

Ready Mixed Concrete Company Nix Water Quality Sampling Results

Samples Collected: 4/17/2023

Samples Reported: 05/18/2023

Analyte	Standard	Units	Nix-Owens-Mon 5A	Nix-RMCC-Mon 6	Nix-RMCC-Mon 7	Nix-RMCC-Mon 8
Aluminum (Al)	5000	ug/L	29.5	177	1120	693
Antimony (Sb)	6	ug/L	0.53	0.68	0.45	0.41
Arsenic (As)	10	ug/L	0.38	ND	0.71	0.555
Barium (Ba)	2000	ug/L	51	22.4	55.2	76.6
Beryllium (Be)	4	ug/L	ND	0.015	0.055	0.025
Boron (B)	750	ug/L	267	239	260	256
Cadmium (Cd)	5	ug/L	ND	0.03	0.06	0.045
Chloride (Cl)	250	mg/L	151	76.2	192	178
Chlorophenol	0.2	ug/L	ND	ND	ND	ND
Chromium (Cr)	100	ug/L	0.42	0.47	1.2	1.13
Cobalt (Co)	50	ug/L	0.19	0.2	1.28	0.53
Copper (Cu)	200	ug/L	1.38	0.495	1.72	1.29
Conductivity		ug/L	See FS	See FS	See FS	See FS
Cyanide [Free]	200	ug/L	ND	ND	ND	ND
Fluoride (F)	2	mg/L	1.85	ND	ND	2.2
Iron (Fe)	5000	ug/L	12.8	75.9	629	434
Lead (Pb)	50	ug/L	ND	0.11	0.895	0.51
Lithium (Li)	2.5	mg/L	0.051	0.0169	0.0309	0.0253
Manganese (Mn)	200	ug/L	0.47	0.795	34.6	14.9
Mercury (Hg) (inorganic)	2000	ug/L	ND	ND	ND	ND
Mercury (Hg)	10000	ug/L	ND	ND	ND	ND
Molybdenum (Mo)	210	ug/L	4.04	6.8	2.94	4.23
Nickel (Ni)	100	ug/L	1.39	0.84	2.75	2.06
Nitrate (NO2)	10	mg/L	12	0.8	7.15	9.8
Total Nitrite & Nitrate (NO2 +NO3)	10	mg/L	12	0.8	7.15	9.8
Nitrite (NO3)	1	mg/L	ND	ND	ND	ND
pH (lab)	6.5 - 8.5	s.u.	7.02	7.06	7.01	7
Phenol	0.3	mg/L	ND	ND	ND	ND
Selenium (Se)	20	ug/L	3.28	3.04	1.75	1.68
Silver (Ag)	50	ug/L	0.02	ND	0.01	ND
Sulfate (SO4)	250	mg/L	264	316	321	297
Thallium (Tl)	2	ug/L	ND	ND	ND	ND
Total Dissolved Solids (TDS)	TBD*	mg/L	1030	759	943	889
Uranium (U)	16.8	ug/L	11.6	24.3	7.47	20.3
Vanadium (V)	100	ug/L	0.72	0.62	2.39	1.62
Zinc (Zn)	2000	ug/L	2.76	1.23	3.82	4.24

*Per 5 CCR 1002-41; Table 4, Maximum Allowable TDS Concentrations are based on background levels. Previous sampling results from 6/2021 were 500-1,000mg/L making the limit 1.25x background concentration.

ND = Non-detect, refer to MDL in attached Summit Analytical report: 2304347F2

Exceedance

Well Sampling Log

Nix Sand and Gravel Mine

Groundwater Monitoring Field Sheet

Sample Point: **Nix-Owens-MON 2**

Date: 4/17/23

Sampler Name: Scott L. eggs

Time: 1045

Weather/Field Conditions:

Sunny, 61°F

Groundwater Monitoring Well Purging/Sampling:

Total Well Depth (TD) = 20.06 feet

Initial Depth to Water (DTW) 20.06 feet

Casing Volume = 0.163gal (for 2" diam. well) x (TD - DTW) = _____ gallons

Purge Volume = (Casing Volume x 3) = _____ gallons

Purge Method: ☐ Bailer ☐ Pump

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
Dry well - no sample collected								

Final Field Parameters:

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments

Analysis Requested:

Dissolved Metals: Ag, Al, As, Ba, Be, B, Cd, Cr, Co, Cu, F, Fe, Pb, Li, Mn, Hg, Mo, Ni, Sb, Se, Tl, U, V, Zn (Lab filtered)

Anions: Cl, NO₂, NO₃, NO₂ + NO₃, SO₄ (Lab filtered)

SVOC: Phenol, Chlorophenol

Misc: pH, TDS, Free Cyanide

Rev A (4/2023)

Well Sampling Log

Nix Sand and Gravel Mine

Groundwater Monitoring Field Sheet

Sample Point: **Nix-Owens-MON 5A**

Date: 4/17/23

Sampler Name: S. Hogg / E. Schallenkamp / J. Nuemann

Time: 1410^{hr} 1256

Weather/Field Conditions:

Sunny, 71°F

Groundwater Monitoring Well Purging/Sampling:

Total Well Depth (TD) = 21.95 feet

Initial Depth to Water (DTW) 27.05 feet

Casing Volume = 0.163gal (for 2" diam. well) x (TD - DTW) = ^{5.55}0.9 gallons

Purge Volume = (Casing Volume x 3) = 2.71 gallons

Purge Method: ☒ Bailer ☐ Pump

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1356	Initial	7.22	14.5	1587	NA	clear	NA	clear H ₂ O, no odor
1400	1	7.25	13.4	1608	NA	lt brown	NA	fine brown sediment
1406	2	7.26	12.7	1594	"	brown	"	"
	3							

Final Field Parameters:

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1410	3	7.25	12.9	1593	NA	brown	"	fine brown sediment

Analysis Requested:

Dissolved Metals: Ag, Al, As, Ba, Be, B, Cd, Cr, Co, Cu, F, Fe, Pb, Li, Mn, Hg, Mo, Ni, Sb, Se, Tl, U, V, Zn (Lab filtered)

Anions: Cl, NO₂, NO₃, NO₂ + NO₃, SO₄ (Lab filtered)

SVOC: Phenol, Chlorophenol

Misc: pH, TDS, Free Cyanide

14

2

Well Sampling Log

Nix Sand and Gravel Mine

Groundwater Monitoring Field Sheet

Sample Point: **Nix-RMMC-MON 6**

Date: 4/17/23

Sampler Name: S. Luyt / E. Schellenkamp / J. Neumann Time: 1158

Weather/Field Conditions:

Sunny, 63°F

Groundwater Monitoring Well Purging/Sampling:

Total Well Depth (TD) = 51.89 feet

Initial Depth to Water (DTW) 25.91 feet 26.15

Casing Volume = 0.163gal (for 2" diam. well) x (TD - DTW) = 4.23 gallons

Purge Volume = (Casing Volume x 3) = 12.7 gallons

Purge Method: ☐ Bailer ☒ Pump

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1158	Initial	7.35	17.8	1182	NA	heavy brown org	NA	NA
1200	3	7.45	15.0	1161	NA	"	"	"
	6							
	9							
	12							
1203	Purged dr: @ 5 gal							
	80% Recharge							

Final Field Parameters:

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1430	80%	7.35	16.5	1170	NA	lt brown NA		fine organic sed

Analysis Requested:

Dissolved Metals: Ag, Al, As, Ba, Be, B, Cd, Cr, Co, Cu, F, Fe, Pb, Li, Mn, Hg, Mo, Ni, Sb, Se, Tl, U, V, Zn (Lab filtered)

Anions: Cl, NO₂, NO₃, NO₂ + NO₃, SO₄ (Lab filtered)

SVOC: Phenol, Chlorophenol

Misc: pH, TDS, Free Cyanide

Well Sampling Log

Nix Sand and Gravel Mine

Groundwater Monitoring Field Sheet

Sample Point: **Nix-RMMC-MON 7**

Date: 14/17/23

Sampler Name: S. Long / E. Schallenkamp / J. Nuemann

Time: 1318

Weather/Field Conditions:

Sunny, 71°F

Groundwater Monitoring Well Purging/Sampling:

Total Well Depth (TD) = 17.40 feet

Initial Depth to Water (DTW) 37.00 feet

Casing Volume = 0.163gal (for 2" diam. well) x (TD - DTW) = ^{19.6}3.19 gallons

Purge Volume = (Casing Volume x 3) = 9.6 gallons

Purge Method: ☒ Bailer ☐ Pump

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1318	Initial	7.24 <u>7.33</u>	15.4	1383	NA	brown	NA	heavy organic soil
1324	3	7.33	15.0	1373	—	lt brown	—	mild organic soil
1330	6	7.21	15.9	1418	—	brown	—	heavy organic soil
1338	9	7.31	15.0	1406	—	lt brown	—	mild organic soil
1340	10	7.30	15.8	1428	—	light brown	—	
A ✓ed s cond cal @ 1330 - meter functioning correctly								

Final Field Parameters:

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1340	10 gal	7.30	15.8	1428	—	light brown	NA	mild organic fines

Analysis Requested:

Dissolved Metals: Ag, Al, As, Ba, Be, B, Cd, Cr, Co, Cu, F, Fe, Pb, Li, Mn, Hg, Mo, Ni, Sb, Se, Tl, U, V, Zn (Lab filtered)

Anions: Cl, NO₂, NO₃, NO₂ + NO₃, SO₄ (Lab filtered)

SVOC: Phenol, Chlorophenol

Misc: pH, TDS, Free Cyanide

Well Sampling Log
Nix Sand and Gravel Mine
Groundwater Monitoring Field Sheet

Sample Point: **Nix-RMMC-MON 8**

Date: 4/17/23

Sampler Name: S. Hegg / E. Schallenkamp / J. Nuemann Time: 1250

Weather/Field Conditions:

Sunny, 71°F

Groundwater Monitoring Well Purging/Sampling:

Total Well Depth (TD) = 39.00 feet

Initial Depth to Water (DTW) = 11.1 feet

Casing Volume = 0.163gal (for 2" diam. well) x (TD - DTW) = ^{27.9}4.55 gallons

Purge Volume = (Casing Volume x 3) = 13.6 gallons

Purge Method: ☐ Bailer ☐ Pump

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
12:22	Int	7.26	15.3	1434	None	Brown	No	Heavy organic sed
12:28	3 gal	7.24	15.2	1399	None	Brown	No	
12:30	6 gal	7.21	15.7	1369	None	Clear	No	
12:36	8 gal	7.23	15.7	1399	None	Clear	No	
12:45	12 gal	7.29	16.6	1410	None	Clear	No	
12:49	14 gal	7.27	15.0	1417	None	Clear	No	

Final Field Parameters:

Time	Volume Removed (gal)	pH (s.u.)	Temp (°C)	Sp. Cond. (µS/cm.)	Odor	Color / Sediment	Bubbles / Effervescence	Comments
1250	14	7.3	15	1417	None	clear	none	Samples Collected

Analysis Requested:

Dissolved Metals: Ag, Al, As, Ba, Be, B, Cd, Cr, Co, Cu, F, Fe, Pb, Li, Mn, Hg, Mo, Ni, Sb, Se, Tl, U, V, Zn (Lab filtered)

Anions: Cl, NO₂, NO₃, NO₂ + NO₃, SO₄ (Lab filtered)

SVOC: Phenol, Chlorophenol

Misc: pH, TDS, Free Cyanide

Field Instrument Calibration Sheet

Instrument:

Make: Oakton Model: PCTSTestr 50 Serial : 2897197

Date: 4/17/23

Pre Sampling Time: 1140 Post Sampling Time: 1833

Performed By: CO

Calibration

The multimeter must be calibrated/verified **before and after** sample collection. In addition, the meter must be calibrated/verified for **all** field parameters that are to be measured and recorded.

Perform a three point pH calibration. Record measured value for each buffer solution after calibration has been completed. In addition, record pH mV values.

Calibration/Standard	Pre Sampling Value		Post Sampling Value	
	Temp (°C)	Result (s.u.)	Temp (°C)	Result (s.u.)
pH 4.0 Buffer Lot#: 2GI306 Exp Date: 9/2024	23.6	^{4.00} 1413	22.4	4.01
pH 7.0 Buffer Lot#: 3ga766 Exp Date: 1/2025	23.1	7.03	23.2	7.05
pH 10.0 Buffer Lot#: 3GA1134 Exp Date: 1/2025	22.6	9.96	23.2 ^m	10.01
Conductivity Standard 1413 (µS/cm) Lot#: 3GB162 Exp Date: 2/2024	23.2	1413	22.9	1423

Chain of Custody Form



Report To Information			Bill To Information (If different from report to)			Project Name / Number		
Company Name: <u>Beaman Summit Scientific</u>			Company Name: _____			<u>Brannan</u>		
Contact Name: <u>Scott Beaman</u>			Contact Name: _____			_____		
Address: _____			Address: _____			Task Number (Lab Use Only)		
City	State	Zip	City	State	Zip			
Phone: _____			Phone: _____					
Email: _____			Email: _____					
Sample Collector: _____			PO No.: _____					
Sample Collector Phone: _____								

Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
610 Garrison Street, Unit E
Lakewood CO 80215

Phone: 303-659-2313

www.coloradolab.com

Sample Matrix (Select One Only)			No. of Containers	Grab or (Check One Only) Composite	Tests Requested																		
Waste Water <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Surface Water <input type="checkbox"/>			Soil <input type="checkbox"/>	Sludge <input type="checkbox"/>	Drinking Water <input type="checkbox"/>																
Date	Time	Sample ID																					
4/17/23	1410	Nix-Owens-MON 5A	1		X																		
4/17/23	1430	Nix-RMCC-MON 6	1		X																		
4/17/23	1340	Nix-RMCC-MON 7	1		X																		
4/17/23	1250	Nix-RMCC-MON 8	1		X																		
			(4)																				
Instructions:			C/S Info:			Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>																	
Relinquished By:			Date/Time:			Received By:			Date/Time:			Relinquished By:			Date/Time:			Received By:			Date/Time:		

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 18, 2023

Scott Legg

Brannan Sand and Gravel

2500 E Brannan Way

Denver, CO 80229

RE: Nix

Work Order # 2304347

Enclosed are the results of analyses for samples received by Summit Scientific on 04/17/23 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:
05/18/23 15:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Nix-Owens-Mon 5A	2304347-01	Water	04/17/23 14:10	04/17/23 16:25
Nix-RMCC-Mon 6	2304347-02	Water	04/17/23 14:30	04/17/23 16:25
Nix-RMCC-Mon 7	2304347-03	Water	04/17/23 13:40	04/17/23 16:25
Nix-RMCC-Mon 8	2304347-04	Water	04/17/23 12:50	04/17/23 16:25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2304347

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: Brannan Sand + gravel

Project Manager: Scott Legg

Address: 2500 Brannan Way

E-Mail: slegg@brannan1.com

City/State/Zip: Denver CO 80219

eschallenkamp@brannan1.com

Phone: 720-537-0710

Project Name: NIX

Sampler Name: Emily Schallenkamp

Project Number: 1-26-26770

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested							Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Dissolved Metals	Anions	SVOC	PH	TDS	Cyanide			
1	Nix-Owens-Mon 5A	4/17/23	14:10	5		X	X		X					X	X	X	X	X	X		Include MDL
2	Nix-RMCC-Mon 6	4/17/23	14:30	5		X	X		X					X	X	X	X	X	X		
3	Nix-RMCC-Mon 7	4/17/23	13:46	5		X	X		X					X	X	X	X	X	X		
4	Nix-RMCC-Mon 8	4/17/23	12:50	5		X	X		X					X	X	X	X	X	X		
5														X	X	X	X	X	X		
6																					
7																					
8																					
9																					
10																					

Relinquished by: Emily Schallenkamp Date/Time: 4/17/23 16:15

Relinquished by: _____ Date/Time: _____

Temperature Upon Receipt: 6.8

IR gun correction: —

Received by: Scott Legg Date/Time: 4/17/23 16:25

Received by: _____ Date/Time: _____

Corrected Temperature: —

IR gun #: 02

HNO3 lot #: _____

Turn Around Time (Check)

Same Day _____ 72 hours _____

24 hours _____ Standard X

48 hours _____

Sample Integrity:

Samples Intact: Yes No

Notes:

S₂

Sample Receipt Checklist

S2 Work Order# 2304347Client: Brannon Sand & Gravel Client Project ID: NitShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air ☐ Soil/Solid ☐ Water ☒ Other ☐Temp (°C) 0.8 Thermometer # 02

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>On Ice</u>
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>HNO₃</u>
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

Samples are to be used for both COC's⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.AF
Custodian Printed Name4/17/23 1625
Date/Time



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-Owens-Mon 5A
2304347-01 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	10.0	1.61	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D	
Acenaphthylene	ND	10.0	1.44	"	"	"	"	"	"	
Anthracene	ND	10.0	1.56	"	"	"	"	"	"	
Bis(2-ethylhexyl)adipate	ND	10.0	2.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	10.0	0.650	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10.0	0.870	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	20.0	0.640	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	10.0	0.580	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10.0	0.600	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	1.24	"	"	"	"	"	"	
Pyridine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	1.49	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	10.0	1.13	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	1.31	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	1.00	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	10.0	1.91	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	10.0	0.790	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	1.37	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	10.0	1.66	"	"	"	"	"	"	
2-Chloronaphthalene	ND	10.0	1.54	"	"	"	"	"	"	
2-Chlorophenol	ND	10.0	1.01	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	10.0	1.83	"	"	"	"	"	"	
Chrysene	ND	10.0	0.620	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	0.690	"	"	"	"	"	"	
Dibenzofuran	ND	10.0	1.82	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10.0	1.44	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	10.0	0.990	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	10.0	1.06	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10.0	0.980	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	10.0	1.26	"	"	"	"	"	"	
Diethyl phthalate	ND	10.0	1.95	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	2.78	"	"	"	"	"	"	

Summit Scientific

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-Owens-Mon 5A
2304347-01 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Carbazole	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
Dimethyl phthalate	ND	10.0	2.09	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	10.0	0.900	"	"	"	"	"	"
2,4-Dinitrophenol	ND	10.0	1.02	"	"	"	"	"	"
Azobenzene	ND	10.0	2.00	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	10.0	1.60	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	10.0	1.75	"	"	"	"	"	"
Di-n-octyl phthalate	ND	10.0	0.760	"	"	"	"	"	"
Fluoranthene	ND	10.0	0.740	"	"	"	"	"	"
Fluorene	ND	10.0	2.24	"	"	"	"	"	"
Hexachlorobenzene	ND	10.0	1.81	"	"	"	"	"	"
Hexachlorobutadiene	ND	10.0	3.04	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	10.0	0.720	"	"	"	"	"	"
Hexachloroethane	ND	10.0	1.34	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	10.0	0.620	"	"	"	"	"	"
Isophorone	ND	10.0	1.32	"	"	"	"	"	"
2-Methylphenol	ND	10.0	1.30	"	"	"	"	"	"
4-Methylphenol	ND	10.0	1.26	"	"	"	"	"	"
1,2-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
2-Nitroaniline	ND	10.0	2.24	"	"	"	"	"	"
1,3-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
3-Nitroaniline	ND	10.0	1.81	"	"	"	"	"	"
1,4-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
4-Nitroaniline	ND	10.0	0.970	"	"	"	"	"	"
Nitrobenzene	ND	10.0	1.34	"	"	"	"	"	"
2-Nitrophenol	ND	10.0	1.05	"	"	"	"	"	"
4-Nitrophenol	ND	10.0	3.41	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	10.0	1.45	"	"	"	"	"	"
2,3,4,6-Tetrachlorophenol	ND	10.0	2.00	"	"	"	"	"	"
Pentachlorophenol	ND	10.0	0.870	"	"	"	"	"	"
Phenanthrene	ND	10.0	1.80	"	"	"	"	"	"
Phenol	ND	10.0	1.17	"	"	"	"	"	"
Aniline	ND	10.0	2.00	"	"	"	"	"	"
Pyrene	ND	10.0	0.850	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	10.0	1.11	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	10.0	1.65	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	10.0	1.40	"	"	"	"	"	"

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Denver CO, 80229

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Nix-Owens-Mon 5A
2304347-01 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

2-Methylnaphthalene	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
1-Methylnaphthalene	ND	10.0	2.00	"	"	"	"	"	"
Naphthalene	ND	10.0	1.24	"	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	30.0	3.05	"	"	"	"	"	"

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Fluorophenol		65.1 %		20-120		"	"	"	"	
Surrogate: Phenol-d5		37.2 %		20-120		"	"	"	"	
Surrogate: Nitrobenzene-d5		104 %		20-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		84.5 %		20-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		76.6 %		20-120		"	"	"	"	
Surrogate: Terphenyl-d14		26.6 %		20-120		"	"	"	"	

Dissolved Metals by EPA Method 200.8

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Aluminum	29.5	50.0	14.6	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8	
Vanadium	0.720	0.0500		"	"	"	"	"	"	
Uranium	11.6	0.500	0.0619	"	"	"	"	"	"	
Antimony	0.530	0.0500	0.0254	"	"	"	"	"	"	
Arsenic	0.380	0.600	0.337	"	"	"	"	"	"	
Barium	51.0	1.00	0.633	"	"	"	"	"	"	
Beryllium	ND	0.100	0.0106	"	"	"	"	"	"	
Cadmium	ND	0.0500	0.0144	"	"	"	"	"	"	
Boron	267	10.0	6.39	"	"	"	"	"	"	
Chromium	0.420	1.00	0.168	"	"	"	"	"	"	
Cobalt	0.190	1.00	0.0569	"	"	"	"	"	"	
Copper	1.38	1.00	0.143	"	"	"	"	"	"	
Iron	12.8	10.0	4.47	"	"	"	"	"	"	
Lead	ND	0.500	0.110	"	"	"	"	"	"	
Manganese	0.470	1.00	0.319	"	"	"	"	"	"	
Molybdenum	4.04	1.00	0.108	"	"	"	"	"	"	
Nickel	1.39	1.00	0.0611	"	"	"	"	"	"	

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05/18/23 15:36

Nix-Owens-Mon 5A
2304347-01 (Water)

Summit Scientific

Dissolved Metals by EPA Method 200.8

Selenium	3.28	1.00	0.0350	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8
Silver	0.0200	0.250	0.00535	"	"	"	"	"	"
Thallium	ND	1.00		"	"	"	"	"	"
Zinc	2.76	1.00	0.118	"	"	"	"	"	"

Dissolved Mercury by EPA Method 245.1

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.200	0.0880	ug/l	1	BGD0645	04/20/23	04/21/23	EPA 245.1	

Anions by EPA Method 300.0

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromide	ND	10.0	0.0225	mg/L	50	BGD0558	04/18/23	04/21/23	EPA 300.0	
Chloride	151	3.00	0.0725	"	"	"	"	"	"	
Chloride	151	3.00	0.0725	"	"	"	"	"	"	
Fluoride	1.85	2.00	0.00550	"	"	"	"	"	"	
Nitrate as N	12.0	2.50	0.00550	"	"	"	"	"	"	
Nitrite as N	ND	3.00	0.0350	"	"	"	"	"	"	
Orthophosphate as P	0.800	5.00	0.357	"	"	"	"	"	"	
Sulfate	264	15.0	0.352	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1030	10.0	10.0	mg/L	1	BGD0787	04/24/23	04/24/23	SM2540C	

pH by SM4500

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Nix-Owens-Mon 5A
2304347-01 (Water)

Summit Scientific

pH by SM4500

Date Sampled: **04/17/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.02	1.00		pH Units	1	BGD0804	04/17/23	04/24/23	SM4500-H+ B	

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Reported:
05/18/23 15:36

Nix-RMCC-Mon 6
2304347-02 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	10.0	1.61	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D	
Acenaphthylene	ND	10.0	1.44	"	"	"	"	"	"	
Anthracene	ND	10.0	1.56	"	"	"	"	"	"	
Bis(2-ethylhexyl)adipate	ND	10.0	2.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	10.0	0.650	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10.0	0.870	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	20.0	0.640	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	10.0	0.580	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10.0	0.600	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	1.24	"	"	"	"	"	"	
Pyridine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	1.49	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	10.0	1.13	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	1.31	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	1.00	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	10.0	1.91	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	10.0	0.790	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	1.37	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	10.0	1.66	"	"	"	"	"	"	
2-Chloronaphthalene	ND	10.0	1.54	"	"	"	"	"	"	
2-Chlorophenol	ND	10.0	1.01	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	10.0	1.83	"	"	"	"	"	"	
Chrysene	ND	10.0	0.620	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	0.690	"	"	"	"	"	"	
Dibenzofuran	ND	10.0	1.82	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10.0	1.44	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	10.0	0.990	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	10.0	1.06	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10.0	0.980	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	10.0	1.26	"	"	"	"	"	"	
Diethyl phthalate	ND	10.0	1.95	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	2.78	"	"	"	"	"	"	

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Nix-RMCC-Mon 6
2304347-02 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Carbazole	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
Dimethyl phthalate	ND	10.0	2.09	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	10.0	0.900	"	"	"	"	"	"
2,4-Dinitrophenol	ND	10.0	1.02	"	"	"	"	"	"
Azobenzene	ND	10.0	2.00	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	10.0	1.60	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	10.0	1.75	"	"	"	"	"	"
Di-n-octyl phthalate	ND	10.0	0.760	"	"	"	"	"	"
Fluoranthene	ND	10.0	0.740	"	"	"	"	"	"
Fluorene	ND	10.0	2.24	"	"	"	"	"	"
Hexachlorobenzene	ND	10.0	1.81	"	"	"	"	"	"
Hexachlorobutadiene	ND	10.0	3.04	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	10.0	0.720	"	"	"	"	"	"
Hexachloroethane	ND	10.0	1.34	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	10.0	0.620	"	"	"	"	"	"
Isophorone	ND	10.0	1.32	"	"	"	"	"	"
2-Methylphenol	ND	10.0	1.30	"	"	"	"	"	"
4-Methylphenol	ND	10.0	1.26	"	"	"	"	"	"
1,2-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
2-Nitroaniline	ND	10.0	2.24	"	"	"	"	"	"
1,3-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
3-Nitroaniline	ND	10.0	1.81	"	"	"	"	"	"
1,4-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
4-Nitroaniline	ND	10.0	0.970	"	"	"	"	"	"
Nitrobenzene	ND	10.0	1.34	"	"	"	"	"	"
2-Nitrophenol	ND	10.0	1.05	"	"	"	"	"	"
4-Nitrophenol	ND	10.0	3.41	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	10.0	1.45	"	"	"	"	"	"
2,3,4,6-Tetrachlorophenol	ND	10.0	2.00	"	"	"	"	"	"
Pentachlorophenol	ND	10.0	0.870	"	"	"	"	"	"
Phenanthrene	ND	10.0	1.80	"	"	"	"	"	"
Phenol	ND	10.0	1.17	"	"	"	"	"	"
Aniline	ND	10.0	2.00	"	"	"	"	"	"
Pyrene	ND	10.0	0.850	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	10.0	1.11	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	10.0	1.65	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	10.0	1.40	"	"	"	"	"	"

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Denver CO, 80229

Project: Nix

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05/18/23 15:36

Nix-RMCC-Mon 6
2304347-02 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

2-Methylnaphthalene	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
1-Methylnaphthalene	ND	10.0	2.00	"	"	"	"	"	"
Naphthalene	ND	10.0	1.24	"	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	30.0	3.05	"	"	"	"	"	"

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Fluorophenol		64.8 %		20-120		"	"	"	"	
Surrogate: Phenol-d5		36.4 %		20-120		"	"	"	"	
Surrogate: Nitrobenzene-d5		104 %		20-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		86.6 %		20-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		74.6 %		20-120		"	"	"	"	
Surrogate: Terphenyl-d14		31.6 %		20-120		"	"	"	"	

Dissolved Metals by EPA Method 200.8

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Aluminum	177	50.0	14.6	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8	
Vanadium	0.620	0.0500		"	"	"	"	"	"	
Uranium	24.3	0.500	0.0619	"	"	"	"	"	"	
Antimony	0.680	0.0500	0.0254	"	"	"	"	"	"	
Arsenic	ND	0.600	0.337	"	"	"	"	"	"	
Barium	22.4	1.00	0.633	"	"	"	"	"	"	
Beryllium	0.0150	0.100	0.0106	"	"	"	"	"	"	
Cadmium	0.0300	0.0500	0.0144	"	"	"	"	"	"	
Boron	239	10.0	6.39	"	"	"	"	"	"	
Chromium	0.470	1.00	0.168	"	"	"	"	"	"	
Cobalt	0.200	1.00	0.0569	"	"	"	"	"	"	
Copper	0.495	1.00	0.143	"	"	"	"	"	"	
Iron	75.9	10.0	4.47	"	"	"	"	"	"	
Lead	0.110	0.500	0.110	"	"	"	"	"	"	
Manganese	0.795	1.00	0.319	"	"	"	"	"	"	
Molybdenum	6.80	1.00	0.108	"	"	"	"	"	"	
Nickel	0.840	1.00	0.0611	"	"	"	"	"	"	

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Project: Nix
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Nix-RMCC-Mon 6
2304347-02 (Water)

Summit Scientific

Dissolved Metals by EPA Method 200.8

Selenium	3.04	1.00	0.0350	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8
Silver	ND	0.250	0.00535	"	"	"	"	"	"
Thallium	ND	1.00		"	"	"	"	"	"
Zinc	1.23	1.00	0.118	"	"	"	"	"	"

Dissolved Mercury by EPA Method 245.1

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Mercury	ND	0.200	0.0880	ug/l	1	BGD0645	04/20/23	04/21/23	EPA 245.1	

Anions by EPA Method 300.0

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Bromide	ND	10.0	0.0225	mg/L	50	BGD0558	04/18/23	04/21/23	EPA 300.0	
Chloride	76.2	3.00	0.0725	"	"	"	"	"	"	
Chloride	76.2	3.00	0.0725	"	"	"	"	"	"	
Fluoride	ND	2.00	0.00550	"	"	"	"	"	"	
Nitrate as N	0.800	2.50	0.00550	"	"	"	"	"	"	
Nitrite as N	ND	3.00	0.0350	"	"	"	"	"	"	
Orthophosphate as P	ND	5.00	0.357	"	"	"	"	"	"	
Sulfate	316	15.0	0.352	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	759	10.0	10.0	mg/L	1	BGD0787	04/24/23	04/24/23	SM2540C	

pH by SM4500

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05/18/23 15:36

Nix-RMCC-Mon 6
2304347-02 (Water)

Summit Scientific

pH by SM4500

Date Sampled: **04/17/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.06	1.00		pH Units	1	BGD0804	04/17/23	04/24/23	SM4500-H+ B	

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 7
2304347-03 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	10.0	1.61	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D	
Acenaphthylene	ND	10.0	1.44	"	"	"	"	"	"	
Anthracene	ND	10.0	1.56	"	"	"	"	"	"	
Bis(2-ethylhexyl)adipate	ND	10.0	2.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	10.0	0.650	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10.0	0.870	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	20.0	0.640	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	10.0	0.580	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10.0	0.600	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	1.24	"	"	"	"	"	"	
Pyridine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	1.49	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	10.0	1.13	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	1.31	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	1.00	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	10.0	1.91	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	10.0	0.790	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	1.37	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	10.0	1.66	"	"	"	"	"	"	
2-Chloronaphthalene	ND	10.0	1.54	"	"	"	"	"	"	
2-Chlorophenol	ND	10.0	1.01	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	10.0	1.83	"	"	"	"	"	"	
Chrysene	ND	10.0	0.620	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	0.690	"	"	"	"	"	"	
Dibenzofuran	ND	10.0	1.82	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10.0	1.44	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	10.0	0.990	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	10.0	1.06	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10.0	0.980	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	10.0	1.26	"	"	"	"	"	"	
Diethyl phthalate	ND	10.0	1.95	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	2.78	"	"	"	"	"	"	

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 7
2304347-03 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Carbazole	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
Dimethyl phthalate	ND	10.0	2.09	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	10.0	0.900	"	"	"	"	"	"
2,4-Dinitrophenol	ND	10.0	1.02	"	"	"	"	"	"
Azobenzene	ND	10.0	2.00	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	10.0	1.60	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	10.0	1.75	"	"	"	"	"	"
Di-n-octyl phthalate	ND	10.0	0.760	"	"	"	"	"	"
Fluoranthene	ND	10.0	0.740	"	"	"	"	"	"
Fluorene	ND	10.0	2.24	"	"	"	"	"	"
Hexachlorobenzene	ND	10.0	1.81	"	"	"	"	"	"
Hexachlorobutadiene	ND	10.0	3.04	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	10.0	0.720	"	"	"	"	"	"
Hexachloroethane	ND	10.0	1.34	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	10.0	0.620	"	"	"	"	"	"
Isophorone	ND	10.0	1.32	"	"	"	"	"	"
2-Methylphenol	ND	10.0	1.30	"	"	"	"	"	"
4-Methylphenol	ND	10.0	1.26	"	"	"	"	"	"
1,2-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
2-Nitroaniline	ND	10.0	2.24	"	"	"	"	"	"
1,3-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
3-Nitroaniline	ND	10.0	1.81	"	"	"	"	"	"
1,4-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
4-Nitroaniline	ND	10.0	0.970	"	"	"	"	"	"
Nitrobenzene	ND	10.0	1.34	"	"	"	"	"	"
2-Nitrophenol	ND	10.0	1.05	"	"	"	"	"	"
4-Nitrophenol	ND	10.0	3.41	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	10.0	1.45	"	"	"	"	"	"
2,3,4,6-Tetrachlorophenol	ND	10.0	2.00	"	"	"	"	"	"
Pentachlorophenol	ND	10.0	0.870	"	"	"	"	"	"
Phenanthrene	ND	10.0	1.80	"	"	"	"	"	"
Phenol	ND	10.0	1.17	"	"	"	"	"	"
Aniline	ND	10.0	2.00	"	"	"	"	"	"
Pyrene	ND	10.0	0.850	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	10.0	1.11	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	10.0	1.65	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	10.0	1.40	"	"	"	"	"	"

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Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 7
2304347-03 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

2-Methylnaphthalene	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
1-Methylnaphthalene	ND	10.0	2.00	"	"	"	"	"	"
Naphthalene	ND	10.0	1.24	"	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	30.0	3.05	"	"	"	"	"	"

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Fluorophenol		59.2 %		20-120		"	"	"	"	
Surrogate: Phenol-d5		33.5 %		20-120		"	"	"	"	
Surrogate: Nitrobenzene-d5		102 %		20-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		84.3 %		20-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		76.6 %		20-120		"	"	"	"	
Surrogate: Terphenyl-d14		43.1 %		20-120		"	"	"	"	

Dissolved Metals by EPA Method 200.8

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Aluminum	1120	50.0	14.6	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8	
Vanadium	2.39	0.0500		"	"	"	"	"	"	
Uranium	7.47	0.500	0.0619	"	"	"	"	"	"	
Antimony	0.450	0.0500	0.0254	"	"	"	"	"	"	
Arsenic	0.710	0.600	0.337	"	"	"	"	"	"	
Barium	55.2	1.00	0.633	"	"	"	"	"	"	
Beryllium	0.0550	0.100	0.0106	"	"	"	"	"	"	
Cadmium	0.0600	0.0500	0.0144	"	"	"	"	"	"	
Boron	260	10.0	6.39	"	"	"	"	"	"	
Chromium	1.20	1.00	0.168	"	"	"	"	"	"	
Cobalt	1.28	1.00	0.0569	"	"	"	"	"	"	
Copper	1.72	1.00	0.143	"	"	"	"	"	"	
Iron	629	10.0	4.47	"	"	"	"	"	"	
Lead	0.895	0.500	0.110	"	"	"	"	"	"	
Manganese	34.6	1.00	0.319	"	"	"	"	"	"	
Molybdenum	2.94	1.00	0.108	"	"	"	"	"	"	
Nickel	2.75	1.00	0.0611	"	"	"	"	"	"	

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Denver CO, 80229

Project: Nix
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Nix-RMCC-Mon 7
2304347-03 (Water)

Summit Scientific

Dissolved Metals by EPA Method 200.8

Selenium	1.75	1.00	0.0350	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8
Silver	0.0100	0.250	0.00535	"	"	"	"	"	"
Thallium	ND	1.00		"	"	"	"	"	"
Zinc	3.82	1.00	0.118	"	"	"	"	"	"

Dissolved Mercury by EPA Method 245.1

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.200	0.0880	ug/l	1	BGD0645	04/20/23	04/21/23	EPA 245.1	

Anions by EPA Method 300.0

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bromide	ND	10.0	0.0225	mg/L	50	BGD0558	04/18/23	04/21/23	EPA 300.0	
Chloride	192	3.00	0.0725	"	"	"	"	"	"	
Chloride	192	3.00	0.0725	"	"	"	"	"	"	
Fluoride	ND	2.00	0.00550	"	"	"	"	"	"	
Nitrate as N	7.15	2.50	0.00550	"	"	"	"	"	"	
Nitrite as N	ND	3.00	0.0350	"	"	"	"	"	"	
Orthophosphate as P	ND	5.00	0.357	"	"	"	"	"	"	
Sulfate	321	15.0	0.352	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	943	10.0	10.0	mg/L	1	BGD0787	04/24/23	04/24/23	SM2540C	

pH by SM4500

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2500 E Brannan Way
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Nix-RMCC-Mon 7
2304347-03 (Water)

Summit Scientific

pH by SM4500

Date Sampled: **04/17/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.01	1.00		pH Units	1	BGD0804	04/17/23	04/24/23	SM4500-H+ B	

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2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 8
2304347-04 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	10.0	1.61	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D	
Acenaphthylene	ND	10.0	1.44	"	"	"	"	"	"	
Anthracene	ND	10.0	1.56	"	"	"	"	"	"	
Bis(2-ethylhexyl)adipate	ND	10.0	2.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	10.0	0.650	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10.0	0.870	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	20.0	0.640	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	10.0	0.580	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10.0	0.600	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	1.24	"	"	"	"	"	"	
Pyridine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	1.49	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	10.0	2.00	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	10.0	1.13	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	1.31	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	1.00	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	10.0	1.91	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	10.0	0.790	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	1.37	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	10.0	1.66	"	"	"	"	"	"	
2-Chloronaphthalene	ND	10.0	1.54	"	"	"	"	"	"	
2-Chlorophenol	ND	10.0	1.01	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	10.0	1.83	"	"	"	"	"	"	
Chrysene	ND	10.0	0.620	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10.0	0.690	"	"	"	"	"	"	
Dibenzofuran	ND	10.0	1.82	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10.0	1.44	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	10.0	0.990	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	10.0	1.06	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10.0	0.980	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	10.0	1.26	"	"	"	"	"	"	
Diethyl phthalate	ND	10.0	1.95	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	2.78	"	"	"	"	"	"	

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2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Nix-RMCC-Mon 8
2304347-04 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

Carbazole	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
Dimethyl phthalate	ND	10.0	2.09	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	10.0	0.900	"	"	"	"	"	"
2,4-Dinitrophenol	ND	10.0	1.02	"	"	"	"	"	"
Azobenzene	ND	10.0	2.00	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	10.0	1.60	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	10.0	1.75	"	"	"	"	"	"
Di-n-octyl phthalate	ND	10.0	0.760	"	"	"	"	"	"
Fluoranthene	ND	10.0	0.740	"	"	"	"	"	"
Fluorene	ND	10.0	2.24	"	"	"	"	"	"
Hexachlorobenzene	ND	10.0	1.81	"	"	"	"	"	"
Hexachlorobutadiene	ND	10.0	3.04	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	10.0	0.720	"	"	"	"	"	"
Hexachloroethane	ND	10.0	1.34	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	10.0	0.620	"	"	"	"	"	"
Isophorone	ND	10.0	1.32	"	"	"	"	"	"
2-Methylphenol	ND	10.0	1.30	"	"	"	"	"	"
4-Methylphenol	ND	10.0	1.26	"	"	"	"	"	"
1,2-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
2-Nitroaniline	ND	10.0	2.24	"	"	"	"	"	"
1,3-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
3-Nitroaniline	ND	10.0	1.81	"	"	"	"	"	"
1,4-Dinitrobenzene	ND	10.0	2.00	"	"	"	"	"	"
4-Nitroaniline	ND	10.0	0.970	"	"	"	"	"	"
Nitrobenzene	ND	10.0	1.34	"	"	"	"	"	"
2-Nitrophenol	ND	10.0	1.05	"	"	"	"	"	"
4-Nitrophenol	ND	10.0	3.41	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	10.0	1.45	"	"	"	"	"	"
2,3,4,6-Tetrachlorophenol	ND	10.0	2.00	"	"	"	"	"	"
Pentachlorophenol	ND	10.0	0.870	"	"	"	"	"	"
Phenanthrene	ND	10.0	1.80	"	"	"	"	"	"
Phenol	ND	10.0	1.17	"	"	"	"	"	"
Aniline	ND	10.0	2.00	"	"	"	"	"	"
Pyrene	ND	10.0	0.850	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	10.0	1.11	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	10.0	1.65	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	10.0	1.40	"	"	"	"	"	"

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Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 8
2304347-04 (Water)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D

2-Methylnaphthalene	ND	10.0	2.00	ug/l	1	BGD0571	04/18/23	04/18/23	EPA 8270D
1-Methylnaphthalene	ND	10.0	2.00	"	"	"	"	"	"
Naphthalene	ND	10.0	1.24	"	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	30.0	3.05	"	"	"	"	"	"

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Fluorophenol		59.4 %		20-120		"	"	"	"	
Surrogate: Phenol-d5		33.8 %		20-120		"	"	"	"	
Surrogate: Nitrobenzene-d5		101 %		20-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		83.6 %		20-120		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		76.6 %		20-120		"	"	"	"	
Surrogate: Terphenyl-d14		39.6 %		20-120		"	"	"	"	

Dissolved Metals by EPA Method 200.8

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Aluminum	693	50.0	14.6	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8	
Vanadium	1.62	0.0500		"	"	"	"	"	"	
Uranium	20.3	0.500	0.0619	"	"	"	"	"	"	
Antimony	0.410	0.0500	0.0254	"	"	"	"	"	"	
Arsenic	0.555	0.600	0.337	"	"	"	"	"	"	
Barium	76.6	1.00	0.633	"	"	"	"	"	"	
Beryllium	0.0250	0.100	0.0106	"	"	"	"	"	"	
Cadmium	0.0450	0.0500	0.0144	"	"	"	"	"	"	
Boron	256	10.0	6.39	"	"	"	"	"	"	
Chromium	1.13	1.00	0.168	"	"	"	"	"	"	
Cobalt	0.530	1.00	0.0569	"	"	"	"	"	"	
Copper	1.29	1.00	0.143	"	"	"	"	"	"	
Iron	434	10.0	4.47	"	"	"	"	"	"	
Lead	0.510	0.500	0.110	"	"	"	"	"	"	
Manganese	14.9	1.00	0.319	"	"	"	"	"	"	
Molybdenum	4.23	1.00	0.108	"	"	"	"	"	"	
Nickel	2.06	1.00	0.0611	"	"	"	"	"	"	

Summit Scientific

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 8
2304347-04 (Water)

Summit Scientific

Dissolved Metals by EPA Method 200.8

Selenium	1.68	1.00	0.0350	ug/l	1	BGD0563	04/18/23	04/19/23	EPA 200.8
Silver	ND	0.250	0.00535	"	"	"	"	"	"
Thallium	ND	1.00		"	"	"	"	"	"
Zinc	4.24	1.00	0.118	"	"	"	"	"	"

Dissolved Mercury by EPA Method 245.1

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Mercury	ND	0.200	0.0880	ug/l	1	BGD0645	04/20/23	04/21/23	EPA 245.1	

Anions by EPA Method 300.0

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Bromide	ND	10.0	0.0225	mg/L	50	BGD0558	04/18/23	04/21/23	EPA 300.0	
Chloride	178	3.00	0.0725	"	"	"	"	"	"	
Chloride	178	3.00	0.0725	"	"	"	"	"	"	
Fluoride	2.20	2.00	0.00550	"	"	"	"	"	"	
Nitrate as N	9.80	2.50	0.00550	"	"	"	"	"	"	
Nitrite as N	ND	3.00	0.0350	"	"	"	"	"	"	
Orthophosphate as P	ND	5.00	0.357	"	"	"	"	"	"	
Sulfate	297	15.0	0.352	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	889	10.0	10.0	mg/L	1	BGD0787	04/24/23	04/24/23	SM2540C	

pH by SM4500

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Nix-RMCC-Mon 8
2304347-04 (Water)

Summit Scientific

pH by SM4500

Date Sampled: **04/17/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.00	1.00		pH Units	1	BGD0804	04/17/23	04/24/23	SM4500-H+ B	

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Semivolatile Organic Compounds by EPA Method 8270D - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0571 - EPA 5030 Water MS

Blank (BGD0571-BLK1)

Prepared & Analyzed: 04/18/23

Acenaphthene	ND	10.0	ug/l
Acenaphthylene	ND	10.0	"
Anthracene	ND	10.0	"
Bis(2-ethylhexyl)adipate	ND	10.0	"
Benzo (a) anthracene	ND	10.0	"
Benzo (b) fluoranthene	ND	10.0	"
Benzo (k) fluoranthene	ND	20.0	"
Benzo (g,h,i) perylene	ND	10.0	"
Benzo (a) pyrene	ND	10.0	"
Benzyl alcohol	ND	10.0	"
Pyridine	ND	10.0	"
Bis(2-chloroethoxy)methane	ND	10.0	"
N-Nitrosodimethylamine	ND	10.0	"
Bis(2-chloroethyl)ether	ND	10.0	"
Bis(2-chloroisopropyl)ether	ND	10.0	"
Bis(2-ethylhexyl)phthalate	ND	10.0	"
4-Bromophenyl phenyl ether	ND	10.0	"
Butyl benzyl phthalate	ND	10.0	"
4-Chloroaniline	ND	10.0	"
4-Chloro-3-methylphenol	ND	10.0	"
2-Chloronaphthalene	ND	10.0	"
2-Chlorophenol	ND	10.0	"
4-Chlorophenyl phenyl ether	ND	10.0	"
Chrysene	ND	10.0	"
Dibenz (a,h) anthracene	ND	10.0	"
Dibenzofuran	ND	10.0	"
Di-n-butyl phthalate	ND	10.0	"
1,2-Dichlorobenzene	ND	10.0	"
1,3-Dichlorobenzene	ND	10.0	"
1,4-Dichlorobenzene	ND	10.0	"
2,4-Dichlorophenol	ND	10.0	"
Diethyl phthalate	ND	10.0	"
2,4-Dimethylphenol	ND	10.0	"
Carbazole	ND	10.0	"
Dimethyl phthalate	ND	10.0	"
4,6-Dinitro-2-methylphenol	ND	10.0	"
2,4-Dinitrophenol	ND	10.0	"
Azobenzene	ND	10.0	"

Summit Scientific

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2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Semivolatile Organic Compounds by EPA Method 8270D - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0571 - EPA 5030 Water MS

Blank (BGD0571-BLK1)

Prepared & Analyzed: 04/18/23

2,4-Dinitrotoluene	ND	10.0	ug/l
2,6-Dinitrotoluene	ND	10.0	"
Di-n-octyl phthalate	ND	10.0	"
Fluoranthene	ND	10.0	"
Fluorene	ND	10.0	"
Hexachlorobenzene	ND	10.0	"
Hexachlorobutadiene	ND	10.0	"
Hexachlorocyclopentadiene	ND	10.0	"
Hexachloroethane	ND	10.0	"
Indeno (1,2,3-cd) pyrene	ND	10.0	"
Isophorone	ND	10.0	"
2-Methylphenol	ND	10.0	"
4-Methylphenol	ND	10.0	"
1,2-Dinitrobenzene	ND	10.0	"
2-Nitroaniline	ND	10.0	"
1,3-Dinitrobenzene	ND	10.0	"
3-Nitroaniline	ND	10.0	"
1,4-Dinitrobenzene	ND	10.0	"
4-Nitroaniline	ND	10.0	"
Nitrobenzene	ND	10.0	"
2-Nitrophenol	ND	10.0	"
4-Nitrophenol	ND	10.0	"
N-Nitrosodi-n-propylamine	ND	10.0	"
2,3,4,6-Tetrachlorophenol	ND	10.0	"
Pentachlorophenol	ND	10.0	"
Phenanthrene	ND	10.0	"
Phenol	ND	10.0	"
Aniline	ND	10.0	"
Pyrene	ND	10.0	"
1,2,4-Trichlorobenzene	ND	10.0	"
2,4,5-Trichlorophenol	ND	10.0	"
2,4,6-Trichlorophenol	ND	10.0	"
2-Methylnaphthalene	ND	10.0	"
1-Methylnaphthalene	ND	10.0	"
Naphthalene	ND	10.0	"
3,3'-Dichlorobenzidine	ND	30.0	"

Surrogate: 2-Fluorophenol

99.6

"

100

99.6 20-120

Surrogate: Phenol-d5

85.2

"

100

85.2 20-120

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Brannan Sand and Gravel
2500 E Brannan Way
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Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Semivolatile Organic Compounds by EPA Method 8270D - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0571 - EPA 5030 Water MS

Blank (BGD0571-BLK1)

Prepared & Analyzed: 04/18/23

Surrogate: Nitrobenzene-d5	107		ug/l	100		107	20-120
Surrogate: 2-Fluorobiphenyl	97.0		"	100		97.0	20-120
Surrogate: 2,4,6-Tribromophenol	94.4		"	100		94.4	20-120
Surrogate: Terphenyl-dl4	65.1		"	100		65.1	20-120

LCS (BGD0571-BS1)

Prepared & Analyzed: 04/18/23

Acenaphthene	87.6	10.0	ug/l	100		87.6	20-120
4-Chloro-3-methylphenol	164	10.0	"	200		82.2	20-120
2-Chlorophenol	171	10.0	"	200		85.5	20-120
1,4-Dichlorobenzene	86.3	10.0	"	100		86.3	20-120
2,4-Dinitrotoluene	85.0	10.0	"	100		85.0	20-120
4-Nitrophenol	202	10.0	"	200		101	20-120
N-Nitrosodi-n-propylamine	62.3	10.0	"	100		62.3	20-120
Pentachlorophenol	226	10.0	"	200		113	20-120
Phenol	153	10.0	"	200		76.3	20-120
Pyrene	65.3	10.0	"	100		65.3	20-120
1,2,4-Trichlorobenzene	99.2	10.0	"	100		99.2	20-120
Surrogate: 2-Fluorophenol	108		"	100		108	20-120
Surrogate: Phenol-d5	90.2		"	100		90.2	20-120
Surrogate: Nitrobenzene-d5	110		"	100		110	20-120
Surrogate: 2-Fluorobiphenyl	95.1		"	100		95.1	20-120
Surrogate: 2,4,6-Tribromophenol	104		"	100		104	20-120
Surrogate: Terphenyl-dl4	63.8		"	100		63.8	20-120

LCS Dup (BGD0571-BSD1)

Prepared & Analyzed: 04/18/23

Acenaphthene	89.8	10.0	ug/l	100		89.8	20-120	2.50	30
4-Chloro-3-methylphenol	160	10.0	"	200		79.8	20-120	2.95	30
2-Chlorophenol	168	10.0	"	200		84.2	20-120	1.54	30
1,4-Dichlorobenzene	85.4	10.0	"	100		85.4	20-120	1.00	30
2,4-Dinitrotoluene	86.6	10.0	"	100		86.6	20-120	1.84	30
4-Nitrophenol	209	10.0	"	200		104	20-120	3.23	30
N-Nitrosodi-n-propylamine	61.3	10.0	"	100		61.3	20-120	1.65	30
Pentachlorophenol	210	10.0	"	200		105	20-120	7.57	30
Phenol	150	10.0	"	200		74.8	20-120	1.99	30
Pyrene	69.3	10.0	"	100		69.3	20-120	5.97	30
1,2,4-Trichlorobenzene	99.7	10.0	"	100		99.7	20-120	0.543	30
Surrogate: 2-Fluorophenol	105		"	100		105	20-120		
Surrogate: Phenol-d5	88.8		"	100		88.8	20-120		

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Semivolatile Organic Compounds by EPA Method 8270D - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD	Limit	Notes
		Limit	Units			%REC	Limits			

Batch BGD0571 - EPA 5030 Water MS

LCS Dup (BGD0571-BSD1)

Prepared & Analyzed: 04/18/23

Surrogate: Nitrobenzene-d5	111	ug/l	100	111	20-120
Surrogate: 2-Fluorobiphenyl	97.0	"	100	97.0	20-120
Surrogate: 2,4,6-Tribromophenol	105	"	100	105	20-120
Surrogate: Terphenyl-d14	68.6	"	100	68.6	20-120

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Dissolved Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0563 - EPA 200.8

Blank (BGD0563-BLK1)

Prepared: 04/18/23 Analyzed: 04/19/23

Aluminum	ND	50.0	ug/l
Vanadium	ND	0.0500	"
Uranium	ND	0.500	"
Antimony	ND	0.0500	"
Arsenic	ND	0.600	"
Barium	ND	1.00	"
Beryllium	ND	0.100	"
Boron	ND	10.0	"
Cadmium	ND	0.0500	"
Cobalt	ND	1.00	"
Chromium	ND	1.00	"
Copper	ND	1.00	"
Iron	ND	10.0	"
Lead	ND	0.500	"
Manganese	ND	1.00	"
Molybdenum	ND	1.00	"
Nickel	ND	1.00	"
Selenium	ND	1.00	"
Silver	ND	0.250	"
Thallium	ND	1.00	"
Zinc	ND	1.00	"

LCS (BGD0563-BS1)

Prepared: 04/18/23 Analyzed: 04/19/23

Aluminum	4610	50.0	ug/l	5000	92.1	85-115
Antimony	23.8	0.0500	"	25.0	95.0	85-115
Vanadium	484	0.0500	"	500	96.9	85-115
Uranium	234	0.500	"	250	93.6	85-115
Arsenic	496	0.600	"	500	99.3	85-115
Barium	511	1.00	"	500	102	85-115
Beryllium	25.7	0.100	"	25.0	103	85-115
Boron	2720	10.0	"	2500	109	85-115
Cadmium	23.7	0.0500	"	25.0	94.9	85-115
Cobalt	471	1.00	"	500	94.2	85-115
Chromium	476	1.00	"	500	95.2	85-115
Copper	460	1.00	"	500	92.0	85-115
Iron	4830	10.0	"	5000	96.6	85-115
Lead	235	0.500	"	250	93.9	85-115
Manganese	464	1.00	"	500	92.8	85-115

Summit Scientific

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Dissolved Metals by EPA Method 200.8 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0563 - EPA 200.8

LCS (BGD0563-BS1)

Prepared: 04/18/23 Analyzed: 04/19/23

Molybdenum	485	1.00	ug/l	500	97.0	85-115
Nickel	448	1.00	"	500	89.5	85-115
Selenium	55.5	1.00	"	50.0	111	85-115
Silver	23.9	0.250	"	25.0	95.4	85-115
Thallium	12.0	1.00	"	12.5	96.3	85-115
Zinc	448	1.00	"	500	89.5	85-115

Duplicate (BGD0563-DUP1)

Source: 2304265-01

Prepared: 04/18/23 Analyzed: 04/19/23

Aluminum	53.6	50.0	ug/l	49.9	7.02	20	QR-01
Uranium	18.5	0.500	"	18.4	0.514	20	
Antimony	0.635	0.0500	"	0.640	0.784	20	
Vanadium	0.320	0.0500	"	0.325	1.55	20	
Arsenic	0.590	0.600	"	0.610	3.33	20	
Barium	124	1.00	"	124	0.669	20	
Beryllium	0.0200	0.100	"	0.0200	0.00	20	
Boron	501	10.0	"	504	0.494	20	
Cadmium	1.16	0.0500	"	1.13	2.62	20	
Chromium	0.350	1.00	"	0.660	61.4	20	
Cobalt	1.23	1.00	"	1.26	2.01	20	J
Copper	5.95	1.00	"	6.06	1.91	20	
Iron	303	10.0	"	306	0.997	20	
Lead	1.56	0.500	"	1.58	1.28	20	
Manganese	589	1.00	"	595	1.04	20	
Molybdenum	5.61	1.00	"	5.81	3.50	20	
Nickel	3.27	1.00	"	3.38	3.46	20	
Selenium	2.08	1.00	"	2.34	11.8	20	
Silver	0.0400	0.250	"	0.0350	13.3	20	
Thallium	0.00500	1.00	"	0.00500	0.00	20	
Zinc	34.5	1.00	"	34.8	0.881	20	

Summit Scientific

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:
05/18/23 15:36

Dissolved Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0563 - EPA 200.8

Matrix Spike (BGD0563-MS1)

Source: 2304265-01

Prepared: 04/18/23 Analyzed: 04/19/23

Aluminum	4720	50.0	ug/l	5000	49.9	93.4	70-130		
Uranium	261	0.500	"	250	18.4	96.8	70-130		
Vanadium	494	0.0500	"	500	0.325	98.7	70-130		
Antimony	25.1	0.0500	"	25.0	0.640	98.0	70-130		
Arsenic	535	0.600	"	500	0.610	107	70-130		
Barium	640	1.00	"	500	124	103	70-130		
Beryllium	24.9	0.100	"	25.0	0.0200	99.7	70-130		
Boron	3150	10.0	"	2500	504	106	70-130		
Cadmium	25.5	0.0500	"	25.0	1.13	97.4	70-130		
Cobalt	460	1.00	"	500	1.26	91.8	70-130		
Chromium	473	1.00	"	500	0.660	94.5	70-130		
Copper	448	1.00	"	500	6.06	88.4	70-130		
Iron	5110	10.0	"	5000	306	96.0	70-130		
Lead	239	0.500	"	250	1.58	95.0	70-130		
Manganese	1060	1.00	"	500	595	92.3	70-130		
Molybdenum	519	1.00	"	500	5.81	103	70-130		
Nickel	435	1.00	"	500	3.38	86.3	70-130		
Selenium	60.2	1.00	"	50.0	2.34	116	70-130		
Silver	23.6	0.250	"	25.0	0.0350	94.3	70-130		
Thallium	12.2	1.00	"	12.5	0.00500	97.5	70-130		
Zinc	479	1.00	"	500	34.8	88.8	70-130		

Matrix Spike Dup (BGD0563-MSD1)

Source: 2304265-01

Prepared: 04/18/23 Analyzed: 04/19/23

Aluminum	4640	50.0	ug/l	5000	49.9	91.7	70-130	1.80	25
Antimony	25.0	0.0500	"	25.0	0.640	97.5	70-130	0.439	25
Uranium	259	0.500	"	250	18.4	96.1	70-130	0.746	25
Vanadium	481	0.0500	"	500	0.325	96.0	70-130	2.70	25
Arsenic	525	0.600	"	500	0.610	105	70-130	1.96	25
Barium	630	1.00	"	500	124	101	70-130	1.46	25
Beryllium	25.0	0.100	"	25.0	0.0200	99.9	70-130	0.180	25
Boron	3130	10.0	"	2500	504	105	70-130	0.655	25
Cadmium	25.2	0.0500	"	25.0	1.13	96.1	70-130	1.24	25
Chromium	466	1.00	"	500	0.660	93.2	70-130	1.48	25
Cobalt	453	1.00	"	500	1.26	90.4	70-130	1.53	25
Copper	448	1.00	"	500	6.06	88.4	70-130	0.0681	25
Iron	5000	10.0	"	5000	306	93.9	70-130	2.10	25
Lead	236	0.500	"	250	1.58	93.6	70-130	1.53	25
Manganese	1040	1.00	"	500	595	89.0	70-130	1.58	25

Summit Scientific

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Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:
05/18/23 15:36

Dissolved Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0563 - EPA 200.8

Matrix Spike Dup (BGD0563-MSD1)

Source: 2304265-01

Prepared: 04/18/23 Analyzed: 04/19/23

Molybdenum	506	1.00	ug/l	500	5.81	100	70-130	2.41	25	
Nickel	432	1.00	"	500	3.38	85.6	70-130	0.764	25	
Selenium	58.6	1.00	"	50.0	2.34	112	70-130	2.67	25	
Silver	23.3	0.250	"	25.0	0.0350	93.2	70-130	1.11	25	
Thallium	12.0	1.00	"	12.5	0.00500	95.6	70-130	2.03	25	
Zinc	472	1.00	"	500	34.8	87.5	70-130	1.37	25	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix
Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Dissolved Mercury by EPA Method 245.1 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0645 - EPA 245.1

Blank (BGD0645-BLK1)

Prepared: 04/20/23 Analyzed: 04/21/23

Mercury ND 0.200 ug/l

LCS (BGD0645-BS1)

Prepared: 04/20/23 Analyzed: 04/21/23

Mercury 2.77 0.200 ug/l 2.50 111 85-115

Duplicate (BGD0645-DUP1)

Source: 2304347-01

Prepared: 04/20/23 Analyzed: 04/21/23

Mercury ND 0.200 ug/l ND 20

Matrix Spike (BGD0645-MS1)

Source: 2304347-01

Prepared: 04/20/23 Analyzed: 04/21/23

Mercury 2.78 0.200 ug/l 2.50 ND 111 75-125

Matrix Spike Dup (BGD0645-MSD1)

Source: 2304347-01

Prepared: 04/20/23 Analyzed: 04/21/23

Mercury 2.76 0.200 ug/l 2.50 ND 110 75-125 0.722 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0558 - General Preparation

Blank (BGD0558-BLK1)

Prepared: 04/18/23 Analyzed: 04/21/23

Bromide	ND	0.200	mg/L
Chloride	ND	0.0600	"
Chloride	ND	0.0600	"
Fluoride	ND	0.0400	"
Nitrate as N	ND	0.0500	"
Nitrite as N	ND	0.0600	"
Orthophosphate as P	ND	0.100	"
Sulfate	0.0110	0.300	"

LCS (BGD0558-BS1)

Prepared: 04/18/23 Analyzed: 04/21/23

Bromide	10.7	0.200	mg/L	10.0	107	90-110
Chloride	3.21	0.0600	"	3.00	107	90-110
Chloride	3.21	0.0600	"	3.00	107	90-110
Fluoride	2.07	0.0400	"	2.00	104	90-110
Nitrate as N	3.28	0.0500	"	3.00	109	90-110
Nitrite as N	3.20	0.0600	"	3.00	107	90-110
Orthophosphate as P	4.87	0.100	"	5.00	97.4	90-110
Sulfate	16.3	0.300	"	15.0	109	90-110

Duplicate (BGD0558-DUP1)

Source: 2304347-01

Prepared: 04/18/23 Analyzed: 04/21/23

Bromide	ND	10.0	mg/L	ND		20	
Chloride	156	3.00	"	151		2.90	20
Chloride	156	3.00	"	151		2.90	20
Fluoride	2.80	2.00	"	1.85		40.9	20
Nitrate as N	13.8	2.50	"	12.0		14.4	20
Nitrite as N	ND	3.00	"	ND			20
Orthophosphate as P	2.00	5.00	"	0.800		85.7	20
Sulfate	317	15.0	"	264		18.3	20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0558 - General Preparation

Matrix Spike (BGD0558-MS1)

Source: 2304347-01

Prepared: 04/18/23 Analyzed: 04/21/23

Bromide	585	10.0	mg/L	500	ND	117	80-120
Chloride	327	3.00	"	150	151	117	80-120
Chloride	327	3.00	"	150	151	117	80-120
Fluoride	119	2.00	"	100	1.85	117	80-120
Nitrate as N	190	2.50	"	150	12.0	119	80-120
Nitrite as N	174	3.00	"	150	ND	116	80-120
Orthophosphate as P	270	5.00	"	250	0.800	108	80-120
Sulfate	1150	15.0	"	750	264	119	80-120

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

Total Dissolved Solids by SM2540C - Quality Control

Summit Scientific

Reporting				Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGD0787 - General Preparation

Blank (BGD0787-BLK1)

Prepared & Analyzed: 04/24/23

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BGD0787-DUP1)

Source: 2304347-01

Prepared & Analyzed: 04/24/23

Total Dissolved Solids 954 10.0 mg/L 1030 7.81 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770

Project Manager: Scott Legg

Reported:

05/18/23 15:36

pH by SM4500 - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BGD0804 - General Preparation

LCS (BGD0804-BS1)

Prepared: 04/17/23 Analyzed: 04/24/23

pH	8.95	1.00	pH Units	9.18	97.5	90-110
----	------	------	----------	------	------	--------

Duplicate (BGD0804-DUP1)

Source: 2304347-01

Prepared: 04/17/23 Analyzed: 04/24/23

pH	7.02	1.00	pH Units	7.02	0.00	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

Sample Delivery Group: L1613512
Samples Received: 05/06/2023
Project Number: 2304347
Description: 2304347

Report To: REPORTS
4653 Table Mountain Drive
Golden, CO 80403

Entire Report Reviewed By:



T. Alan Harvill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

NIX-OWENS-MON 5A L1613512-01 WW

				Collected by	Collected date/time	Received date/time
					04/17/23 14:10	05/06/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 200.7	WG2056207	1	05/10/23 11:28	05/11/23 00:54	ABL	Mt. Juliet, TN

¹Cp

²Tc

³Ss

NIX-RMCC-MON 6 L1613512-02 WW

				Collected by	Collected date/time	Received date/time
					04/17/23 14:30	05/06/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 200.7	WG2058950	1	05/13/23 21:17	05/14/23 18:46	ZSA	Mt. Juliet, TN

⁴Cn

⁵Sr

NIX-RMCC-MON 7 L1613512-03 WW

				Collected by	Collected date/time	Received date/time
					04/17/23 13:40	05/06/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 200.7	WG2058950	1	05/13/23 21:17	05/14/23 18:49	ZSA	Mt. Juliet, TN

⁶Qc

⁷Gl

⁸Al

NIX-RMCC-MON 8 L1613512-04 WW

				Collected by	Collected date/time	Received date/time
					04/17/23 12:50	05/06/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 200.7	WG2058950	1	05/13/23 21:17	05/14/23 18:52	ZSA	Mt. Juliet, TN

⁹Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



T. Alan Harvill
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lithium,Dissolved	0.0510		0.00689	0.0150	1	05/11/2023 00:54	WG2056207

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lithium,Dissolved	0.0169		0.00689	0.0150	1	05/14/2023 18:46	WG2058950

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lithium,Dissolved	0.0309		0.00689	0.0150	1	05/14/2023 18:49	WG2058950

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lithium,Dissolved	0.0253		0.00689	0.0150	1	05/14/2023 18:52	WG2058950

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3923410-1 05/11/23 00:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lithium,Dissolved	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3923410-2 05/11/23 00:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lithium,Dissolved	1.00	0.983	98.3	85.0-115	

L1613512-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1613512-01 05/11/23 00:54 • (MS) R3923410-4 05/11/23 00:59 • (MSD) R3923410-5 05/11/23 01:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lithium,Dissolved	1.00	0.0510	1.07	1.07	102	102	1	70.0-130			0.256	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3924666-1 05/14/23 18:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lithium,Dissolved	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3924666-5 05/14/23 19:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lithium,Dissolved	1.00	0.954	95.4	85.0-115	

L1614883-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614883-01 05/14/23 18:36 • (MS) R3924666-3 05/14/23 18:41 • (MSD) R3924666-4 05/14/23 18:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lithium,Dissolved	1.00	0.0273	0.958	0.969	93.1	94.2	1	70.0-130			1.16	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

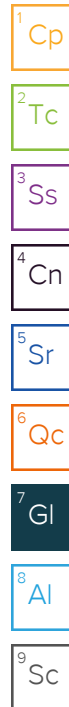
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

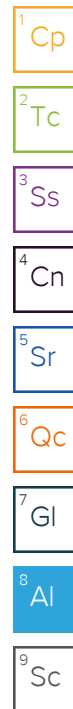
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



[illegible]

May 01, 2023

Report to:

Paul Shrewsbury
Summit Scientific
4653 Table Mountain Drive
Suite B
Golden, CO 80401

Bill to:

Paul Shrewsbury
Summit Scientific
4653 Table Mountain Drive
Suite B
Golden, CO 80401

cc: Mikayla Axtell, Michelle Clements

Project ID:

ACZ Project ID: L79956

Paul Shrewsbury:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 19, 2023. This project has been assigned to ACZ's project number, L79956. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L79956. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after May 31, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray

Madeleine Murray has reviewed
and approved this report.



Summit Scientific

Project ID:

Sample ID: NIX-OWENS-MON 5A

ACZ Sample ID: **L79956-01**

Date Sampled: 04/17/23 14:10

Date Received: 04/19/23

Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								04/27/23 10:16	mrd

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	04/28/23 9:13	mrd

Summit Scientific

Project ID:

Sample ID: NIX-RMCC-MON 6

ACZ Sample ID: **L79956-02**

Date Sampled: 04/17/23 14:30

Date Received: 04/19/23

Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								04/27/23 10:26	mrd

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	04/28/23 9:14	mrd

Summit Scientific

Project ID:

Sample ID: NIX-RMCC-MON 7

ACZ Sample ID: **L79956-03**

Date Sampled: 04/17/23 13:40

Date Received: 04/19/23

Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								04/27/23 10:36	mrd

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	04/28/23 9:17	mrd

Summit Scientific

Project ID:

Sample ID: NIX-RMCC-MON 8

ACZ Sample ID: **L79956-04**

Date Sampled: 04/17/23 12:50

Date Received: 04/19/23

Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								04/27/23 10:55	mrd

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	04/28/23 9:19	mrd

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L79956**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L79956-01	WG565097	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L79956-02	WG565097	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L79956-03	WG565097	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
L79956-04	WG565097	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ Project ID: **L79956**

No certification qualifiers associated with this analysis

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ACZ Project ID: L79956

Date Received: 04/19/2023 10:50

Received By:

Date Printed: 4/20/2023

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate? The 'sampled by' field on the Chain of Custody was not completed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA40082	2	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Summit Scientific

ACZ Project ID: L79956

Date Received: 04/19/2023 10:50

Received By:

Date Printed: 4/20/2023

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc. L 79956

CHAIN of CUSTODY

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report to:

Name: Paul Shrewsbury
Company: Summit Scientific
E-mail: pshrewsbury@s2scientific.com

Address: 4653 Table Mountain Drive
Golden, CO 80403
Telephone: 303-277-9310

Copy of Report to:

Name: Mikayla Axtell
Company: Summit Scientific

E-mail: reports@s2scientific.com
Telephone: 303-277-9310

Invoice to:

Name: Ben Shrewsbury
Company: Summit Scientific
E-mail: jbreer@s2scientific.com

Address: 4653 Table Mountain Drive
Golden, CO 80403
Telephone: 303-277-9310

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ☒ NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes ☐ No ☒

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Sampler's Site Information State Zip code Time Zone

*Sampler's Signature: *I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Project Name: 2304347	# of Containers	CYANIDE											
PO#:													
Reporting state for compliance testing:													
Check box if samples include NRC licensed material? <input type="checkbox"/>													
SAMPLE IDENTIFICATION	DATE:TIME	Matrix											
Nix-Owens-Mon 5A	4/17/23 14:10	WW	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nix-RMCC-Mon 6	4/17/23 14:30	WW	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nix-RMCC-Mon 7	4/17/23 13:40	WW	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nix-RMCC-Mon 8	4/17/23 12:50	WW	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please also send invoice to vshrewsbury@s2scientific.com

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
	4/18/23 11:00		4/19/23
Service Center	4/18/23 11:15		10:50

ite - Return with sample. Yellow - Retain for your records.

79956 Chain of Custody

79956-2305011315



Brannan Sand and Gravel
2500 E Brannan Way
Denver CO, 80229

Project: Nix

Project Number: 1-26-267770
Project Manager: Scott Legg

Reported:
05/18/23 15:36

Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration
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
RPD	Relative Percent Difference