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Exhibit B

DeNovo 21321
Hearing November 4, 2020
Oil Conservation Commission

EOG Resources, Inc.
Sworn Testimony of
Denton O'Neal

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**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

**APPLICATION OF COG OPERATING, LLC
FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO.**

**Case Nos. 20923, 20924, 20925
Order R-21308
De Novo Case No. 21321**

SWORN TESTIMONY

**STATE OF TEXAS }
 }ss
COUNTY OF MIDLAND }**

My name is Denton O'Neal, and I am employed as a Senior Geologist for EOG Resources, Inc. in EOG's Midland Division. I have been recognized as an expert in petroleum geology by the New Mexico Oil Conservation Division on one occasion, and I have testified as such. I earned a Bachelor of Science degree in Geology from the University of the South in 2013, and a Master of Science degree in Geology from the Colorado School of Mines in 2015. I have been employed as a geologist by EOG since July 2015. From 2015 until July 2018, I worked in EOG's Fort Worth office, and from July 2018 to the present I have worked in EOG's Midland office. In the course and scope of my employment with EOG in Midland, I have worked on oil and gas exploration and development in the northern Delaware Basin in Lea and Eddy Counties, New Mexico. Specifically, I assisted with the planning of EOG's Igor and Double ABJ development areas at issue in this matter. I have reviewed COG Operating, LLC's ("Concho's") Mastiff well proposals and its applications for compulsory pooling, and I have studied the geology under and around Igor, Double ABJ, and Mastiff. I personally prepared EOG's Exhibit B as described below.

Exhibit B slide 1 displays a structure map in true vertical depth subsea on the top of the Bone Spring Formation in the geographic vicinity of Igor and Double ABJ. This structure map demonstrates simple homoclinal dip to the east with no discernable faults or other drilling impediments across EOG's Double ABJ (E/2 Section 16, T24S-R32E and SE/4 Section 9, T24S-R32E) and Igor (W/2 Sections 28 & 33, T23S-R32E) prospects in Lea County, New Mexico. The callout boxes represent both EOG (red text) and Concho (blue text) well packages that will be used as analogs for production in the Reservoir Engineering testimony and in Exhibit C slide 9, 17, 21, and 29. The same homoclinal structure extends and encompasses all analog well packages, indicating geologic similarity. This map also displays all Bone Spring targeted wells of all operators, showing a mixture of one mile and extended laterals. This consistency of structure allows EOG to develop the Bone Spring formation of its Double ABJ and Igor acreage unimpeded by geology. The same consistency of structure also allows Concho to develop the Bone Spring formation of the acreage it owns or controls, being Section 4 and the NE/4 of Section 9, T24S-

R32E, unimpeded by geology, and without the need for compulsory pooling of EOG's Igor and Double ABJ acreage.

Exhibit B slide 2 shows an isopach, or gross thickness map, of the Bone Spring Formation (from the Top of the Bone Spring to the Top of the Wolfcamp). This map demonstrates that the Bone Spring Formation maintains roughly the same thickness of 3,300-3,500' across the Double ABJ and Igor prospects and across the analog well packages further to the east. This consistency of thickness allows EOG to develop the Bone Spring formation of its Double ABJ and Igor acreage unimpeded by geology. The same consistency of thickness also allows Concho to develop Bone Spring formation in the acreage it owns or controls in Section 4 and the NE/4 of Section 9, T24S-R32E, unimpeded by geology, and without the need for compulsory pooling of EOG's Igor and Double ABJ acreage.

Exhibit B slide 3 displays a structure map in true vertical depth subsea of top of the Wolfcamp Formation. This structure demonstrates simple, homoclinal dip to the east with no discernable faults or other drilling impediments across the Double ABJ and Igor prospects. This similar structure extends further east encompassing the other comparison well sections that will be referenced in Exhibit C, slide 33. This map also displays all Wolfcamp targeted wells drilled by all operators, showing a mixture of one mile and extended laterals. The consistency of structure allows EOG to develop the Wolfcamp formation of its Double ABJ and Igor acreage unimpeded by geology. The same consistency of structure also allows Concho to develop the Wolfcamp formation in the acreage it owns or controls in Section 4 and the NE/4 of Section 9, T24S-R32E, unimpeded by geology, and without the need for compulsory pooling of EOG's Igor and Double ABJ acreage.

Exhibit B slide 4 shows an isopach, or gross thickness map, of the Wolfcamp Formation (from the Top of the Wolfcamp to the top of the Strawn, as indicated on the cross section of Exhibit B, slide 5). This map shows a slight thickening from north to south but maintains a similar thickness of 1,800-2,000' across the Double ABJ and Igor prospect areas and including both EOG and Concho analog wells that are listed in Exhibit C. This consistency of thickness allows EOG to develop the Double ABJ and Igor acreage unimpeded by geology. The same consistency of thickness also allows Concho to develop the Wolfcamp formation in the acreage it owns or controls in Section 4 and the NE/4 of Section 9, T24S-R32E, unimpeded by geology, and without the need for compulsory pooling of EOG's Igor and Double ABJ acreage.

Finally, **Exhibit B slide 5** shows a cross section labeled on Exhibit B slides 1-4 as A-A' including the following wells from north to south: Tomcat 21 Federal Com #1, State IG Com #1, Jack Tank 8 Federal #002, Double X Deep 16 #1, and Federal BM #1. The cross section has the following tops, in order stratigraphically from deepest to shallowest, including the Atoka, Strawn, Wolfcamp, Third Bone Spring Sand, Third Bone Spring Carbonate, Second Bone Spring Sand, First Bone Spring Sand, and Top Bone Spring Lime, as annotated. The scale is shown within the depth track (track 2) with each large tick representing 500' and each small tick representing 100', as annotated. The petrophysical logs as displayed from left to right include Gamma Ray in track 1 on a scale from 0-150 API units, Resistivity (ILD/LLD) in track 3 on a logarithmic scale from 0.2-2000 ohm-m, neutron porosity (NPHI_PRE) as the blue curve in track 4, and density porosity (DPHZ) as the

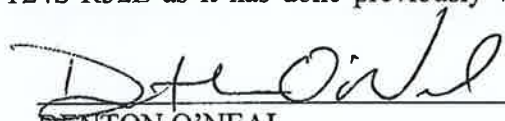
red curve in track 4 both of which are on a scale from 30 to -10%. Explanations of abbreviations can be found in the top right corner of the Exhibit.

The red arrows on the left side of Exhibit B slide 5 show EOG's proposed targets in both the Bone Spring and Wolfcamp pools. In stratigraphic order from deep to shallow, these targets include the Upper Wolfcamp, Third Bone Spring Carbonate, Second Bone Spring Sand, First Bone Spring Sand, and the Avalon Shale.

Exhibit B slide 5, coupled with the structure and isopach maps from previous figures, demonstrates the same premise as above: there is consistency in stratigraphy and structure across the Double ABJ and Igor development areas that do not hinder EOG's development through extended laterals. Furthermore, Exhibit B slide 5 attests to the geological similarities between the Double ABJ/Igor area and the listed analog comparison wells in Exhibit C slides 9, 17, 21, 29, and 33, and referenced in Mr. Sonka's testimony.

The geological analysis suggests that each 40-acre tract within EOG's Igor and Double ABJ development areas will contribute more or less equally to production. Contrary to EOG's development plan, Concho's compulsory pooling plan will contribute non-equal production due to Concho's existing Mastiff #3H well (the horizontal well marked as COG – Mastiff (Section 4, T24S-R32E) on Exhibit B Slides 1-4). This well targeted the Second Bone Spring Sand, was completed in May 2016, and according to publicly available data has cumulatively produced 212,703 barrels of oil, 439,721,000 cubic feet of gas, and 511,464 barrels of water as of July 2020. This well is located approximately 1950' from the west line of Section 4. Depletion from this well will adversely affect the contribution from the Second Bone Spring sand in the adjoining acreage of Section 4, T24S-R32E.

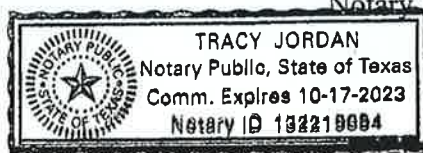
In summary, the evidence as shown throughout Exhibit B suggests geological similarity across the Double ABJ and Igor development areas, as well as the annotated comparison analog wells in the vicinity. Both the Bone Spring and Wolfcamp formations display simple, homoclinal structures, and roughly isopachous thicknesses across this geographic area, allowing EOG's development of these tracts with extended laterals. Furthermore, nothing geologically precludes Concho from continuing one-mile development of Section 4, T24S-R32E as it has done previously with its Mastiff Federal #3H well.


DENTON O'NEAL

SUBSCRIBED AND SWORN to before me this 28th day of October, 2020 by Denton O'Neal on behalf of EOG Resources, Inc.


Notary Public

My Commission Expires:
10-17-2023



IGOR / DOUBLE ABJ Area - Structure - Top of Bone Spring

EXHIBIT B – SLIDE 1

Map Legend



EOG Acreage

Structural contour
(CI = 25 ft)

Existing BSPG Well

-5.084 Data Point

Callout boxes refer to comparison analog wells found in Exhibit C, slides 9, 17, 21, 29, and 33. EOG wells in red; COG wells in blue



Top of First Bone Spring Structure

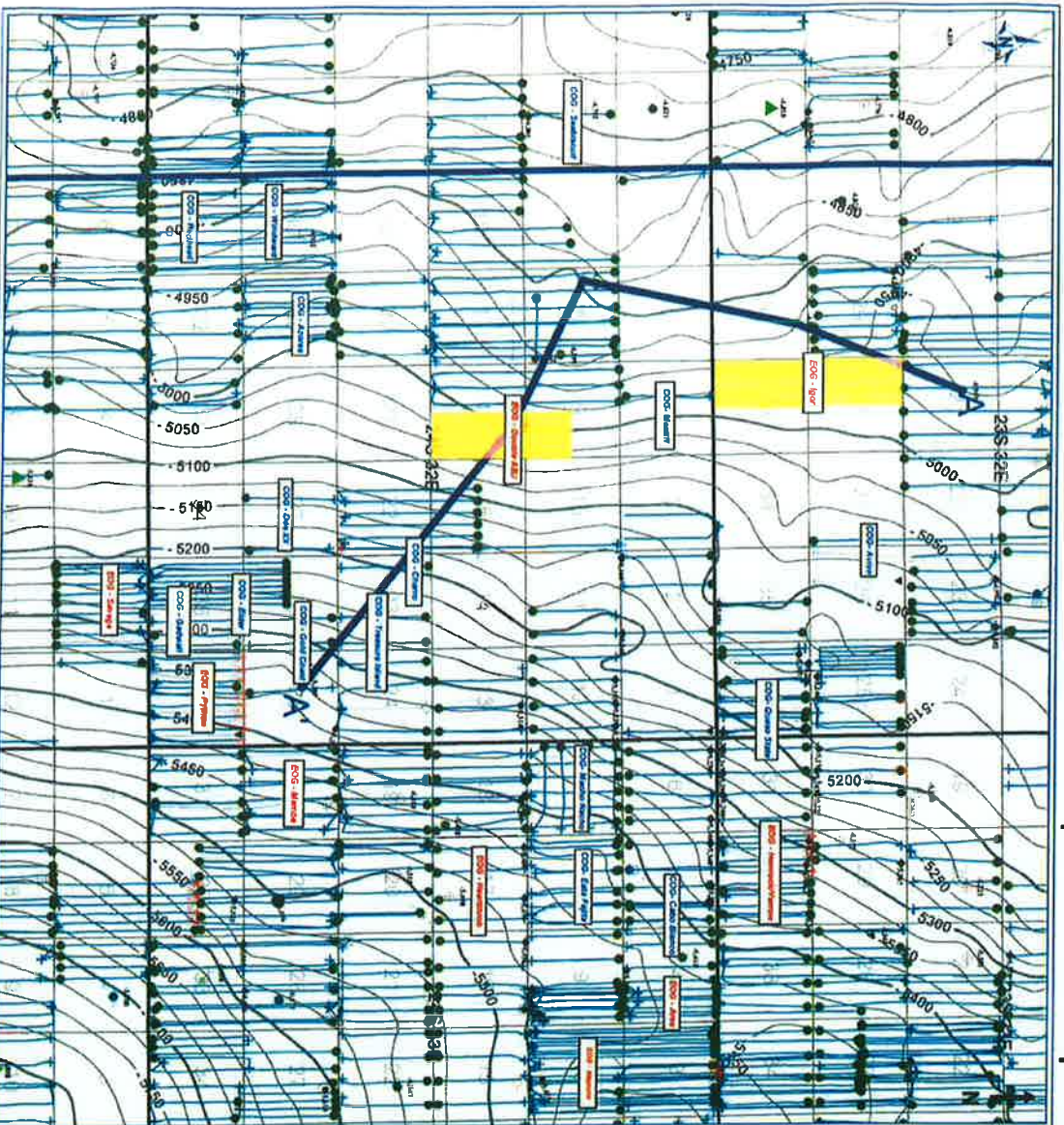


POSTED WELL DATA

Top of Bone Spring Lime – TVDSS, ft.

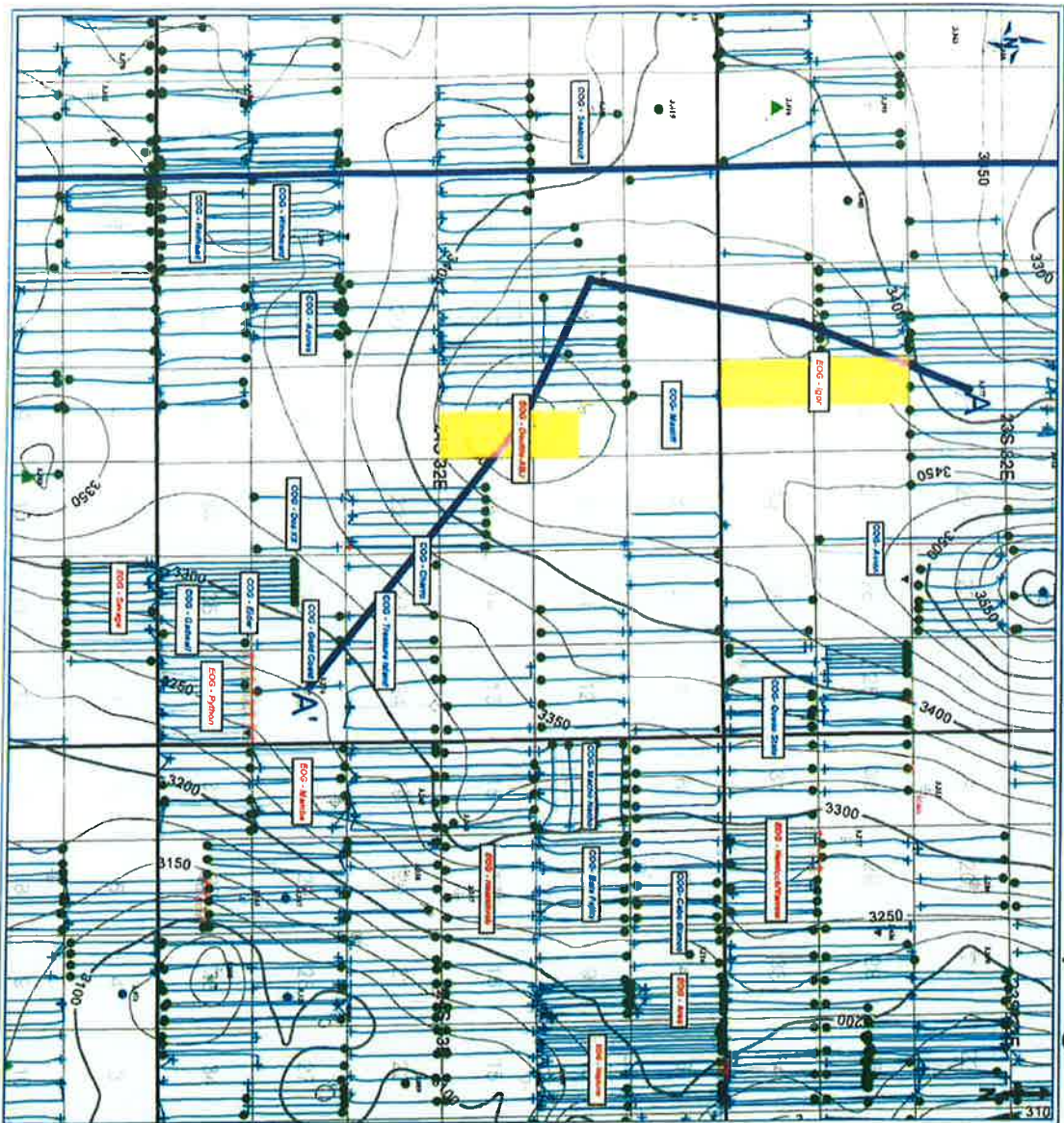


October 12, 2020



IGOR / DOUBLE ABJ Area - Isopach Bone Spring

EXHIBIT B – SLIDE 2



Map Legend



EOG Acreage



**Structural contour
(CI = 25 ft)**



Existing BSPG Well

5.084 Data Point

Callout boxes refer to comparison analog wells found in Exhibit C, slides 9, 17, 21, 29, and 33. EOG wells in red; COG wells in blue



Bone Spring Isopach



POSTED WELL DATA
ISOPACH_BONE_SPRING_FORMATION(gas)

October 12, 2020

EXHIBIT B -- SLIDE 3

**IGOR / DOUBLE ABJ Area
Structure - Top of Wolfcamp**

Map Legend

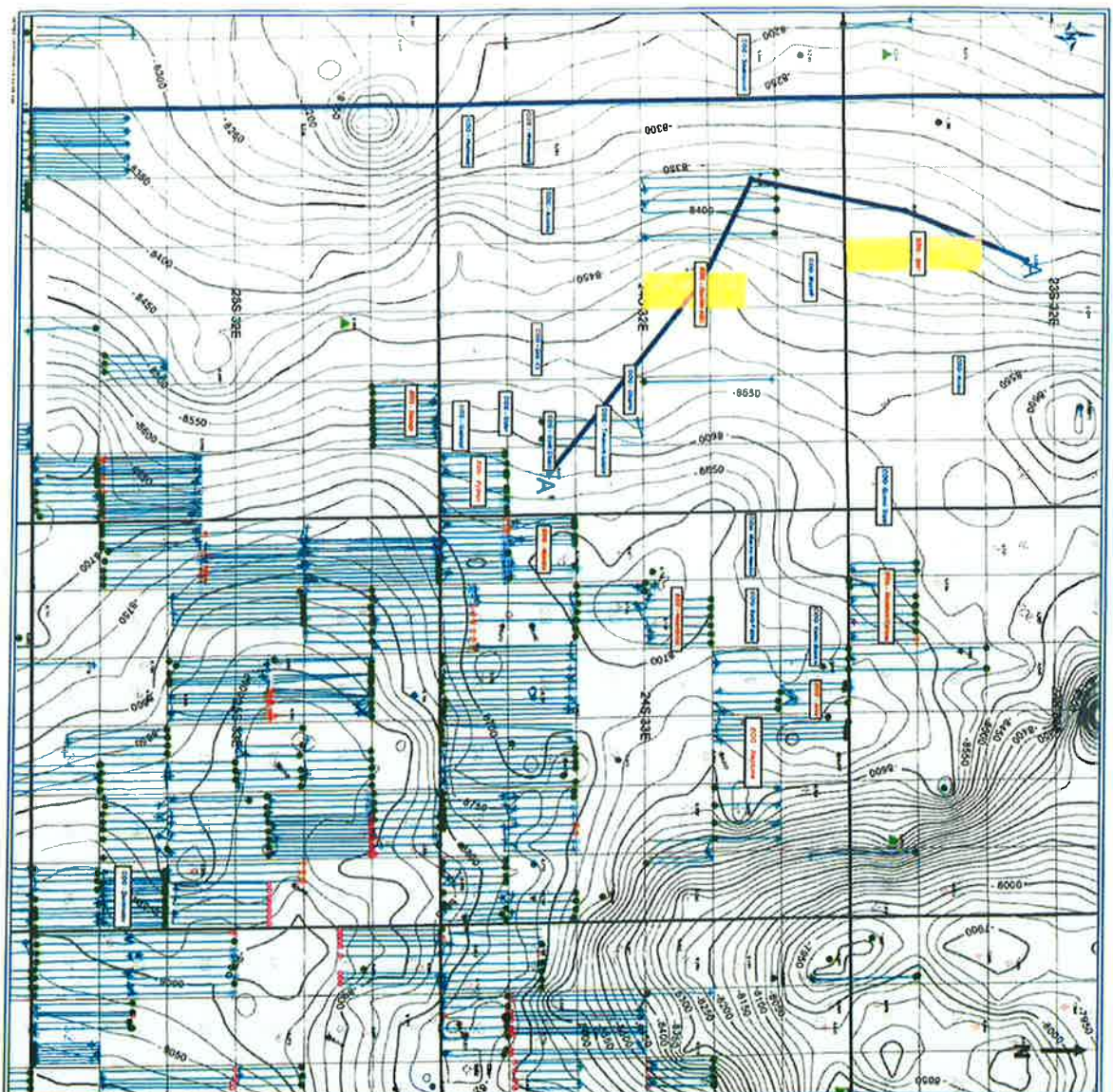
 **EOG Acreage**

 **Structural contour
(CI = 25 ft)**

 **Existing WFMP Well**

 **-S.084 Data Point**

Calbout boxes refer to comparison
analog wells found in Exhibit C,
slides 9, 17, 21, 29, and 33. EOG
wells in **red**; COG wells in blue



 **EOG resources**
Wolfcamp Structure

0 7,500 15,000 22,500
FEET

POSTED WELL DATA
Top of Wolfcamp (TVDS, ft)

October 22, 2020

EXHIBIT B – SLIDE 4

**IGOR / DOUBLE ABJ Area
Isopach - Wolfcamp**

Map Legend

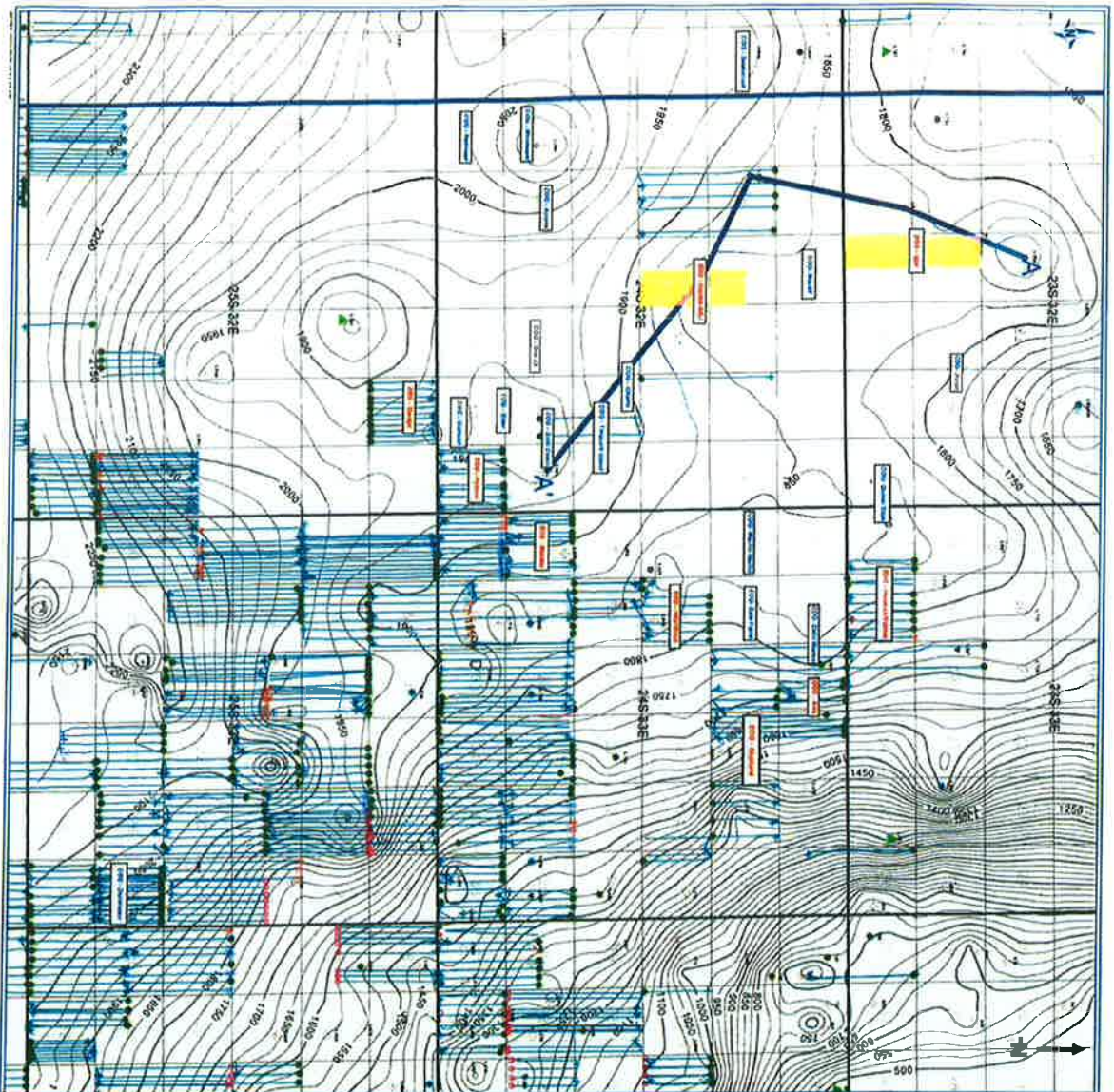
 **EOG Acreage**

 **Structural contour
(CI = 25 ft)**

 **Existing WFMP Well**

-S.084 Data Point

Callout boxes refer to comparison analog wells found in Exhibit C, slides 9, 17, 21, 29, and 33. EOG wells in red; COG wells in blue



Wolfcamp Isopach



POSTED WELL DATA
BOPACI_WOLFACAMP_FORMATION(COG)

October 21, 2020

EXHIBIT B – SLIDE 5

EOG: IGOR / DOUBLE ABJ Area Cross Section

A (north)

A' (south)

