

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

License of Water Right No. 94-7011 Priority March 5, 1970 Amount 0.43 cfs

THIS IS TO CERTIFY, that Callahan Mining Corp.
of Osburn, Idaho, has complied with the terms and conditions of Permit
No. 94-7011 issued pursuant to Application for Permit dated March 5, 1970,
and has submitted proof to the Department of Water Resources on May 12, 1980,
that he has applied water to a beneficial use; an examination by the Department indicates that the works have a
capacity for the diversion of 0.43 cfs of water from Daly Gulch,
tributary to Coeur d'Alene River, South Fork, and that the permit holder has applied to a beneficial use and
established a right to use water as follows:

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
Industrial	from January 1 to December 31	at 0.43 cfs	and 311.3 acre feet
	from to at cfs and		
	from to at cfs and		

(both dates inclusive)

Subject, however, to the condition that no more than 0.43 cfs of water be diverted at any one time, and
that the amount of water so diverted and to which such right is entitled and confirmed is for the purpose
aforementioned and is limited to the amount which can actually be beneficially used and shall not exceed
311.3 acre feet per year, said waters to be diverted within the (2 points) NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section
27; (1 point)NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 33; Twp. 48N, in the County of Shoshone
Rge. 4E

Description and location of place of use:

Twp.	Range	Sec.	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				Totals
			NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	
48N	4E	27									X	X	X	X					
		33	X	X	X	X									X	X	X	X	

Known as Caladay Project.

Total number of acres irrigated _____

Industrial use is mining, domestic, cooling and cleaning of equipment, fire
protection and mineral ore processing.

NOTE: Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho
Code, or the applicable Idaho Law. This right may be forfeited by five years of non-use.

The right to the use of the water hereby confirmed is restricted and appurtenant to the lands or place of use
herein described, and is subject to all prior water rights, as provided by the laws of Idaho.

Witness the seal and signature of the Director, affixed at Boise, Idaho, this 25th day of
April, 19 83.

Acting for the Director

Norman C. Young

94-7011

STATE OF IDAHO

Licensing

RECEIVED

APPLICATION FOR AMENDMENT OF A PERMIT

FEB 28 1983

To change the point of diversion and/or the place of use.

Department of Water Resources

Comes now Callahan Mining Corp. Phone (208) 752-1204

of (address) Box 905, Osburn, ID 83849, and represents to the

Director of the Idaho Department of Water Resources:

That he is the owner and holder of Permit to Appropriate the Public Waters of the State of Idaho

No. 94-7011
45-7090, and requests that the permit and permit map be changed as follows:
(2 points)

1. Point of diversion: NW 1/4 SW 1/4, Section 27, Township 48N, Range 4E, B.M.,
County of Shoshone. Other points of diversion: _____
(1 point) NW 1/4 SW 1/4, Sec. 33, Twp. 48N, Rge. 4E

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)

Amount 0.43 for industrial purposes from 1/1 to 12/31 (both dates inclusive)
(cfs or acre feet per annum)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre feet per annum)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre feet per annum)

Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre feet per annum)

3. Place of use or land to be irrigated:

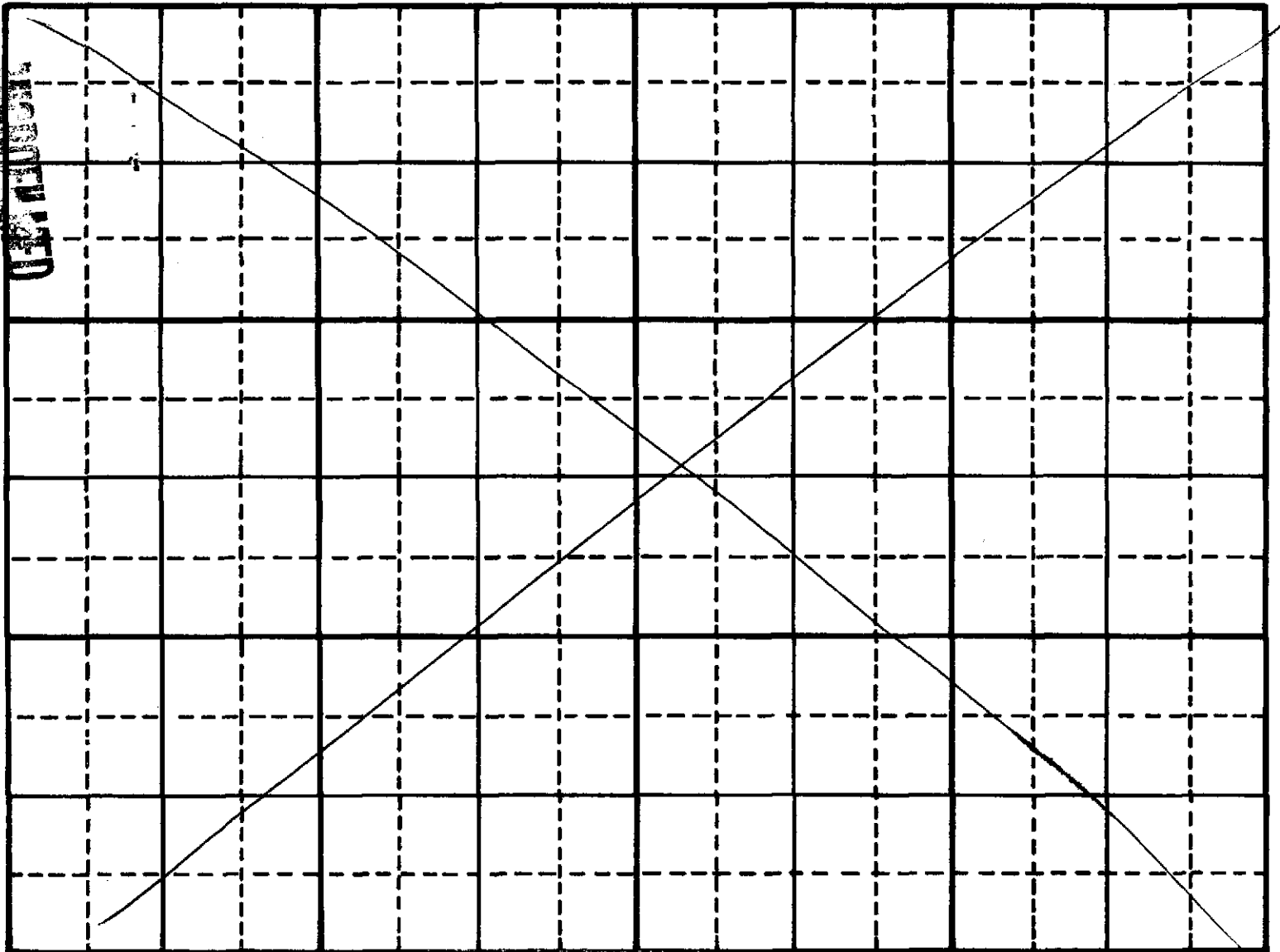
TWP	RGE	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
48N	4E	27									X	X	X	X					
		33	X	X	X	X									X	X	X	X	

Total number of acres to be irrigated = _____

4. a. Who owns the property at the point of diversion? Burlington Northern Railroad
b. Who owns the land to be irrigated or the place of use? Burlington Northern Railroad and Callahan Mining Corporation
c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: A long term lease granting Callahan the rights to the water on the leased property.

Complete the following map by showing land and point of diversion as proposed by this amendment.

Show 40-acre subdivisions, townships, ranges and ditches.



Scale: 2 inches equal 1 mile.

That no one will be injured by such change, and that such change will be made at permit holder's own risk.

Signed at Osburn, Idaho, this 25th day of February, 19 83.

Albert C. Walkup
(Signature)
Albert C. Walkup

FOR DEPARTMENT USE ONLY

Preliminary check by TC Fee = \$20.00

Received by mg Date 3-1-83 #25951

Publication prepared by N/A Date _____

Published in _____

Publication dates _____

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, A. KENNETH DUNN, of the Department of Water Resources hereby

APPROVE the above Application for Amendment of Permit No. 94-7011.

Witness my hand this 25th day of April, 19 83.

Norman C. Young
Acting for the Director

DET

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF CHANGING THE MEASURING
DEVICE REQUIREMENT FOR PERMIT NO. **94-7011**

ORDER

WHEREAS, the above numbered permit was approved with the condition that a measuring device of a type approved by the Department be permanently installed and maintained as part of the diverting works; and,

WHEREAS, on July 1, 1978, the Department adopted a new water measurement condition which states: "An access port or other device as specified by the Department shall be installed by the permit holder to provide for the installation of measuring equipment and the determination of the rate of diversion by the Department"; and,

WHEREAS, the former condition required the permit holder to purchase and install a measuring device or hire a professional engineer to certify the rate of diversion; and,

WHEREAS, the measuring device condition effective July 1, 1978, requires less capital expenditure by the permit holder; and,

WHEREAS, to be equitable to holders of permits issued prior to July 1, 1978, the new condition should be retroactive;

NOW THEREFORE, it is hereby ordered that the condition of approval of this permit related to water measurement is hereby changed as follows: "The permit holder shall either install a measuring device or provide a certified measurement by a professional engineer or install an access port or other device as specified by the Department".

Dated this 18th day of August, 1978.


C. STEPHEN ALLRED
Director

MICROFILMED

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR EXTENSION OF TIME

RECORDED
APR 21 1975
Department of Water Resources

State of Idaho)

County of Shoshone)

Permit No. 94-7011

Callahan Mining Corporation

Caladay Project of P. O. Box 905, Osburn, ID 83849
(name) (address)

State of Idaho, being first duly sworn, upon his oath deposes and says:

That he is the holder, or the duly authorized agent of the holder *, of Permit to Appropriate the Public Waters of the State of Idaho No. 94-7011.

That under the terms and conditions of said permit, work thereunder was required to be completed on or before May 1, 1975.

That he has heretofore performed the following work described under said permit:
Installed collection system as described in supplement to original application for item (1). Additionally, installed measuring basins and V-notch weirs in sources (1) and (2), and installed a 3" Parshall flume in the tunnel listed as source (3). Also installed a wobble disc flow meter in pump system to water tank. *

*See enclosed detail description of measuring devices. Costing \$ 30,000+

That he is unable to complete the remainder of the work within the required time for the following reasons, to-wit: Following the expenditure of \$3.5 million for excavations and capital equipment, the project has been on standby since 1971, awaiting further funding. Successful completion of project will require originally appropriated amount of water.

Wherefore, he asks that the Department of Water Resources extend the time for the completion of obligations under said permit to May 1, 1980.

CALLAHAN MINING CORPORATION

James B. Robison Senior Engineer
(signature) *

Subscribed and sworn before me this 28th day of April, 1975.

seal

Connie Emerson
Notary Public residing at
Osburn

My commission expires 5-7-78

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, A. KENNETH DUNN, Administrator of the Idaho Department of Water Resources, hereby approve the above application for extension of time for Permit No. 94-7011 to May 1, 1980.

Witness my hand this 12th day of May, 1975.

A. Kenneth Dunn
Administrator, Operations Division

* IF OTHER THAN HOLDER, Power of Attorney must be supplied. Forms are available through the Department of Water Resources, State Capitol, Boise, Idaho 83720.

RECORDED

SUPPLEMENT TO APPLICATION FOR EXTENSION OF TIME

Permit No. 94-7011

Description of water flow measurement devices installed on Caladay Project domestic and fire water system.

- (1) South Branch Water Supply. A 90° V-Notch Weir is installed in such a manner that flows are always fully contracted, and measured by reading a porcelain coated staff gauge installed in an upstream measuring pool at a sufficient distance to give a full pool height measurement.
- (2) North Branch Water Supply. Same as in (1) but using a 45° V-Notch Weir.
- (3) Tunnel Water Supply. A 3-inch standard Parshall Flume is installed in the water drainage ditch. This flume operates under submerged flow conditions. Water levels on the upstream (H_a) and throat (H_b) measurement points are read from porcelain staff gauges installed in stilling wells, and submerged flow corrections are made according to tables listed in the U. S. Department of Interior, Bureau of Reclamation, "Water Measurement Manual". For long-term use on this flume, when it is possible to lower the downstream ditch and run under free discharge rates, a Stevens 7 day clock recorder (which is on hand) will be used to monitor H_a flows. The seven day charts are calibrated for use with the flume.

Additionally we have installed a wobble disc meter on our pump supply line to the 50,000 gallon tank, to record water flows currently diverted for standby fire protection, and use of sanitary facilities by the watchman at the project.

RECORDED

Identification No. 94-7011

Application No. _____

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
APPLICATION FOR PERMIT

APPROVED

To Appropriate the Public Waters of the State of Idaho
(TYPE OR PRINT IN INK)

1. Name of applicant Callahan Mining Corporation, Caladay Project
post office address Box 905, Osburn, Idaho 83849
2. Source of water supply 2 unnamed creeks and mine tunnel which is a tributary of South Fork of the Coeur d'Alene River
3. a. Location of point of diversion is NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 27 Township 48N
Range 4E B.M. Shoshone County; additional points of diversion if any: (3 points)
- b. If water is not consumed, it will be discharged into same unnamed creeks at a point in NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 27 Township 48N Range 4E B.M. Shoshone County
4. Water will be used for the following purposes:
Amount 2.79 ^{cfs} for industrial purpose from January 1 to December 31 ^{Annually} (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purpose from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purpose from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
5. Total quantity to be appropriated: 2.79 cfs
a. see supplement, Par cubic feet per second and/or
b. _____ acre feet per annum.
6. Proposed diverting works:
a. Description of ditches, flumes, pumps, headgates, etc. (see supplement) A catchment basin in creek impounds several feet of water for gravity pipe flow to a 1,000 gallon pump sump box. Water is pumped from box to a 50,000 gallon tank, from which point it flows by gravity pipeline to the point of use.
b. Height of storage dam N.A. feet, active reservoir capacity _____ acre feet; total reservoir capacity _____ acre feet, materials used in storage dam: _____
Period of year during which storage will occur _____ (Mo. Day) to _____ (Mo. Day) inclusive.
c. Proposed well diameter is N.A. inches; proposed depth of well is _____ feet.
7. a. Time required for the completion of the works and application of the water to the proposed beneficial use is 5 years.
b. Estimated construction cost is \$ 30,000.
8. Description of proposed uses:
a. If water is **not** for irrigation:
(1) Give the place of use of water: NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 27 Township 48N
Range 4E B.M.
(2) Amount of power to be generated: None hp under _____ feet of head.
(3) List number of each kind of livestock to be watered None
(4) Name of municipality to be served None, or number of families to be supplied with domestic water None.
(5) If water is to be used for other purposes describe: Industrial consumption for mining purposes including, but not limited to; shower and drinking use; cooling and cleaning of equipment; drilling; fire protection; and processing of mineral ores and waste.

94-7011

b. If water is for irrigation, indicate acreage in each subdivision in the tabulation below:

TWP.	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
	N.A.																		

Total number of acres to be irrigated _____

c. Describe any other water rights used for the same purposes None

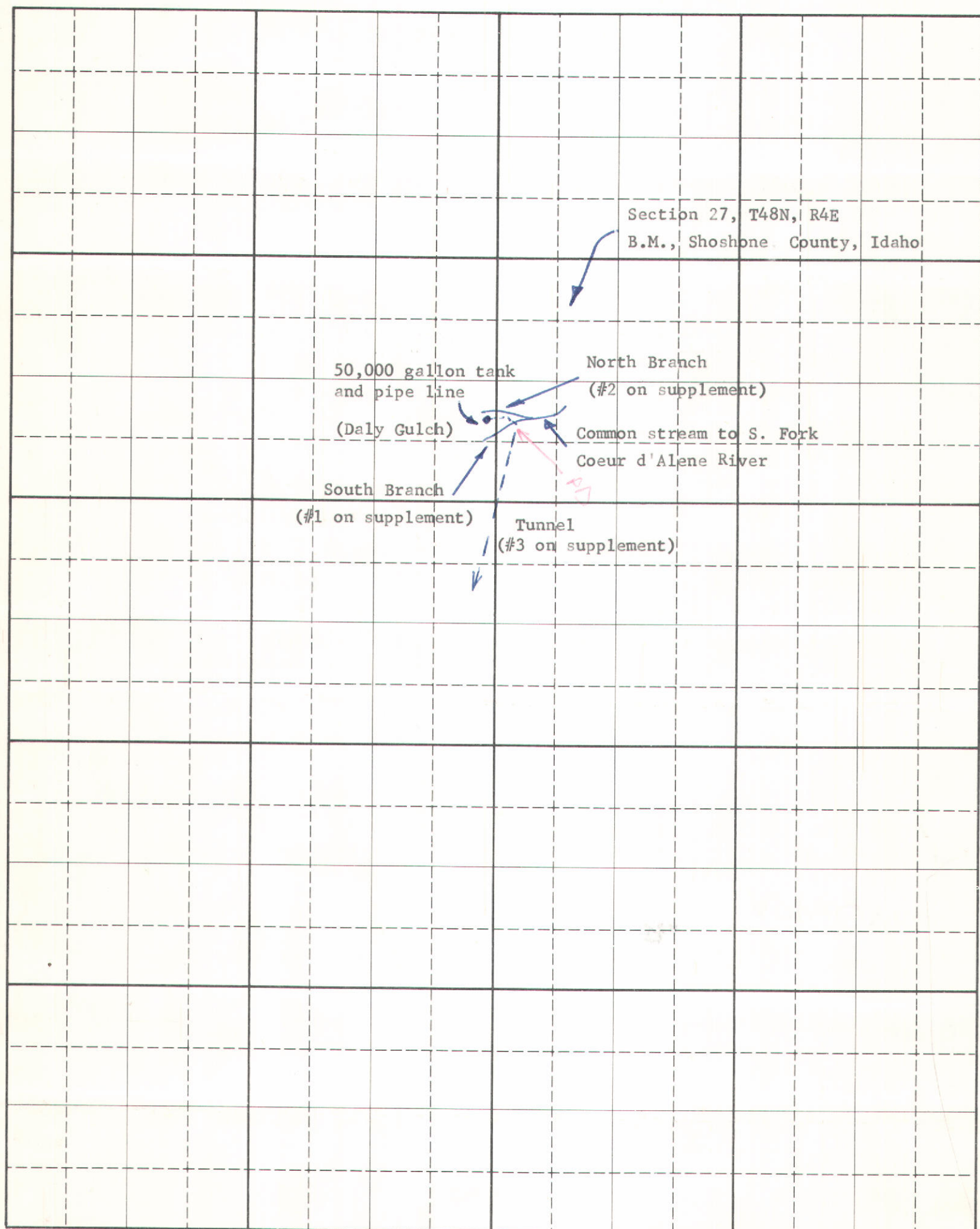
9. a. Who owns the property at the point of diversion Northern Pacific Railway Company

b. Who owns the land to be irrigated or place of use " " " "

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing A lease arrangement with the Northern Pacific Railway Co. enables the applicant to develop, and utilize water on the leased ground.

10. Remarks See supplement to this application

11. Map of proposed project:



Scale: 2 inches equal 1 mile

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

CALLAHAN MINING CORPORATION

BY Harold J. Schell

(Applicant) Vice President

94-7011

3-5-70 9:00 a.m.
Received by [Signature] Date 2-19-70 Time 8:00 a.m.
Preliminary check by [Signature] Fee \$ 30.00
Receipted by [Signature] Date 3-5-70
Publication prepared by [Signature] Date 3-25-70
Published in North Idaho Press
Publication dates 4-2-9-70
Publication approved [Signature] Date 4-21-70
Priority reduced to _____ Reason _____

Protests filed by: _____

Copies of protests forwarded by _____
Hearing held by _____ Date _____
Recommended for approval denial by [Signature]

APPROVED

ACTION OF STATE RECLAMATION ENGINEER

This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. 94-7011, and said application is hereby APPROVED.

1. Approval of said application is subject to the following limitations and conditions:

- a. SUBJECT TO ALL PRIOR WATER RIGHTS.
- b. Proof of construction of works and application of water to beneficial use shall be submitted on or before May 1, 1975.
- c. Other: The permit holder shall permanently install and maintain measuring devices of a type approved by the department as part of the diverting works. That adequate treatment of the return water be made to insure that the effluent meets intrastate stream water quality standards.

2. Denial of said application is for the following reasons: _____

Witness my hand this 1st day of May 19 70.

[Signature]
State Reclamation Engineer

Supplement -- Callahan Mining Corporation
Application for Public Water Appropriation

It is the intent and purpose of this application to file upon certain water sources in the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec. 27, T48N, R4E, B.M., Shoshone County, Idaho. A description of diversion works, constructed and proposed, is included here below:

- (1) In the south branch of an unnamed creek in Daly Gulch, at an elevation of approximately 3,060 feet, a concrete dam approximately 14 feet long by 4 feet high has been placed across the creek branch to form a small catchment basin. Water flows from this basin by gravity head to an approximate 1,000 gallon capacity concrete holding tank, with overflow from the tank returning to the same stream. Underflow from this tank flows by gravity head to a pump building, from which point it travels by buried 4-inch line approximately 850 feet north and west to a 50,000 gallon wood stave tank. Water flows by return pipe buried adjacent to such 4-inch line to the Caladay Project camp area (point of diversion) where it is used as noted in the application. A second return pipe line, 8" diameter, also buried adjacent to the above lines, supplies water to the camp fire protection system.

The wood stave tank, approximately 250 feet higher in elevation than the diversion point, is located on land whose surface rights are owned by Silver Buckle Mining Company and which company has granted to Callahan permission to construct, use, and maintain an access road, tank, and pipe lines.

The water at the diversion point is on land leased by Callahan from the Northern Pacific Railway Company, which lease grants to Callahan the right to use the water rights involved.

Present developed capacity of this creek is a flow of 50 U.S. gallons per minute.

- (2) A second unnamed branch of the same stream, located immediately to the north of the first, also flows through Northern Pacific land leased to Callahan. It is anticipated that as project water demands increase, a catchment basin will be constructed across this creek, and the impounded water will be pumped by a pipeline to the holding tank listed in (1), thence into the consumption system. Changes to the system in (1) as required to handle this increased flow will be made at that time.
- (3) A third source of water is that flow issuing from the mouth of the tunnel constructed by Callahan Mining Corporation in this same $\frac{1}{4}$ section, and bearing approximately S 15 degrees W. Water issuing from this tunnel includes return water from the source listed in (1) and piped into the tunnel, and natural ground water flow into the tunnel. It is anticipated that when project demands so require, this water will be made available for use, especially cooling of equipment and processing of rock materials, through the installation of suitable holding, processing, and diversion works.

94-7011

(continued)

-2-

Presently, unused water from sources (1) and (2) is allowed to flow through the Caladay site via 36-inch diameter metal culvert pipe, thence to return to the creek bed. Water from the tunnel is allowed to percolate through camp waste dump rock and fill, and thence to the Daly Gulch creek bed.

The quantity of water available for appropriation is unknown, as no records of stream flow have been located. In spring run-offs it is anticipated that flows could exceed 3 to 4 cubic feet per second, and in dry parts of the year this flow could be reduced practically to zero. It is the applicant's intent to file on all of the free and unappropriated water in the streams and tunnel, with unused excess returned to the stream bed as noted above. It is anticipated that the water required will be 1,250 gallons per minute (2.79 cfs). This is the basis for filing on the total flow of free and unappropriated water. ✓

As a part of this application it is intended that the rights granted to Callahan Mining Corporation may be at some future date transferred or assigned to the Caladay Silver Mining Corporation without reapplication for permit to appropriate the public waters involved.

94-7011

DEPARTMENT OF RECLAMATION

STAFF ANALYSIS

Application No. 94-7011 Name Callahan Mining Corp.

Source 2 unnamed creeks and mine tunnel portal in Daly Gulch

Point of Diversion NW 1/4 SW 1/4, Sec. 27, T. 48N, R. 4E, B.M., Shoshone County
(3 points)

Quantity 2.79 Use industrial Period Jan. 1 - Dec. 31

Quantity _____ Use _____ Period _____

Quantity _____ Use _____ Period _____

Well Size _____ Diameter _____ Proposed Depth _____ Feet

Use SEE ATTACHED FILE

Date Forwarded 3-16-70 Date Returned 3-17-70 Received by Judy

RECOMMENDATIONS:

Comments should be requested from Dept. of Health. Under items 2 & 3 of supplemental sheet the appropriation appears to be speculation. Applicant should be asked to substantiate estimated construction schedule and more describe use and need for water. Applicant admits that a portion of water is to use it at some undetermined future date. Intent seems to be to prevent subsequent appropriation.

Qty. _____ Use _____ Period _____ AF _____ AFA _____

Qty. _____ Use _____ Period _____ AF _____ AFA _____

Qty. _____ Use _____ Period _____ AF _____ AFA _____

ACTION: Approved ☒ Denied _____

Conditions of approval or reason for denial: Recommend

no action until supplemental info. submitted, or partial denial with approval only of that system described under item 1. 50 gpm = 0.11 CFS. Subject for construction of waste treatment facilities approved by Dept. of Health.

ENGINEER IN CHARGE

By C. L. Dunn

Title Asst. Engr

Date 3-16-70

Condition permit to require that applicant meet the minimum treatment and effluent requirements of the Idaho Dept. of Health.

Applicant should be asked to substantiate estimated construction schedule and more describe use and need for water. Applicant admits that a portion of water is to use it at some undetermined future date. Intent seems to be to prevent subsequent appropriation.

94-7011

4-27-70

DEPARTMENT OF RECLAMATION

STAFF ANALYSIS

Application No. <u>94-7011</u>		Name <u>Callahan Mining Corp.</u>	
Source <u>2 unnamed creeks and mine tunnel portal in Daly Gulch</u>			
Point of Diversion <u>NW 1/4 SW 1/4, Sec. 27, T. 48N, R. 4E, B.M., Shoshone County</u> (3 points)			
Quantity <u>2.79</u>	Use <u>industrial</u>	Period <u>Jan. 1 - Dec. 31</u>	
Quantity _____	Use _____	Period _____	
Quantity _____	Use _____	Period _____	
Well Size _____	Diameter _____	Proposed Depth _____	Feet _____
Use <u>SEE ATTACHED FILE</u>			
Date Forwarded <u>3-20-70</u>		Date Returned <u>3-23-70</u>	Received by <u>DW</u>

RECOMMENDATIONS: Point of DIVERSION is AT WALLACE IDAHO. No flow measurements available. Tone of application indicates speculation. Documents in the form of plans and contracts should be submitted by the applicant to establish a need for the water.

Qty. _____	Use _____	Period _____	AF _____	AFA _____
Qty. _____	Use _____	Period _____	AF _____	AFA _____
Qty. _____	Use _____	Period _____	AF _____	AFA _____

ACTION: Approved _____ Denied _____

Conditions of approval or reason for denial: FURTHER justification is required for appropriating an amount greater than 0.11 cfs that is already being used.

INVESTIGATION By Norman C. Young Title WR. I II
Date 3-23-70

94-7011

RECEIVED

JUL 1 1982

State of Idaho
DEPARTMENT OF WATER RESOURCES
FIELD REPORT

S Department of Water Resources

94-7011

Permit No. _____

CONTACT WITH PERMIT HOLDER

	DATE	INITIALS	REMARKS
☐ Appointment letter mailed:	<u>9-16-80</u>	<u>JK</u>	^① <u>752-7011 / 752-1204 / Doug England</u>
	<u>9-17-80</u>	<u>JK</u>	<u>Appt. @ office - Pump not working</u>
☐ Telephone call made:	<u>1-12-81</u>	<u>JK</u>	<u>D.E. @ Mine - call back</u>
(List Telephone No. used)	<u>5-27-81</u>	<u>JK</u>	^② <u>556-6811 - Mine</u>
☐ Appointment scheduled for:			
(Date, time, location)			

EXAMINATION

Date 5-25-1983 Accompanied by Doug England Total Q measured 0.43 cfs
If source is surface water, estimate total flow of source #1 - 0.5 cfs / #2 - 0.3 cfs / #3 - 1.0 cfs
Methods of measurement Gauger / Flood indicator Meets Permit requirements? Yes

Measurement calculations: Tank capacity $NR^2H = 7238.25 \text{ cf}$ & $NR^2 = 452.39 \text{ cf/ft.}$

Efficiency

#1 $2 \left(\frac{8.8(7.5)70\%}{2.33(200)+250} \right) = 0.13 \text{ cfs}$ } Flood indicator
#1 w/ one pump;
Indicator moved 0.06 in 5 min

#2 $\frac{8.8(10)70\%}{2.33(200)+250} = 0.08 \text{ cfs}$ } $\frac{0.06(452.39)}{5} = \frac{5.42}{60} = 0.09 \text{ cfs}$
Efficiency @ 2 pumps & one pump

#3 $\frac{8.8(25)70\%}{2.33(200)+250} = 0.43 \text{ cfs}$

SEE ATTACHED

SEE ATTACHED

WELL/DIVERSION* NO.	HP	MOTOR MAKE	MOTOR SERIAL NO.	PUMP MAKE	PUMP SERIAL NO.	MEASURING DEVICE TYPE	CONDITION OF MEAS. DEV.	REMARKS
1	7.5/7.5	2/5	5K1841157	Pacific	11631818	Gamon Calnet	Broken	Doty Creek
2	10	2/5	60-07413 -773	AURORA	780-7456			unpaved stream
3	2.5	4/5	R3577-05-564	"	7X0-71457			

System Description Four pumps with pipeline to 7238.25 cfs storage tank then to places of use (see ATTACHED) Diagram

*Code with map on reverse side. Disregard code if only one.

RECOMMENDED AMOUNTS

Irrigation requirement = AFA/Acre

USE

Q (cfs)

V (afa)

FROM

TO

Industrial

0.43

311.31

1.1

12-31

~~Domestic~~

0.07

1. 2

2.2

12-37

~~Land Protection~~



STUDY

1-2

12-34

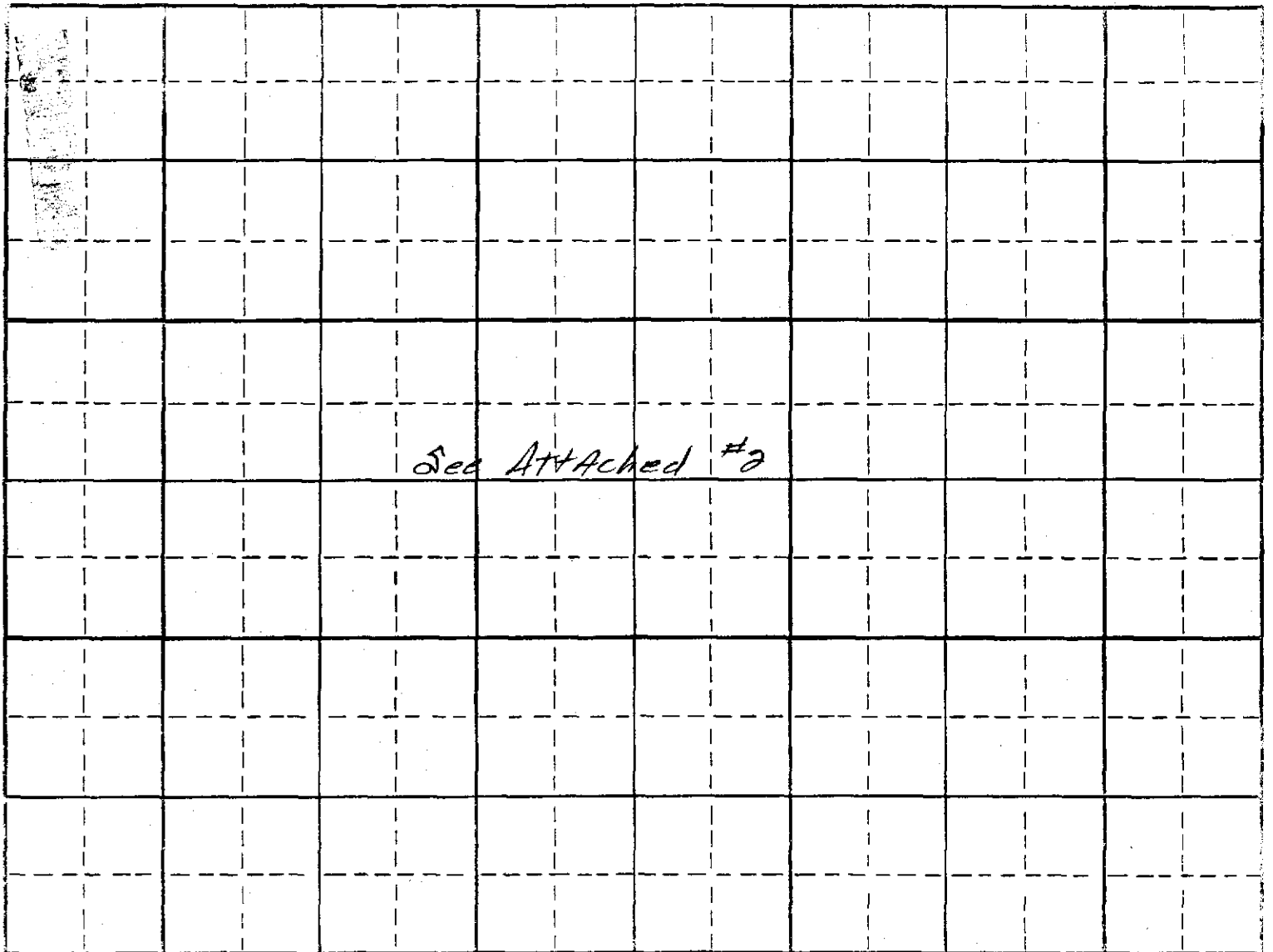
N/A

Total

0.43

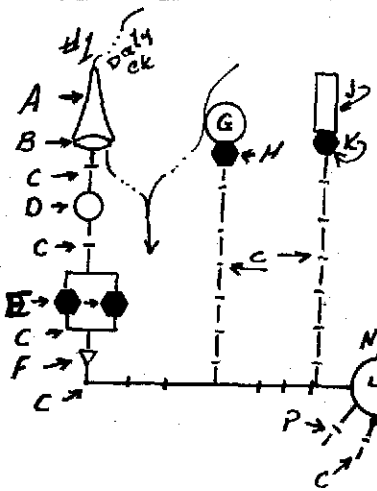
311.37

Remarks



SCHEMATIC DIAGRAM OF SYSTEM

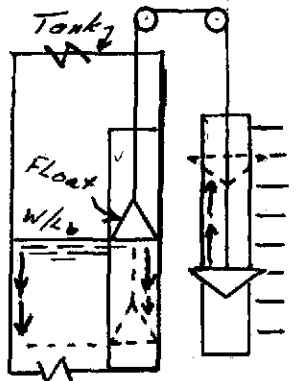
(Include distance from pump to measuring device, if applicable.)



- A. 10ft Dia. Pond X 4ft
- B. 14'X4'X8" Conc. Dam
- C. 4" pipe
- D. 8'X8'X8' Conc Tank
- E. 2, 7.5 HP Motors
- F. Flow Meter
- G. 4' Dia. Conc Rings installed Vert. 8' depth
- H. 10 HP pump
- J. Excavated pond 6'X8'X10'
- K. 25 HP pump
- L. Wooden Sump Tank 12'R, 16'H.
- M. Rockwell Meter
- N. Calibrated Mechanical Float Indicator
- P. 8" pipe to Fire Mains

Calibrated Mechanical Float Indicator

As Water level in tank lowers float descends causing weighted indicator to rise and vice versa



Point(s) of diversion:

2 points within NWSW Sec 27, and one within the NWSW Sec 33, T 48N, R 4E

Place(s) of Use

TWP.	RGE.	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
48N	4E	27									X	X	X	X				(MS-3348)	
		33	X	X	X	X									X	X	X	X	

Recommended Amendments:

- ☒ Change P.D. as reflected above
- ☒ Change P.U. as reflected above

- ☐ Add P.D. as reflected above
- ☐ Add P.U. as reflected above

☐ None

☒ Other **NATURE OF USE**

No Amendment Needed Per REC.M.T.

Examiner's Signature

Checked by

Approved by

Date 5-27-82

Date 6/22/82

Date 2-16-83

Supplemental

Wooden Stave Tank

Circum. = 75' $R = 12'$ $H = 16'$

$A = \pi R^2 = \underline{452.39}$ cubic feet per foot $\pi R^2 H = 7238.25$ Total Capacity

Measurements & Calculations to check CMFI

P.D. #1 with one 7.5 H.P. @ 120 psi

A) Calibrated Mechanical Float Indicator $\frac{x(\text{CMFI}) 0.06 \text{ ft}}{5 \text{ min}} \therefore$
 $\frac{0.06(452.39)}{300} = \underline{0.09 \text{ cfs}}$

B) Rockwell Flow Meter $\frac{5.5}{5 \text{ min}} \therefore \frac{5.5}{300} = 0.02 + 0.09 = \underline{0.11 \text{ cfs}}$
 (Flow meter measures water leaving tank)

C) Efficiency $\frac{8.8(7.5)\text{E}}{2.33(120)+250} = 0.11 \therefore \frac{66\text{E}}{529.6} = 0.11 \therefore \text{E} = \frac{52256}{66} = 88\%$

D) Pump rated at 50 gpm

MEASUREMENT

~~With~~ With all pumps @ 200 psi

A) CMFI $\frac{0.27}{5 \text{ min}} \therefore \frac{0.27(452.39)}{300} = \underline{0.41 \text{ cfs}}$

(CALIBRATED MECHANICAL FLOAT INDICATOR) SEE DIAGRAM

B) RFM $\frac{5.5}{5 \text{ min}} \therefore \frac{5.5}{300} = \underline{0.02 \text{ cfs}}$ $0.02 \text{ cfs} + 0.41 \text{ cfs} = \underline{0.43 \text{ cfs}}$

C) Efficiency

→ #1) $2 \left(\frac{8.8(7.5) 70\%}{2.33(200)+250} \right) = \underline{0.13 \text{ cfs}}$

#2) $\frac{8.8(1.0) 70\%}{2.33(200)+250} = \underline{0.08 \text{ cfs}}$

#3) $\frac{8.8(25) 70\%}{2.33(200)+250} = \underline{0.22 \text{ cfs}}$

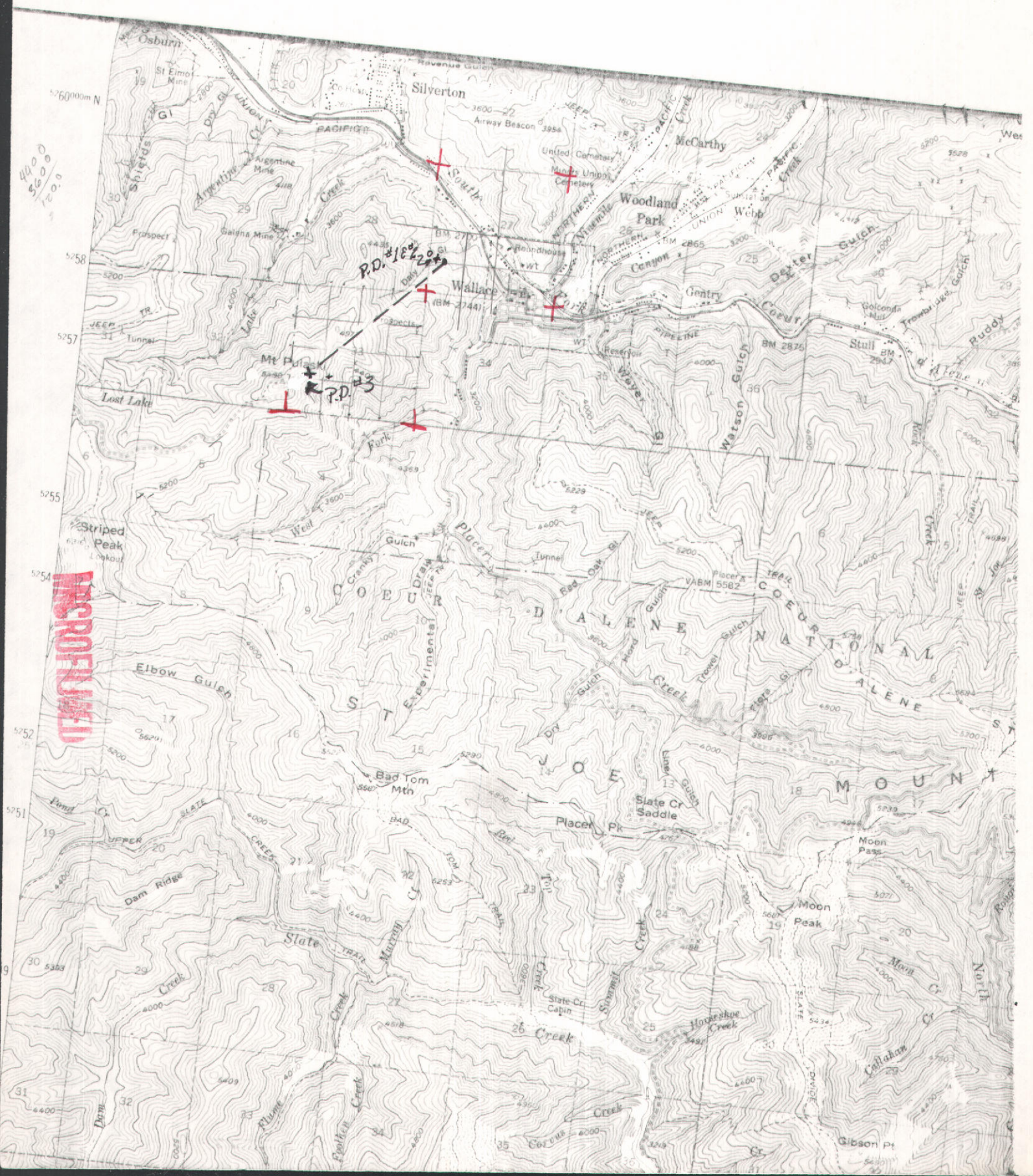
$0.13 + 0.08 + 0.22 = \underline{0.43 \text{ cfs}}$

D) AFA

$0.43 (1.7835) 365 = \underline{278.31 \text{ AFA}}$

2 pumps
MICROFILMED

94-7011
#2



- Showers
- Wash basins
- Commodes
- drinking fountains
- Drills
- Presses

8" perforated pipe 30' inspection for 4510hp #20-07413-875 #Arora
3" line to wood stave tank
wood storage
Sand info on sep

Supplement -- Callahan Mining Corporation
Application for Public Water Appropriation

It is the intent and purpose of this application to file upon certain water sources in the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec. 27, T48N, R4E, B.M., Shoshone County, Idaho. A description of diversion works, constructed and proposed, is included here below:

- 9E 7.5
#6E
Pacific
Rwy no II
- (1) #2 In the south branch of an unnamed creek in Daly Gulch, at an elevation of approximately 3,060 feet, a concrete dam approximately 14 feet long by 4 feet high has been placed across the creek branch to form a small catchment basin. Water flows from this basin by gravity head to an approximate 1,000 gallon capacity concrete holding tank, with overflow from the tank returning to the same stream. Underflow from this tank flows by gravity head to a pump building, from which point it travels by buried 4-inch line approximately 850 feet north and west to a 50,000 gallon wood stave tank. Water flows by return pipe buried adjacent to such 4-inch line to the Caladay Project camp area (point of diversion) where it is used as noted in the application. A second return pipe line, 8" diameter, also buried adjacent to the above lines, supplies water to the camp fire protection system.

The wood stave tank, approximately 250 feet higher in elevation than the diversion point, is located on land whose surface rights are owned by Silver Buckle Mining Company and which company has granted to Callahan permission to construct, use, and maintain an access road, tank, and pipe lines.

The water at the diversion point is on land leased by Callahan from the Northern Pacific Railway Company, which lease grants to Callahan the right to use the water rights involved.

Present developed capacity of this creek is a flow of 50 U.S. gallons per minute.

- (2) A second unnamed branch of the same stream, located immediately to the north of the first, also flows through Northern Pacific land leased to Callahan. It is anticipated that as project water demands increase, a catchment basin will be constructed across this creek, and the impounded water will be pumped by a pipeline to the holding tank listed in (1), thence into the consumption system. Changes to the system in (1) as required to handle this increased flow will be made at that time.
- (3) A third source of water is that flow issuing from the mouth of the tunnel constructed by Callahan Mining Corporation in this same $\frac{1}{4}$ section, and bearing approximately S 15 degrees W. Water issuing from this tunnel includes return water from the source listed in (1) and piped into the tunnel, and natural ground water flow into the tunnel. It is anticipated that when project demands so require, this water will be made available for use, especially cooling of equipment and processing of rock materials, through the installation of suitable holding, processing, and diversion works.
- 94-7011

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(continued)

-2-

Presently, unused water from sources (1) and (2) is allowed to flow through the Caladay site via 36-inch diameter metal culvert pipe, thence to return to the creek bed. Water from the tunnel is allowed to percolate through camp waste dump rock and fill, and thence to the Daly Gulch creek bed.

The quantity of water available for appropriation is unknown, as no records of stream flow have been located. In spring run-offs it is anticipated that flows could exceed 3 to 4 cubic feet per second, and in dry parts of the year this flow could be reduced practically to zero. It is the applicant's intent to file on all of the free and unappropriated water in the streams and tunnel, with unused excess returned to the stream bed as noted above. It is anticipated that the water required will be 1,250 gallons per minute (2.79 cfs). This is the basis for filing on the total flow of free and unappropriated water.

As a part of this application it is intended that the rights granted to Callahan Mining Corporation may be at some future date transferred or assigned to the Caladay Silver Mining Corporation without reapplication for permit to appropriate the public waters involved.

RECORDED

94-7011

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
REQUEST FOR EXTENSION OF TIME

RECEIVED

MAR 26 1980

To provide additional time in which to submit
proof of beneficial use on a water right permit

Department of Water Resources

Callahan Mining Corp. - Caladay Project of P. O. Box 905 - Osburn, Idaho 83849
(Name) (Address)

State of Idaho, deposes and says:

That he is the holder, or the duly authorized agent of the holder*, of Permit to Appropriate the Public
Waters of the State of Idaho No. 94-7011.

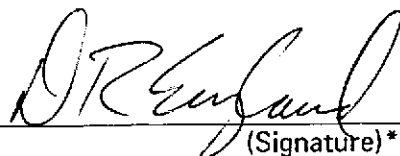
That under the terms and conditions of said permit, work thereunder was required to be completed on or
before May 1, 19 80.

That he has heretofore performed the following work described under said permit: Installed collection system
as described in supplement to original application for item (1). Additionally, installed
measuring basins and V-notch weirs in sources (1) and (2), and installed a 3" Parshall
flume in the tunnel listed as source (3). Also installed a wobble disc flow meter in
in pump system to water tank. *

* See original application for extension of time dated 5/28/75 Costing \$ 30,000.00

That he is unable to complete the remainder of the work within the required time for the following
reasons, to-wit: Project has recently been re-activated after being on stand-by since 1971.
It is Callahan's intention to complete all work required in the original permit,
however more time will be needed. Successful completion of the project will require
originally appropriated amount of water.

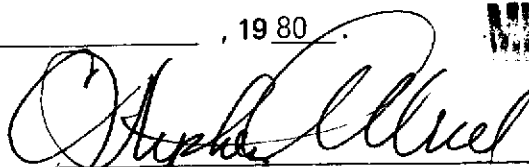
Wherefore, he asks that the Department of Water Resources extend the time for the completion of
obligations under said permit to May 1, 19 81.


(Signature)*

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

IT IS HEREBY ORDERED that the above application for extension of time be DENIED pursuant to
Section 42-204, Idaho Code, which states that a permit holder may only be granted
one extension of time.

Signed this 21 day of April, 19 80.


C. STEPHEN ALLRED
Director

MICROFILMED

CALADAY PROJECT
CALLAHAN MINING CORPORATION

P. O. BOX 965
OSBURN, IDAHO 83849

April 22, 1970

Mr. Arthur W. Vant Hul
Public Health Engineer
Idaho Department of Health
1226 F. Street
Lewiston, Idaho 838501

Dear Mr. Vant Hul:

Since our telephone conversation yesterday, I have prepared a small sketch showing water disposal systems at the Caladay Project. A copy of this sketch is enclosed.

Let me amplify the sketch by pointing out the following items:

- (1) Main stream flow through the camp is via a 36-inch diameter corrugated metal culvert pipe. It is anticipated that this pipe will be extended beyond its present length as the dump is extended.
- (2) The dry well from the warehouse handles very occasional wash water from the floors, but never sewage.
- (3) Our dryhouse (shower and toilets) has two water disposal systems. System A (500 gallon septic tank) handles only shower water. The tank is for settlement of suspended solids. System B handles toilet drain flow, and wash basin water. It was felt desirable to build the system this way to prevent excessive flushing of active matter from the sewage system by shower flows. Both of these systems flow through about 80 feet of asphalt coated steel pipe to a gravel dry well. Incidentally, both systems were plumbed up to the tank by a local plumber. I personally supervised installation of the drain pipe.
- (4) Mine discharge drain water, presently in the range of 30 gpm, drains into our fill dump material. Several hundred lineal feet of this material lies downstream of the dump point.

Let me again state that Caladay presently has no plans for disposal of mill tailings, since we are an exploration project, and have no projected mill.

I would like to state, however, that it is our intent to comply with water pollution control regulations. I would welcome your visit when you are in the area, to help me understand just what regulations I will be looking at should we eventually expand our operation.

Should you need further information, or wish to inspect our facilities, please do not hesitate to call me.

Very truly yours,

James B. Robinson
April 23, 1970
James B. Robinson, P.E.
Project Engineer

94-7011

cc: A. Hull - C. Snead, Jr.
Encl.

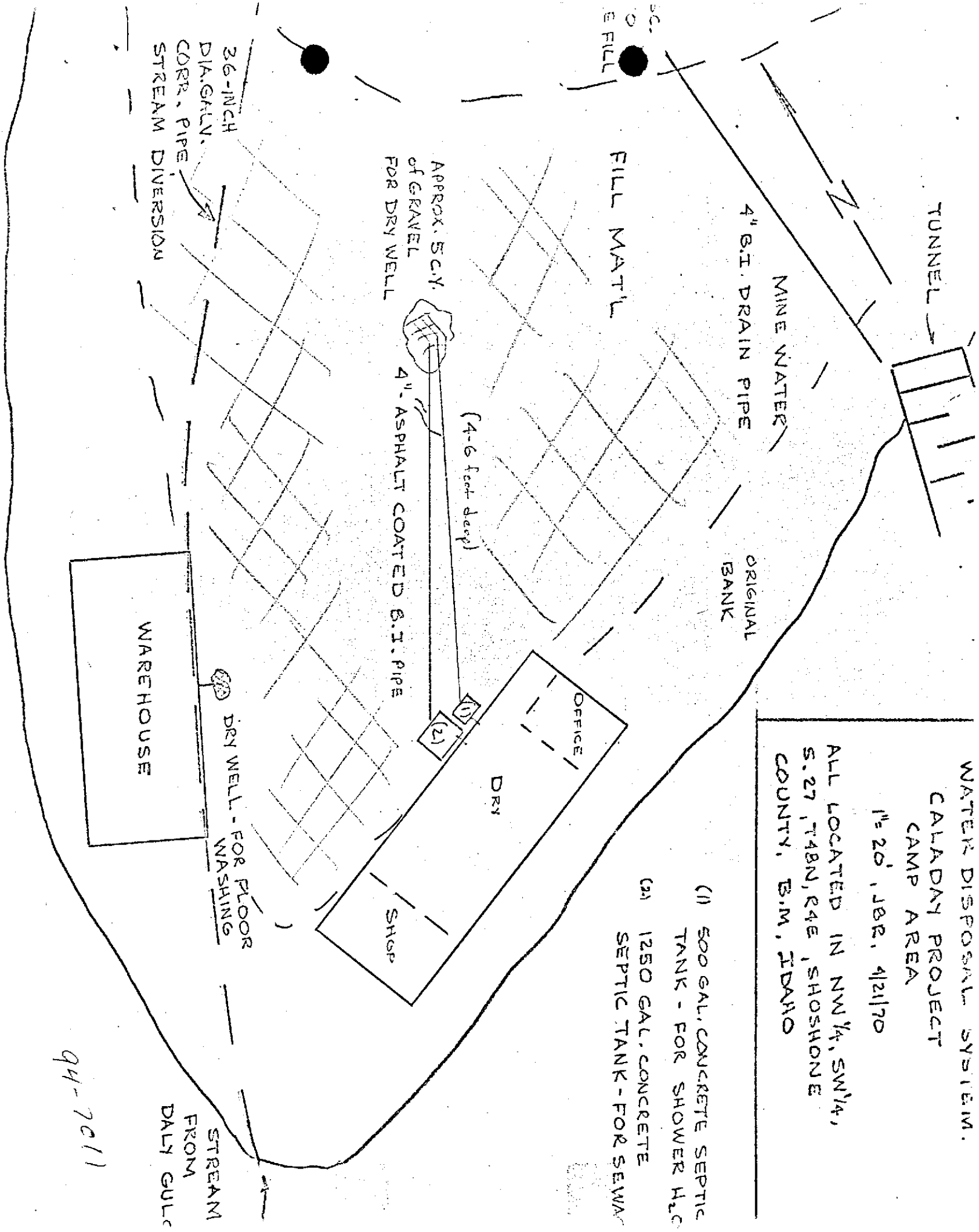
WATER DISPOSAL SYSTEM.

CALADAY PROJECT CAMP AREA

1st 20', JBR, 4/21/70

ALL LOCATED IN NW 1/4, SW 1/4,
S. 27, T48N, R4E, SHOSHONE
COUNTY, B.M., IDAHO

- (1) 500 GAL. CONCRETE SEPTIC
TANK - FOR SHOWER H₂O
- (2) 1250 GAL. CONCRETE
SEPTIC TANK - FOR SEWA



94-7011

CALADAY PROJECT
CALLAHAN MINING CORPORATION
P. O. BOX 905
OSBURN, IDAHO 83849

April 7, 1970

Mr. C. Stephen Allred
Deputy State Reclamation Engineer
State of Idaho
Department of Reclamation
Statehouse - Annex 2
Boise, Idaho 83707

Dear Mr. Allred:

In reply to your letter of March 25, 1970 re our application for Permit No. 94-7011, I should like to state to you in writing the basis for our application. Please understand that Caladay Project is an exploratory venture, and we do not have any known reserves for calculation of water required for mineral processing. On the other hand, orderly development of our property, should we locate ore reserves, will require that we have established the availability of a certain quantity of water. Because we have no better information to use, we have assumed in our calculations that we might hope to develop a mine comparable in size to the Galena mine owned by Callahan and operated by American Smelting and Refining Co. This mine bounds our property on the West.

- | | |
|---|-------------------------------|
| (1) Showers and domestic use, 250 employees, at approximately 15 gallons/employee/day | 3 gpm |
| (2) Underground use, rock drills, 160 gpm, diamond drills, 40 gpm, pump packing glands, 50 gpm. | 250 gpm |
| (3) Cooling of equipment | |
| Compressed air aftercoolers, 10,000 cfm air @ 20 gpm water/1000 cfm | 200 gpm |
| Hoist and related electrical facilities, 300 gpm (2700 HP hoist installation) | <u>300 gpm</u> <u>500 gpm</u> |
| Total: 1, 2, & 3 | 753 gpm |

(4) Processing of rock. Assume 800 tpd concentrator. Crush and grind (wet) a siliceous-carbonate ore containing tetrahedrite, to recover tetrahedrite by selective froth flotation. Lead and zinc sulfides might be recovered in 2 separate flotation circuits, if present and economic.

Water would probably be recovered from concentrates by combination of underflow thickeners and filters, for reuse as much as practical.

94-7011

NOTICE OF APPLICATION FOR PERMIT

TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF IDAHO

Notice is hereby given that Callahan Mining Corp., Caladay Project,
Box 905, Osburn, Idaho, has on March 5, 1970,
submitted Application No. 94-7011 to appropriate the public waters of
two unnamed creeks and mine tunnel portal in Daly Gulch, tributary of S. Fork of the
~~The proposed uses are~~ Coeur d'Alene River.

The application proposes a maximum diversion and appropriation of 2.79
cubic feet per second ~~acre feet~~ of water to be diverted by pump and pipe
within the NW $\frac{1}{4}$ SW $\frac{1}{4}$ (3 points)
of Sec. 27, T. 48N, R. 4E, B.M., Shoshone County,

and is to be used within the NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 27, T. 48N, R. 4E, B.M. for industrial
purposes from January 1 to December 31

Any permit issued pursuant to this application will be subject to ALL PRIOR
WATER RIGHTS and subject to the CONTROL OF A STATE WATERMASTER. Any protest
against this application must be filed with the Idaho Department of Reclamation on
or before April 20, 1970.

R. KEITH HIGGINSON

State Reclamation Engineer

Published in the North Idaho Press, Wallace, Idaho,
on April 2 and April 9, 1970.

94-7011