

Southwest Royalties Inc.

May 20, 2021

New Mexico Oil Conservation Division
1200 South St Francis Drive
Santa Fe, New Mexico 87505

Attention: Kathleen Murphy

RE: Form C-108 Application for the CSDU #310 injection well
Expansion of Existing Project Case WFX-1042
Case No. 12418 Order R-11641
Lea County, New Mexico

Dear Ms. Murphy,

During your administrative review of the referenced Form C-108 application you found a few deficiencies that needed to be addressed. I will use this letter to address these deficiencies.

Also, please let me know if we need to resubmit this #8 and #12 data online, or will this letter suffice?

#8 A geologic and reservoir engineering study has been completed for the existing Crossroads Siluro Devonian Field located in sections 22, 23, 26, 27, 34, and 35 T9S, R36E Lea County, New Mexico. This study has indicated that in this area the Devonian is oil and water productive. This field produces from a fine to coarse crystalline, white to light gray dolomite with associated milky chert. The dolomite has vugular fractured porosity. The pay zone has had pressure support from two field water injection wells for the past 20 years. Recently, one of the water injection wells was plugged and abandoned and this application is being submitted to replace the recently abandoned well. The water injection pressure support is crucial to the life of this field in recovering the remaining oil reserves. The Devonian water injection zone is between 12,130'-12,350'. The Woodford Shale being approximately 150' thick overlies the Devonian and provides an upward hydraulic sealing barrier to the Devonian water injection zone. The main source of drinking water in this area comes from the Cretaceous formation, the base of which is at 180'. The Ogallala overlies the Cretaceous, but pinches out in certain areas around the zone of interest. There are no known sources of drinking water underlying the injection interval. Also, there is no evidence that suggests any known faults that could extend from the injection interval to the Cretaceous formation.

#12 A geologic and reservoir engineering study was completed in 2000 by Saga Petroleum for the existing Crossroads Siluro Devonian Field located in sections 22, 23, 26, 27, 34, and 35 T9S, R36E Lea County, New Mexico. This study was used to setup the original/current Water Flood Unit. This study along with geologic maps, cross-sections, petrophysical data, bottom hole reservoir pressure data, and production data has been examined for the submittal of this current application. As discussed in #8 above, it can be concluded there is no evidence that suggests any known faults or hydrologic connection between the injection interval and underground sources of drinking water.

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Also, attached is an updated wellbore diagram that indicates the DV tool will be placed at 4300' instead of the original proposal of 4050'. This revised wellbore diagram will be submitted.

Thank you for your consideration in getting this Form C-108 Application approved in a timely manner.

Also, please let me know if you have any further questions or comments.

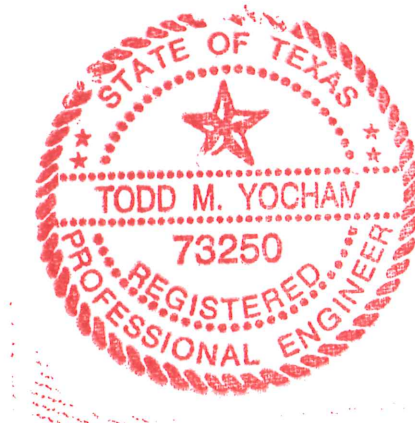
Sincerely,



Todd M. Yocham
Executive Vice President-Engineering
Professional Engineer, SN 73250 Texas

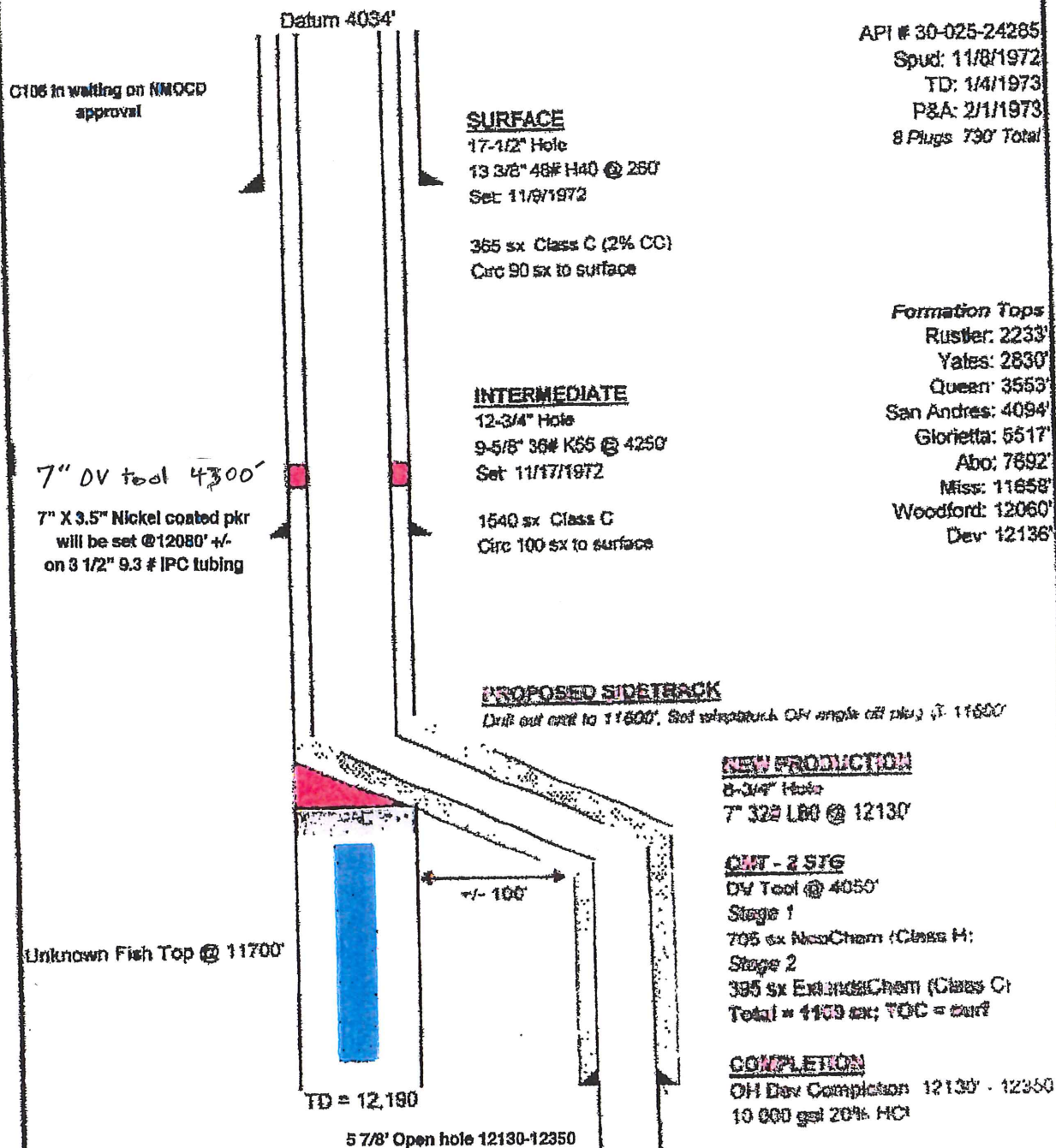
Southwest Royalties Inc.

enclosure



CSDU #310 Re Entry (Previously Sawyer #10 P&A) - PROPOSED WBD

1000' FEL & 986' FSL, Sec 27, T9S, R36E Lea County, NM



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| 1/20/2021 | TPC |
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SOUTHWEST ROYALTIES, INC
 P.O. BOX 53570
 Midland, TX 79710

CSDU #310
 1000' FEL, 986' FSL
 SEC 27 T9S R36E
 Lea County, NM