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

APPLICATION OF GOODNIGHT MIDSTREAM PERMIAN LLC FOR APPROVAL OF A SALTWATER DISPOSAL WELL, LEA COUNTY, NEW MEXICO.	**COMM. CASE NO. 24123**
APPLICATIONS OF GOODNIGHT MIDSTREAM PERMIAN LLC FOR APPROVAL OF SALTWATER DISPOSAL WELLS, LEA COUNTY, NEW MEXICO.	**DIV. CASE NOS. 23614-23617**
APPLICATION OF GOODNIGHT MIDSTREAM PERMIAN, LLC TO AMEND ORDER NO. R-22026/SWD-2403 TO INCREASE THE APPROVED INJECTION RATE IN ITS ANDRE DAWSON SWD #1, LEA COUNTY, NEW MEXICO.	**DIV. CASE NO. 23775**
APPLICATIONS OF EMPIRE NEW MEXICO LLC TO REVOKE INJECTION AUTHORITY, LEA COUNTY, NEW MEXICO.	**DIV. CASE NOS. 24018-24020**

EMPIRE NEW MEXICO LLC'S UNOPPOSED MOTION FOR LEAVE TO FILE AMENDED TESTIMONY OF FRANK J. MAREK

Pursuant to Oil Conservation Commission ("Commission") Rule 19.15.4.16(C) NMAC, Empire New Mexico, LLC ("Empire") respectfully moves the Commission for leave to file amended testimony of its witness, Frank J. Marek, in the above-captioned matters, in a form attached as **Exhibit A** to this motion. As grounds for this motion, Empire states the following.

1. In preparing for the evidentiary hearing, Mr. Marek identified several clarifying, technical corrections to his previously submitted testimony. To ensure an accurate and complete record, Empire seeks to file amended testimony for Mr. Marek. These corrections do not materially

change Mr. Marek's conclusions or reasoning and, consequently, do not prejudice any of the parties to this proceeding.

2. Exhibit A to this motion reflects the proposed changes to Mr. Marek's Self-Affirmed Statement in redlined and clean formats. Empire requests that the Commission accept the revised statement for filing and consideration in these proceedings.

3. This motion comports with the Commission's authority to manage evidentiary materials in an adjudicatory hearing under 19.15.4.14(B) NMAC and with the general power to receive and admit relevant evidence under 19.15.4.17(A) NMAC.

4. Counsel for Empire has contacted the following parties to request their positions on this motion, and their positions are as follows: Goodnight Midstream Permian LLC – does not oppose; Rice Operating Company does not oppose; Pilot Water Solutions – does not oppose; New Mexico Oil Conservation Division – takes no position.

WHEREFORE, Empire New Mexico, LLC respectfully requests that the Commission grant this motion and accept the corrected Self-Affirmed Statement of Frank J. Marek for filing.

Respectfully submitted,

HARDY MCLEAN LLC

By: */s/ Dana S. Hardy*
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Attorneys for Empire New Mexico, LLC

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served upon the following counsel of record by electronic mail on April 4, 2025.

Michael H. Feldewert Adam G. Rankin Nathan R. Jurgensen Julia Broggi Paula M. Vance Holland & Hart LLP P.O. Box 2208 Santa Fe, New Mexico 87504-2208 Telephone: (505) 986-2678 mfeldewert@hollandhart.com agrankin@hollandhart.com nrjurgensen@hollandhart.com jbroggi@hollandhart.com pmvance@hollandhart.com ***Attorneys for Goodnight Midstream Permian, LLC***	Jesse K. Tremaine Christopher L. Moander New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505 Tel (505) 709-5687 Jessek.tremaine@emnrd.nm.gov chris.moander@emnrd.nm.gov ***Attorneys for New Mexico Oil Conservation Division***
Matthew M. Beck PEIFER, HANSON, MULLINS & BAKER, P.A. P.O. Box 25245 Albuquerque, NM 87125-5245 Tel: (505) 247-4800 *mbeck@peiferlaw.com* ***Attorneys for Rice Operating Company and Permian Line Service, LLC***	Miguel A. Suazo BEATTY & WOZNIAK, P.C. 500 Don Gaspar Ave. Santa Fe, NM 87505 Tel: (505) 946-2090 *msuazo@bwenergylaw.com* ***Attorneys for Pilot Water Solutions SWD, LLC***

/s/ Dana S. Hardy

Dana S. Hardy

EXHIBIT A

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SELF-AFFIRMED STATEMENT OF FRANK J. MAREK

My name is Frank J. Marek. I am a registered professional engineer in Texas, and currently Senior Engineering Advisor of Haas &~~Vice President of William M.~~ Cobb Petroleum Consultants~~& Associates~~, in Dallas Texas. I obtained a bachelor's degree in Petroleum Engineering in 1977 from Texas A&M University. I have held leadership positions in industry organizations including the Society of Petroleum Engineers (SPE) and the Society of Petroleum Evaluation Engineers (SPEE).

I have been involved with numerous carbonate waterfloods in the Permian Basin since the early 1980's. This includes projects in Lea and Eddy Counties, New Mexico. I also have significant experience with CO2 tertiary oil recovery projects in the area.

My first experience with the EMSU was with a study my firm prepared in August, 1987. This was a study of the waterflood potential of the EMSU on the current, at the time, 80-acre well spacing. I was also involved in an April, 1988 follow up study which investigated the potential for infill drilling to 40 acre spacing and waterflooding on 80 acre 5-spot patterns.

EXHIBIT A

I have been asked to express my opinions regarding saltwater disposal (SWD) operations within the San Andres interval at the Eunice Monument South Unit (EMSU), located in Lea County, New Mexico. The EMSU is a secondary oil recovery project (waterflood) formed in 1984. The unitized interval at EMSU is defined as follows:

> "The unitized interval shall include the formations from a lower limit defined by the base of the San Andres formation to an upper limit defined by the top of the Grayburg formation or at -100 foot subsea datum, whichever is higher."

This captures the entire Grayburg and San Andres interval.

Exhibits H-1 through H-3 present cross sections showing well logs for the Goodnight Ryno SWD #1 well, EMSU #679, EMSU #660, and the R. R. Bell #4 well. The NuTech processed log for the Ryno SWD #1 well shows oil saturation throughout the entire San Andres interval, top to base. ~~The deepest measurement on this log shows an~~Deepest oil saturation ~~of 40%~~in San Andres is seen at ~~a depth of -2142 feet~~-1851.5' SSD using the most recent NuTech log saturations. Current perforations are shown on all of the well logs. Clearly, water is being disposed of (injected) into the unitized San Andres interval. Although water injection into the Ryno SWD #1 well is structurally deeper than producing perforations in the Grayburg wells, water is being injected into a documented residual oil zone (ROZ). This is further supported by conventional core data in well EMSU-679. This core shows an oil saturation of 16.2% at a measured depth of 4357 feet, or -761 feet SSD. The ROZ clearly exists down to a datum of -761 feet SSD, and likely deeper, based on the Ryno SWD #1 Nutech log. Following is a summary of data points relating to the depth of the ROZ at the EMSU:

-~~728~~748 feet SSD > top injection perf in the Ryno SWD #1 well

-761 feet SSD > deepest core point on EMSU-~~669~~679, 16.2% oil

-~~2013~~1928 feet SSD > deepest injection perf in the Ryno SWD #1 well

-~~2142~~1851.5 feet SSD > Ryno SWD #1 deepest ~~penetration, 40%~~point in San Andres where oil ~~from Nutech~~saturation exists in revised NuTech log interpretation.

The Ryno SWD #1 well is clearly injecting into a well documented ROZ. The high water disposal rates will likely cause higher pressures in the ROZ, and higher potential for hydraulic fracturing and vertical communication, all of which will be detrimental to future ROZ operations. These same factors may also have a negative impact on current field operations in the traditional Grayburg/San Andres producing zones.

As a final note, in my 4847 years of experience, I have never seen an instance where a waterflood unit owner allowed an outside party to dispose of water into the unitized interval. I certainly believe that such water disposal should not be allowed at the EMSU.

EXHIBIT A

I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date next to my signature below.

Sincerely,

WILLIAM M. COBB & ASSOCIATES, INC.
Texas Registered Engineering Firm F-84

Frank J. Marek, P.E.
Senior Vice President

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-748 feet SSD > top injection perf in the Ryno SWD #1 well

-761 feet SSD > deepest core point on EMSU-679, 16.2% oil

-1928 feet SSD > deepest injection perf in the Ryno SWD #1 well

-1851.5 feet SSD > Ryno SWD #1 deepest point in San Andres where oil saturation exists in revised NuTech log interpretation.

The Ryno SWD #1 well is clearly injected into a well-documented ROZ. The high-water disposal rates will likely cause higher pressures in the ROZ, and higher potential for hydraulic fracturing and vertical communication, all of which will be detrimental to future ROZ operations. These same factors may also have a negative impact on current field operations in the traditional Grayburg/San Andres producing zones.

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I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date next to my signature below.

Respectfully submitted,

Haas & Cobb Petroleum Consultants

F-26129

Frank J. Marek, P.E.
Senior Engineering Advisor

Date: 4/2/2025

E X H I B I T S

H-1 through H-3

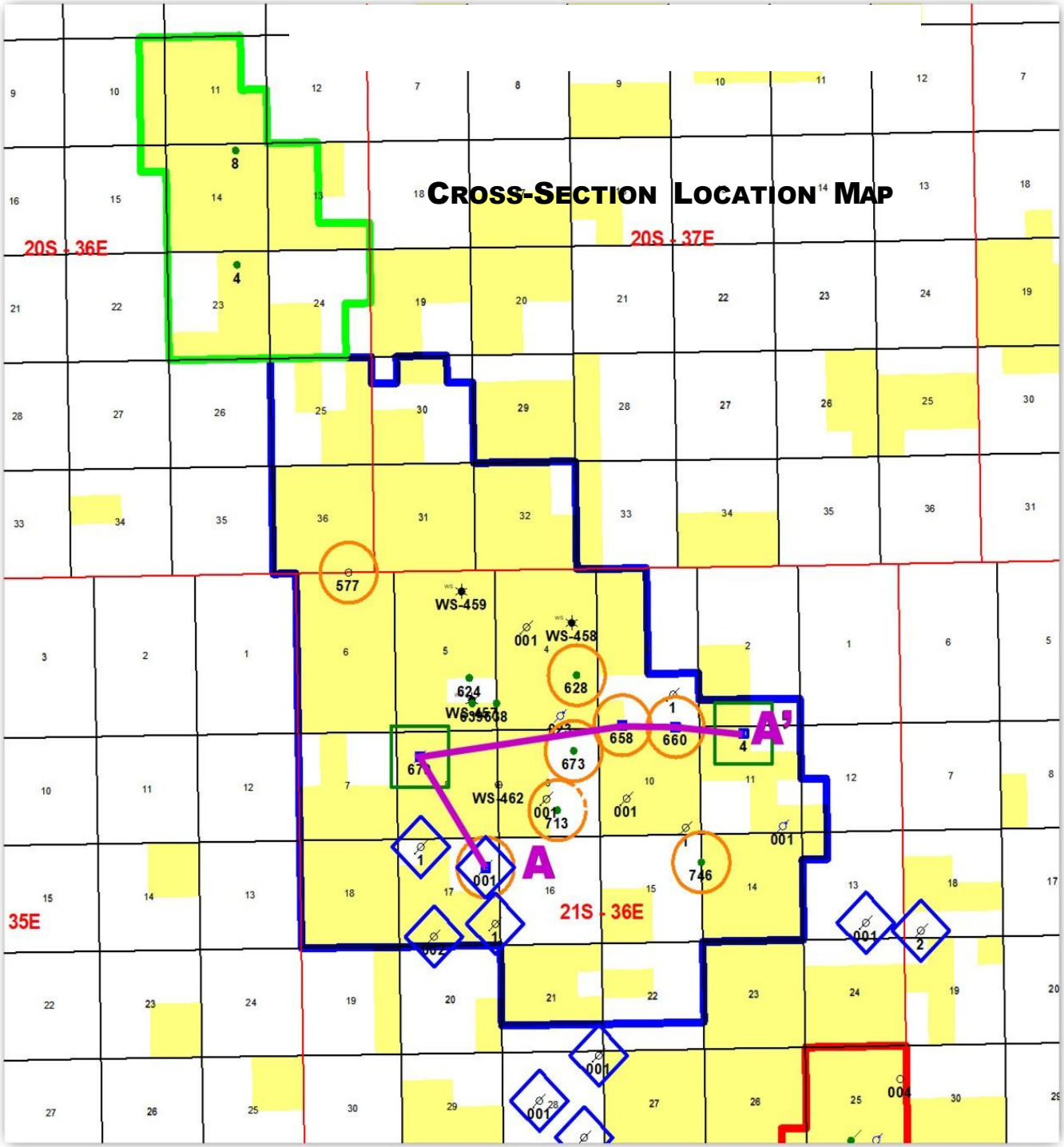
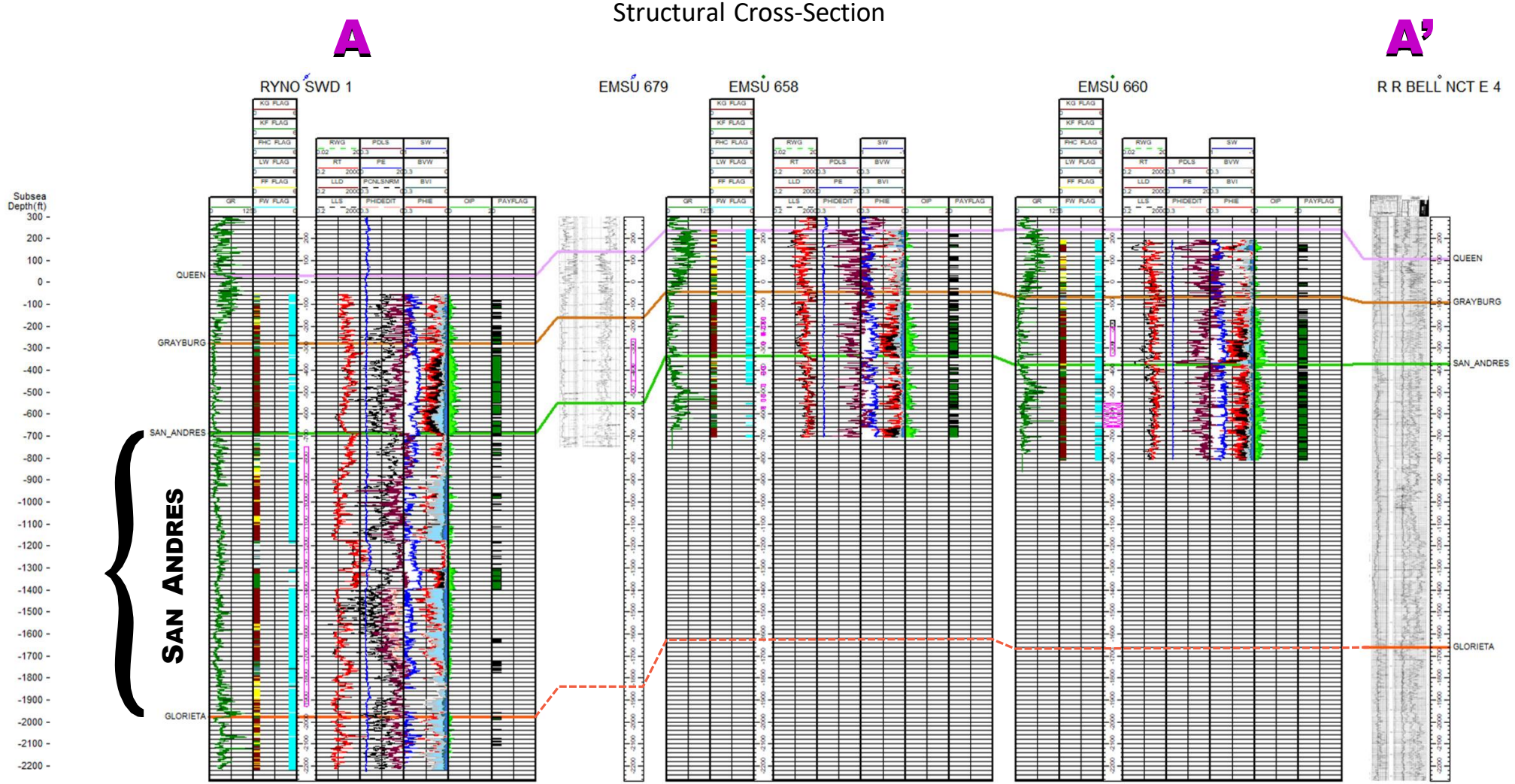

CROSS-SECTION LOCATION MAP
20S - 36E
20S - 37E
21S - 36E
35E
A
A'
577
WS-459
001
WS-458
628
624
WS-457
658
660
673
WS-462
713
746
004

Exhibit H-1

Structural Cross-Section



Log sections are based on NuTech's original analysis

Exhibit H-2

Stratigraphic Cross-Section

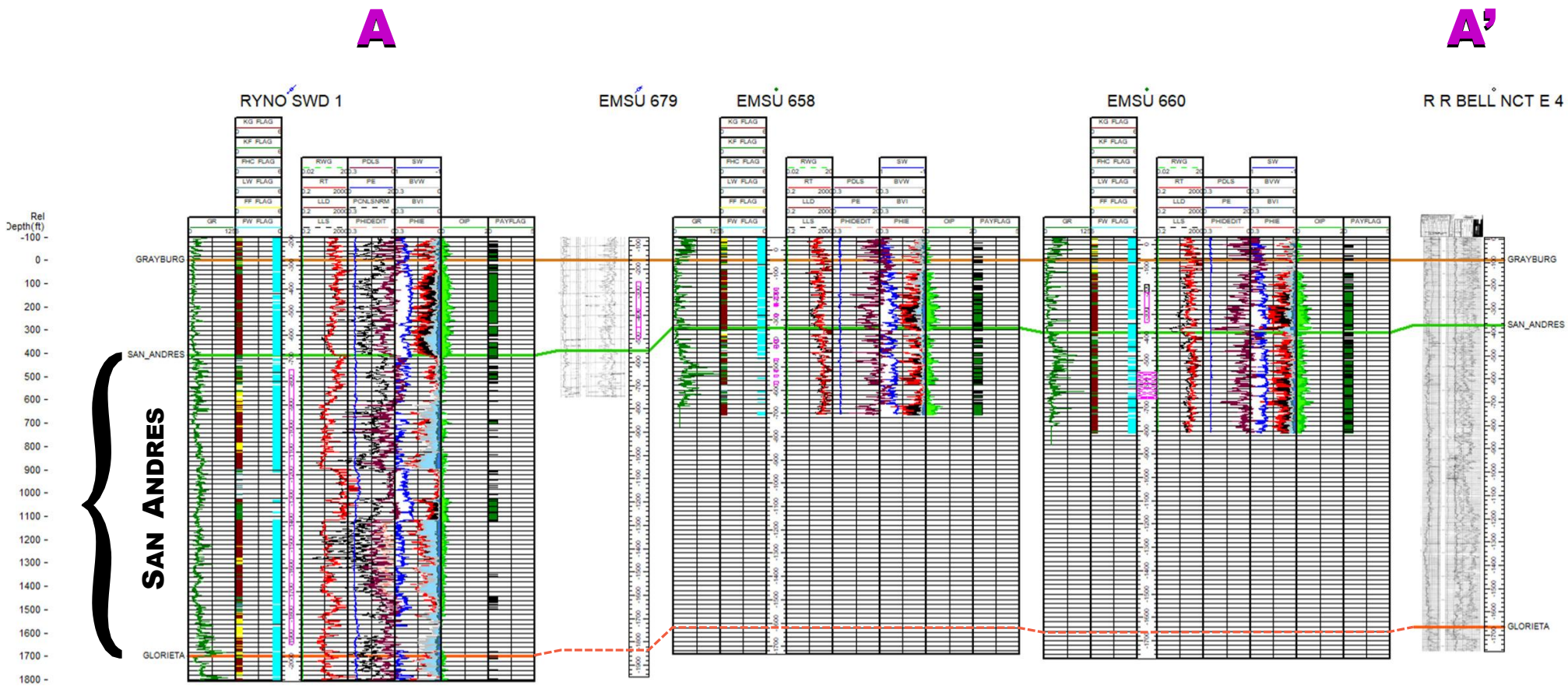


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Exhibit H-3