

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 10, 2021

Russell Beam

RPG Resources (SWN)

1313 Ben Meris Ave

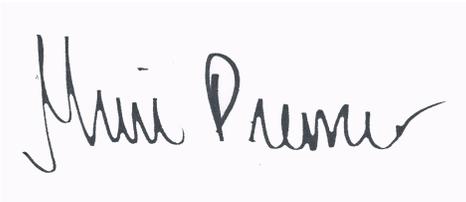
Broomfield, CO 80020

RE: Pond Liner Removal

Work Order #2108460

Enclosed are the results of analyses for samples received by Summit Scientific on 08/31/21 10:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury  
President



RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P1-1	2108460-01	Soil	08/30/21 11:55	08/31/21 10:20
P1-2	2108460-02	Soil	08/30/21 12:00	08/31/21 10:20
P1-3	2108460-03	Soil	08/30/21 12:05	08/31/21 10:20
P1-4	2108460-04	Soil	08/30/21 12:10	08/31/21 10:20
P1-5	2108460-05	Soil	08/30/21 12:25	08/31/21 10:20
P2-1	2108460-06	Soil	08/30/21 11:20	08/31/21 10:20
P2-2	2108460-07	Soil	08/30/21 11:25	08/31/21 10:20
P2-3	2108460-08	Soil	08/30/21 11:30	08/31/21 10:20
P2-4	2108460-09	Soil	08/30/21 11:40	08/31/21 10:20
P2-5	2108460-10	Soil	08/30/21 11:45	08/31/21 10:20
P3-1	2108460-11	Soil	08/30/21 10:50	08/31/21 10:20
P3-2	2108460-12	Soil	08/30/21 10:55	08/31/21 10:20
P3-3	2108460-13	Soil	08/30/21 11:00	08/31/21 10:20
P3-4	2108460-14	Soil	08/30/21 11:05	08/31/21 10:20
P3-5	2108460-15	Soil	08/30/21 11:10	08/31/21 10:20

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2108460.1

# Summit Scientific

S<sub>2</sub>

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

Page 1 of 2

Client: RPB Resources (SWD)

Project Manager: Russell Beam

Address: 1313 Ben Nevis Ave

E-Mail: rbeam@rpgres.com

City/State/Zip: Broomfield, CO 80020

Phone: 303-249-2051

Project Name: Pond Liner Removal

Sampler Name: Russell Beam

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full Table	Table 915	Table 915 Inorganic	TPH CG-310 Dioxin/Furans		
1	P1-1	8/30/21	11:55	3			X			X				X				
2	P1-2	"	12:00	2			X			X				X	X			
3	P1-3	"	12:05	2			X			X				X	X			
4	P1-4	"	12:10	2			X			X				X	X			
5	P1-5	"	12:25	2			X			X				X	X			
6	P2-1	"	11:20	3			X			X			X					
7	P2-2	"	11:25	2			X			X				X	X			
8	P2-3	"	11:30	2			X			X				X	X			
9	P2-4	"	11:40	2			X			X				X	X			
10	P2-5	"	11:45	2			X			X				X	X			

Relinquished by: Russell Beam	Date/Time: 8/31/21 10:20	Received by: [Signature]	Date/Time: 8/31/21 1020	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day _____ 72 hours _____	TAT as soon as possible. Refer to Parl. JB 8/31
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours _____ Standard _____	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours _____	
				Sample Integrity:	
				Temperature Upon Receipt: 10.2	
				Samples Intact: (Yes) No	

# Summit Scientific

2108460.2

S<sub>2</sub>

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

Page 2 of 2

Client: RPB Resources / (SUN) Project Manager: Russell Beam  
 Address: 1313 Ben Nevis Ave E-Mail: rbeam@rpbres.com  
 City/State/Zip: Broomfield, CO 80020  
 Phone: 303-249-2051 Project Name: POND LINER REMOVAL  
 Sampler Name: Russell Beam Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	P3-1	8/30/21	10:50	3			X			X			X				
2	P3-2	"	10:55	2			X			X			X	X			
3	P3-3	"	11:00	2			X			X			X	X			
4	P3-4	"	11:05	2			X			X			X	X			
5	P3-5	"	11:10	2			X			X			X	X			
6																	
7																	
8																	
9																	
10																	

Relinquished by: <u>Russell Beam</u> Date/Time: <u>8/31/21 10:20</u>	Received by: <u>[Signature]</u> Date/Time: <u>8/31/21 1020</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <u>10.2</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes: TAT As soon as possible. Refer to paul. JB 8/31
Relinquished by:	Received by:		
Relinquished by:	Received by:		

**Sample Receipt Checklist**

S2 Work Order 2108460  
 Client: RPG Resources / Suras Client Project ID: Pond Liner Removal

Shipped Via:  H.D./P.U./FedEx/UPS/USPS/Other \_\_\_\_\_ Airbill #: \_\_\_\_\_

Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_  
 (Describe)

Temp (°C)	10.2
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice.
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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):  
 \_\_\_\_\_  
 \_\_\_\_\_

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

JB Custodian Printed Name or Initials      John Be Signature of Custodian      8/31/21 Date/Time



RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-1**  
**2108460-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-1**  
**2108460-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		51.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.347</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

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1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-1**  
**2108460-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.07</b>	0.224	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>19.0</b>	0.448	"	"	"	"	"	"	
Cadmium	ND	0.224	"	"	"	"	"	"	
<b>Copper</b>	<b>5.63</b>	0.448	"	"	"	"	"	"	
<b>Lead</b>	<b>6.03</b>	0.224	"	"	"	"	"	"	
<b>Nickel</b>	<b>6.87</b>	0.448	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.885</b>	0.291	"	"	"	"	"	"	
Silver	ND	0.0224	"	"	"	"	"	"	
<b>Zinc</b>	<b>32.5</b>	0.448	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>5.56</b>	0.0560	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>2.07</b>	0.0560	"	"	"	"	"	"	
<b>Sodium</b>	<b>8.04</b>	0.0560	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Sodium Adsorption Ratio</b>	<b>0.739</b>	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

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 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P1-1**  
**2108460-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.2			%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.11	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	10.1			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-2**  
**2108460-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.0 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-2**  
**2108460-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0848</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>2.84</b>	0.227	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>72.9</b>	0.454	"	"	"	"	"	"	
<b>Cadmium</b>	<b>ND</b>	0.227	"	"	"	"	"	"	
<b>Copper</b>	<b>9.43</b>	0.454	"	"	"	"	"	"	
<b>Lead</b>	<b>8.03</b>	0.227	"	"	"	"	"	"	
<b>Nickel</b>	<b>8.36</b>	0.454	"	"	"	"	"	"	
<b>Selenium</b>	<b>1.09</b>	0.295	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0395</b>	0.0227	"	"	"	"	"	"	
<b>Zinc</b>	<b>43.8</b>	0.454	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>14.2</b>	0.0567	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>1.90</b>	0.0567	"	"	"	"	"	"	
<b>Sodium</b>	<b>1.80</b>	0.0567	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P1-2**  
**2108460-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.119	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.2		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.230	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.12		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-3**  
**2108460-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.5 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-3**  
**2108460-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	<b>0.319</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>4.91</b>	0.247	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	<b>141</b>	0.495	"	"	"	"	"	"	
Cadmium	ND	0.247	"	"	"	"	"	"	
Copper	<b>11.5</b>	0.495	"	"	"	"	"	"	
Lead	<b>10.1</b>	0.247	"	"	"	"	"	"	
Nickel	<b>9.78</b>	0.495	"	"	"	"	"	"	
Selenium	<b>1.30</b>	0.322	"	"	"	"	"	"	
Silver	<b>0.0621</b>	0.0247	"	"	"	"	"	"	
Zinc	<b>48.2</b>	0.495	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>112</b>	0.0619	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	<b>11.0</b>	0.0619	"	"	"	"	"	"	
Sodium	<b>19.1</b>	0.0619	"	"	"	"	"	"	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-3**  
**2108460-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.461	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.8		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.991	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.46		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-4**  
**2108460-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.0 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-4**  
**2108460-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.418</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>4.24</b>	0.229	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>200</b>	0.458	"	"	"	"	"	"	
<b>Cadmium</b>	<b>ND</b>	0.229	"	"	"	"	"	"	
<b>Copper</b>	<b>9.39</b>	0.458	"	"	"	"	"	"	
<b>Lead</b>	<b>8.28</b>	0.229	"	"	"	"	"	"	
<b>Nickel</b>	<b>8.95</b>	0.458	"	"	"	"	"	"	
<b>Selenium</b>	<b>1.06</b>	0.298	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0550</b>	0.0229	"	"	"	"	"	"	
<b>Zinc</b>	<b>39.2</b>	0.458	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>14.4</b>	0.0573	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>2.01</b>	0.0573	"	"	"	"	"	"	
<b>Sodium</b>	<b>33.1</b>	0.0573	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P1-4**  
**2108460-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.17	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.3		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.98	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.77		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-5**  
**2108460-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		78.4 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P1-5**  
**2108460-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.785</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>2.31</b>	0.207	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>85.6</b>	0.415	"	"	"	"	"	"	
<b>Cadmium</b>	<b>ND</b>	0.207	"	"	"	"	"	"	
<b>Copper</b>	<b>5.69</b>	0.415	"	"	"	"	"	"	
<b>Lead</b>	<b>8.13</b>	0.207	"	"	"	"	"	"	
<b>Nickel</b>	<b>6.07</b>	0.415	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.802</b>	0.270	"	"	"	"	"	"	
<b>Silver</b>	<b>ND</b>	0.0207	"	"	"	"	"	"	
<b>Zinc</b>	<b>30.0</b>	0.415	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>102</b>	0.0519	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>7.53</b>	0.0519	"	"	"	"	"	"	
<b>Sodium</b>	<b>33.3</b>	0.0519	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P1-5**  
**2108460-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.857	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.4		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.79	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	10.7		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-1**  
**2108460-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		76.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-1**  
**2108460-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		67.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0751</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-1**  
**2108460-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.62	0.227	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	143	0.454	"	"	"	"	"	"	
Cadmium	ND	0.227	"	"	"	"	"	"	
Copper	13.2	0.454	"	"	"	"	"	"	
Lead	9.89	0.227	"	"	"	"	"	"	
Nickel	10.7	0.454	"	"	"	"	"	"	
Selenium	1.23	0.295	"	"	"	"	"	"	
Silver	0.0528	0.0227	"	"	"	"	"	"	
Zinc	55.5	0.454	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	24.6	0.0567	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	2.86	0.0567	"	"	"	"	"	"	
Sodium	0.241	0.0567	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.0123	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P2-1**  
**2108460-06 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.1			%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.222	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.73			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-2**  
**2108460-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		75.8 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-2**  
**2108460-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.123</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>4.15</b>	0.230	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>163</b>	0.459	"	"	"	"	"	"	
<b>Cadmium</b>	<b>ND</b>	0.230	"	"	"	"	"	"	
<b>Copper</b>	<b>12.7</b>	0.459	"	"	"	"	"	"	
<b>Lead</b>	<b>10.3</b>	0.230	"	"	"	"	"	"	
<b>Nickel</b>	<b>10.7</b>	0.459	"	"	"	"	"	"	
<b>Selenium</b>	<b>1.17</b>	0.299	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0554</b>	0.0230	"	"	"	"	"	"	
<b>Zinc</b>	<b>48.3</b>	0.459	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>22.3</b>	0.0574	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>3.06</b>	0.0574	"	"	"	"	"	"	
<b>Sodium</b>	<b>7.69</b>	0.0574	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P2-2**  
**2108460-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.405</b>	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>87.1</b>		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.583</b>	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.03</b>		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-3**  
**2108460-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-3**  
**2108460-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.155	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.00	0.219	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	246	0.438	"	"	"	"	"	"	
Cadmium	ND	0.219	"	"	"	"	"	"	
Copper	15.7	0.438	"	"	"	"	"	"	
Lead	9.73	0.219	"	"	"	"	"	"	
Nickel	13.5	0.438	"	"	"	"	"	"	
Selenium	1.03	0.285	"	"	"	"	"	"	
Silver	0.0516	0.0219	"	"	"	"	"	"	
Zinc	57.7	0.438	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	66.5	0.0548	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	5.94	0.0548	"	"	"	"	"	"	
Sodium	11.5	0.0548	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P2-3**  
**2108460-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.363	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.3		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.651	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.47		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-4**  
**2108460-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		86.7 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %		21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BEI0023	09/01/21	09/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		85.3 %		30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-4**  
**2108460-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.192	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.82	0.207	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	142	0.414	"	"	"	"	"	"	
Cadmium	ND	0.207	"	"	"	"	"	"	
Copper	7.35	0.414	"	"	"	"	"	"	
Lead	7.20	0.207	"	"	"	"	"	"	
Nickel	7.11	0.414	"	"	"	"	"	"	
Selenium	1.05	0.269	"	"	"	"	"	"	
Silver	0.0377	0.0207	"	"	"	"	"	"	
Zinc	33.5	0.414	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.2	0.0518	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	3.91	0.0518	"	"	"	"	"	"	
Sodium	15.7	0.0518	"	"	"	"	"	"	

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P2-4**  
**2108460-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.734	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.653	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.77		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-5**  
**2108460-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.9 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P2-5**  
**2108460-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0921	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.20	0.218	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	126	0.437	"	"	"	"	"	"	
Cadmium	ND	0.218	"	"	"	"	"	"	
Copper	9.74	0.437	"	"	"	"	"	"	
Lead	8.43	0.218	"	"	"	"	"	"	
Nickel	8.03	0.437	"	"	"	"	"	"	
Selenium	1.54	0.284	"	"	"	"	"	"	
Silver	0.0454	0.0218	"	"	"	"	"	"	
Zinc	39.8	0.437	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.2	0.0546	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	4.99	0.0546	"	"	"	"	"	"	
Sodium	2.96	0.0546	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P2-5**  
**2108460-10 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.125	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.6		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.08	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-1**  
**2108460-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-1**  
**2108460-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEI0005	09/01/21	09/03/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		53.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.283</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-1**  
**2108460-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.20	0.240	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	95.7	0.480	"	"	"	"	"	"	
Cadmium	0.505	0.240	"	"	"	"	"	"	
Copper	35.4	0.480	"	"	"	"	"	"	
Lead	20.2	0.240	"	"	"	"	"	"	
Nickel	15.4	0.480	"	"	"	"	"	"	
Selenium	1.54	0.312	"	"	"	"	"	"	
Silver	0.126	0.0240	"	"	"	"	"	"	
Zinc	96.2	0.480	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	18.6	0.0600	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	3.89	0.0600	"	"	"	"	"	"	
Sodium	9.45	0.0600	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.520	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P3-1**  
**2108460-11 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	83.4			%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.01	0.0100		mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.74			pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-2**  
**2108460-12 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.5 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-2**  
**2108460-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>1.18</b>	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>3.80</b>	0.245	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
<b>Barium</b>	<b>179</b>	0.490	"	"	"	"	"	"	
<b>Cadmium</b>	<b>ND</b>	0.245	"	"	"	"	"	"	
<b>Copper</b>	<b>13.5</b>	0.490	"	"	"	"	"	"	
<b>Lead</b>	<b>11.7</b>	0.245	"	"	"	"	"	"	
<b>Nickel</b>	<b>12.1</b>	0.490	"	"	"	"	"	"	
<b>Selenium</b>	<b>1.31</b>	0.318	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0734</b>	0.0245	"	"	"	"	"	"	
<b>Zinc</b>	<b>55.4</b>	0.490	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chromium, Hexavalent</b>	<b>ND</b>	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>54.9</b>	0.0612	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
<b>Magnesium</b>	<b>10.9</b>	0.0612	"	"	"	"	"	"	
<b>Sodium</b>	<b>26.5</b>	0.0612	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P3-2**  
**2108460-12 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.855</b>	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>81.7</b>		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>1.81</b>	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.92</b>		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-3**  
**2108460-13 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.7 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-3**  
**2108460-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.567	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.29	0.214	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	158	0.429	"	"	"	"	"	"	
Cadmium	ND	0.214	"	"	"	"	"	"	
Copper	6.76	0.429	"	"	"	"	"	"	
Lead	7.84	0.214	"	"	"	"	"	"	
Nickel	8.30	0.429	"	"	"	"	"	"	
Selenium	1.05	0.279	"	"	"	"	"	"	
Silver	0.0495	0.0214	"	"	"	"	"	"	
Zinc	34.8	0.429	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	84.7	0.0536	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	10.9	0.0536	"	"	"	"	"	"	
Sodium	33.2	0.0536	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P3-3**  
**2108460-13 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.902</b>	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>93.3</b>		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>1.25</b>	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.50</b>		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-4**  
**2108460-14 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.7 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-4**  
**2108460-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.252	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.76	0.230	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	167	0.459	"	"	"	"	"	"	
Cadmium	0.271	0.230	"	"	"	"	"	"	
Copper	18.1	0.459	"	"	"	"	"	"	
Lead	12.7	0.230	"	"	"	"	"	"	
Nickel	12.9	0.459	"	"	"	"	"	"	
Selenium	1.33	0.298	"	"	"	"	"	"	
Silver	0.0962	0.0230	"	"	"	"	"	"	
Zinc	64.2	0.459	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.6	0.0574	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	6.67	0.0574	"	"	"	"	"	"	
Sodium	12.6	0.0574	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P3-4**  
**2108460-14 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.488</b>	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>87.1</b>		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.737</b>	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.33</b>		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-5**  
**2108460-15 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0022	09/01/21	09/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0023	09/01/21	09/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.3 %	30-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**P3-5**  
**2108460-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	0.442	0.0100	mg/L	1	BEI0039	09/02/21	09/05/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.03	0.220	mg/kg dry	1	BEI0111	09/07/21	09/09/21	EPA 6020B	
Barium	138	0.440	"	"	"	"	"	"	
Cadmium	0.288	0.220	"	"	"	"	"	"	
Copper	23.7	0.440	"	"	"	"	"	"	
Lead	14.3	0.220	"	"	"	"	"	"	
Nickel	13.0	0.440	"	"	"	"	"	"	
Selenium	1.15	0.286	"	"	"	"	"	"	
Silver	0.106	0.0220	"	"	"	"	"	"	
Zinc	70.2	0.440	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEI0153	09/08/21	09/08/21	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	56.3	0.0550	mg/L dry	1	BEI0126	09/07/21	09/10/21	EPA 6020B	
Magnesium	10.7	0.0550	"	"	"	"	"	"	
Sodium	33.4	0.0550	"	"	"	"	"	"	

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**P3-5**  
**2108460-15 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.07	0.00100	units	1	BEI0209	09/10/21	09/10/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.9		%	1	BEI0082	09/03/21	09/03/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BEI0143	09/08/21	09/08/21	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **08/30/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.48		pH Units	1	BEI0142	09/08/21	09/08/21	EPA 9045D	

Summit Scientific



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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

Reported:  
09/10/21 14:49

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BEI0022 - EPA 5030 Soil MS

##### Blank (BEI0022-BLK1)

Prepared & Analyzed: 09/01/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0282		"	0.0400		70.6				23-173
<i>Surrogate: Toluene-d8</i>	0.0399		"	0.0400		99.8				20-170
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0394		"	0.0400		98.4				21-167

##### LCS (BEI0022-BS1)

Prepared & Analyzed: 09/01/21

Benzene	0.0587	0.0020	mg/kg	0.0750		78.3				70-130
Toluene	0.0839	0.0050	"	0.0750		112				70-130
Ethylbenzene	0.0787	0.0050	"	0.0750		105				70-130
m,p-Xylene	0.156	0.010	"	0.150		104				70-130
o-Xylene	0.0843	0.0050	"	0.0750		112				70-130
1,2,4-Trimethylbenzene	0.0807	0.0050	"	0.0750		108				70-130
1,3,5-Trimethylbenzene	0.0826	0.0050	"	0.0750		110				70-130
Naphthalene	0.0877	0.0038	"	0.0750		117				70-130
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0305		"	0.0400		76.3				23-173
<i>Surrogate: Toluene-d8</i>	0.0420		"	0.0400		105				20-170
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0394		"	0.0400		98.6				21-167

##### Matrix Spike (BEI0022-MS1)

Source: 2108460-01

Prepared & Analyzed: 09/01/21

Benzene	0.0814	0.0020	mg/kg	0.0750	ND	109				70-130
Toluene	0.0674	0.0050	"	0.0750	ND	89.9				70-130
Ethylbenzene	0.0635	0.0050	"	0.0750	ND	84.7				70-130
m,p-Xylene	0.126	0.010	"	0.150	ND	83.9				70-130
o-Xylene	0.0694	0.0050	"	0.0750	ND	92.6				70-130
1,2,4-Trimethylbenzene	0.0656	0.0050	"	0.0750	ND	87.5				70-130
1,3,5-Trimethylbenzene	0.0842	0.0050	"	0.0750	ND	112				70-130
Naphthalene	0.0854	0.0038	"	0.0750	ND	114				70-130
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0338		"	0.0400		84.4				23-173
<i>Surrogate: Toluene-d8</i>	0.0421		"	0.0400		105				20-170
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0396		"	0.0400		99.0				21-167

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BEI0022 - EPA 5030 Soil MS**

Matrix Spike Dup (BEI0022-MSD1)	Source: 2108460-01			Prepared & Analyzed: 09/01/21						
Benzene	0.0892	0.0020	mg/kg	0.0750	ND	119	70-130	9.07	30	
Toluene	0.0781	0.0050	"	0.0750	ND	104	70-130	14.7	30	
Ethylbenzene	0.0791	0.0050	"	0.0750	ND	105	70-130	21.9	30	
m,p-Xylene	0.156	0.010	"	0.150	ND	104	70-130	21.1	30	
o-Xylene	0.0842	0.0050	"	0.0750	ND	112	70-130	19.2	30	
1,2,4-Trimethylbenzene	0.0805	0.0050	"	0.0750	ND	107	70-130	20.3	30	
1,3,5-Trimethylbenzene	0.0811	0.0050	"	0.0750	ND	108	70-130	3.70	30	
Naphthalene	0.0939	0.0038	"	0.0750	ND	125	70-130	9.50	30	
Surrogate: 1,2-Dichloroethane-d4	0.0329		"	0.0400		82.3	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BEI0023 - EPA 3550A**

**Blank (BEI0023-BLK1)**

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							

**LCS (BEI0023-BS1)**

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	561	50	mg/kg	500	112	70-130				
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**Matrix Spike (BEI0023-MS1)**

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	521	50	mg/kg	500	14.6	101	70-130			
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**Matrix Spike Dup (BEI0023-MSD1)**

Source: 2108460-01

Prepared: 09/01/21 Analyzed: 09/02/21

C10-C28 (DRO)	515	50	mg/kg	500	14.6	100	70-130	1.10	20	
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Summit Scientific



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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

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

**Batch BEI0005 - EPA 5030 Soil MS**

**Blank (BEI0005-BLK1)**

Prepared: 09/01/21 Analyzed: 09/03/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0240		"	0.0333		72.1	40-150			
Surrogate: Fluoranthene-d10	0.0207		"	0.0333		62.2	40-150			

**LCS (BEI0005-BS1)**

Prepared: 09/01/21 Analyzed: 09/03/21

Acenaphthene	0.0191	0.00500	mg/kg	0.0333		57.4	31-137			
Anthracene	0.0197	0.00500	"	0.0333		59.1	30-120			
Benzo (a) anthracene	0.0206	0.00500	"	0.0333		61.7	30-120			
Benzo (a) pyrene	0.0197	0.00500	"	0.0333		59.0	30-120			
Benzo (b) fluoranthene	0.0218	0.00500	"	0.0333		65.4	30-120			
Benzo (k) fluoranthene	0.0213	0.00500	"	0.0333		63.8	30-120			
Chrysene	0.0189	0.00500	"	0.0333		56.8	30-120			
Dibenz (a,h) anthracene	0.0199	0.00500	"	0.0333		59.8	30-120			
Fluoranthene	0.0180	0.00500	"	0.0333		54.0	30-120			
Fluorene	0.0203	0.00500	"	0.0333		60.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0219	0.00500	"	0.0333		65.7	30-120			
Pyrene	0.0174	0.00500	"	0.0333		52.1	35-142			
1-Methylnaphthalene	0.0209	0.00500	"	0.0333		62.6	35-142			
2-Methylnaphthalene	0.0166	0.00500	"	0.0333		49.7	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0196		"	0.0333		58.8	40-150			
Surrogate: Fluoranthene-d10	0.0178		"	0.0333		53.5	40-150			

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

Reported:  
09/10/21 14:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEI0005 - EPA 5030 Soil MS

Matrix Spike (BEI0005-MS1)	Source: 2108460-01			Prepared: 09/01/21		Analyzed: 09/03/21	
Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	61.0	31-137
Anthracene	0.0211	0.00500	"	0.0333	ND	63.3	30-120
Benzo (a) anthracene	0.0244	0.00500	"	0.0333	ND	73.2	30-120
Benzo (a) pyrene	0.0226	0.00500	"	0.0333	ND	67.9	30-120
Benzo (b) fluoranthene	0.0246	0.00500	"	0.0333	ND	73.9	30-120
Benzo (k) fluoranthene	0.0223	0.00500	"	0.0333	ND	66.9	30-120
Chrysene	0.0224	0.00500	"	0.0333	ND	67.1	30-120
Dibenz (a,h) anthracene	0.0235	0.00500	"	0.0333	ND	70.6	30-120
Fluoranthene	0.0189	0.00500	"	0.0333	ND	56.7	30-120
Fluorene	0.0217	0.00500	"	0.0333	ND	65.2	30-120
Indeno (1,2,3-cd) pyrene	0.0248	0.00500	"	0.0333	ND	74.5	30-120
Pyrene	0.0197	0.00500	"	0.0333	ND	59.2	35-142
1-Methylnaphthalene	0.0207	0.00500	"	0.0333	ND	62.2	15-130
2-Methylnaphthalene	0.0152	0.00500	"	0.0333	ND	45.6	15-130
Surrogate: 2-Methylnaphthalene-d10	0.0184		"	0.0333		55.3	40-150
Surrogate: Fluoranthene-d10	0.0188		"	0.0333		56.5	40-150

Matrix Spike Dup (BEI0005-MSD1)	Source: 2108460-01			Prepared: 09/01/21		Analyzed: 09/03/21			
Acenaphthene	0.0192	0.00500	mg/kg	0.0333	ND	57.7	31-137	5.63	30
Anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	5.16	30
Benzo (a) anthracene	0.0218	0.00500	"	0.0333	ND	65.4	30-120	11.4	30
Benzo (a) pyrene	0.0204	0.00500	"	0.0333	ND	61.3	30-120	10.3	30
Benzo (b) fluoranthene	0.0231	0.00500	"	0.0333	ND	69.2	30-120	6.62	30
Benzo (k) fluoranthene	0.0210	0.00500	"	0.0333	ND	63.0	30-120	5.94	30
Chrysene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	11.3	30
Dibenz (a,h) anthracene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	9.68	30
Fluoranthene	0.0178	0.00500	"	0.0333	ND	53.5	30-120	5.80	30
Fluorene	0.0204	0.00500	"	0.0333	ND	61.1	30-120	6.46	30
Indeno (1,2,3-cd) pyrene	0.0226	0.00500	"	0.0333	ND	67.9	30-120	9.29	30
Pyrene	0.0179	0.00500	"	0.0333	ND	53.6	35-142	9.92	30
1-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.2	15-130	10.1	50
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.2	15-130	10.0	50
Surrogate: 2-Methylnaphthalene-d10	0.0181		"	0.0333		54.3	40-150		
Surrogate: Fluoranthene-d10	0.0181		"	0.0333		54.3	40-150		

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**  
**Summit Scientific**

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

**Batch BEI0039 - EPA 3050B**

**Blank (BEI0039-BLK1)**

Prepared: 09/02/21 Analyzed: 09/05/21

Boron ND 0.0100 mg/L

**LCS (BEI0039-BS1)**

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.08 0.0100 mg/L 5.00 102 80-120

**Duplicate (BEI0039-DUP1)**

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 0.0687 0.0100 mg/L 0.0824 18.1 20

**Matrix Spike (BEI0039-MS1)**

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.04 0.0100 mg/L 5.00 0.0824 99.2 75-125

**Matrix Spike Dup (BEI0039-MSD1)**

Source: 2108436-01

Prepared: 09/02/21 Analyzed: 09/05/21

Boron 5.28 0.0100 mg/L 5.00 0.0824 104 75-125 4.70 25

Summit Scientific



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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BEI0111 - EPA 3050B**

**Blank (BEI0111-BLK1)**

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

**LCS (BEI0111-BS1)**

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	45.9	0.200	mg/kg wet	40.0	115	80-120
Barium	47.5	0.400	"	40.0	119	80-120
Cadmium	2.26	0.200	"	2.00	113	80-120
Copper	47.1	0.400	"	40.0	118	80-120
Lead	19.4	0.200	"	20.0	97.0	80-120
Nickel	46.8	0.400	"	40.0	117	80-120
Selenium	4.67	0.260	"	4.00	117	80-120
Silver	1.93	0.0200	"	2.00	96.6	80-120
Zinc	40.6	0.400	"	40.0	101	80-120

**Duplicate (BEI0111-DUP1)**

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	1.80	0.224	mg/kg dry	2.07	14.0	20
Barium	17.1	0.448	"	19.0	10.7	20
Cadmium	0.0353	0.224	"	0.0314	11.6	20
Copper	4.92	0.448	"	5.63	13.5	20
Lead	5.24	0.224	"	6.03	13.9	20
Nickel	6.19	0.448	"	6.87	10.5	20
Selenium	0.790	0.291	"	0.885	11.4	20
Silver	0.0181	0.0224	"	0.0170	6.41	20
Zinc	28.6	0.448	"	32.5	12.5	20

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Total Metals by EPA 6020B - Quality Control**

**Summit Scientific**

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

**Batch BEI0111 - EPA 3050B**

**Matrix Spike (BEI0111-MS1)**

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	50.9	0.224	mg/kg dry	44.8	2.07	109	75-125			
Barium	55.0	0.448	"	44.8	19.0	80.3	75-125			
Cadmium	2.54	0.224	"	2.24	0.0314	112	75-125			
Copper	49.7	0.448	"	44.8	5.63	98.4	75-125			
Lead	27.8	0.224	"	22.4	6.03	97.0	75-125			
Nickel	54.7	0.448	"	44.8	6.87	107	75-125			
Selenium	6.30	0.291	"	4.48	0.885	121	75-125			
Silver	2.06	0.0224	"	2.24	0.0170	91.0	75-125			
Zinc	67.8	0.448	"	44.8	32.5	78.8	75-125			

**Matrix Spike Dup (BEI0111-MSD1)**

Source: 2108460-01

Prepared: 09/07/21 Analyzed: 09/09/21

Arsenic	51.6	0.224	mg/kg dry	44.8	2.07	110	75-125	1.41	25
Barium	52.7	0.448	"	44.8	19.0	75.2	75-125	4.25	25
Cadmium	2.38	0.224	"	2.24	0.0314	105	75-125	6.43	25
Copper	56.0	0.448	"	44.8	5.63	112	75-125	12.0	25
Lead	27.1	0.224	"	22.4	6.03	94.1	75-125	2.41	25
Nickel	55.5	0.448	"	44.8	6.87	108	75-125	1.42	25
Selenium	5.94	0.291	"	4.48	0.885	113	75-125	5.77	25
Silver	1.94	0.0224	"	2.24	0.0170	85.9	75-125	5.76	25
Zinc	83.6	0.448	"	44.8	32.5	114	75-125	20.9	25

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BEI0153 - 3060A Mod**

**Blank (BEI0153-BLK1)**

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent      ND      0.30    mg/kg wet

**LCS (BEI0153-BS1)**

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent      24.5      0.30    mg/kg wet      25.0      98.0      80-120

**Duplicate (BEI0153-DUP1)**

**Source: 2108107-08**

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent      ND      0.30    mg/kg dry      ND      20

**Matrix Spike (BEI0153-MS1)**

**Source: 2108107-08**

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent      35.7      0.30    mg/kg dry      31.8      ND      112      75-125

**Matrix Spike Dup (BEI0153-MSD1)**

**Source: 2108107-08**

Prepared & Analyzed: 09/08/21

Chromium, Hexavalent      36.3      0.30    mg/kg dry      31.8      ND      114      75-125      1.77      20

Summit Scientific



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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BEI0126 - General Preparation**

**Blank (BEI0126-BLK1)**

Prepared: 09/07/21 Analyzed: 09/10/21

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

**LCS (BEI0126-BS1)**

Prepared: 09/07/21 Analyzed: 09/10/21

Calcium	5.52	0.0500	mg/L wet	5.00		110	70-130			
Magnesium	5.18	0.0500	"	5.00		104	70-130			
Sodium	5.12	0.0500	"	5.00		102	70-130			

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

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

**Batch BEI0082 - General Preparation**

**Duplicate (BEI0082-DUP1)**

**Source: 2108460-01**

Prepared & Analyzed: 09/03/21

% Solids	89.3		%		89.2			0.115	20	
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Summit Scientific



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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BEI0143 - General Preparation**

**Blank (BEI0143-BLK1)**

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEI0143-BS1)**

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) 0.162 0.0100 mmhos/cm 0.150 108 90-110

**Duplicate (BEI0143-DUP1)**

Source: 2108460-01

Prepared & Analyzed: 09/08/21

Specific Conductance (EC) 1.11 0.0100 mmhos/cm 1.11 0.450 20

Summit Scientific

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RPG Resources (SWN)  
 1313 Ben Meris Ave  
 Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
 Project Manager: Russell Beam

**Reported:**  
 09/10/21 14:49

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BEI0142 - General Preparation**

**LCS (BEI0142-BS1)**

Prepared & Analyzed: 09/08/21

pH 9.09 pH Units 9.21 98.7 95-105

**Duplicate (BEI0142-DUP1)**

Source: 2108460-01

Prepared & Analyzed: 09/08/21

pH 10.2 pH Units 10.1 0.492 20

Summit Scientific

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RPG Resources (SWN)  
1313 Ben Meris Ave  
Broomfield CO, 80020

Project: Pond Liner Removal

Project Number: [none]  
Project Manager: Russell Beam

**Reported:**  
09/10/21 14:49

### Notes and Definitions

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