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

APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO

Case No. 20896
[Original Case No. 16507]

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Exhibit 2

Affidavit of Scott Wilson

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OIL CONSERVATION DIVISION

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AFFIDAVIT OF SCOTT J. WILSON

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, Scott J. Wilson, make the following affidavit based upon my own personal knowledge.

1. I am over eighteen (18) years of age and am otherwise competent to make the statements contained herein.

2. I am the Senior Vice President for Ryder Scott Company in Denver, Colorado. My responsibilities at Ryder Scott Company include the performance of reserve appraisals, technical evaluations, and reservoir analysis.

3. I hold a bachelor's degree in petroleum engineering from the Colorado School of Mines, and a master's degree in business from the University of Colorado. I have worked as a petroleum engineer since 1983.

4. I am familiar with the application that NGL Water Solutions Permian, LLC ("NGL") has filed in this matter, and I have conducted a nodal analysis and reservoir study related to the area which is the subject matter of the application. Copies of my study are attached hereto as Exhibit A.

5. The applicant, NGL (OGRID No. 372338), seeks an order approving the Moab SWD #1 well. This well is a salt water disposal well.

6. The well will be spaced out and not located closer than approximately 1 mile from other disposal wells approved for injection into the Devonian and Silurian formations.

7. The approved injection zone for the well is located below the base of the Woodford Shale formation and above the Ordovician formation, which consist of significant shale deposits.

8. The well will primarily be injecting fluids into the Wristen Group and Fusselman formations, with some fluids potentially being injected into the Upper Montoya Group. Each of these sub-formations or zones are located within what is commonly referred to by operators and the Division as the "Devonian Silurian" formations. These zones consist of a very thick sequence of limestone and dolostone that has significant primary and secondary porosity and permeability that is collectively between 1400 to 1500 feet thick.

9. I have reviewed step rate tests for similar disposal wells drilled within the area and conducted a nodal analysis. It is my opinion that a large percentage of surface pressure encountered using smaller diameter tubing was a result of friction pressure. For instance, in Case No. 15720, evidence was presented to the Division showing that up to 85% of this surface pressure was due to friction. Increasing the tubing size would reduce friction and would conserve pump horsepower, fuel, and reduce emissions.

10. My nodal analysis indicates that using the tubing size 7" by 5 ½" would not significantly increase reservoir pressures over a twenty-year time period. The injection zone is located within a reservoir with significant thickness consisting of high permeability rocks, which results in only very small pressure increases even when injection is 50,000 barrels per day over a 20-year period.

11. It is my opinion that the proposed tubing size will not cause fractures in the formation. Wellhead pressures are set at a maximum that is below the formation fracture pressure and, as a result, it is impossible to generate bottomhole pressures above the formation fracture pressure while honoring wellhead pressure constraints. Consequently, it is highly unlikely that increasing the tubing size in the wells would result in fractures to the formation.

12. I have also studied the potential impact on pore pressures and put together a simulation of the radial influence that the wells would have for a period of time. A copy of this study is included in Attachment A to this affidavit. This study shows that it is anticipated that there will be a minimal impact on reservoir pressures and that the majority of fluids will not travel further than 1 mile in 20 years.

13. My studies further indicate that additional injection wells located one mile away from the proposed well will not create any materially adverse pressures in the formation.

14. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

15. The granting of these applications is in the interests of conservation and the prevention of waste.

[Signature page follows]

Scott J. Wilson

SUBSCRIBED AND SWORN to before me this 12th day of November, 2019 by Scott J. Wilson.

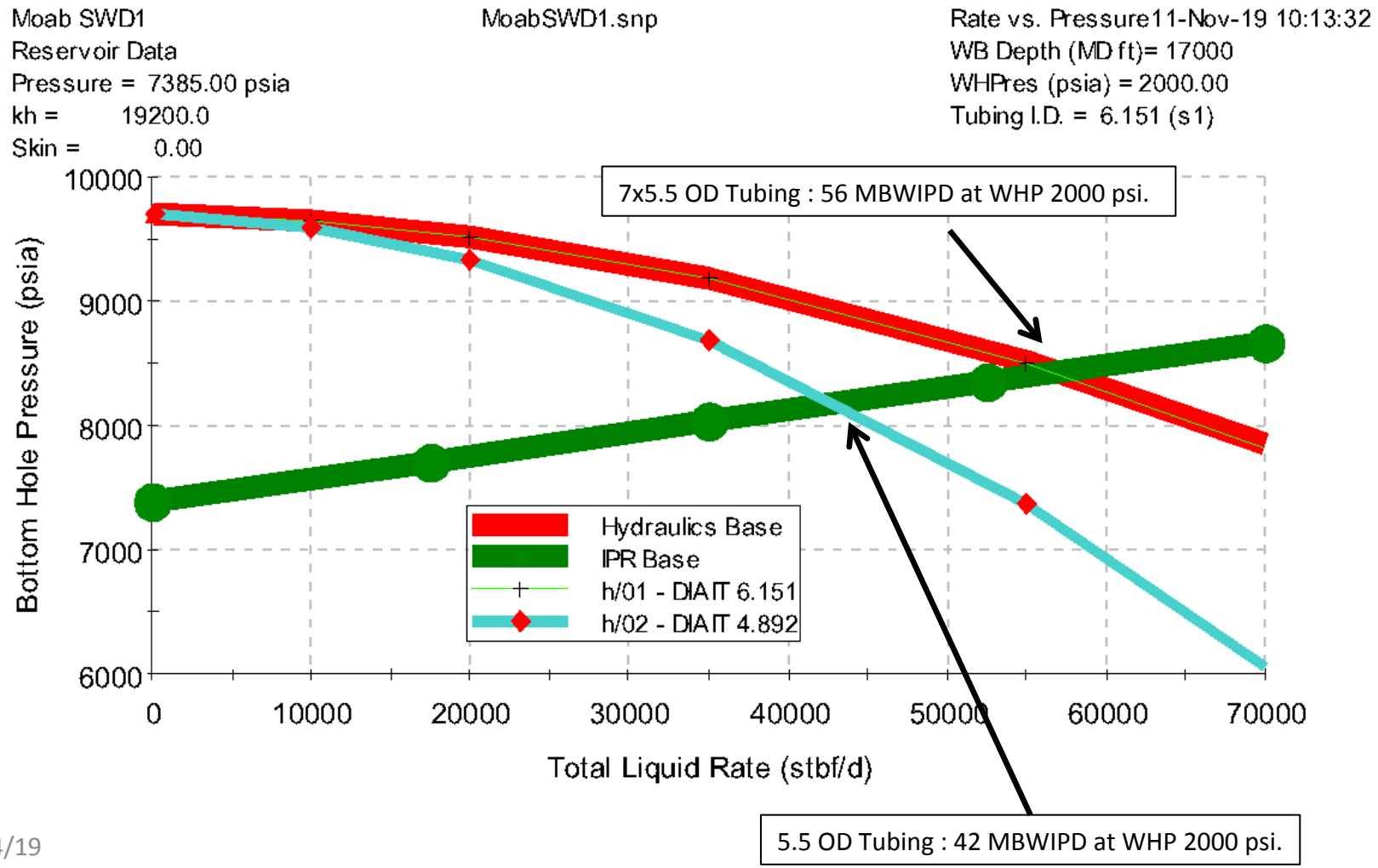
Notary Public

My commission expires: 8/23/21

DARSHAE E RODRIGUEZ
Notary Public - State of Colorado
Notary ID 20134006986
My Commission Expires Aug 23, 2021

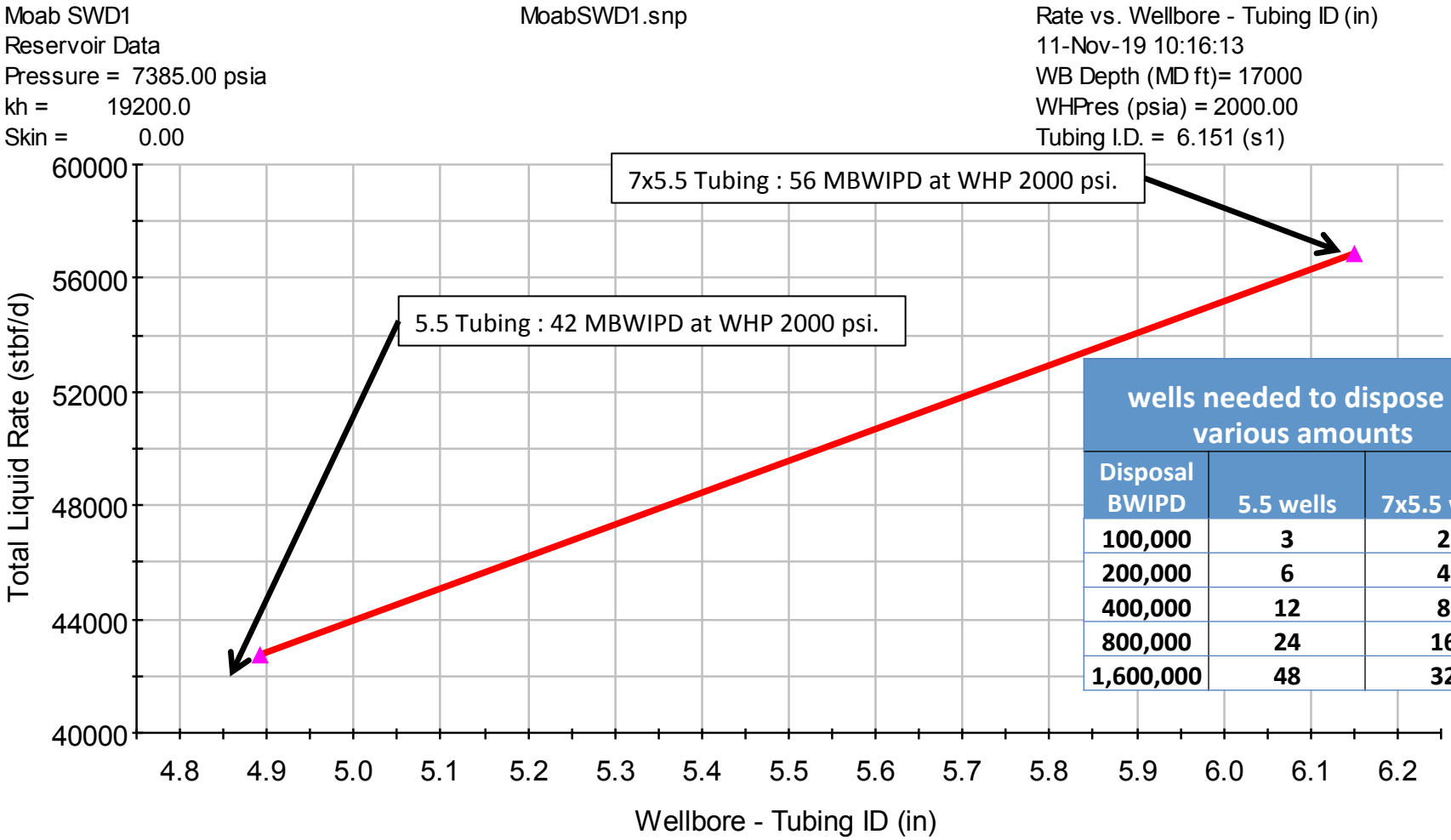
NGL Water Solutions, LLC

Typical Wellbore Hydraulics Models predict a 30% increase in maximum injection rate between 5.5 tubing and 7x5.5 tubing.



NGL Water Solutions, LLC

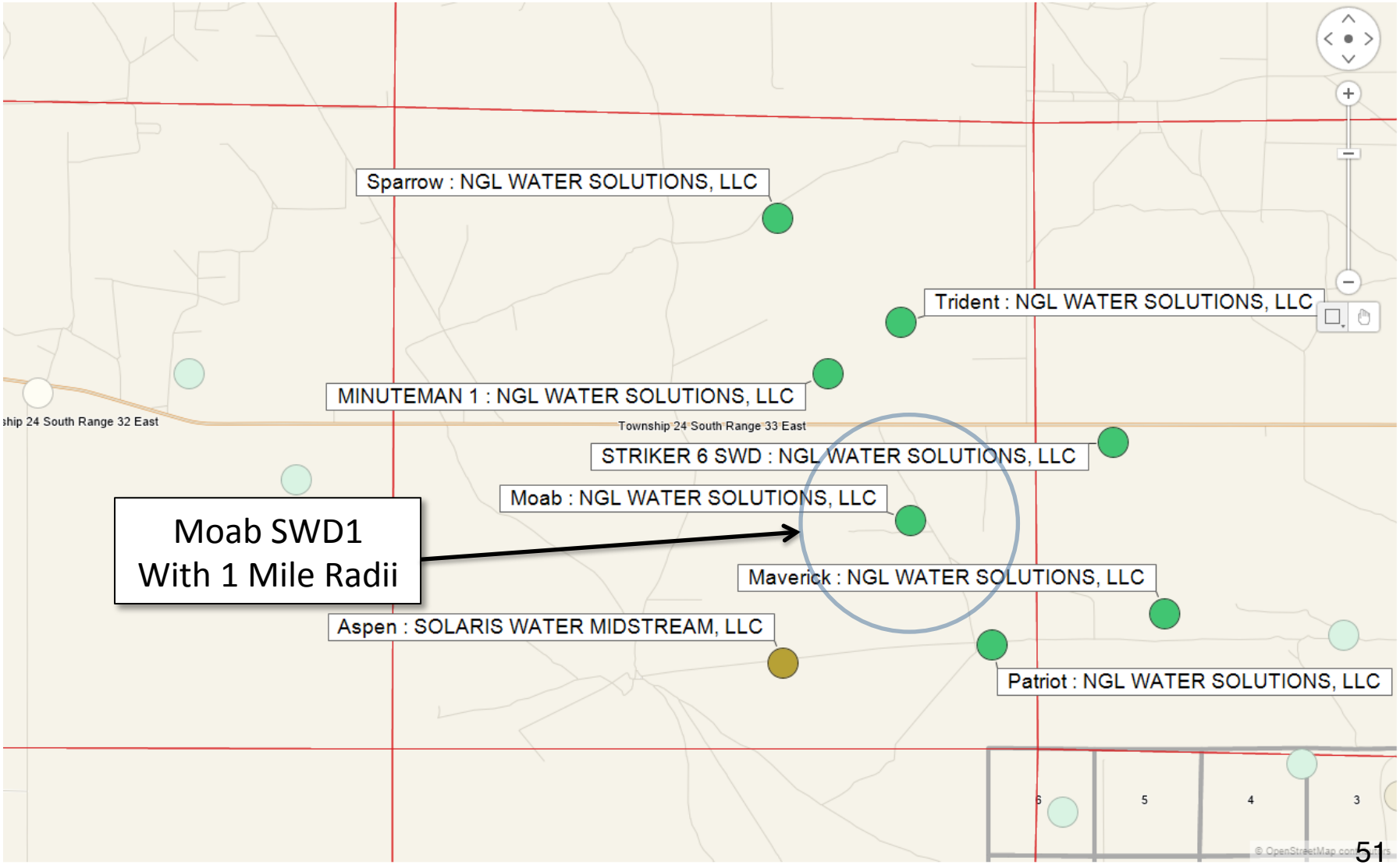
Increased injection rate per well equates to fewer injectors.



wells needed to dispose of various amounts		
Disposal BWIPD	5.5 wells	7x5.5 wells
100,000	3	2
200,000	6	4
400,000	12	8
800,000	24	16
1,600,000	48	32

NGL Water Solutions, LLC

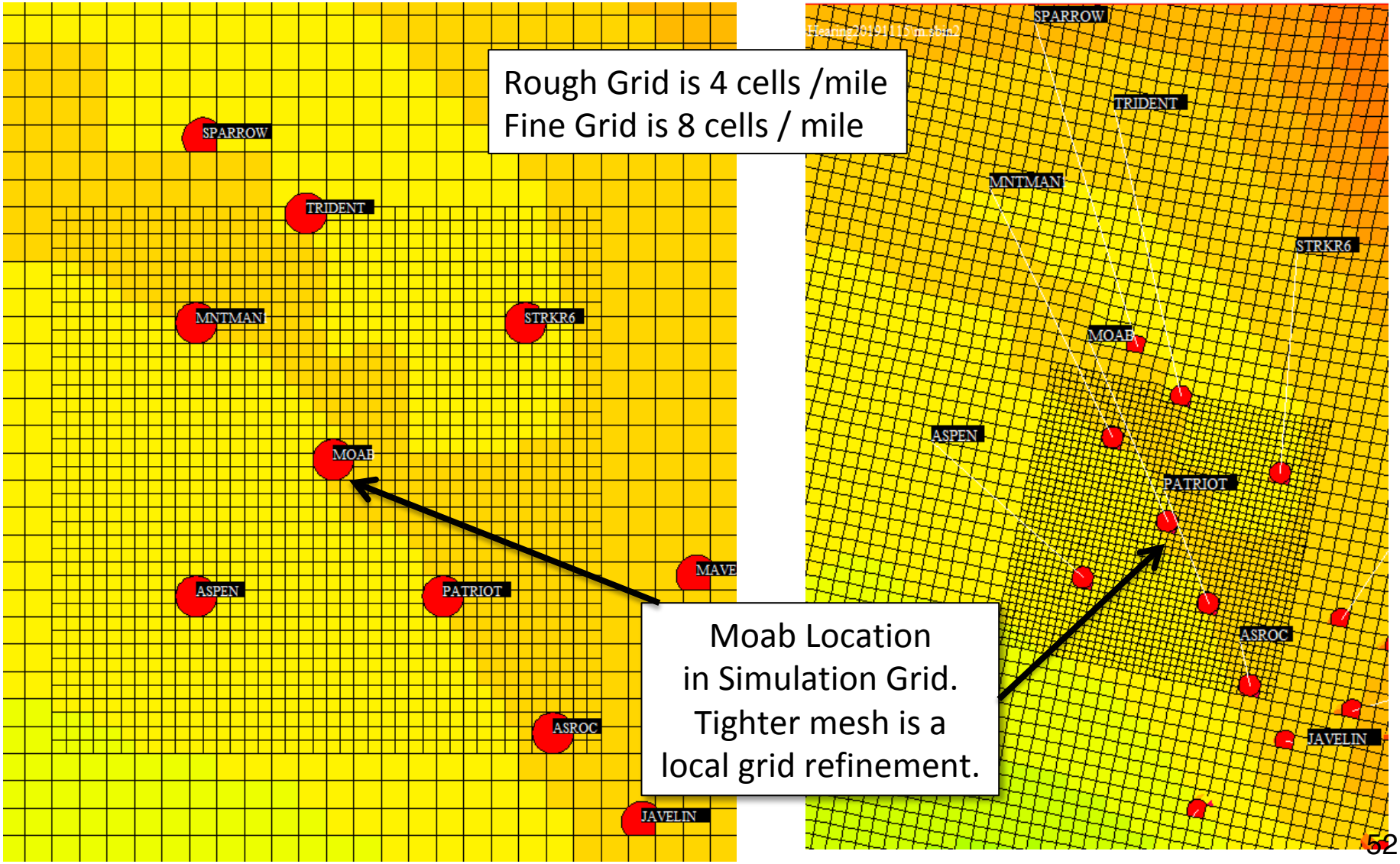
Wells injecting water into the Devonian formation in the area.
Area is roughly 12 miles (E-W) by 8 miles (N-S)



NGL Water Solutions, LLC

Simulation Grid matches General Structure and Thickness

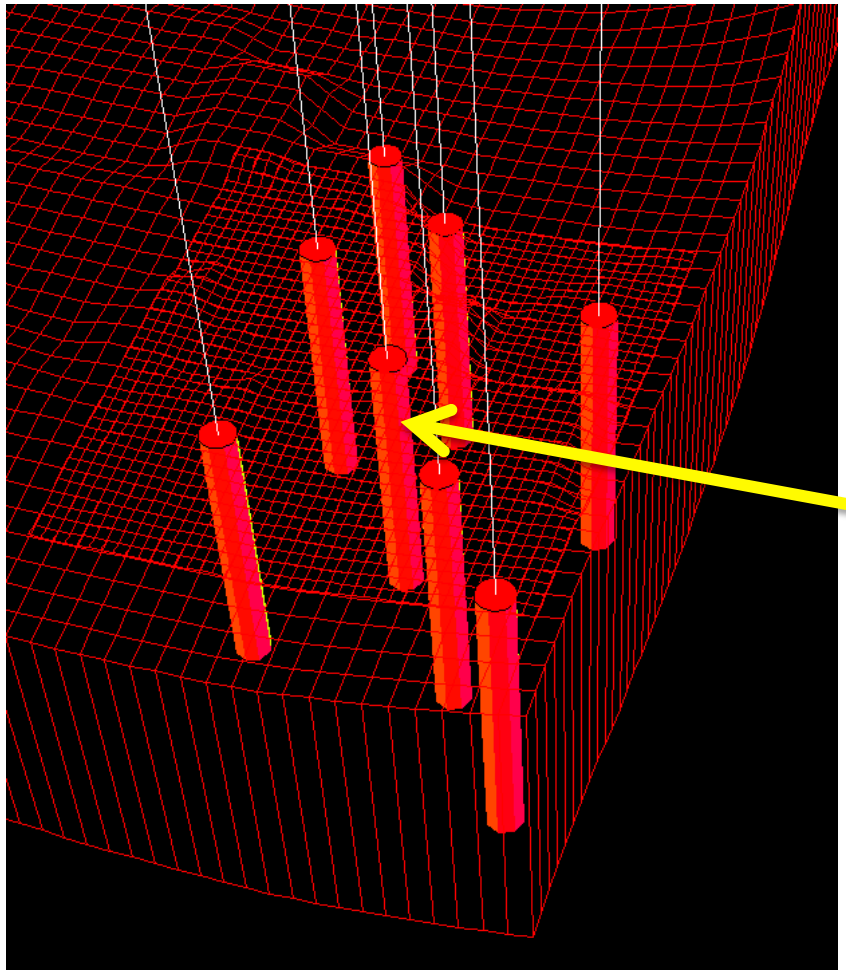
Reservoir Simulation grid incorporates the NGL proposed wells and the close offsets.



NGL Water Solutions, LLC

3D view of grid shows Some Structural Relief.

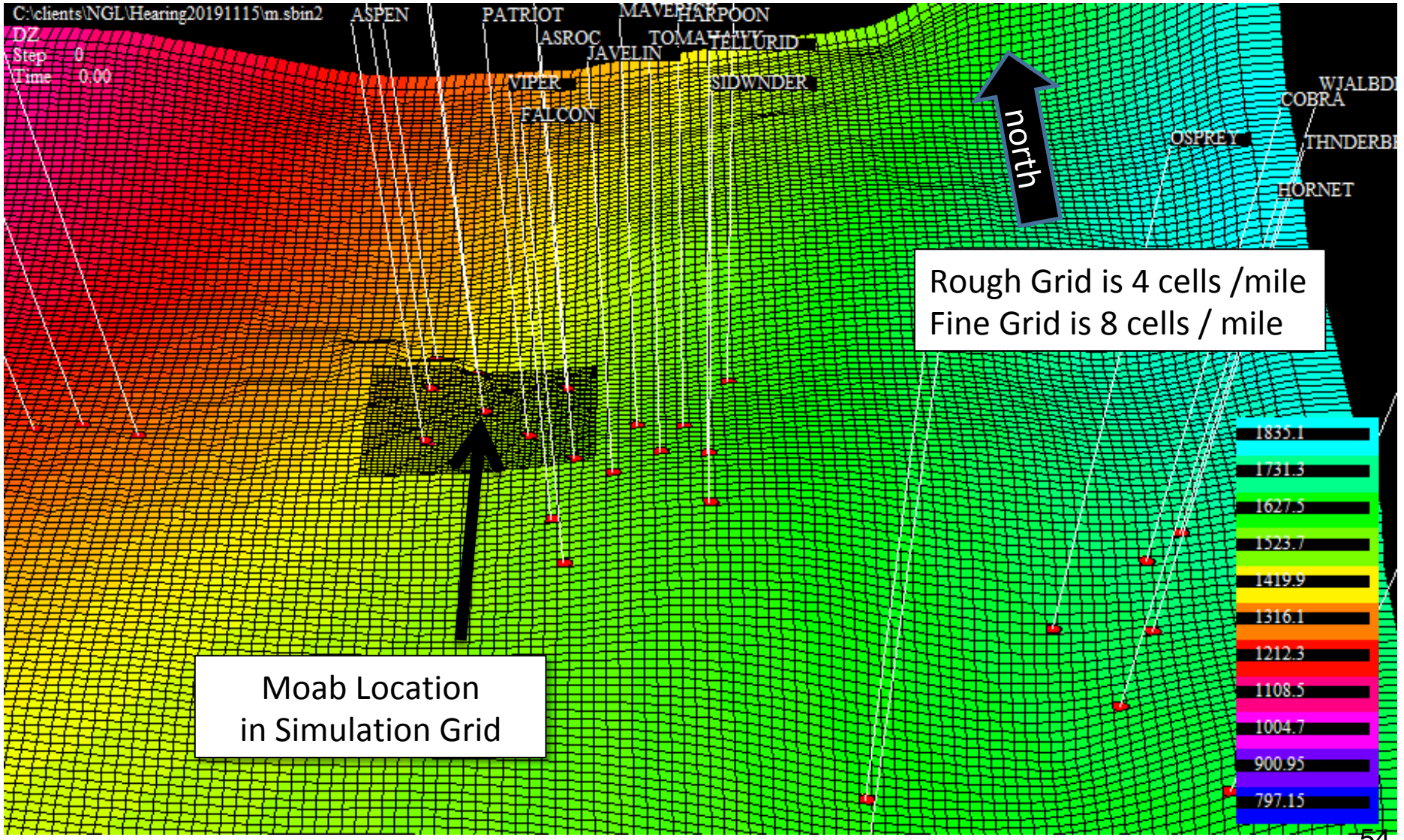
Thickness is accurate but not easy to see at this aspect ratio.



Main grid is 4 cells /mile
Refined local Grid is 8 cells / mile
Edge cells are larger to reduce edge effects.

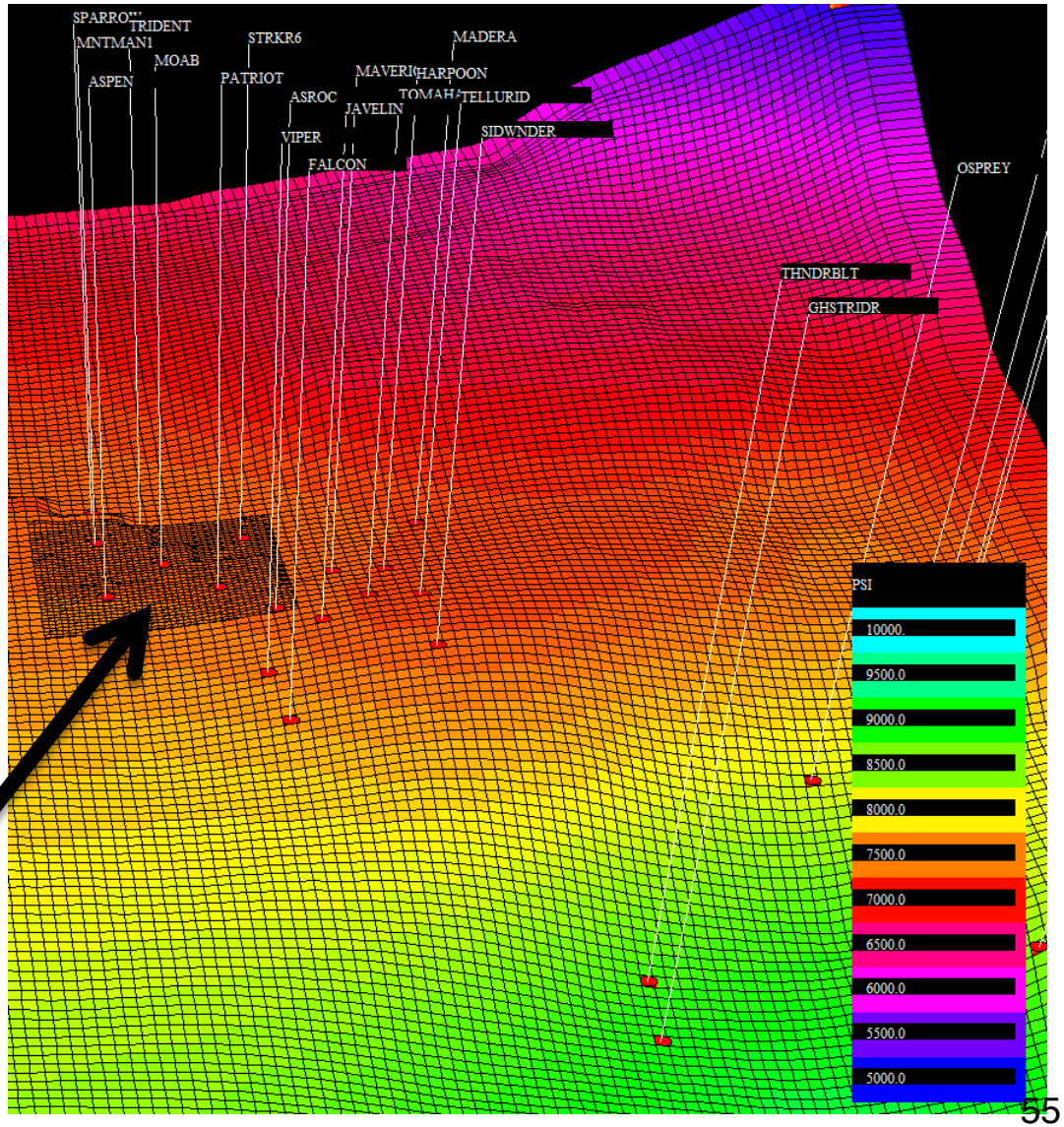
NGL Water Solutions, LLC

Red and dark blue to the East is the thickest Sil/Dev.



NGL Water Solutions, LLC

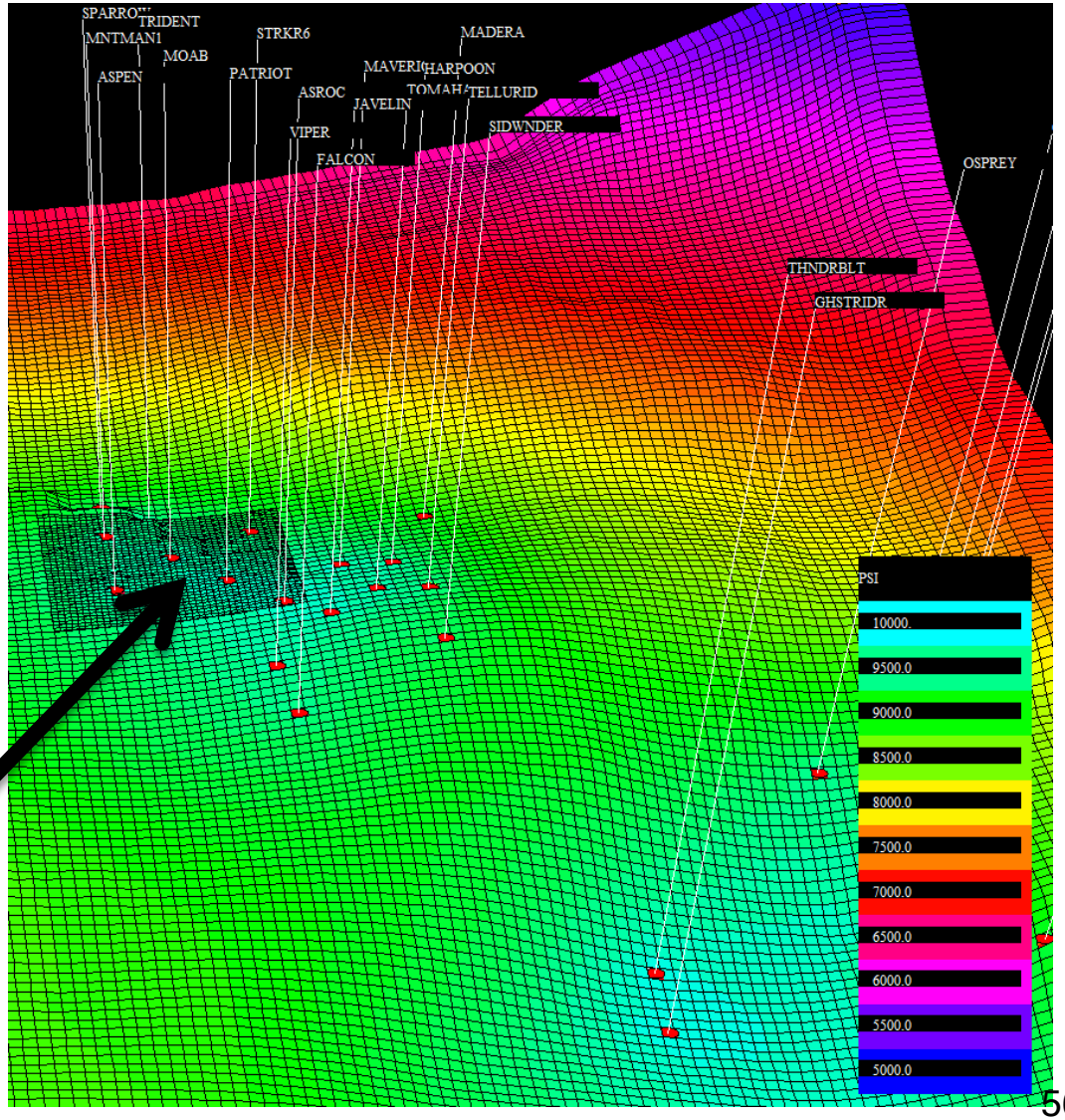
Initial pressure is equilibrated by the model based on grid cell depth, fluids(water) and capillary pressure.



Moab Location
in Simulation Grid
@ original Pressure

NGL Water Solutions, LLC

Pressure at 20 years is affected by original pressure, injected volumes, and the ability of the reservoir to dissipate pressure.



Moab Location
in Simulation Grid
With Pressure change
after 20 years

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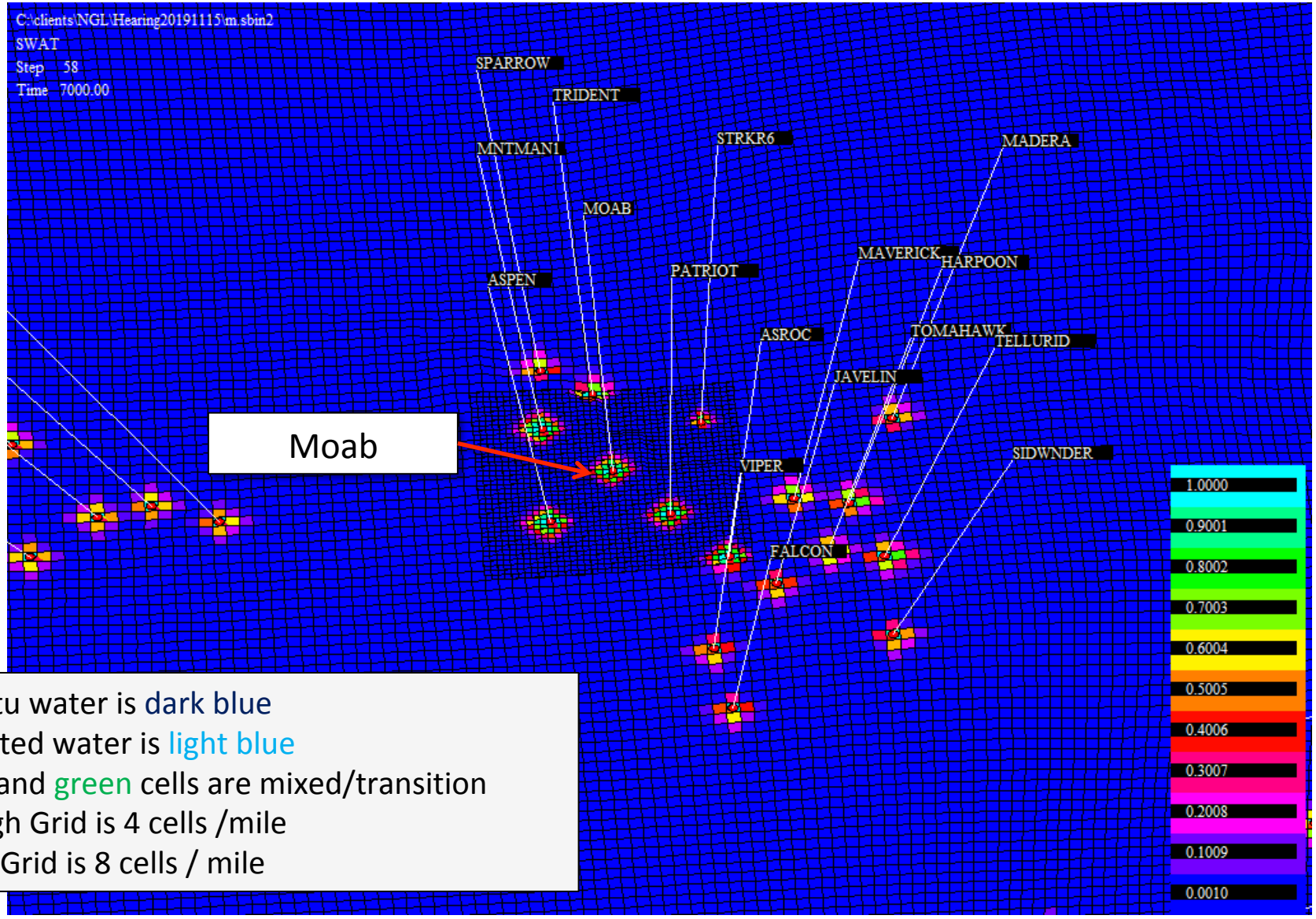
Large scale saturation profiles after 20 years of injection.

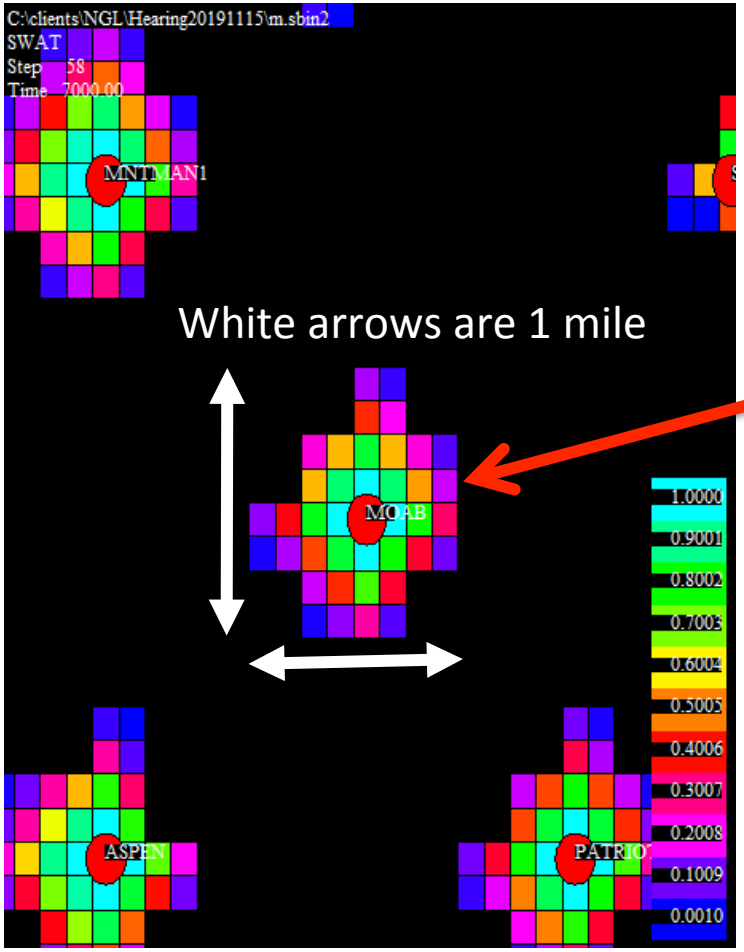


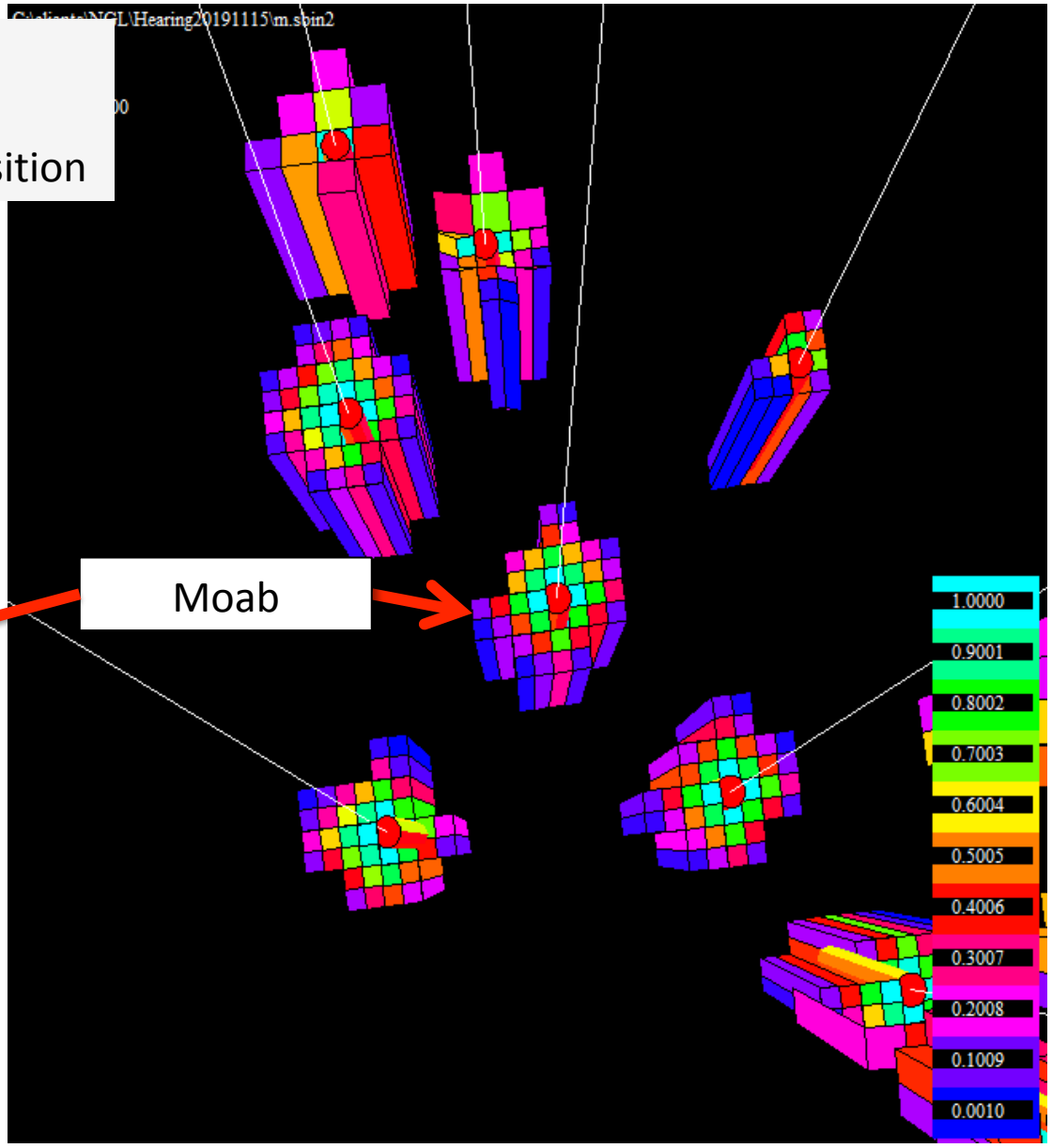
In-situ water is dark blue
injected water is light blue
Red and green cells are mixed/transition
Rough Grid is 4 cells /mile
Fine Grid is 8 cells / mile

NGL Water Solutions, LLC

Detailed saturation profiles after 20 years of injection.

In-situ water is transparent
injected water is light blue
Red and green cells are mixed/transition





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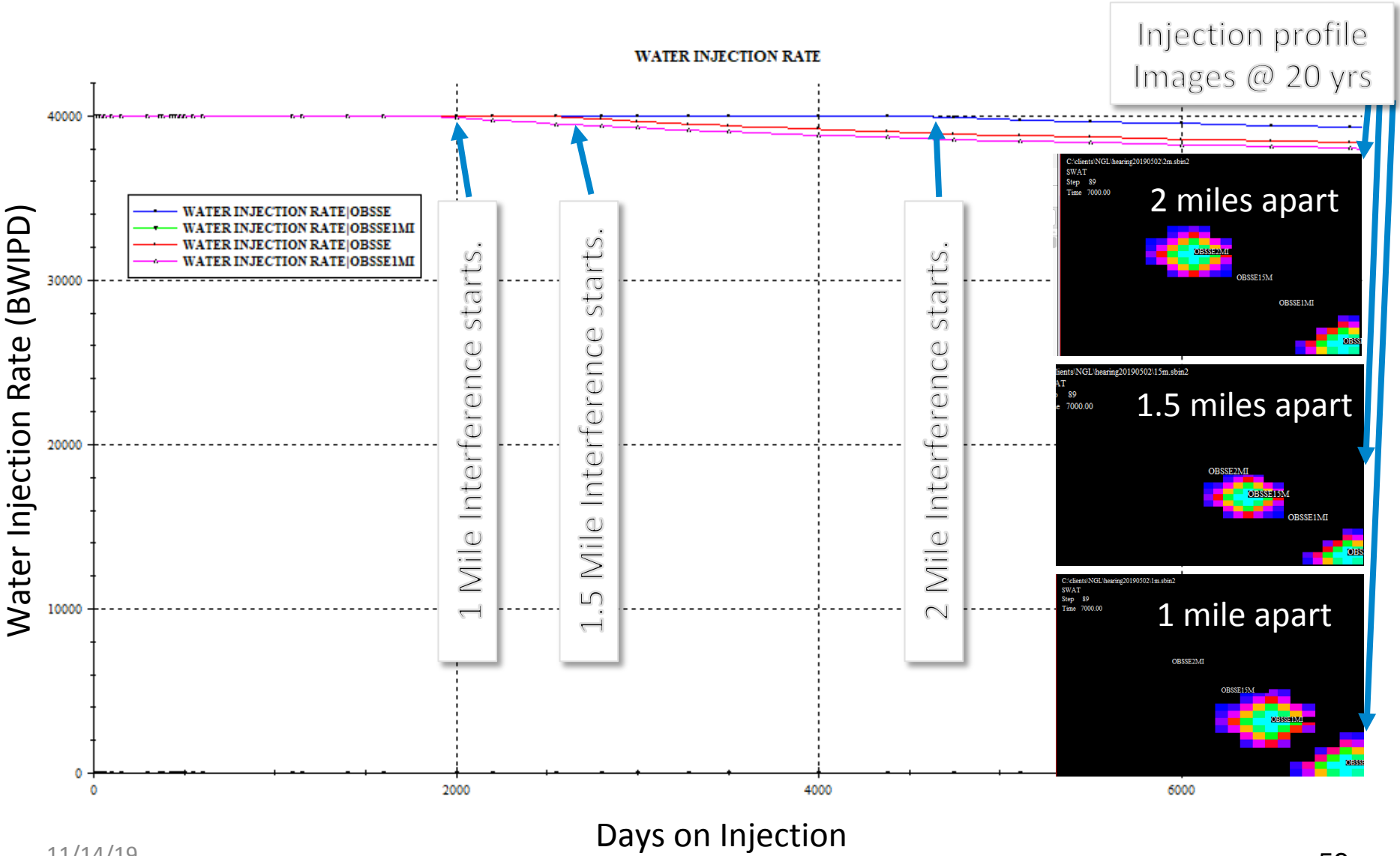
Typical wells showing interference when spaced 1, 1.5, and 2 miles apart.
Closer spacing causes rates to fall, but not significantly.



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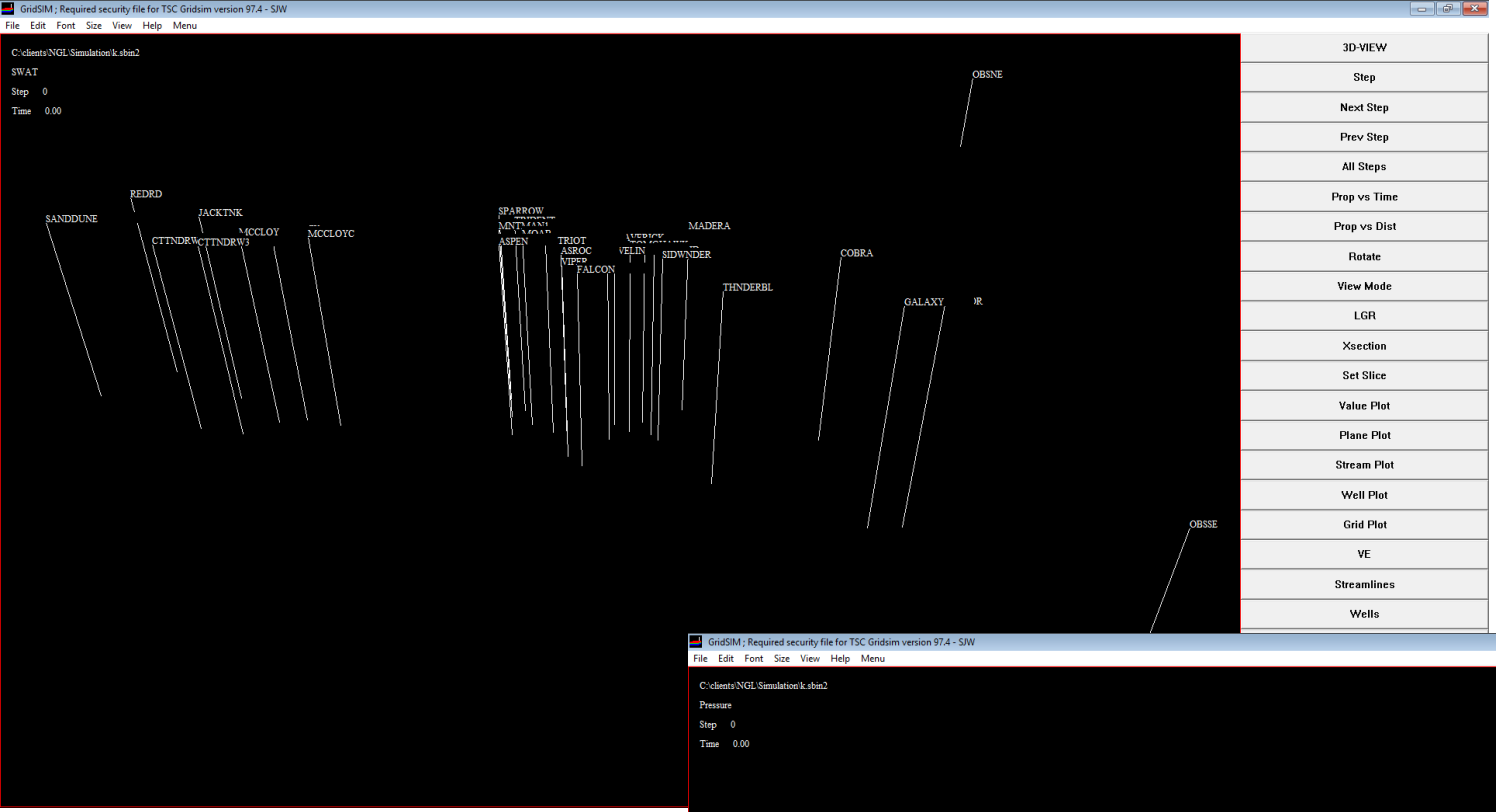
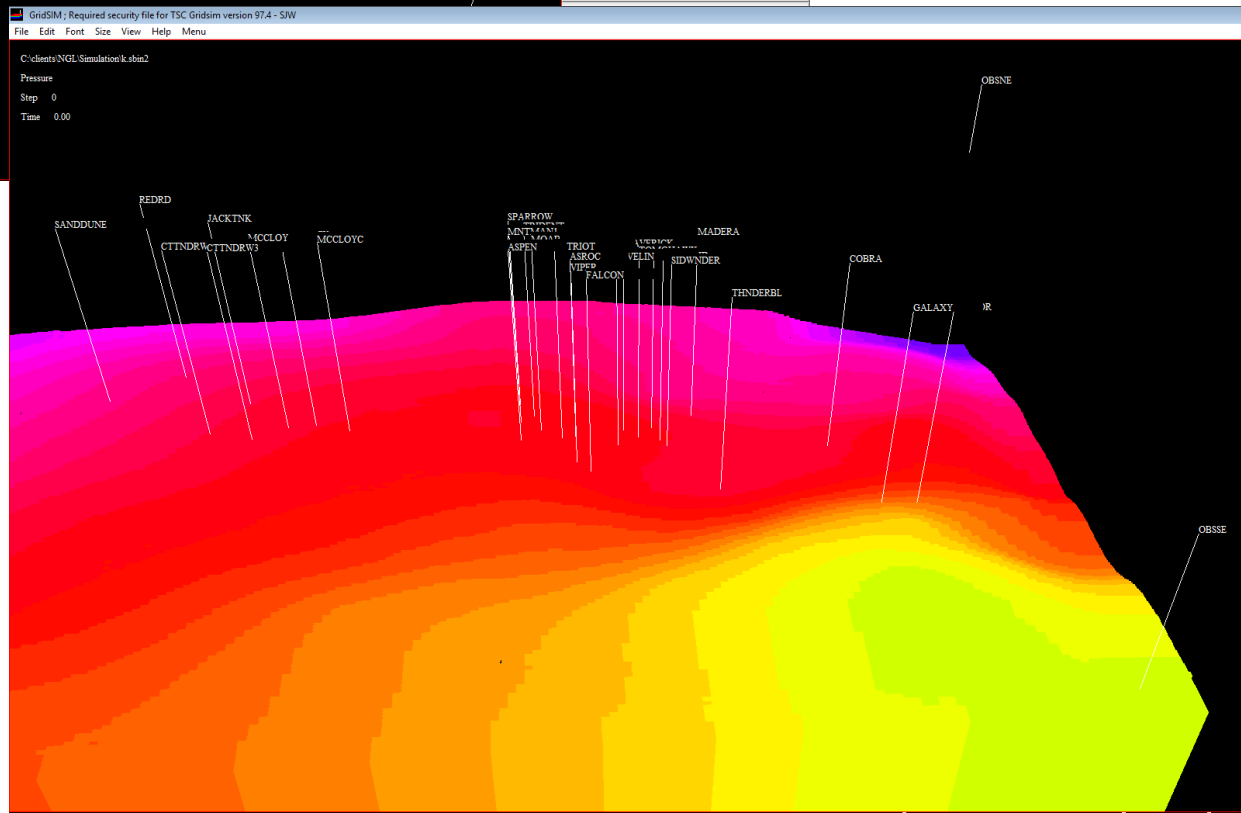
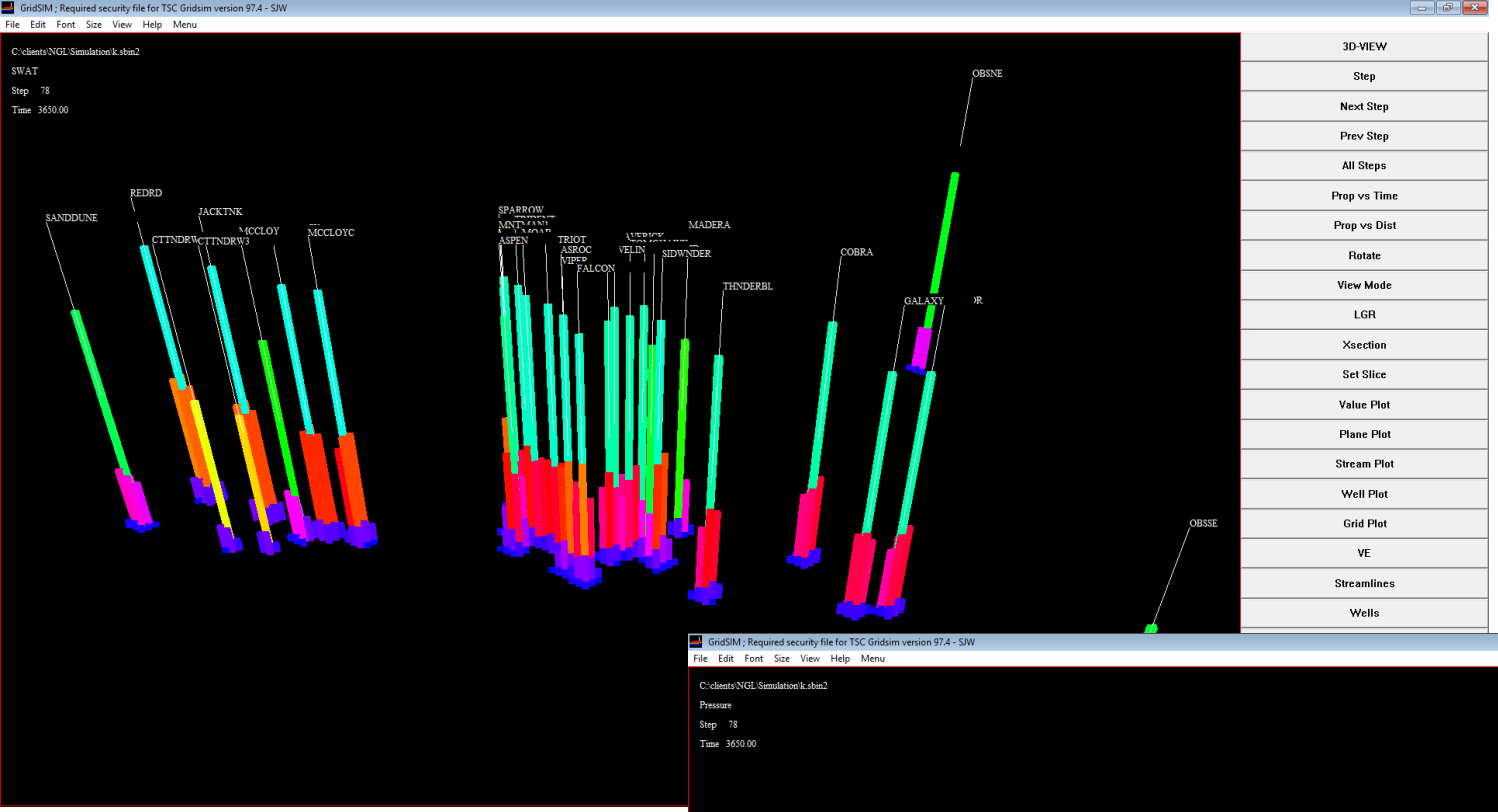


2019
(0 years)

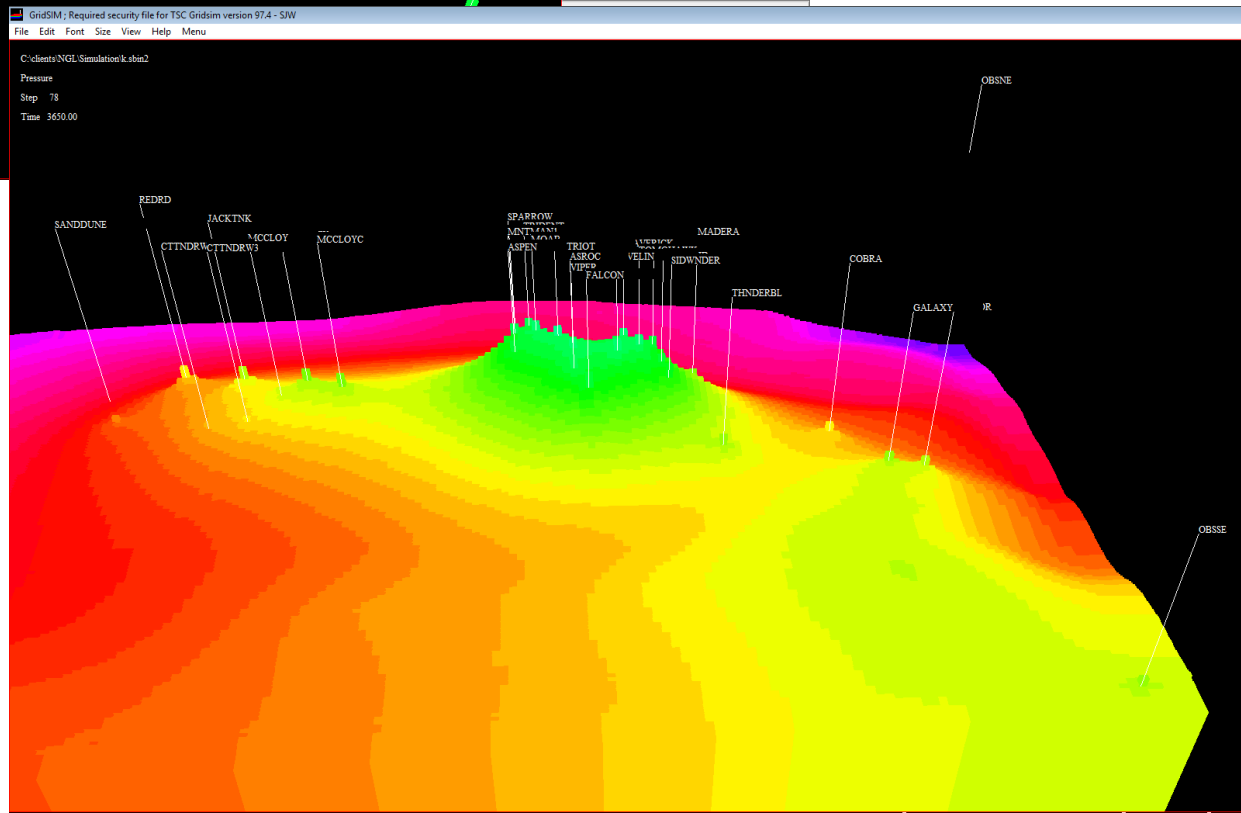


Typical Water movement & Pressure

11/14/19

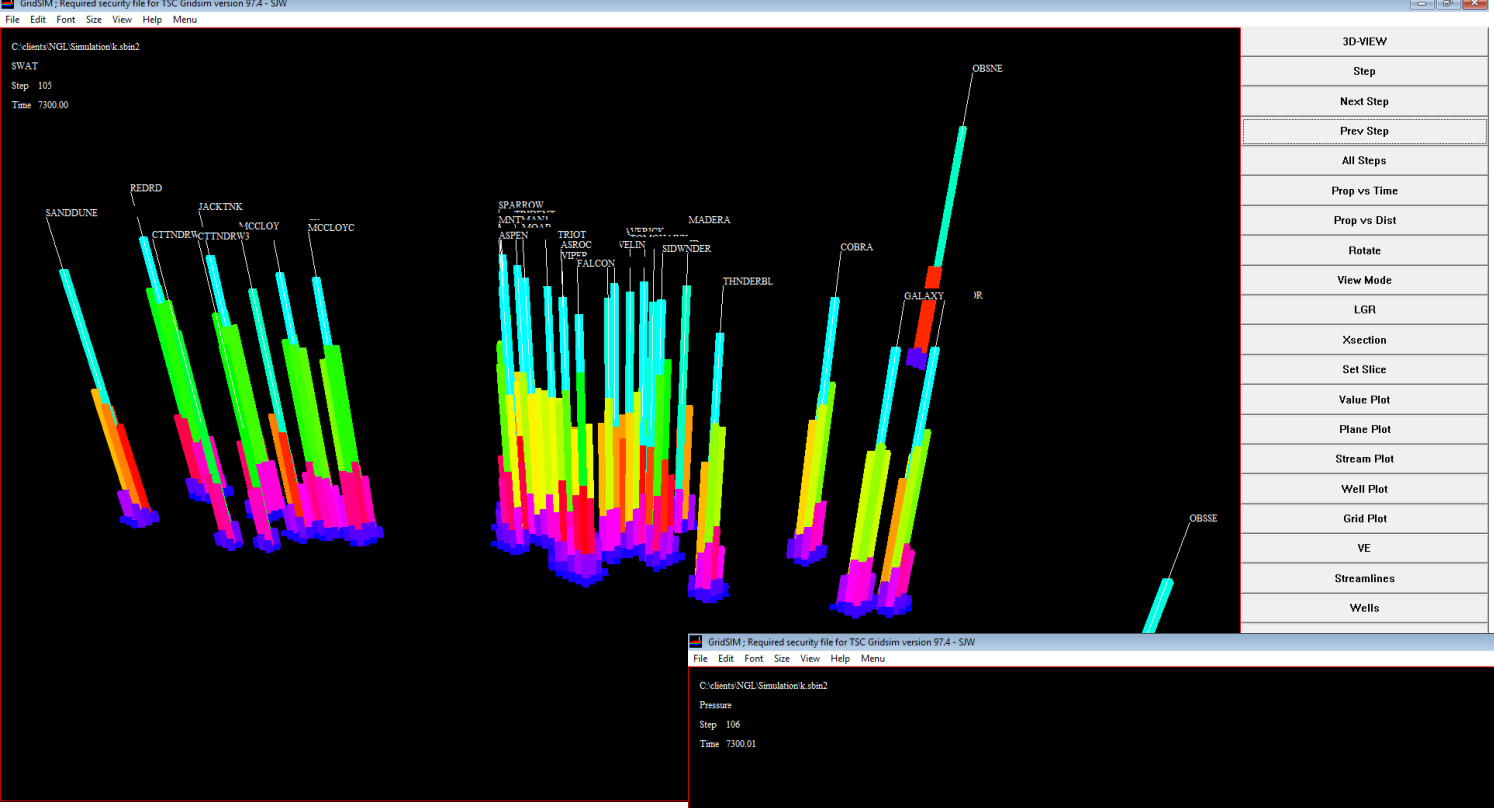


2029
(10 years)

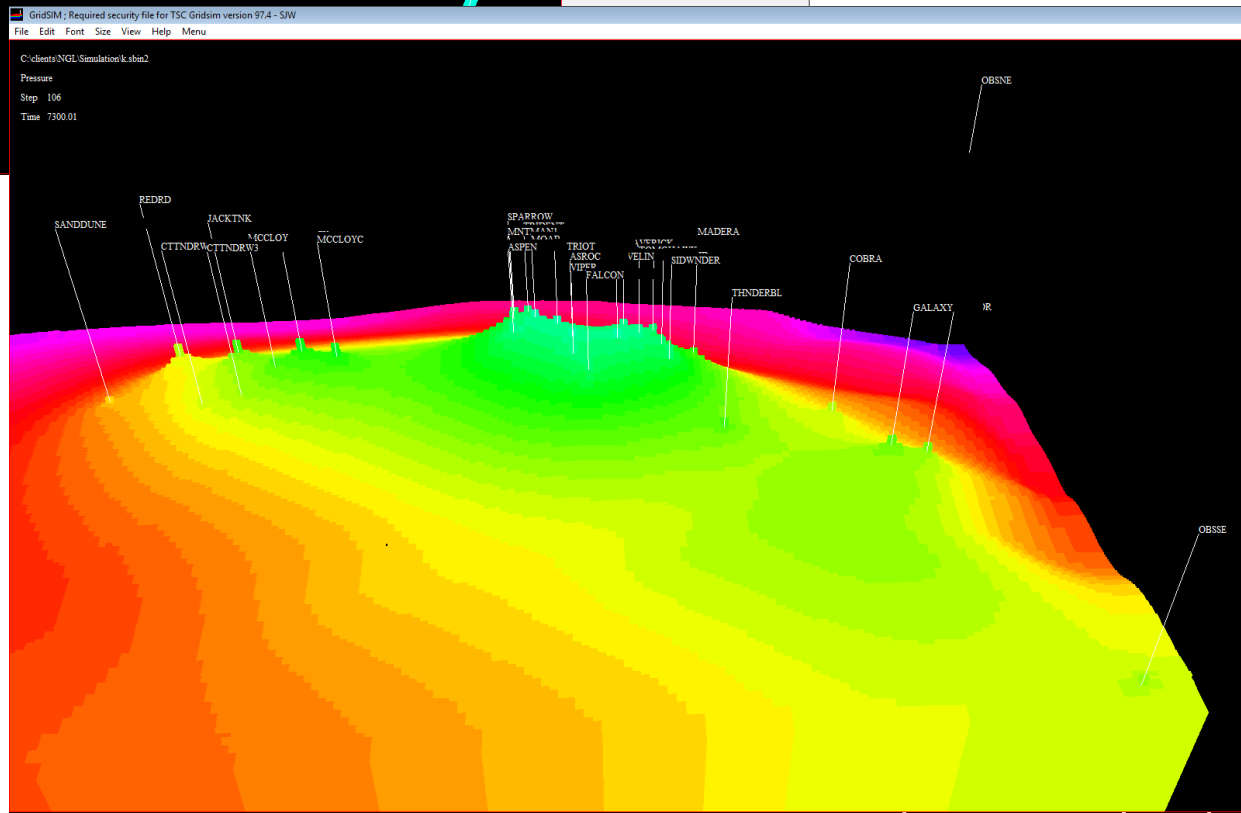


Typical Water movement & Pressure

Exh. A14



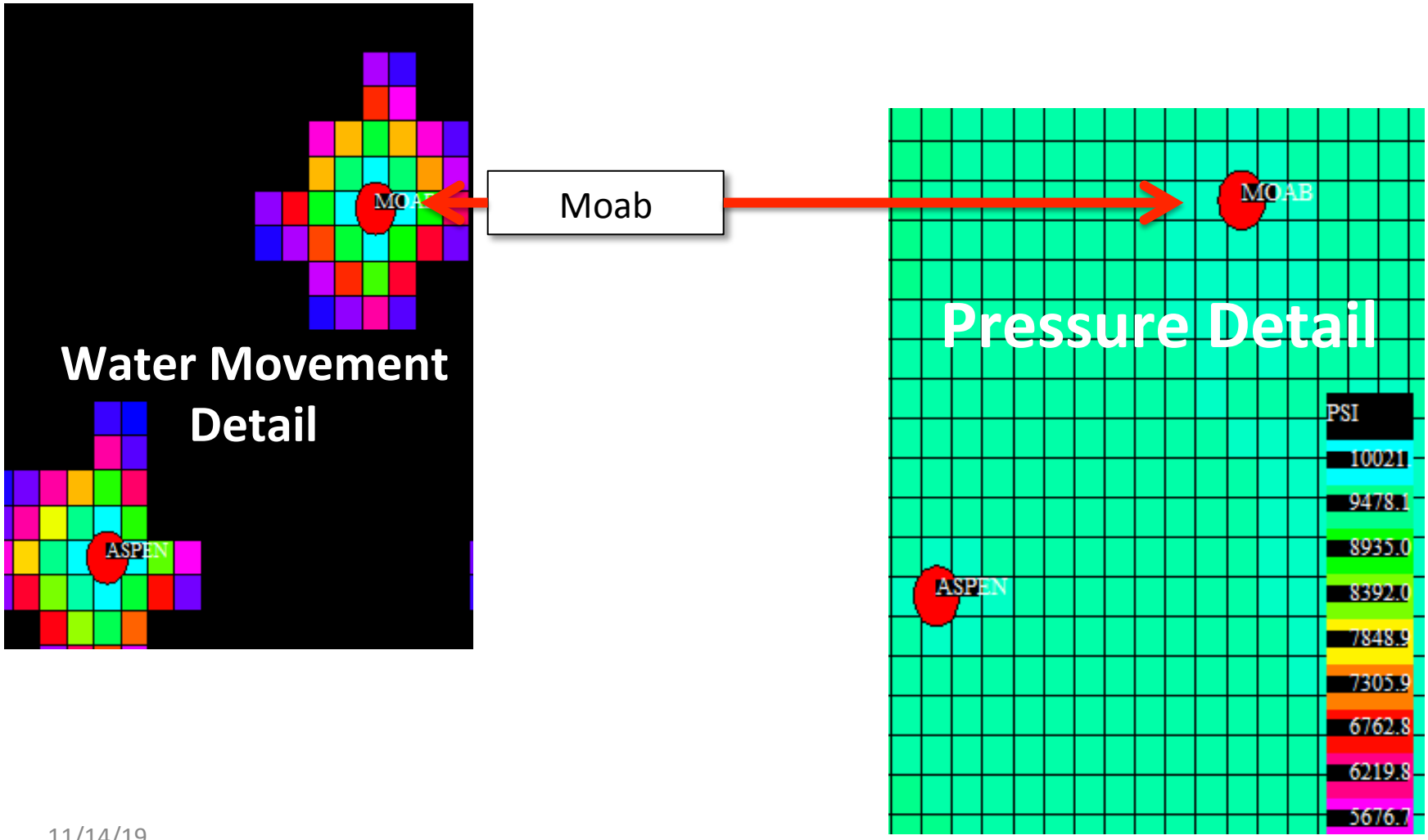
2039
(20 years)



Typical Water movement & Pressure

11/14/19

Detailed water saturation and pressure distribution at 2039 (20 years)



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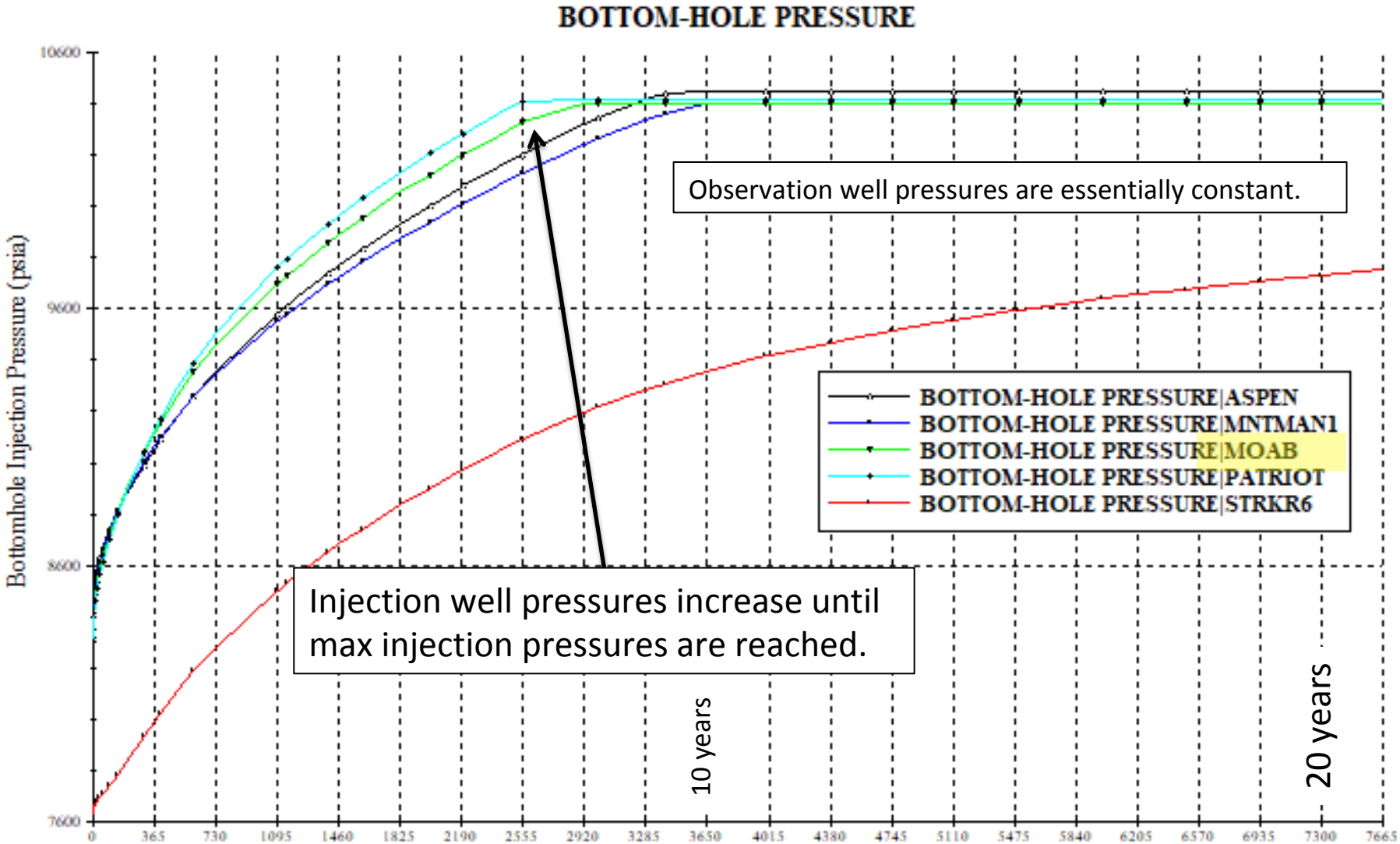
Simulation BHIP predictions for wells near Moab



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Exh. A17

Simulation predictions for individual wells over 20 Years