

# Additional Information

Gas shows during drilling;  
analysis, correspondence and  
approval to proceed with  
completion

## Rose-Coss, Dylan, EMNRD

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**From:** Jerry Sherrell <jerrys@mec.com>  
**Sent:** Tuesday, January 10, 2023 1:34 PM  
**To:** Rose-Coss, Dylan, EMNRD  
**Cc:** Goetze, Phillip, EMNRD; Gebremichael, Million, EMNRD; McMillan, Michael A.; Lamkin, Baylen L.  
**Subject:** RE: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

Dylan,

Thank you for the quick response. We will keep you updated.

Jerry W. Sherrell  
Regulatory Supervisor  
Mack Energy Corporation  
Redwood Operating LLC  
PO Box 960  
Artesia, NM 88210  
Office 575-748-1288  
Cell 575-703-7382  
jerrys@mec.com

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**From:** Rose-Coss, Dylan, EMNRD <DylanH.Rose-Coss@emnrd.nm.gov>  
**Sent:** Tuesday, January 10, 2023 1:20 PM  
**To:** Jerry Sherrell <jerrys@mec.com>  
**Cc:** Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>; Gebremichael, Million, EMNRD <Million.Gebremichael@emnrd.nm.gov>; McMillan, Michael A. <mmcmillan@slo.state.nm.us>; Lamkin, Baylen L. <blamkin@slo.state.nm.us>  
**Subject:** RE: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

**EXTERNAL EMAIL - Verify the sender and use caution before opening attachments or clicking links**

Jerry,

After internal discussion with the mineral estate owner (the State Land Office), it was determined that Redwood should proceed with completing the Choate Davis 23 State SWD #4 as planned.

The OCD appreciates the provided information. Please keep us informed as the well approaches initial injection, so we can make sure the compliance record is maintained.

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*  
Oil Conservation Division

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** Rose-Coss, Dylan, EMNRD  
**Sent:** Monday, January 9, 2023 10:57 AM  
**To:** Jerry Sherrell <[jerrys@mec.com](mailto:jerrys@mec.com)>  
**Cc:** Goetze, Phillip, EMNRD <[Phillip.Goetze@emnrd.nm.gov](mailto:Phillip.Goetze@emnrd.nm.gov)>; Gebremichael, Million, EMNRD <[Million.Gebremichael@emnrd.nm.gov](mailto:Million.Gebremichael@emnrd.nm.gov)>; McMillan, Michael A. <[mmcmillan@slo.state.nm.us](mailto:mmcmillan@slo.state.nm.us)>; Lamkin, Baylen L. <[blamkin@slo.state.nm.us](mailto:blamkin@slo.state.nm.us)>  
**Subject:** FW: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

Jerry,

The OCD appreciates Redwood reading and adhering to the SWD order. The Division is in receipt of the submission re: gas shows encountered while drilling the aforementioned well.

I've included representatives from the State Land Office in the email string, as the "State" is the mineral interest owner where the well is located.

We will evaluate and discuss the submitted material internally and reach back out. While the attached write-up is useful, a more detailed economic analysis would help the OCD evaluate the ever important function of protecting correlative rights.

Anyway, we'll try and get back to you expeditiously, as I imagine you have a rig on the site?

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** McClure, Dean, EMNRD <[Dean.McClure@emnrd.nm.gov](mailto:Dean.McClure@emnrd.nm.gov)> **On Behalf Of** Engineer, OCD, EMNRD  
**Sent:** Friday, January 6, 2023 3:27 PM  
**To:** Goetze, Phillip, EMNRD <[phillip.goetze@emnrd.nm.gov](mailto:phillip.goetze@emnrd.nm.gov)>; Rose-Coss, Dylan, EMNRD <[DylanH.Rose-Coss@emnrd.nm.gov](mailto:DylanH.Rose-Coss@emnrd.nm.gov)>; Schaefer, Alana, EMNRD <[Alana.Schaefer@emnrd.nm.gov](mailto:Alana.Schaefer@emnrd.nm.gov)>; Gebremichael, Million, EMNRD <[Million.Gebremichael@emnrd.nm.gov](mailto:Million.Gebremichael@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

Please see the attached and below. Placing the original email in the "UIC" folder and marking it as unread.

Dean McClure  
Petroleum Engineer, Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
(505) 469-8211

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**From:** Jerry Sherrell <[jerrys@mec.com](mailto:jerrys@mec.com)>  
**Sent:** Friday, January 6, 2023 3:17 PM  
**To:** Engineer, OCD, EMNRD <[OCD.Engineer@emnrd.nm.gov](mailto:OCD.Engineer@emnrd.nm.gov)>  
**Subject:** [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Per our SWD Order SWD-2444. We are submitting logs showing a gas show that was encountered. Redwood requests conformation to move forward with this SWD well.

Jerry W. Sherrell  
Regulatory Supervisor  
Mack Energy Corporation  
Redwood Operating LLC  
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Office 575-748-1288  
Cell 575-703-7382  
[jerrys@mec.com](mailto:jerrys@mec.com)

## Rose-Coss, Dylan, EMNRD

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**From:** Lamkin, Baylen L. <blamkin@slo.state.nm.us>  
**Sent:** Tuesday, January 10, 2023 11:12 AM  
**To:** Rose-Coss, Dylan, EMNRD  
**Subject:** FW: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

**Categories:** Red Category

Here is Mike's synopsis.

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**From:** McMillan, Michael A.  
**Sent:** Tuesday, January 10, 2023 10:52 AM  
**To:** Lamkin, Baylen L. <blamkin@slo.state.nm.us>  
**Subject:** RE: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

I did not see any evidence of staining or fluorescence in the mudlog

I could not see any drill breaks

This interval is correlative with any SWD injection interval that injected over 6 million barrels.

This injection interval is downdip of Dagger Draw which produced a lot of oil gas and water  
I believe the gas shows was ancillary show in which the hydrocarbons migrated to Dagger Draw

I think that Redwood should perforate this interval since it is part of the injection interval

If the injection interval produces oil, then Redwood will need an oil and gas lease (assuming there is no oil and gas lease now)

If the interval is wet, then this is a valid SWD

Mike

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**From:** Lamkin, Baylen L.  
**Sent:** Tuesday, January 10, 2023 10:48 AM  
**To:** McMillan, Michael A. <[mmcmillan@slo.state.nm.us](mailto:mmcmillan@slo.state.nm.us)>  
**Subject:** RE: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

What do you think?

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**From:** Rose-Coss, Dylan, EMNRD [<mailto:DylanH.Rose-Coss@emnrd.nm.gov>]  
**Sent:** Tuesday, January 10, 2023 9:02 AM  
**To:** McMillan, Michael A. <[mmcmillan@slo.state.nm.us](mailto:mmcmillan@slo.state.nm.us)>; Lamkin, Baylen L. <[blamkin@slo.state.nm.us](mailto:blamkin@slo.state.nm.us)>  
**Subject:** FW: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

Y'all available for a chat about this?

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**From:** McClure, Dean, EMNRD <[Dean.McClure@emnrd.nm.gov](mailto:Dean.McClure@emnrd.nm.gov)> **On Behalf Of** Engineer, OCD, EMNRD  
**Sent:** Friday, January 6, 2023 3:27 PM  
**To:** Goetze, Phillip, EMNRD <[phillip.goetze@emnrd.nm.gov](mailto:phillip.goetze@emnrd.nm.gov)>; Rose-Coss, Dylan, EMNRD <[DylanH.Rose-Coss@emnrd.nm.gov](mailto:DylanH.Rose-Coss@emnrd.nm.gov)>; Schaefer, Alana, EMNRD <[Alana.Schaefer@emnrd.nm.gov](mailto:Alana.Schaefer@emnrd.nm.gov)>; Gebremichael, Million, EMNRD <[Million.Gebremichael@emnrd.nm.gov](mailto:Million.Gebremichael@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

Please see the attached and below. Placing the original email in the "UIC" folder and marking it as unread.

Dean McClure  
Petroleum Engineer, Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
(505) 469-8211

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**From:** Jerry Sherrell <[jerrys@mec.com](mailto:jerrys@mec.com)>  
**Sent:** Friday, January 6, 2023 3:17 PM  
**To:** Engineer, OCD, EMNRD <[OCD.Engineer@emnrd.nm.gov](mailto:OCD.Engineer@emnrd.nm.gov)>  
**Subject:** [EXTERNAL] Choate Davis 23 State SWD #4 SWD-2444

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## Choate Davis 23 State SWD #4

### Well Summary

The Choate Davis 23 State SWD #4 was drilled to 8,300' with an approved injection interval from 7,200' to 8,300'. While drilling the Canyon portion of the well, a gas show was encountered from 8,116' to 8,164' in a Shaly Dolomite. Per the SWD permit, the OCD Engineering Bureau must be notified of the show prior to commencing injection. Thus the reason for the exhibits and write up.

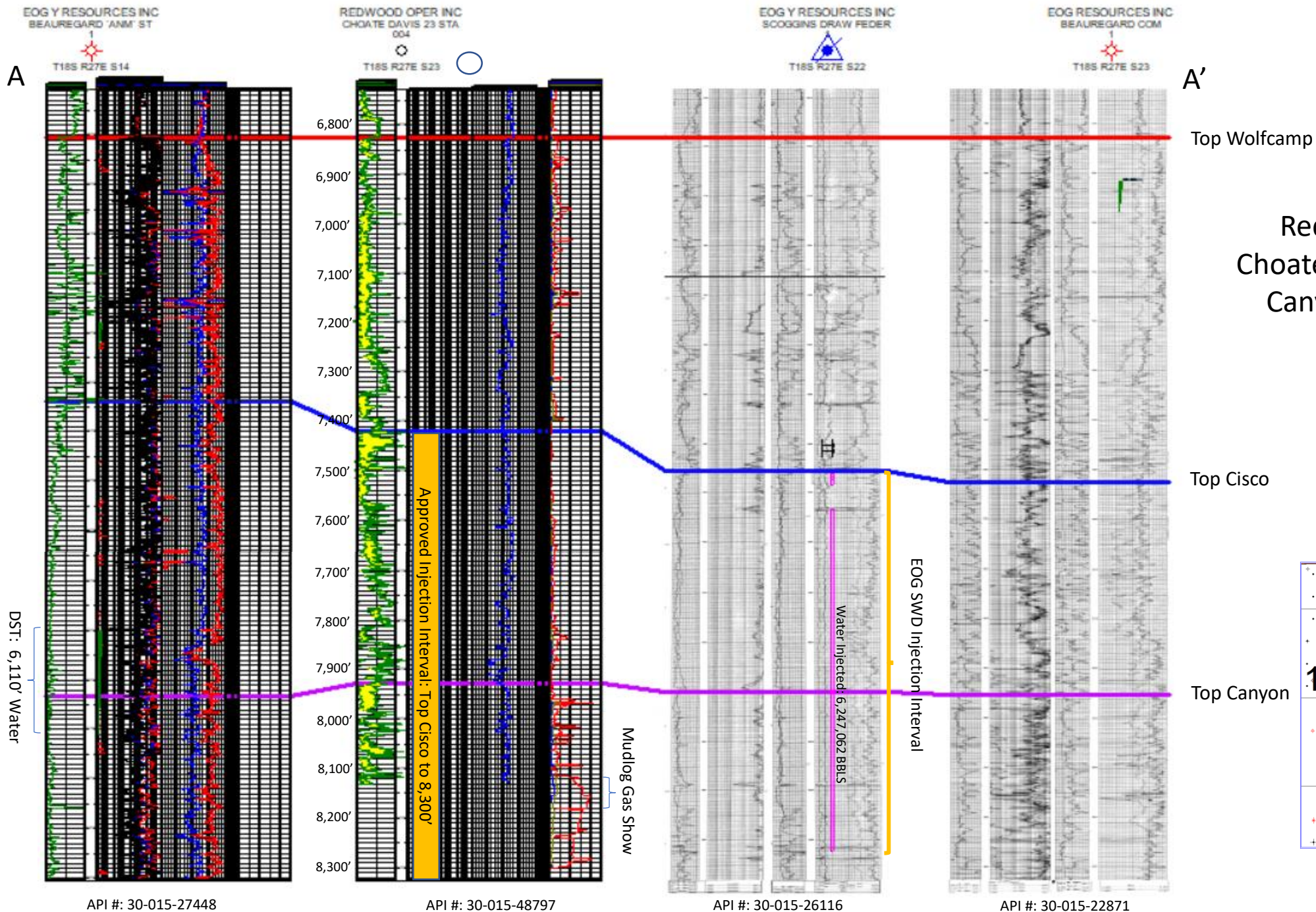
In Slide 1, the cross section A-A' shows the Choate Davis 23 State SWD #4 is the 2<sup>nd</sup> well from the left with the approved SWD injection interval. As shown, the injection interval is below the 7,200' due to the Top of the Cisco picked at 7,422', which the approved injection formation is Cisco-Canyon. The 3<sup>rd</sup> well from the left being approximately ½ mile to the southwest was originally an EOG SWD well injecting into the Cisco-Canyon across where the mudlog show was encountered in the Choate Davis 23 SWD #4. ODC reports that 6,247,062 Barrels of water was injected into the Cisco-Canyon before the well was plugged due to casing issues. The 1<sup>st</sup> well on the left in the cross section is approximately ½ mile to the north of the Choate Davis 23 SWD #4 and reported a DST in the Cisco-Canyon with 6,110' of Water, demonstrating the zone is wet.

In Slide 2, the gas show is defined as a Shaly Dolomite from 8,116' to 8,164' and shows the gas tapering off as the well is drilled deeper.

Redwood Operating LLC believes that the mudlog show encountered could not be economically drilled and produced. Also, the fact that there are wells north and southwest of the Choate Davis 23 SWD #4 that demonstrate that the Cisco-Canyon is wet.

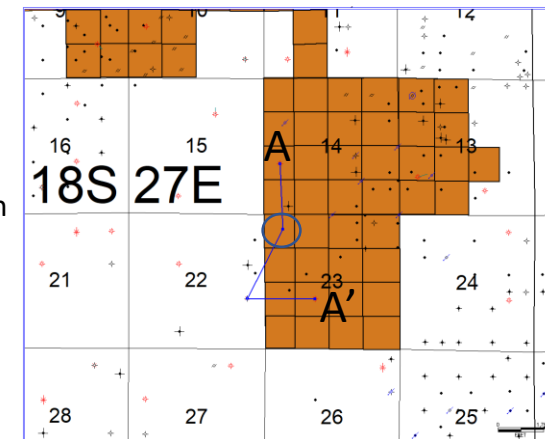
Redwood Operating LLC tagged cement at 8,135 and logged the well to surface with a gamma-neutron tool. We would like to drill out the cement to the float collar at 8,245', log that portion of the well and perforate from 7,422-8,245'.





Redwood Operating LLC  
Choate Davis 23 State SWD #4  
Canyon Mudlog Gas Show

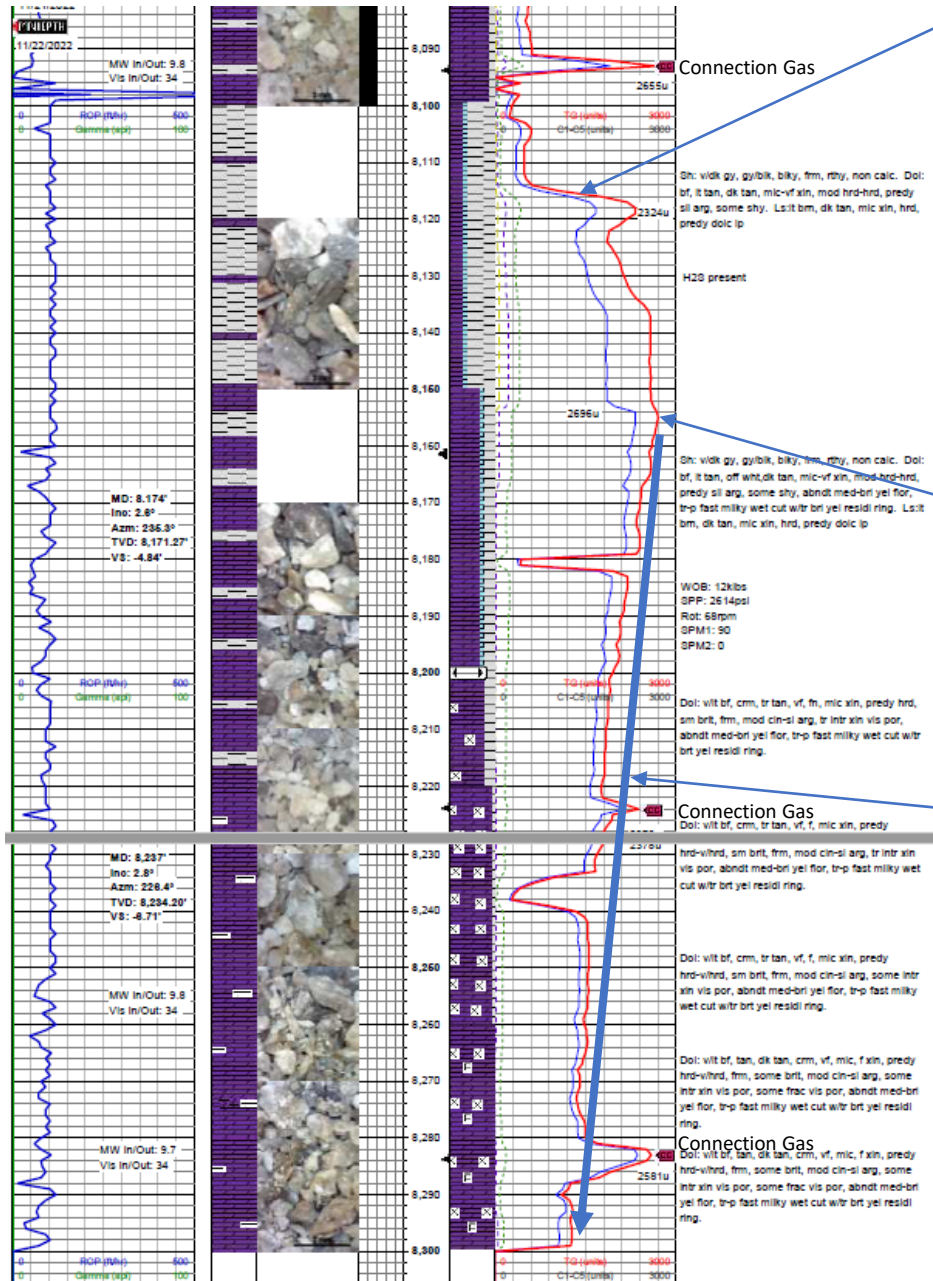
Stratigraphic X-Section  
A-A'





# Redwood Operating LLC

## Choate Davis 23 State SWD #4



Start of Gas Show

Gas show appears to be in a  
38' Shaly Dolomite from  
8,116'-8,164'

End of Gas Show

Carryover Gas Tapers Off

Redwood Operating LLC  
Choate Davis 23 State SWD #4  
Canyon Mudlog Gas Show