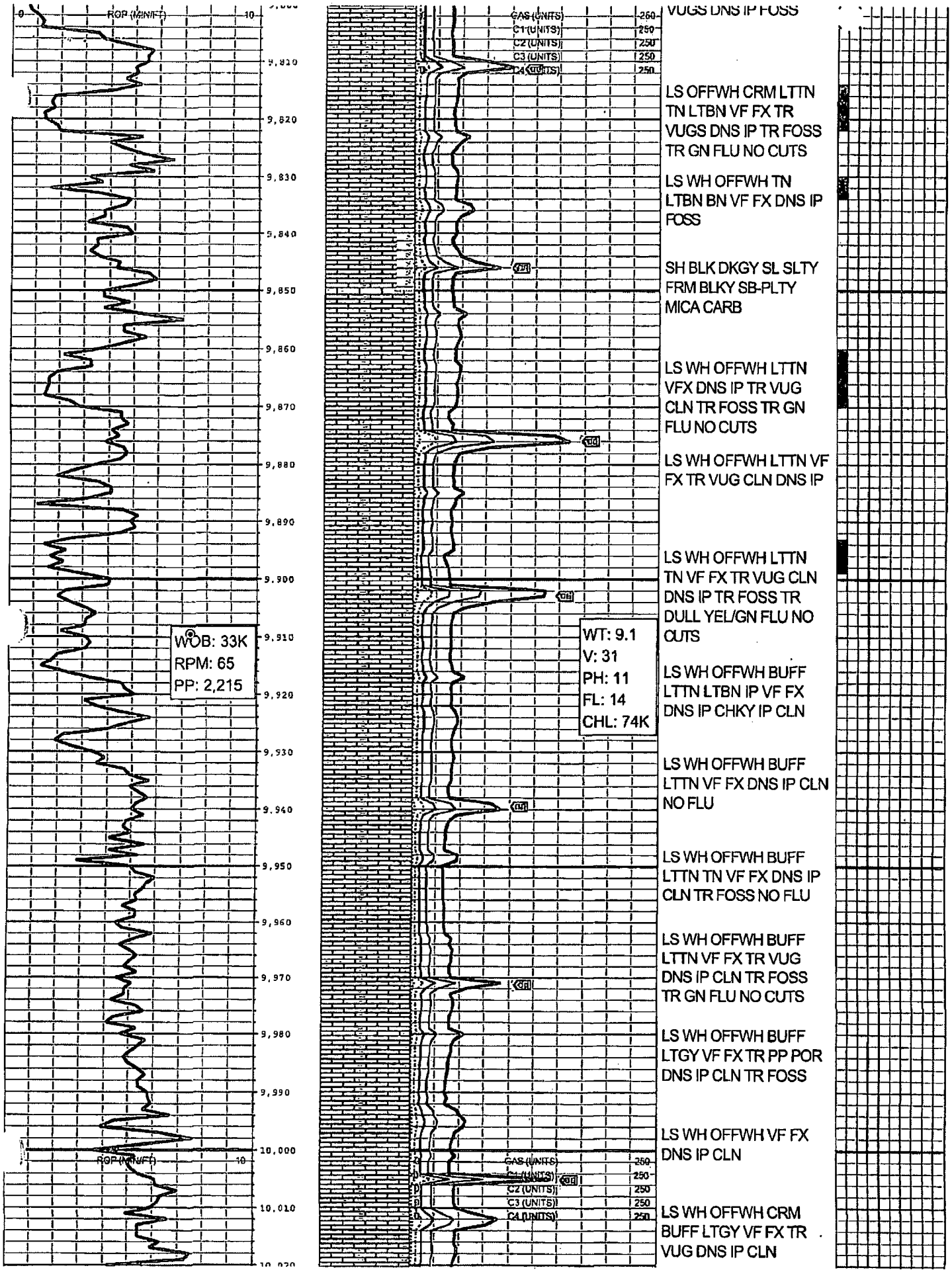
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10,010
WOB: 33K
RPM: 65
PP: 2,215
GAS (UNITS)
C1 (UNITS)
C2 (UNITS)
C3 (UNITS)
C4 (UNITS)
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WT: 9.1
V: 31
PH: 11
FL: 14
CHL: 74K
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SH BLK DKGY SL SLTY FRM BLKY SB-PLTY MICA CARB
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LS WH OFFWH LTTN VF FX TR VUG CLN DNS IP
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LS WH OFFWH BUFF LTTN LTBN IP VF FX DNS IP CHKY IP CLN
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LS WH OFFWH BUFF LTTN VF FX TR VUG DNS IP CLN TR FOSS TR GN FLU NO CUTS
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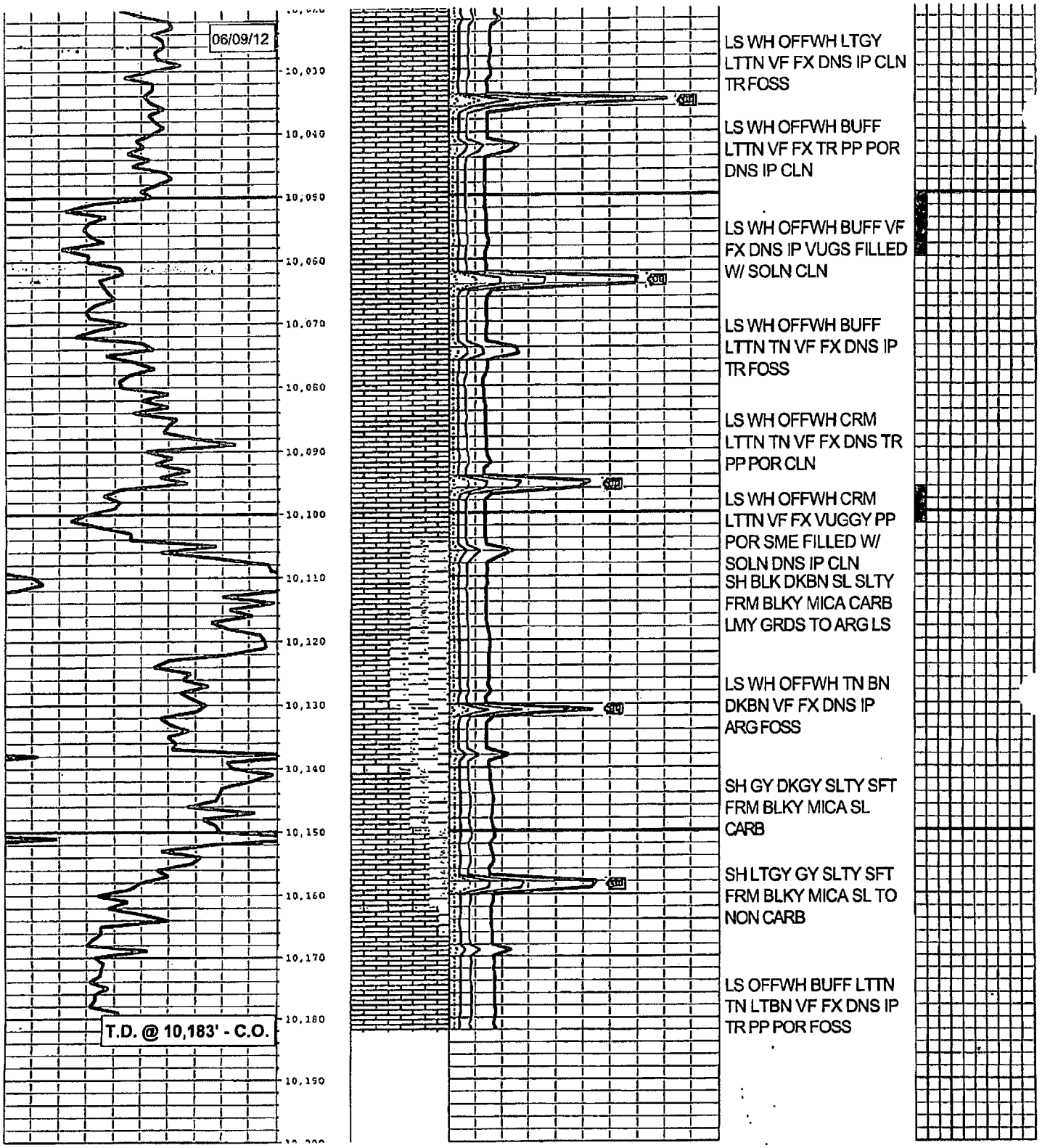


END OF ATTACHMENT B MUDLOG 9000'-TD

Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

FORM APPROVED
OMB No 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No.
LC 029509BB

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☑ Other

8. Well Name and No.
Maljamar AGI#1

2 Name of Operator
Frontier Field Services

9. API Well No
30-025-40420

3a Address
4200 Skelly Dr , St. 700, Tulsa OK 7413N/A5

3b Phone No. *(include area code)*
918-384-8408

10. Field and Pool, or Exploratory Area
Exploratory (Lower Wolfcamp)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
130' FSL, 1813' FEL Sec 2N/A1, T 17 S, R 32 E, NMPM, Lea Co. NM
Acid Gas Injection Well, Unorthodox Location

11 County or Parish, State
Lea

12. CHECK 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	☐ After Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other demonstration of no recoverable hydrocarbons
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The above-referenced AGI well (Maljamar AGI #1 (AGI #30-025-40420) was drilled in March-June, 2012 at the approved location pursuant to an approved APD dated 1/3/2012 and NMOCD Order R-13443 The final perforation and completion of the well is scheduled to take place over the next three weeks in September-October 2012. After the well is perforated it will be tested and a sample of the formation fluid in the injection zone will be collected It is anticipated that injection operations will commence prior to year end.

The summary formation evaluation for the purpose of establishing that the zone is void of recoverable hydrocarbons is included as Attachment A As per your request, we have also included a copy of the log suite that was run across for the well including the mud log (Attachment B). Based on all of the attached information we are confident you will concur with our assessment that the pore space in the Lower Wolfcamp Formation at this location is wet and completely void of recoverable hydrocarbons

I hereby certify that the analysis of the NMOCD-approved injection zone within the Lower Wolfcamp in this well contains no recoverable hydrocarbons and that completion into this zone for acid gas injection is appropriate and should be permitted.

Operator to provide an analysis of the formation fluids to the BLM.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Alberto A Gutierrez, RG

Title Consultant to Frontier Field Services, LLC and AkA Energy

Signature

Digitally signed by Alberto A Gutierrez
DN: cn=Alberto A Gutierrez, o=Geolex Inc., ou, email=aag@geolex.com, c=US
Date: 2012.09.24 10:25:50 -06'00'

Date 9/24/12 9/24/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED
SEP 25 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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. 9/25/2012 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)

SEP 26 2012

ATTACHMENT A

EVALUATION OF GEOPHYSICAL LOGS, SIDEWALL CORE AND FORMATION MICROIMAGING RESULTS, AND INJECTION POTENTIALS: AKA ENERGY GROUP MALJAMAR AGI #1

Sec. 21-Twp. 17S-32E

Lea County, New Mexico

Prepared for
AKA Energy Group
Frontier Field Services, LLC

by
Geolex, Inc.
500 Marquette Avenue NW Suite 1350
Albuquerque, NM 87102

August 8, 2012

SUMMARY OF FACTORS TO CONSIDER IN RESERVOIR AND CAP ROCK EVALUATION

- The successful evaluation of reservoir and cap rock characteristics using sidewall cores requires the careful consideerations oof the limitations of the samples obtained since each actual sidewall is only representative of 1- 1 ½ inches of the sampled formation. The overall evaluation of the cap rock and 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, resistivity and formation microimager (FMI) logs, mudlogs, drilling condition reports and on-site observations. The overall evaluation and recommendations included herein for completion is the result of the analyses and evaluation of these multiple data types.

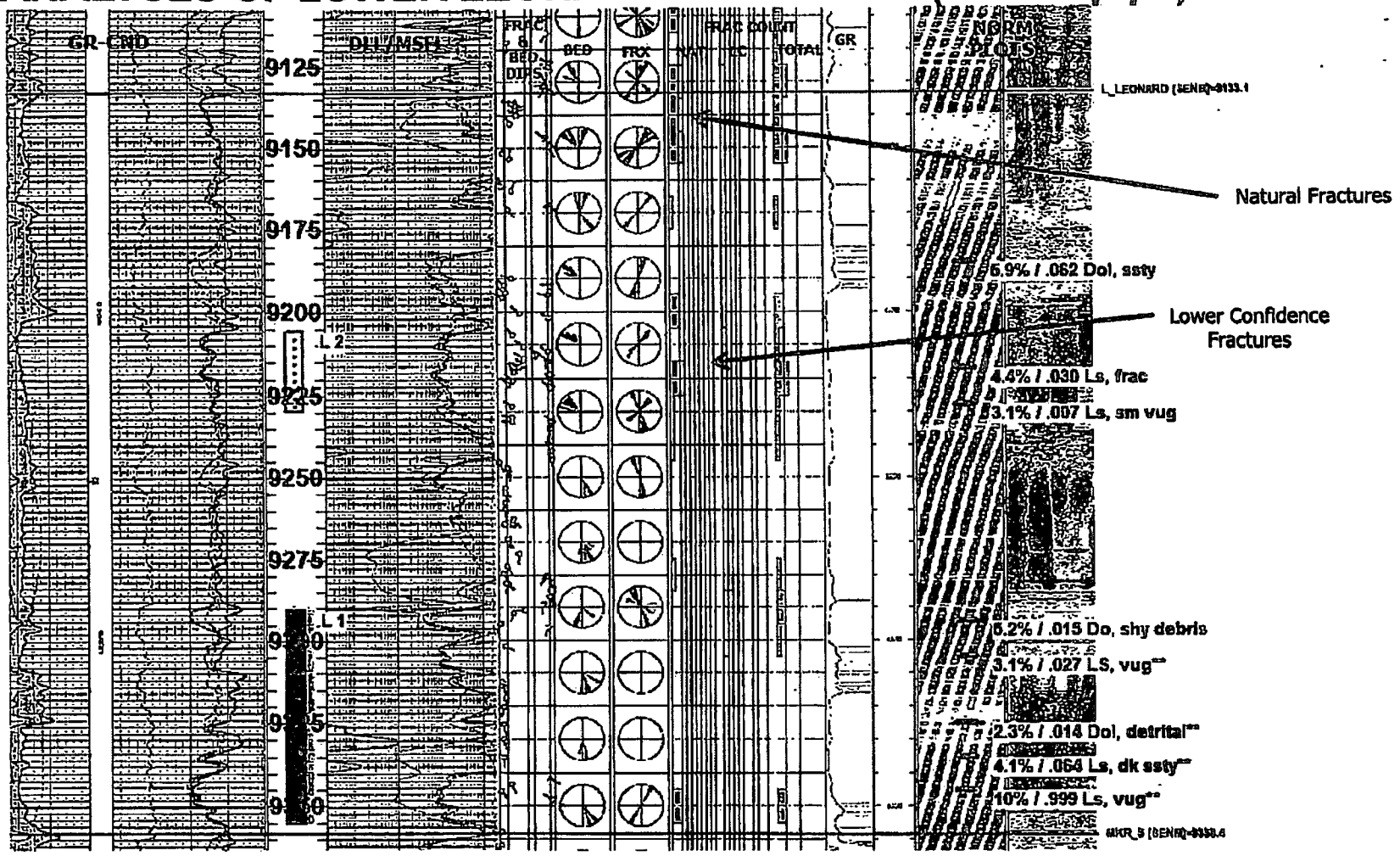
- The facies that were sampled in the lower Leonard to Wolfcamp are dominated by shelf margin detrital carbonates, which are variously composed of lithoclasts and bioclasts in either a carbonate or, more typically, shaley or silty matrix.

- Because of the nature of the facies being sampled, it is not always certain whether the sidewall core has sampled tighter clasts, the matrix, or a combination of both. Some of these detrital carbonates contain lithoclasts that are larger than the size of the sampled core, and porosity is more commonly found in the interparticle matrix.

- Therefore, porosity-permeability measurements of sidewall cores do not always "see" the true parameters of the rock being sampled, and generally result in pessimistically low porosity and permeability measurements when considered in isolation. For this reason it is equally important to consider the corresponding log signatures and drilling notes and experience. In addition, log-indicated porosity may be influenced by the directional nature of some porosity, like isolated vugs or fractures, and may not always read true on a single logging pass. This is aided by the utilization of the FMI log to evaluate strike and dip and fracture orientation.

- In the following slides, I have indicated which core samples sampled obvious detrital carbonate, based upon the white and blue-light core photographs, direct examination and (to a lesser extent), the lithologic descriptions provided by Weatherford Labs. It is critical to note that this does not rule out the fact that other cores may include detrital carbonate since any particular sidewall core may have simply sampled only the tighter, clastic fraction of the rock, or perhaps, a locally tighter slope facies. The borehole image processed log is also included on each log composite, to identify major fractured zones. Its value in identifying rock textures is possible in most cases by examining the normalized image tracks.

ANALYSES OF LOWER LEONARD FORMATION (behind pipe)

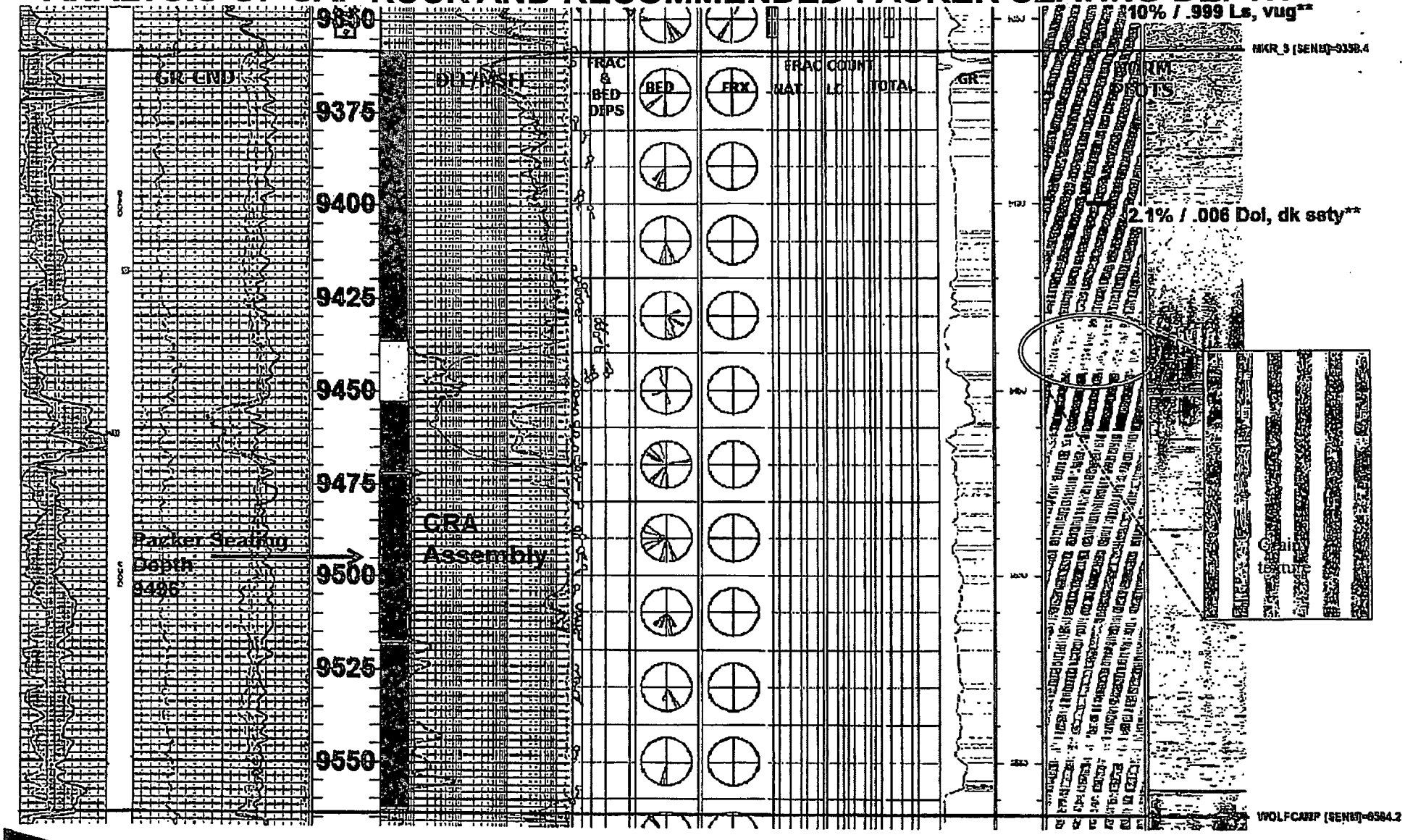


On this and subsequent slides, yellow shading denotes porosity >5% in carbonates; the numbers and notations on the right refer to measured sidewall core porosity / permeability (% and md, respectively) and a brief lithologic description. Core points with double asterisks calculated Sws of greater than 40%, which is generally considered water productive in this area. The solid blue bars denote the preferred injection intervals. The lower part of the lower Leonard section (L1) reads almost consistently wet, with porosity up to 10%. Anything with porosity over 4% should be adequate for injection purposes. Some of the lower porosity rock may be in the clastic fraction of these detrital carbonates. This portion of the section will be behind pipe and not perforated. The CRA joint was set at 9474' and initial injection intervals will be below this level.

GEOLEX INCORPORATED

FRONTIER

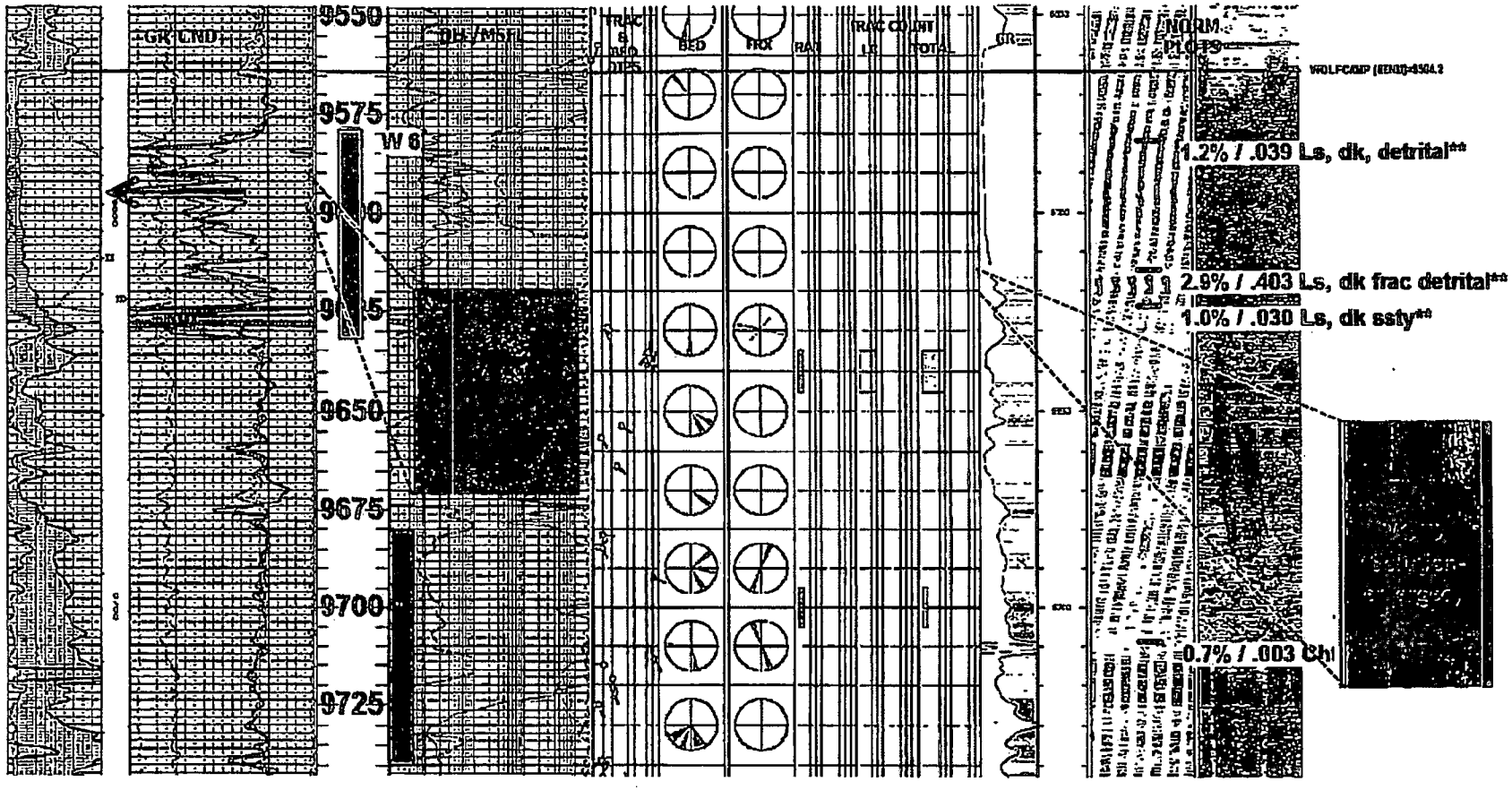
ANALYSIS OF CAP ROCK AND RECOMMENDED PACKER SEATING DEPTH



GEOLEX INCORPORATED

The intervals indicated by the brown bars appear to be dominated by dark, silty and shaley slope facies, with very low to trace permeability. The green bar denotes a tight lime grainstone, which can be seen on the image plot (green circle) This interval will make an excellent caprock for injection zones below which is why CRA assembly was set here and packer will be set at 9496'.

ANALYSIS OF UPPERMOST RECOMMENDED INJECTION ZONE – W 6

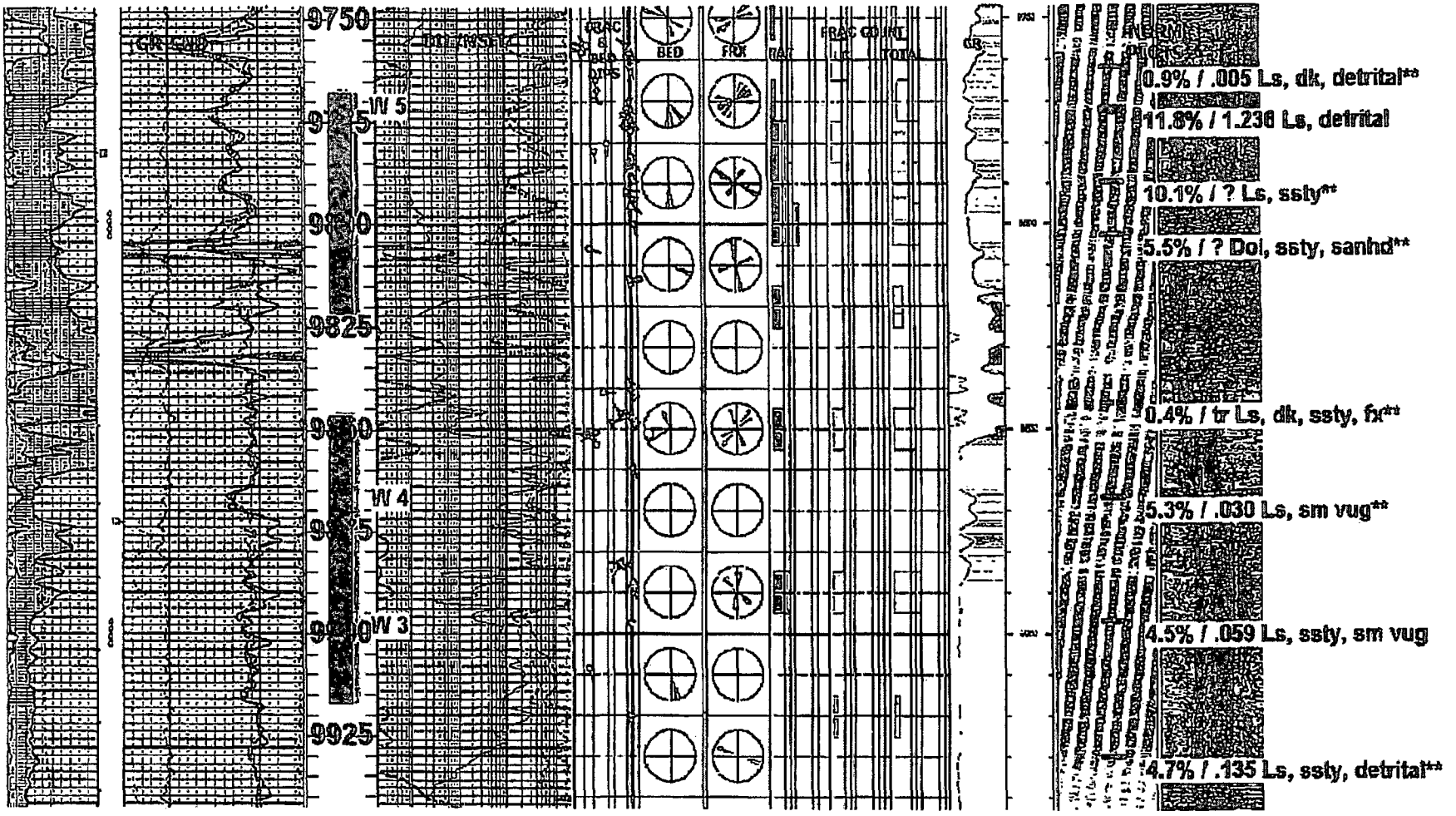


Upper Wolfcamp zone W6 is the uppermost recommended injection zone. This zone was washed out (see caliper log-blue arrow). The FMI image here indicates large voids (black) in the rock which could have caused it to slough. Tracking of the density and neutron curves support that interpretation because a simple washout would not cause the neutron log to go off-scale with the density log. One core sample through this interval recovered fractured (large fracture), detrital carbonate with good permeability, The image log there shows up as a large void, probably a solution-enlarged vug or small sinkhole. All the core samples calculated wet. The cherty zone below (brown bar) represents another caprock interval separating W6 from the underlying Wolfcamp zones.

GEOLEX INCORPORATED

FRONTIER

ANALYSIS OF MIDDLE RECOMMENDED INJECTION ZONES – W 5, W 4 AND W 3.

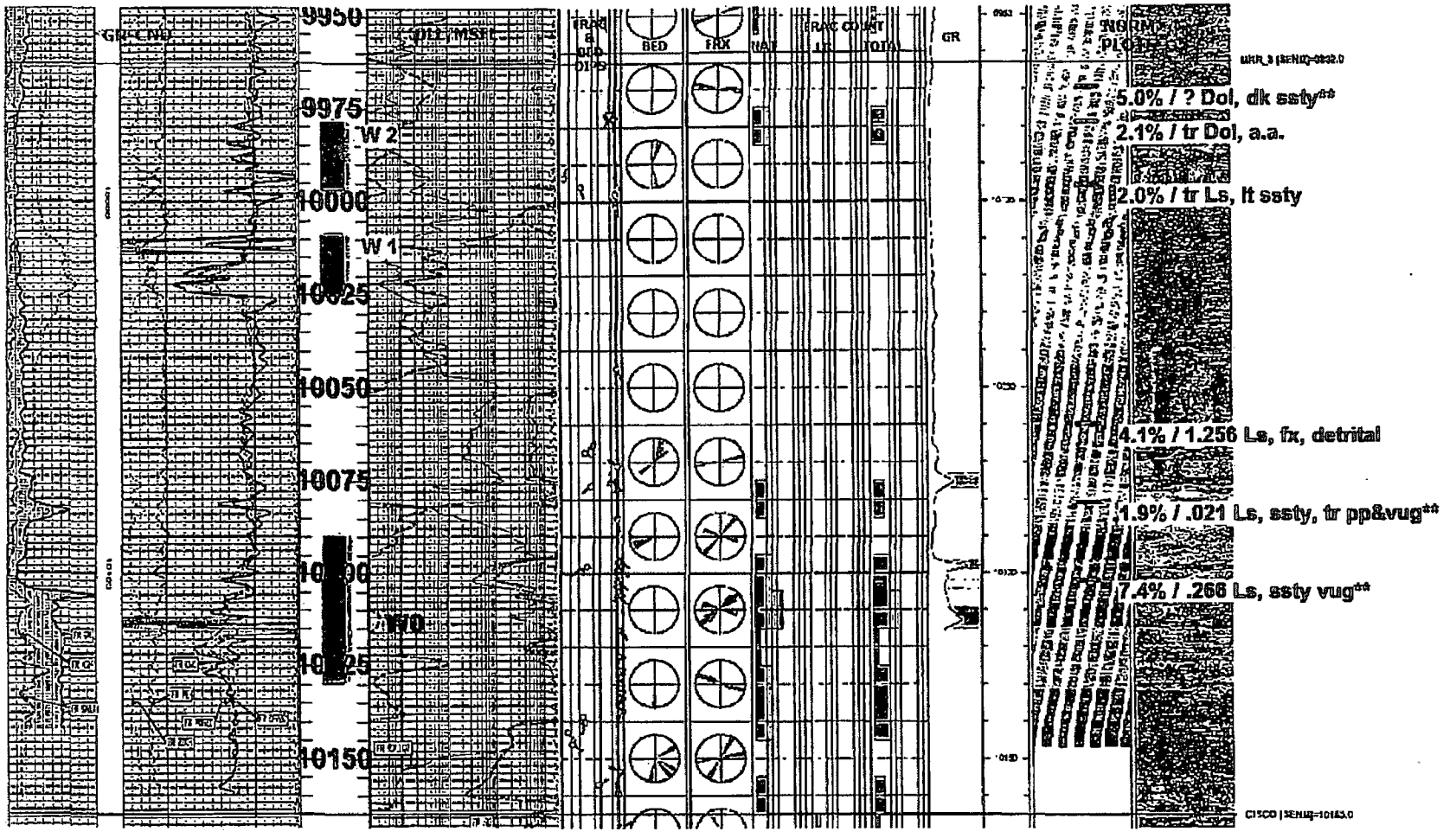


Despite the apparent thinner-bedded nature of the porosity through these intervals, the core results here gave the best, consistent porosity readings over 4%. The FMI shows pervasive fracturing that ties the porous beds together. Zones W5, W4 and W3 should all be perforated by shooting across the entire intervals indicated in blue.

GEOLEX INCORPORATED

FRONTIER

ANALYSIS OF LOWERMOST RECOMMENDED INJECTION ZONES – W 2, W 1, AND W 0



Similarly, these lower Wolfcamp zones should be perforated across the three intervals with the blue bars. The lowest recommended perforation interval (W0) has been added on the basis of the density of fracturing, and primary porosities in core up to 7.4%. The fractures would serve to effectively inter-connect porosity across the interval.

GEOLEX INCORPORATED

FRONTIER

SUMMARY OF RECOMMENDED PERFORATIONS

9579'-9632'	Upper Wolfcamp (W 6); good caprock
9768'-9821'	Middle Wolfcamp (W 5); good fracturing
9850'-9917'	Middle Wolfcamp (W 3, W 4); some fracturing
9979'-9997'	Middle Wolfcamp (W 2); some fracturing
10009'-10025'	Lower Wolfcamp (W 1); good primary porosity
10090'-10130'	Lowest Wolfcamp; (W 0); heavily fractured

All zones perforated 4spf at 90°

GEOLEX INCORPORATED

FRONTIER field services, llc

CONCLUSIONS AND RECOMMENDATIONS

- Sidewall core results are expectedly mixed, but indicate that the predominant facies types over the intervals of interest are detrital carbonates with locally high matrix porosity and permeability and significant fracture porosity and permeability.
- Core measurements, compared with log-indicated porosity and permeability and FMI-measured fractures, indicate the following perforating and testing priority for the various units of the Wolfcamp. The lower Leonard will be left behind pipe as a potential injection zone if needed in the future:

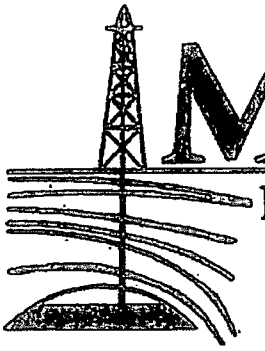
1. The W3 through W5 intervals are the best overall, potential injection zones, and are capped by at least 75-85 feet of tight, shaley and cherty facies.

2. The lower Wolfcamp section, which includes zones W1 and W2 and W 0, could be added to the first intervals, and collectively perforated and tested.

3. Zone W6 is probably a sequence of solution-enlarged porosity, and should be perforated and used even if the first lower Wolfcamp zones test adequately for injection purposes in order to comply with OCD's requirement that the uppermost perforations be no more than 100' below the packer. It is capped by a suitably thick section of tight, shaley and silty carbonates.

END OF ATTACHMENT A

ATTACHMENT B MUDLOG 9000'-TD



McNEESE
FIELD SERVICES, INC.

Office 432-682-0990

Scale: 5" / 100'
Measured Depth Log

Well Name	MALJAMAR AGI #1A		
Location	130' FSL & 1813' FEL, SEC 21, T17S, R32E		
State	NM	**County**	LEA
Country	USA	**Rig**	UNITED DRILLING #41
API Number	30-025-40420		
		Field	WILDCAT
		Drilling Completed	06/09/2012
Ground Elevation	4016'	**K.B. Elevation**	4031'
Logged Interval	5461' **To** 10183'	**Total Depth**	10183'

Operator

Company PB ENERGY

Geologist

Name TOM SHARP

Company GEOLEX

Other

LOGGER - DJ JONES

JOB #805

djones@mfsinc-us.com
(361)728-4874

Dates Logged:
04/28/12 - 06/09/12

Rock Types

- UNKNOWN
- ANHYDRITE
- GYPSUM
- SALT
- SIDERITE or LIMONITE
- LIMESTONE
- DOLOMITE
- CHERT
- COAL
- MARLSTONE
- CLAYSTONE
- SHALE
- SHALE GRAY
- SHALE COLORED
- SILTSTONE
- SANDSTONE
- CONGLOMERATE
- BRECCIA
- TILL
- BENTONITE
- TUFF
- IGNEOUS
- METAMORPHIC

Accessories

Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHOIPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA
- FOSSIL
- GASTROPOD
- OOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOROID

Minerals

- ANHYDRITIC
- ARGILLACEOUS
- *ARGILLITE GRAIN*
- BENTONITE
- BITUMENOUS SUBSTANCE
- BRECCIA FRAGMENTS
- CALCAREOUS
- CARBONACEOUS FLAKES
- CHTDK
- CHTLT
- COAL - THIN BEDS
- DOLOMITIC
- FELDSPAR
- FERRUGINOUS PELLET
- FERRUGINOUS
- GLAUCONITE
- *GYPSIFEROUS*
- HEAVY MINERAL
- KAOLIN
- MARLSTONE
- MINERAL CRYSTALS
- NODULES
- PHOSPHATE PELLETS
- PYRITE
- SALT CAST
- SANDY
- SILICEOUS
- SILTY
- TUFFACEOUS

Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOL) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

Porosity

- EARTHY
- FENESTRAL
- FRACTURE
- INTERCRYSTALLINE
- INTEROOLITIC
- MOLDIC
- ORGANIC
- PINPOINT
- VUGGY

Engineering

- BIT
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL
- FAULT
- FORMATION TOP
- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- *OVERTURNED STRATA*
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS
- WIRELINE TESTED - LEFT
- WIRELINE TESTED - RT

Rounding

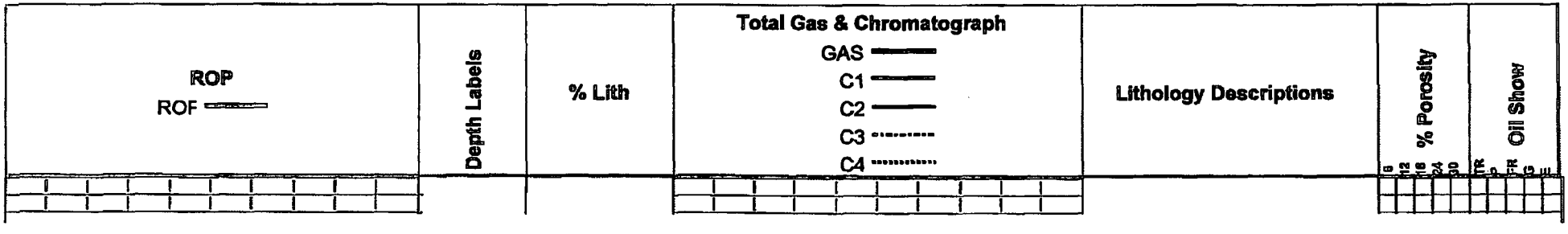
- ANGULAR
- ROUNDED
- *SUBANG*
- SUBRND

Textures

- BOUNDSTONE
- CHALKY
- CRYPTOXLN
- EARTHY
- FINELYXLN
- GRAINSTONE
- LITHOGRAPHIC
- MICROXLN
- MUDSTONE
- PACKSTONE
- WACKESTONE

Sorting

- MODERATE
- POOR
- WELL


ROP
ROF
Depth Labels
% Lith
Total Gas & Chromatograph
GAS
C1
C2
C3
C4
Lithology Descriptions
% Porosity
6
12
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24
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Oil Show
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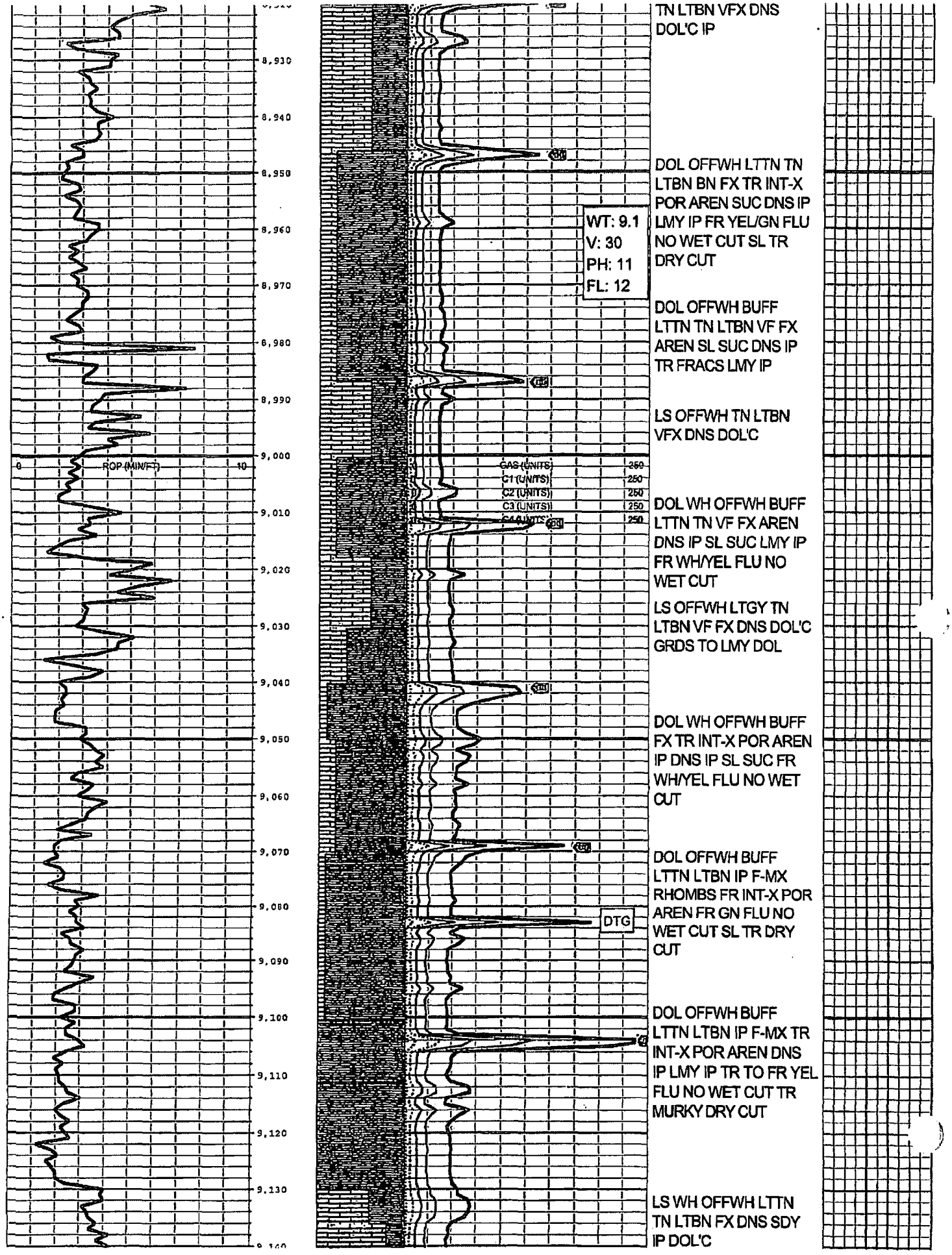
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GAS (UNITS)
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C2 (UNITS)
C3 (UNITS)
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V: 30
PH: 11
FL: 12
DTG
TN LTBN VFX DNS DOL'C IP
DOL OFFWH LTTN TN LTBN BN FX TR INT-X POR AREN SUC DNS IP LMY IP FR YEL/GN FLU NO WET CUT SL TR DRY CUT
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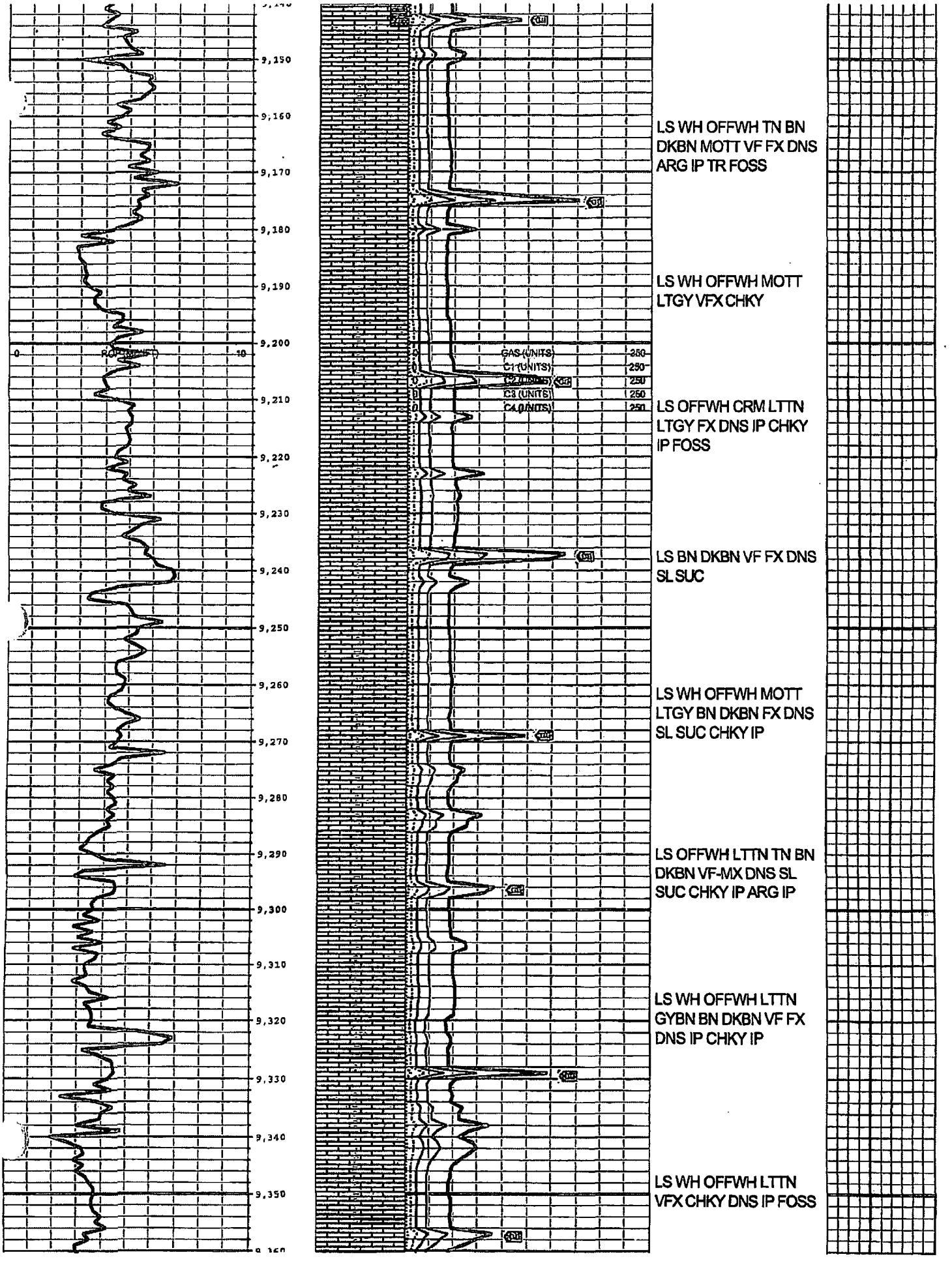
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GAS (UNITS)
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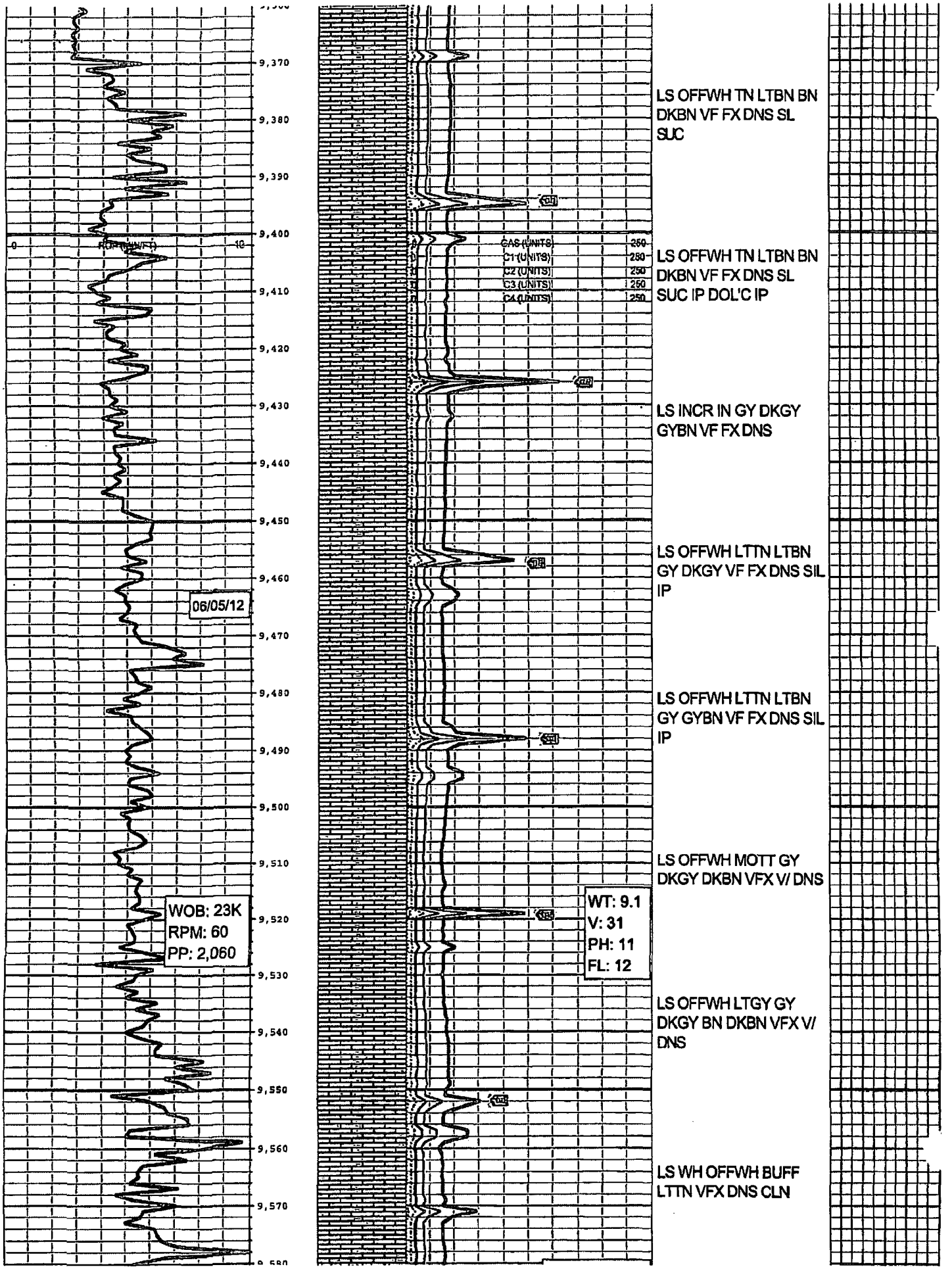
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06/05/12
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RPM: 60
PP: 2,060
CAS (UNITS) 250
C1 (UNITS) 250
C2 (UNITS) 250
C3 (UNITS) 250
C4 (UNITS) 250
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FL: 12
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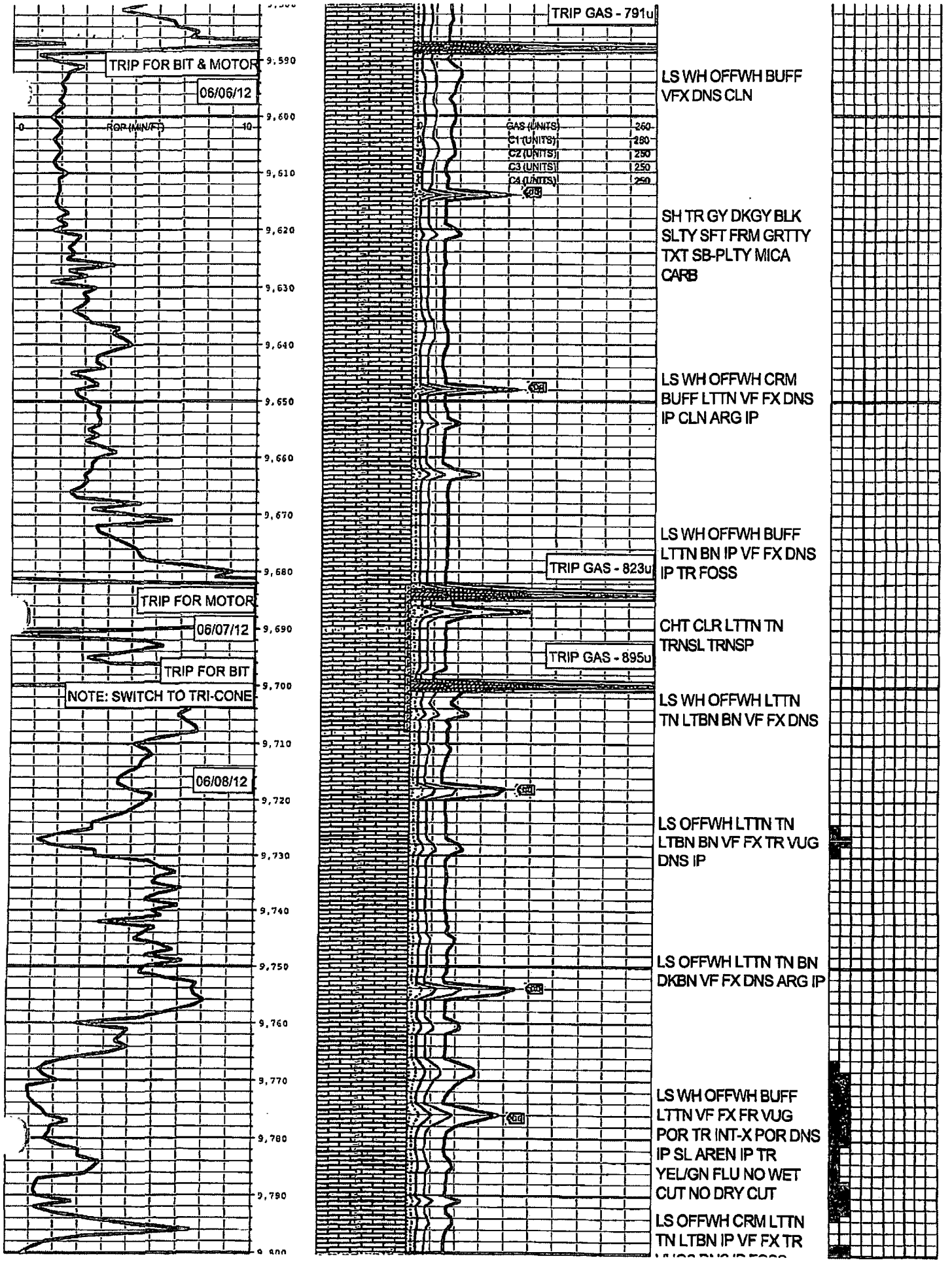
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TRIP FOR BIT
NOTE: SWITCH TO TRI-CONE
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9,780
9,790
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TRIP GAS - 791u
GAS (UNITS)
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C2 (UNITS)
C3 (UNITS)
C4 (UNITS)
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TRIP GAS - 895u
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SH TR GY DKGY BLK SLTY SFT FRM GRTTY TXT SB-PLTY MICA CARB
LS WH OFFWH CRM BUFF LTTN VF FX DNS IP CLN ARG IP
LS WH OFFWH BUFF LTTN BN IP VF FX DNS IP TR FOSS
CHT CLR LTTN TN TRNSL TRNSP
LS WH OFFWH LTTN TN LTBN BN VF FX DNS
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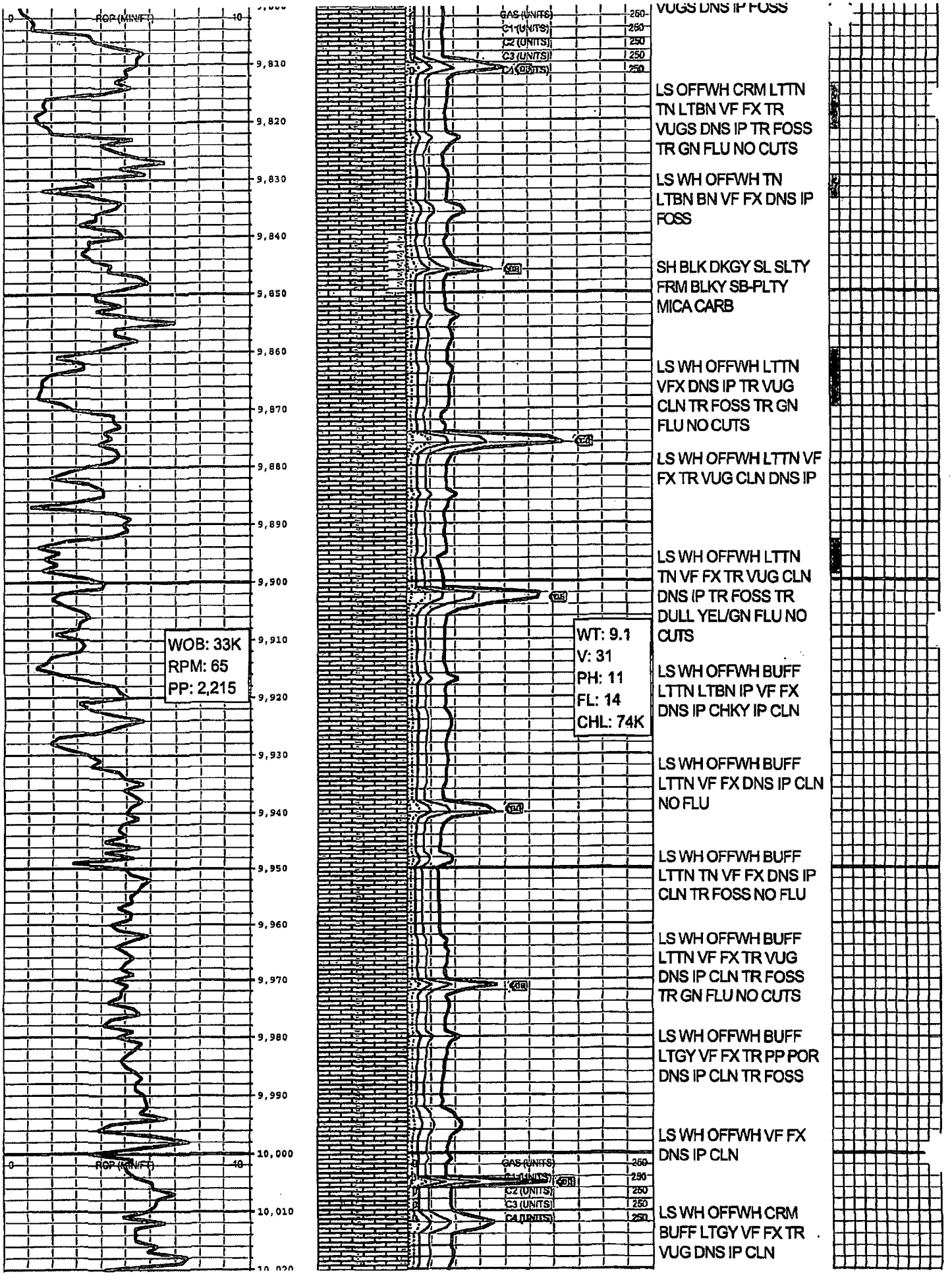
LS OFFWH CRM LTTN TN LTBN IP VF FX TR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WOB: 33K
RPM: 65
PP: 2,215
GAS (UNITS)
C1 (UNITS)
C2 (UNITS)
C3 (UNITS)
C4 (UNITS)
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WT: 9.1
V: 31
PH: 11
FL: 14
CHL: 74K
VUGS DNS IP FOSS
LS OFFWH CRM LTTN TN LTBN VF FX TR VUGS DNS IP TR FOSS TR GN FLU NO CUTS
LS WH OFFWH TN LTBN BN VF FX DNS IP FOSS
SH BLK DKGY SL SLTY FRM BLKY SB-PLTY MICA CARB
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LS WH OFFWH BUFF LTTN VF FX TR VUG DNS IP CLN TR FOSS TR GN FLU NO CUTS
LS WH OFFWH BUFF LTGY VF FX TR PP POR DNS IP CLN TR FOSS
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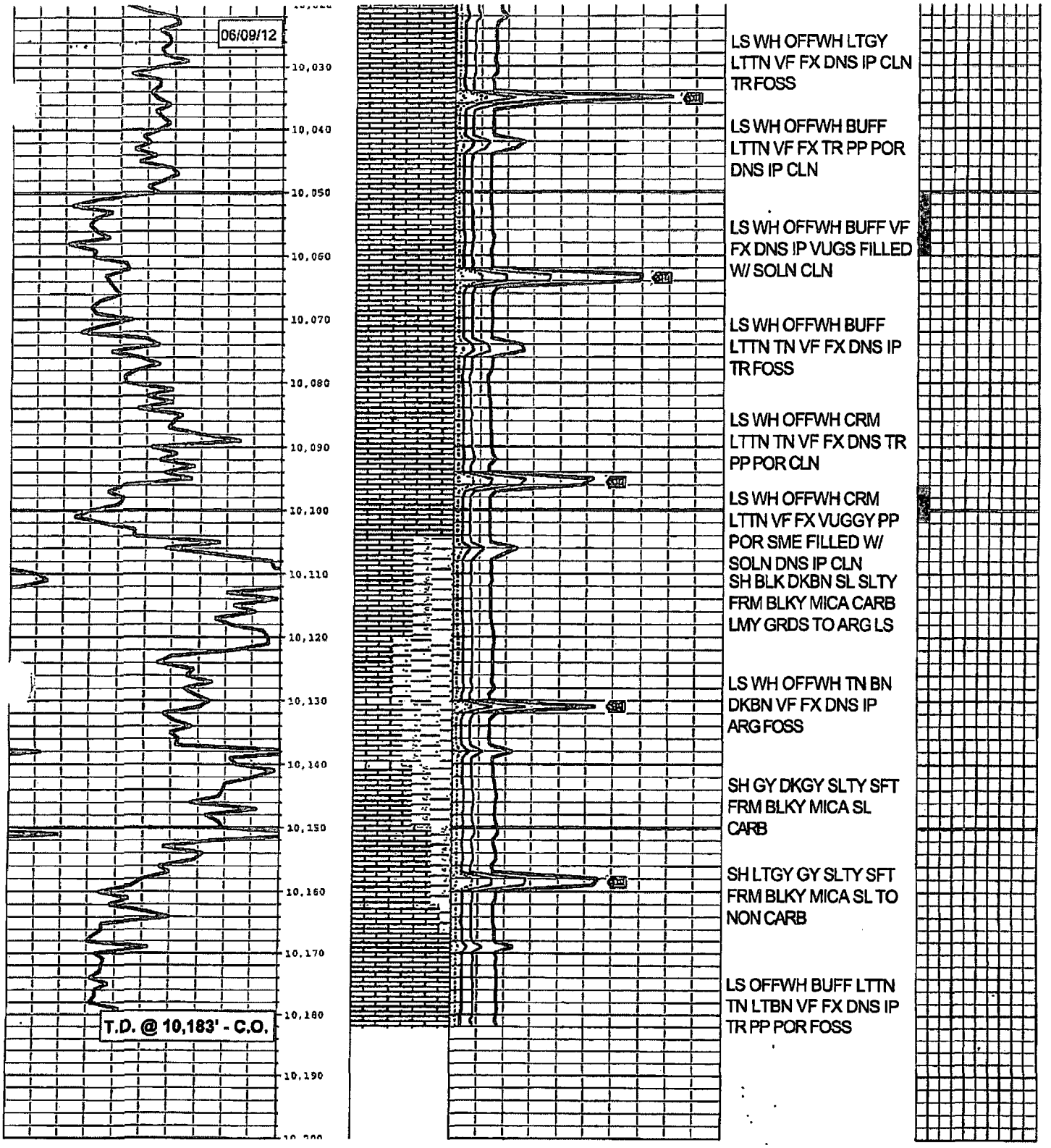
LS WH OFFWH CRM BUFF LTGY VF FX TR VUG DNS IP CLN



END OF ATTACHMENT B MUDLOG 9000'-TD

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 28, 2012

Ed Fernandez
Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

RE: Submittal of Form 3160-4 for Maljamar AGI #1, API # 3002540420

Dear Mr. Fernandez:

Geolex encloses one original and three copies of the above referenced document.

If you have any questions, please don't hesitate to call me, Alberto Gutierrez or Jim Hunter at (505) 842-8000.

Thank you,
Geolex, Inc.

Tom Sharp

Tom Sharp
Geologist

Enclosures

I:\10-014\Drilling Notifications and Forms (BLM&NMOCD)\BLM\3160-4\12-28-12 Transmittal letter.docx

phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

Form 3160-4
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
LC 029509B

1a. Type of Well ☐ Oil Well ☐ Gas Well ☐ Dry ☑ Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other: Acid Gas Injection Well

6. If Indian, Allottee or Tribe Name
N/A

7. Unit or CA Agreement Name and No.
N/A

2. Name of Operator
Frontier Field Services, LLC

8. Lease Name and Well No.
Maljamar AGI #1

3. Address 4200 Skelly Dr. SE. 700, Tulsa, OK 74135

3a. Phone No. *(include area code)*
(918) 492-4450

9. API Well No.
30-025-40420

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**
At surface 130'FSL, 1813' FEL,Sec. 21, T17S, R32E NMPM, Lea Co. NM

10. Field and Pool or Exploratory
Wolfcamp

11. Sec., T., R., M., on Block and Survey or Area 130'FSL, 1813' FEL,Sec. 21, T17S, R32E NMPM, Lea Co. NM

At top prod. interval reported below

At total depth

12. County or Parish
Lea County

13. State
NM

14. Date Spudded	15. Date T.D. Reached	16. Date Completed	17. Elevations (DF, RKB, RT, GL)*
03/22/2012	06/09/2012	☐ D & A ☑ Ready to Prod. 12/10/2012	4016 GR,4031 KB

18. Total Depth:	19. Plug Back T.D.:	20. Depth Bridge Plug Set:
MD TVD 10,183'	MD TVD 5187' sidetrack	MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
Logs have already been submitted to BLM

22. Was well cored? ☐ No ☑ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☑ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8"	48#	0'	890'		700 sks		0'	60 bbls return to sur.
12 1/4"	8 5/8"	24#	0'	4200'		1650 sks		0'	200 bbls return to sur.
7 7/8"	5 1/2"	15 1/2#	0'	10,183'		175 sks corrosa			
						246 sks thermal			
						1150 sks lead c			
						200 sks tail halc			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8"	9452'	9452'						

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Wolfcamp-Acid Gas Injection			9570'-9632',9768'-9821',		4 shots/ft	open
B)			9850'-9917',9979'-9997,		4 shots/ft	open
C)			10009'-10130'		4 shots/ft	open
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
9,579'-10,130'	48 bbls 15% HCL, 171 bbls 24% HCL

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
N/A

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Salado Fm.	0'	1184'	SANDSTONE: red-reddish brn, course to fine		
Yates Fm.	1184'	2134'	SANDSTONE: red-lt tan, coarse to f grained, hard		
7 Rivers Fm.	2134'	3103'	SANDSTONE: red-lt tan, coarse to f grained, hard		
Queen Fm.	3103'	3464'	SANDSTONE: gray-dk gray-reddish brn, f grained, hard		
Grayburg Fm.	3464'	3858'	GRAINSTONE: drk gray, very fine grained		
San Andres Fm.	3858'	5444'	DOLOMITE: offwhite, v fine grained, dense-v dense		
Glorieta Fm.	5444'	6227'	DOLOMITE: offwhite-buff-lt tan, v fn gm, dense, tr vugs,		
Paddock Fm.	6227'	6963'	DOLOMITE: offwhite-buff-lt tan, v fn gm, dense, tr vugs, limey IP		
Tubb Fm.	6963'	7594'	DOLOMITE:offwhite-buff-lt tan,v fn gm, sl limey. Grd to limestone		
Abo Fm.	7594'	9564'	Interbedded dolomite, limestone, and shale		
Wolfcamp Fm.	9564'	10165'	LIMESTONE: offwhite-buff-lt tan, v fn gm, dense, thin shale interbeds		
Cisco Fm.	10165'	10183'	LIMESTONE: offwhite-buff, vfn, dense, trace fossils		

32. Additional remarks (include plugging procedure):

Data and reports have already been submitted to BLM.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey

☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Alberto A. Gutierrez Title Consultant to Frontier Field Services, LLC

Signature _____ Date 12/28/12

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.

(Continued on page 3)

CARDINAL Laboratories

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

October 22, 2012

RUSSELL BENTLEY

P B ENERGY

16285 PARK TEN PLACE, SUITE 400

HOUSTON, TX 77084

RE: MALJAMAR AGI #1

Enclosed are the results of analyses for samples received by the laboratory on 10/03/12 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 on 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	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
#1	H202416-01	Water	03-Oct-12 00:00	03-Oct-12 16:55
#2	H202416-02	Water	03-Oct-12 00:00	03-Oct-12 16:55

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

#1

H202416-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**195**	5.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Calcium	**1560**	1.60	mg/L	1	2091504	HM	17-Oct-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Chloride*	**132000**	4.00	mg/L	1	2100807	CK	17-Oct-12	4500-Cl-B	
Conductivity*	**376000**	1.00	uS/cm	1	2101702	HM	16-Oct-12	120 1	
Density	**1.145**		g/mL	4	2101719	HM	17-Oct-12	SM 2710F	
Magnesium	**401**	1.00	mg/L	1	2091504	HM	17-Oct-12	SM3500Mg-E	
pH*	**7.70**	0.100	pH Units	1	2101702	HM	16-Oct-12	150.1	
Potassium	**325**	1.00	mg/L	1	2091504	HM	17-Oct-12	HACH 8049	
Sodium	**84400**	1.00	mg/L	1	2091504	HM	17-Oct-12	Calculation	
Sulfate*	**3340**	10.0	mg/L	1	2101204	AP	12-Oct-12	375.4	
TDS*	**225000**	5.00	mg/L	1	2101003	HM	10-Oct-12	160.1	
Alkalinity, Total*	**160**	4.00	mg/L	1	2091506	HM	24-Sep-12	310.1	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

#2

H202416-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**317**	5.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Calcium	**1440**	1.60	mg/L	1	2091504	HM	17-Oct-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Chloride*	**126000**	4.00	mg/L	1	2100807	CK	17-Oct-12	4500-Cl-B	
Conductivity*	**365000**	1.00	uS/cm	1	2101702	HM	16-Oct-12	120.1	
Density	**1.135**		g/mL	1	2101719	HM	17-Oct-12	SM 2710F	
Magnesium	**510**	1.00	mg/L	1	2091504	HM	17-Oct-12	SM3500Mg-E	
pH*	**7.51**	0.100	pH Units	1	2101702	HM	16-Oct-12	150.1	
Potassium	**340**	1.00	mg/L	1	2091504	HM	17-Oct-12	HACH 8049	
Sodium	**80700**	1.00	mg/L	1	2091504	HM	17-Oct-12	Calculation	
Sulfate*	**3710**	10.0	mg/L	1	2101204	AP	12-Oct-12	375.4	
TDS*	**213000**	5.00	mg/L	1	2101003	HM	10-Oct-12	160.1	
Alkalinity, Total*	**260**	4.00	mg/L	1	2091506	HM	17-Oct-12	310.1	

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*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2091504 - * DEFAULT PREP *** **										
Blank (2091504-BLK1)				Prepared: 13-Sep-12 Analyzed: 15-Sep-12						
Calcium	ND	1.60	mg/L							
Magnesium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
LCS (2091504-BS1)				Prepared: 13-Sep-12 Analyzed: 15-Sep-12						
Calcium	20.8		mg/L	20.0		104	80-120			
Magnesium	53.5		mg/L	50.0		107	80-120			
Potassium	3.10		mg/L	3.00		103	80-120			
Duplicate (2091504-DUP1)	Source: H202190-01			Prepared: 13-Sep-12 Analyzed: 15-Sep-12						
Magnesium	486	1.00	mg/L		583			18.1	20	
Potassium	800	1.00	mg/L		825			3.08	20	
Calcium	2770	1.60	mg/L		2640			4.81	20	
Batch 2091506 - General Prep - Wet Chem										
Blank (2091506-BLK1)				Prepared & Analyzed: 12-Sep-12						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (2091506-BS1)				Prepared & Analyzed: 12-Sep-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	132	5.00	mg/L				80-120			
Alkalinity, Total	108	4.00	mg/L	100		108	80-120			
LCS Dup (2091506-BSD1)				Prepared & Analyzed: 12-Sep-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120	3.72	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	3.64	20	

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Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2100807 - General Prep - Wet Chem										
Blank (2100807-BLK1)				Prepared & Analyzed: 08-Oct-12						
Chloride	ND	4.00	mg/L							
LCS (2100807-BS1)				Prepared & Analyzed: 08-Oct-12						
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (2100807-BSD1)				Prepared & Analyzed: 08-Oct-12						
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
Batch 2101003 - Filtration										
Blank (2101003-BLK1)				Prepared & Analyzed: 09-Oct-12						
TDS	ND	5.00	mg/L							
LCS (2101003-BS1)				Prepared & Analyzed: 09-Oct-12						
TDS	251		mg/L	240		105	80-120			
Duplicate (2101003-DUP1)		**Source: H202447-01**		Prepared & Analyzed: 09-Oct-12						
TDS	5320	5.00	mg/L		5380			1.12	20	
Batch 2101204 - General Prep - Wet Chem										
Blank (2101204-BLK1)				Prepared & Analyzed: 12-Oct-12						
Sulfate	ND	10.0	mg/L							
LCS (2101204-BS1)				Prepared & Analyzed: 12-Oct-12						
Sulfate	16.7	10.0	mg/L	20.0		83.6	80-120			

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Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2101204 - General Prep - Wet Chem										
LCS Dup (2101204-BSD1)				Prepared & Analyzed: 12-Oct-12						
Sulfate	19.3	10.0	mg/L	20.0		96.6	80-120	14.4	20	
Batch 2101702 - General Prep - Wet Chem										
LCS (2101702-BS1)				Prepared & Analyzed: 16-Oct-12						
Conductivity	496		uS/cm	500		99.2	80-120			
pH	7.08		pH Units	7.00		101	90-110			
Duplicate (2101702-DUP1)	**Source: H202484-01**			Prepared & Analyzed: 16-Oct-12						
pH	7.27	0.100	pH Units		7.23			0.552	20	
Conductivity	5460	1.00	uS/cm		5450			0.183	20	

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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

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: ~~Parsons~~ PB Energy
Project Manager: Russell Bentley
Address:
City: State: Zip:
Phone #: Fax #:
Project #: Project Owner:
Project Name: Maljamar AGI #1
Project Location: Maljamar, NM
Sampler Name: Russell Bentley

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST: Cation/Anion; NH4 * Not enough sample; NO3 * Not enough sample; TDS; Density

Lab I.D. (FOR LAB USE ONLY)	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV: ACID/BASE	ICE / COOL	OTHER	SAMPLING DATE	TIME	Cation/Anion	NH4	NO3	TDS	Density
H202416-1	#1		1		✓								10/3/12		✓	✓	✓		✓
2	#2		1		✓								10/3/12		✓	✓	✓		✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. [illegible]

Relinquished By: [signature] Date: 10/3/12 Time: 4:55 Received By: Jodi Henson
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 28°c

Sample Condition: Cool: ☐ Yes ☒ No; Intact: ☒ Yes ☐ No

CHECKED BY: (Initials) [initials]

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: email invoice BentleyRE@pbworld.com

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

#26

OPERATOR CERTIFICATION
Aka AGI#2

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved.

I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 20 day of May, 2014.

Name John Prentiss

Position Title Area Manager

Address 1001 Conoco Rd Carlsbad, N.M. 88264

Telephone 575-676-3528

Field representative (if not above signatory)

Address (if different from above)

Telephone (if different from above)

E-mail jprentiss@AKMenergy.com