

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the Application of Shakespeare	)	Docket No. 25-CONS-3411-CUIC
Oil Company, Inc. for a permit to authorize	)	
injection into the Whitehorse and Cedar Hills	)	CONSERVATION DIVISION
formations at the Wells #2-27 well in Section 27,	)	
Township 16 South, Range 35 West, Cowley	)	License No. 7311
County, Kansas	)	
_____	)	

PREFILED TESTIMONY

OF

JEFF SCARBROUGH

ON BEHALF OF APPLICANT,

SHAKESPEARE OIL COMPANY, INC.

1 Q. Please state your name and business address.

2 A. My name is Jeff Scarbrough, and my business address is 125 N. Market St., Suite 1435,
3 Wichita, KS 67202. On October 3, 2025, my business address will be moved to 333 S.
4 Greenwood Ave., Wichita, KS 67211.

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by Shakespeare Oil Company, Inc. ("Shakespeare") as Operations
7 Manager.

8 Q. Please summarize your educational background.

9 A. I received a BS in Petroleum Engineering from the University of Oklahoma.

10 Q. Please summarize your professional experience.

11 A. I have spent thirty-four (34) years working as a Petroleum Engineer/Operations Manager
12 in the oil and gas industry for various companies, including production engineering,
13 reservoir engineering, drilling, completion and workover of wells, acquisitions and
14 evaluations. I have worked for Shakespeare since September 1, 2004.

15 Q. Have you previously testified before the Kansas Corporation Commission or any other
16 state's oil and gas regulatory commission or board?

17 A. No, I have not.

18 Q. Have you prepared any exhibits to present in support of your testimony?

19 A. Yes, I have prepared seven (7) exhibits. Scarbrough Exhibit No.1 is a summary of the
20 testing of water samples from the Day Creek and/or Whitehorse formations in the Wells
21 #2-27. Scarbrough Exhibit No. 2 is the laboratory analyses by ChampionX of water
22 samples from the Day Creek and/or Whitehorse formations in the Wells #2-27.
23 Scarbrough Exhibit No. 3 is a map showing the location of the Wells #2-27 and the twenty-
24 five (25) other wells identified on Scarbrough Exhibit No. 4. Scarbrough Exhibit No. 4 is

1 a list of twenty-five (25) active disposal wells injecting into the Day Creek and Whitehorse
2 formations in counties adjacent to Wichita County in 2024. Scarbrough Exhibit No. 5 is
3 table showing the permitted maximum pressure, permitted maximum rate & permitted
4 injection depth of some of the Day Creek and Whitehorse disposal wells in counties
5 adjacent to Wichita County. Scarbrough Exhibit No. 6 is a correlation of the logs showing
6 uppermost injection zones in the Wells #2-27 and three of the wells on Scarborough
7 Exhibit 5. Scarbrough Exhibit No. 7 is a copy of a portion of drilling report from the
8 KGS Library.

9 Q. Are you familiar with the definition of “usable water.”

10 A. Yes, that term is defined by statute and by regulation. K.S.A. § 55-150(i) defines it as
11 “water containing not more than 10,000 milligrams per liter, total dissolved solids.”
12 K.A.R. § 82-3-101(78) similarly defines it as “water containing not more than 10,000
13 milligrams of total dissolved solids per liter.” That regulation also states that “[t]his upper
14 limit is approximately equivalent to 10,000 parts of salt per million or 5,000 parts of
15 chlorides per million.”

16 Q. Has Shakespeare performed any tests on the water from the Wells #2-27 well?

17 A. Yes, we have. Shakespeare used ChampionX Corporation to test samples of water taken
18 from that well. Scarbrough Exhibit No.1 is a table summarizing those tests and the results.
19 For each test, that table shows the date when each water sample was taken from that well,
20 the perforations from which the water sample was obtained, the barrels of fluid swabbed
21 each day prior to the sample being collected, the results of the field chloride tests, and the
22 results of the laboratory analyses of the sample. All of those water sample tests were
23 performed by ChampionX. Copies of the three lab tests performed by ChampionX on
24 those water samples are contained in Scarbrough Exhibit No. 2.

1 Q. What were the results of those tests?

2 A. First, all of the samples tested were taken from the uppermost two sets of perforations in
3 the Wells #2-27. Second, all of the chlorides tests, both those performed in the field and
4 those performed in the lab, are well in excess of the upper limit of 5,000 PPM set forth in
5 K.A.R. § 82-3-101(78). Third, all of the laboratory tests showed total dissolved solids of
6 nearly two times the upper limit of 10,000 milligrams per liter set forth in K.S.A. § 55-
7 150(i) and KAR § 82-3-101(78). Those test results clearly show that the water in the
8 proposed injection zones is not “usable water” as defined by the applicable statute and
9 regulation.

10 Q. Has the KCC granted permits for other injection wells for disposal of produced water into
11 the Day Creek and/or Whitehorse formations in the vicinity of the Wells #2-27?

12 A. Yes, they have. There are a total of 25 such disposal wells in the counties adjacent to
13 Wichita County. Scarbrough Exhibit No.3 is a map showing the locations of those
14 existing permitted disposal wells (shown as red dots) and the location of the Wells #2-27
15 (shown as the green dot).

16 Q. Are all of those wells currently injecting water into the Day Creek and/or White Horse
17 formations?

18 A. Yes, my understanding is that those wells are injecting into the Day Creek and/or
19 Whitehorse formations. Scarbrough Exhibit No. 4 is a list of all twenty-five (25) of those
20 disposal wells. As shown in that exhibit, in 2024 those wells injected a total of 535,480
21 barrels of saltwater into the Day Creek and/or Whitehorse formations, although a few of
22 those wells also have perforation in the Cedar Hills formation.

23 Q. Are some of those other wells permitted to inject water into those zones under pressure?

24 A. Yes, as shown in Scarbrough Exhibit No. 5 at least seven (7) of those wells are injecting

1 at pressures ranging from 200 psig to 500 psig.

2 Q. Is Shakespeare proposing to inject water into the Wells #2-27 under pressure?

3 A. No, Shakespeare has not requested to inject under any pressure in its application for the
4 Wells #2-27.

5 Q. How do the depths of the injection zones in some of those approved and operating disposal
6 wells compare to the injection zones proposed by Shakespeare for the Wells #2-27?

7 A. Scarbrough Exhibit No. 6 shows a comparison of the depths of the uppermost perforations
8 in the Wells #2-27 with the depth of the uppermost perforations in three (3) of those other
9 existing disposal wells. The uppermost perforation in the Wells #2-27 is at 1452 feet.
10 That compares to 846 feet in the Wiatt #1 well, which is stratigraphically 104 feet above
11 the top of the perforations in the Wells #2-27. That compares to 1018 feet in the Tate #1
12 well which is stratigraphically 24 feet above the top of the perforations in the Wells #2-
13 27. And that compares to 1185 feet in the Maune #3 well which is stratigraphically 73
14 feet above the top of the perforations in the Wells #2-27. Also, I note that the Maune #3
15 well is injecting at that depth with a permitted pressure of 500 psig.

16 Q. Are you aware of any instance in which the KCC Staff has recommended that an operator
17 complete a disposal well in the Whitehorse formation in the vicinity of the Wells #2-27?

18 A. Yes, I am. Scarbrough Exhibit No.7 is an excerpt from the drilling report from the KGS
19 library for the McDaniels #2-12 well that was drilled in 2016 by Concorde Resources in
20 Section 12, Township 15 South, Range 34 West, Logan County, Kansas. The entry for
21 Tuesday, January 26, 2016, from that report states: "Went into KCC office at Hays and
22 met with Case Morris. Agreed to perforate 1550' – 1590' and 1430'-1460'." The upper
23 perforations in that well are in the Whitehorse formation. Thus, as recently as 2016, the
24 Commission Staff was recommending to an operator that the Whitehorse was a suitable

zone for injection.

Q. Does this conclude your direct testimony?

A. Yes, but I reserve the right to supplement my testimony.

**THE STATE CORPORATION COMMISSION
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formations at the Wells #2-27 well in Section 27,	)	
Township 16 South, Range 35 West, Cowley	)	License No. 7311
County, Kansas	)	
_____	)	

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 26th day of September, 2025, I caused a true and correct copy of the foregoing Pre-Filed Testimony of Jeff Scarbrough to be electronically filed with the Kansas Corporation Commission, and that I caused a copy to be served via electronic mail to the following parties:

Jonathan R. Myers, Asst. General Counsel
Kansas Corporation Commission
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Wichita, KS 67202
Jon.myers@ks.gov

Kelcey Marsh, Litigation Counsel
Kansas Corporation Commission
266 N. Main, Suite 220
Wichita, KS 67202
Kelcey.marsh@ks.gov

/s/ David E. Bengtson

David E. Bengtson

WELLS #2-27 SWD
ANALYTICAL RESULTS

<u>DATE</u>	<u>ZONES TESTED</u>	<u>BBLs</u> <u>SWABBED</u> <u>PER DAY</u>	<u>FIELD</u> <u>CHLORIDES</u> <u>(PPM)</u>	<u>LAB</u> <u>CHLORIDES</u> <u>(PPM)</u>	<u>LAB TDS</u> <u>(PPM)</u>
4/9/2025	1520'-1582 & 1452'-1476'	24	9,500		
4/10/2025	1520'-1582 & 1452'-1476'	210	12,500		
4/10/2025	1520'-1582 & 1452'-1476'	240	13,228	9250	19,500
4/10/2025	1520'-1582 & 1452'-1476'	270	12,500		
4/10/2025	1520'-1582 & 1452'-1476'	300	12,500	9290	19,300
4/11/2025	1452'-1476'	120	11,600		
4/14/2025	1452'-1476'	120	11,600		
4/14/2025	1452'-1476'	210	12,136		
4/14/2025	1452'-1476'	300	12,136	9080	18,700

Complete Water Analysis

Customer: **SHAKESPEARE OIL COMPANY**

Formation Zone:

Geographic Region: **Kansas**

Geographic Location: **Wichita County**

System Description: **Production System**

Equipment Description: **Wells 2-27**

Sample Point: **Water Disposal**

Customer ID:

Latitude/Longitude: **0.00, 0.00**

Account Rep: **Michael.Walters@championx.com**

Collect Date: **04/10/2025**

Submit Date: **04/23/2025**

Report Date: **04/25/2025**

Sample ID: **BB02896**

Location Code: **530837**

Field Analysis			Sample Analysis		
Analysis	Result	Analysis Method	Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	96 mg/L	Titration	Specific Gravity	1.014	Densitometer
Dissolved CO2	180 mg/L	Titration	Ionic Strength	0.370 mol/L	Calculation
Dissolved H2S	10 mg/L	Titration	Total Dissolved Solids	19500 mg/L	Calculation
Pressure Surface	0 psi				
Temperature	78 ° F				
pH of Water	7.2	Meter			

Cations - Analyzed By ICP					
Iron	3.35 mg/L	Potassium	54.0 mg/L	Cobalt	<0.500 mg/L
Manganese	0.256 mg/L	Boron	5.54 mg/L	Chromium	<0.100 mg/L
Barium	<0.100 mg/L	Lithium	1.02 mg/L	Silicon	5.58 mg/L
Strontium	16.4 mg/L	Copper	<0.200 mg/L	Aluminum	<0.400 mg/L
Calcium	493 mg/L	Nickel	<0.200 mg/L	Molybdenum	<0.200 mg/L
Magnesium	164 mg/L	Zinc	<0.400 mg/L	Phosphorus	<0.500 mg/L
Sodium	5550 mg/L	Lead	<0.500 mg/L	Measured Sodium	5550 mg/L

Anions - Analyzed By IC*			
Chloride	9250 mg/L	Bromide	Not Detected mg/L
		Sulfate	3900 mg/L

Scale Type					
<u>Anhydrite CaSO4 PTB</u>		☐	N/A	☐	
<u>Barite BaSO4 PTB</u>		☐	N/A	☐	
<u>Calcite CaCO3 PTB</u>		☐	N/A	☐	
<u>Celestite SrSO4 PTB</u>		☐	N/A	☐	
<u>Gypsum CaSO4 PTB</u>		☐	N/A	☐	
<u>Hemihydrate CaSO4 PTB</u>		☐	N/A	☐	
<u>Anhydrite CaSO4 SI</u>		☐	N/A	☐	
<u>Barite BaSO4 SI</u>		☐	N/A	☐	
<u>Calcite CaCO3 SI</u>		☐	N/A	☐	
<u>Celestite SrSO4 SI</u>		☐	N/A	☐	
<u>Gypsum CaSO4 SI</u>		☐	N/A	☐	
<u>Hemihydrate CaSO4 SI</u>		☐	N/A	☐	

Comments
Swab 240 bbls out

Scaling predictions calculated using Oddo-Tomson model

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Complete Water Analysis

Customer: **SHAKESPEARE OIL COMPANY**

Formation Zone:

Geographic Region: **Kansas**

Geographic Location: **Wichita County**

System Description: **Production System**

Equipment Description: **Wells 2-27**

Sample Point: **Water Disposal**

Customer ID:

Latitude/Longitude: **0.00, 0.00**

Account Rep: **Michael.Walters@championx.com**

Collect Date: **04/10/2025**

Submit Date: **04/23/2025**

Report Date: **04/25/2025**

Sample ID: **BB02897**

Location Code: **530837**

Field Analysis			Sample Analysis		
Analysis	Result	Analysis Method	Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	96 mg/L	Titration	Specific Gravity	1.014	Densitometer
Dissolved CO2	180 mg/L	Titration	Ionic Strength	0.370 mol/L	Calculation
Dissolved H2S	10 mg/L	Titration	Total Dissolved Solids	19300 mg/L	Calculation
Pressure Surface	0 psi				
Temperature	78 ° F				
pH of Water	7.2	Meter			

Cations - Analyzed By ICP					
Iron	11.0 mg/L	Potassium	50.8 mg/L	Cobalt	<0.500 mg/L
Manganese	0.563 mg/L	Boron	5.14 mg/L	Chromium	<0.100 mg/L
Barium	<0.100 mg/L	Lithium	<1.000 mg/L	Silicon	14.5 mg/L
Strontium	15.4 mg/L	Copper	<0.200 mg/L	Aluminum	2.93 mg/L
Calcium	492 mg/L	Nickel	<0.200 mg/L	Molybdenum	<0.200 mg/L
Magnesium	169 mg/L	Zinc	<0.400 mg/L	Phosphorus	<0.500 mg/L
Sodium	5100 mg/L	Lead	<0.500 mg/L	Measured Sodium	5100 mg/L

Anions - Analyzed By IC*			
Chloride	9290 mg/L	Bromide	Not Detected mg/L
		Sulfate	4070 mg/L

Scale Type			
Anhydrite CaSO4 PTB	☐	N/A	☐
Barite BaSO4 PTB	☐	N/A	☐
Calcite CaCO3 PTB	☐	N/A	☐
Celestite SrSO4 PTB	☐	N/A	☐
Gypsum CaSO4 PTB	☐	N/A	☐
Hemihydrate CaSO4 PTB	☐	N/A	☐
Anhydrite CaSO4 SI	☐	N/A	☐
Barite BaSO4 SI	☐	N/A	☐
Calcite CaCO3 SI	☐	N/A	☐
Celestite SrSO4 SI	☐	N/A	☐
Gypsum CaSO4 SI	☐	N/A	☐
Hemihydrate CaSO4 SI	☐	N/A	☐

Comments
Swab 300 bbls out

Scaling predictions calculated using Oddo-Tomson model

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Complete Water Analysis

Customer: **SHAKESPEARE OIL COMPANY**

Formation Zone:

Geographic Region: **Kansas**

Geographic Location: **Wichita County**

System Description: **Production System**

Equipment Description: **Wells 2-27**

Sample Point: **Water Disposal**

Customer ID:

Latitude/Longitude: **0.00, 0.00**

Account Rep: **Michael.Walters@championx.com**

Collect Date: **04/14/2025**

Submit Date: **04/23/2025**

Report Date: **04/25/2025**

Sample ID: **BB02898**

Location Code: **530837**

Field Analysis			Sample Analysis		
Analysis	Result	Analysis Method	Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	88 mg/L	Titration	Specific Gravity	1.014	Densitometer
Dissolved CO2	180 mg/L	Titration	Ionic Strength	0.360 mol/L	Calculation
Dissolved H2S	15 mg/L	Titration	Total Dissolved Solids	18700 mg/L	Calculation
Pressure Surface	0 psi				
Temperature	78 ° F				
pH of Water	7.1	Meter			

Cations - Analyzed By ICP					
Iron	12.1 mg/L	Potassium	49.2 mg/L	Cobalt	<0.500 mg/L
Manganese	0.537 mg/L	Boron	4.67 mg/L	Chromium	<0.100 mg/L
Barium	0.118 mg/L	Lithium	<1.000 mg/L	Silicon	10.7 mg/L
Strontium	17.1 mg/L	Copper	0.205 mg/L	Aluminum	1.31 mg/L
Calcium	488 mg/L	Nickel	<0.200 mg/L	Molybdenum	<0.200 mg/L
Magnesium	169 mg/L	Zinc	<0.400 mg/L	Phosphorus	<0.500 mg/L
Sodium	5110 mg/L	Lead	<0.500 mg/L	Measured Sodium	5110 mg/L

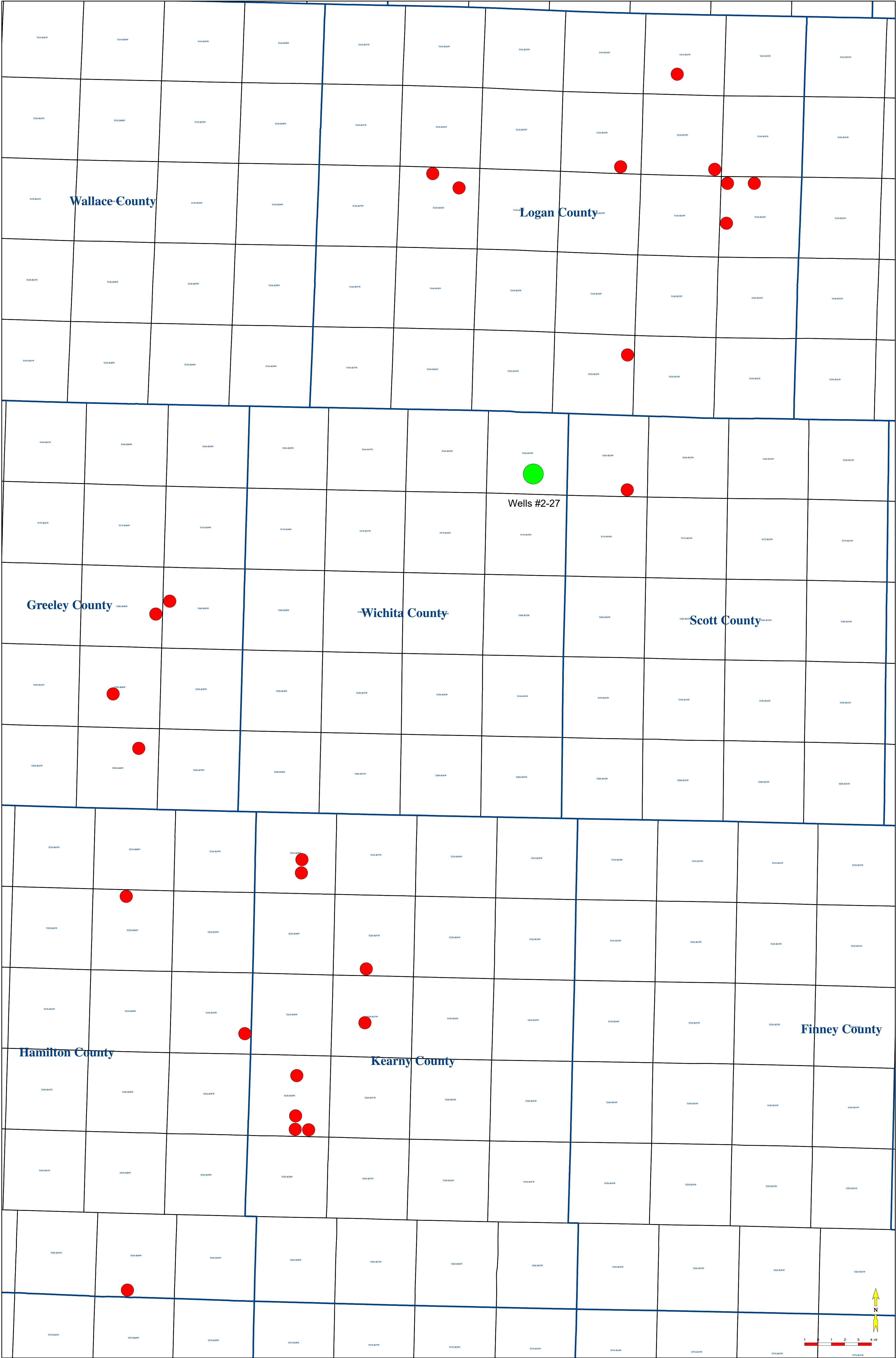
Anions - Analyzed By IC*			
Chloride	9080 mg/L	Bromide	Not Detected mg/L
		Sulfate	3680 mg/L

Scale Type					
<u>Anhydrite CaSO4 PTB</u>		☐	N/A	☐	
<u>Barite BaSO4 PTB</u>		☐	N/A	☐	
<u>Calcite CaCO3 PTB</u>		☐	N/A	☐	
<u>Celestite SrSO4 PTB</u>		☐	N/A	☐	
<u>Gypsum CaSO4 PTB</u>		☐	N/A	☐	
<u>Hemihydrate CaSO4 PTB</u>		☐	N/A	☐	
<u>Anhydrite CaSO4 SI</u>		☐	N/A	☐	
<u>Barite BaSO4 SI</u>		☐	N/A	☐	
<u>Calcite CaCO3 SI</u>		☐	N/A	☐	
<u>Celestite SrSO4 SI</u>		☐	N/A	☐	
<u>Gypsum CaSO4 SI</u>		☐	N/A	☐	
<u>Hemihydrate CaSO4 SI</u>		☐	N/A	☐	

Comments
Swab Whitehorse

Scaling predictions calculated using Oddo-Tomson model

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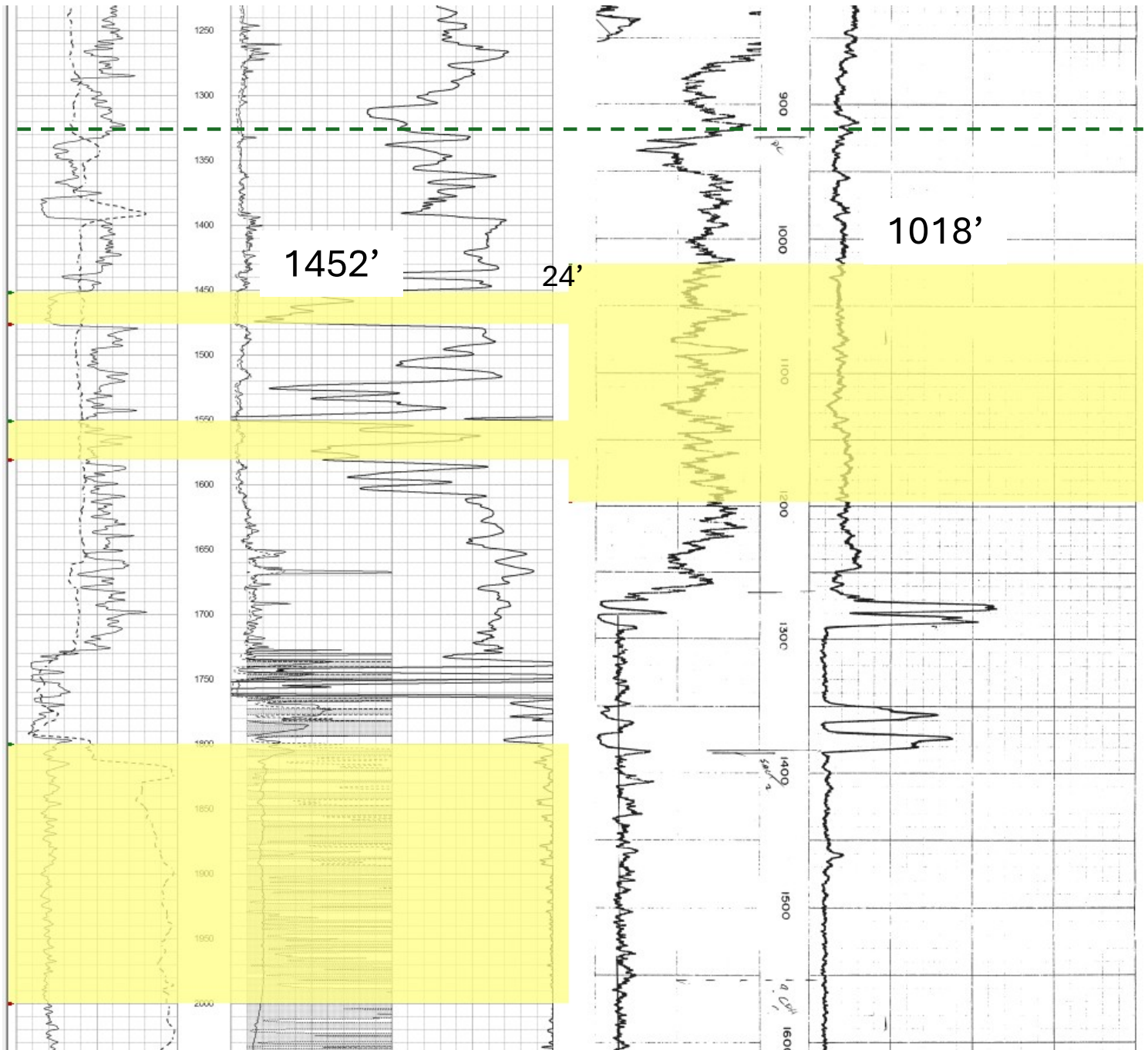
#	KGS_ID	API	WNSVN DIANGIGE CTIC			SPOT	OPERATOR	LEASE	YEAR	AL_FLUID_Y	COUNTY	CC DOCKE	INJECTION_ZONE
1	1033973062	15-071-20272-0001	18 S	39 W	18	NE NW NE	Horseshoe Operating Co.	Brunswick 18	2024	0	Greeley	D28589.0	WHITEHORSE, GLORIETTA
2	1044573531	15-071-20252-0001	19 S	40 W	21	SE SE SE	Cycle Oil & Gas Ltd	COAKES 1	2024	0	Greeley	D20767.0	WHITEHORSE
3	1027629633	15-071-20624-0001	20 S	40 W	11	NW NW NW	Midwestern Exploration Co.	HART 1-11	2024	12540	Greeley	D27088.0	WHITEHORSE
4	1034869994	15-071-20757-0001	18 S	40 W	24	SE SE	Cycle Oil & Gas Ltd	HOFFMAN 'H' 2	2024	0	Greeley	D28667.0	WHITEHORSE
5	1006067600	15-075-20019	26 S	40 W	33	SE NW SE	Braden Drilling, Inc.	Campbell 1	2024	12034	Hamilton	D26247.0	Whitehorse, Cedar Hills
6	1038394402	15-075-20841	22 S	40 W	4	E2 SE	W. R. Williams, Inc.	Prickett 3	2024	6521	Hamilton	D30251.0	WHITEHORSE
7	1039400493	15-075-19001	23 S	39 W	25	NW SE SE	Scout Energy Management LLC	Thomeczek 1-SWD	2024	12696	Hamilton	D24476.0	WHITEHORSE
8	1044595623	15-093-20624-0001	21 S	38 W	22	SE NE NE	Herman L. Loeb, LLC	MAUNE SWD 3	2024	1760	Kearny	D19597.0	WHITEHORSE
9	1041105149	15-093-00629-0001	22 S	37 W	33	SE NW SE	Scout Energy Management LLC	Sanford 1	2024	0	Kearny	D20345.0	WHITEHORSE
10	1038339105	15-093-30065-0001	24 S	38 W	35	SE	White Exploration, Inc.	SMALLEY 1	2024	0	Kearny	D20573.0	Day Creek
11	1025759700	15-093-00020-0001	24 S	38 W	34	SW SW NW	White Exploration, Inc.	SMALLEY 3-34	2024	19538	Kearny	D18215.0	DAY CREEK DOL, WHITEHORSE
12	1006078525	15-093-20613	21 S	38 W	27	SE NE SW	OSBORN W B JR	SPIROS 'A' 1	2024	65470	Kearny	D19720.0	WHITEHORSE
13	1038456773	15-093-20267-0001	23 S	37 W	21	SE SW	Osborn Heirs Company, LTD	Tate 1	2024	15022	Kearny	D19505.0	WHITEHORSE
14	1039258843	15-093-00377-0001	24 S	38 W	27	NW NW SE	Scout Energy Management LLC	WIATT 1	2024	3151	Kearny	D16021.0	DAY CREEK DOL
15	1037336008	15-093-00034-0001	24 S	38 W	10	NW NW SE	Scout Energy Management LLC	WIATT-ENSLOW 1	2024	1469	Kearny	D27660.0	WHITEHORSE
16	1037345212	15-109-20794	12 S	34 W	35	NE SW SW	Russell Oil, Inc.	Baker 'A' 1	2024	12810	Logan	D30084.0	WHITEHORSE
17	1045387713	15-109-20882-0001	12 S	33 W	36	W2 E2 NE NW	Murfin Drilling Co., Inc.	GMS 1-36	2024	55187	Logan	D32023.0	Whitehorse
18	1031991537	15-109-20142-0001	11 S	33 W	28	SE NW SE	Abercrombie Energy, LLC	HUBERT 7	2024	76184	Logan	E27182.1	Whitehorse, Cedar Hills
19	1052843508	15-109-21388-0001	13 S	32 W	19	NE NW NE SW	HG Oil Holdings, LLC	LDS 1	2024	23725	Logan	D34248.0	WHITEHORSE
20	1045102626	15-109-21440	15 S	34 W	12	NW SW SW NE	Concorde Resources Corporation	McDaniel 2-12	2024	1825	Logan		WHITEHORSE
21	1045370496	15-109-21369-0001	13 S	32 W	4	NE SW SW NW	Murfin Drilling Co., Inc.	Nancy 2-4	2024	65705	Logan	D33039.0	Whitehorse
22	1045653219	15-109-00006-0001	13 S	36 W	4	SE NE NW NE	Fossil Resources LLC	Nelson SWD	2024	73545	Logan		WHITEHORSE, CEDAR HILLS
23	1044045234	15-109-21066	13 S	32 W	6	SE NW SE SE	Murfin Drilling Co., Inc.	Ottley 1-6	2024	52433	Logan	D31143.0	Whitehorse
24	1046493642	15-109-21519	13 S	36 W	11	NE SE SE SW	Fossil Resources LLC	PLUMMER 2	2024	23400	Logan		WHITEHORSE, CEDAR HILLS
25	1044890774	15-171-21091	16 S	34 W	35	NW NW SE SE	Shakespeare Oil Co., Inc.	Cog 2-35	2024	465	Scott		WHITEHORSE
535,480													

Adjacent Counties Whitehorse & Day Creek Wells

<u>County</u>	<u>Well</u>	<u>Max Pressure</u>	<u>Max Rate</u>	<u>Depth</u>	<u>Formation</u>	<u>Date</u>
Hamilton	Thomeczek #1 SWD	300	2200	1086' - 1174'	Whitehorse Sd	1977
Hamilton	Campbell #1	0	500	845' - 1072'	Whitehorse Sd	1979
Kearney	Smalley #3-34	250	200	780' - 820' 858' - 990'	Day Creek Whitehorse Sd	1976
Kearney	Sanford #1	325	2500	1070' - 1226'	Whitehorse Sd	1981
Kearney	Tate #1	300	800	1018' - 1194'	Whitehorse Sd	1979
Kearney	Spiros A #1	200	750	1120' - 1348'	Whitehorse Sd	1980
Kearney	Maune #3	500	100	1185' - 1286'	Whitehorse Sd	???
Kearney	Smalley #1	250	200	916' - 1043'	Day Creek Dolo	1982
Kearney	Wiatt #1	0	500	846' - 860'	Day Creek Dolo	1999

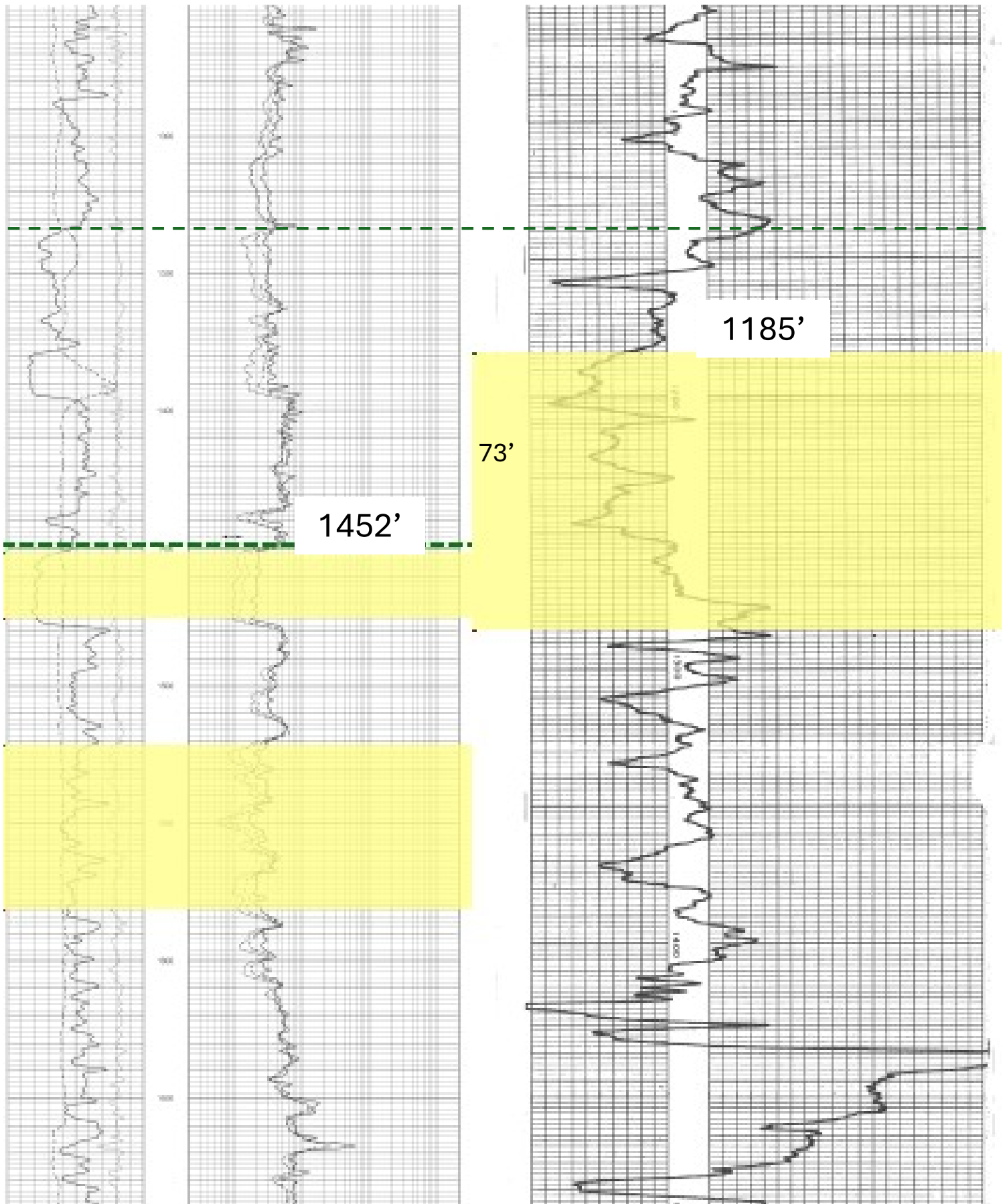
Wells 2-27

Tate #1



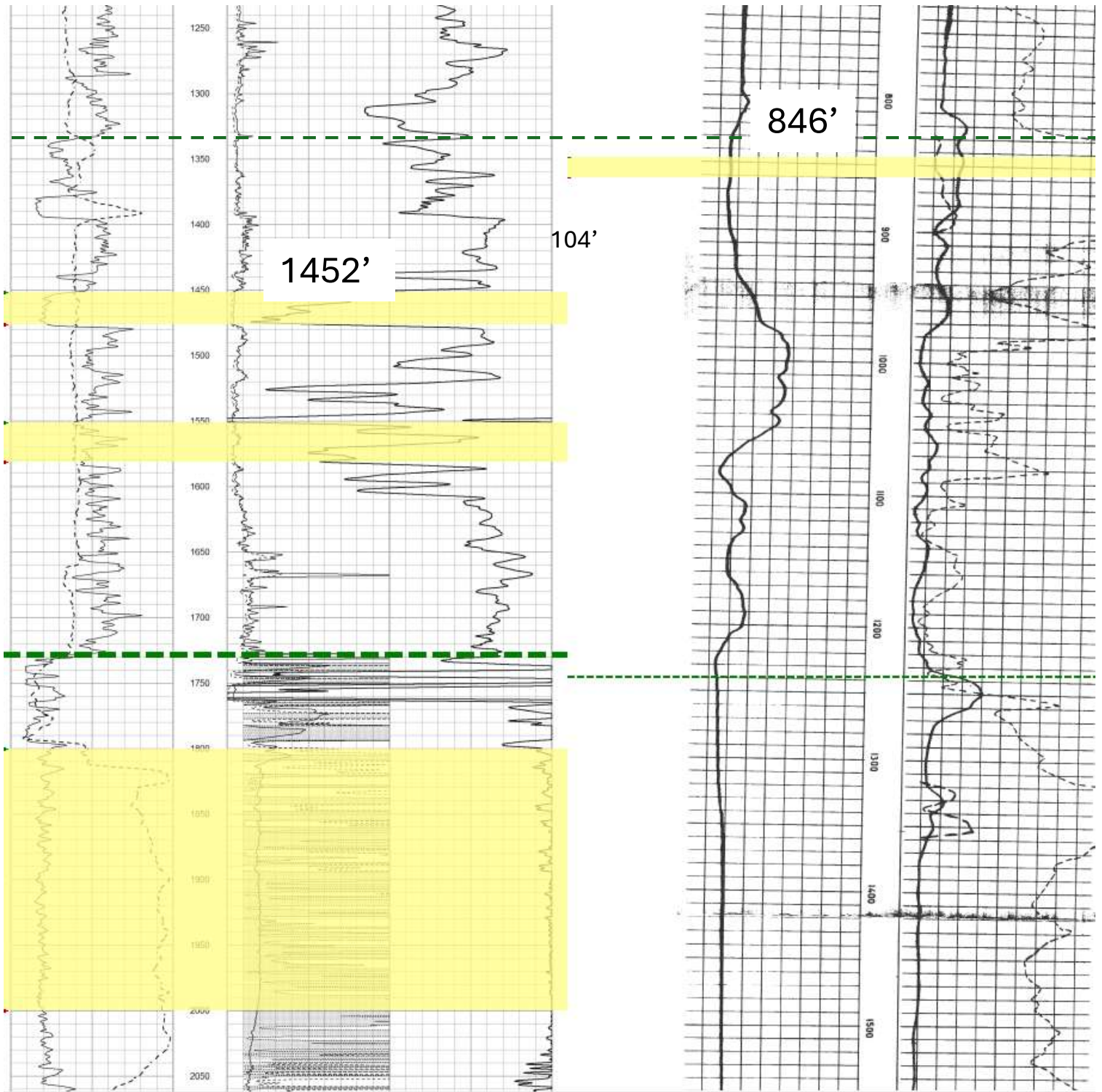
Wells #2-27

Maune #3



Wells #2-27

Wiatt #1



Concorde Resources Corp.
McDaniels #2-12
Friday January 22, 2016

Move in and rig up Alliance Well Service.

Rig up Perf-tech. Run Dual Receiver Cement Bond Log.

Perforate 1700'-1750' 2 spf with strip jets.

Rig Perf-tech down. Rig up casing swab.

Swabbed well down to 1700'. Last pull getting a lot of mud and cuttings.

Let set 30 minutes- dry.

Rig up Perf-tech. Perforate 1800'-1850' 2 spf. with strip jets.

Rig down Perf-tech. Rig up casing swab.

Swabbed well down to 1700'. Kicking in about 50' per pull. Started to get a lot of mud and cuttings.

Swabbed dry.

SHUT DOWN FOR THE DAY.

Concorde Resources Corp.
McDaniels #2-12
Saturday January 23, 2016

Alliance Well Service on location.

Rig up casing swab had 25' of mud.

Pfeifer's loaded tubing with water.

Rig up Perf-tech. Perforate 1700'-1720' 4 Spf. 39 gram. 4" expendable gun.

Rig Perf-tech down.

Rig up casing swab.

Swab well down. Kicking in 100' of fluid a pull. Starting to get some sand.

With last pull off of bottom started to get a lot of drilling mud and cuttings.

Let set 15 minutes- dry.

SHUT DOWN FOR THE DAY.

McDaniels #2-12
Monday January 25, 2016

Alliance Well Service on location.

Had 10' of mud in the hole.

Hauled 60 joints of tubing from McDaniels #1-12 to salt water disposal. Trip in the hole with notched collar and tubing to 1860'.

Rig up Pro-Stim. Loaded hole with salt water. Start acid in pumped 12 barrels of acid with 2 barrels of flush.

Shut backside in and started to pressure up on zone. With one barrel of acid out worked pressure to 900#. Started to feed 1 ½ Bpm at 880#. ISIP- 880#, 5 minutes- 800#, 30 minutes- 800#. Released to truck. Treated with 500 gallon of 15% MCA.

Trip out of hole with tubing.

Rig up casing swab. Swab well down. Last pull off of bottom getting up a lot of drilling mud and cuttings.

SHUT DOWN FOR THE DAY.

Concorde Resources Corp.
McDaniels #2-12
Tuesday January 26, 2016

Went into KCC office at Hays and met with Case Morris.

Agreed to Perforate 1550'-1590' and 1430'-1460'.

Alliance Well Service on location.

Pfeifer's loaded casing.

Rig up Perf-tech. Perforate 1550'-1590' 2 Spf. jet strip and 1430'-1460' 4 Spf. jet strip.

Rig Perf-tech down.

Rig up casing swab. Swab well down.

Started kicking in 80' of fluid each pull and getting up sand.

Swabbed steady for 4 hours.

SHUT DOWN FOR THE DAY.