STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 72-7511
Exam Date: 07/02/2013

1. Current Owner:

HECLA MINING CO
PO BOX 647
CHALLIS ID 83226-0647

2. Accompanied by: Jeff Cooper, IDWR; Corey Skinner, IDWR; and Brant Tritthart, Hecla Mining Company site manager
Phone No:
Address:
Relationship to permit Holder:

3. **SOURCE:**	**Tributary**
JORDAN CREEK	YANKEE FORK
SPRINGS	PINYON LAKE CREEK
UNNAMED STREAM	JORDAN CREEK
UNNAMED STREAM	PINYON LAKE CREEK

Method of Determination: Information provided by Al Barker, Attorney for Hecla Mining Company; and ArcMap Aerial imagery.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None

Water Right No.	Source	Purpose of Use	Basis

Comments: Hecla permits with overlapping POU are 72-7115, 72-7116, and 72-7503.

2. Other water rights with the same point-of-diversion: None

Water Right No.	Source	Purpose of Use	Basis

Comments: Hecla permits with the same PODs are: 72-7115 & 72-7116 Springs; 72-7503 Unnamed Stream (Washout Creek); 72-7049 Jordan Creek.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM NW¼ SW¼, Sec. 29, Twp 13N, Rge 15E, B.M. CUSTER County
UNNAMED STREAM SW¼ NW¼, Sec. 29, Twp 13N, Rge 15E, B.M. CUSTER County
JORDAN CREEK SW¼ SE¼, Sec. 20, Twp 13N, Rge 15E, B.M. CUSTER County
SPRINGS NE¼ SW¼ SW¼, Sec. 29, Twp 13N, Rge 15E, B.M. CUSTER County

Method of Determination: Information provided by Al Barker, Attorney for Hecla Mining Company; and ArcMap Aerial imagery.

PLACE OF USE: WATER QUALITY IMPROVEMENT STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N	15E	29					X		X	X	X	X	X						

PLACE OF USE: WATER QUALITY IMPROVEMENT FROM STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N	15E	29											X	X					

Method of Determination: Information provided by Al Barker, Attorney for Hecla Mining Company; and ArcMap Aerial imagery.

3.

__X__ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

__X__ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

__X__ Aerial Photo Attached (required for irrigation of 10+ acres).

__X__ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	**Motor Make**	**Hp**	**Motor Serial No.**	**Pump Make**	**Pump Serial No. or Discharge Size**
NA					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	**Type**	**Make**	**Model No.**	**Serial No.**	**Size**	**Calib. Date**
NA						

2. Measurements: Impoundment capacity taken from IDWR Dam Safety material. No flow measurements made as site was mostly dismantled more than 20 years ago. Potential flow rates were gathered from material provided by Hecla attorney, Al Barker.

E. FLOW CALCULATIONS

X Additional Computation Sheets Attached

Measured Method: Data supplied by Hecla Mining Company attorney, Al Barker, indicates that potential flow rate of the sources was well in excess of the 7.36 cfs permitted rate.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: NA

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) =

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 =

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ =

2. Volume Calculations for Other Uses: The volume for the storage impoundment was confirmed by IDWR Dam Safety reports.

G. NARRATIVE/REMARKS/COMMENTS

The field exam for permit 72-7511 was conducted on July 2, 2013 by Jeff Cooper, with Corey Skinner of the Southern Region office of IDWR and Brant Tritthart of Hecla Mining Company in attendance. Most of the information for the licensing of this permit has come from phone conversations, email, and mail correspondence with the attorney for Hecla Mining Company, Albert Barker, of Barker, Rosholt, and Simpson in Boise. Permit 72-7511 is one of six outstanding permits at the Grouse Creek mine in the Yankee Fork drainage west of Challis. The application for permit 72-7511 was filed on March 22, 1993 and the permit was approved on October 25, 1993. Proof of Beneficial Use was filed on September 28, 1998, though actual mining apparently stopped in 1997. In Mr. Barker's August 17, 2020 email (included with this report), he communicated Hecla Mining Company's wish to change the use from Mining to Water Quality Improvement.

The permit was approved with Mining Storage, Mining from Storage, and Diversion to Storage as its original uses, but it appears that the storage of water in the tailings impoundment was used partially for water quality improvement from the beginning, as discussed in Excerpts from the Plan of Operations (Exhibit B), submitted to the Department by Mr. Barker with his August 7, 2020 letter. Additionally, photos from IDWR Dam safety reports as early as June of 1997 show the water treatment plant building in place, and photos from the same source show water quality treatment ponds in place as early as 1995. Water was originally directed to the impoundment from several sources, and the primary mining use was in the mill, but at this point, water quality improvement is the main use, along with water quality improvement from storage, as some of the water is pumped from the impoundment to the water treatment plant, as well as to water quality treatment ponds nearby. Because mining is no longer conducted at the site, some of the sources originally used are no longer used, or used sporadically. Ground water is one source that is being dropped from the permit.

Some clarification of the sources should be noted at this time. As mentioned above, ground water is being dropped as a source. Jordan Creek, tributary to the Yankee Fork, is the site of a pump station and its water is diverted via pipeline to the impoundment. The Unnamed Stream, tributary to Jordan Creek (also known as Washout Creek), is considered on-stream storage, and therefore, is not a part of the diversion to storage. Its point of diversion has been placed at the

midpoint of the impoundment structure, because its flow is essentially intercepted by the structure. The Unnamed Stream, tributary to Pinyon Lake Creek, is intercepted by the 'West Ditch' in the SWNW of Section 29, T13N, R15E, so that point is considered its point of diversion. The water from the source listed as the Springs is collected by a French drain somewhere under the tailings impoundment structure, and this water is drained by pipeline into a small pond (Pond #6 – Exhibit E in packet submitted by Al Barker with his August 7, 2020 letter), and then pumped to the impoundment. Because the exact location of the Springs cannot be determined, the pump location is being designated as the point of diversion.

From the data supplied with Mr. Barker's August 7, 2020 letter, the flow rate capacity of the three pumps in Jordan Creek (75 HP/600 gpm each) plus the flow rate capacity of the pumps servicing the Springs flow (two 125 HP/1000 gpm and one 25 HP/200 gpm) is more than adequate to satisfy the permitted flow rate of 7.36 cfs. IDWR Dam Safety reports indicate that the capacity of the impoundment is about 549 acre-feet, which is more than sufficient for the permitted capacity of 500 acre-feet. I recommend licensing of the permit with Diversion to Storage at 7.36 cfs, Water Quality Improvement Storage at 500.0 AF, and Water Quality Improvement from Storage also at 500.0 AF, with a total volume of 500.0 AF.

Because Hecla Mining Company, through their attorney, Al Barker, requested a change in nature of use from mining to water quality improvement; and because places of use and points of diversion were developed differently from what was permitted, an Amendment of Permit was mailed to Hecla, and was signed and returned with the $100.00 fee.

Have conditions of permit approval been met? __X__ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
DIVERSION TO STORAGE	1/01 to 12/31	7.36 CFS	
WATER QUALITY IMPROVEMENT STORAGE	01/01 to 12/31		500.0 AF
WATER QUALITY IMPROVEMENT FROM STORAGE	01/01 to 12/31		500.0 AF
	Totals:	7.36 CFS	500.0 AF

2. Recommended Amendments

__X__ Change P.D. as reflected above ____ Add P.D. as reflected above ____ None

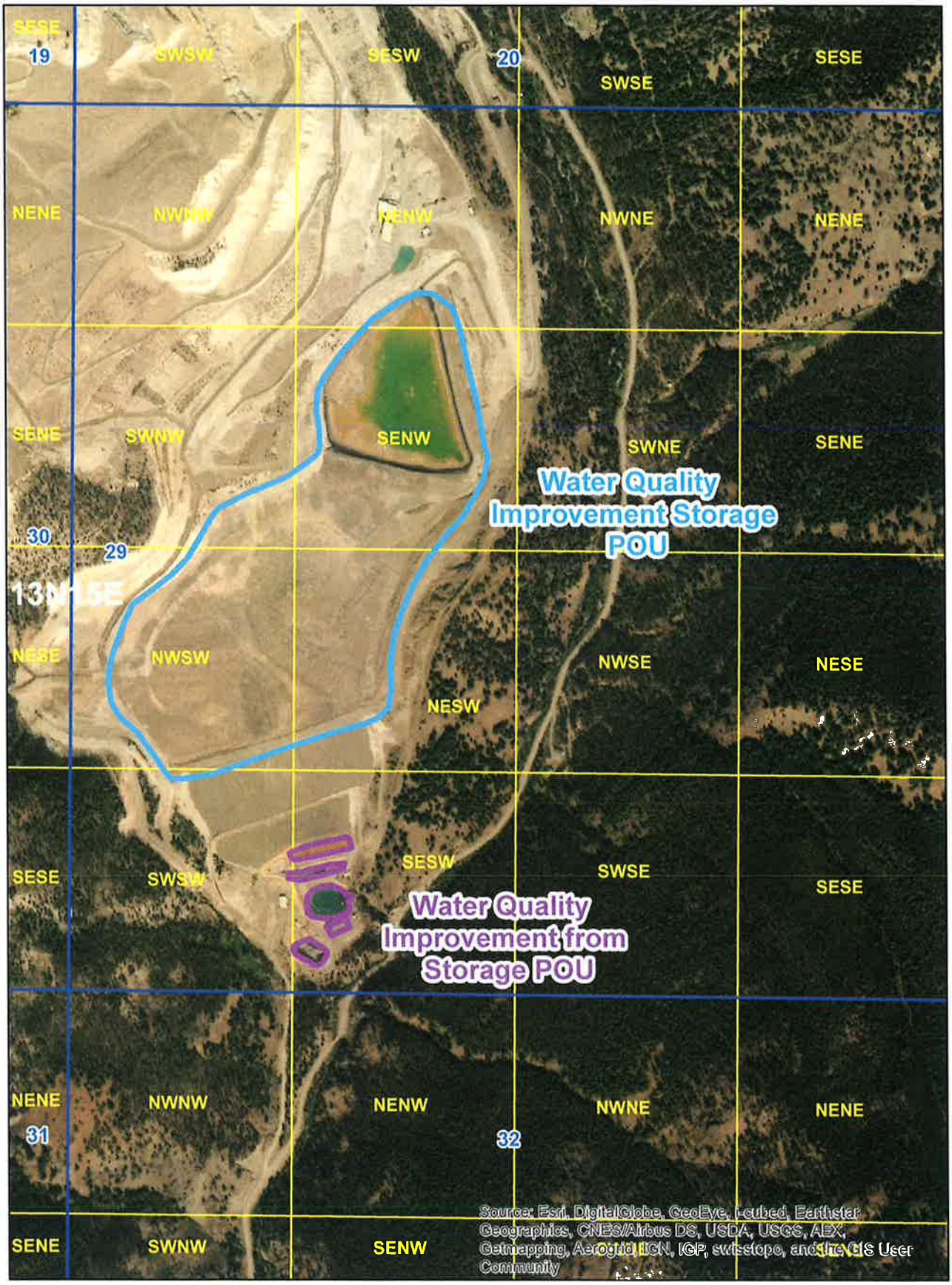
__X__ Change P.U. as reflected above ____ Add P.U. as reflected above ____ None

I. AUTHENTICATION

Field Examiner's Name Jim Bitzenburg - Senior Water Resource Agent Date 9-1-2020

Reviewer _____ Date _____

72-7511 Place of Use Map



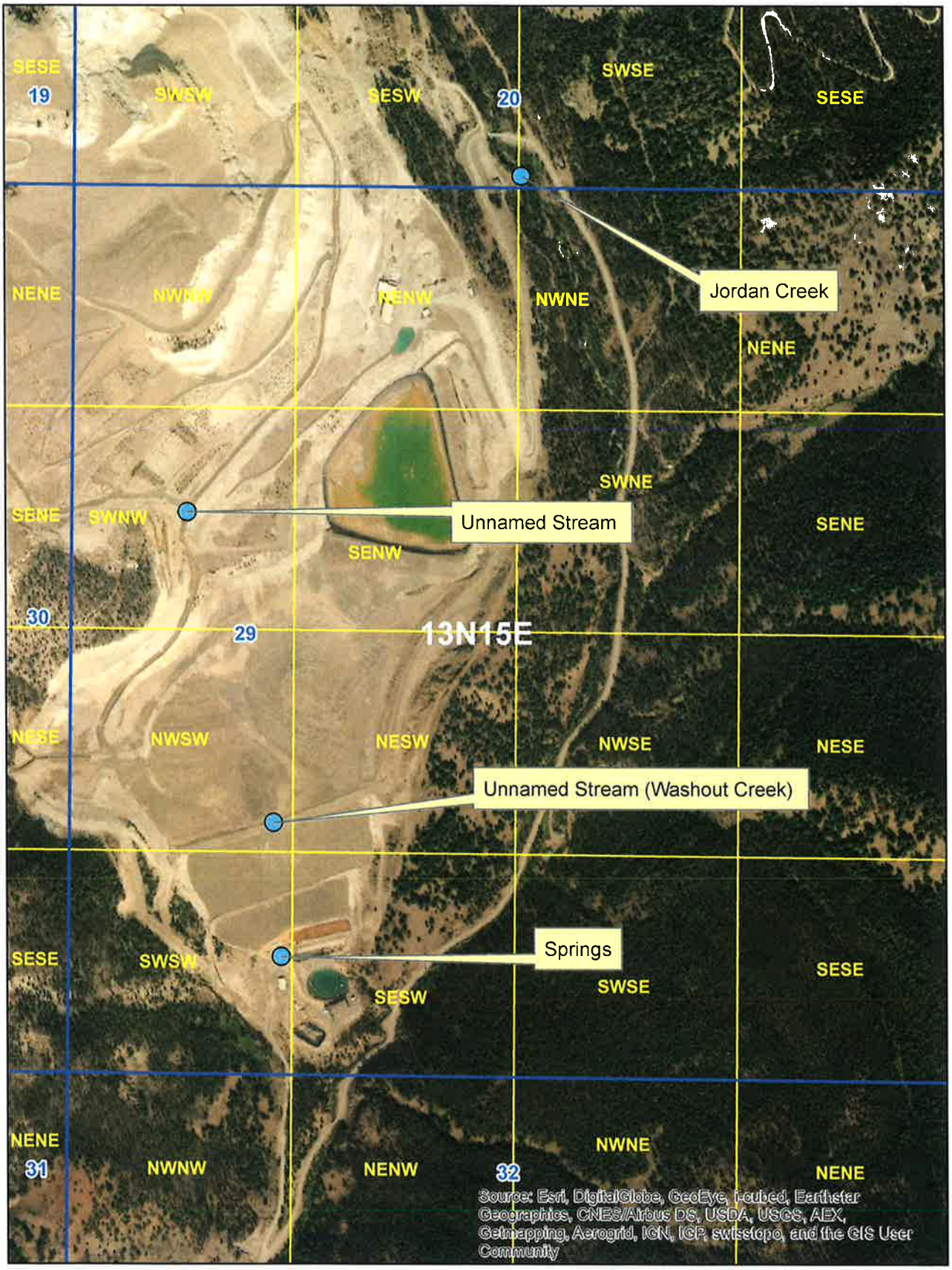
Legend

- Township/Range
- Sections
- QQ

0 0.075 0.15 0.3 Miles

N

72-7511 Points of Diversion Map



Legend

- Township/Range
- Sections
- QQ

0 0.075 0.15 0.3 Miles

N

Point of Diversion – Unnamed Stream, tributary to Pinyon Lake Creek, entering West Ditch (foreground)
Point of Diversion – Unnamed Stream (Washout Creek), tributary to Jordan Creek, dammed up by embankment (at arrow)

Point of Diversion – Pump house on Jordan Creek

72-7511 Hecla Mining Company (photos from IDWR Dam Safety Photo Gallery)

Water Quality Improvement from Storage - Place of Use – Treatment Ponds and Waste Treatment Plant
Point of Diversion – Springs tributary to Pinyon Lake Creek (at arrow)

Water Quality Improvement Storage – Place of Use

72-7511 Hecla Mining Company (photos from IDWR Dam Safety Photo Gallery)

Water Quality Improvement Storage - Place of Use

72-7511 Hecla Mining Company (photos from IDWR Dam Safety Photo Gallery)

1997 Photo from IDWR Dam Safety files showing Water Treatment Building and associated water treatment ponds in place at that time, during the development period.

Bitzenburg, James

From: Albert Barker <apb@idahowaters.com>
Sent: Monday, August 17, 2020 3:39 PM
To: Skinner, Corey; Bitzenburg, James
Subject: FW: Google Earth Image
Attachments: GoogleEarth_Image.jpg

Corey and Jim-

See if this answers some of the questions.
Also Hecla agrees to change the nature of use from Mining to Water Quality Improvement.

Albert P. Barker
Barker Rosholt & Simpson LLP
1010 W Jefferson, Suite 102
Boise, Idaho 83702
(208) 336-0700

Barker Rosholt & Simpson LLP is the Idaho representative of the Environmental Law Network


North Operating Pond
Unnamed Stream/West Ditch Intersection
Pinyon Lake
Springs Located Under Tailings Pond
West Ditch/Washout Intersection
Pump Station That Gathers Springs
© 2020 Google
Imagery Date: 7/18/2016 lat 44.427770° lon -114.732758° elev 7219 ft

Barker Rosholt & Simpson LLP

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Attorneys
Albert P. Barker
John K. Simpson
Travis L. Thompson
Scott A. Magnuson
Jonas A. Reagan

John A. Rosholt
(1937-2019)

August 7, 2020

Jim Bitzenburg
Corey Skinner
Idaho Department of Water Resources
Southern Region
650 Addison Ave. W, Suite 500
Twin Falls, ID 83301-3037

Re: Notice of Intent to Void Permits, Permit Nos. 72-7049, 72-7115, 72-7116, 72-7472, 72-7503, and 72-7511

Gentlemen:

I am writing in response to your letter of July 14, 2020, which was a follow-up to your earlier communication directed to Hecla Mining Company on April 24, 2020, and a number of conversations that we have had in the interim. We appreciate the opportunity to have some time to locate information responsive to your requests.

Given the significant change of circumstances since the Proofs of Beneficial Use were submitted in the late 1990s for these six water right permits, Hecla herein requests that the Department process the permit and issue a license for water right 72-7511. Hecla also requests that the Department withhold action on the other five permits, 72-7049, 72-7115, 72-7116, 72-7472 and 72-7503, pending action on water right 72-7511. Hecla believes that if we can come to an agreement on a license for Permit No. 72-7511, it likely will not be necessary to take action to process and issue the other five outstanding permits. On the other hand, if a license is not issued for water right 72-7511, then Hecla reserves the right to ask the Department to issue licenses for all six of the water rights rather than just 72-7511.

HISTORY OF GROUSE CREEK MINE

With the time that has passed since the original permits were issued in the 1990s, it is helpful to understand what has occurred at the Grouse Creek mine site since that time. The six permits referenced here for Grouse Creek Mine are all located in Township 13 North, Range 15 East, Sections 20, 29 and 30, Custer County. The rights were applied for as part of the development of the Grouse Creek Mine. Applications for permit were submitted prior to Hecla's operations, some by Hecla and some by its predecessors. Permits were issued between 1975 and 1994. Hecla began construction at the mine in 1993. The mine had previously been operated by

Sunbeam Mining Company in the 1980s, Hecla acquired the mine as part of its acquisition of Coca Mines in the early 1990s. As part of Hecla's mine operations, a mill was constructed in 1993 and began operating in 1994. The mill operated from 1994 up through 1997, when operations were temporarily suspended due to operating costs, metals prices and resource issues. The Sunbeam underground workings were exhausted by 1995. The open pit operations began in the 1990s, but work on the open mining pits was also suspended in 1997, before the pits were fully developed. A tailings impoundment or tailings pond was constructed in conjunction with the mining operations to manage both water and tailings on site. In addition, in 1997, a surface water treatment plant was constructed with a 4000 gpm design capacity to treat the mine water before it was returned to Jordan Creek. All of this mill and mining operations infrastructure was in place in the late 1990s when Proofs of Beneficial Use were submitted for the six water rights. Permanent suspension of operations occurred in about 2000 and the mine has not operated since. However, the reclaimed impoundment and diversions are still in place to impound and treat water associated with the mining operations.

Your July 14, 2020 letter explains that the Department conducted a field exam in 2013. At that time, the mine was not operating and much of the mining infrastructure was no longer in place. The mill had been dismantled, sold, and removed from the property. As a consequence, the 2013 field exam could not accurately capture the condition of the property or the use of water rights as of the time that Proofs of Beneficial Use were submitted.

Hecla believes that the evaluation of Beneficial Use should be made as of the time of the submission of Proof, and the Department has regularly taken the position in other instances that developments occurring after submission of the Proof of Beneficial Use are not to be considered in evaluating the licensing of an existing permit. We recognize that, because of the passage of time and the fact that the beneficial use and field examinations were not completed contemporaneously, some of the elements of proof may be difficult to establish for some elements of the water rights.

WATER RIGHT 72-7511

As noted above, Hecla would like to focus initially on Water Right 72-7511. Application for this water right was made in 1993. The permit was issued in 1993. The permit authorized six points of diversion – Jordan Creek, two springs, two unnamed streams and ground water. The purpose of use for this right was mining storage, mining from storage and diversion to storage. The total permitted diversion rate was 7.36 cfs and the permitted volume was 500 acre-feet. Individual diversion rates were established for each of the six points of diversion. An application for amendment was submitted in November of 1993 and approved by the Department in February of 1994. The primary purpose of this amendment was to recognize a change in the point of diversion on Jordan Creek.

Significantly for Hecla, the six points of diversion for permit 72-7511 are the same six points of diversion identified in the other permits. In other words, the point of diversion of 72-7511 encompasses all of the other points of diversion in the pending permits, but instead of direct use, this permit authorized diversion of the water first to the storage impoundment and storage in the impoundment before the water was put to use. Proof of Beneficial Use of this storage right was submitted in 1998. At that time, the tailings impoundment was fully constructed and had been used to impound water from each of the six named points of diversion. Water was pumped from the impoundment and put to use in the mill. The attached map from the back file for water right 72-7511, (Exhibit A), shows the locations of those points of diversion that delivered water to the tailings impoundment. Excerpts from the Plan of Operations are attached which address the design and operations of the water system at the mine. Exhibit B.

The tailings impoundment was designed to elevation 7250. As a result of curtailment of mining operations, the elevation of the tailings impoundment was reduced from elevation 7250 to elevation 7231. This reduction in elevation resulted in a tailings impoundment with a capacity of 549 acre-feet. The tailings impoundment structure was extensively reviewed by the Department of Water Resources' Dam Safety Division between 2007 and 2014 and the Dam Safety Reports contained all of the technical and engineering drawings necessary to confirm the capacity of the dam. In 2007 IDWR's Dam Safety Office (John Falk) sent a letter to Hecla recognizing, after a review of the engineering as-constructed drawings, that the dam has a storage capacity of 549 acre-feet. Exhibit C. Portions of the September 2007 drawings are attached as Exhibit D. During operations a floating barge was used to house pumps that pumped water to the mill. The impoundment had to maintain a minimum of 250,000 ft^3 or about 6 acre feet of ponded water to float the barges.

Following the curtailment of operations, a facility described as the North Operating Pond was located within the boundaries of the tailings impoundment. The North Operating Pond is now connected by a pipeline to the South Water Treatment Plant located to the south of the tailings impoundment. The North Operating Pond impounds waters from the key block drain, the historic Sunbeam underground and the run off from the unnamed stream tributary to Pinyon Lake, before it is treated at the South Water Treatment Plant. The North Operating Pond is contained within the footprint of the larger tailings impoundment. The North Operating Pond is a 16-acre lined reservoir with an operating capacity of 50 million gallons and an additional capacity of 20 million gallons to hold a PMF (potential maximum flow). Thus, the North Operating Pond alone, within the larger tailings impoundment, has a capacity of 221 acre-feet. See Exhibits C and D. Attached as Exhibit E is an aerial photo showing the North Operating Pond within the larger tailings impoundment and several smaller ponds at the Water Treatment Plant.

During operations, water was pumped from Jordan Creek into the impoundment for use in the mill. This diversion was from the same point of diversion permitted in water right permit 72-7049. Hecla has located the pump capacities for those pumps installed at the Jordan Creek

pump station. Three 75-horse power pumps with a flow rate of 600 gpm each were utilized, for a total of 1800 gpm or 4 cfs. Pump data sheets and a photo of the pump house are attached as Exhibit F. Flow records were known to have been maintained when the pumps were in operation. It is unknown if those daily flow records still exist. Further evidence of the diversion capacity from Jordan Creek is shown in the attached application from 404 permit (Exhibit G) and Stream Channel Alteration Permit (Exhibit H) for the Jordan Creek pump station.[1]

The permit authorized diversion of one unnamed stream, locally known as Washout Creek. The hydraulic data from the Tailings Impoundment Work Plan recognizes that Washout Creek has a hydraulic capacity of 649,000 gpm or 1446 cfs. Exhibit J. Washout Creek is located on the south west corner of the tailings impoundment. Washout Creek is routed to the South pond and flows through the pond and out the permeable weir reporting to Jordan Creek. A rock check dam in the South pond impounds or backs up the larger inflows of water before the water flows over the weir and into Jordan Creek.

The other unnamed stream authorized to be diverted into the impoundment is a tributary to Pinyon Lake Creek. This is a small water flow of 0.08 cfs or 36 gpm. The flow was diverted around the facility during construction. During operations and today some portion is diverted by a ditch to Washout Creek and whatever was not captured in the ditch flows into the pond. Hecla has not located any measurements of this flow rate.

Two springs underneath the current location of the tailings impoundment were also diverted to the tailings impoundment. An underdrain system was designed and installed to collect the water from the springs. The springs were originally pumped into the tailings impoundment where the water was used for operational purposes in the mill. It was necessary to pump the spring water from under the impoundment to reduce pore pressure and avoid floating the tailings impoundment liner. In other words, this diversion was and is critical to take the water away from the springs to preserve the integrity of the tailings impoundment. Water was pumped from the springs into the tailings impoundment and then pumped to the mill. There are three pumps serving and diverting those springs. Two pumps are 125-horse power pumps with a hydraulic capacity of 1000 gpm per pump. The third, smaller pump, is a 25-horse power pump with a hydraulic capacity of 200 gpm. The pumps that service this spring have a total diversion rate of 4.90 cfs. Currently, the water from these springs are pumped into the North Operating Pond, then to the South Water Treatment plant, where it is treated and discharged to Jordan Creek. Spec sheets for these pumps are attached as Exhibits K & L.

[1] As explained in the draft affidavit of David Berberick in support of an application to lease Water Right 72-7049 to the water supply bank and attachments demonstrating diversion of water from the Jordan Creek pumps in 2000 and before. Exhibit I.

The groundwater source was intended to provide for water for the mill and fire suppression. Attached is a well driller's report from 1993 showing a diversion rate of 50 gpm or about 0.11 cfs. Exhibit M.

Water right 72-7511 was originally permitted for storage and mining purposes. With the closure of the Grouse Creek Mine, there is no active mining and milling. However, the impoundment is necessary for mine closure and compliance with conditions of the various regulatory agencies with jurisdiction over these mining properties. We discussed the possibility of a licensing or post-permit amendment to the nature of use to include water quality improvement. However, since the impoundment and diversions to the impoundment all relate to mining we believe that the mining purpose of use should be kept on the license. Perhaps water quality improvement could be added as a second beneficial use? We also need to discuss whether it is necessary to adjust or amend the POU for the tailings impoundment. The attached mark-up Exhibit N, more accurately captures the location of the tailings impoundment.

Please let me know what additional information is needed to license water right permit 72-7511. Perhaps, a telephone call after you have reviewed this information might be helpful?

Very truly yours,

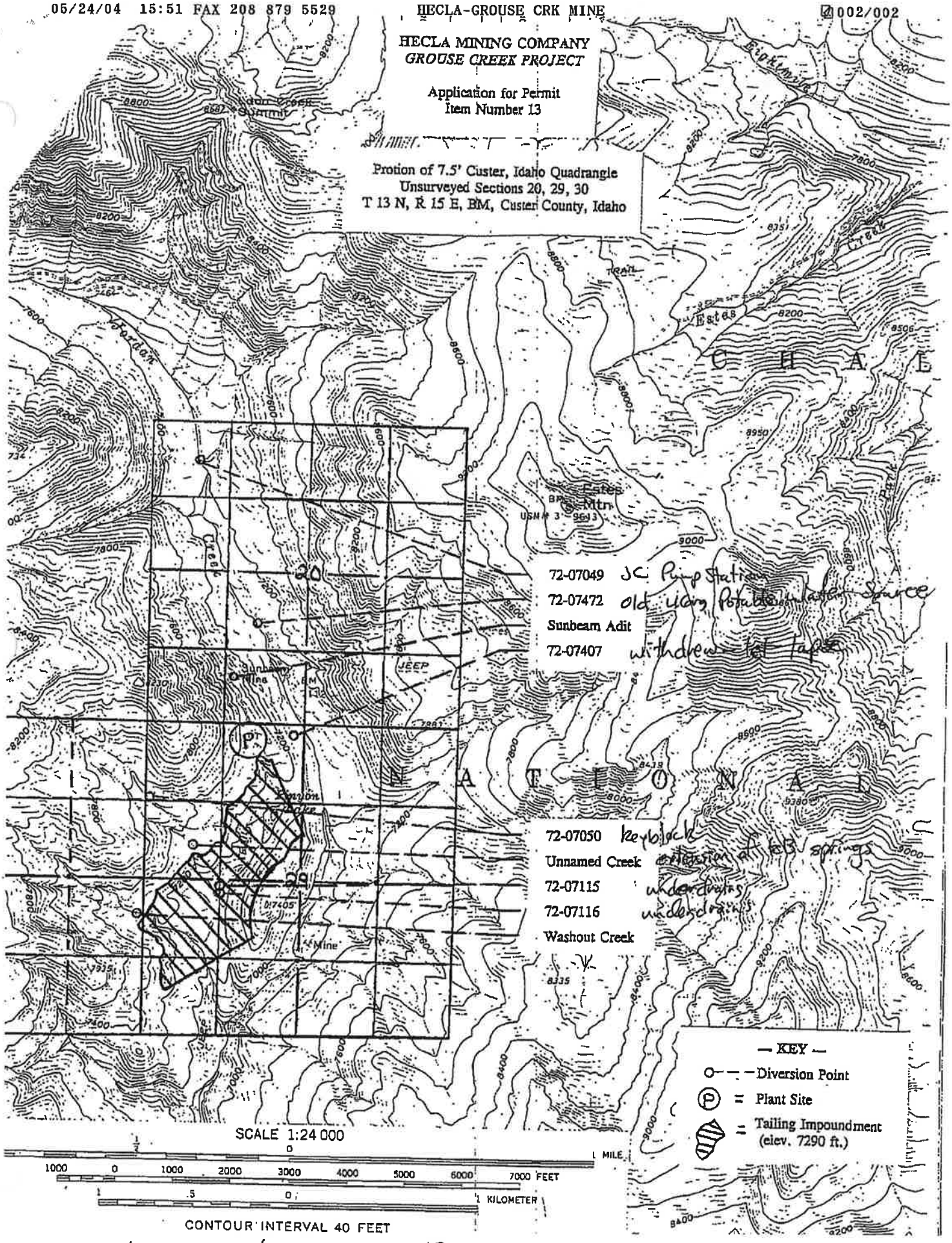
BARKER ROSHOLT & SIMPSON LLP

Albert P. Barker

APB/aje

TABLE OF EXHIBITS

EXHIBIT A



To Bank: WO Creek, 72-07049

Hecla
MINING COMPANY

GROUSE CREEK UNIT
Hecla Mining Company *Phone: 208-879-2304*
P.O. Box 647 *Fax: 208-879-5529*
Challis, Idaho 83226

FACSIMILE TRANSMITTAL SHEET

TO: PAUL/ALAN

COMPANY:

PHONE:

FAX:

DATE: 5/24/04

TOTAL NUMBER OF PAGES INCLUDING COVER: 2

FROM: DAVE

RE: WATER RIGHTS INFO

NOTES / COMMENTS

I FOUND THIS FIGURE IN THE FILE FOR 72-7511. IT IS NOT EXACTLY CORRECT BUT FAIRLY CLOSE.

DAVE

(doc62.doc)

EXHIBIT B

VOLUME I

Plan of Operations
Hecla Mining Company
Grouse Creek Project
Custer County, Idaho

Submitted To:

U.S. FOREST SERVICE
CHALLIS NATIONAL FOREST
HC 63, BOX 1671
CHALLIS, ID 83226

Submitted For:

HECLA MINING COMPANY
GROUSE CREEK PROJECT
P.O. BOX 57
WEST CRITCHFIELD STREET
STANLEY, IDAHO 83278

Submitted By:

GOLDER ASSOCIATES INC.
200 UNION BOULEVARD
SUITE 100
LAKEWOOD, COLORADO 80228

MARCH 1992

drainage blanket against the VLDPE liner throughout the impoundment area. Cyclone overflow will be deposited directly onto the drainage blankets filter fabric and the drainage blanket underflow materials.

Water management in the impoundment will be accomplished by storage and recycling of solutions back into the process circuit. The impoundment has been designed as a closed system with no discharge of solutions. Process water will be reclaimed by two barge-mounted reclaim water pumps. Diversions will be constructed around the tailings impoundment to convey the 100-year storm event, with runoff up to and including the PMF event stored in the tailings impoundment. The tailings impoundment will be designed to store the expected inflows from the PMF event during the active life of the facility. Section 5.5 contains complete details of the water management strategy for the project.

5.4.2 Tailings Impoundment Design

5.4.2.1 Underdrain Design

This would be The 2 Springs under The Pond #2 on The Map.

An underdrain system has been designed to intercept the groundwater in the tailings impoundment area and convey the groundwater from the impoundment area to prevent buildup of pore pressures. A series of slotted drain pipes will intercept groundwater from discrete sectors of the impoundment, with the intercepted solutions conveyed in transfer pipes to the groundwater collection pond. This system of drain piping will allow individual sectors of the impoundment to be monitored for cyanide in accordance with the monitoring plan as presented in Section 6.1.4.

The main underdrain will follow the lowest drainage course in the impoundment. The transfer pipes will be placed in the main underdrain system. The main underdrain will consist of the transfer pipes and a gravel bedding material (six-inch median rock

diameter). The drain will be wrapped with a 12-ounce geotextile filter fabric to prevent clogging by fines.

5.4.2.2 Groundwater Collection Pond

The underdrain system will discharge to a lined groundwater collection pond, where the collected water will be either pumped into the tailings impoundment or overflow discharged to Jordan Creek. Any discharge will be monitored under the conditions of the NPDES permit. During pre-production and Stage I operations, the existing nine acre-feet pond shown on Figure 5.13 will be utilized to impound groundwater collected in the underdrains and as a sediment pond to treat any runoff from within the impoundment construction area, prior to completion to the Stage I impoundment. Sometime during the early stages of Stage II embankment construction, the proposed groundwater collection pond shown on Figure 5.13 will be constructed to contain the underdrain groundwater flow and to function as a sediment pond for runoff from the downstream face of the embankment. Water in the groundwater collection pond will be sampled for water quality on a daily basis for the first two weeks of operation of the tailings impoundment, weekly for the following two months and monthly thereafter.

5.4.2.3 Liner System

The proposed impoundment liner system is a composite system consisting of a prepared foundation overlain by a low permeability soil liner with a maximum constructed permeability of $1x10^{-6}$ cm/sec, overlain by a 60 mil VLDPE geomembrane with a permeability of approximately $1x10^{-12}$ cm/sec. The two liners are designed to be in contact and function together to minimize any potential for leakage (see Figure 5.14 for liner detail). The composite saturated hydraulic conductivity of the proposed liner system is equivalent to a clay liner with a hydraulic conductivity of $3x10^{-10}$ cm/sec.

5.4.2.5 Diversions

- This area would be #1 & #3 on the map.

Flows from areas upgradient of the tailings impoundment can be diverted around the impoundment through diversion ditches, although during operations it is expected that this water will be diverted into the tailings impoundment for use as process water. The diversion ditches will be capable of carrying peak flows from a 100-year, 24-hour storm event. In a storm greater than the 100-year, 24-hour storm event, flows may overtop the ditch and will flow into the tailings impoundment. The impoundment has been designed to contain all inflows up to and including the PMF with two feet of remaining freeboard. Water from the diversion ditches may be diverted into the tailings impoundment to provide process water. A complete discussion of the diversion ditch system is contained in Section 6.4.4. A complete discussion of the tailings water balance is contained in Appendix I.

5.4.3 Tailings Impoundment Construction

5.4.3.1 Tailings Impoundment Area Site Preparation

The tailings impoundment site preparation will consist of clearing and grubbing and topsoil stripping and stockpiling. Upon completion of stripping, further grading of the impoundment area will be necessary to prepare a smooth foundation for the underdrain system and liner.

Weak foundation material is present at the south end of Pinyon Basin wetland. Excavation of this material to provide a suitable foundation will be necessary before liner placement. Based on the available geotechnical investigation results, an area under the impoundment of approximately one acre will need to be excavated to remove the weak soil materials.

The initial deposition after each stage of embankment construction will involve placement of a layer of cycloned tailing slimes on the drainage horizon. Subsequent tailings deposition will be cycloned or spiggoted from the perimeter of the tailings impoundment.

5.4.4.3 Water Recycling

This is How the water was used

Two pumps on a floating barge will be used to recycle water back to the mill facilities. Sufficient water will be recycled from the tailings water pool to the mill to allow slurrying of the tailings. The water reclaim line will be located in the same lined ditch as the tailings transport line. The recycle water pool on the tailings will vary in size but it is estimated that a minimum of 250,000 ft^3 of water must be retained on the impoundment to allow barge pump operations.

5.4.4.4 Operations Monitoring

An active monitoring and observation program will be conducted to confirm that the performance of the tailings facility is satisfactory and that the tailings disposal is occurring in accordance with the design. The program will monitor settlement of both embankments, recycle water pool volumes and quality, drainage layer sump water return quantity, underdrain groundwater quantity and quality, grain size testing of the deposited drainage layer materials, and deposited tailings densities. Monitoring requirements specific to the south embankment include periodic monitoring of settlement plates located along the embankment crest and piezometers installed in the clay layer at the base of the slide complex. These piezometers will be installed at the conclusion of site preparation, with the monitoring leads extended in a trench to a monitoring location along the south embankment. Constant visual observations of the impoundment and appurtenant facilities will be conducted by operating personnel.

quantities and rates of runoff to the various components of the Grouse Creek Project.

The water management strategy for the Grouse Creek Project tailings impoundment is made up of the following components:

(a) Water supply requirements

Water supply is a combination of stored surface runoff, intercepted underdrain water from beneath the tailings impoundment and fresh water make-up from a surface diversion north of the site on Jordan Creek. The location of the water supply from Jordan Creek is shown on Figure 5.15. The water supply requirements of the mill average about 1270 gpm, but vary seasonally. Of this amount, 150 gpm on average will be obtained from Jordan Creek. The rest will be supplied by a combination of pumping from the groundwater collection pond at the toe of the tailings impoundment, excess water available from the sediment ponds, recycling of supernatant and runoff water stored in the tailings impoundment. The runoff from disturbed areas will be diverted to the tailings impoundment for storage, as necessary. It is expected that the tailings impoundment will function as a reservoir. Water levels will be higher in the spring due to the capture of spring runoff water. The water will utilized throughout the year so that pond water levels decrease steadily to a low point during the winter.

(b) Storage requirements of the tailings impoundment.

It is required under the IDWR Rules and Regulations that tailings dams which are intended to store water in excess of that being decanted in the tailings placement operations shall also meet the requirements for water

(a) Precipitation

Precipitation on the subbasins west of the tailings impoundment will be handled as discussed above. All runoff up to that from the 1:10 year, 24-hour storm will be diverted into the tailings impoundment or to the sediment ponds. All precipitation from the millsite and tailings impoundment areas will report directly to the tailings impoundment, even though adit drainage is not impacting Jordan Creek.

(b) Groundwater Interception

Water intercepted by the waste rock dump underdrains will be piped and discharged directly to the storm water diversion system. Water from the underdrains in the tailings impoundment area will be discharged to a lined groundwater collection pond and pumped to the tailings impoundment or discharged to Jordan Creek if the water quality allows.

Water from the Sunbeam adit, located below the Sunbeam ore body, will be intercepted by the diversion ditch and diverted to the tailings impoundment even though adit drainage is not impacting Jordan Creek.

5.5.6.2 Consumption

Water consumption at the site consists of:

(a) Evaporation

Evaporation will take place from the tailings impoundment. It is assumed that the evaporation rates from the pool and beach areas will be the same.

(b) Mill water for slurrying the tailings

At a milling rate of 6,000 tpd, 1,221 gpm water will be required to slurry the tailings to 45 percent solids.

(c) Potable Water

It is estimated that the maximum potable water consumption for a maximum work force of 125 people will be 5,000 gal/day. Sewage effluent from the mill, maintenance shop, warehouse, dry, laboratory, and administration building will flow to a 5,000 gallon per day sewage treatment plant located on the southeast side of the mill site area. Effluent from this plant will then discharge into a pipeline flowing to the tailings impoundment.

(d) Road Watering

Road watering will be done to prevent dusting. It is estimated that an average of 70 gpm will be needed from June to September to provide for this consumptive use.

(e) Fire Protection

A fresh water supply of 130,000 gallons will be available for fire protection. This water will only be used in the case of an emergency and no average consumption can, therefore, be ascribed to this component.

5.5.7 Tailings Impoundment Water Balance, Water Return, and Freeboard Calculations

A water balance calculation was prepared to simulate flows to and from the tailings impoundment. The purpose of the water balance

calculations was to obtain information on water diversion requirements, as well as freeboard requirements so that a PMF could be stored in the tailings impoundment. Details of the water balance are presented in Appendix J.

The components of the water balance are as follows:

Inflow to Tailings Impoundment

- Average conditions
  - Tailings slurry water (tailings deposited at 45% solids);
  - Tailings solids;
  - Precipitation in the impoundment catchment (including the millsite);
  - Groundwater flows from tailings impoundment and waste rock disposal areas, as well as the adit in Sunbeam Pit area; and
  - Discharge from the mill of fresh water make-up from Jordan Creek.
- Extreme conditions
  - PMP Precipitation in impoundment catchment area; and
  - PMF runoff from upstream catchment areas;

Outflow from Tailings Impoundment

- Average and extreme conditions
  - Evaporation;
  - Return to mill; and
  - Water contained in tailings pore space.

The results of the water balance show that the impoundment can store the tailings plus the required runoff and extreme hydrologic events within the staged embankments. Sufficient freeboard is available throughout the mine life to contain runoff from the PMF in the tailings impoundment catchment area. The minimum freeboard occurs during October of Year 8 of operations. A freeboard of 2.2 feet is calculated during that month after inflow of the PMF.

EXHIBIT C

State of Idaho
DEPARTMENT OF WATER RESOURCES
322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098
Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor
DAVID R. TUTHILL, JR.
Director

October 19, 2007

Brant Tritthart
Grouse Creek Project Manager
Hecla Limited
P.O. Box 647
Challis, ID 83226

Re: Grouse Creek Tailings Impoundment
IDWR File 72-7511; Reservoir #1 Abandonment

Dear Mr. Tritthart:

Enclosed, please find one set each of approved construction drawings, Volume II-Work Plan and Volume III–Technical Specifications for the referenced structure located adjacent to Jordan Creek, a tributary of the Yankee Fork Salmon River in Section 29, T13N, R15E, Custer County. As described in Volume I "Site History and Background Information" the project was terminated prior to implementation of Phase 3 construction. Project abandonment will proceed specifically according to the approved plans and specifications, and generally as outlined per Alternative 2B, a method that we understand satisfies all parties signatory to the 8/27/1993 Memorandum of Understanding and EPA Region 10 for permanent closure of the existing impoundment.

Based on our design review, the north and south embankments both will be lowered and trimmed uniformly to a crest elevation of 7230 feet. The excavated material will be used, in part, to cap the tailings impoundment (Reservoir #1) which is further divided by an earthen berm into a South Pond and a smaller-sized North Pond. The South Pond will function exclusively as a storm-water runoff detention basin and potential sediment trap, collecting runoff from Washout Creek and other site drainage before being discharged in a controlled manner into Jordan Creek. The primary purpose for the North Pond is final treatment of contaminated waters that may be generated from within the project site; however it, too, can collect and detain site runoff that may result from extreme storms. The crest elevation of the rock-fill, Pinyon Hill release structure and combination emergency spillway is 7228.0 feet. According to stage/storage tables included in Appendix A, "Hydrologic and Hydraulic Analysis", the South and North Ponds exhibit the following dimensions:

	Elevation	Hydraulic Ht.	Surface Area	Temporary Storage (max)
South Pond	7228.0	25 feet	47.6 acres	549.0 acre-feet
North Pond	7228.0	23 feet	15.6 acres	221.3 acre-feet

Please note that design approval for construction is authorized subject to each of the six (6) following conditions:

1) That portion of the existing bonds presently held by the USDA Forest Service for the benefit of abandonment activities shall be transferred to the Director of the Idaho Department of Water Resources (IDWR) prior to beginning construction. Of the total amount* of said bond, we have determined that $3,593,901 is allocated to IDWR for project abandonment (Figure 1, attached).
2) The engineer of record is responsible for supervising construction in accordance with the approved design. We understand Mr. Stephen W. Rogers, P.E. is the design engineer of record for this project. If this information is incorrect, or another licensed engineer has assumed the supervisory duties, please immediately inform us as to whom this obligation has been assigned.
3) If changes to the approved design plans and specifications become necessary during construction, please notify this office in writing prior to implementing said change(s). Engineers from this office are available to grant approval in the field provided such changes are consistent with existing contractual agreements and generally accepted engineering standards and construction practices.
4) After commencing construction, the Department shall be notified of progress on a regular basis by the engineer of record so that inspections can be scheduled to observe installation of the synthetic liner and drain systems, and placement of fill materials.
5) Upon completion of abandonment, the engineer of record shall certify that the work was performed in accordance with the approved design plans and specifications. The letter of completion shall be accompanied by a summary of all field and laboratory tests deemed by the engineer necessary to certify satisfactory completion of construction.
6) Two sets of as-constructed drawings signed by the engineer of record shall be provided within 60 days of construction completion. The as-constructed drawings must include a stage/storage diagram for both the North and South Ponds, and for Pond No's 2-7 that accurately reflect asbuilt dimensions. If no other changes occurred to the approved design during construction, please make certain the engineer includes this fact in the letter of completion.

Please be advised that the project will not be considered complete until all the above listed conditions have been completed to the satisfaction of IDWR Dam Safety. Should you have any questions, please contact John Falk or Sonny Hornbaker in the Boise office, Dam Safety Section. Another contact is Corey Skinner who is located in the Southern Region Office (208-736-3033). Thank you for your cooperation.

Sincerely,

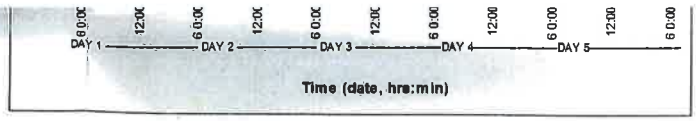
John Falk, PE
Dam Safety Manager

* Total Bond Value: $7,038,945.00

cc: Stephen W. Rogers, PE – Water Management Consultants
Eric Wilson – Idaho Department of Lands
Idaho Department of Environmental Quality
Idaho Department of Fish and Game
Dean Morgan - USDA Forest Service
Matt Wilkening – US Environmental Protection Agency
John Homan – IDWR Assistant Attorney General
Corey Skinner – IDWR Southern Region
IDWR File

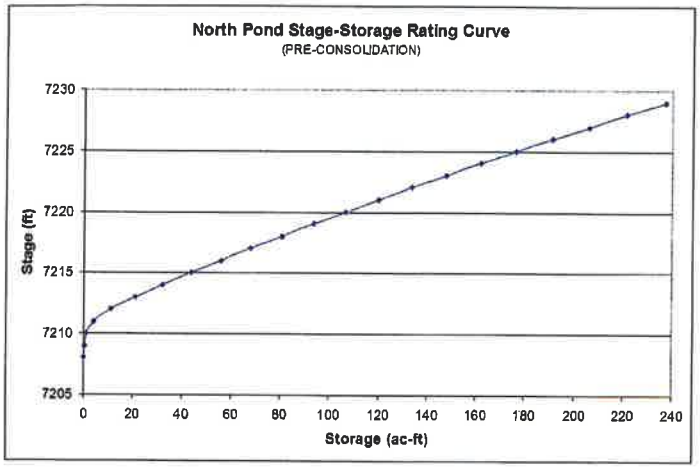
Enclosure: Design Drawings, 24" x 36"
Volume 2 – Tailings Impoundment Work Plan
Volume 3 – Technical Specifications
Figure 1 – Correspondence 1/31/2003

EXHIBIT D



ɛr to prevent stretching of the liner and

NORTH POND



ɛ Contractor.

ı the specifications for repair of
ld damage be extensive and not in

ɔproximately 30 days.

NOTES:

Hecla

WATER MANAGEMENT CONSULTANTS
Denver, CO

GENERAL NOTES AND DESIGN CRITERIA
TAILINGS FACILITY WORK PLAN

CLIENT: HECLA	PROJECT: GROUSE CREEK
JOB: 2642 FILE: COVER.DWG	DRAWN: RN CHECKED: JWA
DATE: SEPTEMBER 2007	DRAWING: 002

CONTROL POINTS (SEE DWG 007)

	NORTH	EAST	ELEVATION (FEET)
CP-1	18,678	4,010	7,205
CP-2	17,638	2,121	7,215
CP-3	18,838	4,230	7,230
CP-4	18,776	3,141	7,230

ı drawing and the proposed grading
: Contractor shall notify the Owner of

ɔase fill placement plan prepared by

ings facility.

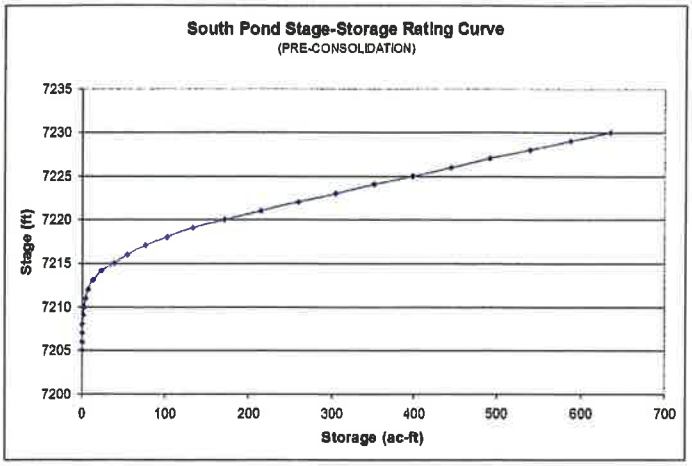
oposed grading and does not impact

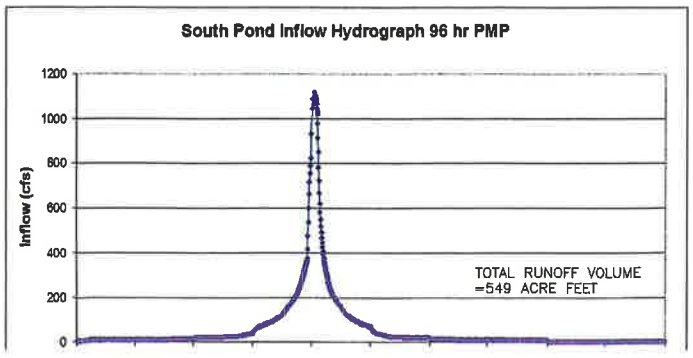
vill be made by the Engineer prior to

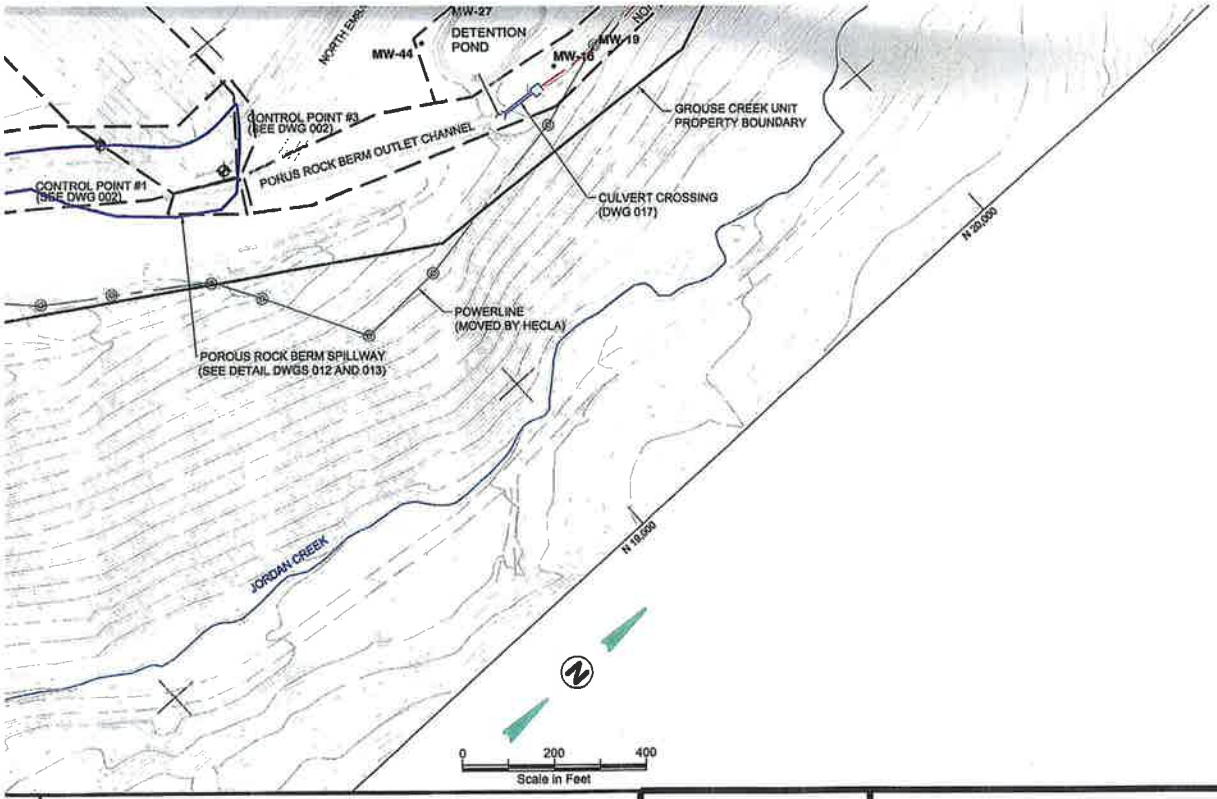
art of work. The base fill placement
ıent of tailings from perimeter areas
ties versus elevation and area of fill

be placed above the elevation of the

SOUTH POND







E
07
07

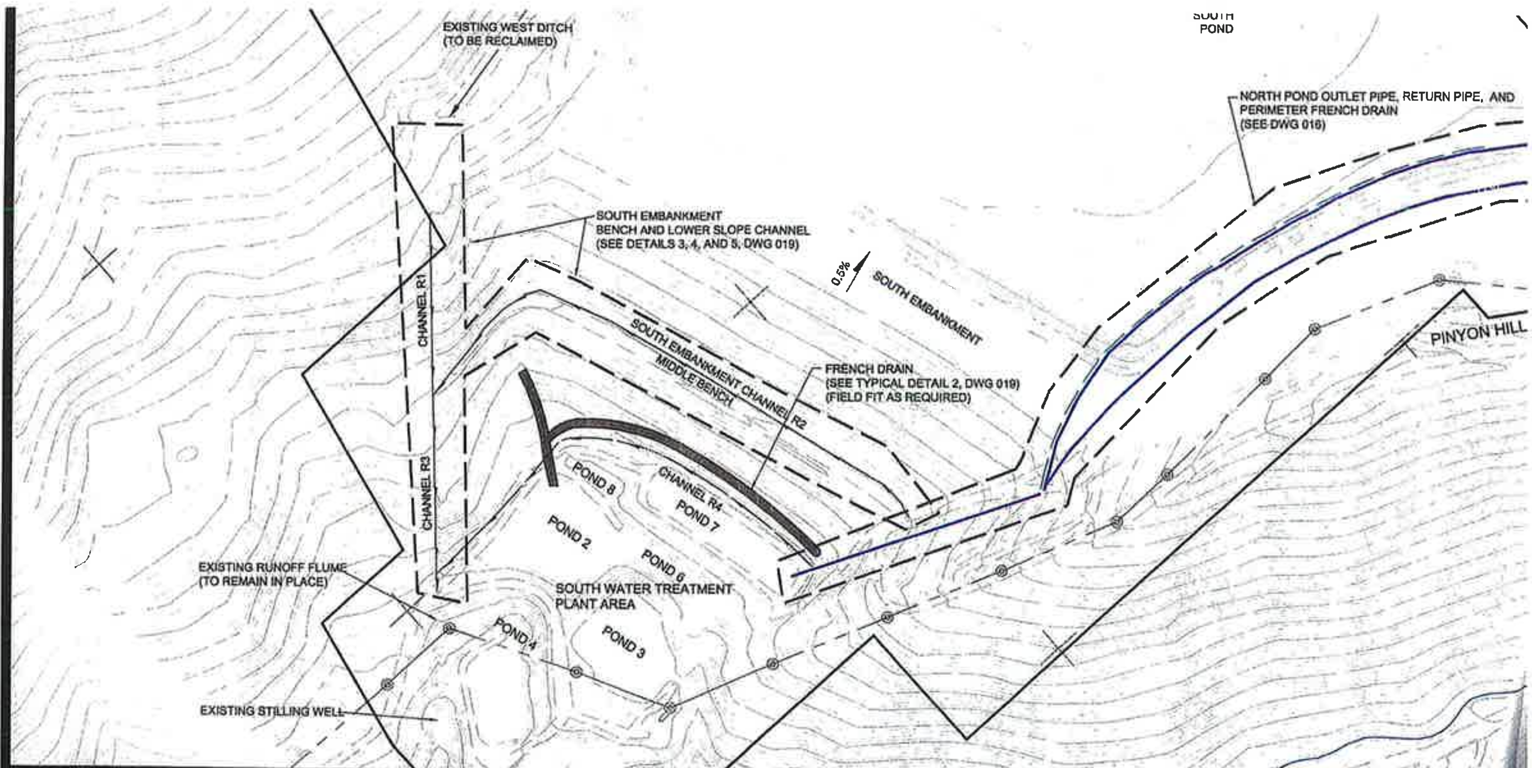
NOTES:

Hecla

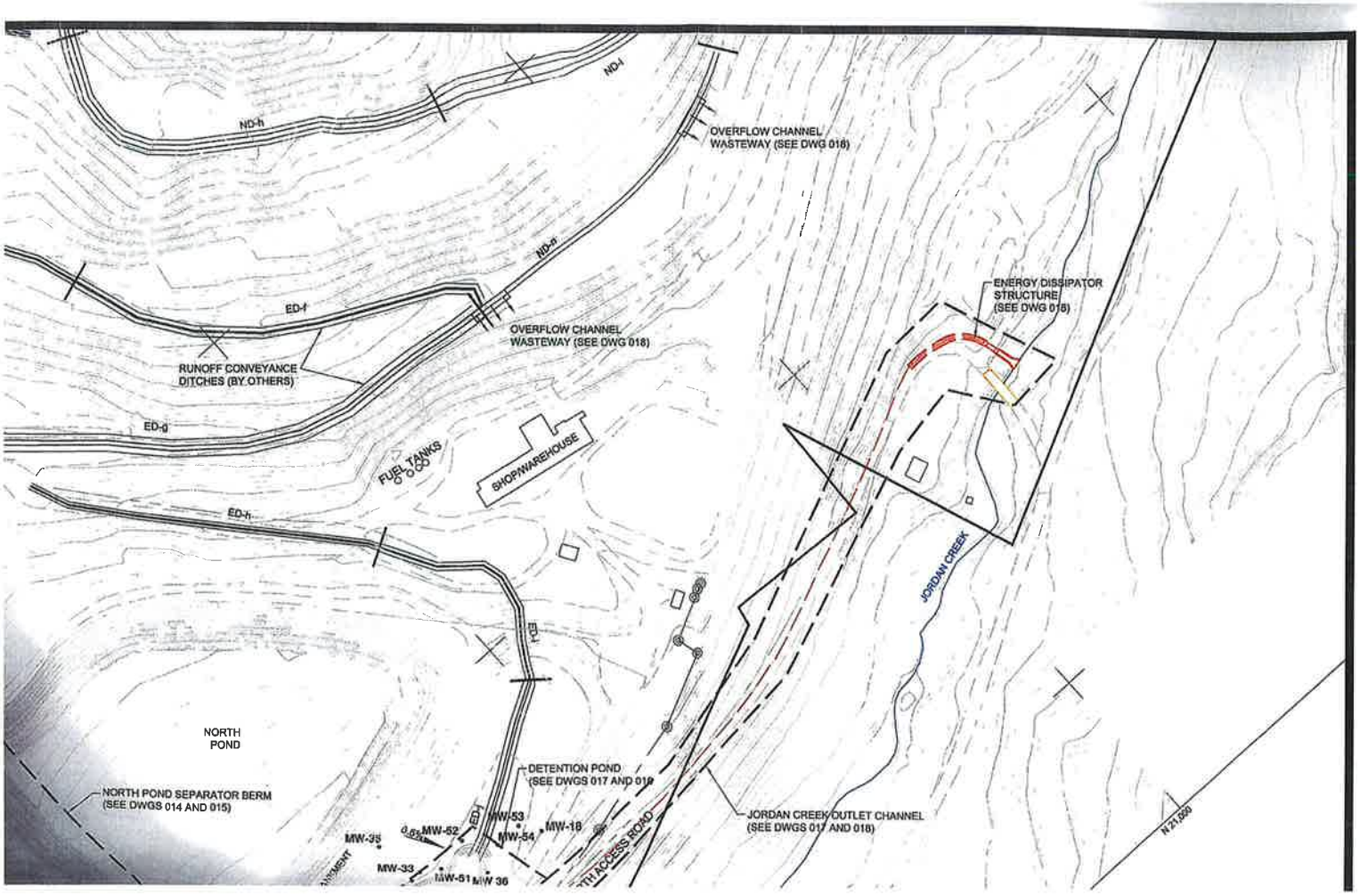
WATER MANAGEMENT CONSULTANTS
Denver, CO

WORK PLAN
TAILINGS FACILITY WORK PLAN

CLIENT: HECLA	PROJECT: GROUSE CREEK
JOB: 2642 FILE: 2642-WORKPLAN	DRAWN: RN CHECKED: JWA
DATE: SEPTEMBER 2007	DRAWING: 007



DRAWING NO.	REFERENCE DRAWING TITLE	REVISION	DESCRIPTION OF REVISION	BY	DAT
		A	95-PERCENT REVIEW DRAWINGS	JWA	7/9/
		B	CONSTRUCTION DRAWINGS	JWA	9/14/
		-			
		-			
		-			
		-			
		-			
		-			


ND-i
ND-h
ND-n
OVERFLOW CHANNEL
WASTEWAY (SEE DWG 018)
ED-f
RUNOFF CONVEYANCE
DITCHES (BY OTHERS)
OVERFLOW CHANNEL
WASTEWAY (SEE DWG 018)
ENERGY DISSIPATOR
STRUCTURE
(SEE DWG 018)
ED-g
FUEL TANKS
SHOP/WAREHOUSE
ED-h
JORDAN CREEK
ED-j
NORTH
POND
DETENTION POND
(SEE DWGS 017 AND 018)
NORTH POND SEPARATOR BERM
(SEE DWGS 014 AND 015)
MW-35
MW-52
MW-53
MW-54
MW-18
MW-33
MW-51
MW 36
JORDAN CREEK OUTLET CHANNEL
(SEE DWGS 017 AND 018)
N 21,500

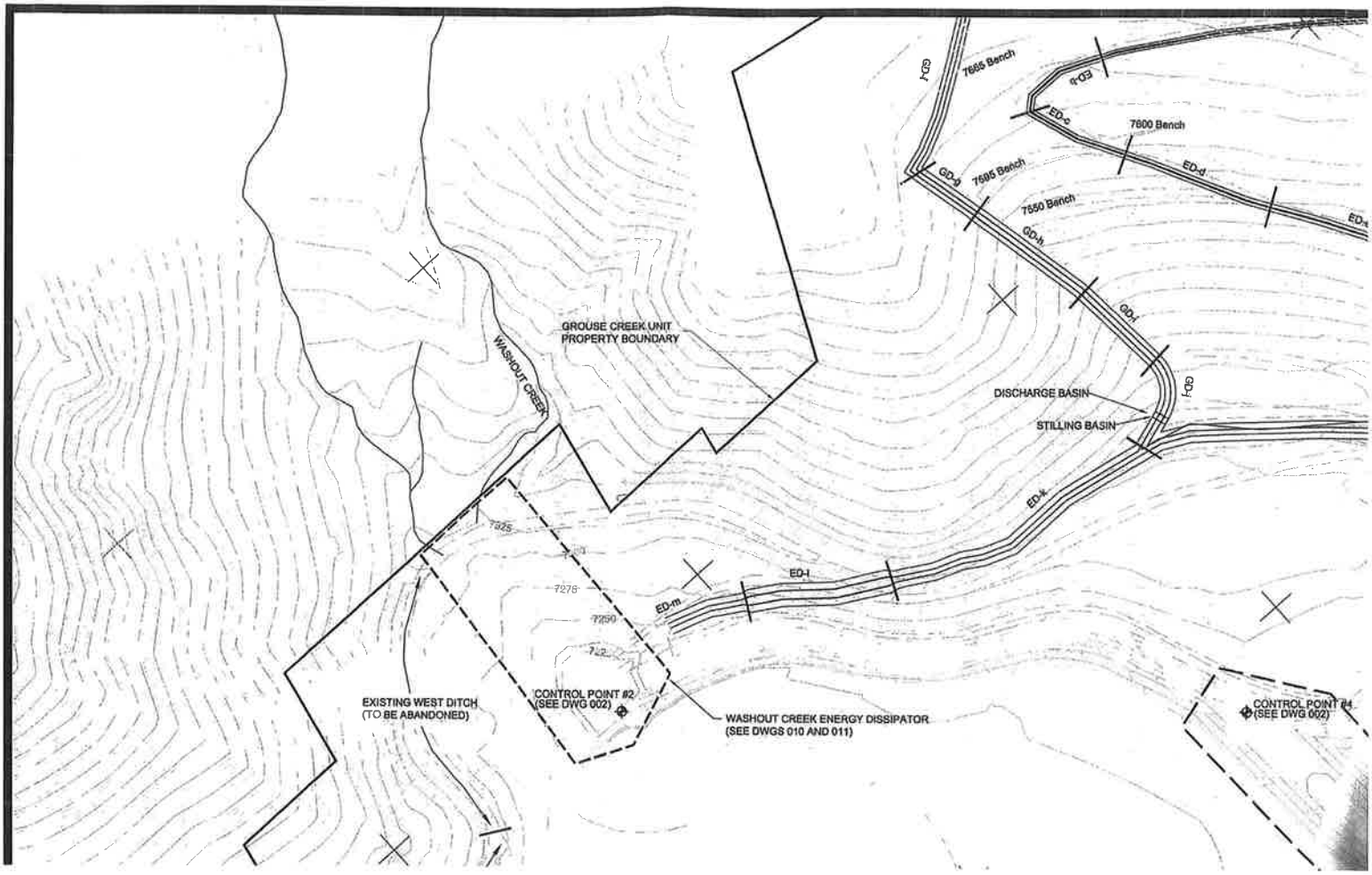

7685 Bench
ED-b
ED-c
7600 Bench
ED-d
GD-g
7595 Bench
7550 Bench
GD-h
GD-f
GDH
DISCHARGE BASIN
STILLING BASIN
ED-k
ED-l
ED-m
GROUSE CREEK UNIT
PROPERTY BOUNDARY
WASHOUT CREEK
7325
7275
7250
EXISTING WEST DITCH
(TO BE ABANDONED)
CONTROL POINT #2
(SEE DWG 002)
WASHOUT CREEK ENERGY DISSIPATOR
(SEE DWGS 010 AND 011)
CONTROL POINT #4
(SEE DWG 002)

EXHIBIT E


North Operating Pond (NO
Loon Creek Rd
Pond 7
Pond 6
Pond 3
ater Treatment Plant (WTP)
Pond 4

EXHIBIT F

Hecla Mining Company Grouse Creek Unit Pump Data Sheet		
Equipment Number		**PP-4069**
Application/Location		Jordan Creek Pump Station
Vendor		CHAMCO
Manufacturer		Peerless
Model		12LDT
Size		8 x 8 x 16.5
Motor Hp		75
Total Dynamic Head (ft)		340
Flow Rate (gpm)		600
Pump Suction Elev (ft)		7040
Pump Discharge Elev (ft)		6950
Flow Meter		YES
Manufacturer:		
Model:		
Type:		
VFD		YES
Manufacturer:		
Model:		
Type:		

EXHIBIT G

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
LUCKY PEAK PROJECT OFFICE
HC-33 BOX 1020
BOISE, IDAHO 83706-9302

Reply To
Attention Of:

February 7, 1994

Operations Division

SUBJECT: NPW No. 930202690

Hecla Mining Company
ATTN: Ms. Nancy Thomas
P.O. Box 57
Stanley, Idaho 83278

Dear Ms. Thomas:

This is in regard to your Joint Application for Permit, dated October 8, 1993. The application you have submitted cannot be accepted and is being returned to you. Applications must be submitted on Form NPW 304 Feb. 92 [Rev] produced and supplied by the Corps of Engineers or the Idaho Department of Water Resources or exact duplicates of this form which have been photocopied or electronically scanned. We cannot accept forms which have been produced otherwise. Enclosed is an original application form for your use in all future permit applications.

Should you have any questions in this matter, please contact me at the above address or telephone (208) 343-0671.

Sincerely,

Robert K. Flowers
Environmental Resource Specialist

Enclosures

RECEIVED

OCT 12 1993

Department of Water Resources
Southern Region Office

JOINT APPLICATION FOR PERMIT
U.S. ARMY CORPS OF ENGINEERS
AND STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF LANDS

The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. These laws require permits authorizing structures and work in or affecting navigable waters of the United States and the discharge of dredged or fill material into waters of the United States, including their adjacent wetlands. State permits are required under the State of Idaho, Stream Channel Protection Act (Title 42, Chapter 38, Idaho Code) and the Idaho Lake Protection Act, Section 58-142 et. seq, Idaho Code. This application will meet the requirements of the above agencies.

AGENCY USE	
1. Corps of Engineers # 930202690	2. State of Idaho #
Date Received 21 Oct 93	Date Received

PLEASE PRINT OR TYPE

The applicant has sent copies of this application to the agencies checked: ID Dept. Water Res. - Boise_____, Coeur d'Alene_____, Twin Falls__XXX__; ID Dept. Lands - Boise_____, Coeur d'Aene_____: Corps of Engineers - Walla_____.

3. Applicant: Hecla Mining Company
Mailing Address: P.O. Box 57
Stanley, ID 83278

Work Phone(208) 769-4108 Home( )

4. Authorized Agent: Nancy S. Thomas
Mailing Address: P.O. Box 57
Stanley, ID 83278

Work Phone(208) 769-4108 Home( )

Date of Application: 10/08/93

5. Location where proposed activity exists or will occur.

Waterway: Jordan Creek

Tributary of: Yankee Fork River

19 miles northeast of Stanley
in or near city or town

Assessor's Desc. (tax no. or Subdivision, Lot & Block No.)
_____ _____ _____ *(See pamphlet)

Custer	Idaho	83278	SE	SW	20 (unsurveyed)	13N	15E
County	State	Zip Code	1/4	1/4	Section	Township	Range

6. Describe the proposed activity, including description of the type of structures, if any, to be erected on fills, or pile or float supported platforms. If additional space is needed, use a separate sheet or Section 16 (Remarks).

Describe the proposed activity in detail:

The proposed activity will consist of the installation of a diversion weir, per Hecla water right number 72-07049. Water right 72-07049 is a 4.45 cfs permit for mining and milling operations, with a priority date of 1975. An approximate twelve-foot (12') wide steel plate weir will be place across the Jordan Creek channel. The weir plate will be keyed into embankments above the high water line. From the weir diversion the water flow will be diverted through a 24" inlet pipeline approximately 50 feet to a pump-box/overflow structure, above the high water line. From the overflow structure, excess water will be returned to the original Jordan Creek channel through approximately 25 feet of 24" outlet pipe. From the pump box structure, utilized water will be pumped to the plant site through a 12" pipeline.

These activities will take place during low flow to minimize impacts to the creek and the fisheries associated with it.

Describe construction methods and equipment:

To begin installation of the weir, sand bags will be placed to impede the flow of Jordan Creek. Appropriate sized pumps will be used to divert the water around the weir area during installation. The weir will be keyed into the stream-bed to prevent under-channeling. The weir will also be keyed into the stream-banks one (1) to two (2) feet, into the existing stream banks and fill embankments on either side of the stream channel. No fill material will be placed below the high water line. From the weir, water will be carried to the concrete pump-box/overflow structure through 24" steel pipe. The concrete pump-box/overflow structure will contain three pumps with excess water diverted to the 24" steel pipe outlet. A backhoe and/or excavator will be used during the weir installation and diversion construction.

Length of project along the stream or extension into lake or reservoir:

Approximately ten (10) feet, across Jordan Creek Channel.

Stream gradient: **2% average**

Will material be placed waterward of ordinary high water mark? **Yes**

Will material be placed in adjacent wetlands? **No**

Type of fill material: **N/A** (i.e.sand, etc.) Material Source:_____

Volume of material to be placed:_____(cubic yards)

Will excavation be required? **Yes (minimal)** Disposal Site Location: **Utilized in diversion construction.**

Method of diverting flow, if needed: **Sand bags and pumps**

Method of controlling turbidity:

Any turbidity generated will be controlled with standard BMP (Best Management Practices) placements as necessary.

7. Size and Capacity of proposed bridge or culvert and area of drainage served (sq. miles):
(Idaho Department of Water resources requirement.)

8. Preparation of drawings. One set of original or good quality reproducible drawings must be attached to this application. NOTE: DRAWINGS NO LARGER THAN 8-1/2 x 11 INCHES IN SIZE. See the instruction pamphlet for instructions and a checklist for completing the drawings.

9. Purpose and intended use:

Commercial_____Public_____Private___XX_____Other_____

10. Proposed Starting Date **October 29, 1993** Estimated Duration **1 week, construction time**

11. If any portion of the activity is complete, indicate month and year of completion:
Indicate the existing work on the drawings.

12. Names, addresses, and telephone numbers of adjoining property owners, lessees, etc., whose property also adjoins the waterway.

US Forest Service, Challis National Forest, Yankee Fork R.D., HC-67, Box 650, Clayton, ID 83227, (208) 838-2201

13. LEGAL OWNER IF OTHER THAN APPLICANT:_____

MAILING ADDRESS _____ CITY, STATE, ZIP CODE _____

PHONE WORK( ) HOME( )

14. List other applications, approvals, or certifications from other Federal, interstate, state, or local agencies for any structures, constructions, discharges, deposits, or other activities described in the application.

US Forest Service	**Plan of Operation**	**N/A**	**9/17/93**	**Pending**
Issuing Agency	Type or Approval	Identification No.	Date of Application	Date of Approval

15. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein? Yes_____No__XX__(if "Yes" explain)

16. Remarks or additional information:

17. Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to come upon the above described location to inspect the proposed or completed work.

10/8/93 — Date

John G Dean — Signature of Applicant (REQUIRED)

The application must be signed by the applicant. If an authorized agent is to be designated, Item 4 and the following information should be completed.

I hereby designate **Nancy S. Thomas** to act as my agent in matters related to this permit application. I understand that if a Federal permit is issued, I must sign the permit.

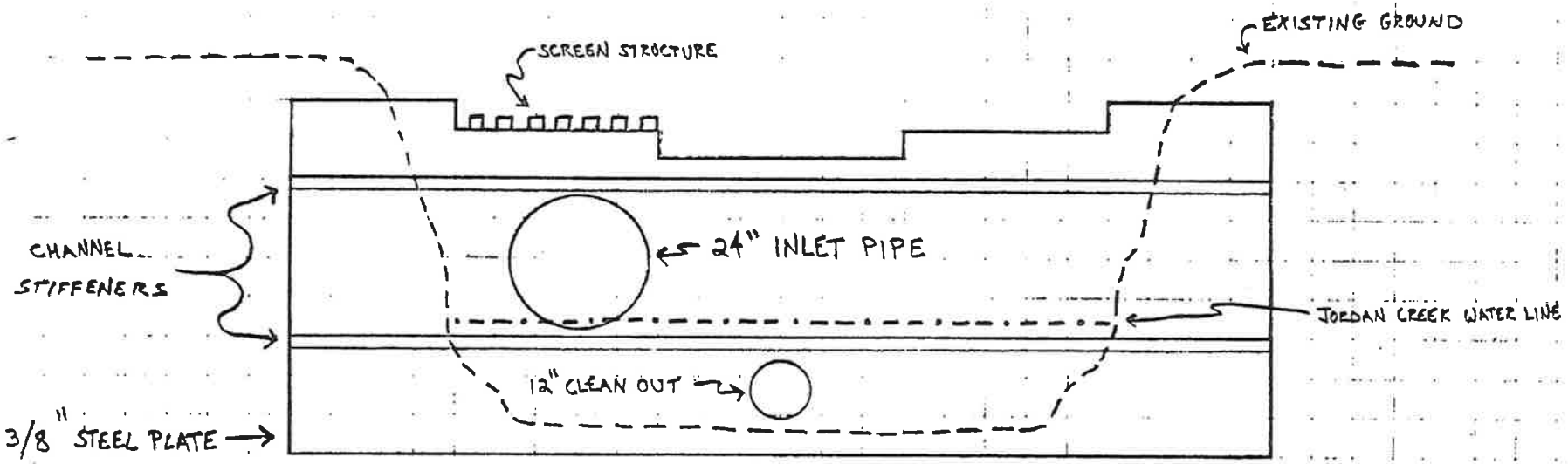
10/8/93 — Date

Nancy S. Thomas — Signature of Authorized Agent (if applicable)

John G Dean — Signature of Applicant (if applicable)

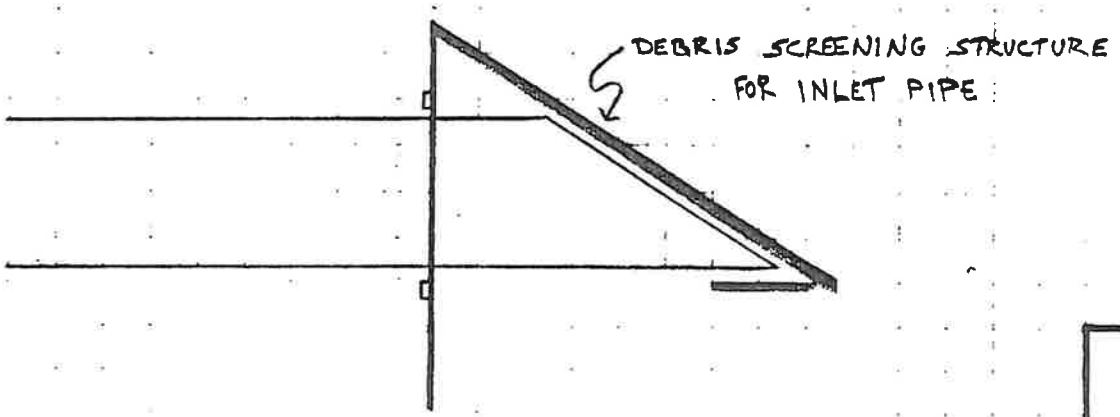
18. U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry shall be fined not more than $10,000 or imprisoned not more than 5 years or both. Do not send a permit processing fee with this application. The appropriate fee will be assessed when a permit is issued.

DO NOT SEND PROCESSING FEE WITH APPLICATION

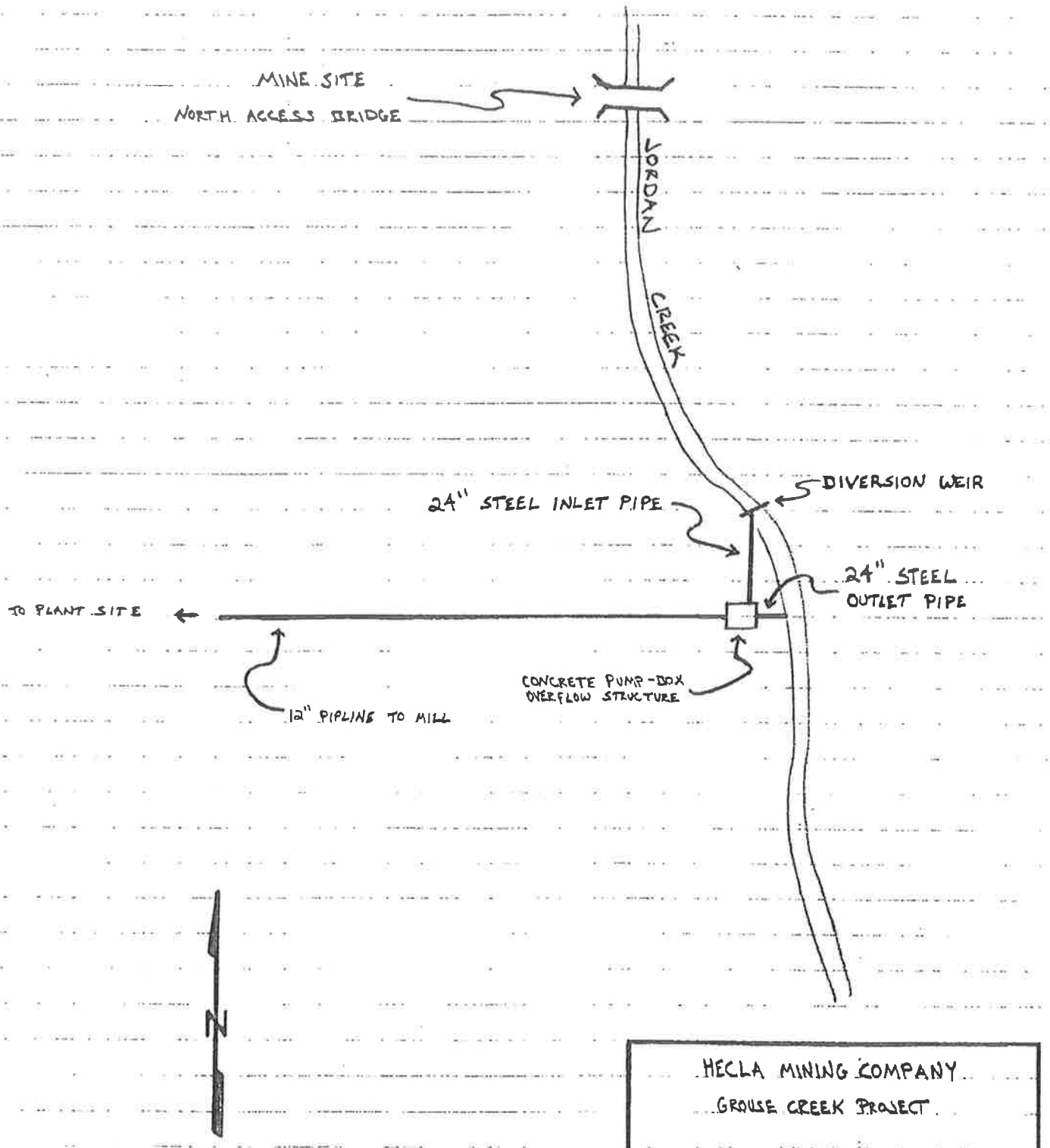


WEIR PLATE SECTION

LOOKING NORTH



HECLA MINING COMPANY
GROUSE CREEK PROJECT
DIVERSION WEIR DETAIL
NOT TO SCALE 9/20/93



HECLA MINING COMPANY

GROUSE CREEK PROJECT

JORDAN CREEK WATER SOURCE
DIVERSION LAYOUT DIAGRAM
WATER RIGHT No. 72-07049

CUSTER COUNTY, ID.

10/7/93

NOT TO SCALE

EXHIBIT H

Hecla
MINING COMPANY
Centennial
1891 - 1991

October 8, 1993

Terry Blau
Idaho Department of Water Resources
222 Shoshone St. E.
Twin Falls, ID 83301

RE: Stream Channel Alteration Permit Application for Diversion Weir Installation on Jordan Creek

Dear Terry:

Please find enclosed Hecla Mining Company's application for a Stream Channel Alteration Permit to install a diversion weir on Jordan Creek. Also enclosed are eight copies of the application for your circulation list.

This application proposes the construction of our Jordan Creek diversion weir. This diversion will utilize Hecla's water right number 72-07049, 4.45 cfs for mining and milling operations. The water appropriation will be piped to the Grouse Creek plant site for use in our milling process.

Please contact me if you have any questions or require additional information.

Sincerely,

Nancy S. Thomas
Hecla Mining Company
Grouse Creek Project

xc: Daniel A. Anderson, Hecla
John G. Haan, Hecla
David R. Berberick, Hecla
D.W. Pete Peters, USFS

Grouse Creek Project • West Critchfield Street • P.O. Box 57 • Stanley, ID 83278 • 208/774-2289 • FAX 208/774-3436

RECEIVED

OCT 12 1993

Department of Water Resources
Southern Region Office

JOINT APPLICATION FOR PERMIT
U.S. ARMY CORPS OF ENGINEERS
AND STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF LANDS

SEPARATE PERMIT DECISIONS MUST BE RECEIVED FROM BOTH THE STATE OF IDAHO AND THE CORPS OF ENGINEERS PRIOR TO START OF WORK

The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. These laws require permits authorizing structures and work in or affecting navigable waters of the United States and the discharge of dredged or fill material into waters of the United States, including their adjacent wetlands. State permits are required under the State of Idaho, Stream Channel Protection Act (Title 42, Chapter 38, Idaho Code) and the Idaho Lake Protection Act, Section 58-142 et. seq, Idaho Code. This application will meet the requirements of the above agencies.

AGENCY USE	
1. Corps of Engineers #	2. State of Idaho #
Date Received	Date Received

PLEASE PRINT OR TYPE

The applicant has sent copies of this application to the agencies checked: ID Dept. Water Res. - Boise_____, Coeur d'Alene_____, Twin Falls__XXX__; ID Dept. Lands - Boise_____, Coeur d'Aene_____: Corps of Engineers - Walla_____.

3. Applicant: **Hecla Mining Company**
Mailing Address: **P.O. Box 57**
Stanley, ID 83278

Work Phone(208) 769-4108 Home( )

Date of Application: **10/08/93**

4. Authorized Agent: **Nancy S. Thomas**
Mailing Address: **P.O. Box 57**
Stanley, ID 83278

Work Phone(208) 769-4108 Home( )

5. Location where proposed activity exists or will occur.

Waterway: **Jordan Creek** Tributary of: **Yankee Fork River**

19 miles northeast of Stanley
in or near city or town

Assessor's Desc. (tax no. or Subdivision, Lot & Block No.) *(See pamphlet)

Custer	**Idaho**	**83278**	**SE**	**SW**	**20 (unsurveyed)**	**13N**	**15E**
County	State	Zip Code	1/4	1/4	Section	Township	Range

6. Describe the proposed activity, including description of the type of structures, if any, to be erected on fills, or pile or float supported platforms. If additional space is needed, use a separate sheet or Section 16 (Remarks).

Describe the proposed activity in detail:

The proposed activity will consist of the installation of a diversion weir, per Hecla water right number 72-07049. Water right 72-07049 is a 4.45 cfs permit for mining and milling operations, with a priority date of 1975. An approximate twelve-foot (12') wide steel plate weir will be place across the Jordan Creek channel. The weir plate will be keyed into embankments above the high water line. From the weir diversion the water flow will be diverted through a 24" inlet pipeline approximately 50 feet to a pump-box/overflow structure, above the high water line. From the overflow structure, excess water will be returned to the original Jordan Creek channel through approximately 25 feet of 24" outlet pipe. From the pump box structure, utilized water will be pumped to the plant site through a 12" pipeline.

These activities will take place during low flow to minimize impacts to the creek and the fisheries associated with it.

Describe construction methods and equipment:

To begin installation of the weir, sand bags will be placed to impede the flow of Jordan Creek. Appropriate sized pumps will be used to divert the water around the weir area during installation. The weir will be keyed into the stream-bed to prevent under-channeling. The weir will also be keyed into the stream-banks one (1) to two (2) feet, into the existing stream banks and fill embankments on either side of the stream channel. No fill material will be placed below the high water line. From the weir, water will be carried to the concrete pump-box/overflow structure through 24" steel pipe. The concrete pump-box/overflow structure will contain three pumps with excess water diverted to the 24" steel pipe outlet. A backhoe and/or excavator will be used during the weir installation and diversion construction.

Length of project along the stream or extension into lake or reservoir:

Approximately ten (10) feet, across Jordan Creek Channel.

Stream gradient: **2% average**

Will material be placed waterward of ordinary high water mark? **Yes**

Will material be placed in adjacent wetlands? **No**

Type of fill material: **N/A** (i.e.sand, etc.) Material Source:_____

Volume of material to be placed:_____(cubic yards)

Will excavation be required? **Yes (minimal)** Disposal Site Location: **Utilized in diversion construction.**

Method of diverting flow, if needed: **Sand bags and pumps**

Method of controlling turbidity:

Any turbidity generated will be controlled with standard BMP (Best Management Practices) placements as necessary.

7. Size and Capacity of proposed bridge or culvert and area of drainage served (sq. miles):
(Idaho Department of Water resources requirement.)

8. Preparation of drawings. One set of original or good quality reproducible drawings must be attached to this application. NOTE: DRAWINGS NO LARGER THAN 8-1/2 x 11 INCHES IN SIZE. See the instruction pamphlet for instructions and a checklist for completing the drawings.

9. Purpose and intended use:

Commercial_____Public_____Private___XX_____Other_____

10. Proposed Starting Date **October 29, 1993** Estimated Duration **1 week, construction time**

11. If any portion of the activity is complete, indicate month and year of completion:
Indicate the existing work on the drawings.

12. Names, addresses, and telephone numbers of adjoining property owners, lessees, etc., whose property also adjoins the waterway.

US Forest Service, Challis National Forest, Yankee Fork R.D., HC-67, Box 650, Clayton, ID 83227, (208) 838-2201

13. LEGAL OWNER IF
OTHER THAN APPLICANT:_____

MAILING ADDRESS _____CITY, STATE, ZIP CODE _____

PHONE WORK( ) HOME( )

14. List other applications, approvals, or certifications from other Federal, interstate, state, or local agencies for any structures, constructions, discharges, deposits, or other activities described in the application.

US Forest Service	**Plan of Operation**	**N/A**	**9/17/93**	**Pending**
Issuing Agency	Type or Approval	Identification No.	Date of Application	Date of Approval

15. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein? Yes_____No__XX__(if "Yes" explain)

16. Remarks or additional information:

17. Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to come upon the above described location to inspect the proposed or completed work.

10/5/93 — Date

Signature of Applicant (REQUIRED)

The application must be signed by the applicant. If an authorized agent is to be designated, Item 4 and the following information should be completed.

I hereby designate **Nancy S. Thomas** to act as my agent in matters related to this permit application. I understand that if a Federal permit is issued, I must sign the permit.

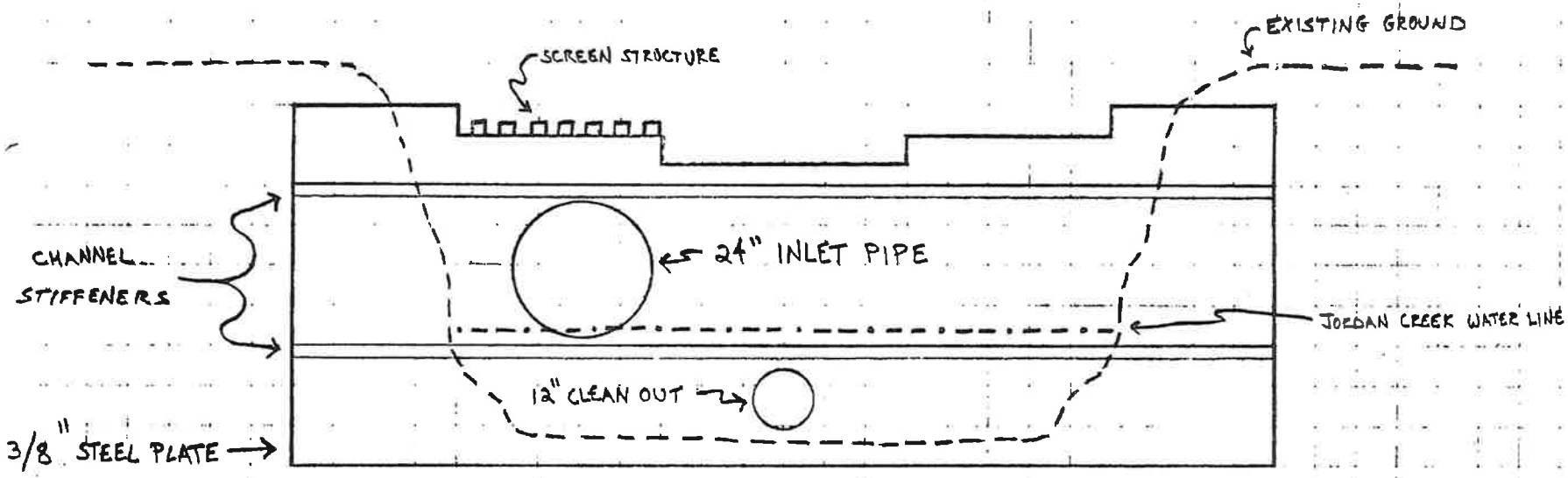
10/8/93 — Date

Signature of Authorized Agent (if applicable)

Signature of Applicant (if applicable)

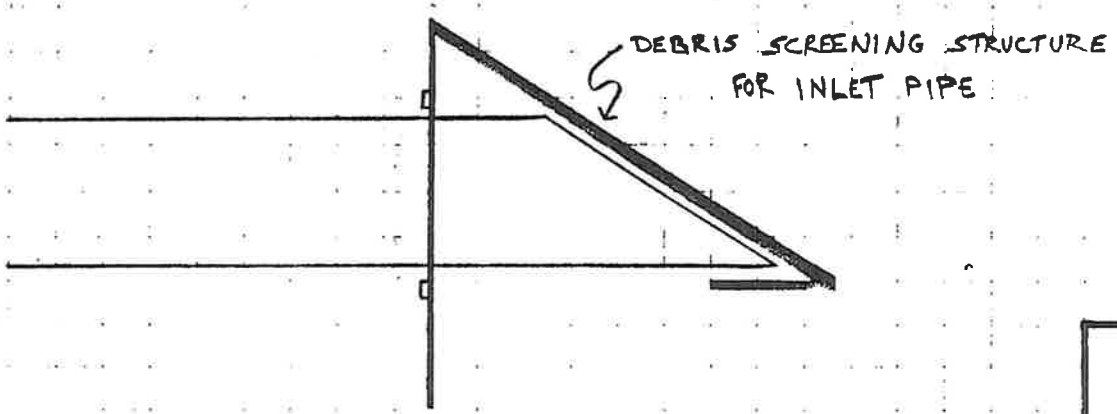
18. U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry shall be fined not more than $10,000 or imprisoned not more than 5 years or both. Do not send a permit processing fee with this application. The appropriate fee will be assessed when a permit is issued.

DO NOT SEND PROCESSING FEE WITH APPLICATION

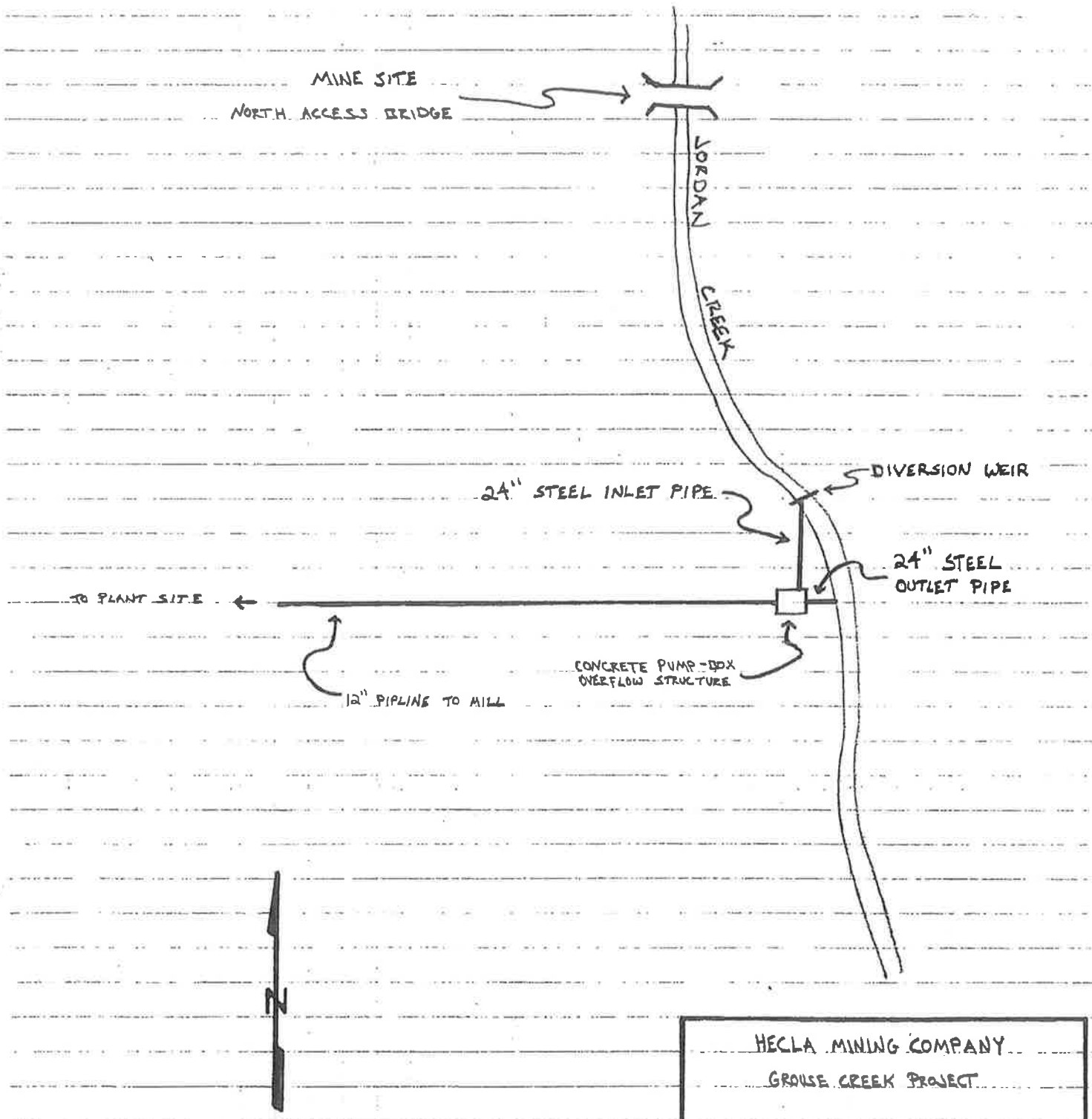


WEIR PLATE SECTION

LOOKING NORTH



HECLA MINING COMPANY
GROUSE CREEK PROJECT
DIVERSION WEIR DETAIL
NOT TO SCALE 9/20/93



HECLA MINING COMPANY

GROUSE CREEK PROJECT

JORDAN CREEK WATER SOURCE
DIVERSION LAYOUT DIAGRAM
WATER RIGHT NO. 72-07049

CUSTER COUNTY, ID.

10/7/93

NOT TO SCALE

EXHIBIT I

Affidavit of David R. Berberick in Support of Application to Lease Water Right No. 72-7049 to the Water Supply Bank

STATE OF IDAHO)
) ss:
County of _____)

I, DAVID R. BERBERICK, being first duly sworn, state that the following facts are true and correct and based upon my personal knowledge. If called to testify regarding these facts, I am competent to do so and would testify as follows:

1. I have been employed by Hecla Mining Company ("Hecla") or its predecessors since January 1, 1988. I am currently employed as the Senior Mine Engineer.

2. I was previously employed as the Site Manager for the Grouse Creek Unit, located near Challis Idaho. My responsibilities included overall management of the site, including water management and water treatment plant operations.

3. Prior to assuming the duties of Site Manager in May 2000, I served as the Chief Mining Engineer, Mine Superintendent and Project Superintendent at the Grouse Creek Unit. The operation of the wastewater treatment plant as well as its environmental compliance has been my responsibility since November 1997.

4. Water permit no. 72-7049 has not been lost through abandonment or forfeiture.

5. Hecla has utilized the Jordan Creek permit (No. 72-7049) during the past several years to facilitate impoundment-dewatering activities at the Grouse Creek Unit.

6. Water under permit no. 72-7049 has been used intermittently to flush and test the discharge pipeline at the Grouse Creek Unit.

7. Attached as Exhibit 1 is a true and correct copy of weekly and monthly reports from the Grouse Creek Unit that illustrate the use and consumption of water pursuant to water permit no. 72-7049 from August 2000 through August 2003.

8. Prior to August 2000, water under this permit was utilized in the water management activities for Grouse Creek's water treatment plant. Attached as Exhibit 2 is a true and correct copy of the operator's daily logbook, which documents this use.

DATED this ____ day of December, 2005.

_____
David R. Berberick

SUBSCRIBED AND SWORN to before me this ___ day of December, 2005.

_____
NOTARY PUBLIC in and for the State of Idaho, residing at:_____.
My Commission Expires:_____

72-071049

Hecla Mining Company
Grouse Creek Unit

MEMORANDUM TO: Paul Glader

FROM: Dave Berberick

DATE: April 28, 2003

SUBJECT: Weekly Report – Week Ending April 26, 2003

Activities:

- There were no accidents or injuries during the week.
- The WTP functioned satisfactorily during the week. Flows through the plant and discharged to Outfall 002, averaged 617 gpm for the week. Water treated and discharged to pond 2, averaged 880 gpm for the week. The water pumped to pond 1 totaled 8,942,000 gallons.

Water Pumped to Pond 1 (gallons) for 8:1 Dilution Ratio Compliance				
Week	Month (April)	Since October 1, 2002	Elevation (10/01/02)	Elevation (03/31/03)
8,942,000	21,558,000	56,258,000	7227.5 Feet	7230.4 Feet

- All stream samples indicated non-detect values for CN_{WAD} for the week.
- Five north embankment wells (MW-33, MW-35, MW- 37, MW-51 and MW-53) pumped continuously to pond 1.
- Monitor well MW-42 pumped continuously to pond 4 during the week. Sample values from MW-42 were less than 0.003 mg/l CN_{WAD}.
- The Sunbeam Adit flow averaged 120 gpm for the week.
- North Topsoil Area flow that reports to pond 9 averaged 29 gpm for the week.
- The small, localized slough observed on the west side of the tailing impoundment showed no increase in movement during the week.

- Work continued on the connections for the Outfall 003 pipeline. The line started to fill on April 23rd and now appears to be frozen upstream of the last bridge on Jordan Creek.
- The following was forwarded to the Agencies during the week:
  - Discussion of the Federal Agencies Proposed Biological and Sediment Monitoring Plan

72-07049

Hecla Mining Company
Grouse Creek Unit

MEMORANDUM TO: Lonnie Mills

FROM: Dave Berberick DLB

DATE: November 20, 2000

SUBJECT: Weekly Report – Week Ending November 18, 2000

Activities:

- The WTP functioned well through the week. Flows through the plant were at 170 gpm.
- All stream samples indicated non-detect values for the week. Monitor well MW-42 remains in continuous pumping mode.
- Continued North Area diesel/electric pump operation. Work was started to enlarge the lower sump area.
- There was no carbon advanced through the GAC system during the week.
- Mike Zimmer was off site all week. Paul Glader coordinated construction activities.
- Superior Coatings started work on CIP tanks #35 and #36. These are the last two tanks to complete.
- Baird Construction worked on influent and effluent piping.
- The effluent piping was tested on November 15th. The flow with the diffuser installed was measured at 1,100 gpm.
- Pat Trainor (USFS) notified Hecla (11/17/00) that all work could start on the diffuser installation.
- The clarifier parts were ordered during the week.
- The baseline sampling using the low level mercury protocol was completed on November 15th.
- Work continued on the AOC deliverables. This included the Work Plan, Water Balance Report, Quality Assurance Project Plan, Sampling and Analysis Plan, and Field Sampling Plan.
- Pond 1 water elevation 7,227.91 feet.

72-07049

HECLA MINING COMPANY
GROUSE CREEK UNIT

TO: Lonnie Mills

DATE: September 29, 2000

FROM: Dave Berberick

SUBJECT: **Grouse Creek Unit**
Monthly Progress Report for August 2000

Attached is the August 2000 monthly progress report for the Grouse Creek Unit.

Corporate Distribution

B. Booth
T. Fudge
G. Gamble/L. Drew
S. Hartman/B. Tridle

Grouse Creek Unit

T. Ashby/ R. Copen/J. Gilbert/P. Glader/E. Steilman/D. Landes
File

File: Monthly Report 8_00.doc

72-07049

IDEQ Consent Order

- Hecla Mining Company entered into a Consent Order (CO) with the IDEQ, effective April 4, 2000.
- A Scope of Work (SOW) was issued with the CO, which outlines the rights, obligations and responsibilities of Hecla. The following list is a summary of the activities that were performed in August in accordance with the SOW:
  - Submission of the Summary of Water Quality for August 2000.
  - Submission of the Pilot Plant Study Report, dated August 31, 2000.
- Pilot plant testing was completed on August 20th.
- Design and construction continued on the Tails Supernatant Treatment Plant. Activities included:
  - The dismantling contractor (Bierlein Companies) is roughly 50% complete.
  - The discharge pipeline was leak and flow tested on August 14th. Approximate flowrate, without the diffuser was 1,300 gallons per minute
  - The detailed engineering package was awarded to JHI Engineering of Portland OR.

Sunbeam Pit Area Hydrogeologic Study

- Golder Associates continues to work on the draft report of their findings. The field activities for the hydrogeologic study were completed on July 28.
- Four 4 piezometers and 3 monitoring wells were completed in the Sunbeam Area.

Disturbed Areas and Road Reclamation

- Western Reclamation was awarded the revegetation contract for this year's work.

September 29, 2000

72-07049

Hecla Mining Company
Grouse Creek Unit

MEMORANDUM TO: Lonnie Mills

FROM: Dave Berberick

DATE: August 24, 2000

SUBJECT: Weekly Report –Week Ending August 12, 2000

Activities:

- A forest fire started on the Yankee Fork on August 11. As of the end of the week it was approximately 1,000 acres.
- WTP functioned well through the week. Flows through the plant were at 300 gpm.
- All stream samples indicated non-detect values for the week.
- Continued North Area diesel/electric pump operation and Jordan Creek sump operation.
- Carbon was not advanced during the week.
- Baird Construction continued with the sludge removal for the WTP ponds.
- Earthwork repairs to the WRSF were 90% complete.
- Exploration road reclamation continued through the week.
- The 003 pipeline was further tested on August 7. Maximum flow is estimated at 1350 gpm. Remaining work includes installing 6 air release valves and repairing a drain valve near outfall 003.
- Evaporation System
  - Existing system is running at 98% of capacity.
  - 15 of 16 sprays are running.
  - System 4B is down for electrical problems. A new pump motor was ordered.
- The field work for the monitor well review program was completed on August 9.
- The demolition contractor continued work through the week.

72-07049

Hecla Mining Company
Grouse Creek Unit

MEMORANDUM TO: Lonnie Mills, Fred Stahlbush

FROM: Dave Berberick

DATE: August 7, 2000

SUBJECT: Weekly Report –Week Ending August 5, 2000

Activities:

- The pond 1 liner repair was completed on August 5. The material arrived on August 2 and the repair work was started on August 4. All work was competed as per Golder's recommendations. Rob Copen was on site to document and photograph the process.
- WTP functioned well through the week. Flows through the plant were at 305 gpm.
- All stream samples indicated non-detect values for the week.
- Continued North Area diesel/electric pump operation and Jordan Creek sump operation.
- Six bags of carbon were advanced within the GAC circuit on August 4.
- Baird Construction continued with the sludge removal for the WTP ponds. Approximately, 10 feet of sludge remains in Pond 2.
- Earthwork repairs to the WRSF were 90% complete by the end of the week.
- Exploration road reclamation continued through the week. Approximately 5,000 feet of road has been reclaimed to date.
- The 003 pipeline was tested on August 4. The purpose of this test was to clean out the line. Flows were estimated at 1,000+ gpm. One valve near outfall 003 is leaking and will have to be replaced. Further flow testing is continuing today
- Evaporation System
  - Existing system is running at 98% of capacity.
  - 15 of 16 sprays are running.
  - System 4B is down for electrical problems. A new set of pump wires will be ordered today.
- The monitor well review program started again on August 2. Layne plans on resetting approximately 22 pumps. The work should be completed by August 8.

Sunny Great

Grouse Water Treatment Plant - Daily Lo

12-5-99 Will + John

Days - Tightened Packing on Train "A" Lime

- Fresh water line Froze by guard gate

Thawed by 2:30 upped Fresh water

to stillingwell to 115/Train A.

Creek pump @ 35 Hz from 25 Hz

- Batched + Transfered $FeSO_4$

- Sky Track shift linkage is B.O.

is a vise grips on cable outside

Right Hand window hooked on cable lin

to Choose gear

12-6-99 A-Train Lime Metering Valve B.O. ~~Train~~

B-Train Valve off and installed on A-Train

New valve maybe? (went to Auction)

12-7-99 Fresh water addition to stilling well up

Bruce Down all day

John - The storm is back together it needs

oil + Antifreeze

12-7-99 Gene, Dean

About 8" snow last nite

Plant Ran Good, Jordan addition up and d

all nite.

12/8/99 Bruce / John. ←

Run JC addition at 150 gpm per Dave.

Thiokol back on rite, Parking brake works

EXHIBIT J

HECLA
GROUSE CREEK UNIT

TAILINGS IMPOUNDMENT
WORK PLAN

September 2007

2642

Prepared for:

Hecla
P.O. Box 647
Challis, ID 83226

Prepared by:

Water Management Consultants, Inc.
1875 Lawrence Street, Suite 501
Denver, Colorado 80202

2.6.3 Design levels

Using the HEC-HMS model results, WMCI adopted the appropriate design values for each component of the proposed surface water diversion plan as follows:

Table 2.4 Structure design levels

Surface Water Diversion Structure	Design Level
Washout Creek Energy Dissipation Inlet Channel	500-yr 24-hr peak flow = 927 cfs
EDE Channel Energy Dissipation Inlet Channel	500-yr 24-hr peak flow = 519 cfs
Energy Dissipation Structure at the Tailings Facility	500-yr, 24-hr peak flow = 1446 cfs
South Pond Area	96-hr PMP peak volume = 549 ac-ft
South Pond Spillway	Spillway was designed to drain the 96-hr general PMP storm volume over approximately 30 days
Outlet Channel to Jordan Creek	Peak flow drainage from spillway = 12 cfs
South Embankment Stormwater Drainage Channels	500-yr, 24-hr peak flow

EXHIBIT K

ITT

C H SPENCER & CO

Proposal No: JS11-05-03 02
Item No: ITEM 001

May 20, 2011

MODEL:VIT-FFFM Size:12RJHC 7 Stage(s) QTY:1

Operating conditions

SERVICE	
LIQUID	water (70.0 deg F) SP.GR 1.000 , Vapor Pres. 1.00 psi abs
LIQUID TYPE	Non Toxic
CAPACITY	1,000.0 gpm
RATED HEAD	323.0 ft
SUMP DEPTH	15.00 (ft)

Performance at 1770 RPM

BOWL EFFY	83.0% (Cor.79.8%) @design
PUMP EFFY	78.9% @design
RUN OUT CAPACITY	1,479.1 (gpm) (Min Req.Submerg. 21.07 (in) @ Run out) (1), (2)
POWER	103.30 @design, 56.5 @ Shut off, 104.5 @ Run out (hp)
NPSHr @1st imp.eye	14.4 ft (available NPSH is 45.3, ft at 1st imp.eye)
TOTAL THRUST	4,200.3 @ Shut off, 3,383.9 @design (Lb)
DISCH. PRESSURE	180.1 psi g @ Shut off, 140.8 psi g @design (at disch.flange)
MIN. FLOW	Continuous Stable: 353.3 gpm Hydraulic: 353.3 gpm Thermal: N/A

(1) for vortex suppression, based on H.I. 1994 Edition
(2) Min Req.Submerg. 18.30 (in) @ Rated

Materials and Dimensions

BOWL	316LSS standard
SUCTION BELL	316LSS
IMPELLER	316LSS (Enclosed) keyed to the shaft
IMPELLER DIA	7.0000 (in)
BOWL SHAFT	316SS 1.6875 (in) diameter
SUCTION BEARING	Stainless shell with hardfacing
BOWL BEARINGS	Vesconite
STRAINER	316SS (clip on -bell)
COLUMN	316LSS 8.00 (in) diam., 8 (ft) long Flanged
COLUMN SHAFT	316SS, 1.5000 (in) diam. (open) lineshaft sleeve: none
LINESHAFT BRGS	Vesconite, 5ft spacing
LINESHAFT CPLG	316SS, Threaded
DISCH.HEAD	316LSS
HEADSHAFT CPLG	Carbon steel Type AS adjustable spacer
DISCH.FLANGE	8 (in) 150# R.F.
TPL	14.75 (ft)

Sealing Method

MECHANICAL SEAL	John Crane 5610 XF551058H, Mounted by Customer - (Cartridge - Single)
SEAL SPECIFIED BY	
BOWL FEATURES	Hard faced shaft at suction bell bearing
HEAD FEATURES	Hardface shaft at throttle bushing
PIPING	Goulds' standard bypass tubing
DRIVER FEATURES	Non-Witnessed Short Commercial Test
	Space Heater
DOCUMENTATION	Std pump inst. and operation manual and order data
TESTING	Bowl assy with Lab motor performance (Non-Witness)
	Hydro Test Column (Non-Witness)
	Hydro Test Discharge Head (Non-Witness)
	Hydro Test add stage bowls (Non-Witness)
	Hydro Test bowl (Non-Witness)

Driver : Motor

Vertical solid shaft

FURNISHED BY	Pump mfg
RATING	125.0 hp
PHASE/FREQ/VOLTS	3/60 Hz/460
INSULATION/SF	F/1.15

Manufacturer :

MOUNTED BY	Customer
ENCLOSURE	TEFC Prem. Eff.
SPEED	1800 RPM
FRAME/BD	445VP/16.5 (in)

Weights and Measurements

Total Bowl Weight	797.2 (lb)
Total Column Weight	362.6 (lb)
Discharge Head Weight	573.0 (lb)
Driver Weight	2,100.0 (lb)
Total Unit Weight	3832.8 (lb)
Boxing Volume	162.0 (ft^3)

Program Version 1.37.0.0

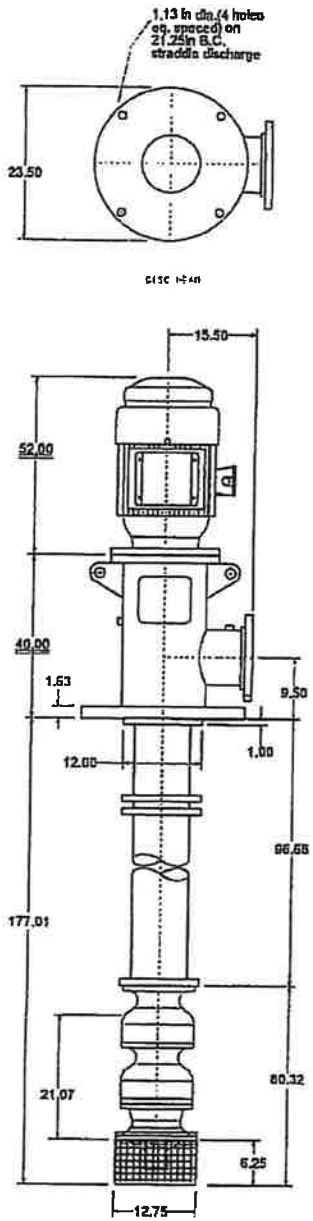
Our offer does not include specific review and incorporation of any Statutory or Regulatory Requirements and the offer is limited to the requirements of the design specifications. Should any Statutory or Regulatory requirements need to be reviewed and incorporated then the Customer is responsible to identify those and provide copies for review and revision of our offer.

Our quotation is offered in accordance with our conditions of Sale.

Customer is responsible for verifying that the recommendations made and the materials selected are satisfactory for the Customer's intended environment and Customer's use of the selected pump. Customer is responsible for determining the suitability of Goulds Pumps' recommendations for all operating conditions within Customer's and/or End User's control. Goulds Pumps disclaims all warranties, express or implied, including, but not limited to, warranties of merchantability and fitness for a particular purpose.

ITT does not guarantee any pump intake configuration. The hydraulic and structural adequacies of these structures are the sole responsibility of the Customer or his representatives. Further, ITT accepts no liability arising out of unsatisfactory pump intake field operating conditions.
The Customer or his representatives are referred to the Hydraulic Institute Standards for recommendations on pump intake design. To optimize the hydraulic design of a field pump intake configuration, the Customer should strongly consider performing a detailed scale model pump intake study. However, the adequacies of these recommendations are the sole responsibility of the Customer.

OUTLINE DRAWING



CUSTOMER C H SPENCER & CO

P.O. NO.

ITEM NO. ITEM 001

NO. OF UNITS 1

PUMP SIZE 12RJHC NO. OF STGS. 7

GPM 1,000.0 GPM T.D.H. 323.0 FT

LIQUID water

SP.GR. 1.000 TEMP. 70.0 DEG F VISC.

COL SIZE 8.00 IN SHAFT 1.5000 IN DIA.

SEAL JOHN CRANE 5610 XF551058H

CPLG. TYPE TYPE AS ADJUSTABLE SPACER

COUPLING GUARD YES ☐ NO ■

DRIVER MFG.

HP 125.0 HP RPM 1800 VSS ■ VHS ☐

PH. 3 CYCLES 60 HZ VOLTS 460

ENCLOSURE TEFC PREM. EFF. FRAME 445VP

WEIGHT:

PUMP	1733	LB
DRIVER	2100	LB
TOTAL	3833	LB

NO.	NOTES
1	T.P.L. (TOTAL PUMP LENGTH) IS THE DISTANCE TO LOWEST PROJECTION ON PUMP ± 1.0
2	TOLERANCE ON ALL DIMENSIONS IS ± .12 OR ± .12 PER 5 FT WHICHEVER IS GREATER. TOLERANCE ON ALL PIPING DIMENSIONS IS AS FOLLOWS: DISCH. NOZZLE FLANGE IS ± .25 AUXILIARY CONNECTIONS ARE ± 1.0
3	HT - DISTANCE OF DRIVER FACE TO TOP OF HEADSHAFT.
4	ALL DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE STATED.
5	DRAWING IS NOT TO SCALE.
6	RECOMMENDED DIAMETER RANGE TO CLEAR PUMP, DRAIN AND COLUMN ASSEMBLY IS 13.75 in
7	1/2" NPT - GAUGE CONN. (PLUGGED)
8	DRIVER MAY BE ROTATED AT 90° INTERVALS ABOUT VERTICAL CENTERLINE. FOR DETAILS REFER TO DRIVER DIMENSION DRAWING.
9	BEFORE STARTING PUMP, IMPELLER MUST BE LIFTED 0.12 in
10	M.A.W.P DISCH.HEAD,DISCH.SIDE = 189.5 PSI G
11	THIS PUMP ASSEMBLY HAS BEEN DESIGNED SO THAT ITS NATURAL FREQUENCY RESPONSES AVOID THE SPECIFIC OPERATING SPEED (OR SPEEDS) BY AN ADEQUATE SAFETY MARGIN. THE DESIGN HAS ASSUMED THE FOUNDATION TO BE RIGID.

DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED

CERTIFIED BY

DATE 05/20/2011

TITLE OUTLINE MODEL VIT-FFFM
8 x 12RJHC 7 STAGES

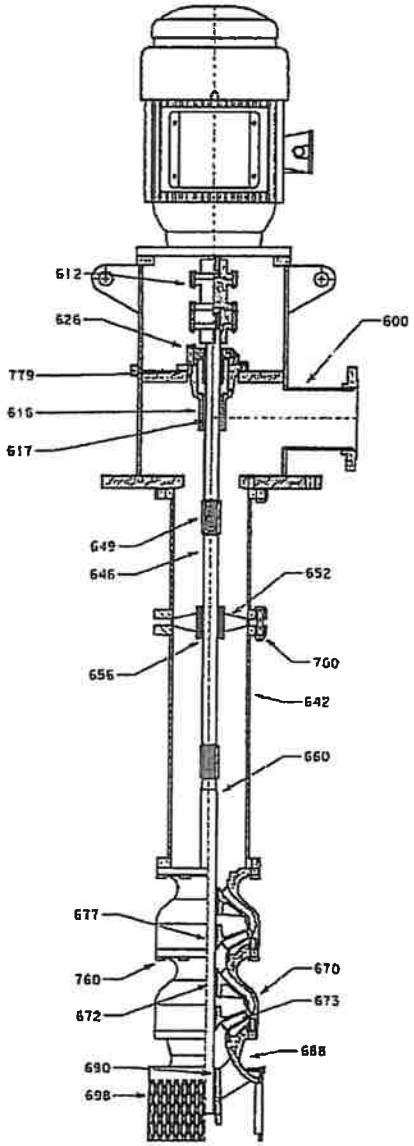
ITT GOULDS PUMPS Engineered for life

S.O. NUMBER

CROSS SECTIONAL DRAWING

Model VIT-FFFM
Size 12RJHC

ITT



* Recommended spare parts
\# Items not illustrated

BILL OF MATERIAL

Discharge Head Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
600	HEAD- DISCHARGE	9722	SST 316L FAB	A182M-00b
608	HEADSHAFT	6706	SST 316 PTI-25	A276-00a
612	COUPLING ASSY	2242	CARBON STEEL 1018	A108-99
616	HOUSING	1219	SST 316L	A743
617	BEARING- HOUSING	6706	SST 316 PTI-25	A276-00a
626	SEAL	0000	VENDOR STANDARD	
648	HEADSHAFT SLEEVE			

Column and Lineshaft Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
642	COLUMN PIPE	9722	SST 316L FAB	A182M-00b
646	LINESHAFT	2216	SST 316	A276-00a
649	LINESHAFT COUPLING	5814	SST 316 CHROME	B177-93
656	LINESHAFT BEARING	6397	VESCONITE- HIGH LUBE THERMOPLASTIC BEARING MATL	

Bowl Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
660	BOWL SHAFT	6706	SST 316 PTI-25	A276-00a
670	BOWL- INTERMEDIATE	1219	SST 316L	A743
672	BEARING- INT BOWL	6397	VESCONITE- HIGH LUBE THERMOPLASTIC BEARING MATL	
673	IMPELLER	1219	SST 316L	A743
677	KEY- IMPELLER	2229	SST 316	A276-00a
688	BOWL/BELL- SUCTION	1219	SST 316L	A743
690	BEARING- SUCTION	6706	SST 316 PTI-25	A276-00a
698	STRAINER-SUCTION	6913	SST 316 XPND METAL FL	A555-97
760	CAPSCREW- HEX	2229	SST 316	A276-00a

Service:
End User: C H SPENCER & CO
Project No:
Item No: ITEM 001
Customer P.O. No:
Serial No:
Customer: C H SPENCER & CO

DRAWING NO JS11-05-03 02/ITEM 001

Model: VIT-FFFM	Size: 12RJHC	60Hz	RPM: 1770	Stages: 7

Job/Inq.No. :
End User : C H SPENCER & CO
Item/Equip.No. : ITEM 001
Order No. :

Purchaser : C H SPENCER & CO
Issued by : Jeff Smith
Quotation No. : JS11-05-03 02
Certified By :

Service :
Date : 05/20/2011
Rev. : 0

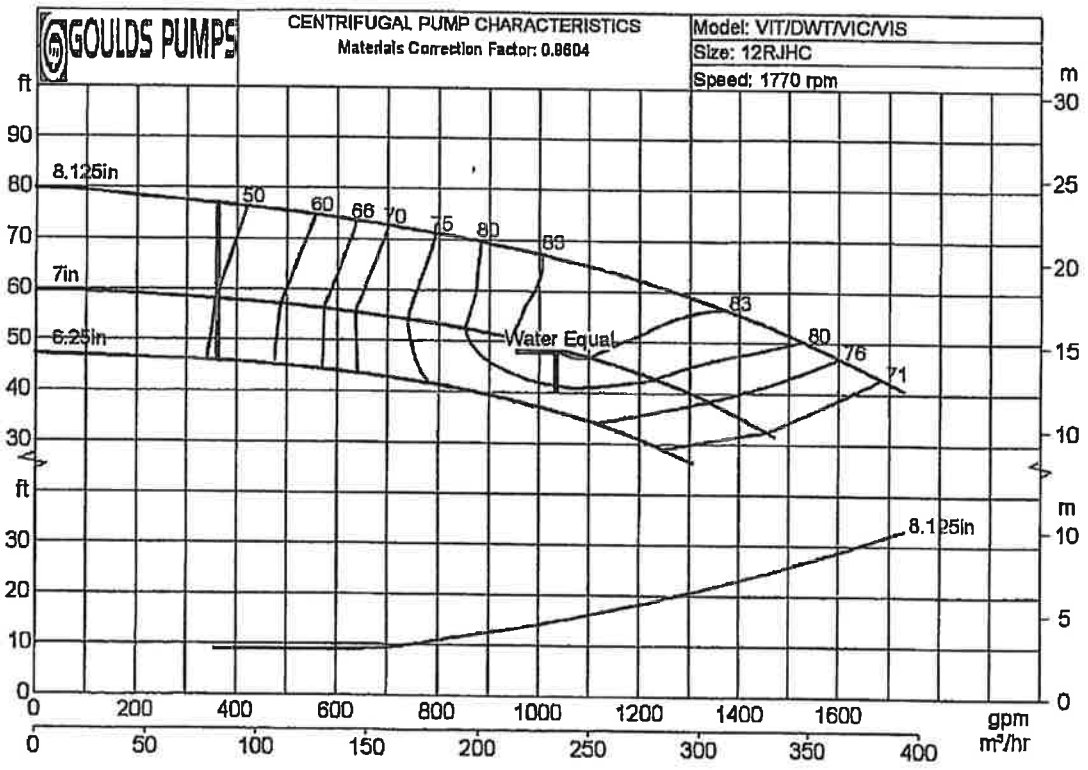
Operating Conditions

Temp.:	70.0 deg F
Design Flow:	1,000.0 gpm
Design TDH:	323.0 ft
Actual Flow:	1,000.0 gpm
Actual TDH:	326.1 ft
NPSHa:	45.3 ft
Solid size:	
Bowl Size:	5.3100 in
Liquid:	water
S.G./Visc.:	1.000/1.000 cp

Pump Performance

Published Efficiency:	83.0 %	Suction Specific Speed:	6,855 gpm(US) ft
Rated Pump Efficiency:	78.9 %	Min. Hydraulic Flow:	353.3 gpm
Rated Total Power:	103.30 hp	Min. Thermal Flow:	N/A
Non-Overloading Power:	113.3 hp		
Imp. Dia. First 1 Stg(s):	7.0000 in	Imp. Dia. Addt'l Stg(s):	7.0000 in
NPSHr:	14.4 ft	Vapor Press:	1.00 psi abs
Shut off Head:	416.9 ft	Max. Solids Size:	0.8100 in
Max. Lateral:	1.0000 in	Thrusth K factor:	9.50
Bowl Material:	316LSS		
Impeller Material:	316LSS		

Notes: 1. Bowl Performance Curve based on Pumping Clear, non-Aerated Water. Rated Point only is guaranteed.
2. Power and efficiency Losses are not reflected on the curve below.



ITT

EXHIBIT L

ITT

C H SPENCER & CO

Proposal No: JS11-05-03 02
Item No: ITEM 002

May 20, 2011

MODEL:VIT-FFFM Size:9WAHC 10 Stage(s) QTY:1

Operating conditions

SERVICE	
LIQUID	water (70.0 deg F) SP.GR 1.000 , Vapor Pres. 1.00 psi abs
LIQUID TYPE	Non Toxic
CAPACITY	200.0 gpm
RATED HEAD	323.0 ft
SUMP DEPTH	15.00 (ft)

Performance at 1770 RPM

BOWL EFFY	79.2% (Cor.74.5%) @design
PUMP EFFY	73.3% @design
RUN OUT CAPACITY	313.2 (gpm) (Min Req.Submerg. 13.00 (in) @ Run out) (1), (2)
POWER	22.30 @design, 12.6 @ Shut off, 22.8 @ Run out (hp)
NPSHr @1st imp.eye	4.5 ft (available NPSH is 45.4 ft at 1st imp.eye)
TOTAL THRUST	1,735.5 @ Shut off, 1,482.4 @design (Lb)
DISCH. PRESSURE	170.1 psi g @ Shut off, 140.4 psi g @design (at disch.flange)
MIN. FLOW	Continuous Stable: 100.9 gpm Hydraulic: 100.9 gpm Thermal: N/A

(1) for vortex suppression, based on H.I. 1994 Edition
(2) Min Req.Submerg. 11.64 (in) @ Rated

Materials and Dimensions

BOWL	316LSS standard
SUCTION BELL	316SS
IMPELLER	316LSS (Enclosed) keyed to the shaft
IMPELLER DIA	6.0625 (in)
BOWL SHAFT	316SS 1.5000 (in) diameter
SUCTION BEARING	Stainless shell with hardfacing
BOWL BEARINGS	Vesconite
STRAINER	316SS (clip on -bell)
COLUMN	316LSS 4.00 (in) diam., 8 (ft) long Flanged
COLUMN SHAFT	316SS, 1.0000 (in) diam. (open) lineshaft sleeve: none
LINESHAFT BRGS	Vesconite, 2.5ft spacing
LINESHAFT CPLG	316SS, Threaded
DISCH.HEAD	316LSS
HEADSHAFT CPLG	Carbon steel Type AS adjustable spacer
DISCH.FLANGE	4 (in) 150# R.F.
TPL	14.75 (ft)

Sealing Method

MECHANICAL SEAL	John Crane 5610 XF551058H, Mounted by Customer - (Cartridge - Single)
SEAL SPECIFIED BY	
BOWL FEATURES	Hard faced shaft at suction bell bearing
HEAD FEATURES	Hardface shaft at throttle bushing
PIPING	Goulds' standard bypass tubing
DRIVER FEATURES	Non-Witnessed Short Commercial Test
	Space Heater
DOCUMENTATION	Std pump inst. and operation manual and order data
TESTING	Bowl assy with Lab motor performance (Non-Witness)
	Hydro Test Column (Non-Witness)
	Hydro Test Discharge Head (Non-Witness)
	Hydro Test add stage bowls (Non-Witness)
	Hydro Test bowl (Non-Witness)

Driver : Motor

Vertical solid shaft

FURNISHED BY	Pump mfg
RATING	25.0 hp
PHASE/FREQ/VOLTS	3/60 Hz/230/460
INSULATION/SF	F/1.15

Manufacturer :

MOUNTED BY	Customer
ENCLOSURE	TEFC Prem. Eff.
SPEED	1800 RPM
FRAME/BD	284VP/12 (in)

Weights and Measurements

Total Bowl Weight	668.9 (lb)
Total Column Weight	156.8 (lb)
Discharge Head Weight	299.0 (lb)
Driver Weight	320.0 (lb)
Total Unit Weight	1444.7 (lb)
Boxing Volume	105.8 (ft^3)

Program Version 1.37.0.0

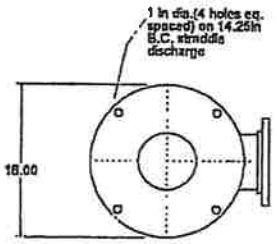
Our offer does not include specific review and incorporation of any Statutory or Regulatory Requirements and the offer is limited to the requirements of the design specifications. Should any Statutory or Regulatory requirements need to be reviewed and incorporated then the Customer is responsible to identify those and provide copies for review and revision of our offer.

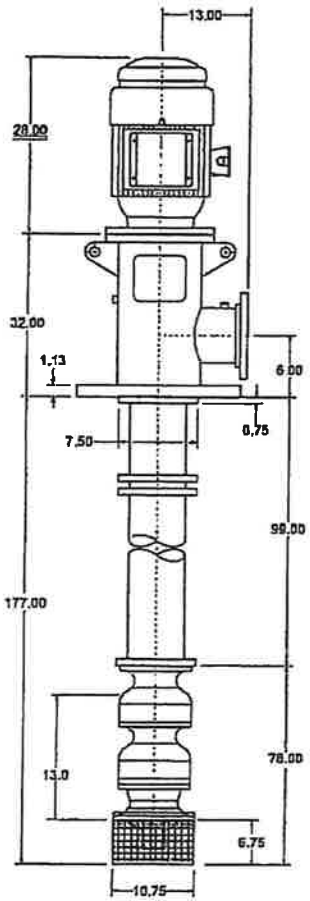
Our quotation is offered in accordance with our conditions of Sale.

Customer is responsible for verifying that the recommendations made and the materials selected are satisfactory for the Customer's intended environment and Customer's use of the selected pump. Customer is responsible for determining the suitability of Goulds Pumps' recommendations for all operating conditions within Customer's and/or End User's control. Goulds Pumps disclaims all warranties, express or implied, including, but not limited to, warranties of merchantability and fitness for a particular purpose.

ITT does not guarantee any pump intake configuration. The hydraulic and structural adequacies of these structures are the sole responsibility of the Customer or his representatives. Further, ITT accepts no liability arising out of unsatisfactory pump intake field operating conditions.
The Customer or his representatives are referred to the Hydraulic Institute Standards for recommendations on pump intake design. To optimize the hydraulic design of a field pump intake configuration, the Customer should strongly consider performing a detailed scale model pump intake study. However, the adequacies of these recommendations are the sole responsibility of the Customer.

OUTLINE DRAWING





CUSTOMER C H SPENCER & CO

P.O. NO.

ITEM NO. ITEM 002

NO. OF UNITS 1

PUMP SIZE 9WAHC NO. OF STGS. 10

GPM 200.0 GPM T.D.H. 323.0 FT

LIQUID water

SP.GR. 1.000 TEMP. 70.0 DEG F VISC.

COL SIZE 4.00 IN SHAFT 1.0000 IN DIA.

SEAL JOHN CRANE 5610 XF551058H

CPLG. TYPE TYPE AS ADJUSTABLE SPACER

COUPLING GUARD YES ☐ NO ■

DRIVER MFG.

HP 25.0 HP RPM 1800 VSS ■ VHS ☐

PH. 3 CYCLES 60 HZ VOLTS 230/460

ENCLOSURE TEFC PREM. EFF. FRAME 284VP

WEIGHT:

PUMP	1125	LB
DRIVER	320	LB
TOTAL	1445	LB

NO.	NOTES
1	T.P.L. (TOTAL PUMP LENGTH) IS THE DISTANCE TO LOWEST PROJECTION ON PUMP ± 1.0
2	TOLERANCE ON ALL DIMENSIONS IS ± .12 OR ± .12 PER 5 FT WHICHEVER IS GREATER. TOLERANCE ON ALL PIPING DIMENSIONS IS AS FOLLOWS: DISCH. NOZZLE FLANGE IS ± .25 AUXILIARY CONNECTIONS ARE ± 1.0
3	HT - DISTANCE OF DRIVER FACE TO TOP OF HEADSHAFT.
4	ALL DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE STATED.
5	DRAWING IS NOT TO SCALE.
6	RECOMMENDED DIAMETER RANGE TO CLEAR PUMP. DRAIN AND COLUMN ASSEMBLY IS 11.75 In
7	1/2" NPT - GAUGE CONN. (PLUGGED)
8	DRIVER MAY BE ROTATED AT 90° INTERVALS ABOUT VERTICAL CENTERLINE. FOR DETAILS REFER TO DRIVER DIMENSION DRAWING.
9	BEFORE STARTING PUMP, IMPELLER MUST BE LIFTED 0.12 In
10	M.A.W.P DISCH.HEAD,DISCH.SIDE = 178.8 PSI G
11	THIS PUMP ASSEMBLY HAS BEEN DESIGNED SO THAT ITS NATURAL FREQUENCY RESPONSES AVOID THE SPECIFIC OPERATING SPEED (OR SPEEDS) BY AN ADEQUATE SAFETY MARGIN. THE DESIGN HAS ASSUMED THE FOUNDATION TO BE RIGID.

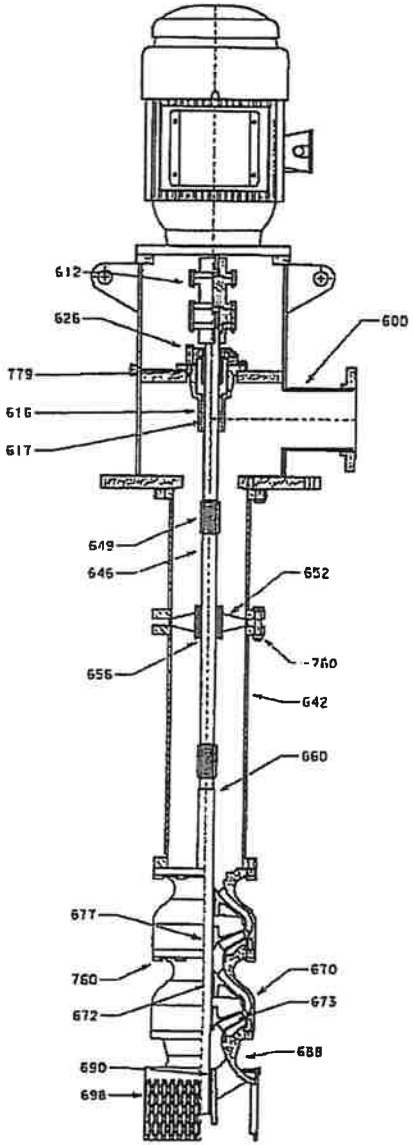
DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED

CERTIFIED BY	DATE 05/20/2011
TITLE	OUTLINE MODEL VIT-FFFM 4 x 9WAHC 10 STAGES
ITT	GOULDS PUMPS Engineered for life — S.O. NUMBER

CROSS SECTIONAL DRAWING

Model VIT-FFFM
Size 9WAHC

ITT



BILL OF MATERIAL

Discharge Head Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
600	HEAD- DISCHARGE	9722	SST 316L FAB	A182M-00b
608	HEADSHAFT	6705	SST 316 PTI-25	A276-00a
612	COUPLING ASSY	2242	CARBON STEEL 1018	A108-99
616	HOUSING	1219	SST 316L	A743
617	BEARING- HOUSING	6705	SST 316 PTI-25	A276-00a
626	SEAL	0000	VENDOR STANDARD	
648	HEADSHAFT SLEEVE			

Column and Lineshaft Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
542	COLUMN PIPE	9722	SST 316L FAB	A182M-00b
546	LINESHAFT	2216	SST 316	A276-00a
549	LINESHAFT COUPLING	5914	SST 316 CHROME	B177-93
556	LINESHAFT BEARING	6397	VESCONITE- HIGH LUBE THERMOPLASTIC BEARING MATL	

Bowl Assembly

ITEM	PART NAME	CODE	MATERIAL	ASTM#
650	BOWL SHAFT	6705	SST 316 PTI-25	A276-00a
670	BOWL- INTERMEDIATE	1219	SST 316L	A743
672	BEARING- INT BOWL	6397	VESCONITE- HIGH LUBE THERMOPLASTIC BEARING MATL	
673	IMPELLER	1219	SST 316L	A743
677	KEY- IMPELLER	2229	SST 316	A276-00a
688	BOWL/BELL- SUCTION	1219	SST 316L	A743
690	BEARING- SUCTION	6705	SST 316 PTI-25	A276-00a
698	STRAINER-SUCTION	6913	SST 316 XPND METAL FL	A655-97
760	CAPSCREW- HEX	2229	SST 316	A276-00a

* Recommended spare parts
\# Items not illustrated

Service:
End User: C H SPENCER & CO
Project No:
Item No: ITEM 002
Customer P.O. No:
Serial No:
Customer: C H SPENCER & CO

DRAWING NO JS11-05-03 02/ITEM 002

Model: VIT-FFFM	Size: 9WAHC	60Hz	RPM: 1770	Stages: 10

Job/Inq.No. :
End User : C H SPENCER & CO
Item/Equip.No. : ITEM 002
Order No. :

Purchaser : C H SPENCER & CO
Issued by : Jeff Smith
Quotation No. : JS11-05-03 02
Certified By : jeff smith

Service :
Date : 05/20/2011
Rev. : 0

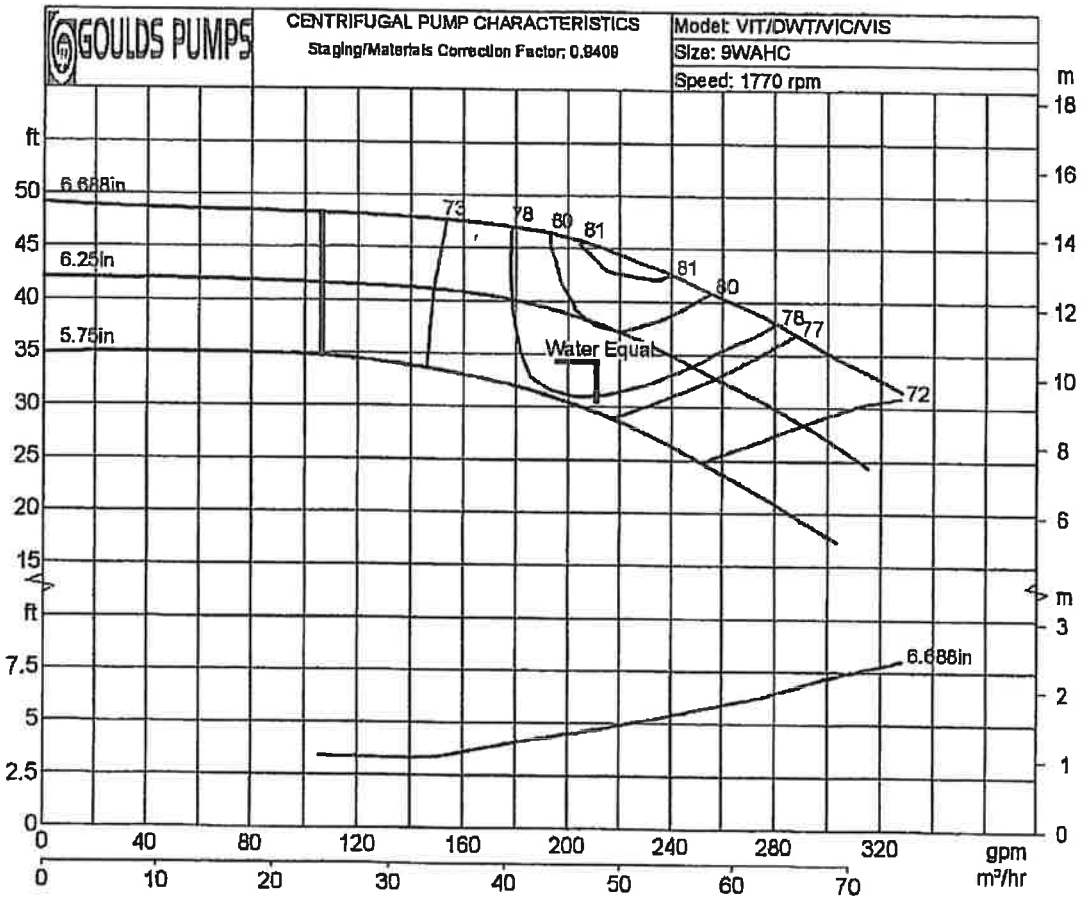
Operating Conditions

Temp.:	70.0 deg F		
Design Flow:	200.0 gpm		
Design TDH:	323.0 ft		
Actual Flow:	200.0 gpm		
Actual TDH:	324.9 ft		
NPSHa:	45.4 ft		
Solid size:			
Bowl Size:	3.3300 in		
Liquid:	water		
S.G./Visc.:	1.000/1.000 cp		

Pump Performance

Published Efficiency:	79.2 %	Suction Specific Speed:	7,771 gpm(US) ft
Rated Pump Efficiency:	73.3 %	Min. Hydraulic Flow:	100.9 gpm
Rated Total Power:	22.30 hp	Min. Thermal Flow:	N/A
Non-Overloading Power:	24.0 hp		
Imp. Dia. First 1 Stg(s):	6.0625 in	Imp. Dia. Addt'l Stg(s):	6.0625 in
NPSHr:	4.5 ft	Vapor Press:	1.00 psi abs
Shut off Head:	393.4 ft	Max. Solids Size:	0.4000 in
Max. Lateral:	0.5600 in	Thrusth K factor:	3.75
Bowl Material:	316LSS		
Impeller Material:	316LSS		

Notes: 1. Bowl Performance Curve based on Pumping Clear, non-Aerated Water. Rated Point only is guaranteed.
2. Power and efficiency Losses are not reflected on the curve below.



ITT

EXHIBIT M

Form 238-7
6/93

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED
JAN 13 1994
Department of Water Resources

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 72 - 93 - S - 0023 - 000
Other IDWR No _____

2. OWNER:
Name Hecla Mining Company
Address P.O. Box 57
City Stanley State ID Zip 83278

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location

N / W / E / S

T 13 North ☒ or South ☐
R 15 East ☒ or West ☐
Sec. 20 , NW 1/4 SW 1/4 1/4
(10 acres / 40 acres / 160 acres)
Gov't Lot ____ County Custer

Address of Well Site _____
(Give at least Direction + Distance to Road or Landmark)

Lot No ____ Block No ____ Subd. Name _____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT (Sacks or Pounds)	METHOD
Bentonite	0	58	4	Overbore

Was drive shoe seal tested? YES ☐ NO ☒ How? _____

8. CASING/LINER:

Diameter	From	To	Guage	Casing	Liner	Steel	Plastic	Welded	Threaded
6 5/8	+2	58	.250	X		☒	☐	☒	☐
4 1/2	-10	190	S.40		X	☐	☒	☐	☐
						☐	☐	☐	☐
						☐	☐	☐	☐

Final location of shoes _____
Top Packer or Headpipe _____ Bottom Tailpipe _____

9. PERFORATIONS/SCREENS
☐ Perforations Method _____
☒ Screens Type Johnson Material PVC

From	To	Slot Size	Number	Diameter	Tele/Pipe Size	Casing	Liner
160	200	.020				☐	☒
						☐	☐
						☐	☐
						☐	☐

FEB 28 1994

10. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Depth	Time
50			2 hrs.

Temperature of water ____ Was a water analysis done? Yes ☐ No ☐
By whom? _____
Water Quality (odor, etc.) _____
Bottom Hole Temperature _____

11. STATIC WATER LEVEL:
91 ft below surface Depth artesian flow found _____
Artesian pressure _____ lb. Describe access port _____
Describe Controlling Devices: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	GPM	SWL
8	0	35	tan clay & soil		
8	35	55	dolomite & pieces of clay		
8	55	200	gray granite		

RECEIVED
DEC 28 1993
Department of Water Resources
Southern Region Office

Date: Started 12/11/93 Completed 12/12/93

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hiddleston & Son, Inc. Firm No 35
Firm Official Ken Koch Date 12-17-93
and
Supervisor or Operator Johnny Smith Date 12/17/93
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

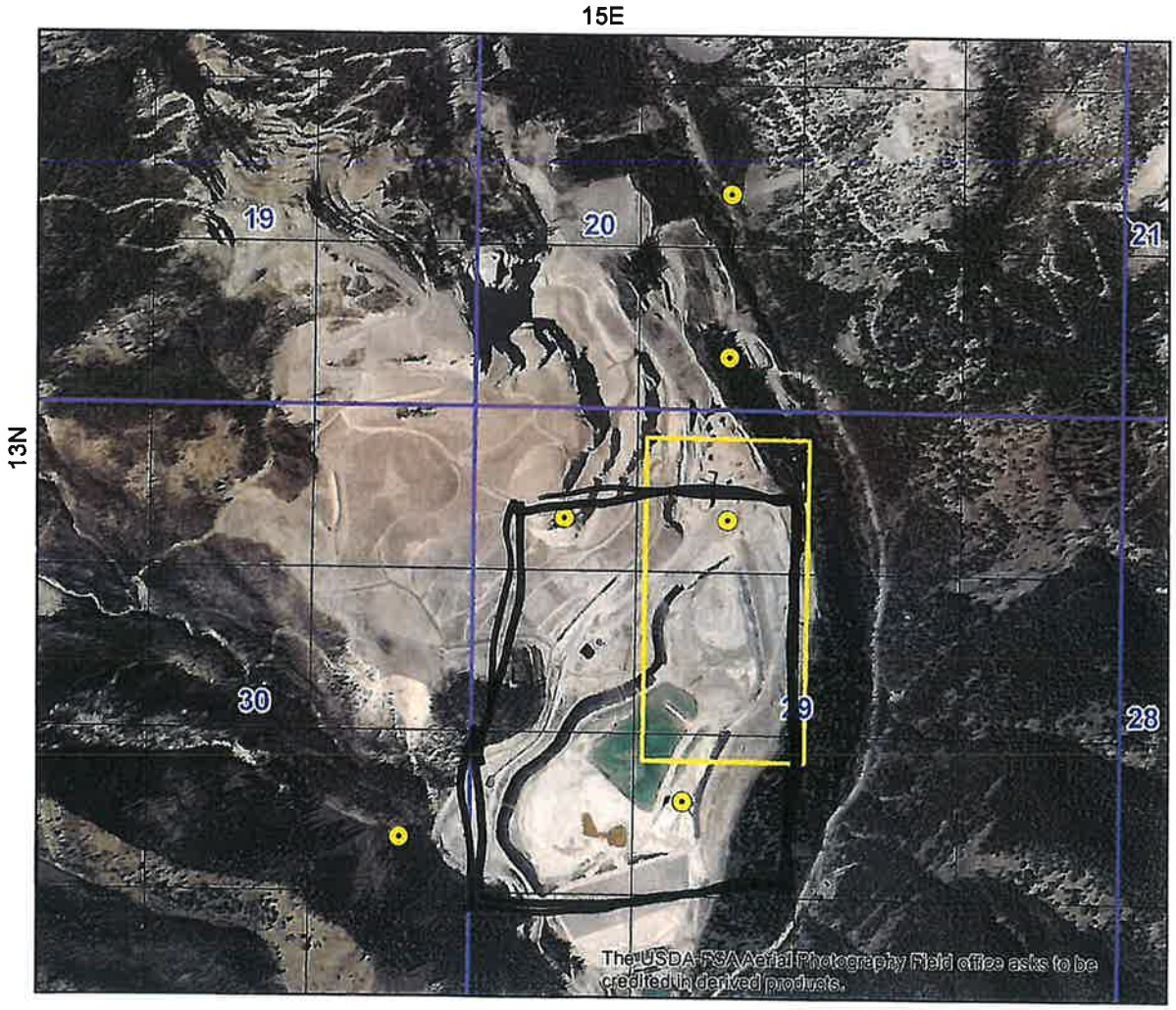
EXHIBIT N

State of Idaho
Department of Water Resources

Permit To Appropriate Water
72-7511

MINING STORAGE

The map depicts the place of use for the water use listed above and point(s) of diversion of this right as currently derived from interpretations of the paper records and is used solely for illustrative purposes. Discrepancies between the computer representation and the permanent document file will be resolved in favor of the actual water right documents in the water right file.



Point of Diversion
Place Of Use Boundary
Townships
PLS Sections
Quarter Quarters

0 0.175 0.35 0.7 Miles

N

Map produced on April 28, 2020