Phosphate Ore Slurry Release Report

J.R. Simplot Company

Smoky Canyon Mine

October 3, 2023

I. Introduction

The J.R. Simplot Company (Simplot) owns and operates an 87-mile underground pipeline from Smoky Canyon Mine to Simplot's fertilizer processing plant, referred to as the "Don Plant" in Pocatello Idaho. Where the pipeline crosses U.S. Forest System land it is authorized by Special Use Authorization SSC51. (Figure 1) This pipeline conveys phosphate ore, which is mined at Smoky Canyon Mine, milled to a fine texture at the Smoky Canyon Mill, mixed with solely with water and pumped to the Don Plant in the form of a phosphate ore slurry for processing into various fertilizer and animal feed products. The phosphate ore slurry has low hazard risk. As required by the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) at 29 CFR 1910, Simplot has developed a Safety Data Sheet (SDS) for phosphate ore which is included within the appendix. The ore slurry does not meet any of the HCS physical hazard definitions of explosive, flammable, oxidizer, self-reactive, pyrophoric, self-heating, organic peroxide, corrosive to metal, gas under pressure, nor will it emit flammable gas if in contact with water. It is also not a health hazard as defined at 29 CFR 1910.1200. It is generally accepted that all substances should avoid being released to the environment. In general, the pipeline operates 24-hours per day, with shutdowns occurring only for a couple of weeks each year when major maintenance events prevent operation of the Don Plant.

II. Discovery of Release and Initial Response

In early May 2023, Simplot personnel detected a small drop in pressure in the ore slurry line. The pressure remained within the range of normal operating conditions; however, milling operations were unable to increase the pressure by adjusting the pumping speed. The pipeline pumping record from January 9, 2021 to August 25, 2023 is provided in Figure 2. Following this observation, various pressure tests were conducted including blocking the line and monitoring pressures which helped to determine the general area of pressure loss. With permission from the Forest Service, on May 11 Simplot personnel traveled the pipeline right-of-way via a tracked "Sno-Cat" where melted areas in the snow indicated the area of concern on Stewart Canyon.

The temperature was approximately 40 degrees Fahrenheit with approximately 6-feet of snow present along the route.

Equipment necessary for excavation was mobilized to the site on May 12 resulting in the breach in the pipeline being excavated the morning of May 13 and the repair to a quarter sized hole was completed by 10 pm by cutting out the 6-foot section of pipe containing the hole and welding in a replacement section. See Photos 1 and 2. The repair was completed by a certified welder with all the welds x-rayed as required. Figure 3 depicts the breach location. Water was introduced to the pipeline around 11 pm with a pressure test conducted on May 14. As a result of the positive quality assurance testing on the repair, slurried phosphate ore returned to the pipeline later in day of May 14.

When the area of the breach was excavated there was no visible evidence of significant phosphate ore released within the excavation. At that time, it was estimated that less than 5-gallons of slurried phosphate ore was released from the breach. Due to the extensive amount of snow, further investigation of any further release was impossible.

III. Subsequent Actions and Investigation

In June 2023 Simplot notified the Forest Service that due to the unexpected breach an additional 4,000-feet of pipeline was planned to be replaced along this portion of the pipeline. This work ensued on July 17, 2023. Unfortunately, during this excavation work the track hoe punctured the pipeline resulting in another release of a relatively short duration. Because there was equipment on-site, the slurried phosphate ore released as a result of this puncture was primarily captured in the trench and immediately addressed.

In addition to the replacement of this 4,000-foot portion of the pipeline, Simplot conducted a full reconnaissance of the area potentially affected by the May release from the point of the breach to Hornet Canyon to Diamond Creek Road. This on-foot investigation conducted on August 3, 2023, revealed that the initial release resulted in significantly more loss of phosphate

ore from the pipeline than was apparent during the winter conditions. The exact amount of ore released is impossible to calculate due to the high velocity in the pipeline (average of approximately 1500 psi) and what likely started as a pin hole and progressed to the quarter-sized hole discovered on May 13, but a general estimate is 1,000 to 1,500 cubic yards. (Photos 1 and 2)

Water quality samples were taken on August 7 in Hornet Creek and Diamond Creek, both upgradient and downgradient of where the slurry entered the water. Simplot received the surface water sample results on August 15, 2023. Those results are provided in the appendix. The locations of the samples are shown on Figure 3. Sample HCT3 was collected from a tributary, upstream from the confluence with Hornet Creek. Sample UDC1 was collected upstream of the Hornet Creek Diamond Creek confluence. Both HCT3 and UDC1 are upgradient from any deposited ore and were collected to represent background conditions during the sampling event on August 7, 2023. The results generally indicate similar analyte concentrations for both upstream and downstream samples; Idaho water quality standards for human health are met.

IV. Agency Notifications

A conference call was scheduled for Friday, August 4, 2023, with Forest Service, Idaho Department of Environmental Quality (IDEQ), and Bureau of Land Management (BLM). Due to the short notice, only the Forest Service was able to attend when Simplot described the discovery of the phosphate ore released within Hornet Canyon and Diamond Creek. Another call on August 7, 2023, was conducted with IDEQ and the Forest Service. During this call the observations were described again, and Simplot committed to collecting samples up and down gradient of the impacted area and coordinating a field visit with what was determined to be the necessary agencies, (Forest Service, IDEQ, BLM and Idaho Fish and Game (IDFG)). The samples were collected on August 7 and the field visit was subsequently scheduled for August 24, 2023. The Forest Service requested a SDS which was later provided. Simplot also discussed the status of the pipeline replacement project that was later completed on August 23rd, 2023.

Forest Service personnel Tristie Whiting, Wildlife Technician, and Michael Larsen, Wildlife Biologist, independently investigated the site on August 7, 2023, and issued a report on August 16, 2023 which is included within the appendix.

The August 24 field visit was conducted with personnel from IDEQ (Jennifer Cornell, Nick Nielsen, Matt Schenk), Forest Service (Hayden Lewis, Dawni Kirby), BLM (Brandon McLaughlin) and Simplot (Ron Quinn, Evan Hathaway, Chad Gentry, Lori Lusty). Becky Johnson from IDFG was unable to attend due to illness. The group met at Diamond Creek Road near the intersection of Forest Service Roads 1255 and 395 and hiked along Diamond Creek and up Hornet Canyon. Each attendee took pictures and discussion focused on potential removal of ore within certain areas that would not result in any further adverse effect.

V. Planned Actions

At the August 24 meeting with agency personnel, it was determined phosphate ore removal would take place primarily at the end of the 2-track road[1] which correlates with an area of significant deposition. The estimated area of this deposition is approximately 0.1 acres. Simplot committed to utilizing a small, tracked excavator and tracked dump truck to access this location (Figure 4) to remove as much phosphate ore as possible without additional disturbance. Simplot requests permission from the Forest Service to cut non-merchantable timber to utilize as filters and barriers where feasible between deposited phosphate ore and surface water as a best management practice to limit the amount of phosphate ore further transported to the creek. Some hand work with shovels to move phosphate ore from near the stream bank and scattered away from the stream will be done. It was agreed there would be no removal of ore below the ordinary high-water mark within any creek. Recovered ore will be transported to the Smoky Canyon Mine with over-the-road trucks on Forest Service roads 1102 and 110. Simplot requests that a Forest Service representative participate in a field meeting with the work crew at the beginning of the project. Simplot recommends that the work begin in

[1] This location is not within an inventoried roadless area.

early September to provide adequate time to complete the project before snowfall with potential weather delays. It is not anticipated that disturbance warranting reclamation or re-seeding will be necessary as a result of this work, but Simplot with coordinate with the Forest Service to address any concerns. Figure 4 depicts the proposed work plan.

During the August 24 field visit, IDEQ requested additional upgradient and downgradient sampling, including macroinvertebrate analysis. Jennifer Cornell committed to providing details regarding this request but noted it would be similar to IDEQ's Beneficial Use Reconnaissance Program that IDEQ conducts to compare to the baseline of existing data in this area on Diamond Creek. Further monitoring and analysis regarding potential risk to aquatic organisms will be conducted in conjunction with IDEQ.

Simplot has contracted with TD Williamson Company to annually conduct a "Smart Pig" analysis on the pipeline with the last evaluation conducted September 28, 2022. This analysis utilizes a Magnetic Flux Leakage (MFL) analysis with the objective of detecting, locating, sizing and report any anomalies in the pipe wall along the full length of the pipeline. This MLF data is also reviewed by another independent consultant. Data from this testing is provided to the agencies annually in the Annual Operations report. Based upon the September 2022 data, no imminent threat to the integrity of the pipeline was detected. Simplot is very concerned that this annual testing did not indicate a potential issue within this reach of the pipeline. An investigation is underway of the MFL analysis with other pipeline experts as well as evaluating the operating protocols and future maintenance requirements of the pipeline. Once finalized, changes to the pipeline operation and maintenance plan will be shared with the Forest Service. Further forensic testing of the pipeline is scheduled for this calendar year, including replacement of a short portion of the pipeline on Simplot's private land proximal to the Don Plant.

Photo 1. May 2023 Pipeline Hole

Photo 2. May 2023 6-Foot Section Replacement

Figure 1. Overview of Simplot's Phosphate Ore Slurry Pipeline

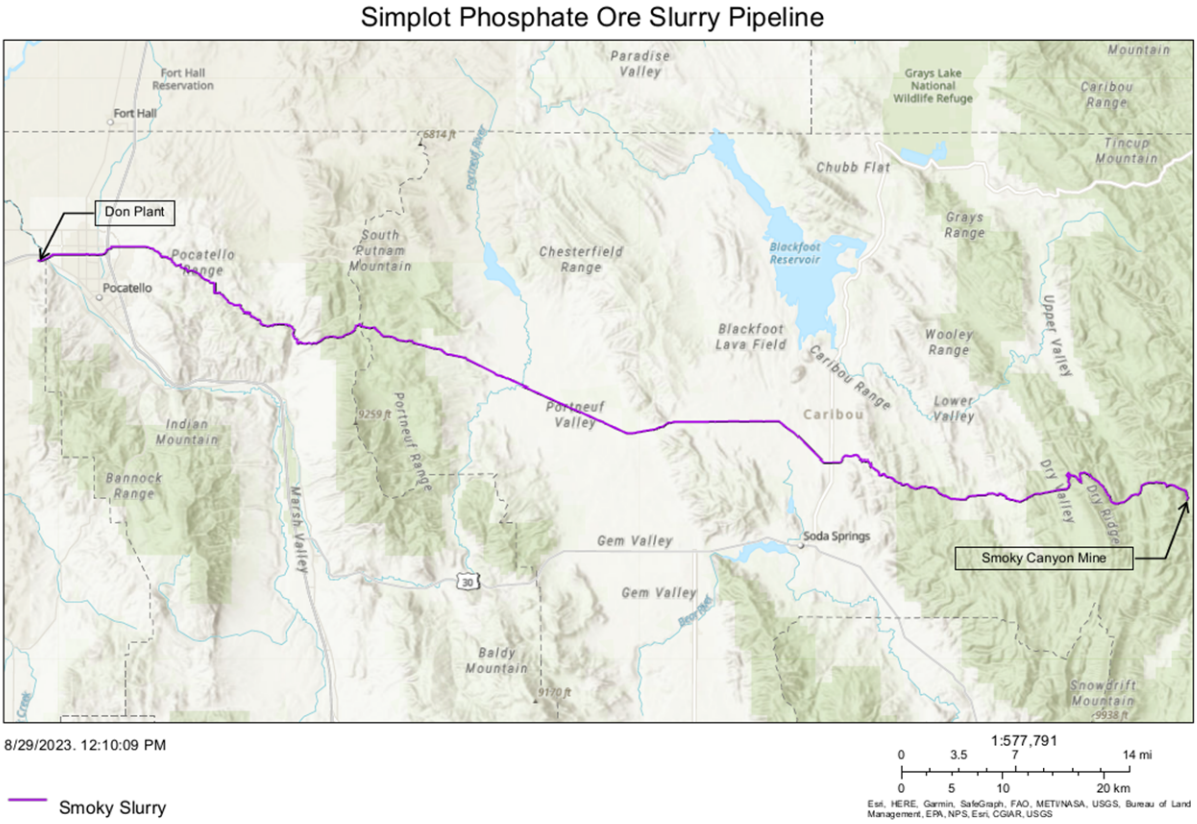


Figure 2. Pipeline Pressure Record from January 9, 2021 to August 25, 2023

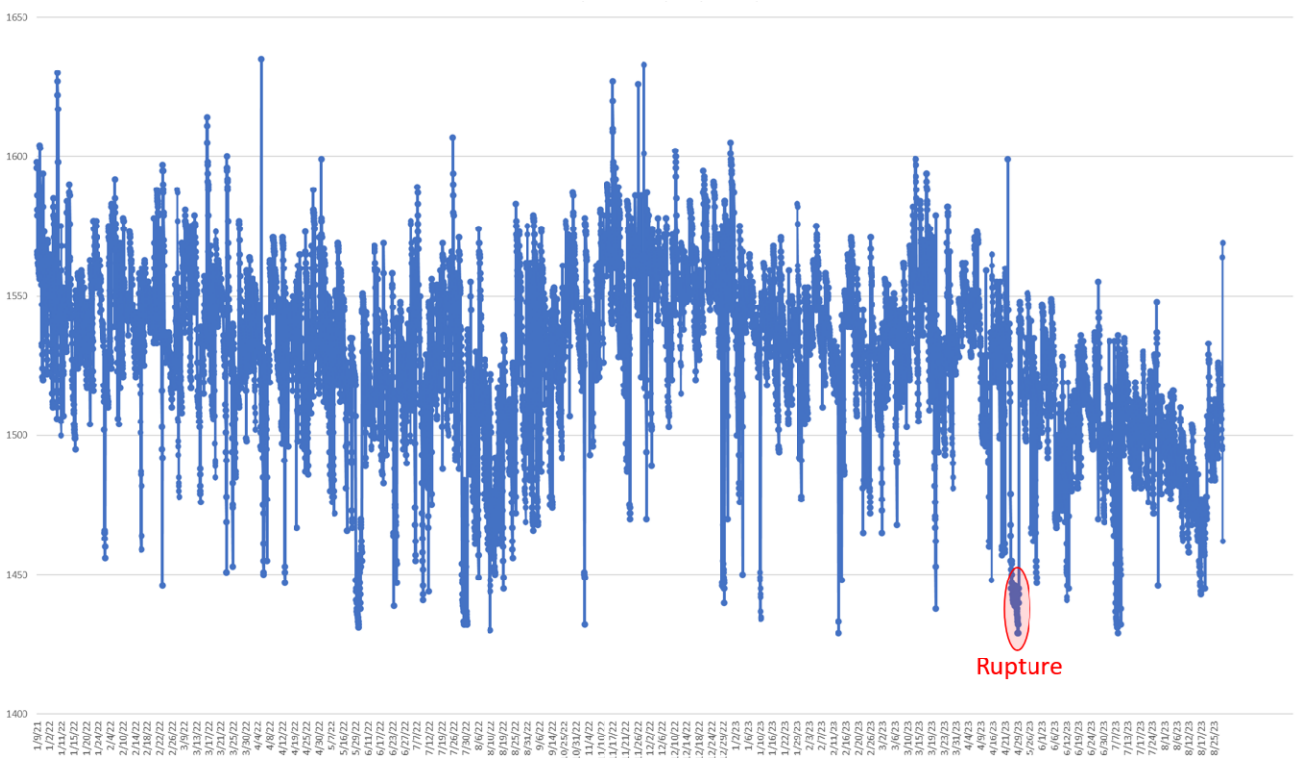


Figure 3. Surface Water Sampling Locations

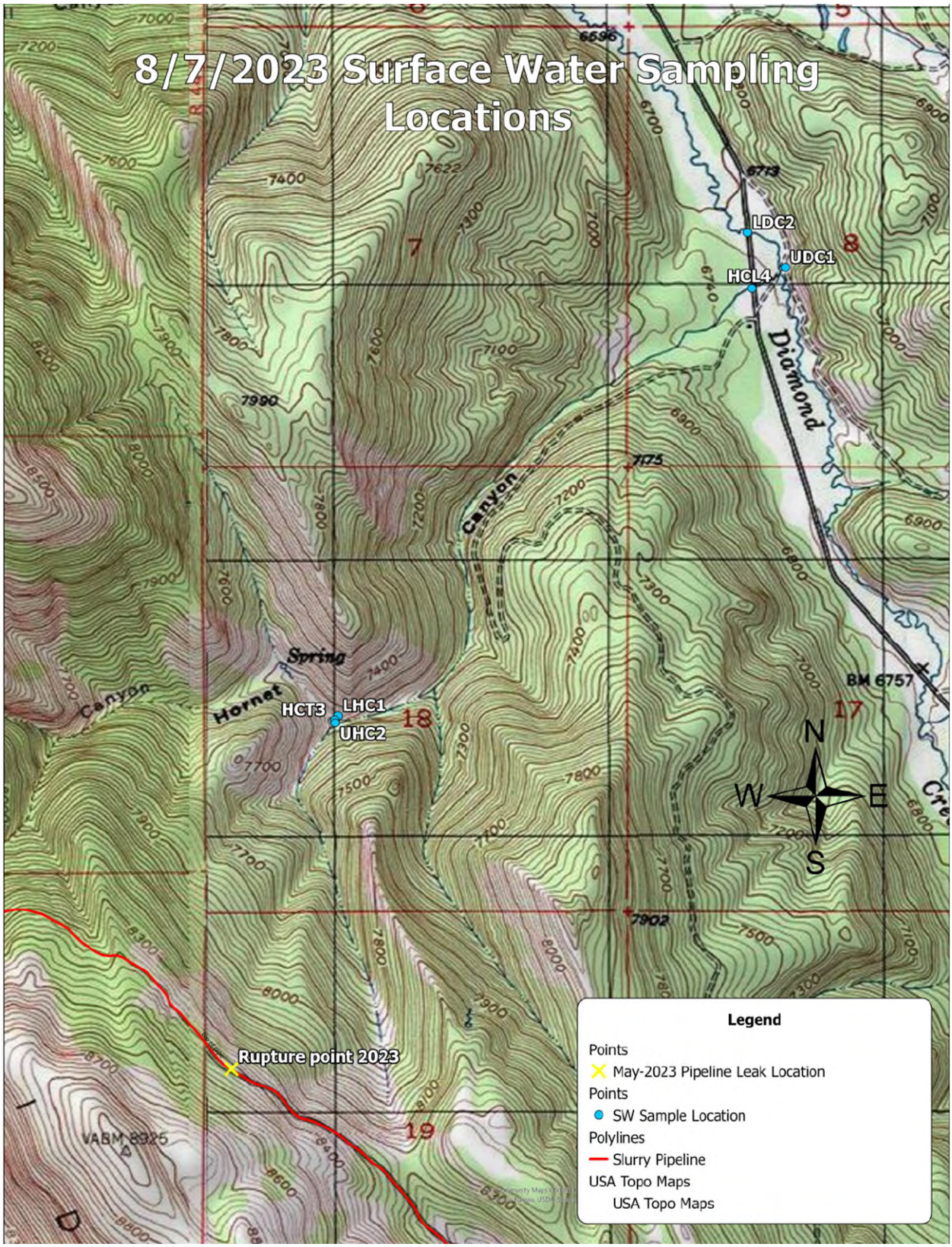
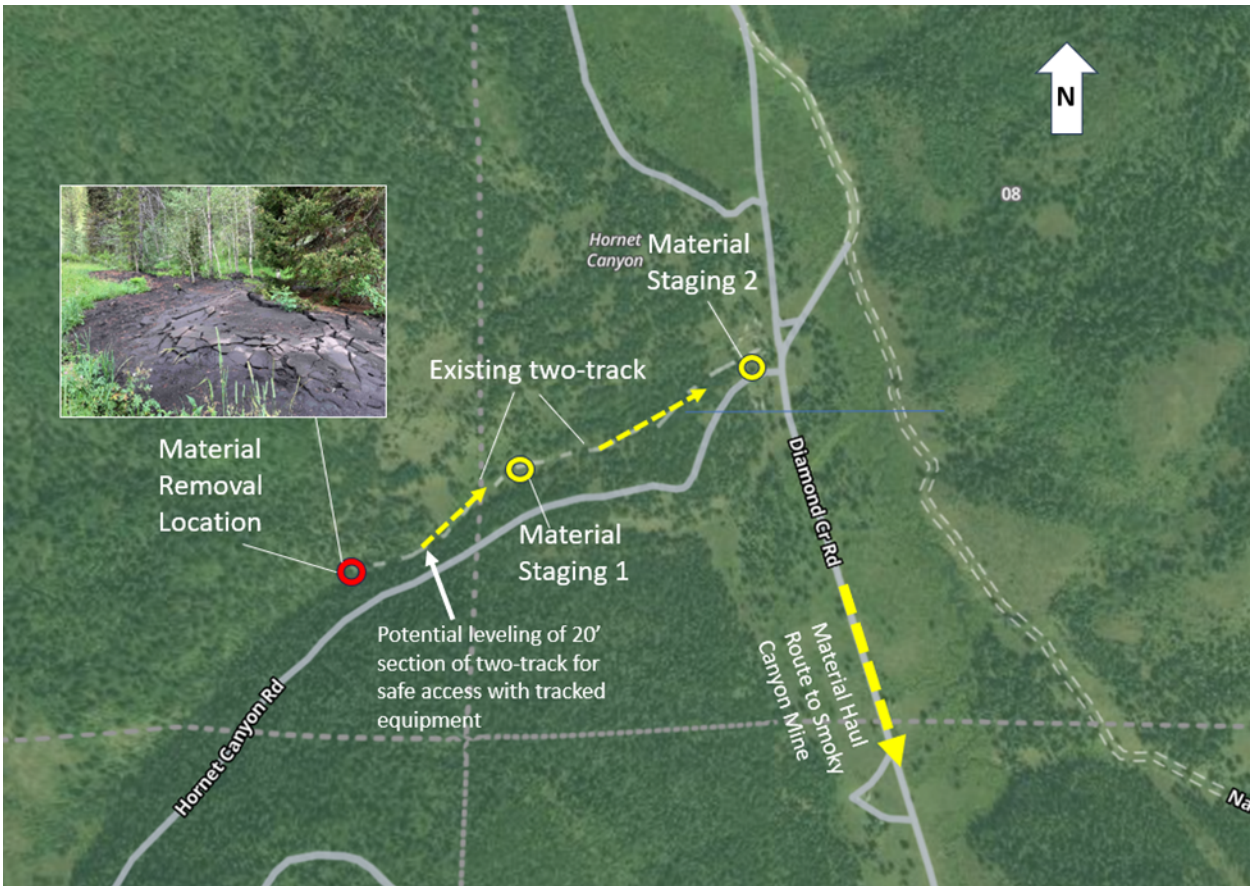


Figure 4. Ore Removal Work Plan



APPENDIX

PHOSPHATE ORE SDS

Phosphate Ore

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance

Substance name : Phosphate Ore

Chemical name : Phosphate Ore

Product code : M17000

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

JR Simplot Company
P.O. Box 70013
Boise, ID 83707
T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%	Classification (GHS-US)
Phosphate Ore			Not classified
Inert Compounds			Not classified
quartz	(CAS No) 14808-60-7		Eye Irrit. 2B, H320 Carc. 1A, H350 STOT SE 3, H335 STOT RE 2, H373

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : Stable.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 R
OSHA	Not applicable	

Phosphate Ore	
ACGIH	Not applicable
OSHA	Not applicable

Inert Compounds	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Wear appropriate mask.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Light and dark granules.
Color : Light and dark granules
Odor : earthy
Odor threshold : No data available
pH : Not-applicable
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : Non-flammable
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non-flammalble
Explosion limits : N/A
Explosive properties : No data available
Oxidizing properties : No data available
Vapor pressure : Not applicable
Relative density : No data available
Relative vapor density at 20 °C : No data available
Specific gravity / density : ≈ 100 lbs/ft^3
Solubility : soluble.
Log Pow : No data available
Log Kow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable.

10.2. Chemical stability

Stable. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May include oxides of nitrogen, oxides of sulfur, oxides of phosphorous, and ammonia. POx gas. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Not classified
pH: Not-applicable

Serious eye damage/irritation : Not classified
pH: Not-applicable

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

quartz (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Phosphate Ore	
Persistence and degradability	Not established.

Inert Compounds	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

quartz (14808-60-7)	
Log Pow	Not applicable
Bioaccumulative potential	No bioaccumulation data available. Not established.

Phosphate Ore	
Bioaccumulative potential	Not established.

Inert Compounds	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : Not regulated by DOT

UN-No.(DOT) : Not regulated by DOT

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Phosphate Ore	CAS No	
Inert Compounds	CAS No	

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

National regulations

quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

quartz (14808-60-7)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

Carc. 1A	Carcinogenicity Category 1A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H373	May cause damage to organs through prolonged or repeated exposure

SDS US (GHS HazCom 2012)

SURFACE WATER MONITORING RESULTS

IAS EnviroChem
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email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

J.R. Simplot Co. Smoky Canyon Mine Ron Quinn
Ron Quinn
P.O. Box 1270
Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: UDC1
Lab Tracking #: I308128-01
Sampling Date/Time: 08/07/23 11:50

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.028	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.002	mg/L	6020A	08/10/2023	TRP
pH	7.2	Units	150.1	08/08/2023	GMY
Sulfate	7	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.059	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.031	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	120	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	0.001	mg/L	6020A	08/10/2023	TRP
Total Zinc	< 0.001	mg/L	6020A	08/10/2023	TRP

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Ron Quinn
P.O. Box 1270
Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: LDC2
Lab Tracking #: I308128-02
Sampling Date/Time: 08/07/23 12:00

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.029	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.001	mg/L	6020A	08/10/2023	TRP
pH	7.6	Units	150.1	08/08/2023	GMY
Sulfate	7	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.066	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.032	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	156	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	0.001	mg/L	6020A	08/10/2023	TRP
Total Zinc	0.002	mg/L	6020A	08/10/2023	TRP

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Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: HCL4
Lab Tracking #: I308128-03
Sampling Date/Time: 08/07/23 11:55

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.032	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.004	mg/L	6020A	08/10/2023	TRP
pH	7.8	Units	150.1	08/08/2023	GMY
Sulfate	5	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.012	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.035	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	0.002	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	96	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	0.003	mg/L	6020A	08/10/2023	TRP
Total Zinc	0.005	mg/L	6020A	08/10/2023	TRP

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J.R. Simplot Co. Smoky Canyon Mine Ron Quinn
Ron Quinn
P.O. Box 1270
Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: LHC1
Lab Tracking #: I308128-04
Sampling Date/Time: 08/07/23 10:57

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.027	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.002	mg/L	6020A	08/10/2023	TRP
pH	7.7	Units	150.1	08/08/2023	GMY
Sulfate	6	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.033	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.032	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	0.001	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	92	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	0.002	mg/L	6020A	08/10/2023	TRP
Total Zinc	0.002	mg/L	6020A	08/10/2023	TRP

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J.R. Simplot Co. Smoky Canyon Mine Ron Quinn
Ron Quinn
P.O. Box 1270
Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: UHC2
Lab Tracking #: I308128-05
Sampling Date/Time: 08/07/23 10:59

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.029	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.002	mg/L	6020A	08/10/2023	TRP
pH	7.7	Units	150.1	08/08/2023	GMY
Sulfate	6	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.033	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.031	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	0.001	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	104	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	0.002	mg/L	6020A	08/10/2023	TRP
Total Zinc	0.003	mg/L	6020A	08/10/2023	TRP

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J.R. Simplot Co. Smoky Canyon Mine Ron Quinn
Ron Quinn
P.O. Box 1270
Afton, WY 83110

Date Submitted: 08/08/2023
Date Reported: 08/15/2023

Certificate of Analysis

Sample Description: HCT3
Lab Tracking #: I308128-06
Sampling Date/Time: 08/07/23 10:59

Analyte	Result	Units	Method	Analyzed	Analyst
Dissolved Aluminum	< 0.010	mg/L	6020A	08/10/2023	TRP
Dissolved Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Barium	0.026	mg/L	6020A	08/10/2023	TRP
Dissolved Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Chromium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Mercury	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Phosphorus as P	< 0.5	mg/L	ICP	08/11/2023	JW
Dissolved Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Dissolved Zinc	0.001	mg/L	6020A	08/10/2023	TRP
pH	7.5	Units	150.1	08/08/2023	GMY
Sulfate	4	mg/L	300.0	08/11/2023	TP
Total Aluminum	0.006	mg/L	6020A	08/10/2023	TRP
Total Arsenic	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Barium	0.029	mg/L	6020A	08/10/2023	TRP
Total Cadmium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Chromium	0.001	mg/L	6020A	08/10/2023	TRP
Total Dissolved Solids	100	mg/L	2540C	08/09/2023	GMY
Total Lead	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Mercury	< 0.0002	mg/L	6020A	08/10/2023	TRP
Total Phosphorus as P	< 0.5	mg/L	ICP	08/10/2023	JW
Total Selenium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Silver	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Suspended Solids	< 2.00	mg/L	2540D	08/09/2023	GMY
Total Vanadium	< 0.001	mg/L	6020A	08/10/2023	TRP
Total Zinc	< 0.001	mg/L	6020A	08/10/2023	TRP

ND = Not Detected
All solids are reported on a dry weight basis unless otherwise noted.

G. Ryan Pattie
Laboratory Director

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **UDC1**
Lab Tracking #: **I308128-01**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 11:50**

Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **LDC2**
Lab Tracking #: **I308128-02**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 12:00**
Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **HCL4**
Lab Tracking #: **I308128-03**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 11:55**
Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **LHC1**
Lab Tracking #: **I308128-04**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 10:57**
Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **UHC2**
Lab Tracking #: **I308128-05**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 10:59**
Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

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Login Report

Customer Name: **J.R. Simplot Co. Smoky Canyon Mine Ron Quinn**
P.O. Box 1270
Afton, WY 83110

Work Order #: **I308128**

Contact Name: **Ron Quinn**

Sample Description: **HCT3**
Lab Tracking #: **I308128-06**
Matrix: **Water**
Sample Notes:

Sampling Date/Time: **08/07/23 10:59**
Date Received: **08/08/23 15:55**

Test	*Method*	*Due*
Aluminum	**6020A**	**08/15/23**
Arsenic	**6020A**	**08/15/23**
Barium	**6020A**	**08/15/23**
Cadmium	**6020A**	**08/15/23**
Chromium	**6020A**	**08/15/23**
Lead	**6020A**	**08/15/23**
Mercury	**6020A**	**08/15/23**
pH	**150.1**	**08/15/23**
Phosphate	**ICP**	**08/15/23**
Selenium	**6020A**	**08/15/23**
Silver	**6020A**	**08/15/23**
Sulfate	**300.0**	**08/15/23**
Total Aluminum	**6020A**	**08/15/23**
Total Arsenic	**6020A**	**08/15/23**
Total Barium	**6020A**	**08/15/23**
Total Cadmium	**6020A**	**08/15/23**
Total Chromium	**6020A**	**08/15/23**
Total Dissolved Solids	**2540C**	**08/15/23**
Total Lead	**6020A**	**08/15/23**
Total Mercury	**6020A**	**08/15/23**
Total Phosphate	**ICP**	**08/15/23**
Total Selenium	**6020A**	**08/15/23**
Total Silver	**6020A**	**08/15/23**
Total Suspended Solids	**2540D**	**08/15/23**
Total Vanadium	**6020A**	**08/15/23**
Total Zinc	**6020A**	**08/15/23**
Vanadium	**6020A**	**08/15/23**
Zinc	**6020A**	**08/15/23**

Sample Condition Record

Samples received in a cooler?	Yes
Samples received intact?	Yes
The temperature recorded?	2.7
Samples received with a COC?	Yes
Samples received within holding time?	Yes
Are all samples properly preserved?	Yes
Labels and chain agree?	Yes

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Data reported from a dilution
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

I308128
J.R. Simplot Co. Smoky Canyon Mine Ron Quinn
Received: 08/08/2023
RAB
6 Samples

IAS EnviroChem - 3314 Pole Line Rd • Pocatello, ID 83201
P: (208) 237-3300 F: (208) 237-3336 • Email: iasec3308@iasenvirochem.com

Company Name	J.R. Simplot Company
Address	1890 Smoky Canyon Road
City, State, Zip	Afton, Wy 83110
Phone	208-873-3720
Email	evan.hathaway@simplot.com, ron.quinn@simplot.com

Send Bill or Receipt To: Ron Quinn

Payment due with samples unless credit has been established

Email Invoice to: ron.quinn@simplot.com

☐ Cash ☐ Bill ☐ Check# ____ ☐ PO # ____

☐ Other ____

Amount ____ Received by ____

Special Instructions

R305

Analyses Requested

SAMPLE INFORMATION

TRK # (Lab use)	Sample Description	Date/Time Collected	Number of Containers	pH	TDS	TSS	Total Phosphorus	Phosphate	Sulfate	Total+ Dissolved Se	Total+ Dissolved Aluminum	Total+ Dissolved Vanadium	Total+ Dissolved Zinc	Total+ Dissolved Lead + Arsenic	Total+ Dissolved Cadmium + Barium	Total+ Dissolved Mercury	Total+ Dissolved Chromium + Silver
	UDC1	8-7-23 11:50	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	LDC2	8-7-23 12:00	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	HCL4	8-7-23 11:55	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	LHC1	8-7-23 10:57	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	UHC2	8-7-23 10:59	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	HCT3	8-7-23 10:59	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Comments

If more Volume is needed we will Re-Sample

Please Rush.

RELINQUISHED BY

Signature Evan Hathaway
Printed Name Evan Hathaway
Date/Time 8-8-2023 6:45

RECEIVED BY

Signature Rebecca L Boyd
Printed Name Rebecca L Boyd
Date/Time 080823 1555

Lab Use Only

Temp 2.7 °C
Received in a cooler? YES / NO
Labels and Chain Agree? YES / NO

Forest Service Spill Inspection Report

Smokey Canyon Pipeline Spill Inspection
Hornet Canyon – Diamond Creek

Soda Springs Ranger District

USDA Forest Service

Caribou-Targhee National Forest

Caribou County, Idaho

7 August 2023

/s/ Tristie Whiting

Tristie Whiting
Wildlife Technician

And

/s/ Michael Larsen

Michael Larsen
Wildlife Biologist

On the morning of August 7th, Michael and I met with Ron Quinn from Simplot (Smokey Canyon Mine) along Diamond Creek Road (FS 1102) near the intersection of FS roads 1255 and 395 to get briefed on the logistics concerning the slurry pipeline repair and spill location. From there we followed Ron to the end of Forest Service Road 395 where slurry had been verified to have crossed and entered Diamond Creek. The approximate distance from the point source of the leak and Diamond Creek is ~2.4 miles. Our initial observations are that most of the slurry is deposited throughout the grass and along the banks where high runoff occurred, however, there is still smaller amount of slurry deposited throughout the creek bed of Diamond Creek.

While inspecting the riparian area at the location where slurry entered Diamond Creek, we observed aquatic organisms, including snails and water striders alive and moving around this portion of the creek. Next, we moved downstream approximately one mile and continued inspecting the stream and riparian area, working our way back up stream to where slurry entered the creek. Throughout the mile of creek inspected there were no large deposits of slurry found, however, there were a few locations with small amounts of ore slurry deposited throughout and settled on the exposed gravel/sand point bars. To normal forest visitors, this would likely be seen as a mixture of pee gravel and sand mixed containing an assortment of colors with varying degree of tinting.

It's apparent that slurry is present in Diamond Creek up to approximately ½ mile from where it entered the creek however, no large deposits were located based on our visual observation from the water's edge. This half mile stretch of flood plain becomes complex with many beaver dams, causing the water to be interruped throughout this stretch of the creek. Additionally, while inspecting downstream, we observed fish alive in the creek and numerous locations where wildlife (elk, deer, and moose tracks) were utilizing the riparian area to forage, bed, and cross the creek.

Considering the amount of slurry at the location where it entered Diamond Creek, in addition to the observations described above, our initial thoughts are that the majority of the ore slurry that made it to Diamond Creek was dispersed across the flood plain (1/2-mile stretch) during the spring high water event and/or deposited in the ponds created by the beaver dams. Additional inspections will be needed to better understand the extent and impact of the spill throughout this ½ mile stretch of complex riparian area. See attached figures below with descriptions.

Figure 1. Location of Spill. Looking E/NE towards Diamond Creek.

Figure 2. Section of pipeline being replaced as a result of the pipeline breech.

Figure 3. Ore slurry across Forest Service Road 395 near Diamond Creek.

Figure 4. Slurry at Diamond Creek. Observer in lower left investigating aquatic organisms on an ore deposit site.

Figure 5. Black is ore deposits along Diamond Creek.

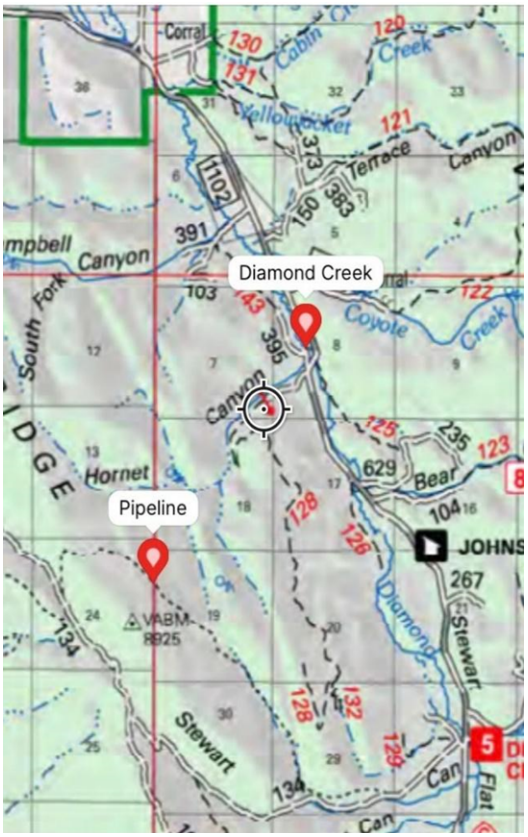

Figure 6. Report Locations.