



# Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to Ground Water by Land Treatment or Application



This application is for a state waste discharge permit as required by Chapter 90.48 RCW and Chapter 173-216 WAC. Permit applications provide Ecology with information on pollutants in the waste stream, materials that may enter the waste stream, the flow characteristics of the discharge, and the site characteristics at the point of discharge.

Ecology may request additional information to clarify the conditions of this discharge. The applicant should reference information previously submitted to Ecology that applies to this application in the appropriate section.

## SECTION A. GENERAL INFORMATION

1. Applicant name: Dwight Hand
2. Facility name:  
(if different from applicant) Mieras Mill Site
3. Applicant mail address: PO Box 53  
Street  
Ronald / Washington 98940  
City/State Zip
4. Facility location  
address:  
(if different from above) Liberty Rd.  
Street  
Liberty / Washington 98922  
City/State Zip
5. UBI No. N/A  
N/A  
Sometimes called a registration, tax, "C," or resale number, the Unified Business Identifier (UBI) number is a nine-digit number used to identify persons engaging in business activities. The number is assigned when a person completes a Master Business Application to register with or obtain a license from state agencies. The Departments of Revenue, Licensing, Employment Security, Labor and Industries, and the Corporations Division of the Secretary of State are among the state agencies participating in the UBI program.
6. Latitude/longitude of the processing facility as decimal degrees (NAD83/WGS84):  
47.247113 / 120.680788

FOR ECOLOGY USE ONLY

Check One

New/Renewal ☐

Modification ☐

Date application received

Application/Permit no.

Date application accepted

Date fee paid

7. Person to contact who is familiar with the information contained in this application:

Dwight Hand  
Name

Owner  
Title

(509) 521-3024  
Telephone number

N/A  
Fax number

8. Check One:

☒ **Permit renewal** (including renewal of temporary permits authorized by RCW 90.48.200)

Does this application request a greater amount of wastewater discharge, a greater amount of pollutant discharge, or a discharge of different pollutants than specified in the last permit application for this facility? ☐ YES ☒ NO

For permit renewals, the current permit is an attachment, by reference, to this application.

☐ **Permit modification**

☐ **Existing  
unpermitted discharge**

☐ **Proposed discharge**

Anticipated date of discharge: \_\_\_\_\_

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or imprisonment for knowing violations.*

Signature\*

Date

Title

Dwight Hand  
Printed name

\*Applications must be signed as follows: Corporations, by a principal executive officer of at least the level of vice-president; partnership, by a general partner; sole proprietorship, by the proprietor. If these titles do not apply to your organization, the person who makes budget decisions for this facility must sign the application.

The application signatory may delegate signature authority for submittals required by the permit, such as monthly reports, to a suitable employee. You can delegate this authority to a qualified individual or to a position, which you expect to fill with a qualified individual. If you wish to delegate signature authority, please complete the following:

N/A  
Signature of delegated employee

Date

Title or function at the facility

Printed name



## SECTION B. PRODUCT INFORMATION

- Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Category (SIC) and the North American Industry Classification System (NAICS) Code(s) for each activity (see *North American Industrial Classification System*, 2007 ed.). You can find the 1997 NAICS codes and the corresponding 1987 Standard Industry Category (SIC) codes at (<http://www.census.gov/epcd/naics/frames3.htm>).

### Description:

My mill crushes rock to extract the gold and silver contained within. I use a jaw crusher, rolls, ball mill and concentrating table to achieve this. I use Kittitas PUD for electrical power and water to move the material through the process of separating the gold and silver from the rock. The water and waste rock then flows into a settling pond to evaporate. The only lubricant used is a grease gun to lubricate the jaw crusher and ball mill.

No consumables are used.

The concentrates containing the gold and silver are collected off the end of the table in five gallon buckets.

- List raw materials and products:

Type	RAW MATERIALS	Quantity
Potatoes (Example)		20 million tons per year
Quartz rock		About 6 tons of rock a year
Shale rock		
Basalt rock		
Type	PRODUCTS	Quantity
French fries (Example)		10 million pounds per year
Concentrate from milling process.		About 300 pounds a year

## SECTION C. PLANT OPERATIONAL CHARACTERISTICS

1. For each process listed in B.1 that generates wastewater, list the process, assign the waste stream a name and ID #, and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch (B) or Continuous (C) Process
<i>Receiving raw potatoes (Example)</i>	<i>Mud Water</i>	<i>1</i>	<i>C</i>
Rock is pulverized by the jaw crusher and ball mill using water to move the material through the mill and across the concentrate table.	The waste stream would be the crushed rock and water left over from the milling.		Continuous

2. On a separate sheet, produce a schematic drawing showing production processes and water flow through the facility and wastewater treatment devices (*label as attachment C2*). The drawing should indicate the source of intake water and the operations contributing wastewater to the effluent and should label the treatment units. Construct the water balance by showing average flows between intakes, operations, treatment units, and points of discharge to land. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a description of the nature and amount of any sources of water and any collection or treatment measures.
3. What is the highest daily discharge flow from the processing facility: 2000 gallons per day  
(Specify the time period for the value given)
- What is the highest daily discharge flow to the sprayfields/infiltration basin:                      inches/acre/month OR  
(Specify the time period for the value given) 2000 gallons per day
- What is the highest average monthly discharge flow (daily flows averaged over a month) from the processing facility: 2000 gallons/day?  
(Specify the time period for the value given)
- What is the highest average monthly discharge flow to the sprayfields:                      inches/acre/month OR  
(Specify the time period for the value given) 0 gallons per day
4. Describe any planned wastewater treatment or sprayfield/infiltration improvements and the schedule for the improvements or changes. (*Use additional sheets, if necessary and label as attachment C4.*)  
None planned



5. If production processes are subject to seasonal variations, provide the following information. List discharge for each wastestream in gallons or million gallons per month. The combined value for each month should equal the estimated total monthly flow. Please indicate the proper unit by checking one of the following boxes:

☐ gallons per day ☒ gallons per month ☐ million gallons per month

Waste Stream ID#	MONTHS											
	J	F	M	A	M	J	J	A	S	O	N	D
#1 (Example)	1000	1000	1000	1000	6000	2000	2000	2000	1000	1000	5000	4000
				6000	6000	6000	6000	6000	6000			
Estimated total gallons				6000	6000	6000	6000	6000	6000			

6. If this is a discharge from the processing facility to a storage or evaporative lagoon, what is the size of the lagoon (give square footage for the bottom of the lagoon and the total volume of the lagoon at full operating depth). 10,000 square feet; 10 million gallons (Example)  
1600 square feet. Full volume is 65,824 gallons

7. Check the applicable box. Is this a discharge to a sprayfield ☒ or an infiltration bed ☐? Provide the average gallons per acre per day proposed for each month in the following table. N/A

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept.	Oct	Nov	Dec
Estimated gallons per acre per day				18	18	18	18	18	18			

8. How many hours a day does this facility typically operate? 8  
 How many days a week does this facility typically operate? 3 days a month  
 How many weeks per year does this facility typically operate? Two weeks and 4 days
9. List all incidental materials such as oil, paint, grease, solvents, and cleaners that are used or stored on site (list only those with quantities greater than 10 gallons for liquids and 50 pound quantities for solids). For solvents and solvent-based cleaners, include a copy of the material safety data sheet for each material and estimate the quantity used. *Use additional sheets, if necessary and label as attachment C.7.)*  
 Nothing over 10 gallons or 50 pounds  
 I use dynamite to break out the rock  
 Dynamite is stored in a explosives magazine on site  
 I use a electric rotor hammer to drill my holes for blasting  
 The drill, generator and fuel are stored off site

Materials/Quantity Stored:

- |     |  | Yes                      | No                                  |
|-----|--|--------------------------|-------------------------------------|
| 10. | Some types of facilities are required to have spill or waste control plans.<br>Does this facility have:          |                          |                                     |
| a.  | A spill prevention, control, and countermeasure plan (40 CFR 112)?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b.  | An Oil Spill Contingency Plan (chapter 173-182 WAC)?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c.  | An emergency response plan (per WAC 173-303-350)?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d.  | A runoff, spillage, or leak control plan (per WAC 173-216-110(f))?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e.  | Any spill or pollution prevention plan required by local, state or federal<br>authorities? If yes specify: _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f.  | A solid waste control plan?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



## SECTION D. WATER CONSUMPTION AND WATER LOSS

1. Potable water source(s):

☐ Public system (Specify name) \_\_\_\_\_

☐ Private well ☒ Surface water (Specify name of water body) \_\_\_\_\_

a. Water right permit number: S4727833T3, 2, Section 2, 20N TWN, 17E R

b. Legal description of water source:

SE 1/4S, SW 1/4S, 2, Section, 20N TWN, 17E R

2. Potable water use

a. Indicate total water use: Gallons per day (average) 0

Gallons per day (maximum) 0

b. Is water metered? ☐ YES ☒ NO

3. Supplemental Irrigation water source(s): N/A

☐ Public system or Irrigation District (Specify name) \_\_\_\_\_

☐ Private well ☐ Surface water (Specify name of water body) \_\_\_\_\_

a. Water right permit number: \_\_\_\_\_

b. Legal description of water source:

\_\_\_\_ 1/4S, \_\_\_\_ 1/4S, \_\_\_\_\_, Section, \_\_\_\_\_ TWN, \_\_\_\_\_ R

## SECTION E. WASTEWATER INFORMATION

1. How are the water intake and effluent flows measured?

Intake: By how many times I fill up my storage tank

Effluent By how much I use out of my storage tank

2. Describe the collection method for the samples analyzed below. (*i.e.*, grab, 24-hour composite). Applicants must collect grab samples (not composites) for analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and Enterococci (previously known as fecal streptococcus at § 122.26 (d)(2)(iii)(A)(3)), or volatile organics.

3. Has the effluent been analyzed for any other parameters than those identified in question E.4.? ☐ YES ☒ NO  
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location of sampling. (*Note: Ecology may require additional testing.*)

4. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for the parameters with an "X" in the left column. If you obtain the application from the internet, contact Ecology's regional office to see if testing for a subset of these parameters is permissible. All analyses (except pH) must be conducted by a laboratory registered or accredited by Ecology (WAC 173-216-125). If this is an application for permit renewal, provide data for the last year for those parameters that are routinely measured. For parameters measured only for this application, place the values under "Maximum." Report the values with units as specified in the parameter name or in the detection level.

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table unless Ecology approves an alternate method or the method used produces measurable results in the sample and EPA has listed it as an EPA approved method in 40 CFR Part 136. If the Permittee uses an alternative method as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.



X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	BOD (5 day)					SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids					SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
	Total dissolved solids					SM 2540 C	
	Conductivity (micromhos/cm)					SM 2510 B	
	Ammonia-N as N					SM 4500-NH <sub>3</sub> C	/0.3 mg/L
	pH					SM 4500-H	0.1 standard units
	Fecal coliform (organisms/100 mL)					SM 9221 E or 9222 D	
	Total coliform (organisms/100 mL)					SM 9221 B or 9222 B	
	Dissolved oxygen					SM 4500-O C/G	
	Nitrate + nitrite-N as N					SM 4500-NO <sub>3</sub> E	100 µg/L
	Total kjeldahl N as N					SM 4500-N <sub>org</sub> C/E/FG	300 µg/l
	Ortho-phosphate-P as P					SM 4500-P E/F	10 µg/l
	Total-phosphorous-P as P					SM 4500-P E/P/F	10 µg/l
	Total Oil & grease					EPA 1664A	1.4/5 mg/l
	NWTPH - Dx					Ecology NWTPH Dx	250/250 µg/l
	NWTPH - Gx					Ecology NWTPH Gx	250/250 µg/l
	Calcium					EPA 200.7	10 µg/l
	Chloride					SM 4500-Cl C	0.15 µg/l
	Fluoride					SM 4500-F E	.025/0.1 mg/l
	Magnesium					EPA 200.7	10/50 µg/l
	Potassium					EPA 200.7	700/ µg/l

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	Sodium					EPA 200.7	29/ µg/l
	Sulfate					SM 4500-SO <sub>4</sub> C/D	/200 µg/l
	Alkalinity as CaCO <sub>3</sub>					SM 2320 B	/5 mg/L as CaCO <sub>3</sub>
	Arsenic(total)					EPA 200.8	0.1/0.5 µg/l
	Barium (total)					EPA 200.8	0.5/2 µg/l
	Cadmium (total)					EPA 200.8	.05/.25 µg/l
	Chromium (total)					EPA 200.8	0.2/1 µg/l
	Copper (total)					EPA 200.8	0.4/2 µg/l
	Iron (total)					EPA 200.7	12.5/50 µg/l
	Lead (total)					EPA 200.8	0.1/.5 µg/l
	Manganese (total)					EPA 200.8	0.1/0.5 µg/l
	Mercury (total) pg/L					EPA 1631E	0.2/0.5 pg/l
	Molybdenum(total)					EPA 200.8	0.1/0.5 µg/l
	Nickel(total)					EPA 200.8	0.1/0.5 µg/l
	Selenium (total)					EPA 200.8	1/1 µg/l
	Silver (total)					EPA 200.8	.04/.2 µg/l
	Zinc (total)					EPA 200.8	0.5/2.5 µg/l

Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10<sup>n</sup>, where n is an integer. (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).



5. Does this facility use any of the following chemicals as raw materials in production, produce them as part of the manufacturing process, or are they present in the wastewater? (The number following the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.) ☐ YES ☒ NO

If yes, specify how the chemical is used and the quantity used or produced (Use additional sheets, if necessary and label as attachment E5.):

Acrylamide/79-06-1  
Acrylonitrile/107-13-1  
Aldrin/309-00-2  
Aniline/62-53-3  
Aramite/140-57-8  
Arsenic/7440-38-2  
Azobenzene/103-33-3  
Benzene/71-43-2  
Benzidine/92-87-5  
Benzo(a)pyrene/50-32-8  
Benzotrifluoride/98-07-7  
Benzyl chloride/100-44-7  
Bis(chloroethyl)ether/111-44-4  
Bis(chloromethyl)ether/542-88-1  
Bis(2-ethylhexyl) phthalate/ 117-81-7  
Bromodichloromethane/75-27-4  
Bromoform/75-25-2  
Carbazole/86-74-8  
Carbon tetrachloride/56-23-5  
Chlordane/57-74-9  
Chlorodibromomethane/124-48-1  
Chloroform/67-66-3  
Chlorthalonil/1897-45-6  
2,4-D/94-75-7  
DDT/50-29-3  
Diallate/2303-16-4  
1,2 Dibromoethane/106-93-4  
1,4 Dichlorobenzene/106-46-7  
3,3' Dichlorobenzidine/91-94-1  
1,1 Dichloroethane/75-34-3  
1,2 Dichloroethane/107-06-2

Nitrofurazone/59-87-0  
N-nitrosodiethanolamine/ 1116-54-7  
N-nitrosodiethylamine/55-18-5  
N-nitrosodimethylamine/62-75-9  
N-nitrosodiphenylamine/86-30-6  
N-nitroso-di-n-propylamine/ 621-64-7  
N-nitrosopyrrolidine/930-55-2  
N-nitroso-di-n-butylamine/ 924-16-3  
N-nitroso-n-methylethylamine/  
10595-95-6  
PAH/NA  
PBBs/NA  
PCBs/1336-36-3  
1,2 Dichloropropane/78-87-5  
1,3 Dichloropropene/542-75-6  
Dichlorvos/62-73-7  
Dieldrin/60-57-1  
3,3' Dimethoxybenzidine/119-90-4  
3,3 Dimethylbenzidine/119-93-7  
1,2 Dimethylhydrazine/540-73-8  
2,4 Dinitrotoluene/121-14-2  
2,6 Dinitrotoluene/606-20-2  
1,4 Dioxane/123-91-1  
1,2 Diphenylhydrazine/122-66-7  
Endrin/72-20-8  
Epichlorohydrin/106-89-8  
Ethyl acrylate/140-88-5  
Ethylene dibromide/106-93-4  
Ethylene thiourea/96-45-7  
Folpet/133-07-3  
Furmecycloz/60568-05-0

Heptachlor/76-44-8  
Heptachlor epoxide/1024-57-3  
Hexachlorobenzene/118-74-1  
Hexachlorocyclohexane (alpha)/  
319-84-6  
Hexachlorocyclohexane (tech.)/  
608-73-1  
Hexachlorodibenzo-p-dioxin,  
mix/19408-74-3  
Hydrazine/hydrazine sulfate/ 302-01-2  
Lindane/58-89-9  
2 Methylaniline/100-61-8  
2 Methylaniline hydrochloride/  
636-21-5  
4,4' Methylene bis(N,N-  
dimethyl)aniline/101-61-1  
Methylene chloride  
(dichloromethane)/75-09-2  
Mirex/2385-85-5  
O-phenylenediamine/106-50-3  
Propylene oxide/75-56-9  
2,3,7,8-Tetrachlorodibenzo-p-dioxin/  
1746-01-6  
Tetrachloroethylene/127-18-4  
2,4 Toluenediamine/95-80-7  
o-Toluidine/95-53-4  
Toxaphene/8001-35-2  
Trichloroethylene/79-01-6  
2,4,6-Trichlorophenol/88-06-2  
Trimethyl phosphate/512-56-1  
Vinyl chloride/75-01-4

6. Are any other pesticides, herbicides, or fungicides used at this facility? ☐ YES ☒ NO  
If yes, specify the material and quantity used.

7. Are there other pollutants that you know of or believe to be present? ☐ YES ☒ NO  
If yes, specify the pollutants and their concentration if known  
(attach laboratory analyses if available). ☐ DON'T KNOW

## SECTION F. GROUND WATER INFORMATION

Provide available data measurements or range of measurements from monitoring wells or supply wells in the area of discharge. Provide the analytical method and detection limit, if known. Provide the location of each well on the map required in G.3 below. Attach well logs when available. Copy this page as necessary for each well. Provide the latitude and longitude in decimal format.

Ecology Well Tag ID # \_\_\_\_\_

Well ID # \_\_\_\_\_ (example MW-1)

(example AAB123)

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Well Elevation (to the nearest 0.01 feet) \_\_\_\_\_ Check the appropriate box; the elevation measurement is relative to: the NAVD88 standard ☐ mean sea level ☐

Parameter	Units	Range of Measurements	Number of Analyses	Analytical Method	Detection Limit
BOD (5 day)	mg/L				
COD	mg/L				
Total organic carbon	mg/L				
Total dissolved solids	mg/L				
Dissolved Fixed Solids	mg/L				
pH	Standard units				
Conductivity	(micromhos/cm)				
Alkalinity	mg/L as CaCO <sub>3</sub>				
Total hardness	mg/L				
Fecal coliform	organisms/100mL				
Total coliform	organisms/100mL				
Dissolved oxygen	mg/L				
Ammonia-N	mg/L				
Nitrate + nitrite-N, nitrate as N	mg/L				
Total kjeldahl N as N	mg/L				
Ortho-phosphate-P as P	mg/L				
Total-phosphate-P as P	mg/L				
Total Oil and Grease	mg/L				
Total petroleum hydrocarbon	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Calcium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chloride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Fluoride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Magnesium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Potassium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sodium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sulfate	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Barium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Cadmium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chromium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Copper	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Iron	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Lead	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				





## SECTION G. SITE ASSESSMENT

The local library and local city or county planning offices may be helpful in providing the information required in this section. You may consult the Department of Ecology Water Resources Program to help identify wells within one mile of your site.

1. Land Application Sites: Provide the information below for each land application site. Provide the latitude/longitude (approximate center of the site; NAD83/WGS84 reference datum.) Attach a copy of the contract(s) authorizing use of any private land(s) used for each treatment site. Add table rows as necessary.

Legal Description (section/township/range) NE $\frac{1}{4}$ of NW $\frac{1}{4}$ Sect. 11, T20N, R17E, Kittitas Co.			
Latitude	Longitude	Acreage	Owner
47.247133	120.680788	1 acre	Dwight Hand
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner

2. If this is a new discharge, list all environmental control permits or approvals needed for this project; for example, SEPA review, engineering reports, hydrogeologic reports, , , or air emissions permits.

N/A

3. Attach an original United States Geological Survey (USGS) 7.5 minute topographic map and aerial photograph(s) from an internet mapping site that shows the processing facility and sprayfield site(s). **USGS topographical maps are available from the Department of Natural Resources (360 902-1234), Metsker Maps (206 588-5222), some local bookstores, and internet sites. Show the following on this map:**
  - a. Location and name of internal and adjacent streets.
  - b. Surface water drainage systems within ¼ mile of the site.
  - c. All wells within 1 mile of the site.
  - d. Wastewater discharge points.
  - e. Land uses and zoning adjacent to the wastewater application site.
  - f. Groundwater gradient.
4. Describe the soils on the site using information from local soil survey reports. **Soils information is available from your local County Conservation District or from information contained in the sites hydrogeologic report.** *(Submit on separate sheet and label as attachment G.4.)*
5. Describe the local geology and hydrogeology within one mile of the site. Include any groundwater quality data. **The local library or local Soil Conservation Service may have this information.** *(Submit on separate sheet and label as attachment G.5.)*
6. List the names and addresses of contractors or consultants who provided information and cite sources of information by title and author.



## SECTION H. STORMWATER

1. Do you have coverage under the Washington State Industrial Stormwater NPDES General permit? ☐ YES ☒ NO  
If yes, please list the permit number here. \_\_\_\_\_

If no, have you applied for coverage under the Washington State Industrial Stormwater NPDES general permit? ☐ YES ☒ NO

**Note:** If you answered "no" to both questions above, complete the following questions 2 through 8.

2. Describe the size of the stormwater collection area.
- a. Unpaved area \_\_\_\_\_ sq.ft.
  - b. Paved area \_\_\_\_\_ sq.ft.
  - c. Other collection areas (roofs) \_\_\_\_\_ sq.ft.
3. Does your facility's stormwater discharge to: *(Check all that apply)*
- ☐ Storm sewer system; name of storm sewer system *(operator)*:
  - ☐ Sanitary sewer
  - ☐ Directly to surface waters of Washington State *(e.g., river, lake, creek, estuary, ocean)*.  
Specify waterbody name \_\_\_\_\_
  - ☒ Indirectly to surface waters of Washington State *(i.e., flows over adjacent properties first)*.
  - ☐ Directly to ground waters of Washington State via:
    - ☐ Dry well
    - ☐ Drainfield
    - ☐ Other
4. Areas with industrial activities at facility: *(check all that apply)*
- ☐ Manufacturing building
  - ☐ Material handling
  - ☐ Material storage
  - ☐ Hazardous waste treatment, storage, or disposal *(refers to RCRA, Subtitle C facilities only)*
  - ☐ Waste treatment, storage, or disposal
  - ☐ Application or disposal of wastewaters
  - ☐ Storage and maintenance of material handling equipment
  - ☐ Vehicle maintenance
  - ☐ Areas where significant materials remain
  - ☐ Access roads and rail lines for shipping and receiving

☐ Other \_\_\_\_\_

5. Material handling/management practices      None used or stored

a. Types of materials handled and/or stored outdoors: *(check all that apply)*

- |  |   |
|--|---|
| <input type="checkbox"/> Solvents                            | <input type="checkbox"/> Hazardous wastes                   |
| <input type="checkbox"/> Scrap metal                         | <input type="checkbox"/> Acids or alkalies                  |
| <input type="checkbox"/> Petroleum or petrochemical products | <input type="checkbox"/> Paints/coatings                    |
| <input type="checkbox"/> Plating products                    | <input type="checkbox"/> Woodtreating products              |
| <input type="checkbox"/> Pesticides                          | <input type="checkbox"/> Other <i>(please list)</i> : _____ |

b. Identify existing management practices employed to reduce pollutants in industrial storm water discharges: *(check all that apply)*

- |  |   |
|--|---|
| <input type="checkbox"/> Oil/water separator         | <input type="checkbox"/> Detention facilities               |
| <input type="checkbox"/> Containment                 | <input type="checkbox"/> Infiltration basins                |
| <input type="checkbox"/> Spill prevention            | <input type="checkbox"/> Operational BMPs                   |
| <input type="checkbox"/> Surface leachate collection | <input type="checkbox"/> Vegetation management              |
| <input type="checkbox"/> Overhead coverage           | <input type="checkbox"/> Other <i>(please list)</i> : _____ |

6. Attach a map showing stormwater drainage/collection areas, disposal areas and discharge points. This may be a hand drawn map if no other site map is available. Label this as attachment H.8.

## SECTION I. OTHER INFORMATION

1. Describe liquid or solid wastes generated that are not disposed of in the waste stream(s) and describe the method of disposal. For each type of waste, provide type of waste, name, address, and phone number of hauler.

None generated

2. Describe any storage areas used for raw materials, products, and wastes.

The ore storage bin holds about 5 yards of material. The ore is introduced into the mill when I operate the system.  
Waste rock is stored in settling pond.

---

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### Summary of attachments that may be required for this application:

(Please check those attachments that are included)

- ☒ C.2. Production schematic flow diagram and water balance
- ☐ C.4. Wastewater treatment improvements
- ☐ C.7. Additional incidental materials
- ☐ E.4. Additional results of effluent testing
- ☐ G.1. Copies of land use contracts
- ☒ G.3. USGS topographical map
- ☒ G.4. Soils description
- ☒ G.5. Local geology and hydrology
- ☐ H.8. Stormwater drainage map

*If you need this document in a format for the visually impaired, call the Water Quality Program at 360-407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*





# Flow Chart for Mill Operation

- (1) Primary Jaw Crusher  
The purpose is to crush the rock to a manageable size for storage and use in the storage bin
- (2) Storage Bin  
Stores the ore for future use.
- (3) Secondary Jaw Crusher  
This starts the process of reducing the ore in size and the introduction of water to start moving the ore material down through the mill for further downsizing.
- (4) Classifier and Rolls  
The classifier and rolls further reduces the ore before it flows into the ballmill
- (5) Ballmill  
The ballmills primary function is to grind the ore to a very fine sand before it flows across the concentrating table.
- (6) Shaker Table or Concentrating Table  
The purpose of the shaker table is to seperate the gold and silver values from the ballmill discharge of finely ground ore sands. The waste water and left over pulvorized rock flows into the settling pond.
- (7) Settling Pond  
The water and waste rock collect in the pond where the water evaperates off leaving the sand behind. After a period of years the sand is removed by a rubber tired loader to spread out on the road and paths in the mill area.
- (8) The elevation change is 30 feet over 120 feet length.

7. Person to contact who is familiar with the information contained in this application:

Dwight Hand  
Name

Owner

Title

(509)521-3024

Telephone number

N/A

Fax number

8. Check One:



**Permit renewal** (including renewal of temporary permits authorized by RCW 90.48.200)

Does this application request a greater amount of wastewater discharge, a greater amount of pollutant discharge, or a discharge of different pollutants than specified in the last permit application for this facility? ☐ YES ☒ NO

For permit renewals, the current permit is an attachment, by reference, to this application.



**Permit modification**



**Existing  
unpermitted discharge**



**Proposed discharge**

Anticipated date of discharge: \_\_\_\_\_

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or imprisonment for knowing violations.*

Signature\*

Date

Title

Dwight Hand

Printed name

\*Applications must be signed as follows: Corporations, by a principal executive officer of at least the level of vice-president; partnership, by a general partner; sole proprietorship, by the proprietor. If these titles do not apply to your organization, the person who makes budget decisions for this facility must sign the application.

The application signatory may delegate signature authority for submittals required by the permit, such as monthly reports, to a suitable employee. You can delegate this authority to a qualified individual or to a position, which you expect to fill with a qualified individual. If you wish to delegate signature authority, please complete the following:

N/A

Signature of delegated employee

Date

Title or function at the facility

Printed name



## SECTION B. PRODUCT INFORMATION

- Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Category (SIC) and the North American Industry Classification System (NAICS) Code(s) for each activity (see *North American Industrial Classification System*, 2007 ed.). You can find the 1997 NAICS codes and the corresponding 1987 Standard Industry Category (SIC) codes at (<http://www.census.gov/epcd/naics/frames3.htm>).

**Description:**

My mill crushes rock to extract the gold and silver contained within. I use a jaw crusher, rolls, ball mill and concentrating table to achieve this. I use Kittitas PUD for electrical power and water to move the material through the process of separating the gold and silver from the rock. The water and waste rock then flows into a settling pond to evaporate. The only lubricant used is a grease gun to lubricate the jaw crusher and ball mill. No consumables are used. The concentrates containing the gold and silver are collected off the end of the table in five gallon buckets.

- List raw materials and products:

RAW MATERIALS	
Type	Quantity
Potatoes (Example)	20 million tons per year
Quartz rock	About 6 tons of rock a year
Shale rock	
Basalt rock	
PRODUCTS	
Type	Quantity
French fries (Example)	10 million pounds per year
Concentrate from milling process.	About 300 pounds a year

## SECTION C. PLANT OPERATIONAL CHARACTERISTICS

1. For each process listed in B.1 that generates wastewater, list the process, assign the waste stream a name and ID #, and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch (B) or Continuous (C) Process
<i>Receiving raw potatoes (Example)</i>	<i>Mud Water</i>	<i>1</i>	<i>C</i>
Rock is pulverized by the jaw crusher and ball mill using water to move the material through the mill and across the concentrate table.	The waste stream would be the crushed rock and water left over from the milling.		Continuous

2. On a separate sheet, produce a schematic drawing showing production processes and water flow through the facility and wastewater treatment devices (*label as attachment C2*). The drawing should indicate the source of intake water and the operations contributing wastewater to the effluent and should label the treatment units. Construct the water balance by showing average flows between intakes, operations, treatment units, and points of discharge to land. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a description of the nature and amount of any sources of water and any collection or treatment measures.
3. What is the highest daily discharge flow from the processing facility: 2000 gallons per day  
(Specify the time period for the value given)
- What is the highest daily discharge flow to the sprayfields/infiltration basin: \_\_\_\_\_ inches/acre/month OR  
(Specify the time period for the value given) 2000 gallons per day
- What is the highest average monthly discharge flow (daily flows averaged over a month) from the processing facility: 2000 gallons/day?  
(Specify the time period for the value given)
- What is the highest average monthly discharge flow to the sprayfields: \_\_\_\_\_ inches/acre/month OR  
(Specify the time period for the value given) 0 gallons per day
4. Describe any planned wastewater treatment or sprayfield/infiltration improvements and the schedule for the improvements or changes. (*Use additional sheets, if necessary and label as attachment C4.*)  
None planned



5. If production processes are subject to seasonal variations, provide the following information. List discharge for each wastestream in gallons or million gallons per month. The combined value for each month should equal the estimated total monthly flow. Please indicate the proper unit by checking one of the following boxes:

☐ gallons per day ☒ gallons per month ☐ million gallons per month

Waste Stream ID#	MONTHS											
	J	F	M	A	M	J	J	A	S	O	N	D
#1 (Example)	1000	1000	1000	1000	6000	2000	2000	2000	1000	1000	5000	4000
				6000	6000	6000	6000	6000	6000			
Estimated total gallons				6000	6000	6000	6000	6000	6000			

6. If this is a discharge from the processing facility to a storage or evaporative lagoon, what is the size of the lagoon (give square footage for the bottom of the lagoon and the total volume of the lagoon at full operating depth). 10,000 square feet; 10 million gallons (Example)  
1600 square feet. Full volume is 65,824 gallons
7. Check the applicable box. Is this a discharge to a sprayfield ☒ or an infiltration bed ☐? Provide the average gallons per acre per day proposed for each month in the following table. N/A

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept.	Oct	Nov	Dec
Estimated gallons per acre per day				18	18	18	18	18	18			

8. How many hours a day does this facility typically operate? 8  
 How many days a week does this facility typically operate? 3 days a months  
 How many weeks per year does this facility typically operate? Two weeks and 4 days
9. List all incidental materials such as oil, paint, grease, solvents, and cleaners that are used or stored on site (list only those with quantities greater than 10 gallons for liquids and 50 pound quantities for solids). For solvents and solvent-based cleaners, include a copy of the material safety data sheet for each material and estimate the quantity used. *Use additional sheets, if necessary and label as attachment C.7.)*  
 Nothing over 10 gallons or 50 pounds  
 I use dynamite to break out the rock  
 Dynamite is stored in a explosives magazine on site  
 I use a electric rotor hammer to drill my holes for blasting  
 The drill, generator and fuel are stored off site



Materials/Quantity Stored:

- |     |   | Yes                      | No                                  |
|-----|---|--------------------------|-------------------------------------|
| 10. | Some types of facilities are required to have spill or waste control plans. Does this facility have:          |                          |                                     |
| a.  | A spill prevention, control, and countermeasure plan (40 CFR 112)?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b.  | An Oil Spill Contingency Plan (chapter 173-182 WAC)?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c.  | An emergency response plan (per WAC 173-303-350)?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d.  | A runoff, spillage, or leak control plan (per WAC 173-216-110(f))?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e.  | Any spill or pollution prevention plan required by local, state or federal authorities? If yes specify: _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f.  | A solid waste control plan?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## SECTION D. WATER CONSUMPTION AND WATER LOSS

1. Potable water source(s):

☐ Public system (Specify name) \_\_\_\_\_

☐ Private well

☒ Surface water (Specify name of water body) \_\_\_\_\_

a. Water right permit number: S4727833TS, 2, Section 2, 20N TWN, 17E R

b. Legal description of water source:

SE  $\frac{1}{4}$ S, SW  $\frac{1}{4}$ S, 2, Section, 20N TWN, 17E R

2. Potable water use

a. Indicate total water use: Gallons per day (average) 0

Gallons per day (maximum) 0

b. Is water metered? ☐ YES ☒ NO

3. Supplemental Irrigation water source(s): N/A

☐ Public system or Irrigation District (Specify name) \_\_\_\_\_

☐ Private well

☐ Surface water (Specify name of water body) \_\_\_\_\_

a. Water right permit number: \_\_\_\_\_

b. Legal description of water source:

\_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_, Section, \_\_\_\_\_ TWN, \_\_\_\_\_ R

## SECTION E. WASTEWATER INFORMATION

1. How are the water intake and effluent flows measured?

Intake: By how many times I fill up my storage tank

Effluent By how much I use out of my storage tank

2. Describe the collection method for the samples analyzed below. (*i.e.*, grab, 24-hour composite). Applicants must collect grab samples (not composites) for analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and Enterococci (previously known as fecal streptococcus at § 122.26 (d)(2)(iii)(A)(3)), or volatile organics.

3. Has the effluent been analyzed for any other parameters than those identified in question E.4.? ☐ YES ☒ NO  
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location of sampling. (*Note: Ecology may require additional testing.*)

4. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for the parameters with an "X" in the left column. If you obtain the application from the internet, contact Ecology's regional office to see if testing for a subset of these parameters is permissible. All analyses (except pH) must be conducted by a laboratory registered or accredited by Ecology (WAC 173-216-125). If this is an application for permit renewal, provide data for the last year for those parameters that are routinely measured. For parameters measured only for this application, place the values under "Maximum." Report the values with units as specified in the parameter name or in the detection level.

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table unless Ecology approves an alternate method or the method used produces measurable results in the sample and EPA has listed it as an EPA approved method in 40 CFR Part 136. If the Permittee uses an alternative method as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.



X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	BOD (5 day)					SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids					SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
	Total dissolved solids					SM 2540 C	
	Conductivity (micromhos/cm)					SM 2510 B	
	Ammonia-N as N					SM 4500-NH <sub>3</sub> C	/0.3 mg/L
	pH					SM 4500-H	0.1 standard units
	Fecal coliform (organisms/100 mL)					SM 9221 E or 9222 D	
	Total coliform (organisms/100 mL)					SM 9221 B or 9222 B	
	Dissolved oxygen					SM 4500-O C/G	
	Nitrate + nitrite-N as N					SM 4500-NO <sub>3</sub> E	100 µg/L
	Total kjeldahl N as N					SM 4500-N <sub>org</sub> C/E/FG	300 µg/l
	Ortho-phosphate-P as P					SM 4500-P E/F	10 µg/l
	Total-phosphorous-P as P					SM 4500-P E/P/F	10 µg/l
	Total Oil & grease					EPA 1664A	1.4/5 mg/l
	NWTPH - Dx					Ecology NWTPH Dx	250/250 µg/l
	NWTPH - Gx					Ecology NWTPH Gx	250/250 µg/l
	Calcium					EPA 200.7	10 µg/l
	Chloride					SM 4500-Cl C	0.15 µg/l
	Fluoride					SM 4500-F E	.025/0.1 mg/l
	Magnesium					EPA 200.7	10/50 µg/l
	Potassium					EPA 200.7	700/ µg/l

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	Sodium					EPA 200.7	29 µg/l
	Sulfate					SM 4500-SO <sub>4</sub> C/D	/200 µg/l
	Alkalinity as CaCO <sub>3</sub>					SM 2320 B	/5 mg/L as CaCO <sub>3</sub>
	Arsenic (total)					EPA 200.8	0.1/0.5 µg/l
	Barium (total)					EPA 200.8	0.5/2 µg/l
	Cadmium (total)					EPA 200.8	.05/.25 µg/l
	Chromium (total)					EPA 200.8	0.2/1 µg/l
	Copper (total)					EPA 200.8	0.4/2 µg/l
	Iron (total)					EPA 200.7	12.5/50 µg/l
	Lead (total)					EPA 200.8	0.1/5 µg/l
	Manganese (total)					EPA 200.8	0.1/0.5 µg/l
	Mercury (total) pg/L					EPA 1631E	0.2/0.5 pg/l
	Molybdenum (total)					EPA 200.8	0.1/0.5 µg/l
	Nickel (total)					EPA 200.8	0.1/0.5 µg/l
	Selenium (total)					EPA 200.8	1/1 µg/l
	Silver (total)					EPA 200.8	.04/.2 µg/l
	Zinc (total)					EPA 200.8	0.5/2.5 µg/l

Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to  $(1, 2, \text{ or } 5) \times 10^n$ , where n is an integer. (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).



5. Does this facility use any of the following chemicals as raw materials in production, produce them as part of the manufacturing process, or are they present in the wastewater? (*The number following the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.*) ☐ YES ☒ NO

If yes, specify how the chemical is used and the quantity used or produced (*Use additional sheets, if necessary and label as attachment E5.*):

Acrylamide/79-06-1  
Acrylonitrile/107-13-1  
Aldrin/309-00-2  
Aniline/62-53-3  
Aramite/140-57-8  
Arsenic/7440-38-2  
Azobenzene/103-33-3  
Benzene/71-43-2  
Benzidine/92-87-5  
Benzo(a)pyrene/50-32-8  
Benzotrithloride/98-07-7  
Benzyl chloride/100-44-7  
Bis(chloroethyl)ether/111-44-4  
Bis(chloromethyl)ether/542-88-1  
Bis(2-ethylhexyl) phthalate/ 117-81-7  
Bromodichloromethane/75-27-4  
Bromoform/75-25-2  
Carbazole/86-74-8  
Carbon tetrachloride/56-23-5  
Chlordane/57-74-9  
Chlorodibromomethane/124-48-1  
Chloroform/67-66-3  
Chlorthalonil/1897-45-6  
2,4-D/94-75-7  
DDT/50-29-3  
Diallate/2303-16-4  
1,2 Dibromoethane/106-93-4  
1,4 Dichlorobenzene/106-46-7  
3,3' Dichlorobenzidine/91-94-1  
1,1 Dichloroethane/75-34-3  
1,2 Dichloroethane/107-06-2

Nitrofurazone/59-87-0  
N-nitrosodiethanolamine/ 1116-54-7  
N-nitrosodiethylamine/55-18-5  
N-nitrosodimethylamine/62-75-9  
N-nitrosodiphenylamine/86-30-6  
N-nitroso-di-n-propylamine/ 621-64-7  
N-nitrosopyrrolidine/930-55-2  
N-nitroso-di-n-butylamine/ 924-16-3  
N-nitroso-n-methylethylamine/  
10595-95-6  
PAH/NA  
PBBs/NA  
PCBs/1336-36-3  
1,2 Dichloropropane/78-87-5  
1,3 Dichloropropene/542-75-6  
Dichlorvos/62-73-7  
Dieldrin/60-57-1  
3,3' Dimethoxybenzidine/119-90-4  
3,3 Dimethylbenzidine/119-93-7  
1,2 Dimethylhydrazine/540-73-8  
2,4 Dinitrotoluene/121-14-2  
2,6 Dinitrotoluene/606-20-2  
1,4 Dioxane/123-91-1  
1,2 Diphenylhydrazine/122-66-7  
Endrin/72-20-8  
Epichlorohydrin/106-89-8  
Ethyl acrylate/140-88-5  
Ethylene dibromide/106-93-4  
Ethylene thiourea/96-45-7  
Folpet/133-07-3  
Furmecyclo/60568-05-0

Heptachlor/76-44-8  
Heptachlor epoxide/1024-57-3  
Hexachlorobenzene/118-74-1  
Hexachlorocyclohexane (alpha)/  
319-84-6  
Hexachlorocyclohexane (tech.)/  
608-73-1  
Hexachlorodibenzo-p-dioxin,  
mix/19408-74-3  
Hydrazine/hydrazine sulfate/ 302-01-2  
Lindane/58-89-9  
2 Methylaniline/100-61-8  
2 Methylaniline hydrochloride/  
636-21-5  
4,4' Methylene bis(N,N-  
dimethyl)aniline/101-61-1  
Methylene chloride  
(dichloromethane)/75-09-2  
Mirex/2385-85-5  
O-phenylenediamine/106-50-3  
Propylene oxide/75-56-9  
2,3,7,8-Tetrachlorodibenzo-p-dioxin/  
1746-01-6  
Tetrachloroethylene/127-18-4  
2,4 Toluenediamine/95-80-7  
o-Toluidine/95-53-4  
Toxaphene/8001-35-2  
Trichloroethylene/79-01-6  
2,4,6-Trichlorophenol/88-06-2  
Trimethyl phosphate/512-56-1  
Vinyl chloride/75-01-4



6. Are any other pesticides, herbicides, or fungicides used at this facility? ☐ YES ☒ NO

If yes, specify the material and quantity used.

7. Are there other pollutants that you know of or believe to be present? ☐ YES ☒ NO

If yes, specify the pollutants and their concentration if known  
(attach laboratory analyses if available).

☐ DON'T KNOW

## SECTION F. GROUND WATER INFORMATION

Provide available data measurements or range of measurements from monitoring wells or supply wells in the area of discharge. Provide the analytical method and detection limit, if known. Provide the location of each well on the map required in G.3 below. Attach well logs when available. Copy this page as necessary for each well. Provide the latitude and longitude in decimal format.

Ecology Well Tag ID # \_\_\_\_\_  
(*example AAB123*)

Well ID # \_\_\_\_\_ (*example MW-1*)

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Well Elevation (to the nearest 0.01 feet) \_\_\_\_\_ Check the appropriate box; the elevation measurement is relative to: the NAVD88 standard ☐ mean sea level ☐

Parameter	Units	Range of Measurements	Number of Analyses	Analytical Method	Detection Limit
BOD (5 day)	mg/L				
COD	mg/L				
Total organic carbon	mg/L				
Total dissolved solids	mg/L				
Dissolved Fixed Solids	mg/L				
pH	Standard units				
Conductivity	(micromhos/cm)				
Alkalinity	mg/L as CaCO <sub>3</sub>				
Total hardness	mg/L				
Fecal coliform	organisms/100mL				
Total coliform	organisms/100mL				
Dissolved oxygen	mg/L				
Ammonia-N	mg/L				
Nitrate + nitrite-N, nitrate as N	mg/L				
Total kjeldahl N as N	mg/L				
Ortho-phosphate-P as P	mg/L				
Total-phosphate-P as P	mg/L				
Total Oil and Grease	mg/L				
Total petroleum hydrocarbon	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Calcium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chloride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Fluoride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Magnesium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Potassium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sodium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sulfate	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Barium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Cadmium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chromium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Copper	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Iron	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Lead	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				





## SECTION G. SITE ASSESSMENT

The local library and local city or county planning offices may be helpful in providing the information required in this section. You may consult the Department of Ecology Water Resources Program to help identify wells within one mile of your site.

1. Land Application Sites: Provide the information below for each land application site. Provide the latitude/longitude (approximate center of the site; NAD83/WGS84 reference datum.) Attach a copy of the contract(s) authorizing use of any private land(s) used for each treatment site. Add table rows as necessary.

Legal Description (section/township/range) NE $\frac{1}{4}$ of NW $\frac{1}{4}$ Sect. 11, T20N, R17E, Kittitas Co.			
Latitude	Longitude	Acreage	Owner
47.247133	120.680788	1 acre	Dwight Hand
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner

2. If this is a new discharge, list all environmental control permits or approvals needed for this project; for example, SEPA review, engineering reports, hydrogeologic reports, , , or air emissions permits.

N/A

3. Attach an original United States Geological Survey (USGS) 7.5 minute topographic map and aerial photograph(s) from an internet mapping site that shows the processing facility and sprayfield site(s). **USGS topographical maps are available from the Department of Natural Resources (360 902-1234), Metsker Maps (206 588-5222), some local bookstores, and internet sites.** Show the following on this map:
  - a. Location and name of internal and adjacent streets.
  - b. Surface water drainage systems within ¼ mile of the site.
  - c. All wells within 1 mile of the site.
  - d. Wastewater discharge points.
  - e. Land uses and zoning adjacent to the wastewater application site.
  - f. Groundwater gradient.
4. Describe the soils on the site using information from local soil survey reports. **Soils information is available from your local County Conservation District or from information contained in the sites hydrogeologic report.** *(Submit on separate sheet and label as attachment G.4.)*
5. Describe the local geology and hydrogeology within one mile of the site. Include any groundwater quality data. **The local library or local Soil Conservation Service may have this information.** *(Submit on separate sheet and label as attachment G.5.)*
6. List the names and addresses of contractors or consultants who provided information and cite sources of information by title and author.

## SECTION H. STORMWATER

1. Do you have coverage under the Washington State Industrial Stormwater NPDES General permit? ☐ YES ☒ NO  
If yes, please list the permit number here. \_\_\_\_\_

If no, have you applied for coverage under the Washington State Industrial Stormwater NPDES general permit? ☐ YES ☒ NO

**Note:** If you answered "no" to both questions above, complete the following questions 2 through 8.

2. Describe the size of the stormwater collection area.
- a. Unpaved area \_\_\_\_\_ sq.ft.
  - b. Paved area \_\_\_\_\_ sq.ft.
  - c. Other collection areas (roofs) \_\_\_\_\_ sq.ft.
3. Does your facility's stormwater discharge to: *(Check all that apply)*
- ☐ Storm sewer system; name of storm sewer system *(operator)*:
  - ☐ Sanitary sewer
  - ☐ Directly to surface waters of Washington State *(e.g., river, lake, creek, estuary, ocean)*.  
Specify waterbody name \_\_\_\_\_
  - ☒ Indirectly to surface waters of Washington State *(i.e., flows over adjacent properties first)*.
  - ☐ Directly to ground waters of Washington State via:
    - ☐ Dry well
    - ☐ Drainfield
    - ☐ Other
4. Areas with industrial activities at facility: *(check all that apply)*
- ☐ Manufacturing building
  - ☐ Material handling
  - ☐ Material storage
  - ☐ Hazardous waste treatment, storage, or disposal *(refers to RCRA, Subtitle C facilities only)*
  - ☐ Waste treatment, storage, or disposal
  - ☐ Application or disposal of wastewaters
  - ☐ Storage and maintenance of material handling equipment
  - ☐ Vehicle maintenance
  - ☐ Areas where significant materials remain
  - ☐ Access roads and rail lines for shipping and receiving



☐ Other \_\_\_\_\_

5. Material handling/management practices      None used or stored

a. Types of materials handled and/or stored outdoors: *(check all that apply)*

☐ Solvents

☐ Hazardous wastes

☐ Scrap metal

☐ Acids or alkalies

☐ Petroleum or petrochemical products

☐ Paints/coatings

☐ Plating products

☐ Woodtreating products

☐ Pesticides

☐ Other *(please list)*: \_\_\_\_\_

b. Identify existing management practices employed to reduce pollutants in industrial storm water discharges: *(check all that apply)*

☐ Oil/water separator

☐ Detention facilities

☐ Containment

☐ Infiltration basins

☐ Spill prevention

☐ Operational BMPs

☐ Surface leachate collection

☐ Vegetation management

☐ Overhead coverage

☐ Other *(please list)*: \_\_\_\_\_

6. Attach a map showing stormwater drainage/collection areas, disposal areas and discharge points. This may be a hand drawn map if no other site map is available. Label this as attachment H.8.

## SECTION I. OTHER INFORMATION

1. Describe liquid or solid wastes generated that are not disposed of in the waste stream(s) and describe the method of disposal. For each type of waste, provide type of waste, name, address, and phone number of hauler.

None generated

2. Describe any storage areas used for raw materials, products, and wastes.

The ore storage bin holds about 5 yards of material. The ore is introduced into the mill when I operate the system.  
Waste rock is stored in settling pond.

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### Summary of attachments that may be required for this application:

(Please check those attachments that are included)

- ☒ C.2. Production schematic flow diagram and water balance
- ☐ C.4. Wastewater treatment improvements
- ☐ C.7. Additional incidental materials
- ☐ E.4. Additional results of effluent testing
- ☐ G.1. Copies of land use contracts
- ☒ G.3. USGS topographical map
- ☒ G.4. Soils description
- ☒ G.5. Local geology and hydrology
- ☐ H.8. Stormwater drainage map

*If you need this document in a format for the visually impaired, call the Water Quality Program at 360-407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*

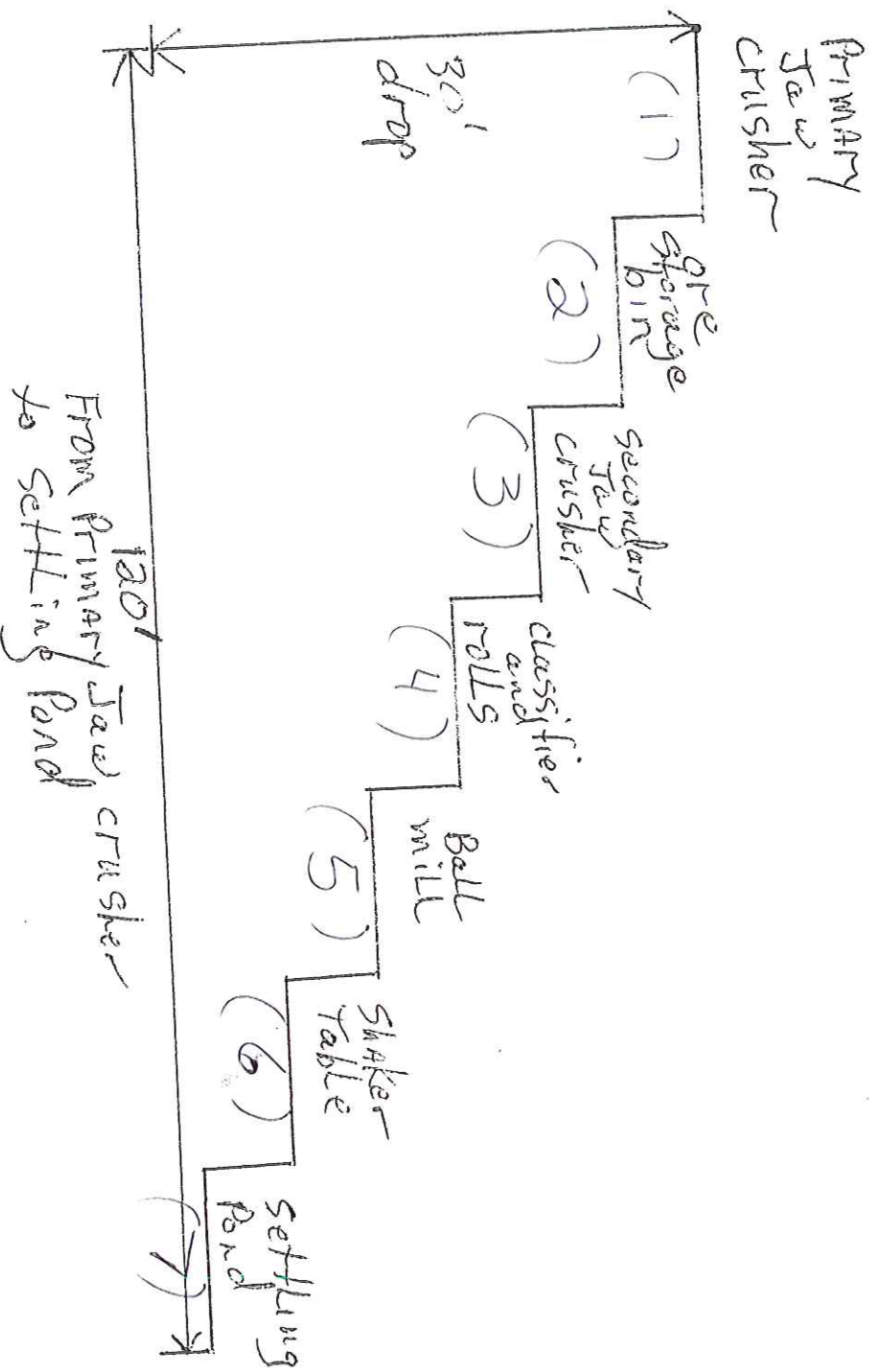




- (1) Primary Jaw Crusher  
The purpose is to crush the rock to a manageable size for storage and use in the storage bin
- (2) Storage Bin  
Stores the ore for future use.
- (3) Secondary Jaw Crusher  
This starts the process of reducing the ore in size and the introduction of water to start moving the ore material down through the mill for further downsizing.
- (4) Classifier and Rolls  
The classifier and rolls further reduces the ore before it flows into the ballmill
- (5) Ballmill  
The ballmills primary function is to grind the ore to a very fine sand before it flows across the concentrating table.
- (6) Shaker Table or Concentrating Table  
The purpose of the shaker table is to seperate the gold and silver values from the ballmill discharge of finely ground ore sands. The waste water and left over pulverized rock flows into the settling pond.
- (7) Settling Pond  
The water and waste rock collect in the pond where the water evaperates off leaving the sand behind.  
After a period of years the sand is removed by a rubber tired loader to spread out on the road and paths in the mill area.
- (8) The elevation change is 30 feet over 120 feet length.



# Schematic of Mill equipment and Flow Plan







# Attachment 3

## Section G Site assessment

### (4) Soil information

Reference the Wenatchee N. F. Soil Resource Inventory. The area is within mapping unit 252.

Some of the characteristics of this soil type are:

Low compaction hazard, moderate erosion hazard, and moderate natural stability.

Important interpretations of this soil are that it is rapidly permeable, draught, and difficult to revegetate.

### (5) Local Geology and Hydrogeology

#### Affected Environment

##### A. Legal Description

T.20N , R.17E , Section 2 , NE1/4NW1/4, W.M. Kittitas County, Washington.

##### B. Vegetation

1. Overstory – open stand of mature ponderosa pine.
2. Understory – scattered ponderosa pine seedlings to 5 feet tall, dense alder along the riparian zone.
3. Ground cover – pine grass on the slope, blue grass on the lower bench area

##### C. Wildlife

The mill site area is home to various rodents, such as squirrels and mice.  
It is used occasionally by deer, elk and turkeys.

Williams Creek is the southern boundary of the area.

##### D. Land Status

The mill site area is on National Forest land open to mining.

##### E. Threatened and Endangered Species

There are no known threatened or endangered species of flora or fauna on the mill site.





National Forest Land

H with

Stem Water

Liberty Rd

culvert

parking

claim

Mill Creek  
BLM Land

Williams Creek

culvert

claim boundary  
nation forest land

Flat Area

road

ditch

soybeans

MILL SITE

concentrating  
storage

ore bin  
secondary crusher  
classific  
roller  
Ball mill





# Attachment G.3.

TOPOI map printed on 01/08/08 from "Mill Site, Liberty WA.tpo" and "tled.tpg"

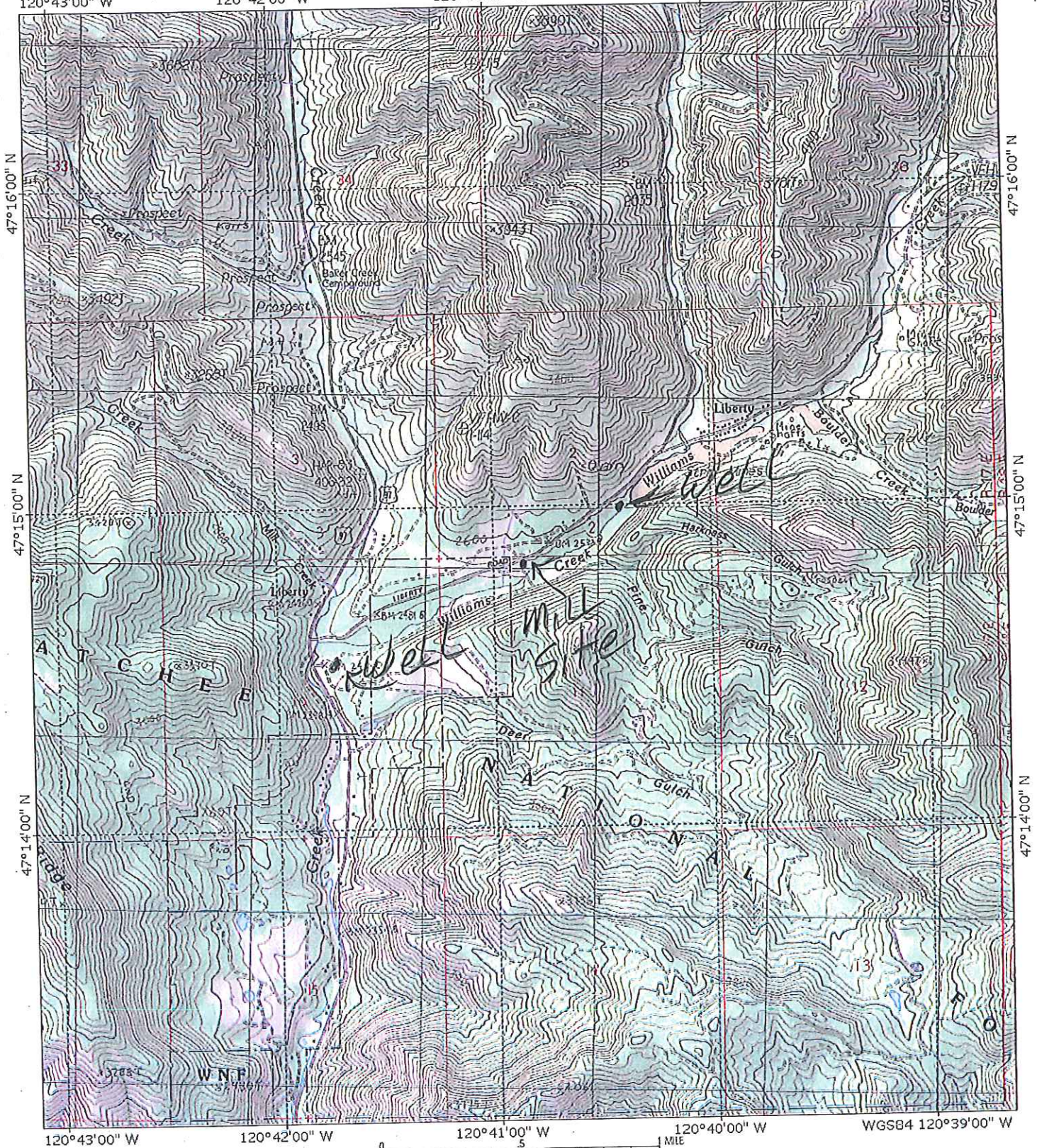
WGS84 120°39'00" W

120°43'00" W

120°42'00" W

120°41'00" W

120°40'00" W



TN\* /MN  
17%

Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

No profile exists. Choose 'Build Profile' from the pop-up options menu of a route.







# VALLEY Environmental Laboratory

## Washington State Certified Lab #153 - DOE Accredited Lab C345

### Heavy Metals Package

Lab/Sample No: Below		Date Collected: 07/01/13	
Date Received: 07/01/13		Date Reported: 08/01/13	
		Supervisor: BKO	
Sampled By: Dwight Hand			
Sample Location: Mining Tailings		Invoice#: 25129	
Send Report To:		Sample Information	
Dwight Hand PO Box 53 Ronald, WA 98940		Matrix: Water 390 Vinegar Bend Rd	

#### Heavy Metals Package

VEL Sample Number:		15370127	15370128	15370129			
Sample ID/Location:		Settling Pond	Pond Sed.	Tunnel			
Analyte	Units	Water Results	Solids Results	Solids Results			Date
							Method Analyzed Analyst
pH	pH units	7.96	6.8	6.5			EPA 150.1 07/30/13 AGC
Conductivity	uS/cm	142					SM 2510B 07/30/13 AGC
Color	Color Units	118					SM 2120B 07/30/13 AGC
Turbidity	NTU	36					SM 2130 07/30/13 AGC
Hardness	mg/L	56					SM 2340C 07/30/13 AGC
Iron	mg/L	2.65	26374.05	29985.21			SM 3111B 07/30/13 AGC
Nitrate	mg/L	ND	ND	ND			SM 4500NO3 07/30/13 AGC
Nitrite	mg/L	ND	ND	ND			SM 4500NO2 07/30/13 AGC
Chloride	mg/L	ND	ND	ND			SM 4500Cl 07/30/13 AGC
Lead	mg/L	ND	6.37	10.27			SM 3113B 07/30/13 AGC
Copper	mg/L	0.0057	52.01	71.88			SM 3113B 07/30/13 AGC
Arsenic	mg/L	ND	18.13	25.66			EPA 200.8 07/15/13 AAL
Mercury	ug/L	0.753	0.28	<0.04			EPA 245.7 07/16/13 AAL
Cadmium	mg/L	ND	<0.38	<0.37			EPA 200.8 07/15/13 AAL
Chromium	mg/L	0.0012	26.24	35.10			EPA 200.8 07/15/13 AAL
Antimony	mg/L	ND	<3.82	<3.69			EPA 200.8 07/15/13 AAL
Manganese	mg/L	0.0278	328.85	572.90			EPA 200.7 07/10/13 AAL
Sulfate	mg/L	8	<2.0	<2.0			EPA 375.4 07/03/13 JAH
			Units	Units			
			ppm	ppm			

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (always >MDL).

**Trigger:** DOH Drinking Water response level.

**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.

**ND (Not Detected):** Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL.

Approved By: \_\_\_\_\_

RECEIVED

AUG 12 2013

DEPARTMENT OF ECOLOGY  
CENTRAL REGIONAL OFFICE

