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State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

Online Phone Directory Visit:
<https://www.emnrd.nm.gov/ocd/contact-us/>

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well ☐ Gas Well ☐ Other ☒ SWD		WELL API NO. 30-045-27004
2. Name of Operator Hilcorp Energy Company		5. Indicate Type of Lease STATE ☐ FEE ☐
3. Address of Operator 382 Road 3100, Aztec, NM 87410		6. State Oil & Gas Lease No. FEDERAL - NMNM2996
4. Well Location Unit Letter <u>L</u> : <u>1555'</u> feet from the <u>South</u> line and <u>1210'</u> feet from the <u>West</u> line Section <u>25</u> Township <u>32N</u> Range <u>7W</u> NMPM County <u>San Juan</u>		7. Lease Name or Unit Agreement Name Middle Mesa SWD
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6642'		8. Well Number <u>1</u>
9. OGRID Number 372171		10. Pool name or Wildcat SWD; Morrison Bluff Entrada

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐ TEMPORARILY ABANDON ☐ CHANGE PLANS ☐ PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐ DOWNHOLE COMMINGLE ☐ CLOSED-LOOP SYSTEM ☐ OTHER: ☒ Add Water Source	SUBSEQUENT REPORT OF: REMEDIAL WORK ☐ ALTERING CASING ☐ COMMENCE DRILLING OPNS. ☐ P AND A ☐ CASING/CEMENT JOB ☐ OTHER: ☐
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13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Hilcorp Energy Company is requesting a Change in Source for the Middle Mesa SWD 1 (30-045-27004) to include flowback and produced water injection from the Mancos formation from the following wells:

Allison 601 Pad:

- Allison 601 Federal Com 601H; 30-045-38443 / • Allison 601 Federal Com 602H; 30-045-38444 / • Allison 601 Federal Com 603H; 30-045-38445
- Allison 601 Federal Com 604H; 30-045-38448 / • Allison 602 Federal Com 605H; 30-045-38449 / • Allison 602 Federal Com 606H; 30-045-38450
- Allison 701 Federal Com 607H; 30-045-38446 / • Allison 701 Federal Com 608H; 30-045-38447

Allison 611 Pad:

- Allison Unit 611H; 30-045-38326 / • Allison Unit 630H; 05-067-10060/30-045-38410 / • Allison Unit 631H; 05-067-10062/30-045-38411
- Allison Unit 632H; 05-067-10063/30-045-38453 / • Allison Unit 633H; 05-067-10061/30-045-38454 / • Allison Unit 614H; API TBD

Initial incremental injection rate into the SWD is roughly 2,500 bwpd starting July 2026. Analytical produced water results, representative of the new source are attached.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE Operations/Regulatory Tech - Sr. DATE 10/10/2025

Type or print name Amanda Walker E-mail address: mwalker@hilcorp.com PHONE: 346-237-2177

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any): _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

06 June 2025

Ashley Bates
Hilcorp
382 CR 3100
Aztec, NM 87410
RE: Burnt Mesa Pad

Enclosed are the results of analyses for samples received by the laboratory on 05/23/25 13:48. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'. The signature is written in a cursive style and is enclosed within a light blue rectangular border.

Report Station For Jeremy D Allen
Laboratory Director

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C25-00079

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C25-00101

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Burnt Mesa Fed Com Unit 602H	2505388-01	Water	05/22/25 10:00	05/23/25 13:48	
San Juan 32-7 #603 Fed Com Unit 607H	2505388-02	Water	05/22/25 10:00	05/23/25 13:48	
Burnt Mesa Fed Com Unit 604H	2505388-03	Water	05/22/25 10:00	05/23/25 13:48	
San Juan 32-7 #602 Fed Com Unit 603H	2505388-04	Water	05/22/25 10:00	05/23/25 13:48	
San Juan 32-7 #603 Fed Com Unit 613H	2505388-05	Water	05/22/25 10:00	05/23/25 13:48	
San Juan 32-7 #603 Fed Com Unit 613H tank	2505388-06	Water	05/22/25 10:00	05/23/25 13:48	
Abeyta 17-1	2505388-07	Water	05/22/25 13:00	05/23/25 13:48	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

Burnt Mesa Fed Com Unit 602H

2505388-01 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	415	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	415	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	12500	200	99.4	mg/L	200	06/04/25 03:45	EPA 300.0		AWG
Conductivity*	36700	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.45			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	17.8			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:12	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:12	EPA 365.1/Calc		HIC
Resistivity	27.2			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.017	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	17.6	20.0	11.3	mg/L	20	06/04/25 14:02	EPA 300.0	J	AWG
Total Dissolved Solids*	23200	80.0		mg/L	8	05/29/25 16:02	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	24.1	0.400	0.157	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Calcium*	492	2.00	1.45	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Hardness, as CaCO ₃	1470	13.2	10.1	mg/L	20	06/02/25 16:11	2340 B		AWG
Iron*	140	1.00	0.692	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Magnesium*	57.6	2.00	1.59	mg/L	20	06/02/25 16:11	EPA 200.7	M5	AWG
Manganese*	1.14	0.400	0.084	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Potassium*	35.6	20.0	3.62	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Silica (SiO ₂)	94.3	21.4	0.416	mg/L	20	06/02/25 16:11	Calculation		AWG
Silicon	44.1	10.0	0.195	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Sodium*	7720	20.0	15.1	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Strontium*	88.0	2.00	0.230	mg/L	20	06/02/25 16:11	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:11	EPA 200.7		AWG

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Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

San Juan 32-7 #603 Fed Com Unit 607H

2505388-02 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	425	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	425	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	12200	200	99.4	mg/L	200	06/04/25 04:10	EPA 300.0		AWG
Conductivity*	35600	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.45			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	17.2			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:12	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:12	EPA 365.1/Calc		HIC
Resistivity	28.1			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.015	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	20.1	20.0	11.3	mg/L	20	06/04/25 14:27	EPA 300.0		AWG
Total Dissolved Solids*	23000	80.0		mg/L	8	05/29/25 16:06	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	22.2	0.400	0.157	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Calcium*	458	2.00	1.45	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Hardness, as CaCO ₃	1350	13.2	10.1	mg/L	20	06/02/25 16:23	2340 B		AWG
Iron*	143	1.00	0.692	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Magnesium*	50.8	2.00	1.59	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Manganese*	1.81	0.400	0.084	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Potassium*	39.3	20.0	3.62	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Silica (SiO ₂)	93.1	21.4	0.416	mg/L	20	06/02/25 16:23	Calculation		AWG
Silicon	43.5	10.0	0.195	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Sodium*	7430	20.0	15.1	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Strontium*	81.0	2.00	0.230	mg/L	20	06/02/25 16:23	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:23	EPA 200.7		AWG

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Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

Burnt Mesa Fed Com Unit 604H

2505388-03 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	375	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	375	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	14000	200	99.4	mg/L	200	06/04/25 04:34	EPA 300.0		AWG
Conductivity*	37700	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.48			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	18.8			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:13	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:13	EPA 365.1/Calc		HIC
Resistivity	26.5			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.016	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	17.4	20.0	11.3	mg/L	20	06/04/25 14:51	EPA 300.0	J	AWG
Total Dissolved Solids*	24100	80.0		mg/L	8	05/29/25 16:08	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	25.3	0.400	0.157	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Calcium*	524	2.00	1.45	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Hardness, as CaCO ₃	1550	13.2	10.1	mg/L	20	06/02/25 16:27	2340 B		AWG
Iron*	97.2	1.00	0.692	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Magnesium*	57.8	2.00	1.59	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Manganese*	1.22	0.400	0.084	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Potassium*	37.7	20.0	3.62	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Silica (SiO ₂)	90.1	21.4	0.416	mg/L	20	06/02/25 16:27	Calculation		AWG
Silicon	42.1	10.0	0.195	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Sodium*	7760	20.0	15.1	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Strontium*	91.6	2.00	0.230	mg/L	20	06/02/25 16:27	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:27	EPA 200.7		AWG

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

San Juan 32-7 #602 Fed Com Unit 603H

2505388-04 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	335	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	335	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	13400	200	99.4	mg/L	200	06/04/25 04:59	EPA 300.0		AWG
Conductivity*	36300	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.43			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	17.5			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:14	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:14	EPA 365.1/Calc		HIC
Resistivity	27.5			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.015	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	16.3	20.0	11.3	mg/L	20	06/04/25 15:15	EPA 300.0	J	AWG
Total Dissolved Solids*	22600	80.0		mg/L	8	05/29/25 16:10	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	25.6	0.400	0.157	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Calcium*	531	2.00	1.45	mg/L	20	06/02/25 16:30	EPA 200.7		AWG
Hardness, as CaCO ₃	1570	13.2	10.1	mg/L	20	06/02/25 16:31	2340 B		AWG
Iron*	241	1.00	0.692	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Magnesium*	58.4	2.00	1.59	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Manganese*	2.57	0.400	0.084	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Potassium*	37.9	20.0	3.62	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Silica (SiO ₂)	83.3	21.4	0.416	mg/L	20	06/02/25 16:31	Calculation		AWG
Silicon	39.0	10.0	0.195	mg/L	20	06/02/25 16:31	EPA 200.7		AWG
Sodium*	7600	20.0	15.1	mg/L	20	06/02/25 16:30	EPA 200.7		AWG
Strontium*	90.0	2.00	0.230	mg/L	20	06/02/25 16:30	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:31	EPA 200.7		AWG

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

San Juan 32-7 #603 Fed Com Unit 613H

2505388-05 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	405	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	405	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	13400	200	99.4	mg/L	200	06/04/25 05:23	EPA 300.0		AWG
Conductivity*	38200	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.55			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	17.9			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:14	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:14	EPA 365.1/Calc		HIC
Resistivity	26.2			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.015	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	15.0	20.0	11.3	mg/L	20	06/04/25 15:40	EPA 300.0	J	AWG
Total Dissolved Solids*	23000	80.0		mg/L	8	05/29/25 16:12	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	24.9	0.400	0.157	mg/L	20	06/02/25 16:35	EPA 200.7		AWG
Calcium*	509	2.00	1.45	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Hardness, as CaCO ₃	1510	13.2	10.1	mg/L	20	06/02/25 16:34	2340 B		AWG
Iron*	98.3	1.00	0.692	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:35	EPA 200.7		AWG
Magnesium*	57.1	2.00	1.59	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Manganese*	1.04	0.400	0.084	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Potassium*	37.1	20.0	3.62	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Silica (SiO ₂)	90.4	21.4	0.416	mg/L	20	06/02/25 16:34	Calculation		AWG
Silicon	42.3	10.0	0.195	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Sodium*	7600	20.0	15.1	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Strontium*	88.5	2.00	0.230	mg/L	20	06/02/25 16:34	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:35	EPA 200.7		AWG

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Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

San Juan 32-7 #603 Fed Com Unit 613H tank

2505388-06 (Produced Water)

Sampled Date: 05/22/25 10:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	390	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	390	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	13800	200	99.4	mg/L	200	06/04/25 05:48	EPA 300.0		AWG
Conductivity*	35500	1.00		umho/cm@25 C	1	05/29/25 16:53	2510 B		HIC
pH*	6.44			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
pH Temperature, degrees C	18.3			pH Units	1	05/29/25 16:18	EPA 150.1/9040C	H1	HIC
Phosphorus, Total	<0.250	0.250	0.108	mg P/L	5	06/03/25 11:17	EPA 365.1		HIC
Phosphate (PO ₄)	<0.330	0.768	0.330	mg/L	5	06/03/25 11:17	EPA 365.1/Calc		HIC
Resistivity	28.2			ohm/cm	1	05/29/25 17:27	2510 B		JDA
Specific Gravity	1.014	0.8000		No Unit	1	05/30/25 16:47	ASTM D1429-03		HIC
Sulfate*	15.1	20.0	11.3	mg/L	20	06/04/25 16:04	EPA 300.0	J	AWG
Total Dissolved Solids*	22300	80.0		mg/L	8	05/29/25 16:14	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Barium*	22.8	0.400	0.157	mg/L	20	06/02/25 16:39	EPA 200.7		AWG
Calcium*	473	2.00	1.45	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Hardness, as CaCO ₃	1400	13.2	10.1	mg/L	20	06/02/25 16:38	2340 B		AWG
Iron*	96.3	1.00	0.692	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Lead*	<2.00	2.00	0.211	mg/L	20	06/02/25 16:39	EPA 200.7		AWG
Magnesium*	53.8	2.00	1.59	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Manganese*	0.934	0.400	0.084	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Potassium*	36.4	20.0	3.62	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Silica (SiO ₂)	84.2	21.4	0.416	mg/L	20	06/02/25 16:38	Calculation		AWG
Silicon	39.4	10.0	0.195	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Sodium*	7390	20.0	15.1	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Strontium*	83.9	2.00	0.230	mg/L	20	06/02/25 16:38	EPA 200.7		AWG
Zinc*	<2.00	2.00	0.137	mg/L	20	06/02/25 16:39	EPA 200.7		AWG

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

Abeyta 17-1

2505388-07 (Produced Water)

Sampled Date: 05/22/25 13:00

Sampled By: Ashley Bates

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Total as CaCO ₃ *	635	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Alkalinity, Bicarbonate as CaCO ₃ *	635	10.0	5.55	mg/L	5	06/04/25 15:13	2320 B		AES
Chloride*	15400	200	99.4	mg/L	200	06/04/25 06:12	EPA 300.0		AWG
Sulfate*	<11.3	20.0	11.3	mg/L	20	06/04/25 17:18	EPA 300.0		AWG
Total Dissolved Solids*	26600	80.0		mg/L	8	05/29/25 16:16	EPA 160.1/SM 2540C		HIC

Potentially Dissolved Metals by ICP

Calcium*	145	2.00	1.45	mg/L	20	06/02/25 16:42	EPA 200.7		AWG
Iron*	236	1.00	0.692	mg/L	20	06/02/25 16:42	EPA 200.7		AWG
Magnesium*	38.8	2.00	1.59	mg/L	20	06/02/25 16:42	EPA 200.7		AWG
Sodium*	9370	20.0	15.1	mg/L	20	06/02/25 16:42	EPA 200.7		AWG

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251452 - Lachat										
Blank (B251452-BLK1)				Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	ND	0.0500	mg P/L							
LCS (B251452-BS1)				Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.69	0.0500	mg P/L	2.50		108	90-110			
LCS Dup (B251452-BSD1)				Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.62	0.0500	mg P/L	2.50		105	90-110	2.60	20	
Matrix Spike (B251452-MS1)				Source: 2505370-15 Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.70	0.0500	mg P/L	2.50	0.0301	107	90-110			
Matrix Spike (B251452-MS2)				Source: 2505370-16 Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.64	0.0500	mg P/L	2.50	0.0299	104	90-110			
Matrix Spike Dup (B251452-MSD1)				Source: 2505370-15 Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.70	0.0500	mg P/L	2.50	0.0301	107	90-110	0.0370	20	
Matrix Spike Dup (B251452-MSD2)				Source: 2505370-16 Prepared: 05/29/25 Analyzed: 06/03/25						
Phosphorus, Total	2.62	0.0500	mg P/L	2.50	0.0299	103	90-110	0.724	20	
Batch B251459 - General Prep - Wet Chem										
Blank (B251459-BLK1)				Prepared & Analyzed: 05/29/25						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (B251459-DUP1)				Source: 2505388-01 Prepared & Analyzed: 05/29/25						
Total Dissolved Solids	23100	80.0	mg/L		23200			0.521	20	
Reference (B251459-SRM1)				Prepared & Analyzed: 05/29/25						
Total Dissolved Solids	365	10.0	mg/L	400		91.2	85-115			
Batch B251468 - General Prep - Wet Chem										
Duplicate (B251468-DUP1)				Source: 2505388-01 Prepared & Analyzed: 05/30/25						
Specific Gravity	1.017	0.8000	No Unit		1.017			0.00	20	
Batch B251494 - General Prep - Wet Chem										
Duplicate (B251494-DUP1)				Source: 2505396-01 Prepared & Analyzed: 05/29/25						
pH	7.32		pH Units		7.27			0.685	20	
pH Temperature, degrees C	19.2		pH Units		19.0			1.05	200	

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382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B251494 - General Prep - Wet Chem (Continued)

Duplicate (B251494-DUP2)		Source: 2505388-03		Prepared & Analyzed: 05/29/25						
pH	6.51		pH Units		6.48			0.462	20	
pH Temperature, degrees C	18.7		pH Units		18.8			0.533	200	

Reference (B251494-SRM1)		Prepared & Analyzed: 05/29/25								
pH	6.93		pH Units	7.00		99.0	98.57-101.42			

Batch B251505 - IC- Ion Chromatograph

Blank (B251505-BLK1)		Prepared & Analyzed: 06/03/25								
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							

LCS (B251505-BS1)		Prepared & Analyzed: 06/03/25								
Chloride	25.8	1.00	mg/L	25.0		103	90-110			
Sulfate	26.0	1.00	mg/L	25.0		104	90-110			

LCS Dup (B251505-BSD1)		Prepared & Analyzed: 06/03/25								
Chloride	24.7	1.00	mg/L	25.0		98.9	90-110	4.13	20	
Sulfate	24.9	1.00	mg/L	25.0		99.6	90-110	4.28	20	

Matrix Spike (B251505-MS1)		Source: 2505324-01		Prepared & Analyzed: 06/03/25						
Chloride	23.6	1.00	mg/L	25.0	0.549	92.3	85-115			
Sulfate	159	1.00	mg/L	25.0	137	84.8	85-115			M3

Matrix Spike (B251505-MS2)		Source: 2505333-01		Prepared: 06/03/25 Analyzed: 06/04/25						
Chloride	31.2	1.00	mg/L	25.0	6.70	97.9	85-115			
Sulfate	40.2	1.00	mg/L	25.0	16.1	96.4	85-115			

Matrix Spike Dup (B251505-MSD1)		Source: 2505324-01		Prepared & Analyzed: 06/03/25						
Chloride	24.2	1.00	mg/L	25.0	0.549	94.4	85-115	2.24	20	
Sulfate	160	1.00	mg/L	25.0	137	90.1	85-115	0.844	20	

Matrix Spike Dup (B251505-MSD2)		Source: 2505333-01		Prepared: 06/03/25 Analyzed: 06/04/25						
Chloride	31.9	1.00	mg/L	25.0	6.70	101	85-115	2.36	20	
Sulfate	41.1	1.00	mg/L	25.0	16.1	100	85-115	2.22	20	

Batch B251530 - General Prep - Wet Chem

Blank (B251530-BLK1)		Prepared & Analyzed: 06/04/25								
Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							
Alkalinity, Total as CaCO3	ND	10.0	mg/L							

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B251530 - General Prep - Wet Chem (Continued)

LCS (B251530-BS1)

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	100	10.0	mg/L	100	100	85-115
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LCS Dup (B251530-BS1)

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	101	10.0	mg/L	100	101	85-115	0.995	20
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Matrix Spike (B251530-MS1)

Source: 2505370-10

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	163	10.0	mg/L	100	66.0	97.0	80-120
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Matrix Spike (B251530-MS2)

Source: 2505370-11

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	163	10.0	mg/L	100	72.0	91.0	80-120
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Matrix Spike Dup (B251530-MSD1)

Source: 2505370-10

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	167	10.0	mg/L	100	66.0	101	80-120	2.42	20
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Matrix Spike Dup (B251530-MSD2)

Source: 2505370-11

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	168	10.0	mg/L	100	72.0	96.0	80-120	3.02	20
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Reference (B251530-SRM1)

Prepared & Analyzed: 06/04/25

Alkalinity, Total as CaCO ₃	103	10.0	mg/L	100	103	85-115
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Batch B251532 - General Prep - Wet Chem

Duplicate (B251532-DUP1)

Source: 2505388-03

Prepared & Analyzed: 05/29/25

Conductivity	37800	1.00	umho/cm@25C	37700	0.265	20
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Reference (B251532-SRM1)

Prepared & Analyzed: 05/29/25

Conductivity	1010	1.00	umho/cm@25C	1000	101	90-110
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Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

Potentially Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B251493 - Potentially Dissolved ICP

Blank (B251493-BLK1)

Prepared & Analyzed: 06/02/25

Barium	ND	0.020	mg/L
Calcium	ND	0.100	mg/L
Iron	ND	0.050	mg/L
Lead	ND	0.100	mg/L
Magnesium	ND	0.100	mg/L
Manganese	ND	0.020	mg/L
Potassium	ND	1.00	mg/L
Silicon	ND	0.500	mg/L
Sodium	ND	1.00	mg/L
Strontium	ND	0.100	mg/L
Zinc	ND	0.100	mg/L

LCS (B251493-BS1)

Prepared & Analyzed: 06/02/25

Barium	2.00	0.020	mg/L	2.00	99.8	85-115
Calcium	3.95	0.100	mg/L	4.00	98.7	85-115
Iron	3.98	0.050	mg/L	4.00	99.5	85-115
Lead	1.91	0.100	mg/L	2.00	95.4	85-115
Magnesium	20.4	0.100	mg/L	20.0	102	85-115
Manganese	1.97	0.020	mg/L	2.00	98.7	85-115
Potassium	8.06	1.00	mg/L	8.00	101	85-115
Silicon	3.96	0.500	mg/L	4.00	99.0	85-115
Sodium	3.21	1.00	mg/L	3.24	99.0	85-115
Strontium	3.93	0.100	mg/L	4.00	98.4	85-115
Zinc	1.96	0.100	mg/L	2.00	98.2	85-115

LCS Dup (B251493-BSD1)

Prepared & Analyzed: 06/02/25

Barium	1.98	0.020	mg/L	2.00	98.9	85-115	0.870	20
Calcium	3.88	0.100	mg/L	4.00	97.0	85-115	1.72	20
Iron	3.90	0.050	mg/L	4.00	97.6	85-115	1.94	20
Lead	1.92	0.100	mg/L	2.00	95.9	85-115	0.547	20
Magnesium	20.0	0.100	mg/L	20.0	100	85-115	2.01	20
Manganese	1.99	0.020	mg/L	2.00	99.6	85-115	0.842	20
Potassium	8.12	1.00	mg/L	8.00	101	85-115	0.681	20
Silicon	3.91	0.500	mg/L	4.00	97.7	85-115	1.39	20
Sodium	3.17	1.00	mg/L	3.24	97.8	85-115	1.20	20
Strontium	3.97	0.100	mg/L	4.00	99.2	85-115	0.818	20
Zinc	1.94	0.100	mg/L	2.00	97.1	85-115	1.12	20

Matrix Spike (B251493-MS1)

Source: 2505346-02

Prepared & Analyzed: 06/02/25

Barium	1.98	0.400	mg/L	2.00	ND	98.9	70-130
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Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

**Potentially Dissolved Metals by ICP - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B251493 - Potentially Dissolved ICP (Continued)

Matrix Spike (B251493-MS1) (Continued)

Source: 2505346-02 Prepared & Analyzed: 06/02/25

Calcium	7.21	2.00	mg/L	4.00	3.88	83.4	70-130			
Iron	56.6	1.00	mg/L	4.00	61.6	NR	70-130			M3
Lead	1.88	2.00	mg/L	2.00	ND	93.8	70-130			
Magnesium	19.4	2.00	mg/L	20.0	ND	97.2	70-130			
Manganese	2.32	0.400	mg/L	2.00	0.508	90.5	70-130			
Potassium	9.94	20.0	mg/L	8.00	ND	124	70-130			
Silicon	3.58	10.0	mg/L	4.00	0.355	80.6	70-130			
Sodium	ND	20.0	mg/L	3.24	ND		70-130			M2
Strontium	3.62	2.00	mg/L	4.00	ND	90.6	70-130			
Zinc	10.8	2.00	mg/L	2.00	10.2	27.1	70-130			M3

Matrix Spike (B251493-MS2)

Source: 2505388-01 Prepared & Analyzed: 06/02/25

Barium	24.1	0.400	mg/L	2.00	24.1	3.33	70-130			M3
Calcium	460	2.00	mg/L	4.00	492	NR	70-130			M3
Iron	130	1.00	mg/L	4.00	140	NR	70-130			M3
Lead	1.84	2.00	mg/L	2.00	ND	91.9	70-130			
Magnesium	70.2	2.00	mg/L	20.0	57.6	62.8	70-130			M2
Manganese	3.03	0.400	mg/L	2.00	1.14	94.5	70-130			
Potassium	40.2	20.0	mg/L	8.00	35.6	57.4	70-130			M3
Silicon	43.9	10.0	mg/L	4.00	44.1	NR	70-130			M3
Sodium	7150	20.0	mg/L	3.24	7720	NR	70-130			M3
Strontium	85.8	2.00	mg/L	4.00	88.0	NR	70-130			M3
Zinc	1.86	2.00	mg/L	2.00	ND	92.8	70-130			

Matrix Spike Dup (B251493-MSD1)

Source: 2505346-02 Prepared & Analyzed: 06/02/25

Barium	2.08	0.600	mg/L	2.00	ND	104	70-130	4.96	20	
Calcium	7.80	3.00	mg/L	4.00	3.88	98.0	70-130	7.81	20	
Iron	61.2	1.50	mg/L	4.00	61.6	NR	70-130	7.82	20	M3
Lead	2.14	3.00	mg/L	2.00	ND	107	70-130	13.0	20	
Magnesium	20.6	3.00	mg/L	20.0	ND	103	70-130	5.96	20	
Manganese	2.39	0.600	mg/L	2.00	0.508	93.9	70-130	2.94	20	
Potassium	11.2	30.0	mg/L	8.00	ND	140	70-130	11.6	20	M1
Silicon	4.61	15.0	mg/L	4.00	0.355	106	70-130	25.3	20	R1
Sodium	ND	30.0	mg/L	3.24	ND		70-130		20	M2
Strontium	3.71	3.00	mg/L	4.00	ND	92.7	70-130	2.33	20	
Zinc	11.6	3.00	mg/L	2.00	10.2	69.6	70-130	7.61	20	M3

Matrix Spike Dup (B251493-MSD2)

Source: 2505388-01 Prepared & Analyzed: 06/02/25

Barium	27.1	0.600	mg/L	2.00	24.1	151	70-130	11.5	20	M3
Calcium	511	3.00	mg/L	4.00	492	487	70-130	10.6	20	M3

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

**Potentially Dissolved Metals by ICP - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B251493 - Potentially Dissolved ICP (Continued)

Matrix Spike Dup (B251493-MSD2) (Continued)

Source: 2505388-01

Prepared & Analyzed: 06/02/25

Iron	145	1.50	mg/L	4.00	140	130	70-130	11.2	20	
Lead	2.23	3.00	mg/L	2.00	ND	112	70-130	19.4	20	
Magnesium	79.6	3.00	mg/L	20.0	57.6	110	70-130	12.5	20	
Manganese	3.35	0.600	mg/L	2.00	1.14	111	70-130	10.2	20	
Potassium	45.4	30.0	mg/L	8.00	35.6	123	70-130	12.2	20	
Silicon	48.8	15.0	mg/L	4.00	44.1	119	70-130	10.7	20	
Sodium	7930	30.0	mg/L	3.24	7720	NR	70-130	10.4	20	M3
Strontium	95.2	3.00	mg/L	4.00	88.0	180	70-130	10.4	20	M3
Zinc	2.11	3.00	mg/L	2.00	ND	106	70-130	12.9	20	

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Formation Comparison Project Name / Number: Burnt Mesa Pad Project Manager: Ashley Bates	Reported: 06/06/25 10:13
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Notes and Definitions

R1 Duplicate sample RPD exceeded laboratory acceptance criteria. Sample(s) may be difficult to homogenize.

M5 Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.

M3 Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.

M2 Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.

M1 Matrix spike recovery was above laboratory acceptance criteria.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

H1 Sample was received several days after collected and subsequently analyzed past hold time.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Formation Comparison
Project Name / Number: Burnt Mesa Pad
Project Manager: Ashley Bates

Reported:
06/06/25 10:13

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2505388-01	Magnesium Potentially Dissolved by ICP	Magnesium	M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
2505388-01	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-01	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-02	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-02	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-03	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-03	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-04	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-04	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-05	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-05	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-06	pH	pH	H1	Sample was received several days after collected and subsequently analyzed past hold time.
2505388-06	pH	pH Temperature, degrees C	H1	Sample was received several days after collected and subsequently analyzed past hold time.
B251493-MS1	Iron Potentially Dissolved by ICP	Iron	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS1	Sodium Potentially Dissolved by ICP	Sodium	M2	Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.
B251493-MS1	Zinc Potentially Dissolved by ICP	Zinc	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Barium Potentially Dissolved by ICP	Barium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Calcium Potentially Dissolved by ICP	Calcium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Iron Potentially Dissolved by ICP	Iron	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Magnesium Potentially Dissolved by ICP	Magnesium	M2	Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Formation Comparison Project Name / Number: Burnt Mesa Pad Project Manager: Ashley Bates	Reported: 06/06/25 10:13
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B251493-MS2	Potassium Potentially Dissolved by ICP	Potassium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Silicon Potentially Dissolved by ICP	Silicon	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Sodium Potentially Dissolved by ICP	Sodium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MS2	Strontium Potentially Dissolved by ICP	Strontium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD1	Iron Potentially Dissolved by ICP	Iron	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD1	Potassium Potentially Dissolved by ICP	Potassium	M1	Matrix spike recovery was above laboratory acceptance criteria.
B251493-MSD1	Silicon Potentially Dissolved by ICP	Silicon	R1	Duplicate sample RPD exceeded laboratory acceptance criteria. Sample(s) may be difficult to homogenize.
B251493-MSD1	Sodium Potentially Dissolved by ICP	Sodium	M2	Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.
B251493-MSD1	Zinc Potentially Dissolved by ICP	Zinc	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD2	Barium Potentially Dissolved by ICP	Barium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD2	Calcium Potentially Dissolved by ICP	Calcium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD2	Sodium Potentially Dissolved by ICP	Sodium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251493-MSD2	Strontium Potentially Dissolved by ICP	Strontium	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
B251505-MS1	Sulfate [IC]	Sulfate	M3	Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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75 Suttle Street
Durango, CO 81303
(970) 247-4220

Table of Contents

Note: Write-Out™ or similar products cannot be used on the Chain of Custody

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Company or Client:		Hilcorp/ East		Bill to (if different):		ANALYSIS REQUEST																							
Address:		382 Road 3100, Aztec, NM 87410																											
City:		Aztec		State:		NM		Zip:		87410																			
Phone #:		505-635-4123																											
Contact Person:		Ashley Bates																											
Email Report to:		Abates@hilcorp.com																											
Project Name(optional):		Burnt Mesa Pad																											
Sampler Name (Print):		Ashley Bates																											
Lab I.D.		2505-388																											
Lab Use Only																													
Sample Name or Location		Date		Time		Matrix (check one)		# of containers		Bradenhead		Formational		Complete API water analysis/Fe, Mn/Phosphate		PO4		Metals Fe/Mn		Corrosivity 9040C (PH)		TCLP RCRA Metals		BTEX		Dissolved Chlorides		Total Dissolved Solids	
1) Burnt Mesa Fed Com Unit 602H		5/22/2025		10am		GROUNDWATER		1																					
2) San Juan 32-7 #603 Fed Com Unit 607H		5/22/2025		10am		SURFACE WATER		1																					
3) Burnt Mesa Fed Com Unit 604H		5/22/2025		10am		WASTEWATER		1																					
4) San Juan 32-7 #602 Fed Com Unit 603H		5/22/2025		10am		PRODUCED WATER		1																					
5) San Juan 32-7 #603 Fed Com Unit 613H		5/22/2025		10am		DRINKING WATER		1																					
6) San Juan 32-7 #603 Fed Com Unit 613H tank		5/22/2025		10am		SOIL		1																					
7) Abeyta 17-1		5/22/2025		1pm		OTHER:		1																					
8)																													
9)																													
10)																													

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: 5/23/25

Received By:

Date: 5/23/25

ADDITIONAL REMARKS:

Relinquished By:

Date: 5/27/25

Received By:

Date: 5/27/25

Relinquished By:

Date: 5/28/25

Received By:

Date: 5/28/25

Temperature at receipt:

Checked by:

On Ice? Therm. used:

Relinquished By: Kangaroo Exp

Date: 5/28/25

Received By:

Date: 5/28/25

Temperature at receipt: 25.4 °C

Checked by: [Signature]

On Ice? [X] Therm. used: [X]

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 1 of 1



SAMPLE CONDITION RECEIPT FORM

 Date/Initials of
examining contents: 5-28-25

Table of Contents

 Labeled by initials: _____
(If different than above)
Client Name: HilcorpWork Order # 2505-388
 Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Kangaroo ☐ Third Party ☐ Other

 Custody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

 Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ No

 Type of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 1.3 °C Correction Factor: -0.9 °C Final Temp: 0.4 °C
*Temp should be above freezing 6°C
Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	☒ Yes ☐ No	1.
COC Signed when Relinquished and Received:	☒ Yes ☐ No	2.
Sampler Name and Signature on COC: *Required for compliance	☒ Yes ☐ No	3.
Samples arrived within hold time:	☒ Yes ☐ No	4.
Correct Containers Used & Intact:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No	6. <u>pH</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
pH's acceptable upon receipt, where applicable: 'Not including metals bottles	☐ Yes ☒ No ☐ N/A	9. <u>four off for Pb + Metals</u>
Dissolved Testing Needed:	☐ Yes ☒ No	10.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	11.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	12.
Trip Blank Custody Seals Present:	☐ Yes ☒ No ☐ N/A	
VOA's meet headspace requirement (<6mm bubbles)	☐ Yes ☒ No ☐ N/A	
Non-Conformance(s):	☐ Yes ☒ No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

 Comments/Resolution: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 514184

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 514184
	Action Type: [C-103] NOI General Sundry (C-103X)

CONDITIONS

Created By	Condition	Condition Date
stacy.sandoval	None	12/2/2025