

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING AUGUST 20, 2024**

**EXHIBITS IN SUPPORT OF THE OBJECTION BY
PRIMA EXPLORATION, INC. TO THE
APPLICATION OF AVANT OPERATING, LLC
FOR COMPULSORY POOLING AND APPROVAL OF
NON-STANDARD HORIZONTAL SPACING UNIT,
LEA COUNTY, NEW MEXICO**

Case No. 24544

Prima Exploration, Inc.

TABLE OF CONTENTS

Exhibit A: Self-Affirmed Statement of David Rhodes, Engineer
Exhibit A-1: Interference and Waste
Exhibit B: Resume of Ron Solt

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

**APPLICATION OF AVANT OPERATING
LLC FOR COMPULSORY POOLING AND
APPROVAL OF NON-STANDARD
HORIZONTAL SPACING UNIT, LEA
COUNTY, NEW MEXICO**

Case No. 24544

SELF-AFFIRMED STATEMENT OF DAVID RHODES

I, David Rhodes, state and affirm the following:

1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
2. I am employed as the VP of Exploration for Prima Exploration, Inc. (“Prima”). I am familiar with the subject application and the geology involved.
3. This self-affirmed statement is submitted in connection with Prima’s Objection to the Application for Compulsory Pooling and Approval of Non-Standard Spacing Unit in Case No. 24544 for purposes of having the pooling application revised or amended.
4. I have not testified previously before the Oil Conservation Division (“Division”). I have a Bachelor of Science Degree in Petroleum Engineering from The Colorado School of Mines. I have worked in the Oil and Gas field as an Engineer for 17 years and have 9 years of experience in New Mexico. Based on my credentials and experience, I ask that I be accepted of record as an expert witness in petroleum engineering matters. A copy of my resume is attached to this statement for the Division’s review.
5. Prima is an exploration and production company formed in 1981 with a management team that has experience in developing and producing in the Delaware Basin in New Mexico.



6. In my Statement, I will address the issue of Avant Operating, LLC's, ("Avant") overproduction of the unit with more wells than are necessary.

7. It is my opinion, based on my experience in the Delaware Basin and the evidence in Exhibit A-1, that drilling 12 wells in the Bone Spring is an overdevelopment of the unit and such over development would result in the drilling of unnecessary wells and burden the working interest owners with excessive costs.

8. Therefore, based on my review, I find that the current pooling application in Case No. 24544 should be amended to propose nine (9) wells in the Bone Spring formation, with three (3) wells per bench, which would be a reasonable number to drill and operate to meet the terms of the pooling order. As there are three distinct benches in the Bone Spring formation in the subject area – the 1st Bone Spring, 2nd Bone Spring, and 3rd Bone Spring, the proper number of wells to fully develop these lands would be three wells per bench, 9 wells total for the Bone Spring formation.

9. Based on my review of the development plan, it is my belief that a total of 9 Bone Spring wells is the optimal number of wells for the Subject Lands to avoid the drilling of unnecessary wells, prevent waste, maximize the ultimate recovery of hydrocarbons, and provide the owners with their just and equitable share of production without excessive burdens and costs.

10. Exhibit A-1 demonstrates how a well density of twelve (12) wells in the Bone Spring formation (four wells per zone) will create waste by burdening owners with excessive costs to recover the reserves within the Unit through interference in production from each well.

11. The exhibits included herein were prepared by me or under my supervision. The This statement is true and correct the best of my knowledge and understanding.

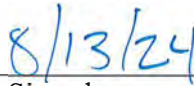
(Signature Page Follows)

Signature Page to David Rhodes' Self-Affirmed Statement:

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case No. 24544 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.



David Rhodes



Date Signed



Exhibit A-1: Interference and Waste

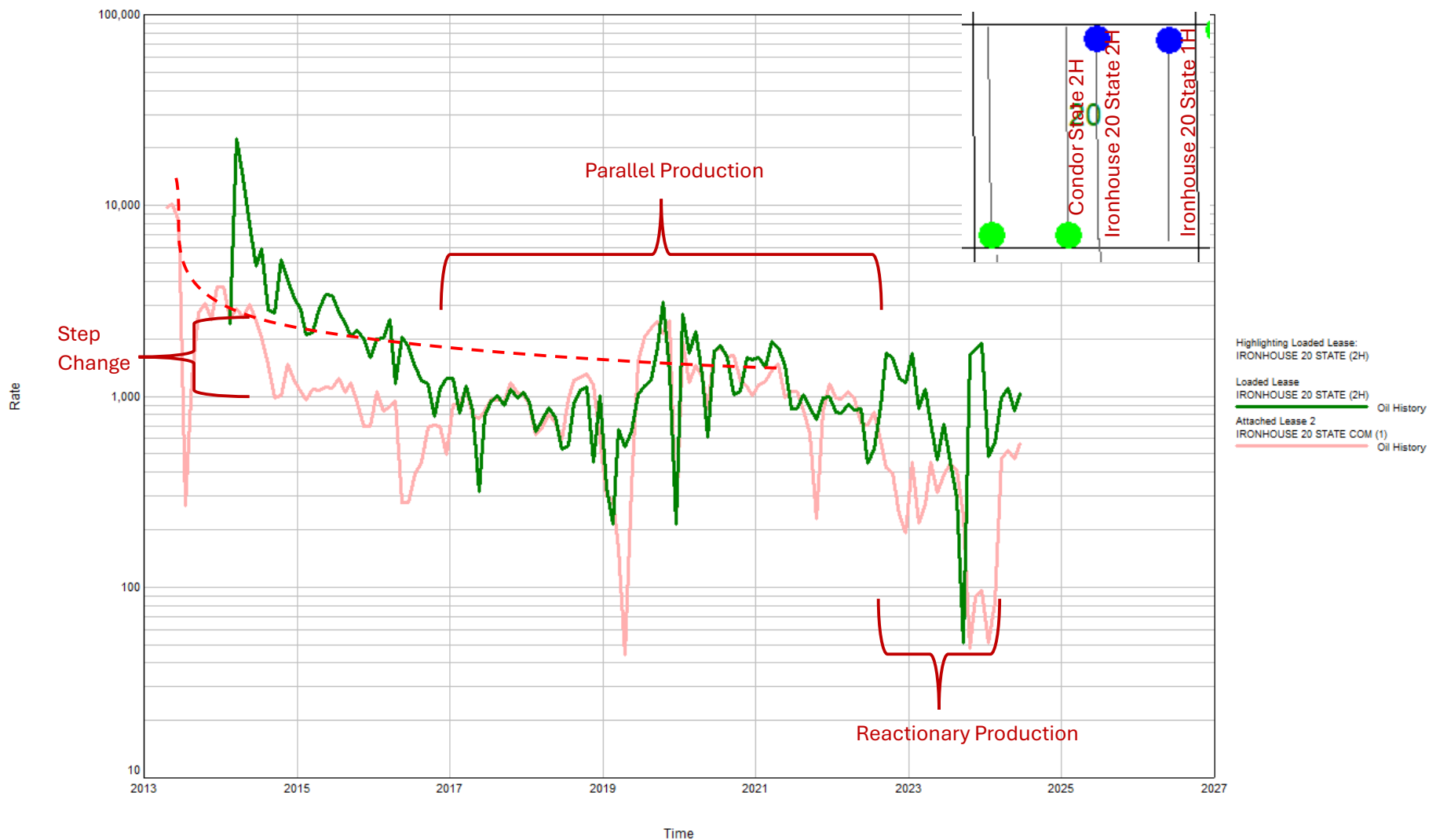
This exhibit demonstrates that the proposed well density of 12 wells within the Bone Spring formation, 4 wells per zone, will create waste, by burdening owners with excess costs to recover the reserves within the unit.

1. Avant's proposals are for 4 wells in each of the 1st Bone Spring, 2nd Bone Spring, and 3rd Bone Spring formations
 - a. In general, the wells are proposed to be spaced 1,320' apart from one another in each bench
2. Numerous offset developed units within the Bone Spring formation indicate that 4 wells per mile result in interference
 - a. Curve overlays clearly demonstrate step change in production
 - b. Curve overlays show reactionary changes in production between wells
 - c. Curve overlays show long-term parallel production indicating communication
3. Extrapolated production from wells prior to interference demonstrate proper density to fully drain the reservoir is just over 2 wells per mile
 - a. As we cannot drill fractional wells, in order to fully develop, the proper density to fully drain the reservoir is 3 wells per mile
4. As Avant is proposing one unnecessary well per formation, the economic impact on the working interest owners is considerable
 - a. \$35 million in excess and unnecessary drilling and completion costs
 - b. \$16 million in excess and unnecessary operating costs over the life of the wells
 - c. Total of \$51 million in excess and unnecessary costs to the working interest owners
5. Additional wells require more land and water use, more wear and tear on roads, and more pollution

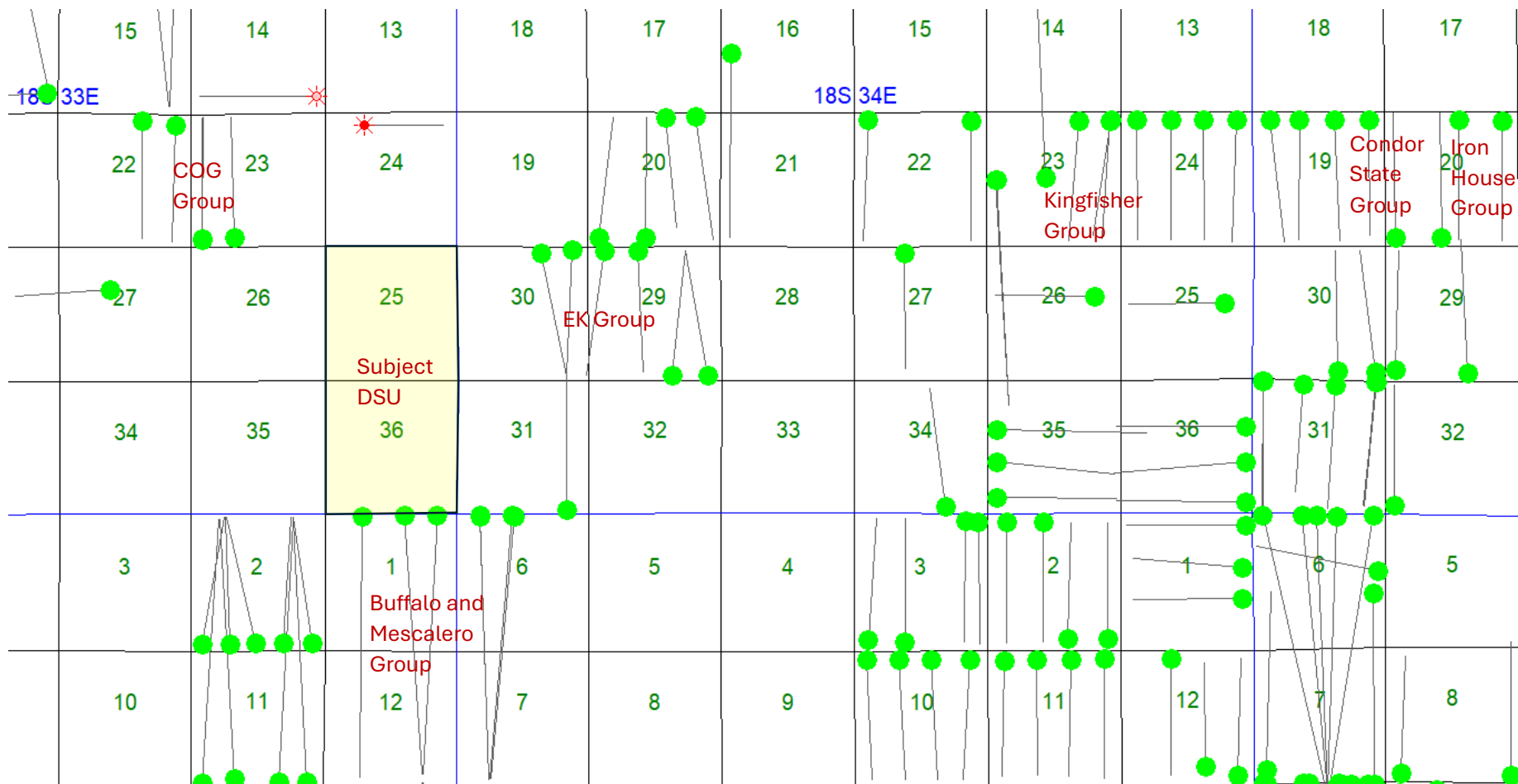
EXHIBIT
A-1

Iron House Group

IRONHOUSE 20 STATE - WILDCAT



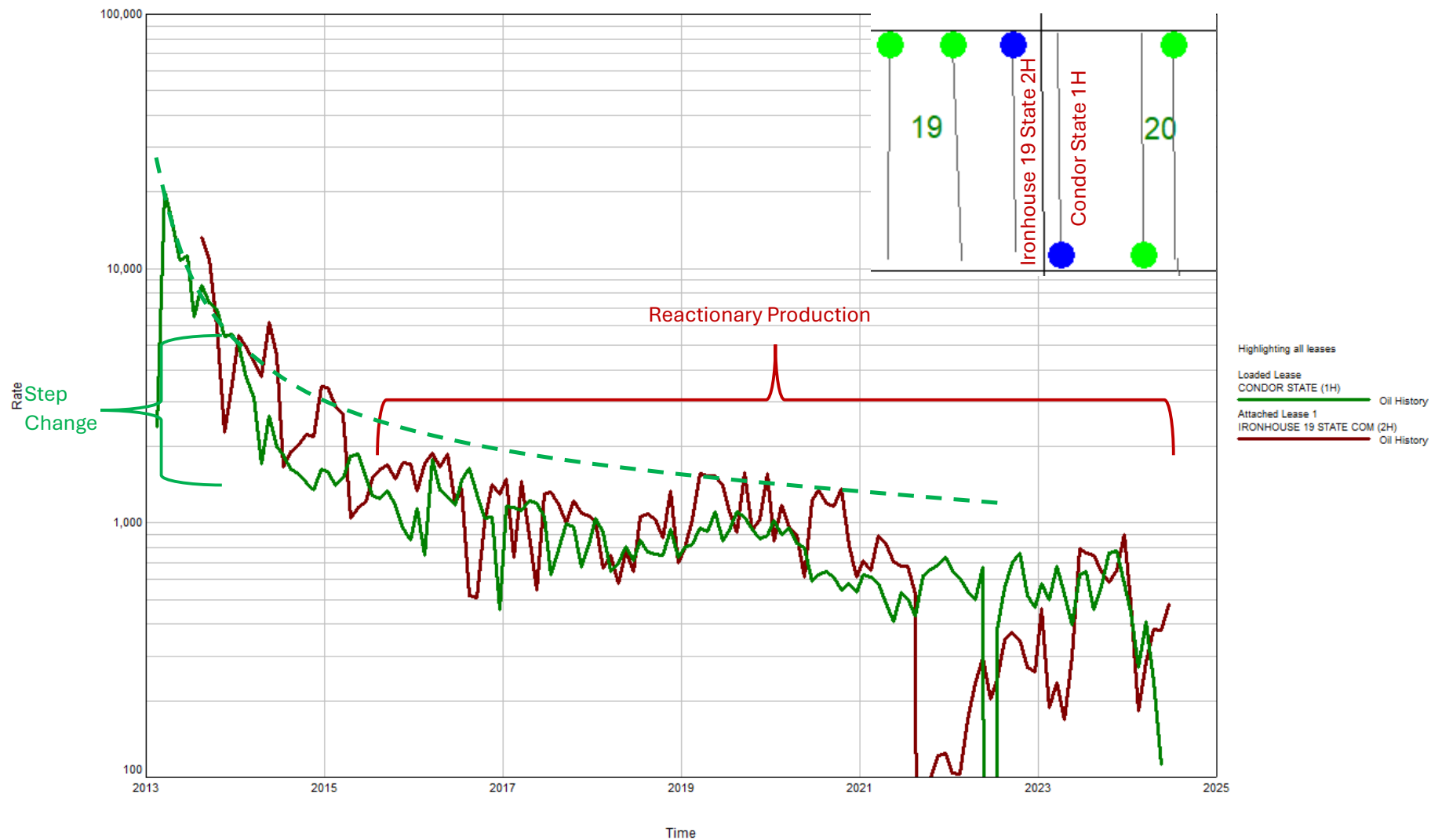
Ironhouse 1H and 2H wells show near immediate interference with a step change, then transition to parallel and reactionary
Condor State 2H well was drilled and completed at the same time as the Ironhouse 2H, so interference is masked between the two



Map locating subject DSU and offset development case studies for interference

Condor State Group

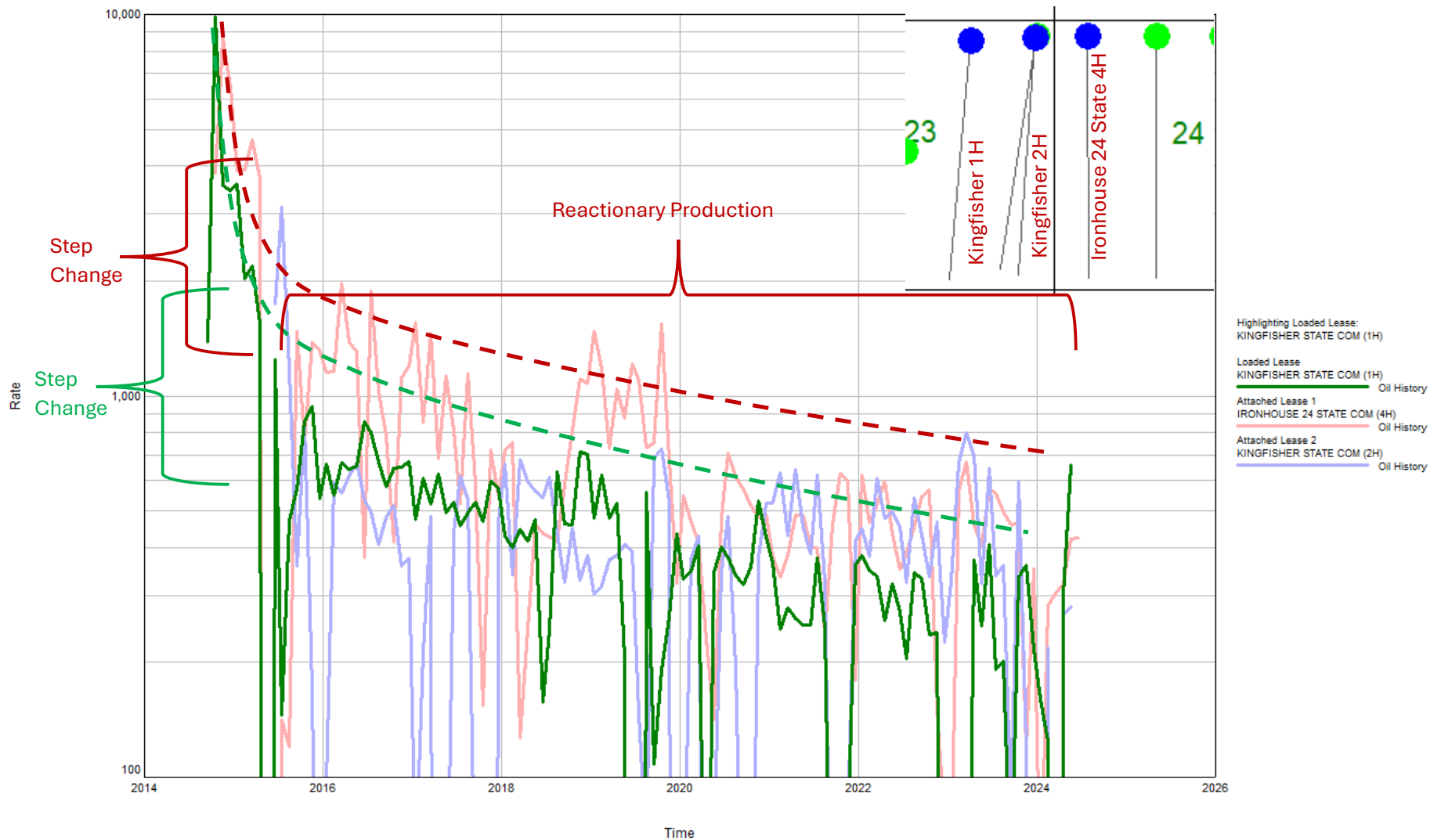
CONDOR STATE - WILDCAT



Condor State 1H sees very early step change due to Ironhouse 19 State 2H coming online. The wells have been reactionary ever since

Kingfisher Group

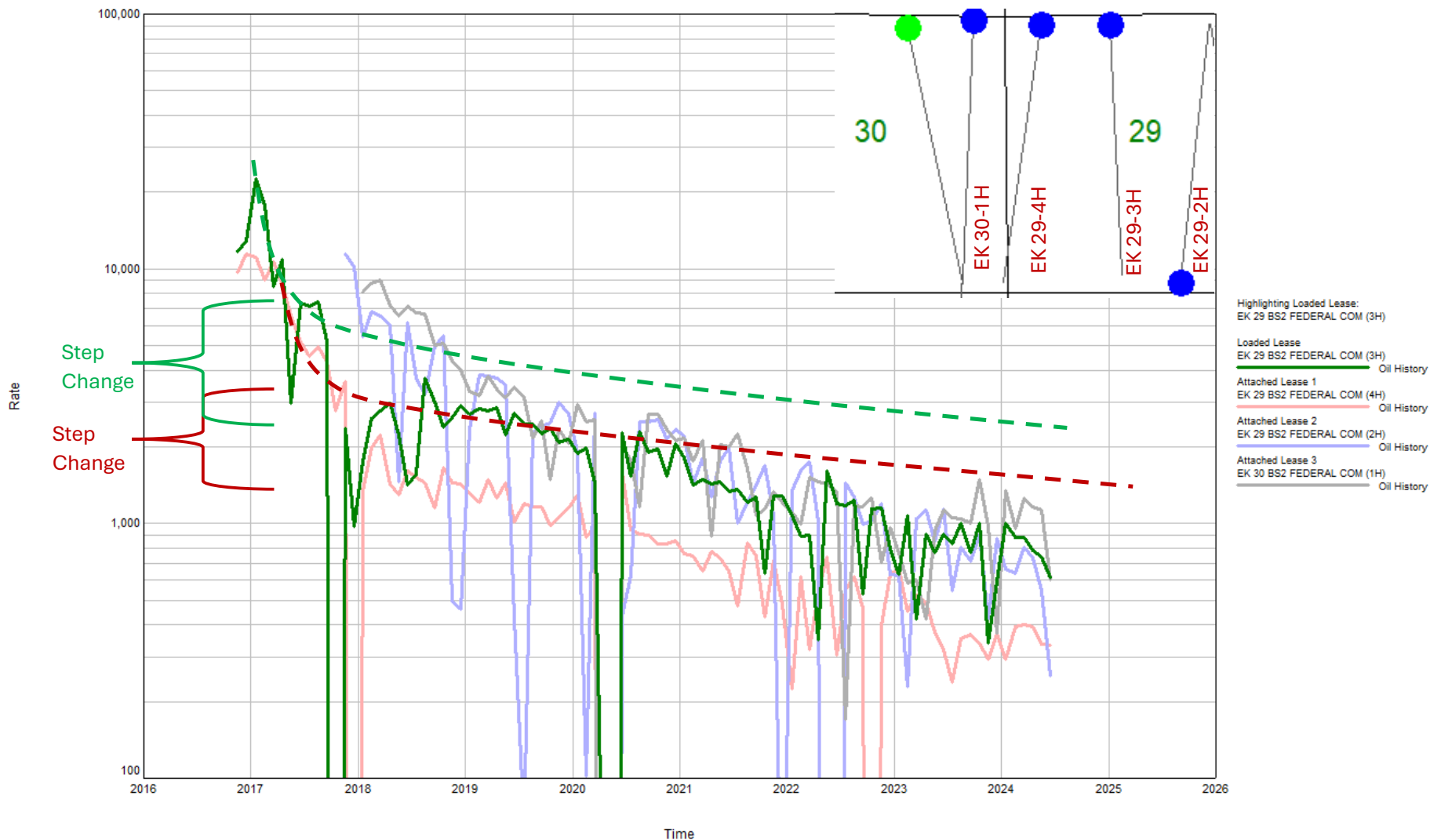
KINGFISHER STATE COM - AIRSTRIP



Kingfisher 1H and Ironhouse 24 State 4H were completed in the same timeframe, and both were severely impacted by the infill of the Kingfisher 2H

EK Group

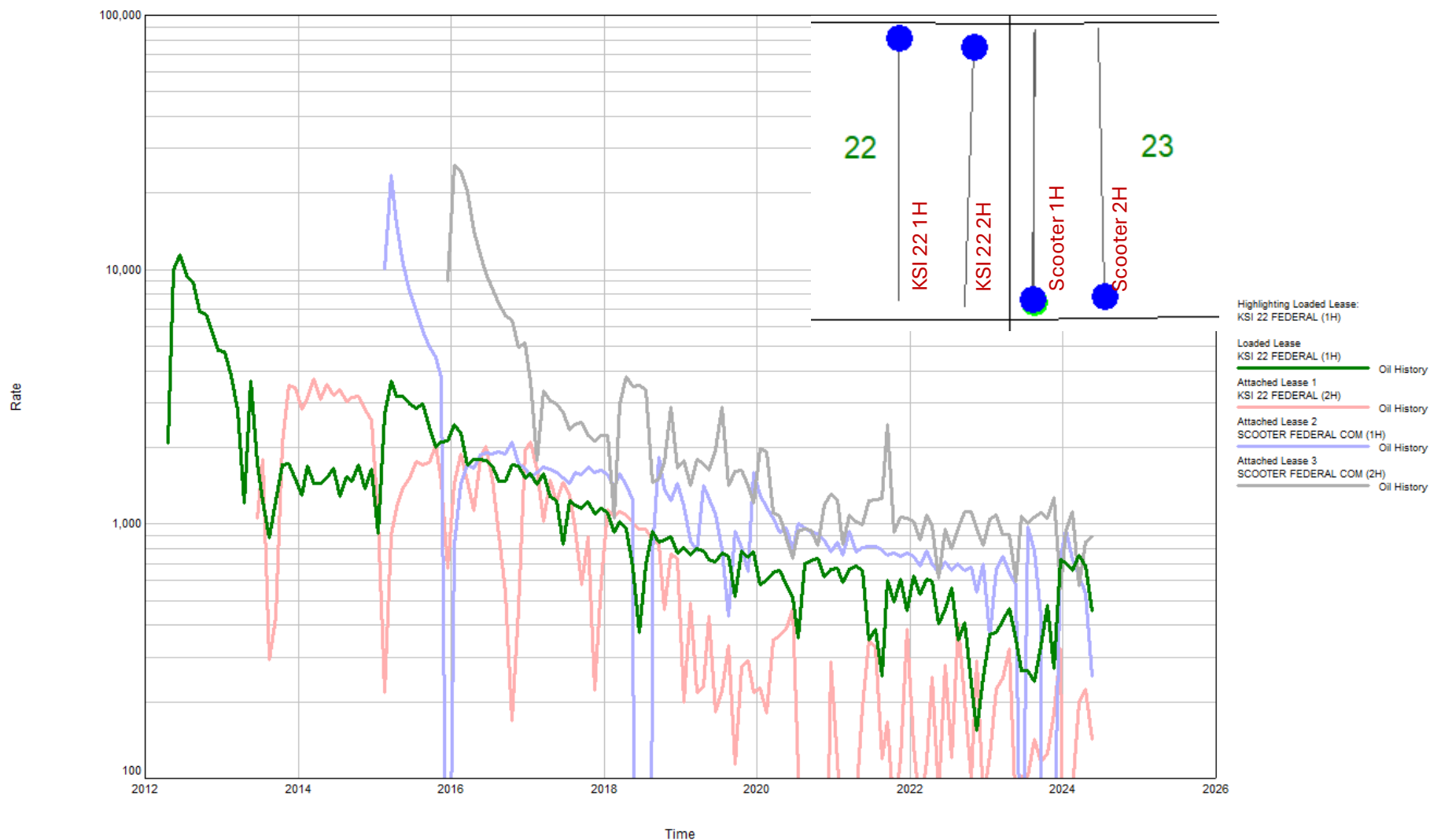
EK 29 BS2 FEDERAL COM - E-K



EK 29-4H and 29-3H wells came on at the same time. Both were impacted by their respective offsets, the Ek 29-2H for the EK 29-4H, and the EK 30-1H for the EK 29-4H. Even steeper declines from initial close density with the 3H and 4H wells had significant step change impact from the offset wells drilled

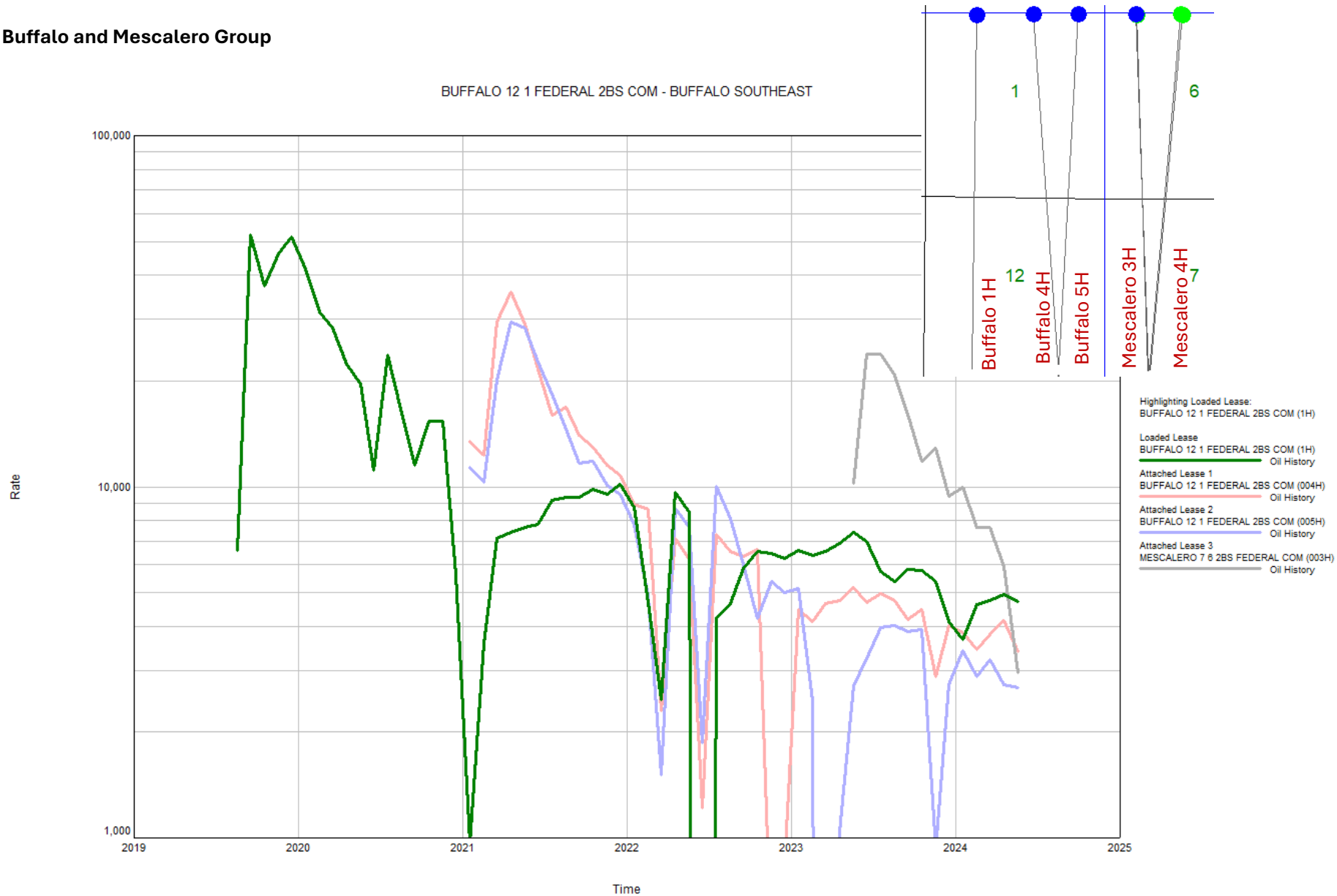
COG Group

KSI 22 FEDERAL - CORBIN SOUTH

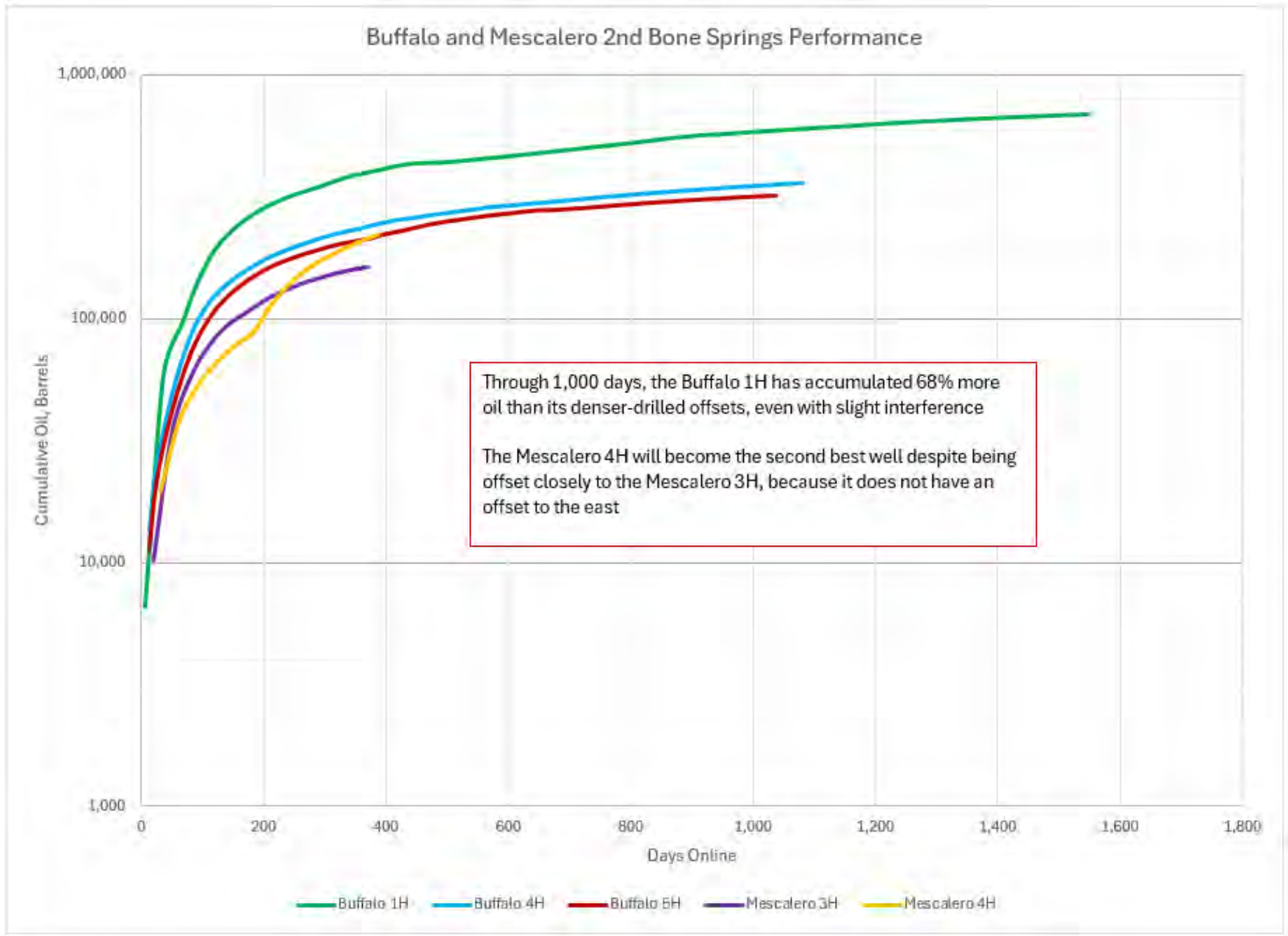


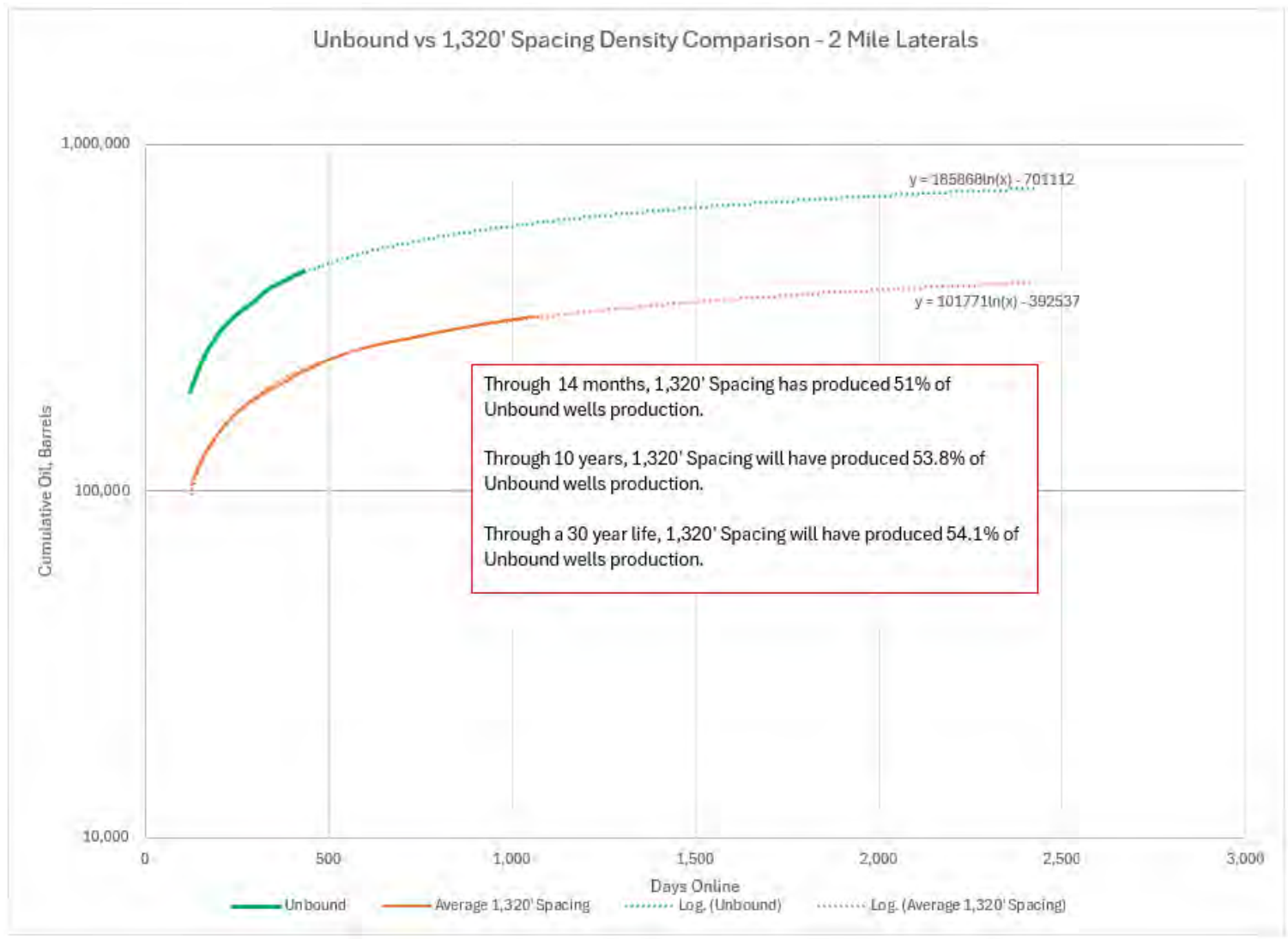
Wells gradually completed from west to east. Each time, the well offsetting it is impacted immediately by the new well
 Extreme reactionary early for the KSI 22 1H and KSI 22 2H wells
 The KSI 22 1H and the Scooter Federal 2H will recover more oil than the inner wells, as they don't have interference on their opposite flanks

Buffalo and Mescalero Group



Drilled from west to east over the years, these modern, 2 mile lateral wells show interference shortly after new wells are brought online
 The Buffalo 12 1-H will recover the most oil by far out of these wells, as it is further spaced from the offsets and was the initial producer
 The following page demonstrates this with cumulative and ultimate oil projections





1,320' Spacing is 4 wells per 5,280 wide DSU

Multiplying 4 wells by 54.1% results in 2.16 wells required for interference free development, to fully drain a mile wide DSU

Since we cannot drill fractions of wells, the proper density to fully drain would be 3 wells per mile wide DSU

Avant's proposal to drill 4 wells per mile, is unnecessary and wasteful, as 3 wells would readily and fully drain the DSU

Economic Impact

As it has been demonstrated that only three wells per bench is required to fully drain the DSU, and Avant proposes drilling four wells, the economic impact to the working interest owners is considerable.

For the 1st Bone Spring formation, Avant's AFEs average \$11,579,328 per well. At one unnecessary well for this formation, the working interest owners are burdened by \$11,579,328 in unnecessary expenditures.

For the 2nd Bone Spring formation, Avant's AFEs average \$11,698,701 per well. At one unnecessary well for this formation, the working interest owners are burdened by \$11,698,701 in unnecessary expenditures.

For the 3rd Bone Spring formation, Avant's AFEs average \$11,753,101 per well. At one unnecessary well for this formation, the working interest owners are burdened by \$11,753,101 in unnecessary expenditures.

For drilling and completion, the working interest owners are burdened by \$35,031,130 in unnecessary expenditures.

With three unnecessary wells, assuming \$15,000/well/month lifetime average in operating costs, over 30 years, an additional **\$16,200,00** in excess costs will burden the working interest owners.

Total excess costs over the life of the wells would thus be estimated at roughly \$51,000,000.

Resume of Ron Solt

Bachelor's of Business – Western Illinois University - 2001

Juris Doctorate – South Texas College of Law - 2006

My current role is as Land Manager of Prima Exploration, Inc, where I have been employed for approximately 3 years. I have 18 years of experience in various land and managerial roles. I have worked and/or managed projects in Texas, New Mexico and throughout the Rocky Mountain states. I have worked the Delaware and Permian Basins in different capacities for approximately 3 years of my career. I graduated from Western Illinois University in 2001 with a Bachelor's of Business, and in 2006 I earned a Juris Doctorate from the South Texas College of Law.

EXHIBIT
B