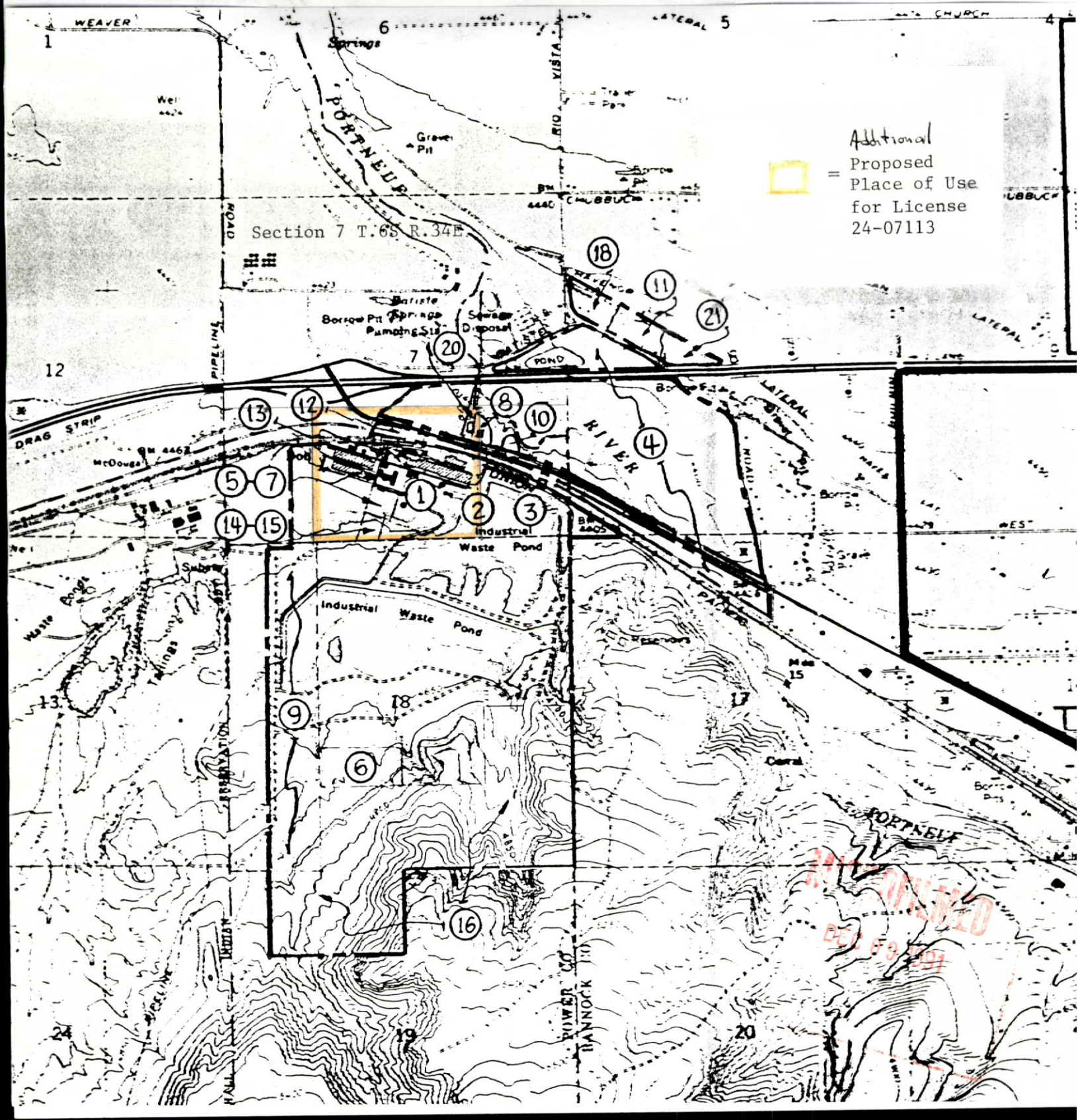
Transfer No. 3863

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

A. Draw a map or attach a USGS map indicating the new point(s) of diversion and/or the new place of use for rights described in part 1. Clearly depict the land by section, township and range number.



Affidavit of Publication

County of Caribou
State of Idaho } ss.

Mark Steele

being first duly sworn on his oath, states:

That he is Publisher of the Caribou County Sun, a newspaper of general circulation in Caribou County, Idaho, published weekly at Soda Springs in said County that said newspaper has been published in said County uninterruptedly and continuously for over seventy-eight consecutive weeks, prior to the first publication of the annexed notice or advertisement;

That the annexed notice was published as per clipping attached in the regular and entire edition of said newspaper and not in any supplement thereof

for 2 successive weekly issues thereof, the date of the first publication being the 7th day of December, 19 89

The date of the last publication being the 14th day of December, 19 89

On this 2nd day of January in the year of 1990 before me, a Notary Public, personally appeared

Mark Steele

known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Wendy R. Steele
Notary Public for Idaho
Residing at Soda Springs, Idaho
My commission expires:
March 11, 1994

PUBLIC NOTICE

First Time Published

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
NO. 24-07113

NOTICE IS HEREBY GIVEN that Permit No. 24-07113 in the name of J.R. Simplot Co., Pocatello, ID, was issued for the diversion of 4.46 cfs of water from a groundwater source with the point of diversion within the SESE Sec. 24, Township 8S, Range, 45E, B.M., Caribou County; to be used for Industrial purposes from January 1 to December 31 with the NESE Sec. 25, Township 8S, Range 45E, B.M.

The permit holder now proposes to amend Permit No. 24-07113, changing the place of use to SENE Sec. 15, Township 8S, Range 42E; NESE SESE Sec. 25, Township 8S, Range 45E; SWNW Sec. 21, Township 8S, Range 46E, B.M. and the rate of diversion to 3.48 cfs.

Any protest to the Licensing Amendment must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before December 26, 1989.

R. Keith Higginson
Director

Published on Dec. 7 and 14, 1989 in the Caribou County Sun.

MICROFILMED
MAR 20 1990

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JAN 16 1990
Department of Water Resources
Eastern District Office

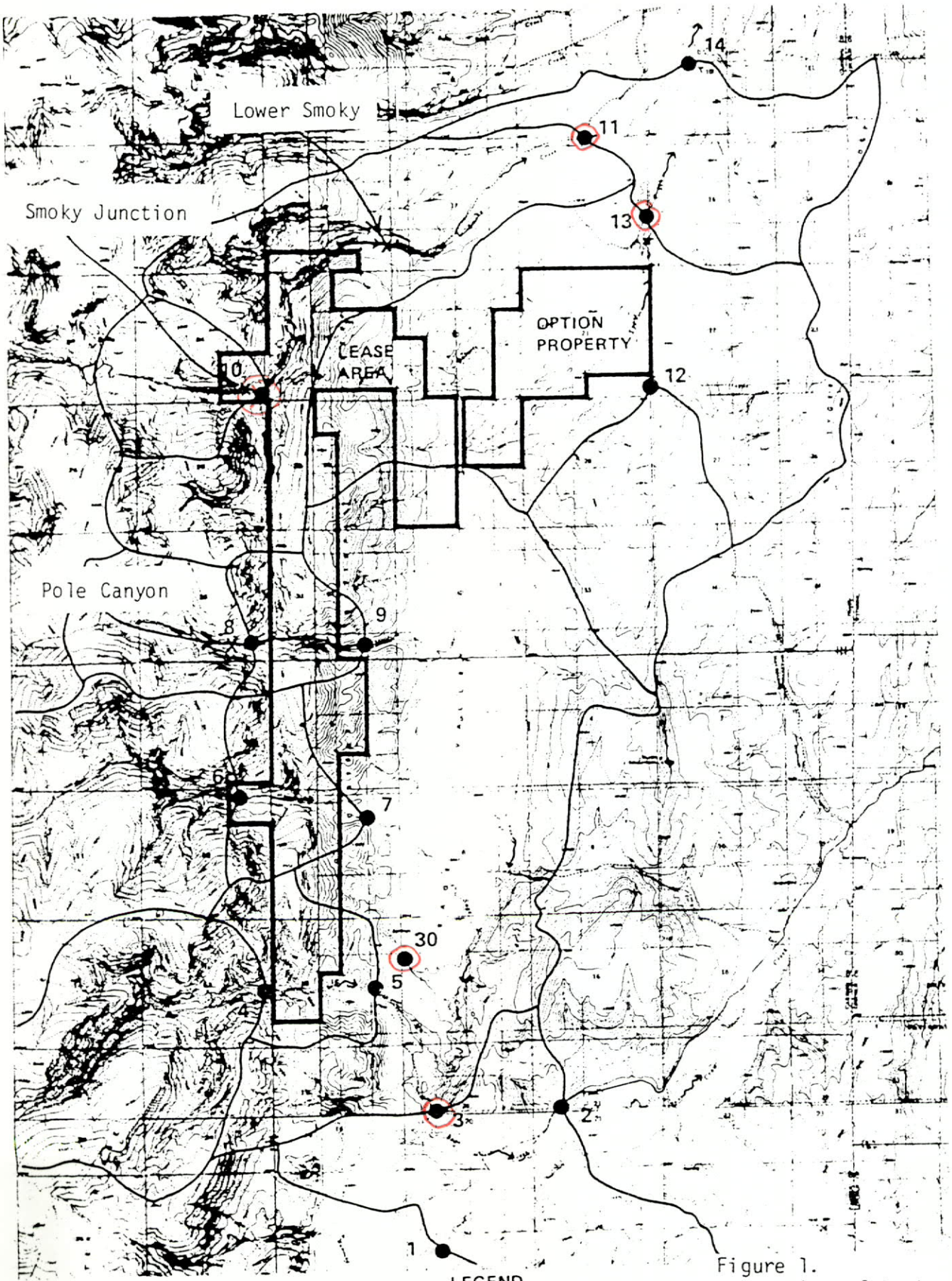


Figure 1.
Location of test wells, drainage areas and stream gages

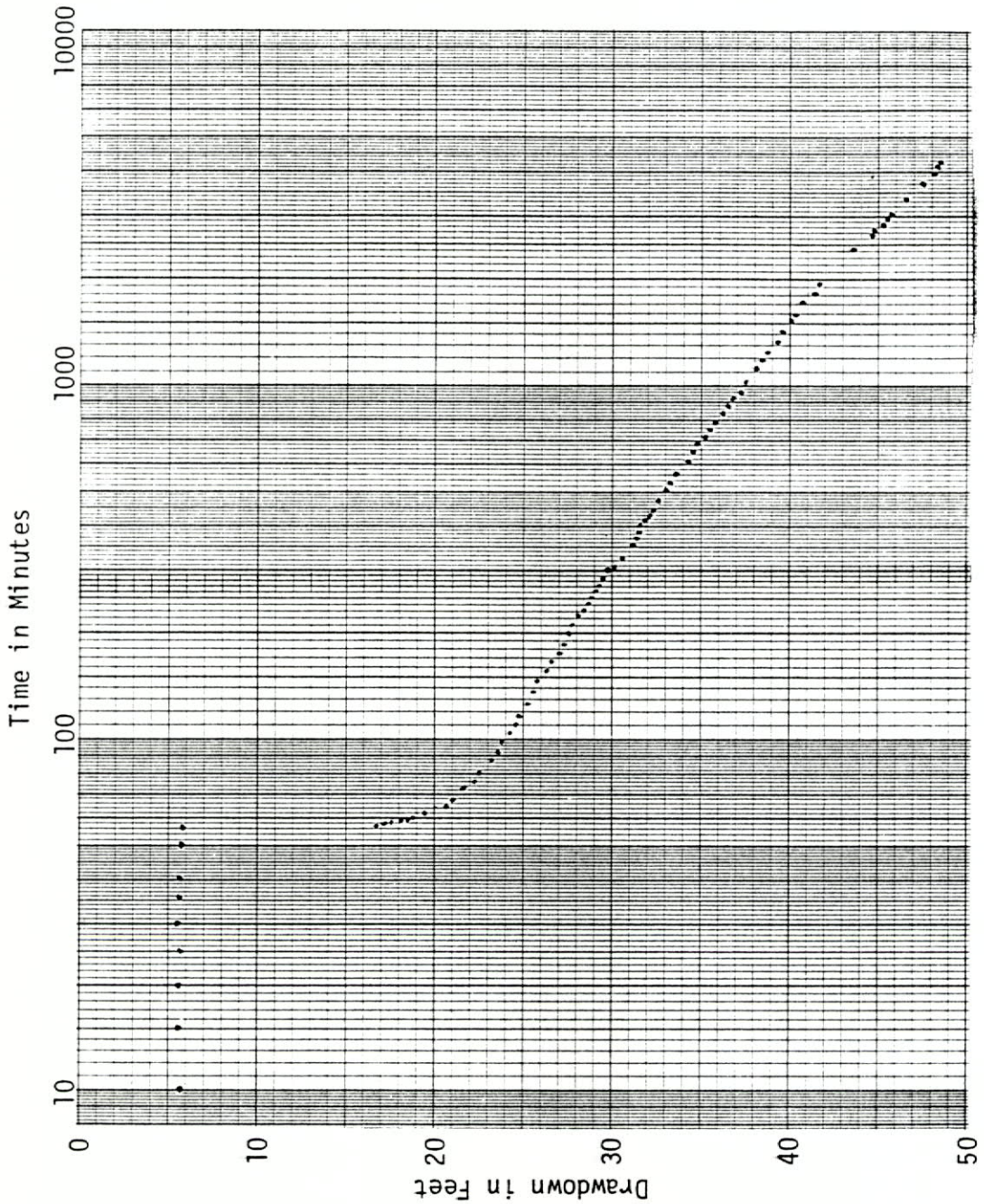


Figure 2. Semi-log plot of drawdown versus time for the Smoky Junction well.

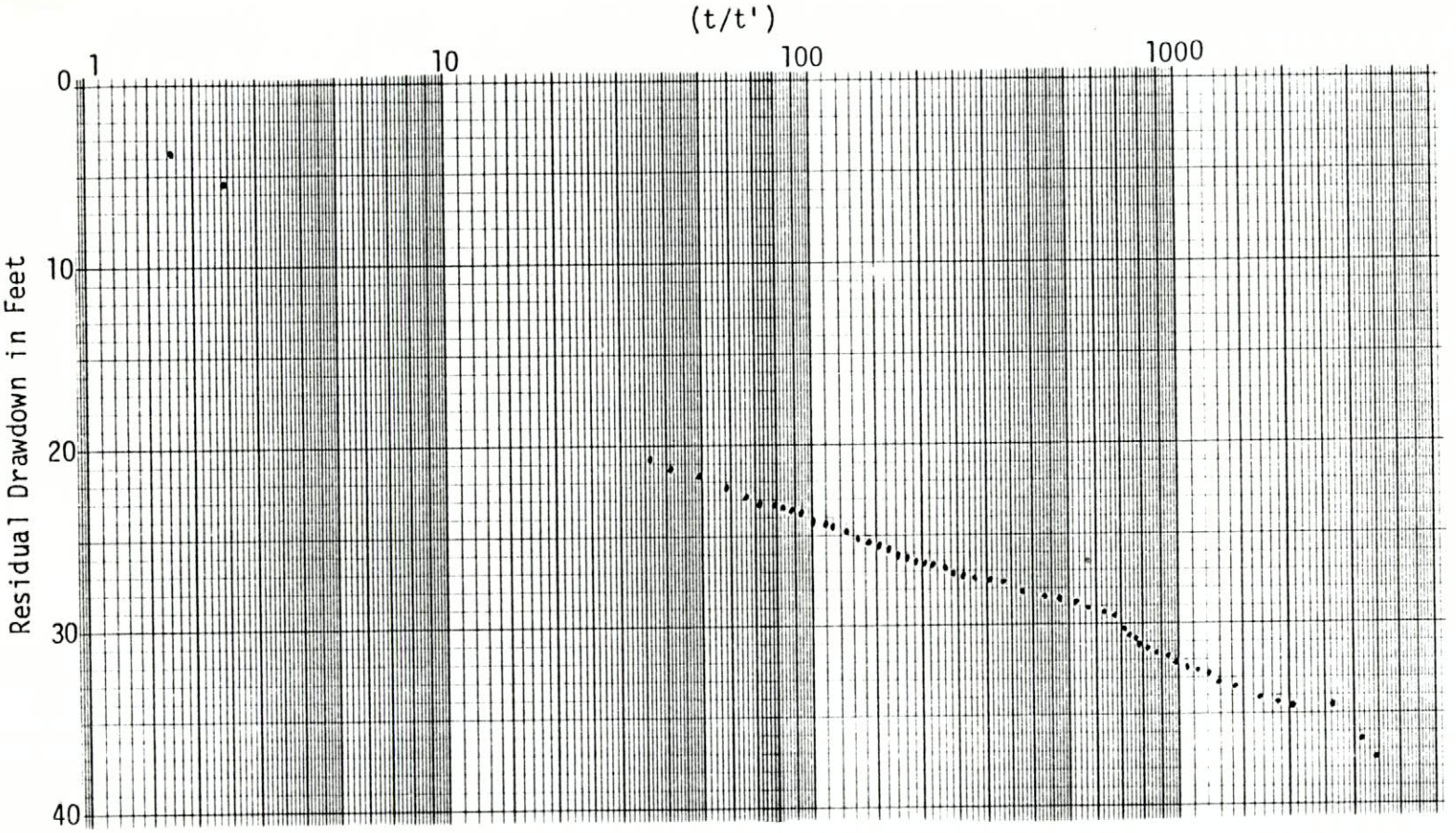


Figure 3. Semi-log plot of residual drawdown versus the ratio of time since pump on (t) to time since pump off (t') for the Smoky Junction well.

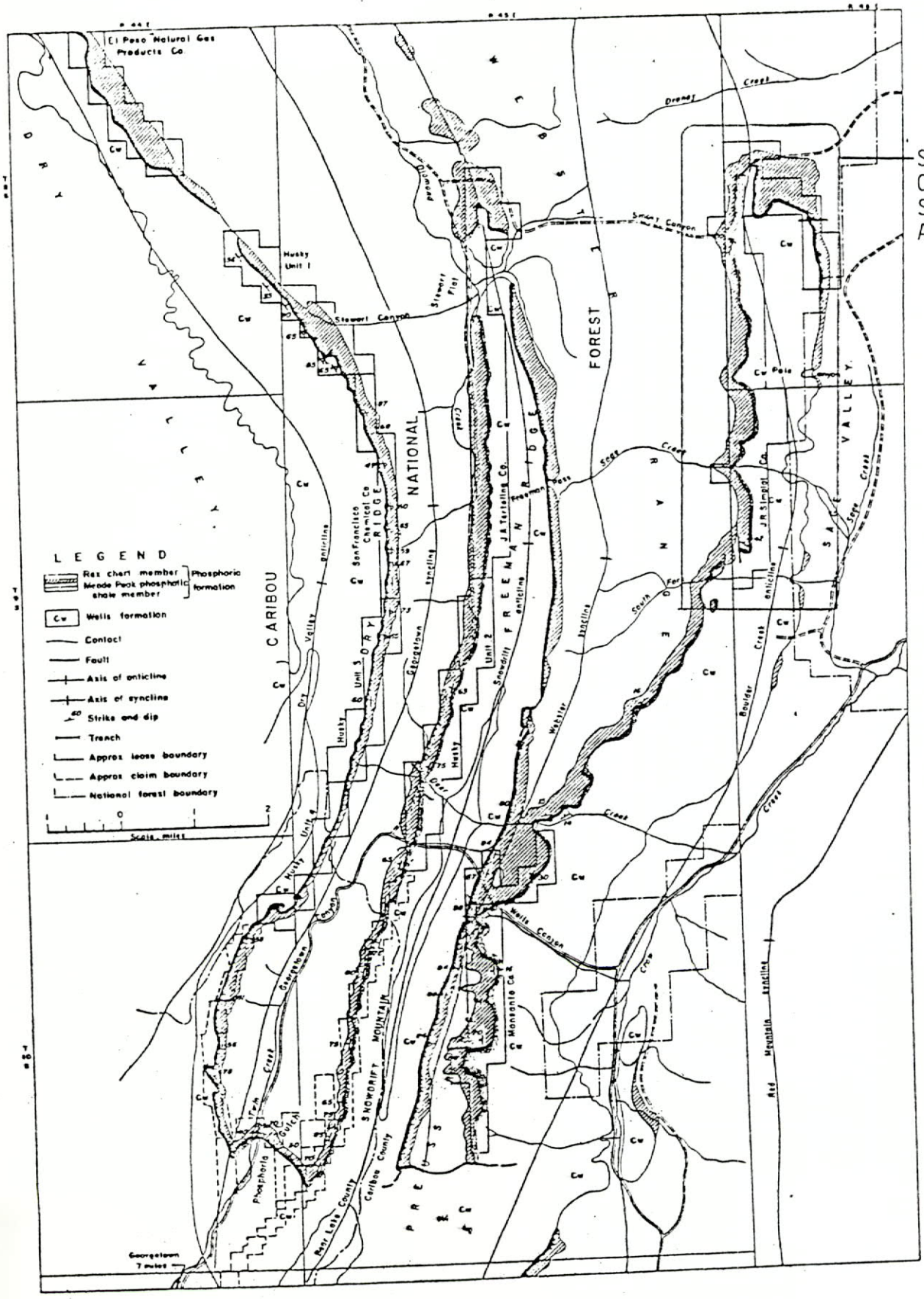


Figure 1. Location map for Smoky Canyon study area.

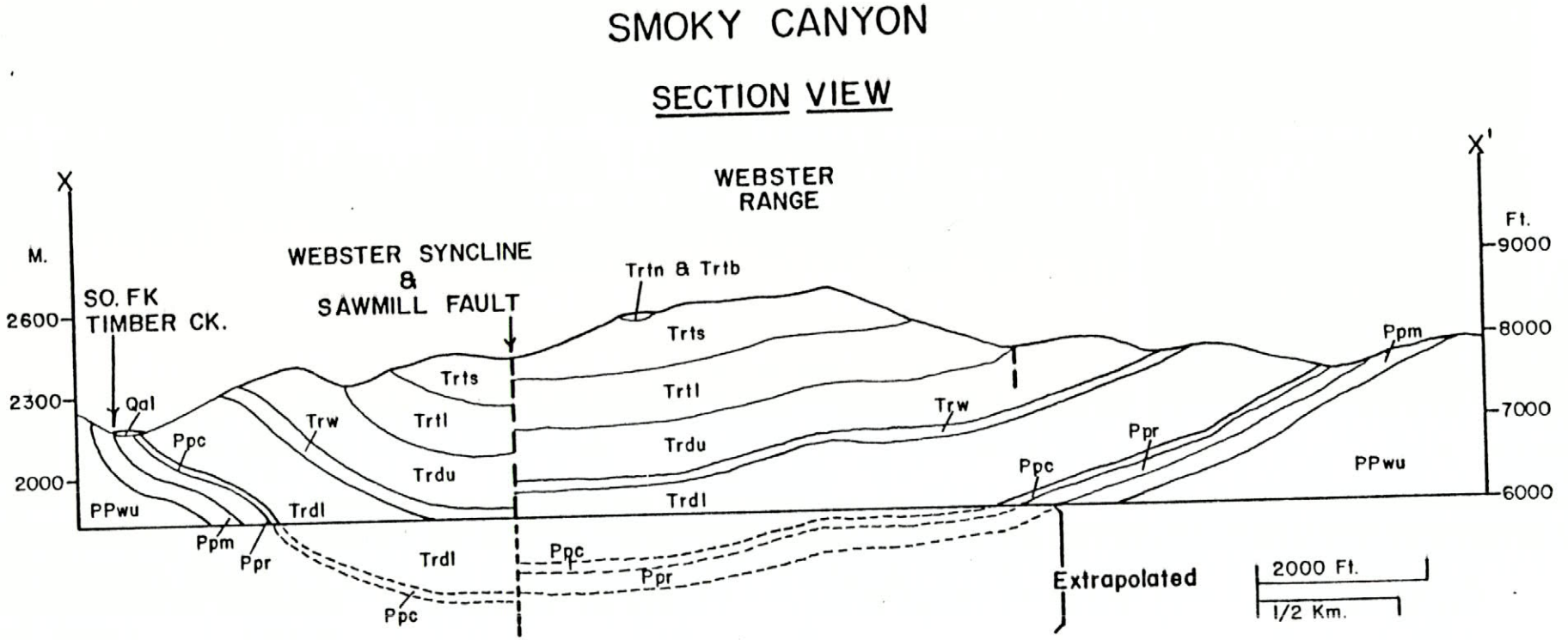


Figure 2. Geologic section view of Smoky Canyon (Modified after Montgomery and others, 1967, Plate 2).

SMOKY CANYON

SECTION VIEW

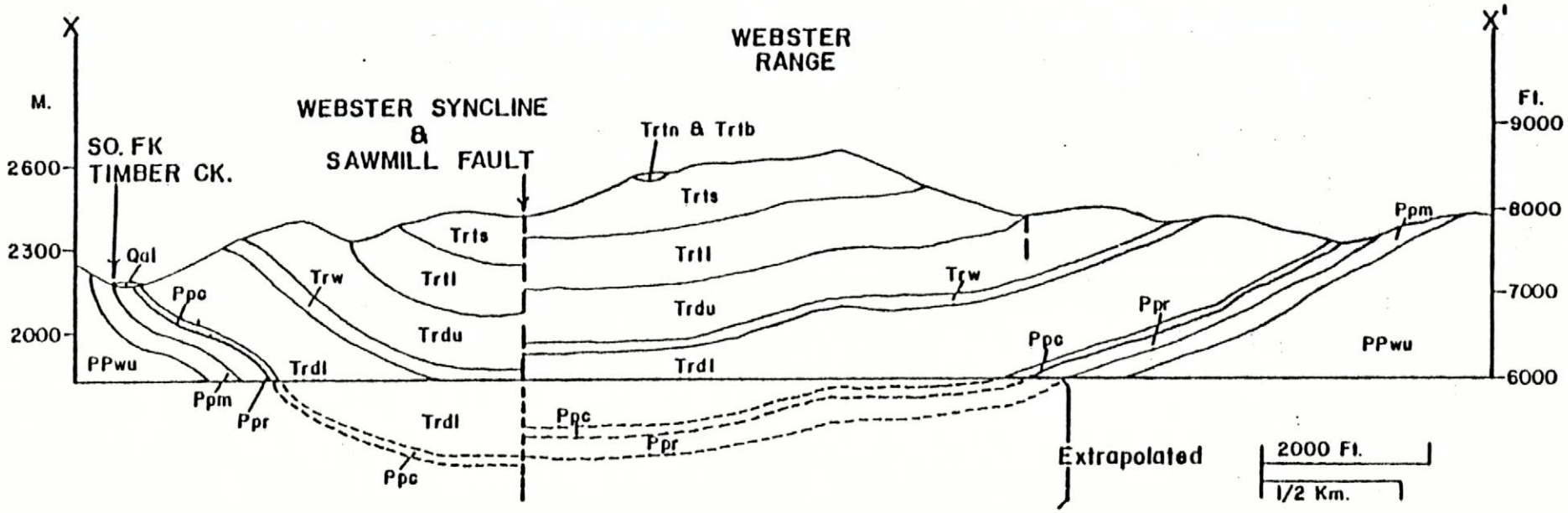
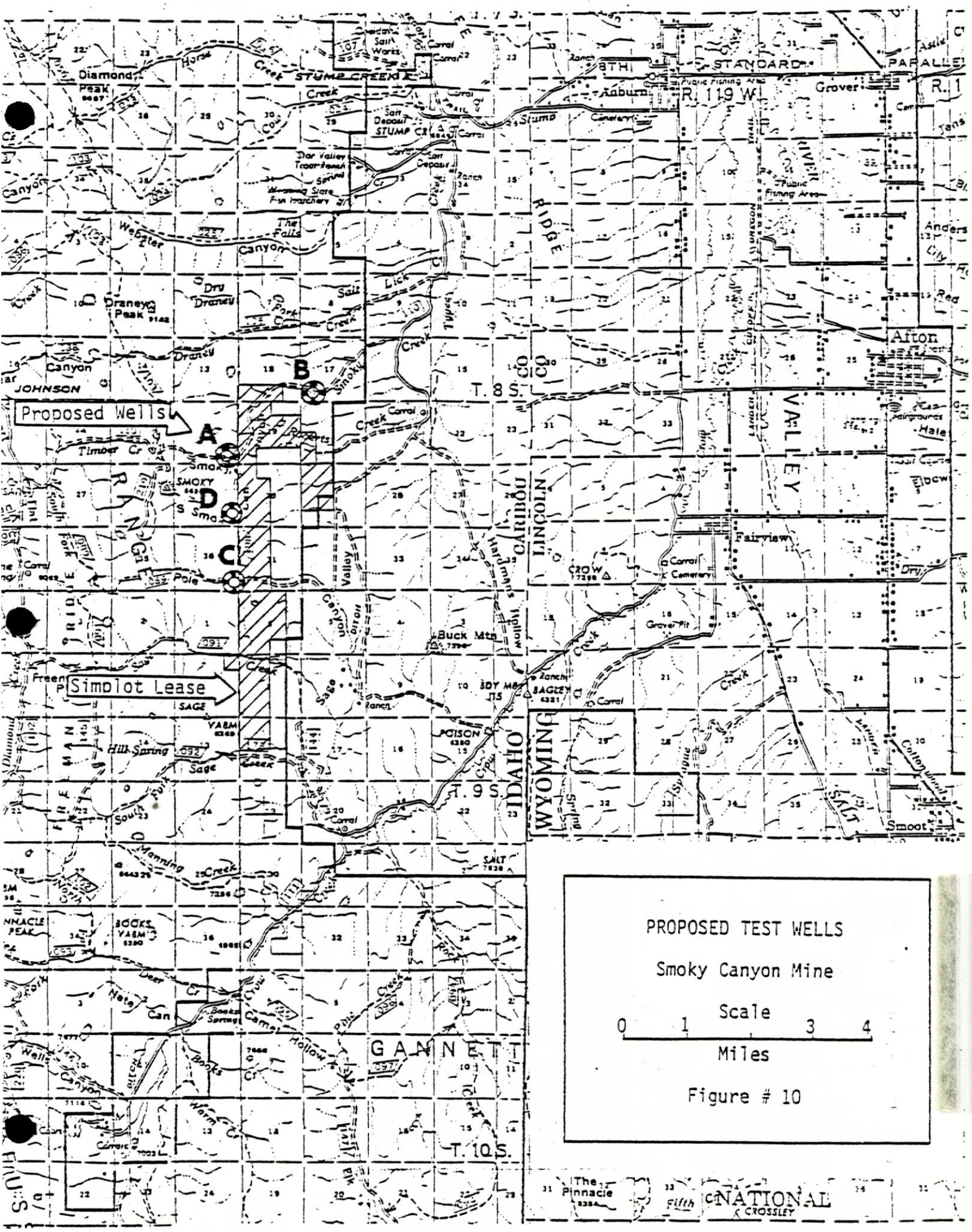


Figure 1. Geologic section view of Smoky Canyon (Modified after Montgomery and others, 1967, Plate 2).

GEOLOGIC CROSS SECTION



SITUATION MAP

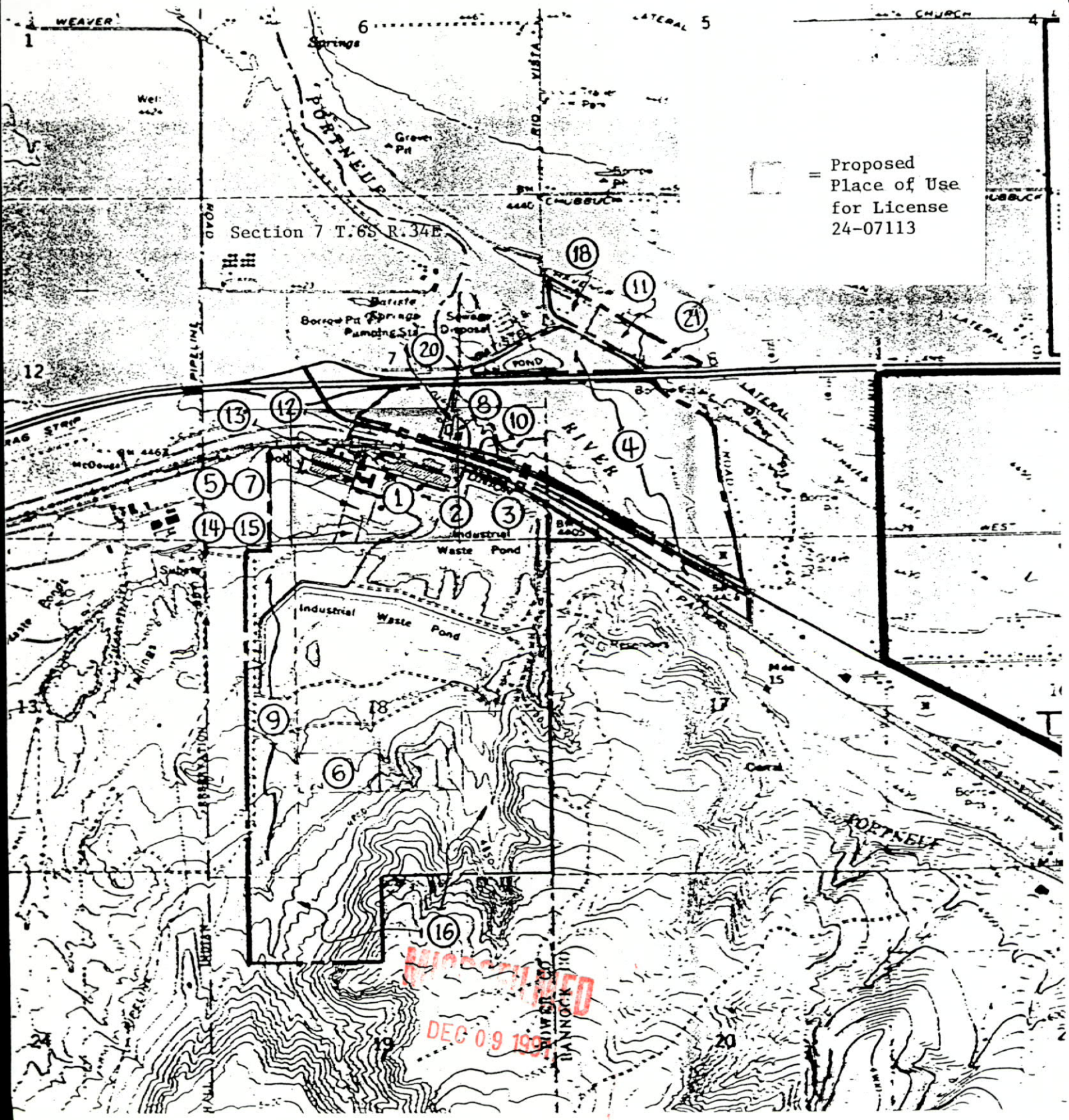
Transfer No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

A. Draw a map or attach a USGS map indicating the new point(s) of diversion and/or the new place of use for rights described in part 1. Clearly depict the land by section, township and range number.



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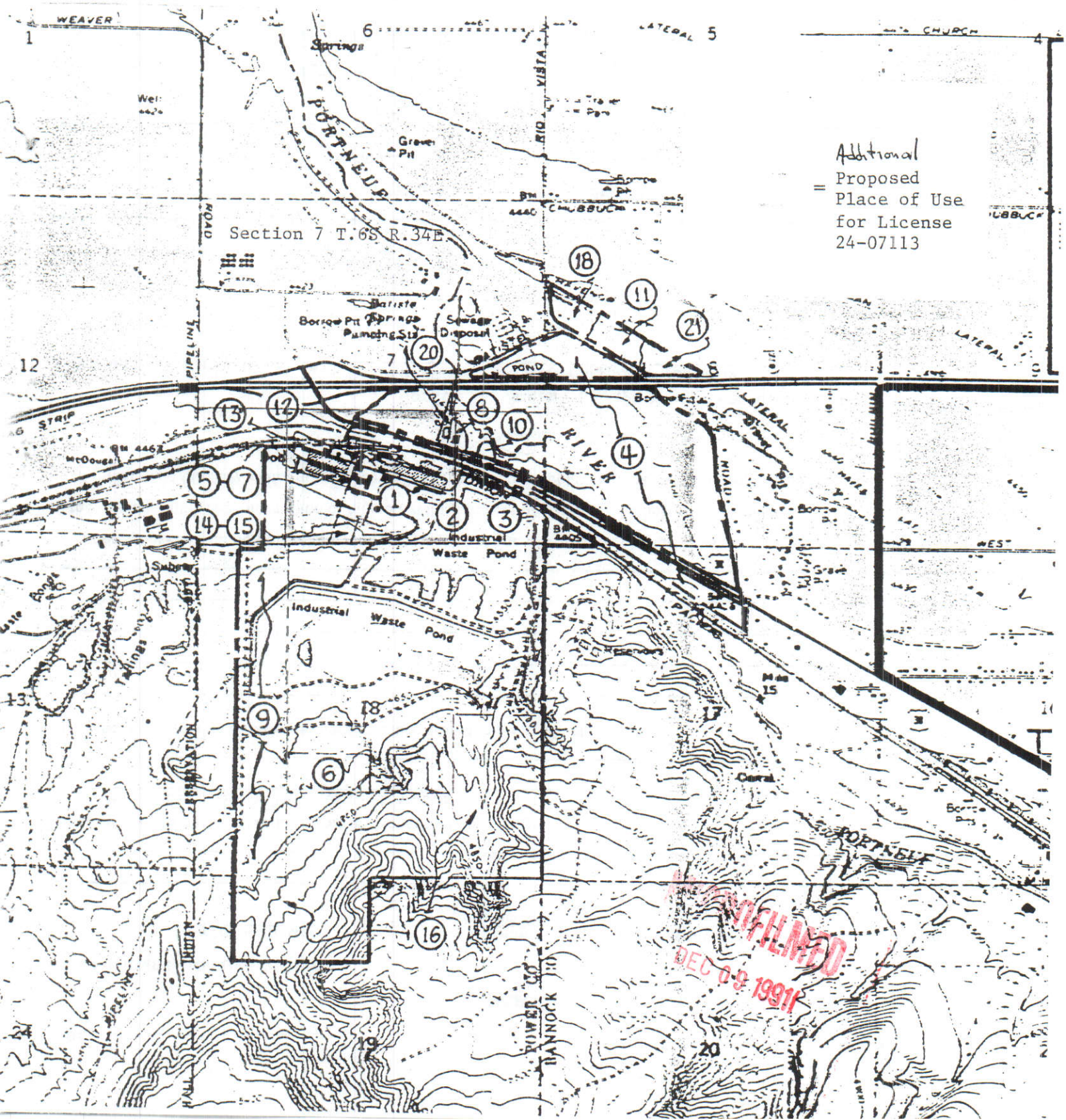
Transfer No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

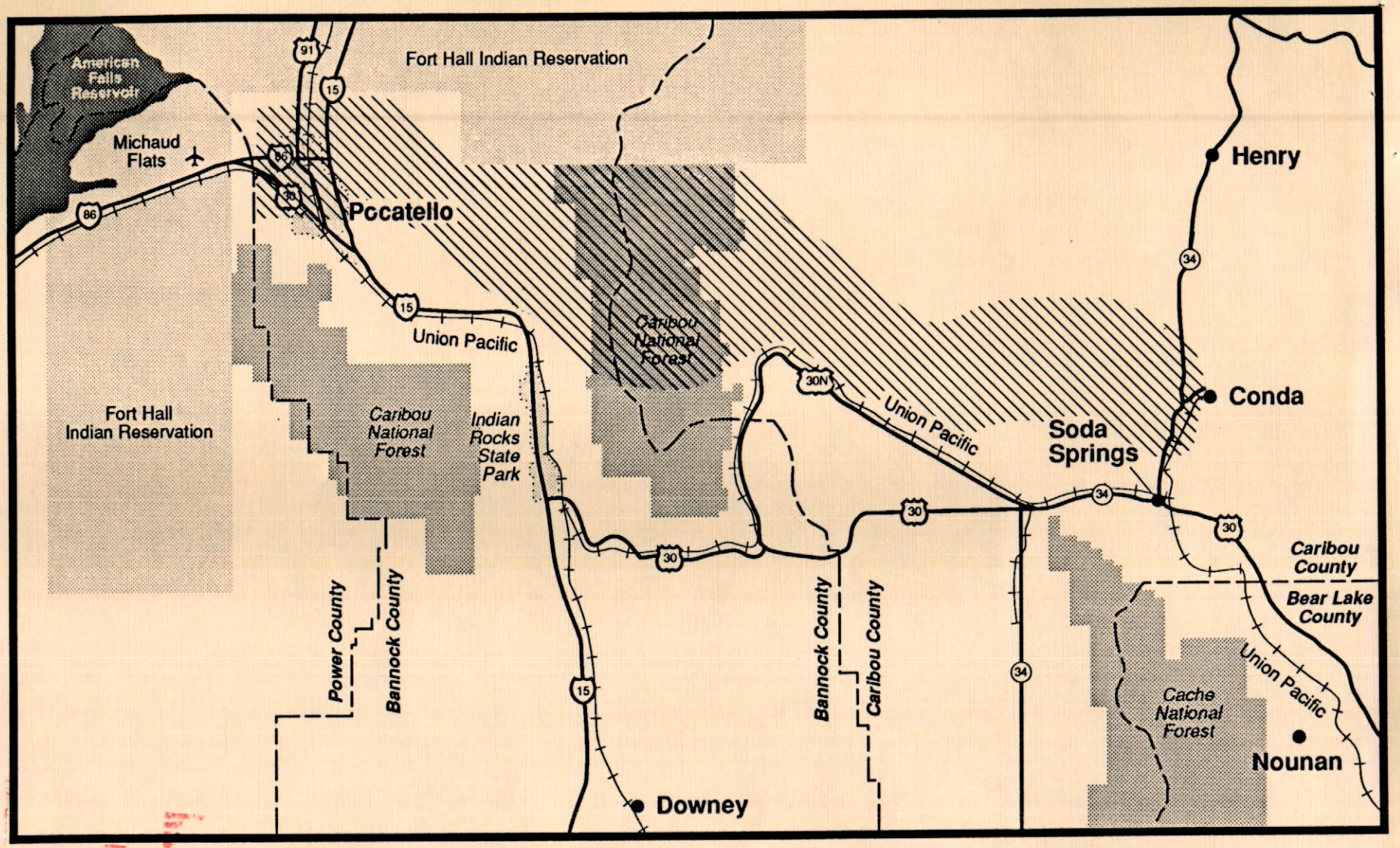
APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

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Proposed Pipeline Study Area

PROJECT VICINITY MAP

Conda-Pocatello Pipeline Project

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MAR 20 1990

RE-EXAM

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FEB 03 1989

Form 219
6/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
Department of Water Resources

BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 24-7113

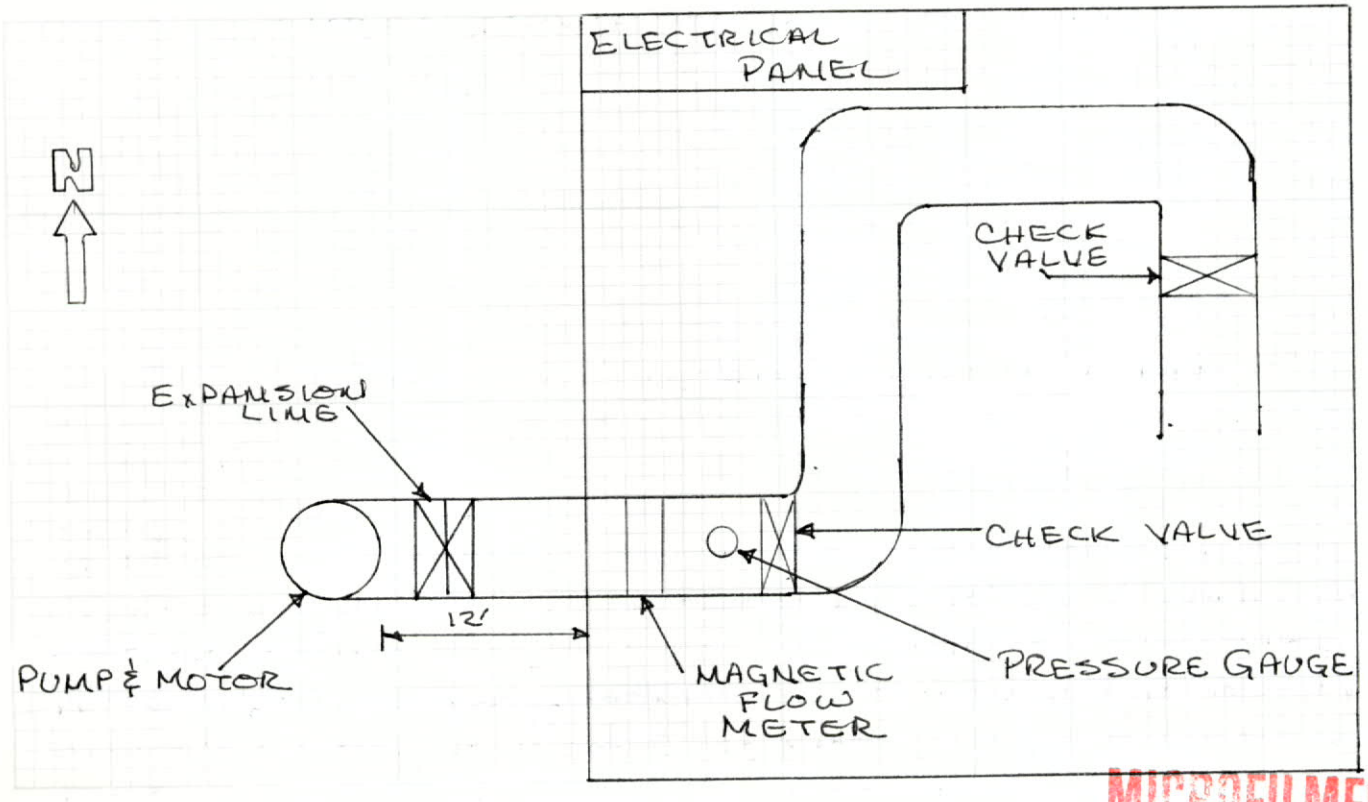
1. Owner: J. R. SIMPLOT COMPANY — Phone No. 232-6620
   Current Address: P.O. BOX 912, POCATELLO, ID 83201
2. Accompanied by: DENNIS FACER — EXAM. DATE: 01/11/89
   Address: AS ABOVE — Phone No. 225-9861
   Relationship to Permit Holder: PROJECT ENGINEER
3. Source: GROUNDWATER tributary to N/A

B. OVERLAP REVIEW

1. Other water rights with same place of use: N/A
   ☐ Copies Attached
2. Other water rights with same point of diversion: N/A
   ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

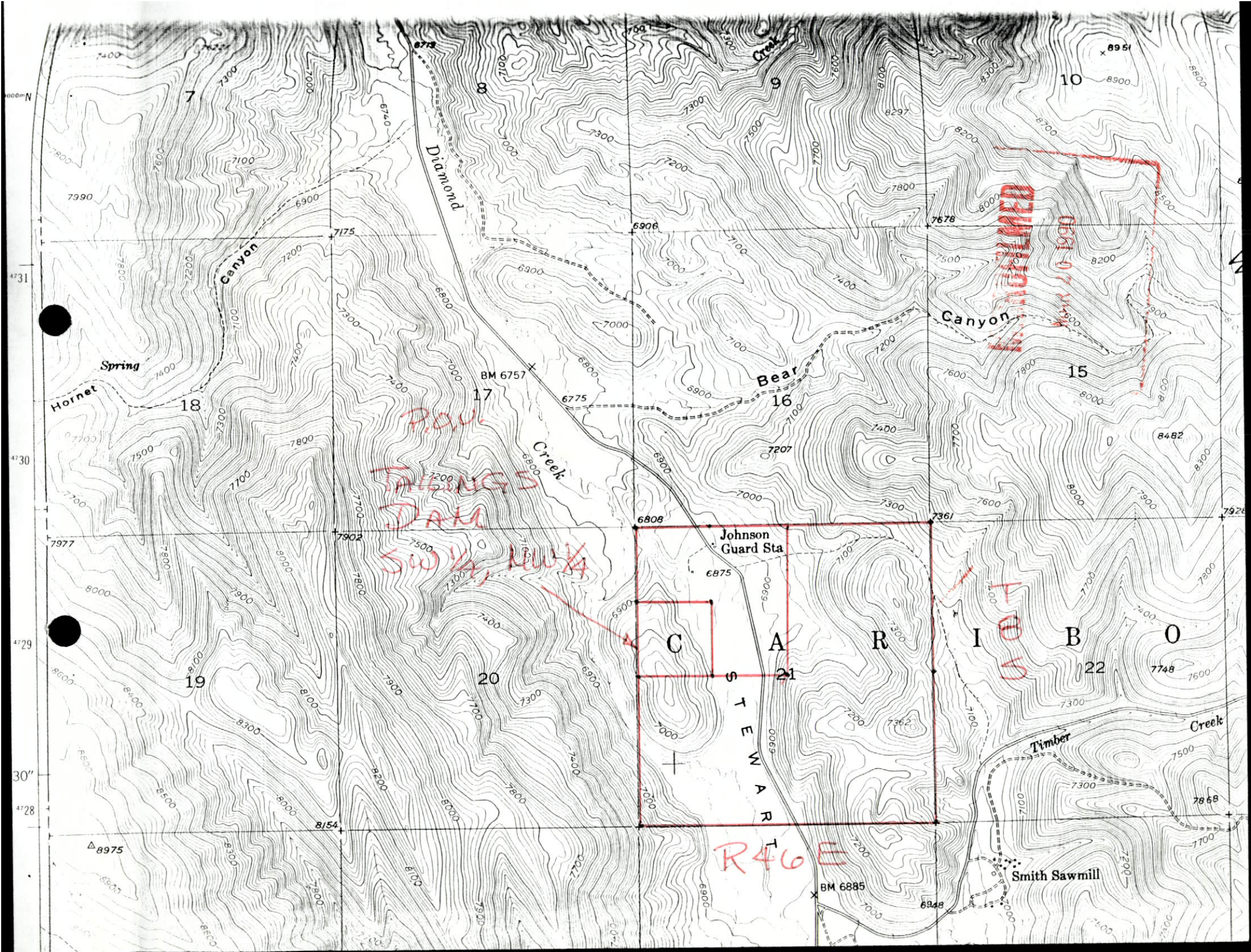
1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached

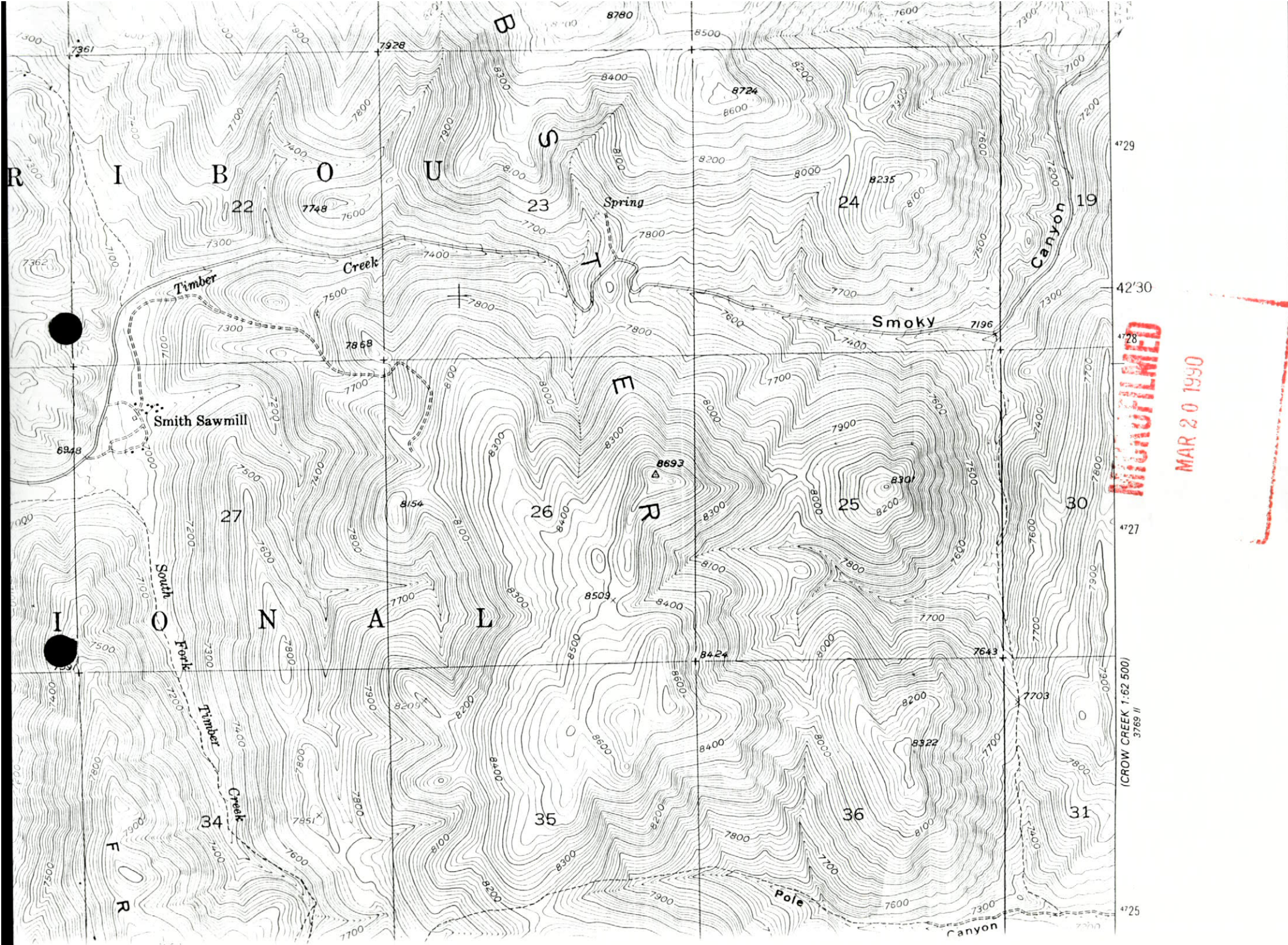


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MAR 20 1990

Scale: 1" = NO SCALE.

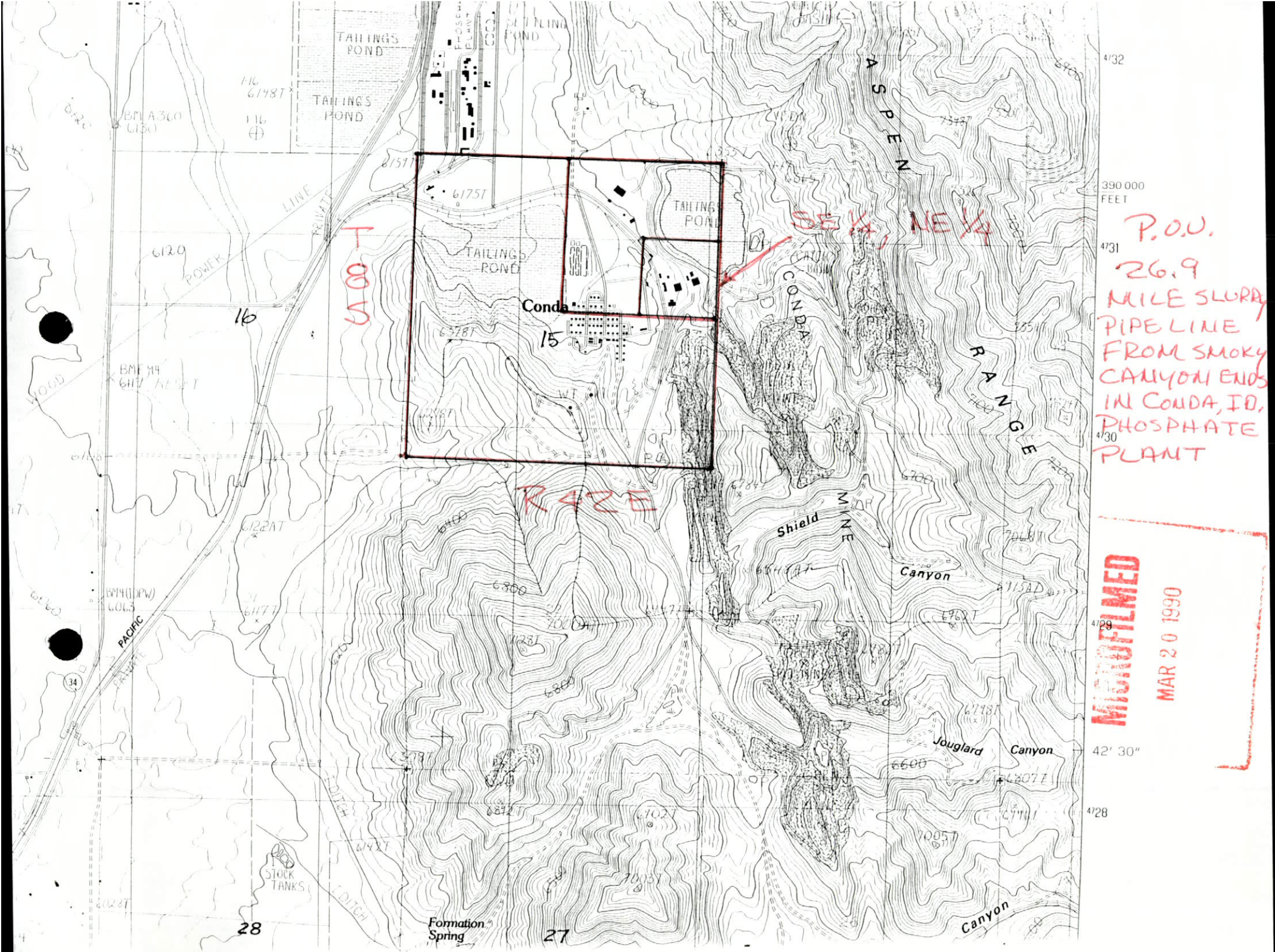
2. ☐ Copy of U.S.G.S. Quadrangle Attached
   Showing location(s) of point(s) of diversion and place(s) of use (required).
   ☐ Aerial Photo Attached
   (required for irrigation of 10 acres or more).
   ☒ Photo of Diversion and System Attached
   (required for all but single household domestic groundwater, and stockwater.


Diamond
Canyon
Spring
Hornet
Bear
Creek
Timber
Creek
Johnson
Guard Sta
STEWART
CARIBOU
Smith Sawmill
BM 6757
BM 6885
7 8 9 10
15 16 17 18
19 20 21 22
7175
6906
7678
7902
6808
7361
8154
8975
6775
6948
7207
7362
7748
7868
8482
8951
8297
6875
7977
7990
6740
6773
7099
8297
R46E
PROPOSED ROAD
PROPOSED DAM
SW¼ NW¼



MICROFILMED
MAR 20 1990

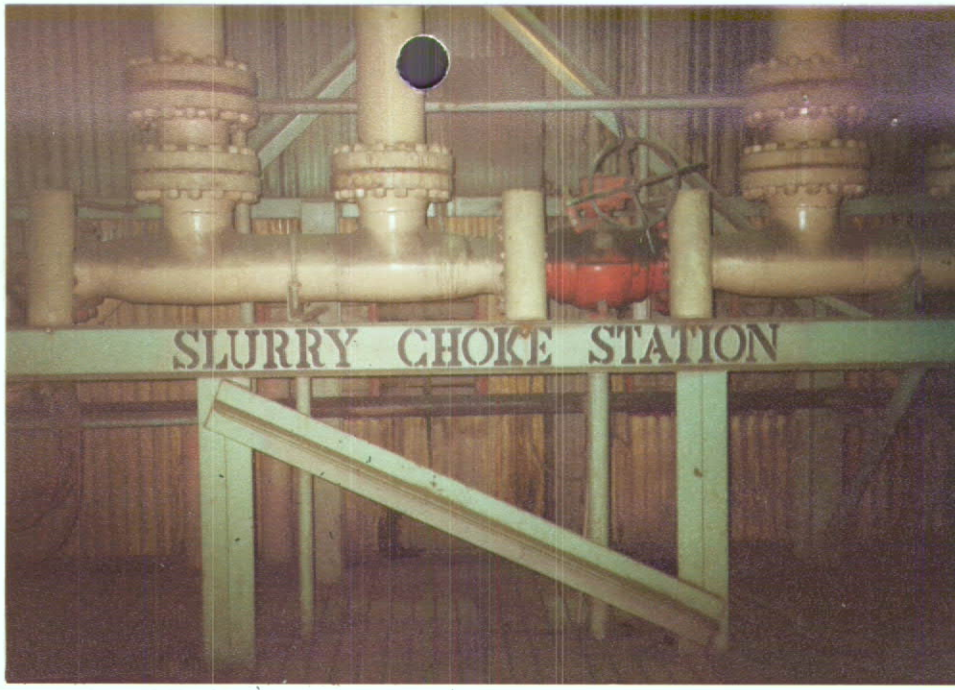

P.O.D.
WELL & PUMP
SE¼, SE¼
SEC 24
T8S
R45E
SMOKY
CANYON
SLURRY
PLANT
P.O.U.
NE¼, SE¼
SE¼, SE¼
RECEIVED
MAR 20 1990
T8S
R45E
Smoky
Canyon
Spring
Timber
Creek
Smith Sawmill
South
Fork
Timber
Creek
Pole
Canyon
IBOUS
IONAL
FOR
22
23
24
25
26
27
30
31
34
35
36
19
42'30



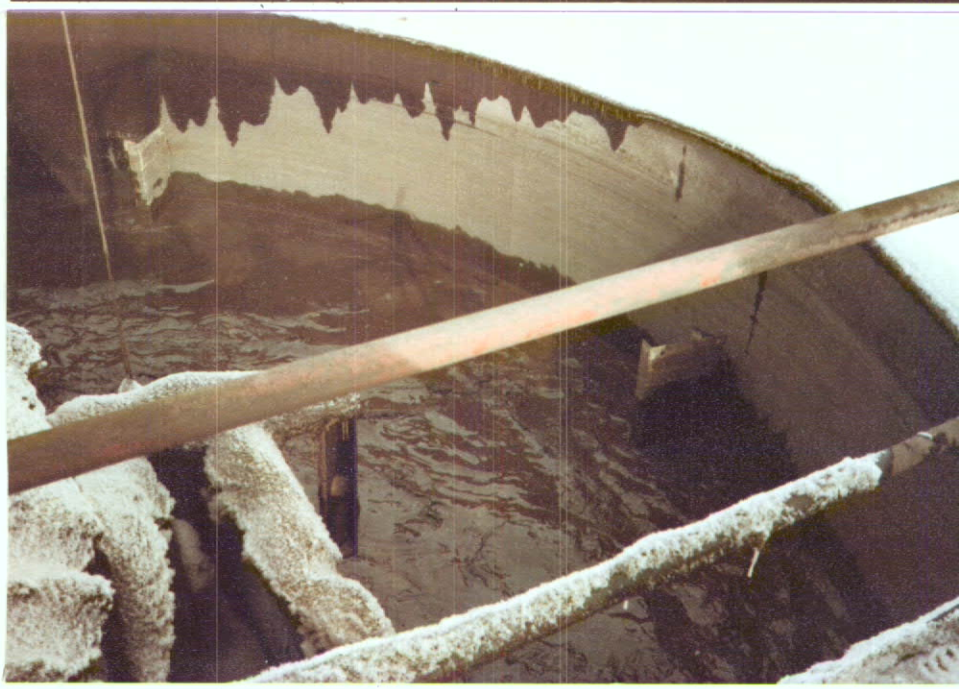
P.O.U.
26.9 MILE SLURRY PIPELINE FROM SMOKY CANYON ENDS IN CONDA, ID, PHOSPHATE PLANT

MICROFILMED
MAR 20 1990

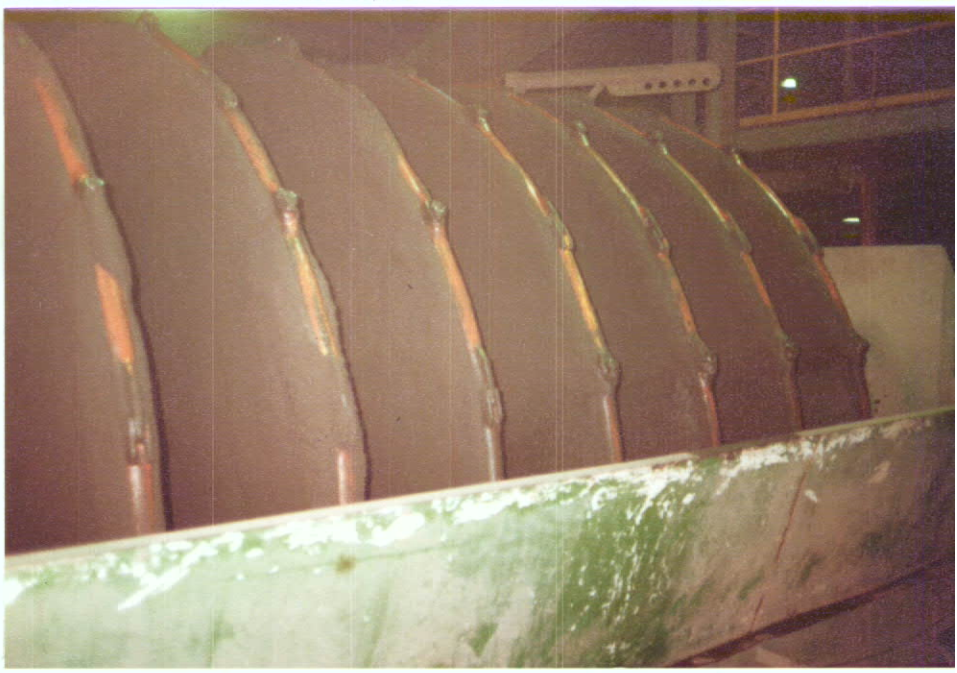
SLURRY CHOKE STATION
COMDA, IDAHO
01/11/89



SLURRY TANK AT END OF 26.9 MILE PIPELINE FROM SMOKY CANYON TO COMDA, ID



PROCESS TO EXTRACT PHOSPHATE FROM SLURRY PIPELINE COMDA, ID

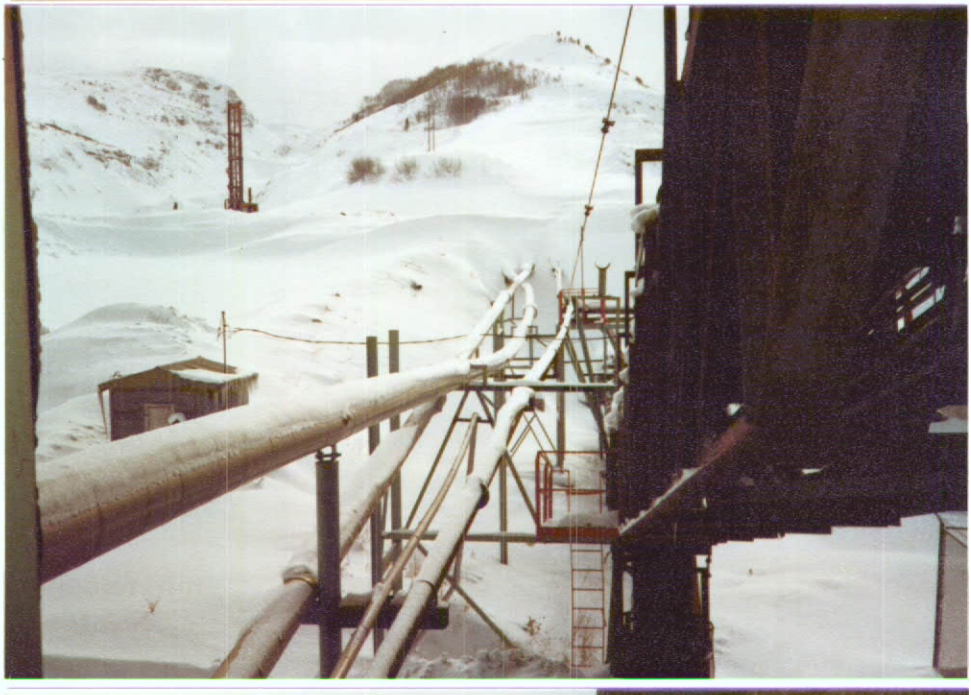


MICROFILMED
MAR 20 1990

SLURRY PIPELING GOING INTO PLANT AT CONDA, ID FROM SMOKY CANYON MINE 26.9 MILES EAST
01/11/89



8" IN DIAMETER PIPE GOING INTO CONDA, ID. PROCESSING PLANT



PIPE FROM SMOKY CANYON GOING INTO PLANT IN CONDA, ID.

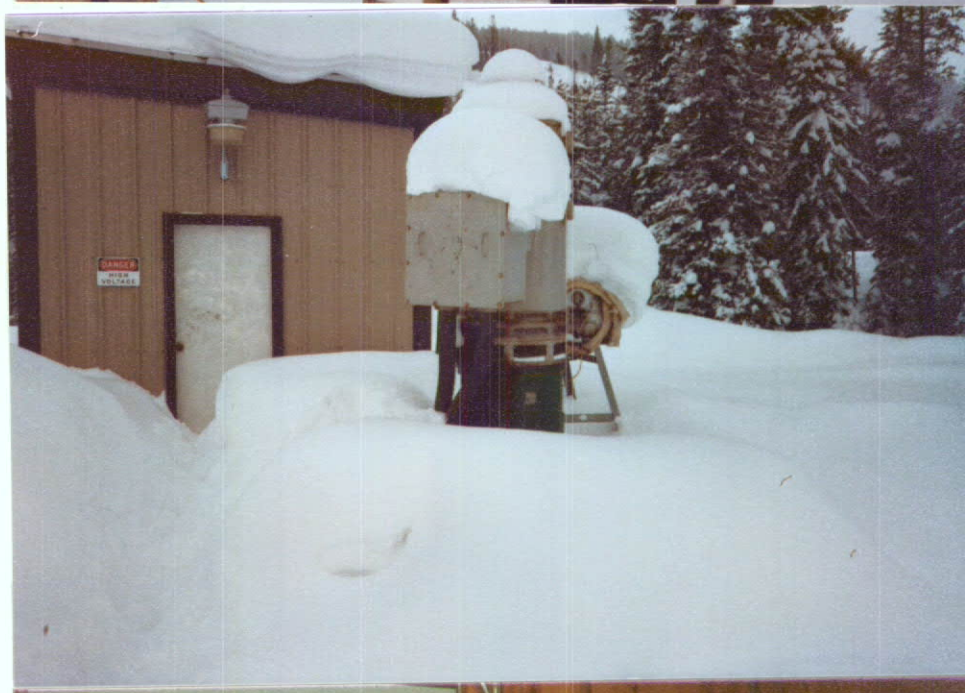


MICROFILMED
MAR 20 1990

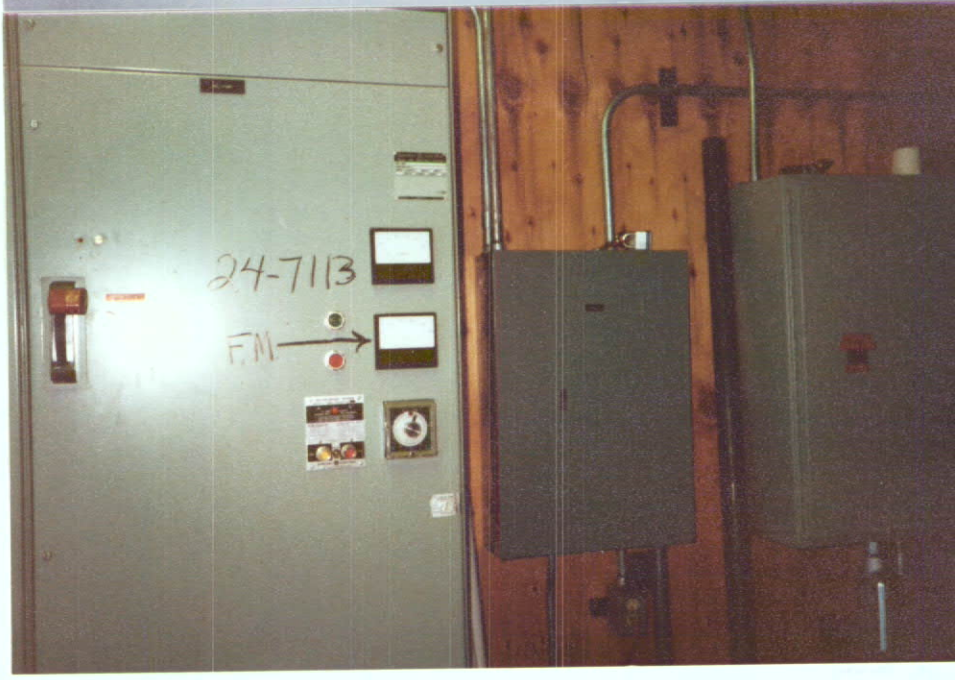
WELL SITE & PUMP, G.E. 450 H.P. SERIAL NO. HWJ [redacted]7011 JOHNSON. PUMP SERIAL NO. ITT49021.
POINT OF DIVERSION SE¼, SE¼, SEC 24; T8S; R45E
(01/11/89)



PUMP, MOTOR, & SHELTER WHICH HOUSES ELECTRICAL PANEL, VALVES, GAUGES, ECT



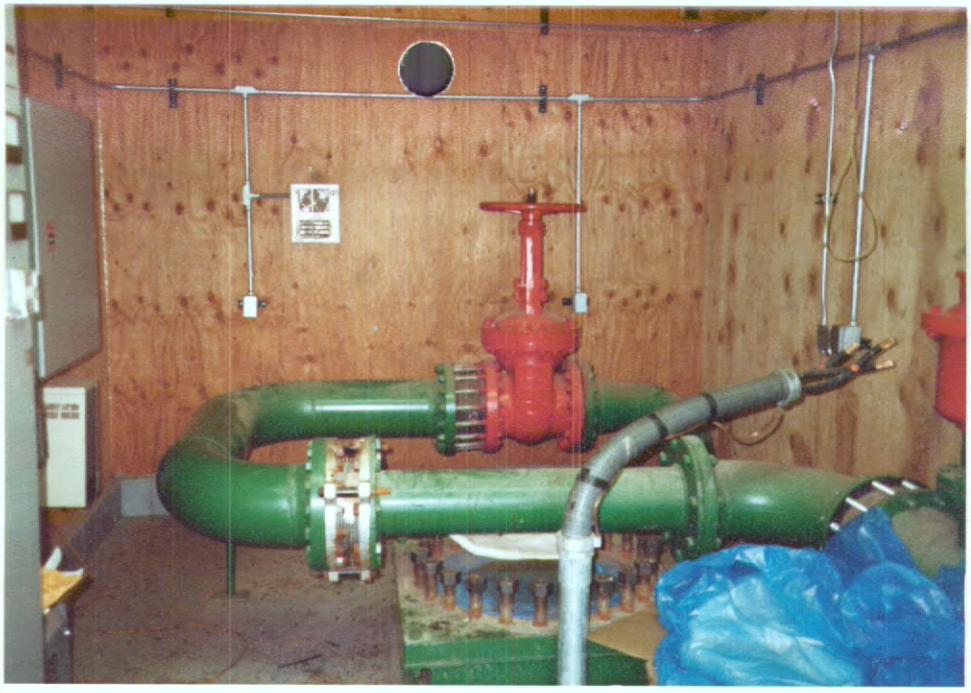
ELECTRICAL PANEL



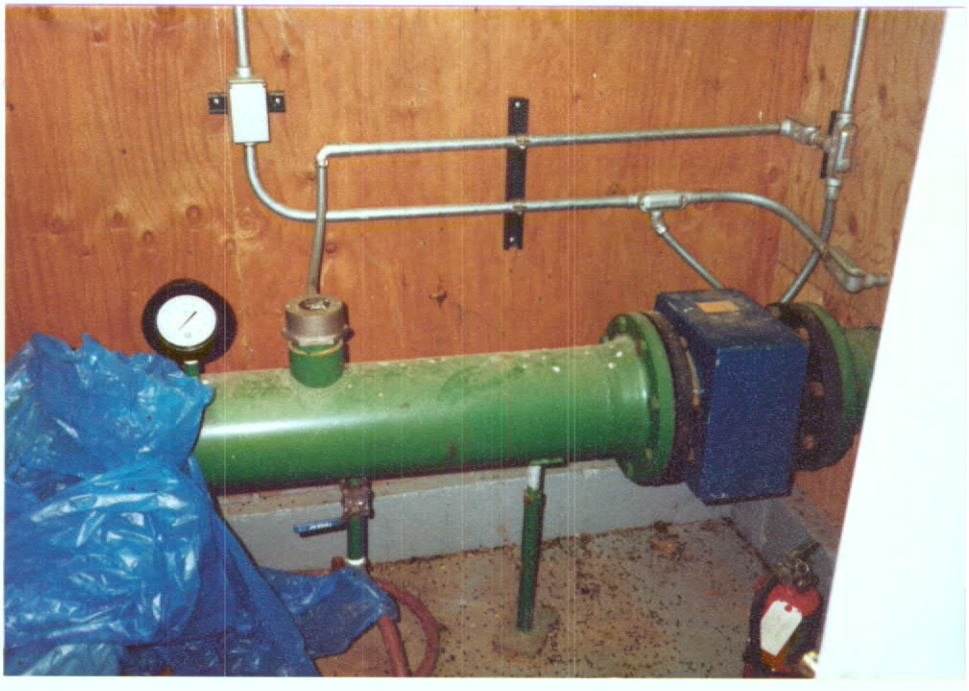
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MAR 20 1990

INSIDE SHELTER FOR 24-7113 ELECTRICAL PANEL, VALVES, GAUGES ECT.

(01/11/89)



MAGNETIC FLOW METER PRESSURE GAUGE & CHECK VALVE



MICROFILMED
MAR 20 1990

Form 219
6/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 24-7113

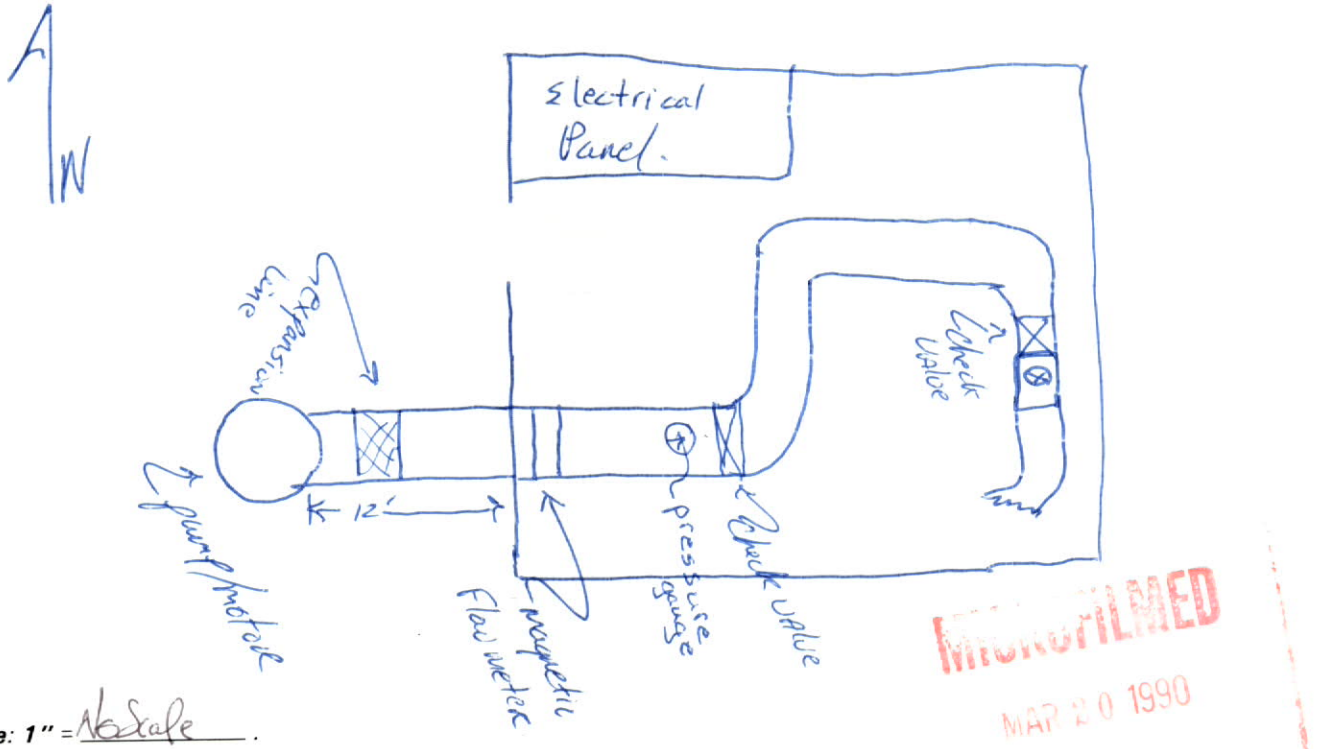
1. Owner: J.R. SimPlot Company Phone No. 233-7500
   Current Address: P.O. Box 912, Pocatello Idaho 83201
2. Accompanied by: Verden Andrews EXAM. DATE: 6-23-87
   Address: P.O. Box 1021 Afton Wy. 83110 Phone No. (307) 886-3081
   Relationship to Permit Holder: Ass. Maintenance Manager
3. Source: Groundwater tributary to —

B. OVERLAP REVIEW

1. Other water rights with same place of use: N.A.
   ☐ Copies Attached
2. Other water rights with same point of diversion: N.A.
   ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

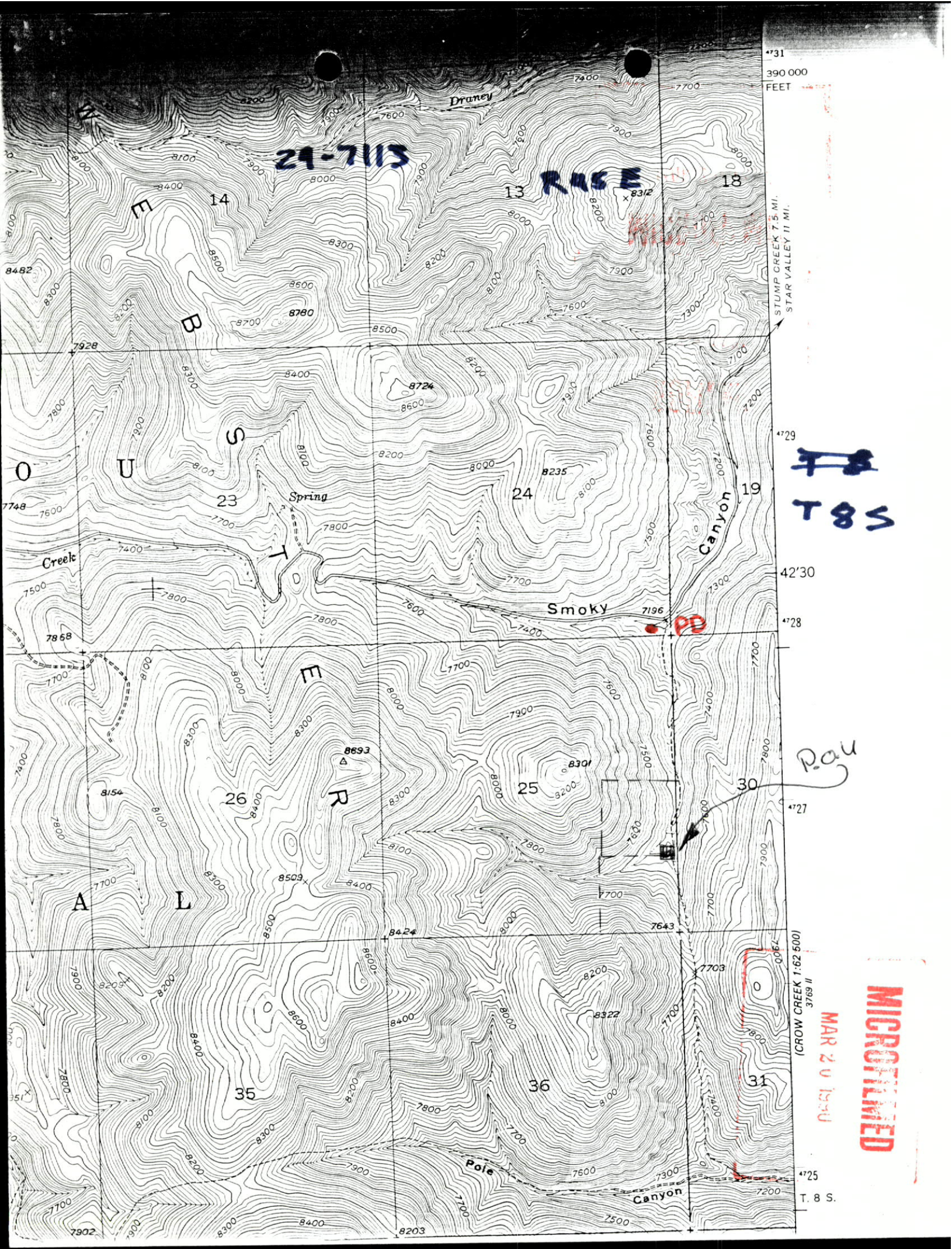
1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached

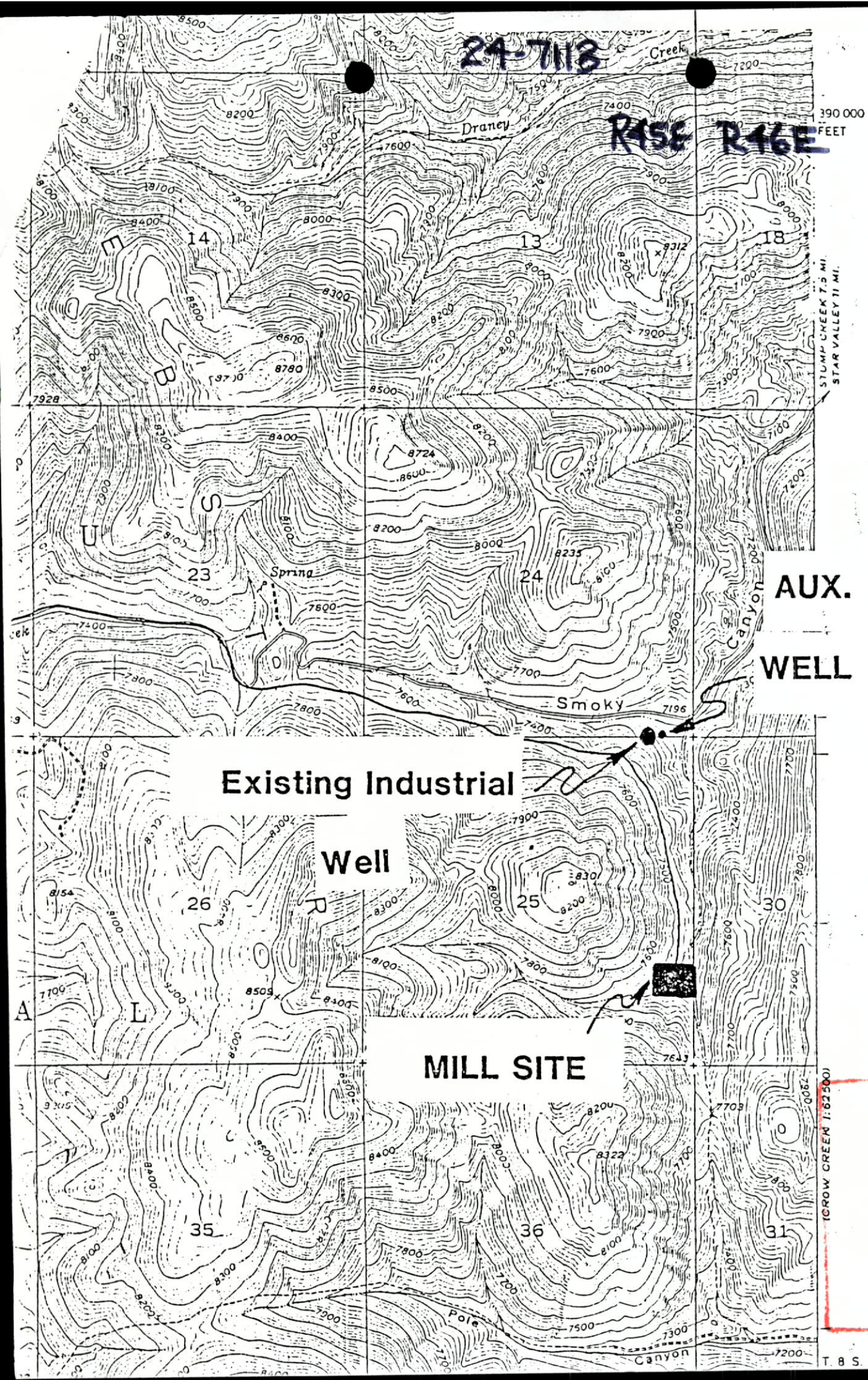


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MAR 20 1990

Scale: 1" = No Scale.

2. ☑ Copy of U.S.G.S. Quadrangle Attached
   Showing location(s) of point(s) of diversion and place(s) of use (required).
   ☐ Aerial Photo Attached
   (required for irrigation of 10 acres or more).
   ☑ Photo of Diversion and System Attached
   (required for all but single household domestic groundwater, and stockwater.


29-7115
RUSE
T8S
P&A
MICROFILMED
MAR 2 0 1990
4731
390 000 FEET
4729
42'30
4728
4727
4725
T. 8 S.
STUMP CREEK 7.5 MI.
STAR VALLEY II MI.
(CROW CREEK 1:62 500)
3769 II
Draney
Spring
Creek
Smoky
Canyon
Pole
Canyon
13
14
18
19
23
24
25
26
30
31
35
36
8482
8780
8724
8235
8312
7928
7748
7868
7196
8693
8301
8154
8509
8424
7643
8322
7703
8203
7902



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MAR 20 1990

24-7113

tailings pond at Simplot phosphate mine







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24-7113





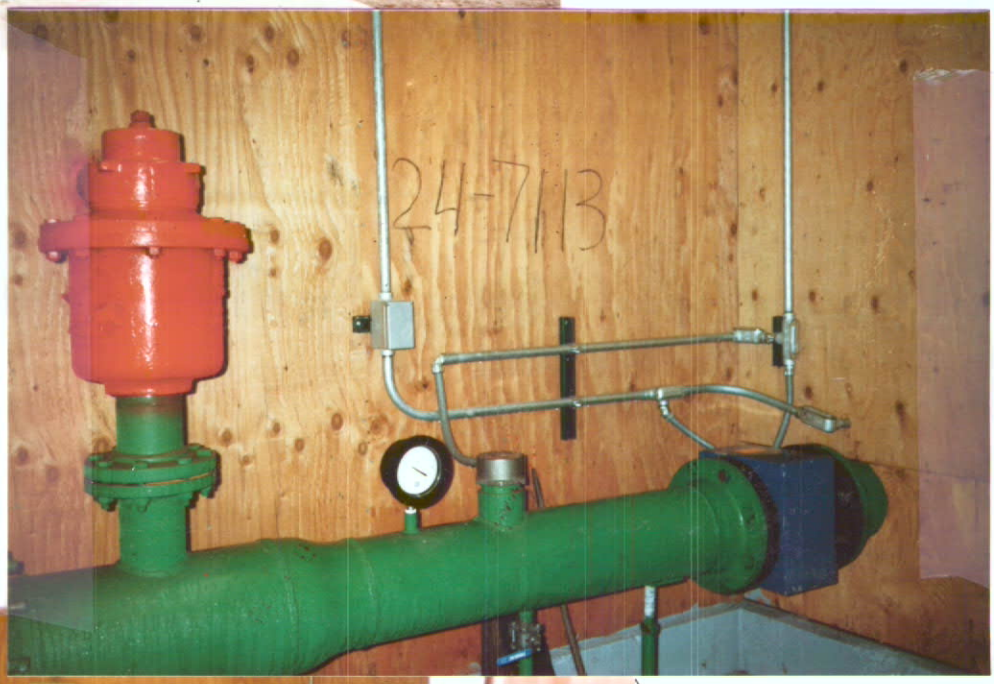
pumps at tailings pond- pump up to Simplot phosphate mine



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MAR 2 0 1990

24-7113







MICROFILMED
MAR 20 1990





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MAR 2 0 1990

Form 222
1-87

Page 1 of 6

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. 63863

RECEIVED
JUL 16 1991
Department of Water Resources

APPROVED

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 1

Name of applicant J.R. Simplot Company Phone (208) 336-2110

Post Office address P.O. Box 27, Boise, Idaho 83707

A. PURPOSE OF TRANSFER

1. ☐ Change point of diversion ☐ Add diversion point(s) ☒ Change place of use
   ☐ Change nature of use ☐ Change period of use ☐ Other _____

2. Describe the reason for the proposed changes A pipeline which conveys phosphate slurry from Simplot's Smoky Canyon Mine to Conda, ID will soon be extended to Simplot's chemical manufacturing plant near Pocatello, Idaho. The current practice of beneficiating phosphate slurry at the Conda plant will be transferred to the Pocatello facility once pipeline construction (Cont)

B. DESCRIPTION OF RIGHT(S) OR PORTION THEREOF, AFTER THE REQUESTED CHANGE (see remarks)

1.

Right Number	Priority	Amount (cfs/ac-ft)	Nature of Use	Period of Use
24-07113	9/26/80	3.48	Industrial	1/1 to 12/31
				to
				to
				to

2. Total amount of water being transferred 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

3. Source of water Groundwater tributary to _____

4. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

5. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	45E	25													I			I	
8S	46E	21							I										
6S	34E	7									I			I		I	I		

DEC 09 1991

Total acres NA

PART 1

6. General Information:

a. Description of diversion system Well, pumps, pipeline

b. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? _____ Yes X No. If yes, provide a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes.

c. Describe the affect on the land now irrigated if the place of use is changed pursuant to this transfer:

There is no irrigation resulting from this appropriation.

d. Remarks:

is complete. The proposed transfer will effectively add the Pocatello facility to the licensed place of use.

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Transfer of Water Rights No. 24-7113

And said application is hereby APPROVED, subject to the following limitations and conditions:

See attached sheet for conditions of approval.

APPROVED

DEC 09 1991

Witness my hand this 4th day of November, 1991.

L. Glenn Saxton

Chief, Water Allocation Bureau

ATTACHMENT
CONDITIONS OF APPROVAL

Transfer of Water Right No. 24-7113

Transfer No. 3863

1. Return flow if discharged to a surface water system shall meet Idaho Water Quality Standards.

2. The change authorized by this transfer shall be accomplished within (1) year of the date of this approval.

3. Failure to comply with the conditions of this transfer is cause for the director to issue an order to show cause why the approval of the transfer should not be rescinded.

4. Approval of this transfer does not preclude the opportunity for review of the validity of the water right(s) in the ongoing Snake River Basin Adjudication.

5. The right holder is not authorized to divert more water than previously diverted under License No. 24-7113.

Dated this 4th day of November, 1991.

L. Glen Saxton

L. GLEN SAXTON
Chief, Water Allocation Bureau

MICROFILMED
DEC 09 1991

Transfer No. 3863

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 2

(Attach one copy for each right)

A. DESCRIPTION OF RIGHT AS RECORDED

1. Right evidenced by:

   a. Decree No. _____ Decreed to _____

   in case of _____ vs. _____

   dated _____ in _____ county of _____

   b. License No. 24-07113 issued by the Idaho Department of Water Resources.

   c. Claim No. _____ on file with the Idaho Department of Water Resources.

   d. Transfer No. _____ which produced this right.

2. Attach a copy of last year's tax notice for the property to which the water right is appurtenant or other documents which show ownership. Label document as attachment A. Check appropriate box below:

   ☒ Tax Notice ☐ Warranty Deed ☒ Other Special USFS Use Permit.

3. Source of water Groundwater tributary to _____

4. Date or priority 9/26/80

5. Water is used for the following purpose:

   amount 3.48 (cfs/ac-ft) for Industrial purposes from 1/1 to 12/31

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

6. Total amount of water under right 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

7. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

8. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	42E	15				I													
8S	45E	25																I	
8S	46E	21							I										

DEC 09 1991

Total acres 0

9. Describe any other water rights used for the same purpose as described above _____

PART 2

Transfer No. 3863

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non-use?

_____ If yes, describe _____

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED

(If the entire right is to be changed by the applicant, omit part B and C.)

1. amount _____ for _____ purposes from _____ to _____ (cfs/ac-ft)
   amount _____ for _____ purposes from _____ to _____ (cfs/ac-ft)
   amount _____ for _____ purposes from _____ to _____ (cfs/ac-ft)

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
~~8S~~	~~42E~~	~~15~~				I													

Total acres _____

C. DESCRIPTION OF UNCHANGED PORTION OF RIGHT *(omit if there is no change)*

1. amount ~~3.48 c.f.s/1,615.2 acft.~~ for ~~Industrial~~ purposes from ~~1/1~~ to ~~12/31~~ (cfs/ac-ft)
   amount _____ for _____ purposes from _____ to _____ (cfs/ac-ft)
   amount _____ for _____ purposes from _____ to _____ (cfs/ac-ft)

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		~~SE~~	~~SE~~	~~24~~	~~8S~~	~~45E~~	~~Caribou~~	

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	~~45E~~	~~25~~													I			I	
	~~46E~~	~~21~~							I										

RECEIVED
DEC 09 1991

Total acres NA

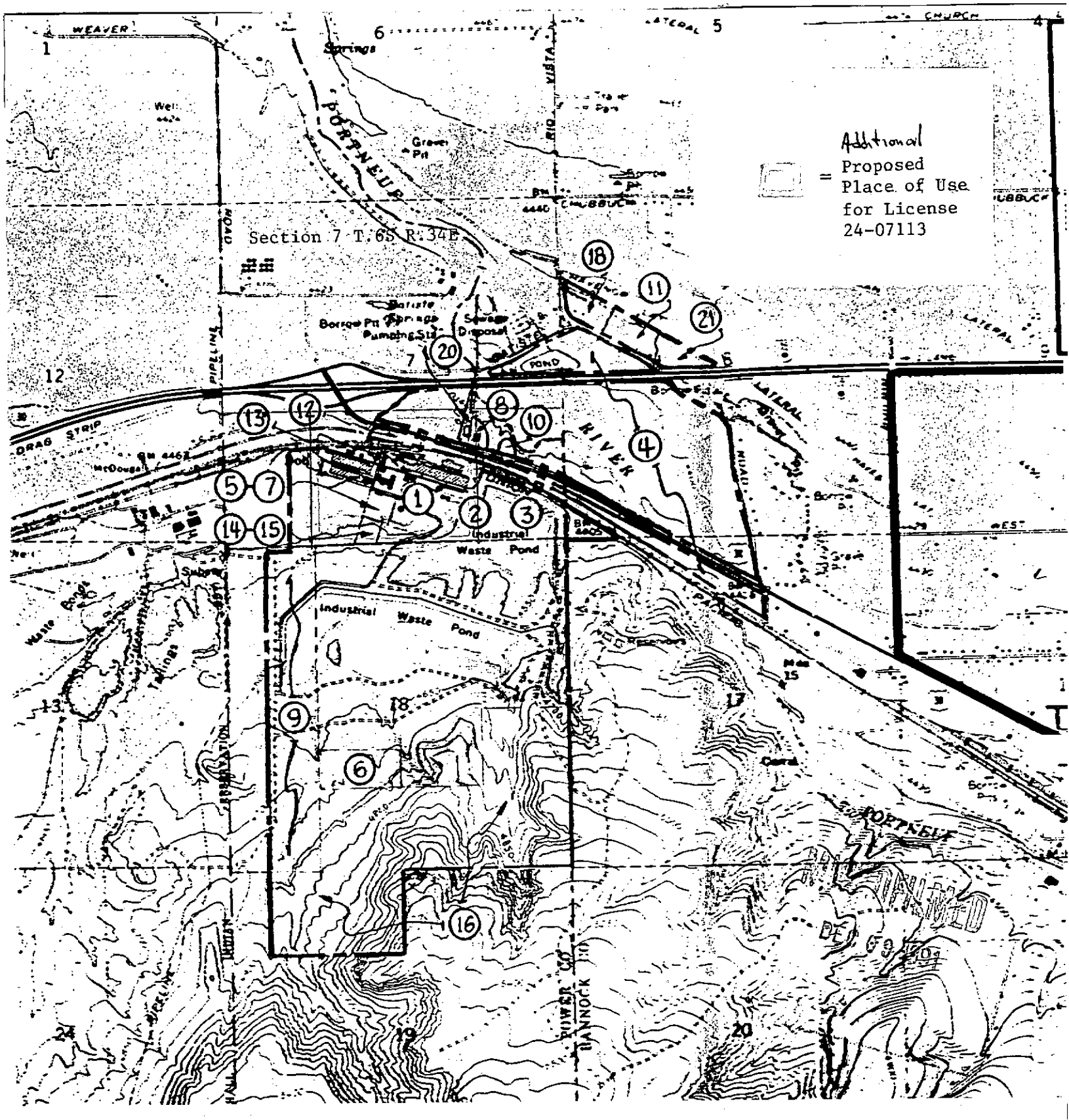
Transfer No. 3863

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

A. Draw a map or attach a USGS map indicating the new point(s) of diversion and/or the new place of use for rights described in part 1. Clearly depict the land by section, township and range number.



Transfer No. 3863

PART 3

B. CHANGES IN NATURE OF USE

1	New Nature of Use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use
				to
				to

2. Quantity and quality of return flows and location of discharge:

No effect on other current water users.

3. Describe effects on other water uses resulting from the proposed change:

I hereby assert that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge.

I understand that any willful misrepresentations made in this application may result in voiding its approval.

Gordon C. Smith (Signature of Applicant)
President, J.R. Simplot Company

Subscribed and sworn to before me this 1st day of July, 19 91.

(Notary Public)

My commission expires 10-13-92

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by _____ Date 7-16-91 Protest filed by _____

Prelim. check by _____ Fee $50.00

Receipted by #CO21188 Date 7-16-91

Published in Caribou County Sun Copies of protest forwarded by _____

Pub. dates 8-22 & 29-91 Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☑ approval ☐ denial

_____ rec'd. _____ by RDC

Copy of transfer sent to lien holder _____

MICROFILMED
DEC 09 1991

Affidavit of Publication

County of Caribou
State of Idaho } ss.

Mark Steele

being first duly sworn on his oath, states:

That he is Publisher of the Caribou County Sun, a newspaper of general circulation in Caribou County, Idaho, published weekly at Soda Springs in said County that said newspaper has been published in said County uninterruptedly and continuously for over seventy-eight consecutive weeks, prior to the first publication of the annexed notice or advertisement;

That the annexed notice was published as per clipping attached in the regular and entire edition of said newspaper and not in any supplement thereof

for 1 successive weekly issues thereof, the date of the first publication being the 22nd day of August, 1991

The date of the last publication being the 22nd day of August, 1991

On this 4th day of Sept. in the year of 1991 before me, a Notary Public, personally appeared

known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Notary Public for Idaho
Residing at Soda Springs, Idaho
My commission expires:
March 11, 1994

PUBLIC NOTICE

First Time Published

NOTICE OF PROPOSED CHANGE OF A WATER RIGHT
No. 24-07113

Notice is hereby given that J.R. Simplot has applied to the Department of Water Resources to change place of use of the waters of a groundwater source. The right sought to be changed is evidenced by License and recorded as follows:

LICENSE NO. 24-07113
AMOUNT: 3.48 cfs
PRIORITY: 9-26-80
POINT(S) OF DIVERSION: SESE, S24, T08S, R45E, B.M. CARIBOU COUNTY

The water is used from January 1 to December 31 for industrial purposes within the SENE, S15, T08S, R42E; E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E, B.M.

TO BE CHANGED AS FOLLOWS:

The water will be used within the E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E (Soda Springs Plant, Caribou County); E1/2SW, W1/2SE, S07, T06S, R34E, (Pocatello Plant, Power County)

Any protests against the proposed change must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before September 9, 1991.

(s) R. KEITH HIGGINSON
Director

Published in the Caribou County Sun on August 22 & 29, 1991.

RECEIVED
SEP 12 1991
Department of Water Resources
Eastern District Office

MICROFILMED
DEC 09 1991

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 24-07113

Priority: September 26, 1980

Maximum Diversion Rate: 3.48 CFS
Maximum Diversion Volume:[1] 1615.2 AF

This is to certify, that J.R. SIMPLOT CO.
P.O. BOX 912
POCATELLO, ID 83204 has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated September 26, 1980; and has submitted Proof of Beneficial Use on June 28, 1985. An examination indicates that the works have a diversion capacity of 3.480 cfs of water from a GROUNDWATER source, and a water right has been established as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION	ANNUAL VOLUME
INDUSTRIAL	01/01 to 12/31	3.48 CFS	1615.2 AF

LOCATION OF POINT(S) OF DIVERSION: SESE , Sec. 24, Township 08S, Range 45E
CARIBOU County

PLACE OF USE: INDUSTRIAL

TWN	RGE	SEC		
08S	42E	15	SENE	
	45E	25	NESE	SESE
	46E	21	SWNW	

CONDITIONS/REMARKS:

1. The maximum diversion volume is defined as the maximum allowable volume of water that may be diverted annually from the source under this right. The use of water confirmed by this right is limited to the amount which can actually be beneficially used. The maximum diversion volume may be adjusted to more accurately describe the beneficial use or to implement accepted standards of diversion and use efficiency.
2. This water right is appurtenant to the described place of use.
3. This right is subject to all prior water rights and may be forfeited by five years of non-use.
4. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
5. When water used under this license is discharged into the natural channel, settling ponds must be maintained which are capable of reducing the silt load to such a level that the quality of water will not be impaired for other beneficial uses.
6. Return water shall be treated to insure that the effluent meets Idaho Water Quality Standards.
7. Industrial use is for Smoky Canyon slurry plant, tailings dam.

MICROFILMED
MAR 20 1990

State of Idaho
Department of Water Resources

WATER RIGHT LICENSE

WATER RIGHT NO. 24-07113

CONDITIONS/REMARKS:

replenishment & phosphate plant in Conda, Idaho.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. Witness the seal and signature of the Director, affixed at Boise, this 19TH day of MARCH, 1990.

Acting for R. Keith Higginson, Director

MICROFILMED
MAR 20 1990

State of Idaho
Department of Water Resources

RECEIVED
APR 13 1989
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 24-07113

APPROVED

Date of Priority: September 26, 1980

Comes now J.R. SIMPLOT CO.
P.O. BOX 912
POCATELLO, ID 83204 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. 24-07113, and requests that the permit be changed as follows:

Source: GROUNDWATER

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION	VOLUME
INDUSTRIAL	01/01 to 12/31	3.48 CFS	1615.2 AFA

LOCATION OF POINT(S) OF DIVERSION: SESE , Sec. 24, Township 08S, Range 45E
CARIBOU County

PLACE OF USE: INDUSTRIAL

TWN	RGE	SEC		
08S	42E	15	SENE	
	45E	25	NESE	SESE
	46E	21	SWNW	

MICROFILMED
MAR 20 1990

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

Signed at Pocatello, Idaho, this 11th day of March, 19 89.

Allen Travis
(Signature)
Senior Vice President

State of Idaho
Department of Water Resources

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
WATER RIGHT NO. 24-07113

****

FOR DEPARTMENT USE ONLY

Preliminary check by KW Fee = $20.00✓ Receipted by K Young Date 4/14/89
#C006333

ACTION OF THE DEPARTMENT OF WATER RESOURCES

I, R. Keith Higginson, of the Department of Water Resources hereby approve the above Application for Amendment for Permit No. 24-07113 with the following;

CONDITIONS/REMARKS:

1. The right to the use of water hereby confirmed is limited to the amount which can actually be beneficially used and is restricted and appurtenant to the lands or place of use and to the purpose herein described, as provided by the laws of Idaho.
2. This right is subject to all prior water rights and may be forfeited by five years of non-use.
3. Modifications to or variance from this license must be made within the limits of Section 42-222, Idaho Code, or the applicable Idaho law.
4. When water used under this license is discharged into the natural channel, settling ponds must be maintained which are capable of reducing the silt load to such a level that the quality of water will not be impaired for other beneficial uses.
5. Return water shall be treated to insure that the effluent meets Idaho Water Quality Standards.
6. Industrial use is for Smoky Canyon slurry plant, tailings dam replenishment & phosphate plant in Conda, Idaho.

Witness my hand this 19TH day of MARCH, 1990.

Norman C Young
Acting for (Director)

MICROFILMED
MAR 20 1990

JW

Affidavit of Publication

County of Caribou
State of Idaho } ss.

Mark Steele

being first duly sworn on his oath, states:

That he is Publisher of the Caribou County Sun, a newspaper of general circulation in Caribou County, Idaho, published weekly at Soda Springs in said County that said newspaper has been published in said County uninterruptedly and continuously for over seventy-eight consecutive weeks, prior to the first publication of the annexed notice or advertisement;

That the annexed notice was published as per clipping attached in the regular and entire edition of said newspaper and not in any supplement thereof

for 2 successive weekly issues thereof, the date of the first publication being the 7th day of December, 19 89

The date of the last publication being the 14th day of December, 19 89

On this 2nd day of January in the year of 1990 before me, a Notary Public, personally appeared

known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Notary Public for Idaho
Residing at Soda Springs, Idaho
My commission expires:
March 11, 1994

PUBLIC NOTICE

First Time Published

APPLICATION FOR AMENDMENT
(For Licensing Purposes)
NO. 24-07113

NOTICE IS HEREBY GIVEN that Permit No. 24-07113 in the name of J.R. Simplot Co., Pocatello, ID, was issued for the diversion of 4.46 cfs of water from a groundwater source with the point of diversion within the SESE Sec. 24, Township 8S, Range, 45E, B.M., Caribou County; to be used for Industrial purposes from January 1 to December 31 with the NESE Sec. 25, Township 8S, Range 45E, B.M.

The permit holder now proposes to amend Permit No. 24-07113, changing the place of use to SENE Sec. 15, Township 8S, Range 42E; NESE SESE Sec. 25, Township 8S, Range 45E; SWNW Sec. 21, Township 8S, Range 46E, B.M. and the rate of diversion to 3.48 cfs.

Any protest to the Licensing Amendment must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before December 26, 1989.

R. Keith Higginson
Director

Published on Dec. 7 and 14, 1989 in the Caribou County Sun.

MICROFILMED
MAR 20 1990

RECEIVED
JAN 16 1990
Department of Water Resources
Eastern District Office

Form 202
3/78

Ident. No 24-7113

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

APPROVED

To appropriate the public waters of the State of Idaho

1. Name of applicant J. R. SIMPLOT COMPANY Phone 233-7500 Ext 454 Bob Kimble.

   Post office address P. O. Box 912, Pocatello, Idaho 83201

2. Source of water supply Groundwater which is a tributary of _____

3. Location of point of diversion is SE ¼ of SE ¼ of Section 24 Township 8S

   Range 45E B.M. Caribou County, additional points of diversion if any: ____
   SW¼ SW¼ S.17 T8S, R46E, also SE¼ SE¼ S.36 T8S, R45E, B.M., and
   SE¼ SE¼ S.25, T8S, R45E B.M. Alternate Sites.

4. Water will be used for the following purposes:

   Amount ~~2000 gpm~~ 4.46cfs (cfs or acre-feet per annum) for Industrial purposes from ~~June 82~~ 1-1 to ~~June 87~~ 12-31 as per telecon 9-27-80 (both dates inclusive)

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

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

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

5. Total quantity to be appropriated:

   a. ~~2000 gpm~~ 4.46 cu.ft./sec. cubic feet per second and/or b. _____ acre-feet per annum.

6. Proposed diverting works:

   a. Description of ditches, flumes, pumps, headgates, etc. Install a pump with water line from well site to the slurry plant. Location of industrial well contingent upon pilot water well tests.

   b. Height of storage dam None feet, active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet, materials used in storage dam: _____

      Period of year when water will be diverted to storage _____ (Month/Day) to _____ (Month/Day) inclusive.

   c. Proposed well diameter is 12 inches; proposed depth of well is 700 feet.

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 2 years as per telecon 9-29-80 years *(minimum 1 year – maximum 5 years).*

8. Description of proposed uses:
   a. If water is **not** for irrigation:
      (1) Give the place of use of water: NE ¼ of SE ¼ of Section 25 Township 8S

      Range 45E B.M.

      (2) Amount of power to be generated: None horsepower 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 _____.

      (5) If water is to be used for other purposes describe: Industrial well to supply water for phosphate slurry plant at Smoky Canyon Mine. Water well test holes will be drilled and draw-down tests conducted to select best producer. The other water well test holes will then be used for ground water monitoring with piezometers installed and a sampling program initiated.

b. If water is for irrigation, indicate acreage in each subdivision in the tabulation below:
None

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

Total number of acres to be irrigated _____

c. Describe any other water rights used for the same purposes as described above. _____

N/A

9. a. Who owns the property at the point of diversion U. S. Government Forest Service

b. Who owns the land to be irrigated or place of use None

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing Special Use Permit through USFS

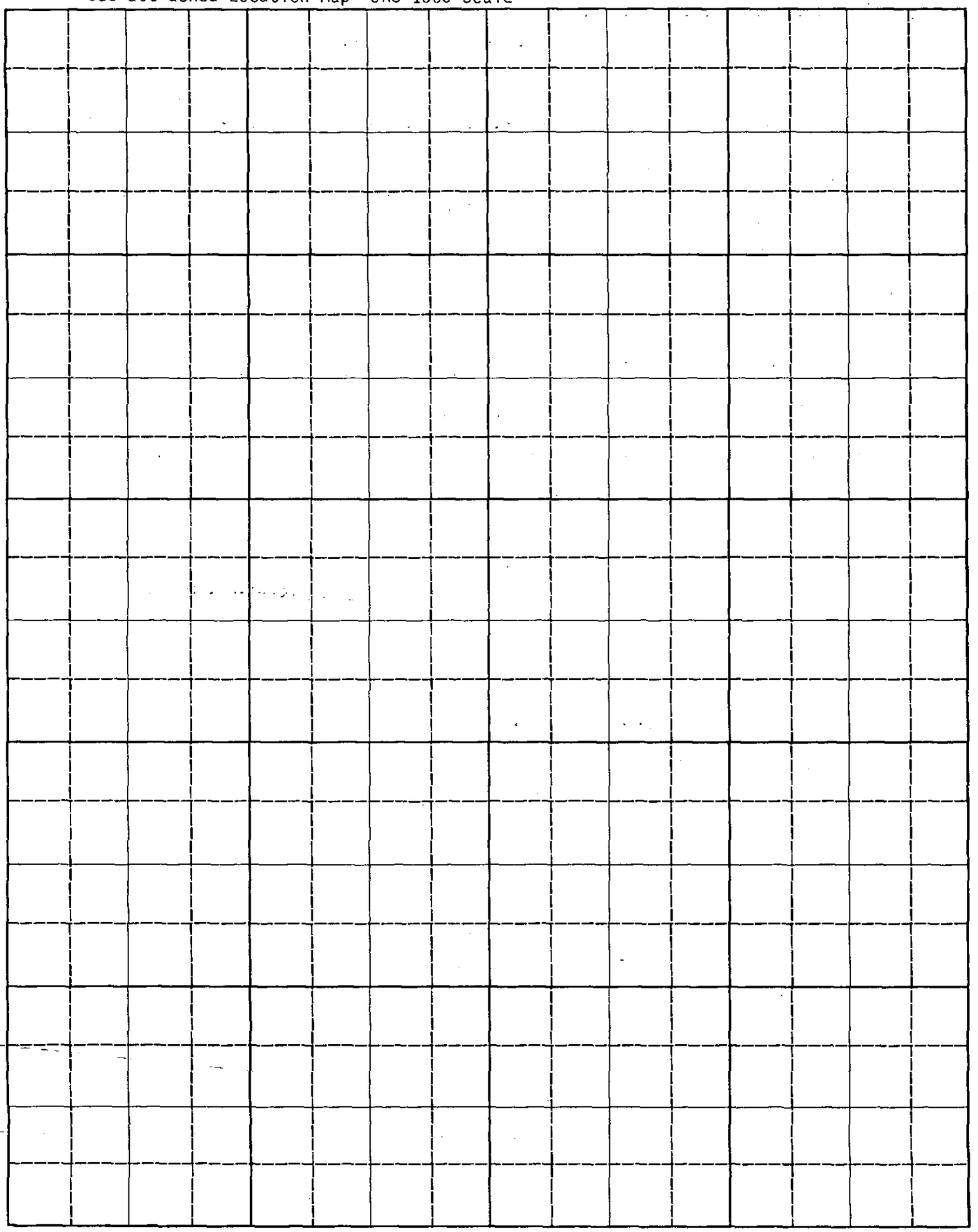
10. Remarks This development will be addressed as part of the Smoky Canyon Phosphate EIS.

Approximately 800 acre feet per year will be required for operation of the slurry line.

MICROFILMED

11. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.

See attached Location Map JRS 1000 Scale



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.

J. R. SIMPLOT COMPANY

By _____

Its Ex-Vice Pres. (Applicant)

Proposed Priority 9-18-1980 kw 9/26/80 11:50 92-6 125.00

Received by JG Date 09-18 Time 9:45

Preliminary check by _____ Fee $ 125.00

Receipted by kw Date 9/26/80 #160216

Publication prepared by kw Date 10/9/80

Published in Caribou Co. Sun

Publication dates 10/23 & 10/30/80

Publication approved kw Date 11/18/80

Protests filed by: None

Copies of protests forwarded by _____

Hearing held by _____ Date _____

Recommended for approval denial by EMC.

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. 24-7113, 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, 19 86.

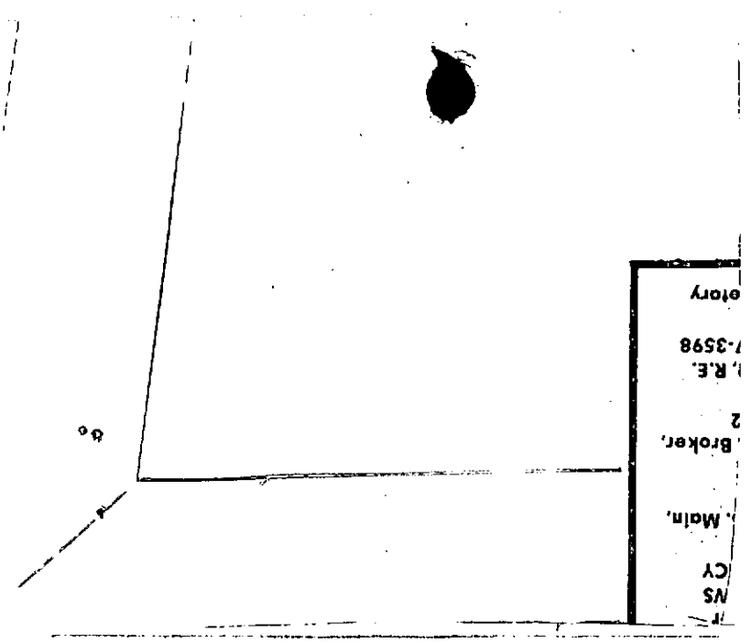
   c. The rate of diversion, if water is to be used for irrigation under this permit, when combined with all other water rights for the same land shall not exceed 0.02 cubic feet per second for each acre of land.

   d. Other: (1) 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. (2) The issuance of this permit in no way grants any right-of-way or easement across the land of another. (3) In the event that water used under this permit should be discharged into a natural channel, settling ponds will be required which are capable of reducing the silt load to such a level that the quality of the water would not be impaired for other beneficial uses. (4) Return flow if discharged to a subsurface system must be authorized by a separate injection well permit, and return flow if discharged to a surface water system shall meet Idaho Water Quality Standards. (5)Applicant shall conduct a pump test if the Director determines a reasonable necessity therefor.

Witness my hand this 21st day of May, 1981.

A. Glen Saxton

Chief, Operations Bureau



PUBLIC NOTICE

First Time Published

NOTICE OF APPLICATION FOR WATER RIGHT

Notice is hereby given that the following application(s) have been submitted for permit to appropriate the public waters of the State of Idaho:

27-7113

J. R. SIMPLOT COMPANY
P.O. BOX 912, POCATELLO, ID 83201
Source: GROUNDWATER
Date Filed: 09-18-1980
Amount: 4.46 CFS
Diversion Point: SESE Sec 24 T 08S R 45E SWSW Sec 17 T 08S R 46E SESE Sec 36 T 08S R 45E SESE Sec 25 T 08S R 45E, CARIBOU Co.
Use: INDUSTRIAL (4.46 CFS) from 01-01 to 12-31
Place of Use: NESE Sec 25 T 08S R 45E
Diversion Means: WELL, PUMP & PIPELINE.

27-7198

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to DIAMOND CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NENW Sec 16 T 08S R 45E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31
Place of Use: NENW Sec 16 T 08S R 45E
Diversion Means: STOCKPOND.

27-7199

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to SLUG CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NWNE Sec 15 T 09S R 44E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 06-01 to 09-30
Place of Use: NWNE Sec 15 T 09S R 44E
Diversion Means: STOCK[illegible] STREAM [illegible] DRY

STREAM tributary to DRY CANYON
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NWSW Sec 02 T 09S R 44E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 06-01 to 09-30
Place of Use: NWSW Sec 02 T 09S R 44E
Diversion Means: STOCKPOND.

27-7203

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to DRY CANYON
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SENE Sec 02 T 09S R 44E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 06-01 to 09-30
Place of Use: SENE Sec 02 T 09S R 44E
Diversion Means: STOCKPOND.

27-7204

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to DRY CANYON
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NENE Sec 02 T 09S R 44E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 06-01 to 09-30
Place of Use: NENE Sec 02 T 09S R 44E
Diversion Means: STOCKPOND.

27-7205

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., O[illegible]EN, UT 84401
Source: UNNAMED STREAM tributary to SHEEP CREEK
Date Filed: 09-[illegible]-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NWNW Sec 14 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31
Place of Use: NWNW Sec 14 T 06S R 43E
Diversion Means: STOCKPOND.

27-7209

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to OLSEN CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SWSW Sec 12 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31
Place of Use: SWSW Sec 12 T 06S R 43E
Diversion Means: STOCKPOND.

27-7210

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to OLSEN CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SESE Sec 11 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31
Place of Use: SESE Sec 11 T 06S R 43E
Diversion Means: STOCKPOND.

27-7211

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to OLSEN CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SESW Sec 01 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31.
Place of Use: SESW Sec 01 T 06S R 43E
Diversion Means: STOCKPOND.

27-7212

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to OLSEN CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: NWSW Sec 06 T 06S R 44E, CARIBOU Co.

27-7213

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to OLSEN CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SESE Sec 01 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 08-31
Place of Use: SESE Sec 01 T 06S R 43E
Diversion Means: STOCKPOND.

27-7214

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to ANGUS CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SWNW Sec 23 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 09-30
Place of Use: SWNW Sec 23 T 06S R 43E
Diversion Means: STOCKPOND.

27-7215

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to SHEEP CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SWNW Sec 25 T06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 09-30
Place of Use: SWNW Sec 25 T 06S R 43E
Diversion Means: STOCKPOND.

27-7216

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to ANGUS CREEK
Date Filed: 09-19-1980
Amount: 0.02 CFS 0.5 AC-FT
Diversion Point: SESW Sec 15 T 06S R 43E, CARIBOU Co.
Use: STOCKWATER (0.02 CFS) from 01-01 to 12-31 STOCKWATER STORAGE (0.1 AC-FT) from 01-01 to 12-31 STOCKWATER FROM STORAGE (0.5 AC-FT) from 07-01 to 09-30
Place of Use: SESW Sec 15 T 06S R 43E
Diversion Means: STOCKPOND.

27-7217

U.S. DEPT. OF AGRI.
FOREST SERVICE, FEDERAL BLDG., 324 25TH ST., OGDEN, UT 84401
Source: UNNAMED STREAM tributary to SHEEP



LOCATION MAP
FOR HYDROLOGIC TEST HOLES

TEST HOLE "A" - TARGET DEPTH 700 FEET; POTENTIAL INDUSTRIAL WELL SITE; EVALUATE LOWER FLOW SYSTEM.
SE¼SE¼ SECTION 24 T8S, R45E B.M.

TEST HOLE "B" - TARGET DEPTH 300 FEET ±; PENETRATE REGIONAL FLOW SYSTEM ASSOCIATED WITH THRUST; OBSERVATION WELL FOR POSSIBLE TEST OF TEST HOLE A.
SW¼SW¼ SECTION 17 T8S, R46E B.M.

TEST HOLE "C" - TARGET DEPTH 300 FEET ±; PENETRATE PHOSPHORIA FORMATION NEAR POLE CANYON TO EVALUATE UPPER FLOW SYSTEM.
SE¼SE¼ SECTION 36 T8S, R45E B.M.

TEST HOLE "D" - TARGET DEPTH 800 FEET POTENTIAL INDUSTRIAL WELL PENETRATE WELLS S.S. PRIMARY AQUIFER
SE¼SE¼ SECTION 25 T8S, R45E B.M.

SMOKY CANYON LEASE CARIBOU COUNTY IDAHO	DRAWN BY: Jim Hemmert CONTOUR INT.: 40' SCALE: 1" = 1000'	J.R. SIMPLOT COMPANY MINERALS & CHEMICAL DIVISION CONDA, IDAHO	SHEET NO. REV... △

Dr. Dale R. Ralston, P.E., P.G.
Consultant in Hydrology
821 Indian Hills Drive
Moscow, Idaho 83843

HYDROGEOLOGY OF THE SMOKY CANYON MINE SITE

-RESULTS OF WELL DRILLING AND PUMP TESTING-

Prepared for

J. R. Simplot Co.

Pocatello, Idaho

October, 1981

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Introduction

The purpose of this report is to present a summary and analysis of data gathered in the well construction and pump testing program at the Smoky Canyon Mine site. Four test wells were drilled during the summer of 1981. A three-day pumping test was conducted in October, 1981.

This is the third in a series of reports dealing with development of the ground water flow system at the Smoky Canyon Mine site. Previous reports have dealt with a reconnaissance of the ground water flow systems at the site (Ralston, 1979) and the siting of an industrial well (Ralston, 1980).

Test Wells

Four test wells have been constructed to evaluate the ground water resource at the Smoky Canyon Mine site (Figure 1). Construction details on these wells are presented in Table 1.

The Pole Canyon well was constructed to a depth of approximately 900 feet. Water enters the hole through a perforated four-inch plastic pipe from the interval of 430 feet to total depth. A static water level of 475 feet was noted on the driller's log. This water level is believed to represent only water cascading down the borehole from the upper perforations and not the static level in the well. A static depth to water of 526 feet was measured on October 22, 1981. The drillers, Monte Staples and Mike Shoemaker, employed by the Jack Cushman Drilling Company, indicated that the static water level in the hole decreased during construction from 192 feet at 700 feet to 420 feet at the 800-foot depth. The well most likely interconnects several aquifers of markedly different

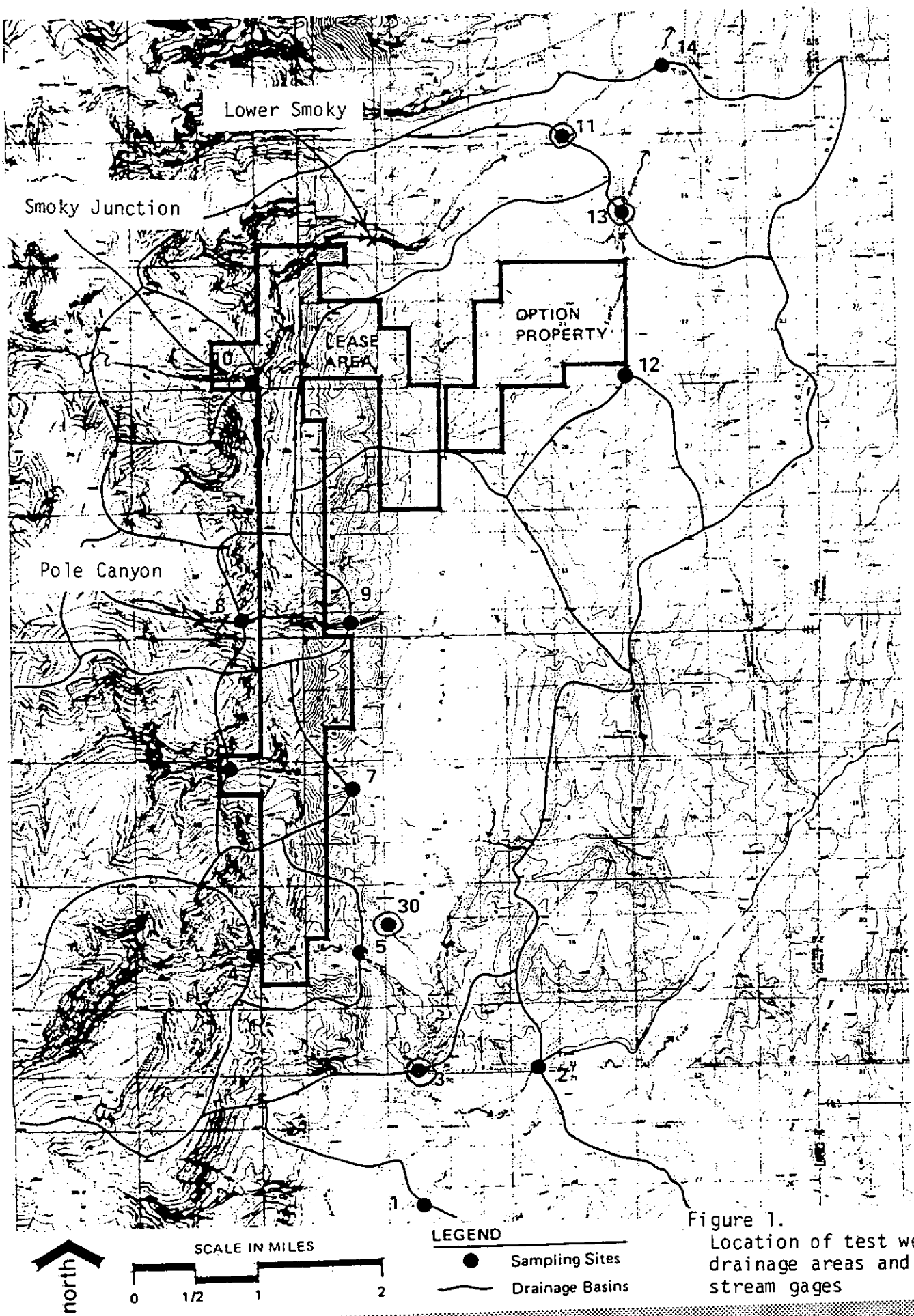


Figure 1.
Location of test wells, drainage areas and stream gages

Table 1. Construction details for test wells at the Smoky Canyon site.

Site	Depth (ft)	Casing Diameter and Type, Top and Bottom	Perforated Interval (ft)
Pole Canyon	900	8-inch steel: +1.5 to 35 feet	----
		6-inch steel: +1.5 to 430 feet	----
		4-inch plastic: 300 to 900 feet	430-900
Smoky Junction	1000	8-inch steel: +1.5 to 350 feet	----
		6-inch steel: +2 to 770 feet	330-390; 570-770
		4-inch plastic: 710 to 940 feet	710-940
Lower Smoky	130	8-inch steel: +1.5 to 22 feet	----
		4-inch plastic: +1.5 to 130 feet	22-130

potential or water level. The measured water level in the hole probably represents a composite of water levels from several different depths. The water level elevation is thus not directly comparable to either water levels in other test holes or spring elevations. The drillers indicated that the Pole Canyon well only produced about 35 gallons per minute at total depth.

The well at the Smoky Canyon Mill site was constructed to a total depth of 845 feet. At this depth, the drilling string was stuck in the hole and the hole was abandoned. Water level data were not obtained at this site.

The third test hole, known as Smoky Junction, was drilled to a total depth of 1,000 feet. The well is constructed so that water may enter the hole through perforations in the six-inch diameter steel casing from 330-390 feet and through perforations in the four-inch plastic casing from 710-940 feet. It is unknown whether the hole has remained open in the uncased interval from 940 feet to 1,000 feet. The static depth to water in this hole also decreased as drilling progressed. The static depth to water was approximately 225 feet at a well depth of about 550 feet. The measured water level was noted as 297 feet by the driller in a completed hole. Again, this water level probably represents a composite of several aquifer zones. It is thus lower than the potential in the upper aquifers and higher than the potential in the lower aquifers. The drillers indicated that they intercepted the largest quantity of water in the sandstone intervals from 800 feet to the bottom of the hole. Drilling was stopped because the rig was "flooded out". This well was test pumped at a maximum rate of about 200 gallons per minute during the

period of October 20-23, 1981. Details of the test are presented later in this paper.

The last test hole was drilled in the lower portion of Smoky Canyon. The lower Smoky test well was constructed to a depth of 130 feet. Water may enter the hole in the interval of 22 to 130 feet through perforations in the four-inch plastic liner. The drillers indicated that the lower Smoky Canyon well produced about 30 gallons per minute during construction.

The limited hydrologic data obtained during construction of the test wells indicates the presence of layered zones of high and low hydraulic conductivity in the red sandstone facies of the Wells formation. A number of semi-separated aquifer systems appear to be present within the stratigraphic sequence penetrated by the test holes. This is most strongly indicated by the marked changes in water levels within the test holes during construction. As was anticipated, the depth of water increases with increasing well depth. This downward potential gradient indicates that the well is in the recharge portion of a flow system. The elevation of water level in the three test wells ranged from a maximum of 6,936 in the Smoky Junction test well to 6,702 in the Pole Canyon test well and 6,693 in the lower Smoky Canyon test well. These elevations are all higher than the discharge elevations of springs in the area: lower south Sage spring at 6,640 feet, Hoopes spring at 6,640 feet, lower Smoky Canyon spring at 6,620 feet, and Roberts spring at 6,669 feet. Again, it must be noted that one cannot directly compare the water level elevations in the test wells with the elevations of the springs because the water levels in the two deeper test holes are composites of several aquifer systems.

However, it is apparent that the water level elevation in the Smoky Canyon test well, is markedly above the elevation of the springs.

Pump Test

The three-day pump test was conducted utilizing the test wells and selected springs near the Smoky Canyon Mine site. A submersible pump was installed in the Smoky Junction well. Water level measurements were taken on the Smoky Junction well, the lower Smoky Canyon well and the Pole Canyon well. Discharge measurements were obtained on Hoopes spring, Roberts spring, and the lower Smoky spring. The test was conducted by Bob Black and Jim McWilliams of the J. R. Simplot Company and myself. Jack and Bob Cushman were present at the site during the first day of pumpage.

A Red Jacket submersible pump was installed by Jack Cushman to a depth of 668 feet in the Smoky Junction well. The pump is a 40 hp model 16-HB. Power was supplied to the submersible pump utilizing a portable diesel driven electric generator placed on site. The generator and pump operated without problem during the duration of the test. The discharge line of the pump was attached to a three-inch diameter section of PVC pipe. A gate valve was installed near the pump head to regulate discharge. The pump was operated at discharge rates of approximately 125 and 190 gallons per minute. The latter discharge rate was obtained with the gate valve fully open. This represents the extreme upper end of the operating range for the pump as shown on the factory performance curve.

The discharge rate from the pumping well was measured primarily using the California pipe technique. This involves field measurement

of the distance-drop relationship of water discharging from the three-inch PVC pipe. The discharge measurement technique was checked using both the inplace 12-inch parshall flume located near the Smoky Junction site and a portable 90° V-notch weir. The discharge measurements are believed to be accurate to ±10 percent.

Depth to water measurements were obtained in the Smoky Junction well using an electric well sounder attached to a steel tape. Measurements are accurate to ±0.02 feet. The electric tape was inserted into the small diameter PVC pipe installed for use as an air line. An air line technique for water level measurement was not used at this site because the PVC pipe is broken immediately below the well head. The depth to water measurements in the pumping well are considered excellent. Depth to water measurements in the lower Smoky Canyon well were obtained using a cloth tape. These measurements are accurate to ±0.1 of a foot. Considerable difficulty was encountered in measuring the depth to water in the Pole Canyon test hole. The difficulty was caused by falling water within the well and a static depth to water greater than 500 feet. The most accurate measurement of the static water level in Pole Canyon was obtained using a sounding line and float. Static depth to water measurements reported by the driller and by J. R. Simplot personnel using an electric tape and a gamma logger were in the range of 460-480 feet. These measurements are believed to reflect only where water enters the well through perforations in the casing. The static depth to water measurement of 526 feet in the Pole Canyon well is believed to be accurate to ±2 feet.

Measurements of spring discharge were recorded at lower Smoky spring, Roberts spring, and Hoopes spring. The discharge measurements

at the lower Smoky site were obtained using an inplace parshall flume with a 12-inch throat. These measurements should be accurate to ±5 percent. The measurements at Roberts spring were obtained using a temporary 90° V-notch weir. The height of water was measured in the V. These measurements should be accurate to ±15 percent. The discharge at Hoopes spring was measured using a current meter. These measurements should be accurate to ±10 percent.

The pumping well was turned on at 1:34 p.m. on October 20, 1981. Field measurements of discharge and depth to water in the pumping well are presented in Appendix 1. The pumping rate was noted initially to be 85 gallons per minute but within five minutes it had been stabilized at 122 gallons per minute. The water discharged was initially cloudy with a small amount of fine reddish colored sand. The discharge of the well was increased at 2:30 p.m. to 190 gallons per minute. The water gradually became less cloudy until it was almost clear by 3:30 p.m. The pumping rate was maintained at approximately 190 gpm throughout the remainder of the test; the water remained clear throughout the remainder of the test. Depth to water measurements were obtained in the pumping well initially at a rate of approximately four measurements per minute gradually decreasing in frequency to approximately one measurement every two minutes by two hours into the test, one measurement every five minutes by four hours into the test, one measurement every 30 minutes by eight hours into the test to a final frequency of one measurement every four hours after almost three days of pumpage. Measurements of depth to water in the lower Smoky test well were obtained approximately four times per day during the early portion of the test to approximately one measurement per day on

the latter portion. The springs were measured several times per day for the duration of the test. Depth to water measurements in the Smoky Junction well were obtained frequently for a period of two hours after the pump was turned off at 12 noon on October 23. The water level in this well was measured again on both October 26 and 28.

Water level data from the pumping well are presented in graphical form as a semi log plot of drawdown versus the log of time on Figure 2. The water level in the pumping well declined approximately 48 feet during the three-day test. Utilizing standard aquifer analysis techniques (Lohman, 1972), it is possible to calculate an aquifer transmissivity of approximately 2,600 gal/day/ft for the data in the interval of 100-2000 minutes. The deviation of the data from straight line at approximately 2000 minutes into the test is believed to represent a discontinuity or boundary to the aquifer system. This boundary is most likely a fault believed present along the axis of Smoky Canyon. The possible location of this fault is discussed later.

Data on the rate of water level recovery in the pumping well may also be utilized to evaluate aquifer parameters. A semi-log plot of the residual drawdown in the pumping well versus the log of the ratio of time since pumping started (t) to the time since pumping stopped (t') is presented in Figure 3. A transmissivity value of 6200 gal/day/ft may be calculated from these data. An aquifer boundary is not directly evident from the recovery data.

Effects from pumping the Smoky Junction well were not measured in the lower Smoky well or any of the springs that were monitored. The lack of measurable impact was anticipated because all of the observation sites are located more than 1.5 miles from the pumping well.

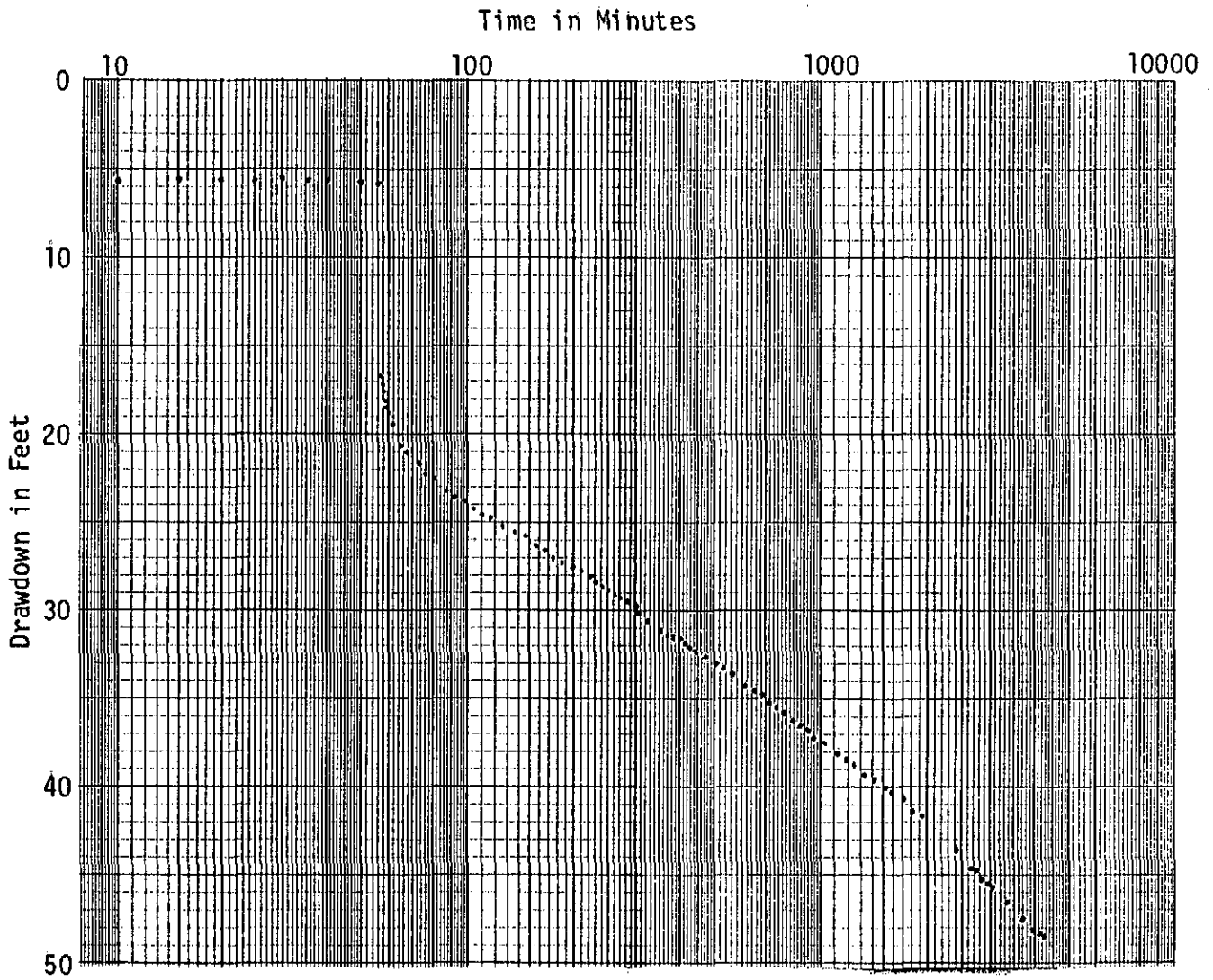


Figure 2. Semi-log plot of drawdown versus time for the Smoky Junction well.

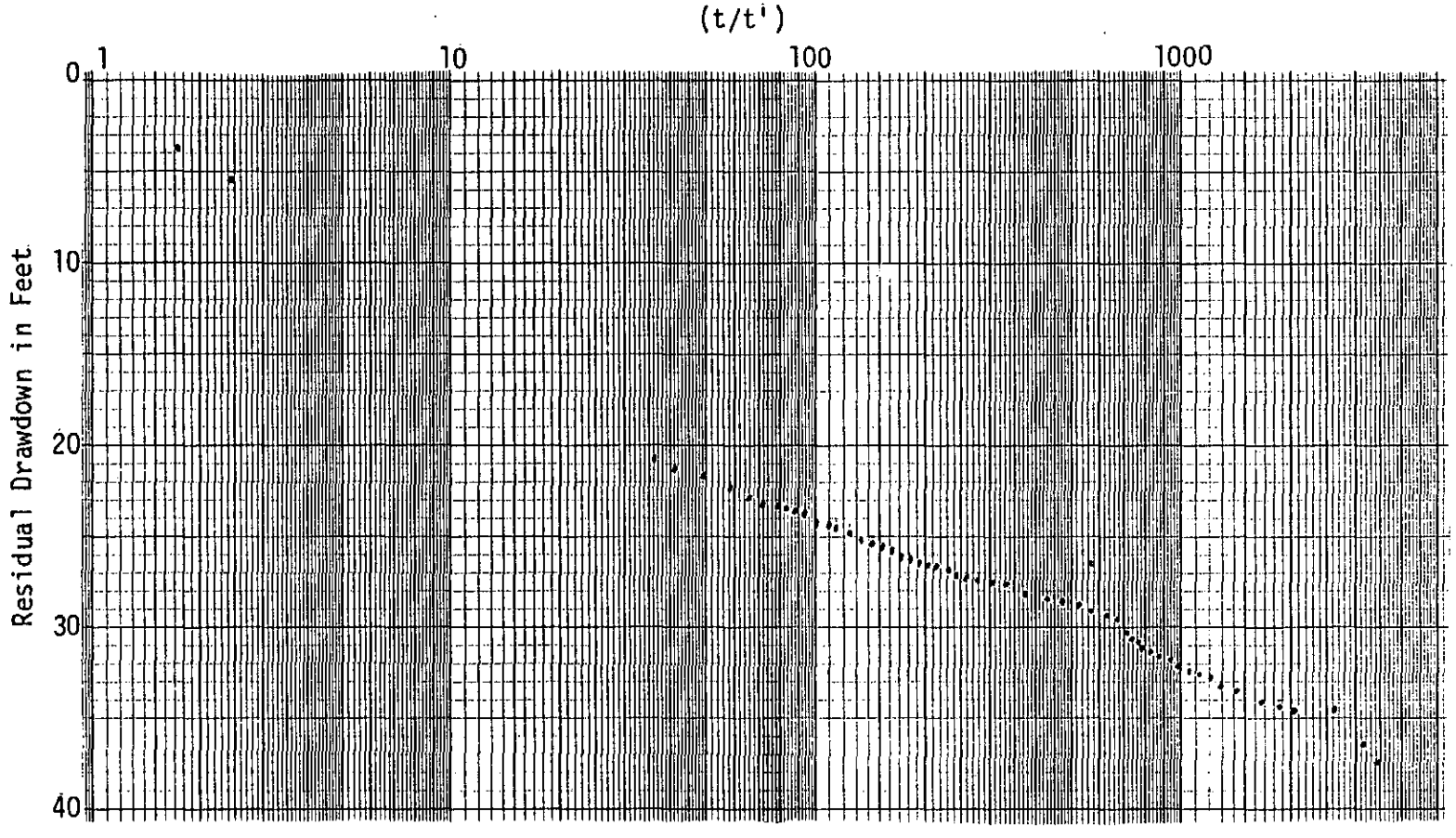


Figure 3. Semi-log plot of residual drawdown versus the ratio of time since pump on (t) to time since pump off (t') for the Smoky Junction well.

Two aquifer parameters are necessary for prediction of water level declines at various distances and times from any proposed pumping in the Smoky Canyon area. One of these factors, transmissivity, is determinable from the pump test data. The other factor, the coefficient of storage, may be obtained from a field test only utilizing data from an observation well. Drawdown was not measured in any observation well at the Smoky Canyon site. However, it is possible to estimate the magnitude of coefficient of storage for this particular site from assumed values of the effective radious of the pumping well and the drawdown resulting from friction loss from water entering the well and the drawdown data from the pumping well. The coefficient of storage is believed to be in the range of 0.1 to 0.2 based upon an effective radius of the pumping well of 3 to 4 feet and minimal well losses. These values of the coefficient of storage indicate that the aquifer penetrated by the pumping well is under unconfined conditions. This probably results from the westward dip of the stratigraphic units in the area. The predicted aquifer coefficients of transmissivity (3600 gal/day/ft) and storage (0.1) indicate that the pumpage of the test well influenced only a relatively small portion of the aquifer. Using these coefficients, a water level change of one foot or more only extended about 260 feet from the pumping well after three days of pumping at a rate of 190 gal/min. It is possible to estimate the distance to the boundary shown in the drawdown data using the predicted aquifer coefficients. The boundary appears to be located from 75 to 150 feet from the pumping well. It is most likely the fault postulated to be aligned parallel to Smoky Canyon (Ralston, 1980).

It is important to note that the water level in the pumping well did not fully recover to the prepumping level; the water level was about 4 feet lower than the pretest level about 4 days after the pump was shut off. The significance of this lack of full recovery will be discussed later.

Implications for Industrial Well Development

It is possible to utilize the transmissivity value determined from the test and the value of the coefficient of storage estimated from the test to predict the water level declines that would be associated with development of an industrial well with various capacities at the Smoky Junction site. The drawdown estimates must be considered only as rough indicators of the magnitude of impacts because of the limited hydrologic data in the vicinity of the mine and the complexity of the hydrogeologic setting.

The estimates of water level changes resulting from pumpage of an industrial well at the Smoky Junction site are based upon the Theis model of non-steady state ground water flow (Lohman, 1972). This analytical model has a number of restrictive assumptions. The most important of these are that the aquifer is homogeneous and isotropic and of infinite areal extent. These assumptions are particularly ill suited to the complex geologic setting of the Smoky Canyon Mine site. However, the Theis technique provides the best vehicle for predicting impacts from well pumpage. Geologic discontinuities (faults) will tend to make drawdown estimates based upon the Theis model lower than actual. These boundaries are increasingly more significant as impacts are projected further through time; long term

projections are thus less reliable than short term projections.

Finally, the predicted impacts are only as valid as the imput data. The transmissivity value of 3600 gal/day/ft calculated from the drawdown data is believed to reasonably represent the aquifer near the pumping well. It is not known why the recovery data indicated a significantly higher value (6200 gal/day/ft). This may be due to development of the aquifer during the test. Predictions of the water level changes will be based upon the smaller value and will thus be conservative. The larger transmissivity value would give smaller estimates of water level change near the aquifer. A value of 0.1 will be used for the coefficient of storage for prediction purposes. The accuracy of this number is not known.

Predicted water level changes are divided into two discussions: 1) time discharge-drawdown relationships at the pumping site and 2) time discharge-drawdown relationships at possible impact points. The former classification is needed for design and construction of the industrial well. The latter classification is needed for assessment of possible impacts from development.

Industrial Well Design

Two alternative well construction schemes were considered in assessing the potential productivity at the Smoky Junction site. The first case assumes an industrial well constructed to a depth of 1000 feet at the test well site. The static depth to water should be about 300 feet. The top of the aquifer and thus the lowest logical pumping level is about 800 feet. This provides about 500 feet of available drawdown as an absolute maximum. It is most reasonable to allow at least 100 feet of drawdown for

water level decline over the life of the project and 50 feet of drawdown for friction losses of water movement in and near the well. This leaves about 350 feet of drawdown available for predictable aquifer loss (drawdown calculated by the Theis equation).

Several possible pumping schedules are presented in Table 2 based upon 350 feet of available drawdown and the above noted aquifer parameters. The table shows that a drawdown of 350 feet would be reached after only 0.22 days of pumping at a rate of 2000 gallons per minute. This indicates that an industrial well of this capacity would have to be on a pumping schedule of about 300 minutes on followed by 300 minutes off. A pumping rate of 1500 gallons per minute could be maintained with an on/off schedule of about 1.3 days per cycle. The 1000 gallons per minute pumping rate could be maintained continuously for more than 50 days before reaching a critical drawdown. The known and anticipated boundary conditions would probably reduce the length of pumping periods presented in Table 2 by 10 to 15%

Table 2. Alternative pumping schedules assuming 350 feet of available drawdown, T = 3600 gal/day/ft, S = 0.0 and the Theis assumptions.

Pumping Rate (gallons per minute)	Longest Possible Period of Continuous Pumpage (days)
2000	.22
1500	1.3
1000	53

The second well construction scheme considered assumes an industrial well constructed to a depth of about 1500 feet at the test well site. It is reasonable that a deeper production well would intercept more water producing zones and thus increase the transmissivity. For purposes of this report, it is assumed that the transmissivity of a 1500-foot well would be twice that of a 1000-foot well. I believe this is a reasonable assumption since most of the productive aquifer zone was penetrated in the test well from 800 to 1000 feet. A deeper production well would probably have a greater static depth to water. An available drawdown of 350 feet is assumed for these calculations based on the assumption that any lowering in ground water level will be compensated by greater hole depth.

Table 3 presents several possible pumping schedules assuming the higher transmissivity value derived by a 1500-foot production well. The projected maximum on/off pumping cycle at a rate of 2000 gallons per minute increases under this senario to about 26 days. The projection that a 1000 gallon per minute well could operate continuously for almost three years before reaching a critical drawdown is almost certainly not valid. The calculations do indicate that an intermittent water supply of 1500 gallons per minute is possilbe in the area if the transmissivity could be doubled by constructing the industrial well to a greater depth than the test well.

Table 3. Alternative pumping schedules assuming 350 feet of available drawdown, T = 7200 gal/day/ft, S = 0.1 and the Theis assumptions

Pumping Rate (gallons per minute)	Longest Possible Period of Continuous Pumpage (days)
2000	26
1500	1000

The fact that the Smoky Junction test well did not recover to its pretest water levels must be considered in the design and construction of an industrial well. The lack of full water level recovery could be due to either of two different physical conditions: 1) the aquifer has limited lateral extent and is thus being dewaterd, much as pumping from a large tank, or 2) pump testing the well resulted in differential development of the multiaquifers intercepted by the well and thus a change in the composite water level. The first physical condition would severely reduce the attractiveness of development of ground water at the site. An industrial well would quickly cause much greater than predicted drawdowns and probably not be satisfactory. The second physical condition would not be a major hindrance to development. At this time, the exact cause of the lack of full water level recovery is not known.

Impacts from Development

Pumpage of ground water must deplete the resource by the amount removed. The depletion is balanced initially by water level decline and removal of water in storage. Given enough time, a new equilibrium may be established with the pumpage balanced by an increase in ground water recharge or a decrease in ground water discharge. It is not known what form the long term impact of industrial well development at the Smoky Canyon site might take. It is evident that there is considerable natural discharge from the regional aquifer in the Wells formation. It is also evident that there is a very large quantity of water in storage in the aquifer system. The aquifer parameters estimated from the pump test indicate that the cone of water level depression caused by pumpage would enlarge very slowly. For example, given the conditions of Table 2 and

a pumping rate of 1000 gallons per minute, the water level decline at a distance of 2000 feet would be about 0.1 feet after 50 days of pumpage. Distant springs might be affected only after very long time lags. The potential for impacting the springs located at an elevation of about 6640 feet along the trace of the thrust fault is further minimized by the apparent lack of direct hydraulic interconnection between the springs and the aquifer intercepted by the well. The composite water level in the Smoky Junction test well is about 300 feet higher than the spring elevations.

Conclusions

Construction of test wells and operation of a pump test have provided the basis for a much improved understanding of ground water systems near the mine site. It must be emphasized, however, that our knowledge of the system is still poor.

The following conclusions may be stated as a result of the 1981 investigation program.

1. The test wells indicate that the ground water potential (water level elevation) decreases with increased depth. The mine site is in the recharge portion of a flow system.
2. Several individual aquifers were penetrated in the Smoky Junction test well. The static water level in the well is a composite of these several aquifers.
3. The Smoky Junction test well was test pumped at an average rate of 190 gallons per minute for a period of about three days. The maximum drawdown due to pumpage was 48 feet.

4. The water level in the pumping well was about 4 feet lower than pretest levels four days after the pump was shut off. It is not known why the water level did not fully recover to pretest levels.
5. A transmissivity value of 3600 gal/foot/day was calculated from the drawdown portion of the test.
6. The coefficient of storage was indirectly estimated to be 0.1 to 0.2.
7. A negative boundary was noted in the drawdown data. Based upon the above aquifer parameters, the distance to the boundary was estimated to be 75 to 150 feet.
8. The above aquifer parameters were used to evaluate possible pumping schedules. A yield of 2000 gallons per minute is probably not possible from a 1000-foot well near the Smoky Junction test site. It appears feasible to obtain 1000 gallons per minute on an on/off pump schedule at the site.
9. A deeper industrial well (@1500 feet) would probably yield significantly more water.
10. Any impacts on spring flow would probably occur only after a long lag time. The potential for impacting the springs that discharge at about 6640 feet elevation is probably very small because of the 300-foot higher static level in the test well.

Recommendations

Continued data collection is necessary to better understand the hydrologic system. Depth to water measurements in all three test wells

should be obtained as frequently as possible throughout the winter and spring periods. Measurement should be accurate to 0.1 feet.

A long term (@20 day) pump test would be helpful in better understanding the hydrologic system at the mine site, particularly aquifer boundaries. Such a test would also answer questions raised by the lack of full water level recovery after the three-day test. Construction of a 1000-foot observation well within 300 feet of the pumping well would optimize aquifer analysis.

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Ralston, D. R., 1979, Hydrogeology of the Smoky Canyon Mine Site - A Reconnaissance: Consulting Report Prepared for J. R. Simplot Co., Moscow, Idaho, 36 p.

_____, 1980, Hydrogeology of the Smoky Canyon Mine Site - Siting of an Industrial Well: Consulting Report Prepared for J. R. Simplot Co., Moscow, Idaho, 16 p.

APPENDIX 1

Water Level Data, Smoky Junction Well

Static depth to water = 297 feet

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
0.23	7.32				Pump on at 1334 on 10/19/81
0.42	10.32				
0.60	6.21				
0.73	5.47				
0.88	5.52				
1.0	5.41				
1.2	5.43				
1.5	5.54				
1.8	5.61				
2.0	5.63				
2.4	5.57				
2.9	5.57			85	
3.5	5.73				
3.8	5.77				
4.4	5.81				
5.3	5.83				
6.2	5.84				
6.5	5.87				
6.7	5.80			97.5	
10.3	5.83				
11.9	5.87			110	
13.8	5.84				
15.2	5.87			122	
16.7	5.85				
17.3	5.78				
18.5	5.78				
19.1	5.78				
20	5.77			122	
21	5.95				
23	5.78				
25	5.78				
27	5.78			122	
28	5.79				
29	5.79				
31	5.78				
32	5.78				
34	5.78			122	

APPENDIX 1 - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
36	5.75				
37	5.79				
38	5.77				
39	5.78				
40	5.76				
42	5.79			122	
44	5.78				
46	5.77				
48	5.78				
49	5.78				
51	5.79				
56	5.78				turned up
57.0	16.71			196	
57.2	17.11				
57.6	17.50				
58.0	17.84				water cloudy
58.6	18.06				
58.8	18.33				
59.0	18.44			190	
59.5	18.62				
60.0	18.83				
60.8	19.09				
61.5	19.29				
62.3	19.51				
63.0	19.69				
64.0	19.87				
64.7	20.09				
65.7	20.30				
67	20.62				
68	21.00				
70	21.30				less cloudy
72	21.56				
74	21.86			190	
76	22.12				
78	22.37				
80	22.52				
82	22.72				more cloudy maybe rust ?
84	22.92				
86	23.12				
88	23.27				
90	23.32				
92	23.52				
94	23.62				

APPENDIX 1 - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
96	23.77				
98	23.82				
100	23.97				little clearing
102	24.12				
104	24.17				little more clearing
106	24.30				
108	24.44				
110	24.57				
112	24.69				much clearer
116	24.80				
121	24.92				almost clear
126	25.09				
131	25.22				
136	25.52				
141	25.74				
146	25.94				
151	26.15				
156	26.37				
161	26.57				
166	26.74				
171	26.91				
176	27.00				
181	27.12				
186	27.27				clear
191	27.41				
196	27.60				
201	27.70				
206	27.87				
211	27.92				
216	28.07				
221	28.20				
226	28.32				
231	28.42				
236	28.56				
241	28.70				
246	28.78				
251	28.87				
256	28.98				
261	29.08				
266	29.17				
271	29.30				
276	29.39				

APPENDIX I - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
281	29.50				
286	29.59				
291	29.69				
296	29.80				
301	29.89			202	open wide
303	30.07				
304	30.10				
317	30.43			195	
328	30.63				
341	30.88			195	
356	31.03				
371	31.28				
386	31.49				
401	31.59				
416	31.96				
418	31.94				
429	32.10				
446	32.29				
476	32.65				
506	33.01				
536	33.35				
566	33.70				
614	34.19				
656	34.68				
686	34.94				
716	35.23				
751	35.49				
791	35.95				
836	36.23			190	
881	36.57				
926	36.85				
971	37.26				
1016	37.55				
1061	37.78			190	
1106	38.04				
1151	38.35				
1196	38.51			190	
1241	38.91				
1311	39.37				
1346	39.52				
1406	39.62				
1466	39.89				

APPENDIX 1 - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
					Dick McGuire of Marrah Assoc. took a water sample, temp = 43.8°F will analyze for full range of constituents. will send to me @ 3 weeks. field pH = 7.2
1505	40.01				
1526	40.16				
1586	40.37			190	
1706	40.82				
1826	41.52				
1946	41.82				
2437	43.76			190	
2696	44.78			190	
2771	44.93				
2878	45.34				
2933	45.50				
3086	45.85				
3366	46.72				
3746	47.50				
3986	48.02				
4106	48.34				
4176	48.40				
4226	48.47				pump off at 12 noon on 10/23/81
4227	37.37	1.22	3465		
4227	36.47	1.35	3131		
4228	34.47	1.62	2610		
4228	34.77	2.07	2042		
4228	34.47	2.28	1854		
4229	34.07	2.53	1671		
4229	33.67	2.95	1434		
4229	33.27	3.27	1293		
4230	32.97	3.52	1202		
4230	32.67	3.82	1107		
4230	32.47	4.00	1057		
4230	32.27	4.13	1024		
4230	32.07	4.30	984		

APPENDIX 1 - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
4230	31.87	4.48	944		
4231	31.67	4.87	869		
4231	31.47	5.00	846		
4231	31.27	5.15	822		
4231	31.07	5.32	795		
4232	30.87	5.50	769		
4232	30.67	5.67	746		
4232	30.47	5.83	726		
4232	30.27	5.90	717		
4232	29.87	6.58?	643?		
4232	29.47	6.32	670		
4233	29.27	6.80	622		
4233	29.07	7.40	572		
4234	28.87	8.13	521		
4235	28.67	9.00	471		
4236	28.47	9.87	429		
4236	28.27	10.07	421		
4237	28.07	11.42	371		
4239	27.87	12.67	335		
4240	27.67	13.92	305		
4241	27.47	15.18	279		
4242	27.37	15.73	270		
4242	27.27	16.33	260		
4243	27.17	17.02	249		
4244	27.07	17.57	242		
4244	26.97	18.37	231		
4245	26.87	19.00	223		
4246	26.77	19.83	214		
4247	26.67	20.73	205		
4247	26.57	21.28	200		
4248	26.47	21.97	193		
4249	26.37	22.67	187		
4249	26.27	23.42	181		
4250	26.17	24.05	177		
4251	26.07	24.82	171		
4251	25.97	25.38	167		
4252	25.87	26.22	162		
4253	25.77	27.08	157		
4254	25.67	27.95	152		
4255	25.57	28.65	149		
4255	25.47	29.37	145		
4256	25.37	30.05	142		
4257	25.27	30.82	138		
4258	25.17	31.70	134		

APPENDIX T - cont'd

Time Since Pump On (t) (min)	Drawdown (ft)	Time Since Pump Off (t') (min)	(t/t')	Discharge (gal/min)	Comments
4258	25.07	32.40	131		
4259	24.97	33.27	128		
4260	24.87	34.32	124		
4261	24.77	35.38	120		
4262	24.67	36.42	117		
4263	24.57	37.50	114		
4265	24.47	38.67	110		
4266	24.37	39.68	108		
4269	24.17	42.68	100		
4272	23.92	45.68	93.5		
4275	23.73	48.68	87.8		
4278	23.50	51.68	82.8		
4281	23.31	54.68	78.3		
4286	23.02	59.68	71.8		
4290	22.82	64.68	66.3		
4300	22.32	74	58.1		
4316	21.91	90	47.9		
4331	21.36	105	41.2		
4346	20.87	120	36.2		
7091	5.37	2865	2.47		
10006	3.77	5780	1.73		

APPENDIX 2

Simplot

NERALS & CHEMICAL DIVISION

INTER-OFFICE COMMUNICATION

TO: Bob Black

DATE: November 2, 1981

FROM: Jim McWilliam

SUBJECT: Smoky Canyon Well-Test Data.

Enclosed are the Smoky Canyon well-test data I collected during the last two weeks of October.

All data except that of 10/30 was phoned to Ralston at Moscow. He said he would get the remainder during the hearings at Afton on November 4th.

Jim

JM:ll

Encl.

cc: G. Ralston

HOOPES SPRING

DATE	TIME	CFS
10/19/81	14:30	6.43
10/20/81	15:00	6.66
10/21/81	10:50	6.19
10/21/81	17:00	6.29
10/22/81	11:10	5.96
10/22/81	16:48	5.77
10/23/81	10:00	6.17
10/26/81	15:00	6.05
10/28/81	14:30	6.56
10/30/81	14:00	5.71

$\overline{X}$ = 6.18

S = .32 = 5%

LOWER SMOKY

DATE	TIME	CFS
10/19/81	11:37	.55
10/19/81	12:41	.55
10/20/81	08:30	.55
10/20/81	17:00	.55
10/21/81	08:35	.55
10/21/81	15:24	.55
10/22/81	08:47	1.11*
10/22/81	12:55	.55
10/22/81	14:54	.55
10/23/81	13:29	.55
10/26/81	12:15	.51
10/28/81	12:00	.48
10/30/81	12:24	.51

$\overline{X}$ = .54

S = .02 = 4%

*(ice?) Questionable-deleted?

ROBERTS CREEK

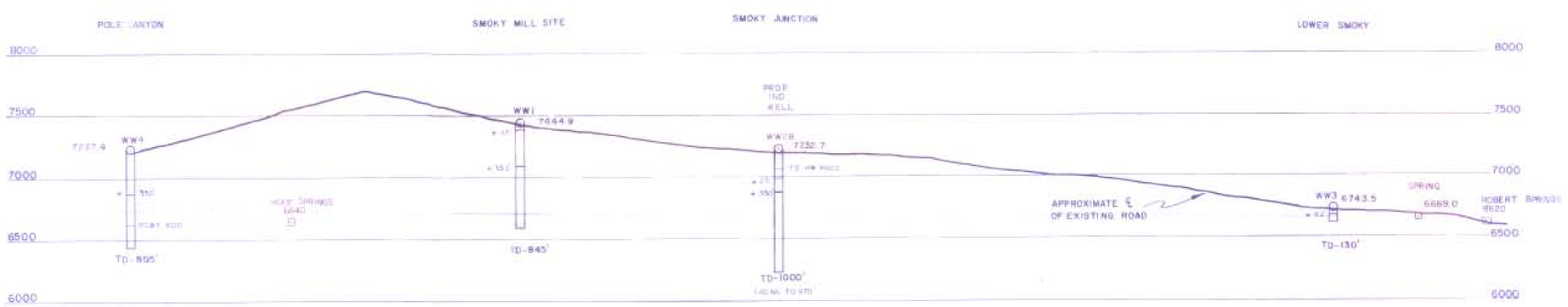
DATE	TIME	CFS
10/19/81	12:12	.16
10/20/81	12:25	.15
10/21/81	08:12	.14
10/21/81	13:11	.16
10/22/81	08:23	.16
10/23/81	13:46	.16
10/26/81	12:40	.16
10/28/81	12:20	.16
10/30/81	11:30	.15

$\overline{X}$ = .16

S = .01 = 6%

WELL MEASUREMENTS

DATE	TIME	DEPTH
10/26/81	11:45	25.90
10/28/81	11:30	24.30
10/30/81	12:00	24.55



FOR CLERICAL USE ONLY

COPY TO:

JUN 2 0 1992

J. R. SIMPLOT COMPANY

MINERALS & CHEMICAL DIVISION
POCATELLO, IDAHO

SMOKY CANYON MINE
WATER WELLS (1981)
LOCATION & ELEVATION
1"=1000' HORIZ.
1"=500' VERT.

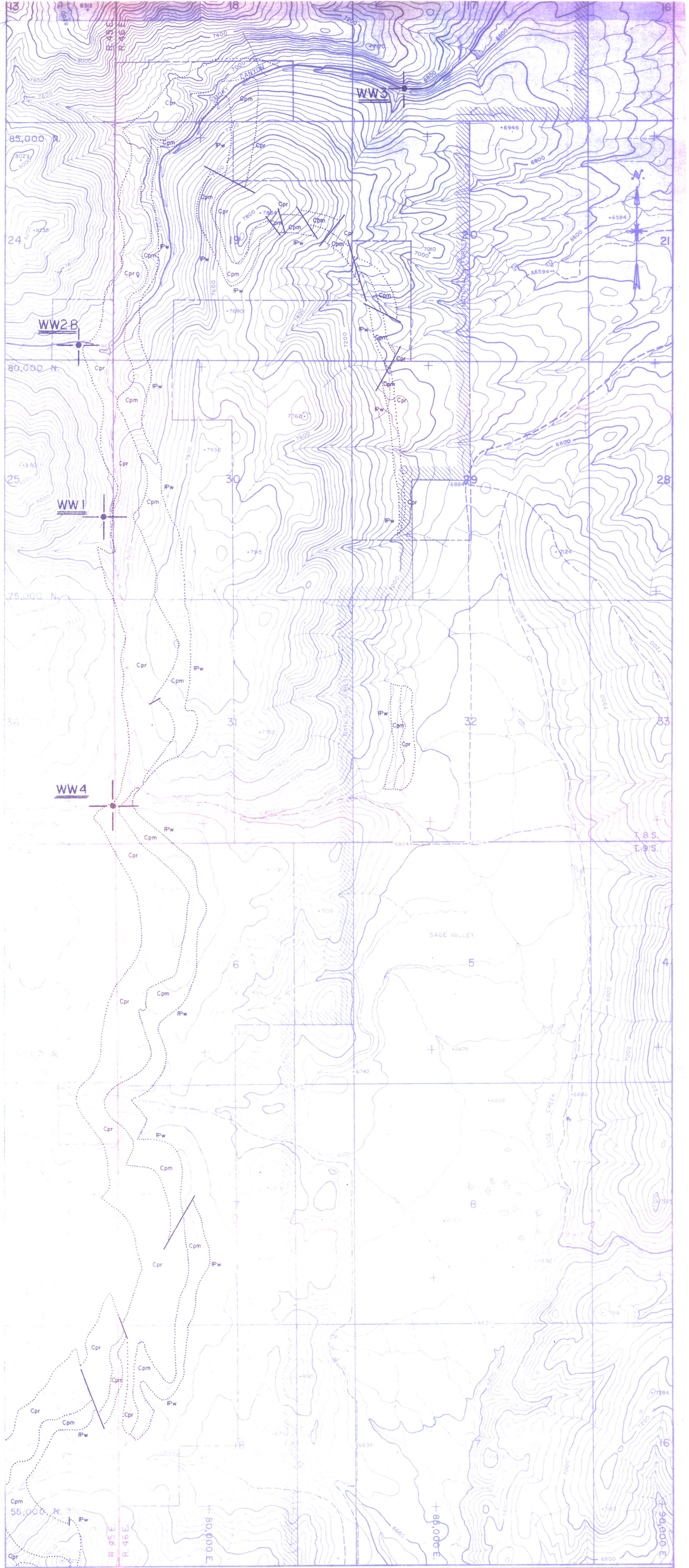
16-460

REFERENCES	NO.	DESCRIPTION	NO.	DESCRIPTION

REVISIONS	NO.	BY	DATE	DESCRIPTION	NO.	BY	DATE	DESCRIPTION

DRAWN BY
DESIGNED BY
CHECKED BY
APPV'D BY

SCALE
REVISION



JAN 28 1982

SMOKY CANYON LEASE
LOCATION OF WATER WELLS

DRAWN BY: Jim Hermant
CONTOUR INT.: 40'
SCALE: 1" = 1000'

J.R. SIMPLOT COMPANY
MINERALS & CHEMICAL DIVISION
CONDA, IDAHO

SHEET NO. 1 OF 1
REV

GEOLOGICAL MAP

HYDROGEOLOGY OF THE SMOKY CANYON MINE SITE
-RESULTS OF WELL DRILLING AND PUMP TESTING-

By: Dr. Dale R. Ralston

October, 1981

Dr. Dale R. Ralston, P.E., P.G.
Consultant in Hydrology
821 Indian Hills Drive
Moscow, Idaho 83843

HYDROGEOLOGY OF THE SMOKY CANYON MINE SITE

- SITING OF AN INDUSTRIAL WELL -

Prepared for

J. R. Simplot Co.

Pocatello, Idaho

April, 1980

HYDROGEOLOGY OF THE SMOKY CANYON SITE

- SITING OF AN INDUSTRIAL WELL -

Introduction

The purpose of this report is to describe alternatives for the development of an industrial well (@2,000 gallons per minute) in connection with the operation of a phosphate mine at the Smoky Canyon site (Figure 1). A drill site is selected; plan for test drilling and hydrogeologic evaluation is presented.

This report is based largely upon existing geologic data, a hydrogeologic report prepared in August 1979, and consultation with Dr. R. R. Reid, professor of Geology at the University of Idaho. It is important to note that very little site specific ground water data are available from test drilling at the Smoky Canyon area. The recommendations presented in this report should be re-evaluated and modified where necessary with the 1980 test drilling program.

Four major criteria control the selection of a production well site in the Smoky Canyon area. These criteria are: a) characteristics of ground water flow systems in the area, b) location of alternative sites where a well would have minimum total depth and minimum depth to static water level, c) location of alternative sites where the aquifer has sufficient hydraulic conductivity to yield the required quantity of water, and d) the selection of a site where operation of the test well will cause minimum potential interference with springs located east of the potential mine site along the Sage valley branch of the Bannock overthrust zone.

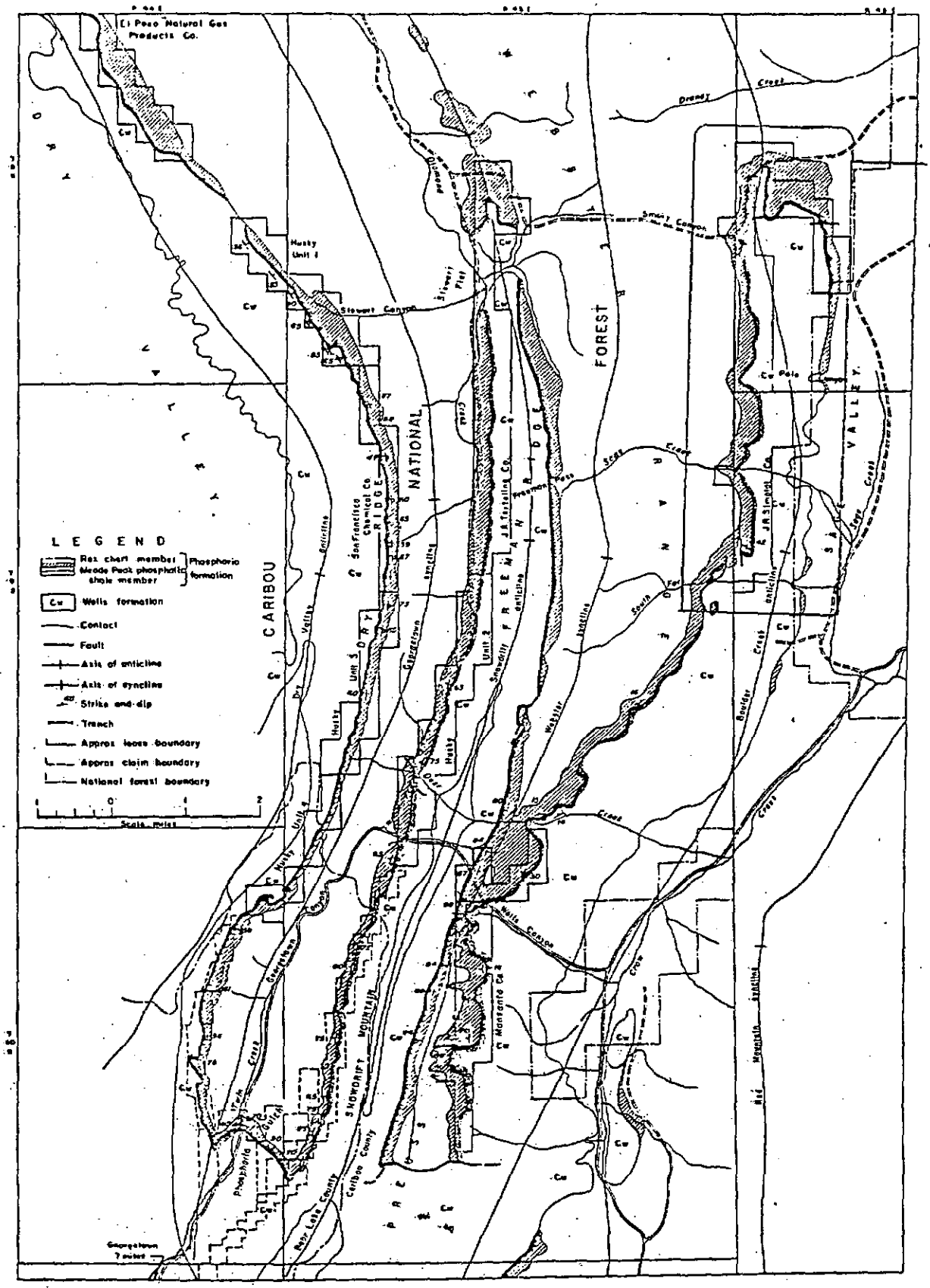


Figure 1. Location map for Smoky Canyon study area.

Regional Ground Water Flow Systems

Two major ground water flow systems are present in the vicinity of the Smoky Canyon mine site: a) an upper flow system in the Dinwoody and Thaynes formations and b) a lower flow system in the Wells formation. Either of these could be a target for construction of a moderate yield well. In addition, there is potential for the development of limited quantities of water from the alluvium in Sage Valley and other nearby valleys. The development of an industrial water supply of the magnitude desired at the Smoky Canyon site requires selection of the ground water flow system that appears to have the greatest regional extent and the highest average hydraulic conductivity.

The Wells formation provides the best potential for development of a 2,000 gpm water supply within the vicinity of the Smoky Canyon site. As such, this formation is the prime candidate or target aquifer for this study. I do not believe that either the Thaynes-Dinwoody system or the valley alluvium have sufficient potential to warrant further consideration.

Recharge to the ground water system in the Wells formation occurs from: a) direct precipitation on outcrops of the formation, b) stream loss into the Wells formation where perennial or intermittent streams flow stratigraphically across the formation and c) downward ground water flow from the overlying Phosphoria, Dinwoody and Thaynes formations. An extensive recharge area exists for the Wells formation near the Smoky Canyon site. The regional outcrop pattern of the formation creates large potential recharge areas south of the mine site. It appears that recharge may occur along both flanks of the Webster Range for a distance of at least 10 miles south of Smoky Canyon. Studies by Winter (1979) show that there is a regionally consistent

pattern of stream loss into the Wells formation throughout the western phosphate area in southeastern Idaho and more particularly along both flanks of the Webster Range. Man appears to have had little impact upon the magnitude of rechage to the Wells formation along Webster Range. Logging activities may have changed runoff patterns but probably have not significantly altered recharge to this high hydraulic conductivity unit. Construction of sites such as the Georgetown Mine appear to have essentially no impact at all on recharge to the unit. Anticipated future natural resource development should not cause major decreases in the recharge pattern.

Data are not available to describe the direction of ground water flow in the Wells formation in the Webster Range area. It is believed, however, that ground water probably moves generally in a northward direction. A portion of the discharge occurs along the east flank of the Range in the form of a number of large springs; ground water probably flows northward and westward to discharge at some unidentified distant site. Discharge data presented in the August 1979 evaluation of the site indicate that springs along the Sage Valley branch of the Bannock overthrust originate from a flow system that receives recharge over a larger area than that represented by the east side drainages in the mine area. This again demonstrates the regional nature of the ground water flow system in the Wells formation. It is not known what percentage of the ground water flow in the Wells formation is represented by the east side discharge as identified in the August 1979 report. Continued University of Idaho research on the subject of regional ground water flow patterns in the Wells formation should yield important new information within the next year.

The ground water flow system in the Wells formation in the vicinity of the Smoky Canyon site is regional in nature with significant quantities

of recharge and subsequent discharge. However, the development of a 2,000 gpm water supply will alter the existing flow system assuming the existing water resource system is in a state of dynamic equilibrium. The introduction of a new discharge point in the form of well pumpage will cause a combination of the following three effects.

1) It will result in an areal decline in ground water levels.
2) The lowered water levels may cause an increase in recharge to the Wells formation.
3) The lowered ground water levels probably will result in a decrease in ground water discharge from this formation.

The predicition of the location and magnitude of impacts from ground water pumpage is of particular importance. This will be discussed further in a later section of this report.

Well Depth and Static Water Level

The depth of a production well and the depth to static water level depend upon selection of the well site with respect to the outcrop location and dip of the Wells formation, the topographic elevation of the drilling site, and the elevation of the regional ground water surface. The Wells formation in the vicinity of the Smoky Canyon mine site dips about 25 degrees to the west with an outcrop location along the west side of Sage Valley. An approximate geologic cross section near Smoky Canyon is presented in Figure 2. This figure illustrates the synclinal structure and the degree of burial of the Wells formation.

The target aquifer unit within the Wells formation is probably the sandy facies within the upper member of the Wells formation. FMC drilling in Lower Dry Valley indicated that a high hydraulic conductivity zone was

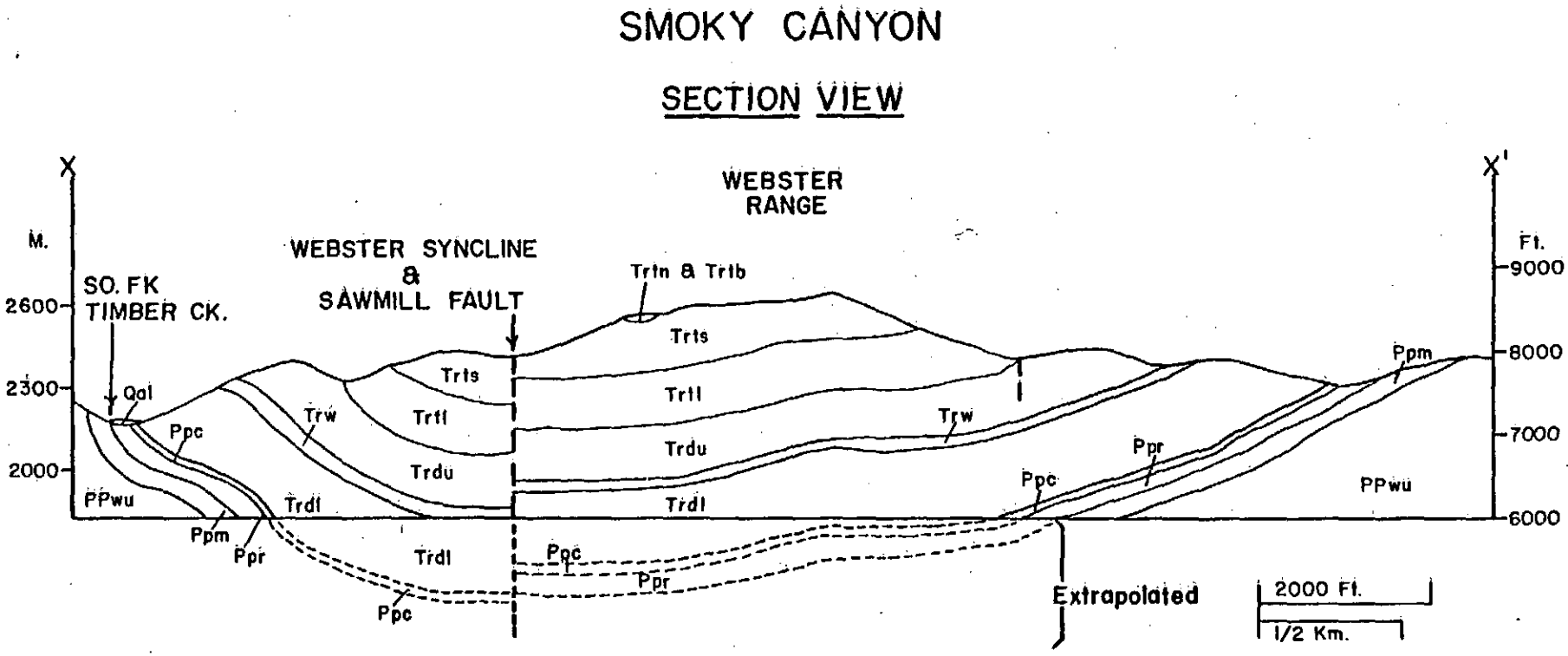


Figure 2. Geologic section view of Smoky Canyon (Modified after Montgomery and others, 1967, Plate 2).

present in the sandy facies of the upper member of the Wells formation. The drilling in the Gay Mine area indicated high hydraulic conductivity zones in the Wells formation at approximately the same stratigraphic position. A stratigraphic section of the upper member of the Wells formation at the Maybe Canyon site is reproduced as Table 1 (Montgomery and Cheney, 1967). A significant portion of the upper half of the upper member of the Wells formation is a calcareous sandstone. The upper member of the Wells formation is thus considered to be the target aquifer for development of an industrial well in the Smoky Canyon site. It is important to note that the transmissivity (hydraulic conductivity multiplied by thickness equals transmissivity) at a given test site location, increases with greater penetration of the Wells formation. Well yields may thus be increased with greater penetration of the upper member of the Wells formation.

The depth of a production well is thus controlled by the elevation of the selected drilling site minus the elevation of the middle of the upper unit of the Wells formation as projected to that site. Drilling at a local topographic high will thus increase the target well depth; moving to the west will also increase the target well depth along the east side of the Webster Range, the formation dips to the east and the situation is thus reversed.

The depth to static water level is roughly the topographic elevation of the drill site minus the anticipated regional ground water level elevation of about 6,700 feet plus approximately 10 feet per mile distance away from the springs located on the east side of the Webster Range. In the Smoky Canyon site, for example, the anticipated elevation of static ground water level in the Wells formation is approximately 6,720 feet. The elevation of pumping water level in any particular site is the elevation of static

Table 1. Stratigraphic section of the upper member of the Wells formation, Maybe Canyon. (Measured on the north side of Maybe Canyon sec. 10, T.8S., R.44E., Caribou County, Idaho, by R. L. Rioux and R. J. Hite, 1960, and generalized by K. M. Montgomery, 1963)

	Thickness (feet)
Grandeur Tongue of Park City formation (lower beds only): Limestone, fine-grained, light-gray.	
Upper member of Wells formation:	
Sandstone, calcareous, fine-grained, light-gray to buff; with minor limestone and dolomite	195
Siltstone, red; and fine-grained pink sandstone	25
Sandstone (60 percent), light-gray, fine-grained; sandy gray limestone (30 percent); and dark-gray dolomite (10 percent)	110
Sandstone, calcareous, very fine to fine-grained, gray to buff; contains light-gray chert nodules in 8-ft interval, 45 ft above base	285
Dolomite (80 percent), sandy, dense, fine- to medium-grained, gray; containing black chert nodules and layers throughout and fossil fragments in lower half; calcareous and dolomitic fine-grained gray sandstone (20 percent)	230
Sandstone, calcareous, fine-grained, gray; contains beds of dolomite in lowermost one-fourth and chert as nodules and layers in 10-ft interval, 30 ft above base	95
Limestone (70 percent), sandy, fine-grained, gray, fossiliferous; containing gray chert nodules in lowermost one-third; calcareous fine-grained gray sandstone (30 percent) mostly near middle of unit	120
Covered. Float composed of brown-weathering sandstone	265
Sandstone, fine grained, light-gray to buff; weathers reddish brown; contains chert nodules	105
Total thickness of upper member of Wells formation	1430
Lower member of Wells formation (upper beds only): Limestone, sandy, fossiliferous; contains chert nodules.	

water level minus the water level decline (drawdown) caused by pumpage of the well. The magnitude of drawdown is dependent upon friction losses of water moving through the rock plus friction losses incurred by water movement into the well (well losses). The magnitude of well losses are dependent upon well design and construction and are thus controllable factors.

Zone of Maximum Hydraulic Conductivity

The sandy facies of the upper portion of the upper member of the Wells formation is the target aquifer for development of an industrial well in the Smoky Canyon mine site. Areal variations of the hydraulic conductivity of this zone occur in the vicinity of the Smoky Canyon site. However, data are not presently available to allow delineation of these variations. It is worthwhile, however, to discuss the factors that might control variation in hydraulic conductivity in order to predict those zones where hydraulic conductivity might be greatest.

The hydraulic conductivity of a sandstone-limestone aquifer is controlled by primary factors and secondary factors. The primary factors include the grain size and degree of cementation of a sandstone. The grain size would be controlled by the environment of deposition. I have no reliable way to predict the grain size distribution of the sandstone in the general vicinity of the Smoky Canyon well site. Similarly the degree of cementation probably varies in the region but again is not a known factor. The hydraulic conductivity of the sandstone-limestone aquifer may be significantly altered by secondary factors such as the gradual removal of the cementing agent, solution of the limestone and thus the widening of fractures and fracturing caused by folding and faulting in the area. Generally the hydraulic conductivity of a consolidated sedimentary unit

is greater along the axes of folds, particularly if the unit in question is fairly brittle. Most target drill areas along the east side of the Webster Range are sites of reasonably uniform eastward dip within the Wells formation. There are thus no major fold zones to use as targets for well drilling.

Faulting of a unit such as the Wells formation can cause either higher hydraulic conductivity zones or lower hydraulic conductivity zones depending upon the nature of the fault and the material present in the fault zone. Fault zones that have a finely ground gouge generally have lower hydraulic conductivity than the nearby material and thus provide partial to complete barriers to ground water flow. Fault zones where the rock material is fractured but not pulverized provide zones of high hydraulic conductivity. Springs may be located along fault zones for either reason.

A number of small faults are believed present along the east side of the Webster Range in the general vicinity of the Smoky Canyon site. Montgomery and Cheney (1967) mapped a number of small normal faults in sections 13 and 24 of T.8S., R.45E., north of Smoky Canyon. The general east-west alignment of the streams in the area, particularly the Smoky Canyon, Pole Canyon, Sage Creek and South Fork of Sage Creek, indicate that there are probably small east-west trending tear faults in this area. Such structures were not mapped by Montgomery and Cheney (1967). It is quite likely that faulting provides the zone of weakness for the alignment of Smoky Canyon on the east side of Webster Range with Timber Creek on the west side of Webster Range. Small structural features such as that along Timber Creek-Smoky Canyon may provide zones of either higher or lower hydraulic conductivity within the Wells formation that could influence well siting. The methods of determining whether these small structural

features cause higher or lower hydraulic conductivity are: a) an evaluation of outcrops in the area to determine the pattern of faulting and b) an evaluation of control of ground water flow systems as evidenced by ground water discharge. I did not find any fault zone on my visit to the area in 1979. A significant decrease in hydraulic conductivity at roughly right angles to the anticipated pattern of ground water flow would cause ground water discharge. No major ground water discharge from the Wells formation is evident along the Smoky Canyon-Timber Creek structural feature on either the east or west flanks of Webster Range. It is thus believed that this zone probably does not cause a significant decrease in hydraulic conductivity.

Minimum Potential for Spring Interference

One of the criteria for the selection of a production well site is the potential interference of spring discharges caused by long term pumpage of the industrial well. Of particular importance are the major springs located along the Sage Valley branch of the Bannock overthrust zone as identified in the August 1979 report on the Smoky Canyon area. The location of these springs are controlled by the trace of the thrust zone which is believed to form a low hydraulic conductivity base to ground water flow systems in the Wells formation. The springs occur where the thrust trace crosses topographic lows where the elevation of the land surface is less than 6,700 feet. The aquifer system for the spring discharges along the thrust trace is most likely the Wells formation. The potential for interference with these springs from industrial well pumpage depends on several factors.

1) To what extent does the flow system in the upper portion of

the upper member of the Wells formation provide ground water for discharge at these spring sites?

2) What structural features are present in the area that may cause hydrologic separation or interconnection of the potential industrial well aquifer zones with these springs?

3) To what extent will distance from these sites mitigate potential spring flow reduction from pumpage?

Data are presently not available to determine whether there is an intimate hydrologic interconnection between the postualted aquifer in the upper member of the Wells formation with the aquifer system feeding the springs along the trace of the thrust zone in Sage Valley. It is my belief at this time that there are a number of semi interconnected aquifer systems within the Wells formation. The aquifer system that may be developed by an industrial well probably is at least somewhat interconnected with the flow system that supplies water to these large springs. Pumpage of an industrial well may have an impact on the flow of these springs. It is thus important to obtain ground water from as shallow as possible within the Wells formation at a site as far distant as is economically practical from the Sage Valley branch of the Bannock thrust zone.

There is probably ground water movement to the north within the Wells formation with subsequent discharge at distant sites. The impact of pumpage of an industrial well near Smoky Canyon on these yet to be located distant discharge sites will probably be insignificant. They are thus disregarded as a part of this analysis.

In summary, the ground water flow system in the Wells formation on the Webster Range is of sufficient size that I believe an industrial well

can be located within this aquifer system without causing objectionable decreases in ground water discharge at any given point if care is taken to minimize the interconnection of the aquifer system at the well site with the springs along the east side of the Webster Range.

Alternative Industrial Well Sites

Based on the above analysis, there are three alternative areas that should be considered as potential well development sites. These are designated as the Smoky Canyon site (Site A), the Pole Canyon site (Site B) and the Diamond Creek site (Site C). The Smoky Canyon site includes area in sections 24 and 25 (T.8S., R.45E.) along the east-west extension of Smoky Canyon including the area in the small strike canyon along the extreme east side of section 25, T.8S., R.45E. The Pole Canyon site includes consideration of well sites in the topogarphic low along the canyon in section 36, T.8S., R.45E. and in section 31, T.8S., R.46E. The Diamond Creek site is included near the Timber Creek area in sections 22 and 27 of T.8S., R.45E. on the west side of the Webster Range. The advantages and disadvantages of each site are discussed below.

The Smoky Canyon site is probably the best site for industrial well location based on the criteria of minimum well depth, proximity to potential slurry pipeline origin plant and ease of access. This site probably has a greater potential for interference with the springs along the Sage Valley branch of the Bannock thrust zone than the Diamond Creek site and may have an additional advantage or disadvantage due to east-west faulting along the alignment of Smoky Canyon and Timber Creek. The Pole Canyon site is similar to the Smoky Canyon site with the negative aspects of a greater topographic elevation, a less accessible site but without the

disadvantage and/or advantage of the noticeable east-west structural feature. In my opinion, there is little logic to drilling at the Pole Canyon site unless it is deemed to be more economically viable based upon proximity to the final industrial site. The Diamond Creek site on the west side of Webster Range has the primary advantage of being at a much greater distance from the major springs located along the Sage Valley branch of the Bannock thrust zone. The location of a well at this site could most assuredly remove any question of well interference with these springs. However, the location of a well at this site might cause problems due to the unknown interconnection of the Wells formation with the aquifer in the valley alluvium of Diamond Creek and the baseflow aspects of Diamond Creek itself. Also, much less is presently known of the hydrogeology of this area. If this site were to be considered seriously, I would strongly suggest that a site evaluation be done to determine more specifically the hydrogeologic characteristics in this area.

I would rank the potential sites as follows. The first priority site would be Smoky Canyon, the second priority site would be Pole Canyon and the third priority site would be Diamond Creek.

Recommended Test Well Program and Site Development for the Smoky Canyon Site

The location of a drilling site within the Smoky Canyon area is dependent upon intersecting the sandy facies of the upper Wells formation below the regional water level. The upper 630 feet of the upper member appear to have the greatest potential for aquifer development. The top 200 feet has yielded large quantities of water in Dry Valley and at the Gay Mine. A test hole drilled at a site 700 feet west of the east section

line of section 24 along Smoky Canyon should intercept the top of the Wells formation at an elevation of about 6700 feet. The land surface elevation in this area is about 7120 feet. A 650-700-foot test hole at this location should penetrate the upper sandy facies below the regional water table. This appears to be the most logical site for the initial test drilling in the area.

A test hole at this site will probably intercept a shallow ground water flow system in the Rex Chert member. It is very important that the hole be cased and grouted through the Chert and into the Meade Peak member. A poorly constructed hole would allow downward drainage and dry up the stream in this portion of Smoky Canyon.

The static water level in the Wells formation will be no greater than 420 feet below land surface (6700 feet elevation) at the test site. The degree of interconnection of the potential aquifer with the springs along the thrust zone may be judged by the static water level in the test well. A significantly higher water level in the test well would indicate that the aquifer has poor interconnection with the springs.

It is very important that the maximum possible information be derived from the first test hole. As such, the following data should be obtained during drilling.

1) Notation of all water producing or wet zones.
2) Measurement of the static water level in the hole at the start of every shift. This is probably the most important piece of data that can be collected during drilling.
3) Measurement of the static water level in the hole whenever large quantities of water are intercepted.

4) A good drillers log of materials encountered during drilling. Particular emphasis must be placed on samples of the sandstones in the upper Wells.

5) A good suite of geophysical logs would aid interpretation of the site hydrogeology.

Dependent upon the results of the test drilling, a long term (2 week) pump test should be conducted at the site. The water level in the test well should be monitored along with the spring discharge at selected sites in Sage Valley.

I recommend that the initial test well be drilled by air rotary techniques using a small diameter surface casing (8-10 inch). A final production hole would require a 12-16 inch casing to accomodate the needed pump.

References

Montgomery, K. M. and Cheney, T. M., 1967, Geology of the Stewart Flat quadrangle, Caribou County, Idaho: U.S. Department of the Interior, Geological Survey, Bulletin 1217, 63 p.

Winter, G. V., 1979, Ground water flow systems of the phosphate sequence, Caribou County, Idaho: M.S. Thesis, University of Idaho.

SMOKY CANYON

SECTION VIEW

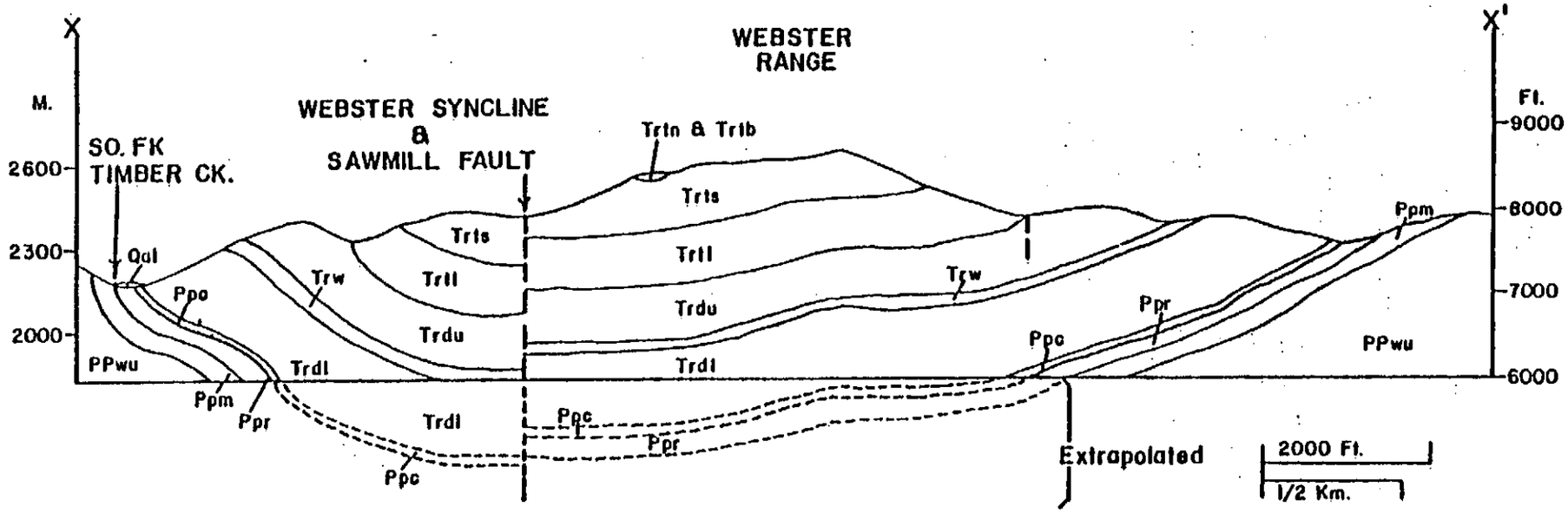
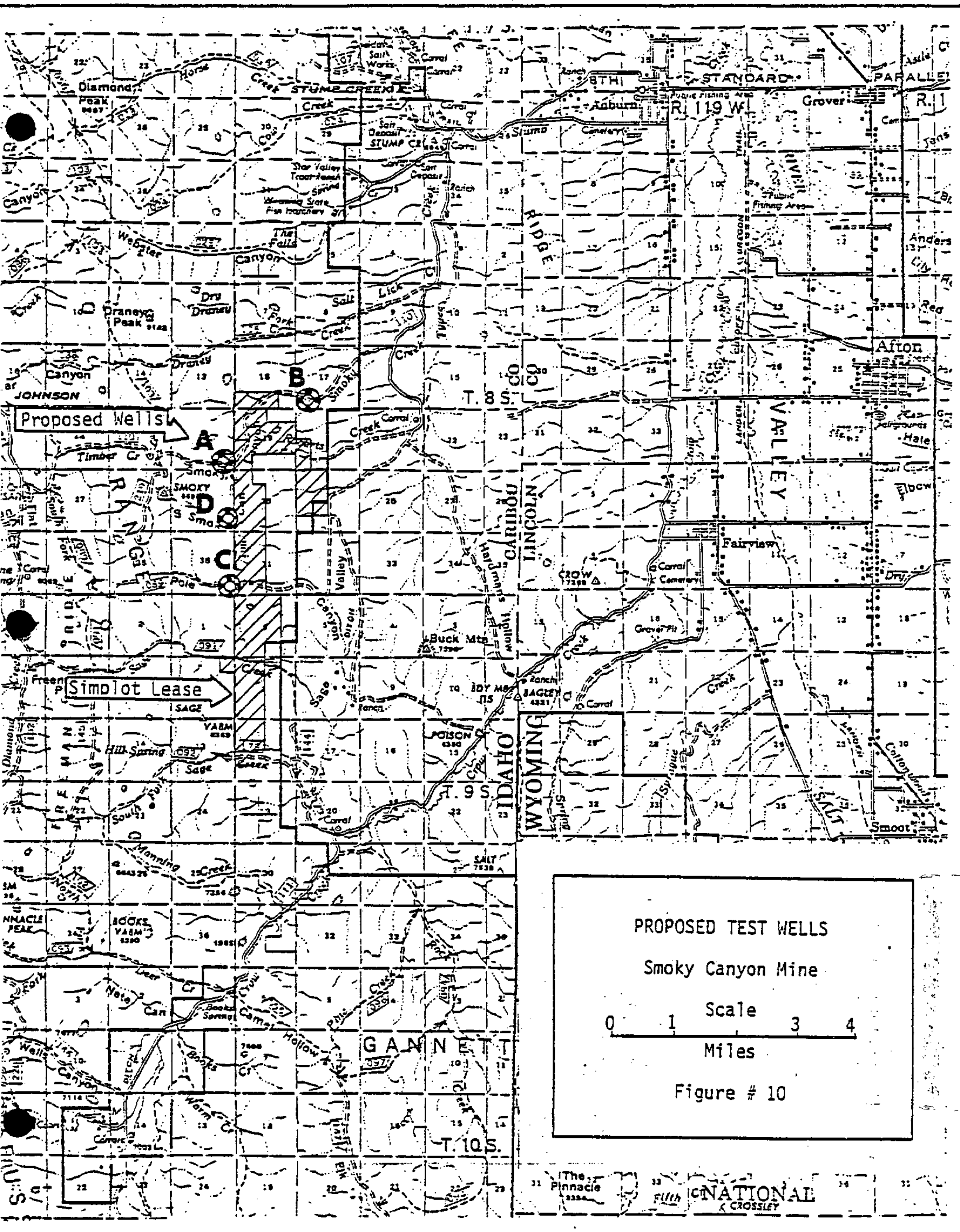


Figure 1. Geologic section view of Smoky Canyon (Modified after Montgomery and others, 1967, Plate 2).

GEOLOGIC CROSS SECTION



SITUATION MAP

HYDROGEOLOGY OF THE SMOKY CANYON MINE SITE
- SITING OF AN INDUSTRIAL WELL -

By: Dr. Dale R. Ralston

April, 1980

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

February 4, 1993

J. R. SIMPLOT CO
PO BOX 27
BOISE ID 83707-0027

RE: Approved Transfer No. 3862/Water Right No(s). 24-07113

Dear Water Right Holder:

On November 4, 1991, the Department approved an application for transfer of the above referenced water right(s). A copy of the transfer as approved has been enclosed for your reference. One of the conditions of approval of this transfer was that the authorized change(s) be accomplished within one year of the date of approval.

Please complete and return the enclosed form to confirm that the transfer has been accomplished. If the approved transfer has not been completed or is only partially complete, please provide an explanation why the changes have not been made and give an expected date for completion. The form must be returned to this office within 15 days of the date of this letter. If you wish to return the form by FAX, the number is (208)327-7866.

Please contact me if you have questions concerning this matter.

Sincerely,

Cindy Zimmerman

for SHARLA CURTIS
Sr. Water Resource Agent

Enclosure

November 6, 1991

J.R. Simplot
P.O. Box 27
Boise, ID 83707

RE: Transfers for Water Right Nos. 24-07113 & 27-02138

Dear Water Right Holder(s):

Enclosed are copies of your approved Applications for Transfer of the above referenced water rights (Transfer Nos. 3862 & 3863). Be sure to note any conditions of approval as listed on the second page of the transfers.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:blm

Enclosure

MICROFILMED

DEC 09 1991

MEMORANDUM

TO: Gary/File

FROM: TIM LUKE

OK per GARY
JIA DECISION
TJL 10-25-91

DATE: October 25, 1991

RE: TRANSFER NO. 3863/LICENSE NO. 24-7113

In response to your question about the flow rate and annual volume diverted through Simplot's phosphate slurry pipeline, I contacted Vic Conrad of J.R. Simplot Co. to learn more about the Smokey Canyon Mine operation.

Conrad explained that the deep well at Smokey Canyon pumps at a 4.5 day cycle, diverting water to a tailings pond. This water is then lifted to the Smokey Canyon mill and used in the milling process or operation, including cooling, washing and grinding. The phosphate slurry is the end product of the milling process. The slurry comes directly out of the mill in a pipeline and boosted to the Conda site. Conrad represents that the flow rate in the pipeline leaving the Smokey Canyon site is about 850 gpm (1.89 cfs/flow rate provided to Conrad by plant engineer). He also said that the pipeline runs continuously for seven days a week and is shut down about two weeks per year. The 850 gpm rate over a 50 week per year period is about 1312 acre-feet. Based on this calculation and Conrad's information, it appears that most of the licensed volume is used in the pipeline.

The licensed diversion rate and volume is reflective of the overall plant and pipeline operation, but we may want to further clarify the pipeline use. Perhaps we could add a comment within the list of conditions. We may want to obtain actual flow records or specifications of the pipeline to verify the flow rate or capacity of the pipeline. Conrad says that the he believes the pipeline is metered at the plant.

Suggested Condition:
- Water under this right is used for both phosphate milling and slurry pipeline transportation purposes. Based on information supplied by the licensee, capacity of the slurry pipeline is 1.89 cfs.

Please provide any further comments, suggestions etc.

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MEMORANDUM

TO: FILE

FROM: TIM LUKE

DATE: October 11, 1991

RE: TRANSFER NO. 3862/LICENSE NO. 27-2138
TRANSFER NO. 3863/LICENSE NO. 27-7113

Both of the above transfers are separate but related. They involve diversion of water for use in a phosphate slurry pipeline. The letter of August 1, 1991 by Vic Conrad of J.R. Simplot Co. to Phil Rassier provides a good description and summary of both transfers. Further explanation is not required. I do wish to clarify that pursuant to transfer 3862, a new well will be drilled and added to license no. 27-2138. Domestic and fire protection should remain as uses on this license as well (per phone call with Vic Conrad on 10/10/91). Approval of both transfers is recommended subject to conditions below.

Conditons for both transfers:

1) <<R08>> Return flow if discharged to a surface water system shall meet Idaho Water Quality Standards.

2) <<T07>> The change authorized by this transfer shall be accomplished within one (1) year of the date of this approval.

3) <<T08>> Failure to comply with the conditions of this transfer is cause for the director to issue an order to show cause why the approval of the transfer should not be rescinded.

4) <<T09>> Approval of this transfer does not preclude the opportunity for review of the validity of the water right(s) in the ongoing Snake River Basin Adjudication.

Additional condition for transfer no. 3862 only:

1) <<R13>> The storage of water is contingent upon certification by the Department of Water Resources under the dam safety provisions of the Idaho Code, authorizing storage.

DEC 09 1991

Form 222a
6/78

HWJ 8-14-91

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
TRANSFER ANALYSIS SHEET

INITIAL REVIEW BY: HWJ

1. Right number 24-7113 Applicant J.R. Simplot Co.
2. Type of right: ☐ Decree ☒ License ☐ Claim
3. Purpose of transfer: ☐ Change point of diversion ☐ Add diversion point(s) ☒ Change place of use
   ☐ Other _____
4. Check:
   a. ☒ Source ☒ Priority ☒ Amount ☒ Purpose ☒ Period of use
   b. ☒ Description of original point of diversion.
   c. ☒ Description of original place of use.
5. Amount of land &/or water transferred:
   a. ☒ All of right.
   b. ☐ Part of right *(NOTE! Part B should be filled in only if part of the right is owned by the applicant).*
   c. ☒ Check description of point(s) of diversion.
   d. ☒ Check description of place of use.
   e. ☒ Check map (shows p.d. and p.u. after transfer).
   f. ☒ Check for correct signature, notarization, and fee.
   g. ☒ Check proof of ownership of right &/or land from which water is transferred.
   h. ☒ Check for expansion in use of right. Comments Check with Glen Saxton on this
   i. ☒ Check for existing water rights from same source, on land water is being transferred to.
      Right number(s) _____
   j. ☒ Is use within a Watermaster District? ☐ Yes ☒ No
      If yes, what district? _____

FINAL PROCESSING REVIEW BY: _____

1. Watermaster recommendation requested on _____ Received on _____
2. Is transfer published correctly? ☑ Yes ☐ No NOP 9-9-91
3. Protest received? ☐ Yes ☑ No

RECOMMENDED ACTION

1. ☑ Approve
2. ☐ Deny
3. Conditions* _____

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OCT 07 1991
Department of Water Resources

4. By RDC Date 10/1/91

* *All uses within Watermaster Districts require special conditions.*

State of Idaho
DEPARTMENT OF WATER RESOURCES
150 Shoup Ave., Suite 15, Idaho Falls, Idaho 83402 - (208) 525-7161

EASTERN REGION

CECIL D. ANDRUS
GOVERNOR
R. KEITH HIGGINSON
DIRECTOR

19-Aug-1991

J.R. Simplot Co.
PO BOX 27
BOISE ID 83707

RE: Application No. 27-2138 & 24-7113

Dear Water Right Applicant:

The Department of Water Resources acknowledges receipt of your water right permit. This office is currently in the process of advertising the application in the CARIBOU COUNTY SUN on August 22 & 29, 1991. The advertisement will be published for two consecutive weeks, and a period of ten days following the second publication will be allowed for the submittal of protests.

If the application is protested, you will be sent a copy of the protest. The protest must be resolved before the application is approved or denied. If the protest is not resolved voluntarily, this Department will conduct a conference and/or hearing on the matter.

If the application is not protested, it will be forwarded to our state office in about five weeks. State office personnel will conduct a complete review prior to final processing of the application and will notify you of the outcome of this review. When a permit is issued, you will be sent a copy. A typical processing time for an unprotested application is about eight weeks.

Please feel free to contact this office if you have any questions regarding this procedure.

Sincerely,

Harold Jones rb

HAROLD W. JONES
Water Rights Supervisor

HWJ/rb

RECLAIMED
DEC 09 1991

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION
IDAHO FALLS, ID
ph. (208) 525-7161

FAX NO. (208) 525-7177

LOU & DAN'S 547-4711

TRANSMITTAL COVER SHEET

OMNIFAX

TO: MARK STEELE
CARIBOU COUNTY SUN

FROM: RITA BODELL
IDAHO DEPARTMENT OF WATER RESOURCES

DOCUMENT DESCRIPTION: TWO (2) LEGAL NOTICES

IMPORTANT: ADVERTISING DATES MUST BE AUGUST 22 AND AUGUST 29, 1991

TOTAL NUMBER OF PAGES (Including this page): 3

Hard copy will be sent by mail.
Thanks!

****
* *
* BILLING ADDRESS: *
* *
* *
* *
* NO. OF PAGES_____ COST/PAGE_____ TOTAL CHARGE_____ *
* *
****

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DEC 09 1991

State of Idaho
DEPARTMENT OF WATER RESOURCES
150 Shoup Ave., Suite 15, Idaho Falls, Idaho 83402 - (208) 525-7161

EASTERN REGION

CECIL D. ANDRUS
GOVERNOR
R. KEITH HIGGINSON
DIRECTOR

16-Aug-1991

CARIBOU COUNTY SUN
PO BOX 815
SODA SPRINGS ID 83276

Gentlemen:

Enclosed you will find a legal notice which we wish to have published on the dates indicated (once a week for two consecutive weekly issues) in your newspaper. If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Please send the affidavit of publication and publication billing to this office before September 9, 1991.

Yours truly,

Rita Bodell
Rita Bodell
Secretary/Office Coordinator

Encl.

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DEC 09 1991

NOTICE OF PROPOSED CHANGE OF A WATER RIGHT
NO. 24-07113

Notice is hereby given that J.R. Simplot has applied to the Department of Water Resources to change place of use of the waters of a groundwater source. The right sought to be changed is evidenced by License and recorded as follows:
LICENSE NO. 24-07113 AMOUNT: 3.48 cfs

PRIORITY: 9-26-80

POINT(S) OF DIVERSION: SESE, S24, T08S, R45E, B.M. CARIBOU COUNTY

The water is used from January 1 to December 31 for industrial purposes within the SENE, S15, T08S, R42E; E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E, B.M.

TO BE CHANGED AS FOLLOWS:

The water will be used within the E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E (Soda Springs Plant, Caribou County); E1/2SW, W1/2SE, S07, T06S, R34E,(Pocatello Plant, Power County)

Any protests against the proposed change must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before September 9, 1991.

R. Keith Higginson
Director

Published in the Caribou County Sun on August 22 & 29, 1991.

DEC 09 1991

J. R. SIMPLOT COMPANY ONE CAPITAL CENTER 999 MAIN STREET SUITE 1300
P.O. BOX 27 BOISE, IDAHO 83707 (208) 336-2110 TELEX 368432

CORPORATE HEADQUARTERS

August 1, 1991

Phillip J. Rassier
Deputy Attorney General
State of Idaho
Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, Idaho 83720-9000

Hand Delivered

Re: Applications for Transfer 24-07113 and 27-02138.

Dear Phil:

At the request of Terry Uhling I am responding to your July 25, 1991 letter to Terry in which you commented on the draft Applications for Transfer, recently filed with the Department. I would like to point out that the drafts you received from Terry were revised before filing and therefore differ somewhat from the final transfers filed with the Department. I feel that some of the revisions may address many of the issues you pointed out in your comments. I have enclosed copy of the above referenced Applications for Transfer, in their final form, as they were filed with the Department.

In response to your comment about the 4.5 day per week use cycle I reviewed the License issued for 24-07113 and the Application for Amendment to permit that reflected the Department's recommended changes to the original Application for Permit based on a beneficial use field exam conducted by representatives of the Department. I am unable to locate the condition specifying the cycle of use for diverting up to the licensed 1,615.2 acre feet per annum.

Simplot recognizes that a diversion exceeding the total annual volume licensed under 24-07113 would require an additional filing. However, the proposed transfer merely requests the place of use in Conda be transferred to Pocatello. The transfer was filed in preparation of transferring the beneficiation process currently underway in Conda to Pocatello. The beneficiation process in Conda will soon end

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DEC 09 1991

because of the extension of the slurry pipeline from Conda to Simplot's Pocatello facility. The nature of use and any use cycle will remain essentially unchanged. Because their is no anticipated change in the industrial process, other than extending the pipeline, there is no anticipated need for an increase in the diversion or consumptive use licensed under 24-07113.

In addition to the water licensed under 24-07113, water licensed under 27-02138 is also used in the beneficiation process now existing in Conda. Application for Transfer of water right 27-02138 was filed to reflect the change in the place of use for the beneficiation process from Conda to Pocatello.

A portion of the annual volume licensed under 27-02138 was transferred to storage since it is the intent of Simplot to store "clean water" in what is now considered a tailings pond in Conda. This clean water storage will be used from time to time to "push" slurry to Pocatello from Conda during the down periods at Simplot's Smoky Canyon Mill. If allowed to settle inside the pipe during a "down" period the slurry will effectively rub the bottom out of the pipeline when started up again.

After the clean water from Conda is used to "push" the slurry to Pocatello the water will be used at the Pocatello facility in the beneficiation process. The beneficiation process that now occurs in Conda will not be expanded once transferred to Pocatello. Water licensed under 24-07113 and 27-02138 will be used and consumed at a rate equal to the current consumption.

Out of the 1,585 acre feet per annum licensed under 27-02138, 60 acre feet are requested for transfer to the above mentioned storage. 60 acre feet were arrived at by meeting with the Department's Dam Safety group and reviewing the file to determine the tailings dam capacity. The storage provides the conveyance system with a reliable water source that can be diverted rapidly so as to "push" slurry to Pocatello.

Because it is Simplot's intent to maintain a clean water storage in the existing tailings pond I feel that there will be no impacts to 3rd party users since any benefit now occurring as a result of seepage from the tailings dam, will continue due to the fact that water will be stored in the same impoundment facility. The water that is consumptively used in Conda during the beneficiation process will soon be piped to Pocatello and consumptively used in the same beneficiation process previously occurring in Conda. I do not feel that downstream users will be impacted by changing the location of the consumptive use. Downstream users will continue to accrue any benefit from any water that may be seeping from the existing tailings dam.

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This project is of the utmost importance to the continuation of Simplot's operation in Pocatello. All efforts to expedite approval of these transfers will be greatly appreciated. Please let me know as soon as possible if you have any further concerns regarding the enclosed Transfers.

Sincerely,

Vic Conrad
Associate, Simplot
Land and Development

Encl.

cc: Wayne Slaughter w/enclosures.
Terry Uhling w/enclosures.

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Form 222
1-87

Page _____ of _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. 3863

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 1

Name of applicant J.R. Simplot Company Phone (208) 336-2110

Post Office address P.O. Box 27, Boise, Idaho 83707

A. PURPOSE OF TRANSFER

1. ☐ Change point of diversion ☐ Add diversion point(s) ☒ Change place of use
   ☐ Change nature of use ☐ Change period of use ☐ Other _____

2. Describe the reason for the proposed changes A pipeline which conveys phosphate slurry from Simplot's Smoky Canyon Mine to Conda, ID will soon be extended to Simplot's chemical manufacturing plant near Pocatello, Idaho. The current practice of beneficiating phosphate slurry at the Conda plant will be transferred to the Pocatello facility once pipeline construction (Cont)

B. DESCRIPTION OF RIGHT(S) OR PORTION THEREOF, AFTER THE REQUESTED CHANGE (see remarks)

1.

Right Number	Priority	Amount (cfs/ac-ft)	Nature of Use	Period of Use
24-07113	9/26/80	3.48	Industrial	1/1 to 12/31
				to
				to
				to

2. Total amount of water being transferred 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

3. Source of water Groundwater tributary to _____

4. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

5. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	45E	25													I			I	
8S	46E	21							I										
6S	34E	7									I			I		I	I		

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Total acres NA

PART 1

6. General Information:

a. Description of diversion system Well, pumps, pipeline

b. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? _____ Yes X No. If yes, provide a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes.

c. Describe the affect on the land now irrigated if the place of use is changed pursuant to this transfer:

There is no irrigation resulting from this appropriation.

d. Remarks:

is complete. The proposed transfer will effectively add the Pocatello facility to the licensed place of use.

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Transfer of Water Rights No. _____

And said application is hereby _____, subject to the following limitations and conditions:

Witness my hand this _____ day of _____, 19____.

_____

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Page _____ of _____ Transfer No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 2

(Attach one copy for each right)

A. DESCRIPTION OF RIGHT AS RECORDED

1. Right evidenced by:

   a. Decree No. _____ Decreed to _____

   in case of _____ vs. _____

   dated _____ in _____ county of _____

   b. License No. 24-07113 issued by the Idaho Department of Water Resources.

   c. Claim No. _____ on file with the Idaho Department of Water Resources.

   d. Transfer No. _____ which produced this right.

2. Attach a copy of last year's tax notice for the property to which the water right is appurtenant or other documents which show ownership. Label document as attachment A. Check appropriate box below:

   ☒ Tax Notice ☐ Warranty Deed ☒ Other Special USFS Use Permit.

3. Source of water Groundwater tributary to _____

4. Date or priority 9/26/80

5. Water is used for the following purpose:

   amount 3.48 (cfs/ac-ft) for Industrial purposes from 1/1 to 12/31

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

6. Total amount of water under right 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

7. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

8. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	42E	15				I													
8S	45E	25													I			I	
8S	46E	21							I										

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DEC 09 1991

Total acres 0

9. Describe any other water rights used for the same purpose as described above _____

Page _____ of _____ **PART 2** Transfer No. _____

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non-use?

_____ If yes, describe _____

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED

(If the entire right is to be changed by the applicant, omit part B and C.)

1. amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____
   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____
   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	42E	15				I					I								

Total acres _____

C. DESCRIPTION OF UNCHANGED PORTION OF RIGHT *(omit if there is no change)*

1. amount 3.48 c.f.s/1,615.2 acft. (cfs/ac-ft) for Industrial purposes from 1/1 to 12/31
   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____
   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	45E	25													I			I	
	46E	21						I											

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DEC 09 1991

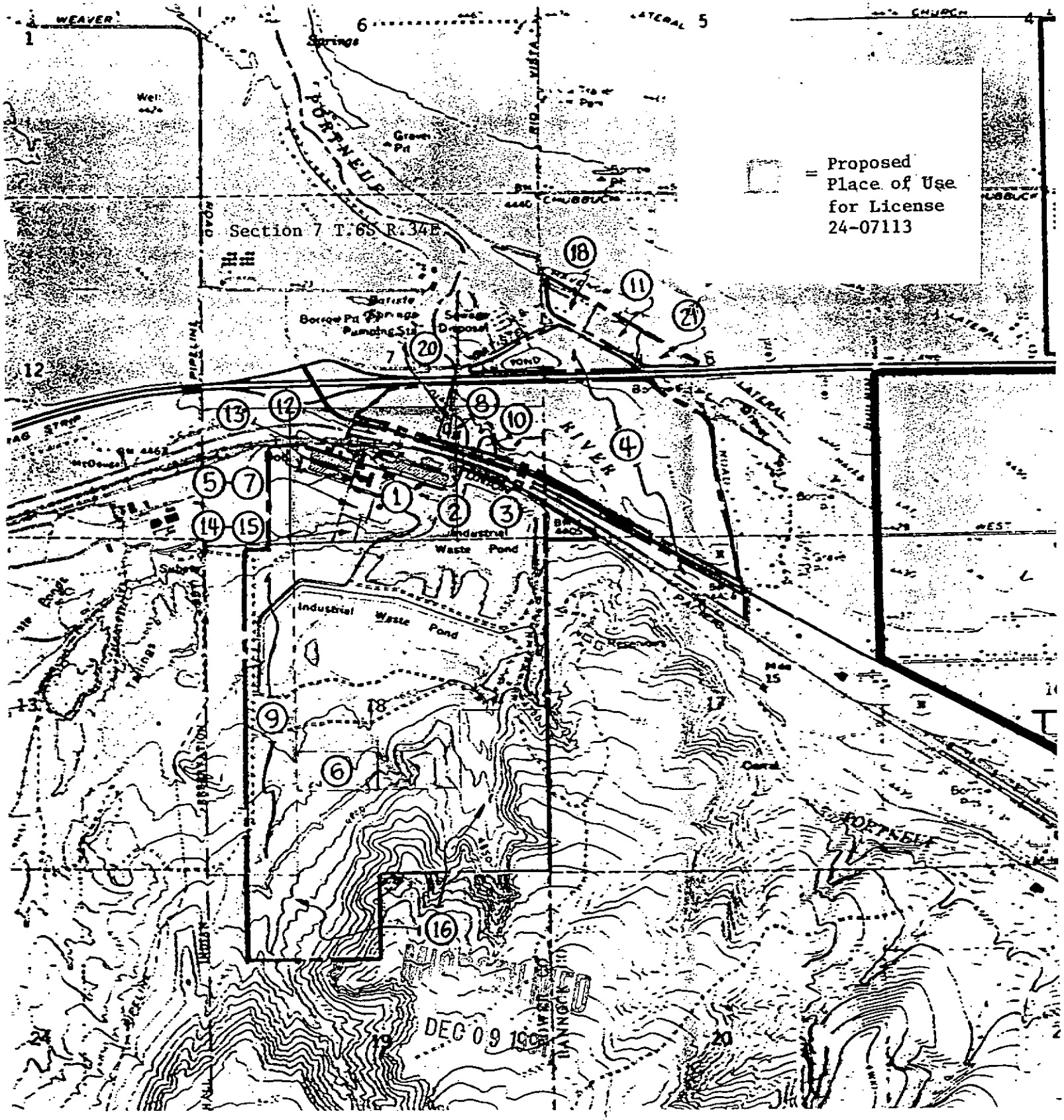
Total acres NA

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

A. Draw a map or attach a USGS map indicating the new point(s) of diversion and/or the new place of use for rights described in part 1. Clearly depict the land by section, township and range number.



Page _____ of _____ Transfer No. _____

PART 3

B. CHANGES IN NATURE OF USE

1	New Nature of Use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use
				_____ to _____
				_____ to _____

2. Quantity and quality of return flows and location of discharge:

No effect on other current water users.

3. Describe effects on other water uses resulting from the proposed change:

I hereby assert that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge.

I understand that any willful misrepresentations made in this application may result in voiding its approval.

Gordan C. Smith

Gordon C. Smith (Signature of Applicant)
President, J.R. Simplot Company

Subscribed and sworn to before me this 9th day of July, 19 91.

Kelline Eaton

(Notary Public)

My commission expires 10-13-92

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by _____ Date _____ Protest filed by _____

Prelim. check by _____ Fee _____ _____

Receipted by _____ Date _____ _____

Published in _____ Copies of protest forwarded by _____

Pub. dates _____ Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☐ approval ☐ denial

_____ rec'd. _____ by _____

Copy of transfer sent to lien holder _____

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Attachment A

To the Application for Transfer of Water Right No. 24-07113 (Page 1 of 6)

United States Department of Agriculture Forest Service	a. Record no. (1-2)	b. Region (3-4)	c. Forest (5-6)
SPECIAL USE PERMIT	70	04	05
Act of June 4, 1897	d. District (7-8)	e. User number (9-12)	f. Kind of use (13-15)
This permit is revocable and nontransferable (Ref. FSM 2710)	02	4067	420
	g. State (16-17)	h. County (18-20)	k. Card no. (21)
	16	029	1

Permission is hereby granted to J. R. Simplot Company

of P.O Box 27, Boise, Idaho 83707, hereinafter called the permittee, to use subject to the conditions set out below, the following described lands or improvements:

E½E½NE¼, E½W½SE¼, E½SE¼	Sec. 25	T8S	R45E
SE¼SE¼, E½E½NE¼, E½NE¼SE¼	Sec. 36	T8S	R45E
SE¼SW¼, SW¼SE¼	Sec. 19	T8S	R46E
W½E½, NE¼NW¼	Sec. 30	T8S	R46E
W½E½, SE¼SE¼	Sec. 31	T8S	R46E
NW¼NE¼NE¼	Sec. 6	T9S	R46E

This permit covers 750* acres and/or -- miles and is issued for the purpose of:

Mill site, stockpiles, waste dumps, service roads, warehouse facilities, offices, parking area, maintenance shops, processing plant and related facilities, and other improvements as approved for processing of phosphate rock from Federal Phosphate Lease I-012980.

* This is the amount of land which will be utilized when the mine is fully developed and will not be charged for until it is utilized.

1. Construction or occupancy and use under this permit shall begin within One months, and construction, if any, shall be completed within Forty-eight months, from the date of the permit. This use shall be actually exercised at least 365 days each year, unless otherwise authorized in writing.

2. In consideration for this use, the permittee shall pay to the Forest Service, U.S. Department of Agriculture, the sum of Dollars ($ 3377.00) for the period from July 26 19 82, to December 31, 1982, and thereafter annually on January 1 the amount due @30 per acre for the number of acres in use Dollars ($ to be determined.): *Provided, however,* Charges for this use may be made or readjusted whenever necessary to place the charges on a basis commensurate with the value of use authorized by this permit.

3. This permit is accepted subject to the conditions set forth herein, and to conditions 13 to 51 attached hereto and made a part of this permit.

	NAME OF PERMITTEE	SIGNATURE OF AUTHORIZED OFFICER	DATE
PERMITTEE	WITHDRAWN DEC 1991	TITLE Pres & CEO	8/16/82
	NAME AND SIGNATURE	TITLE	DATE
ISSUING OFFICER			8/17/82

(CONTINUED ON REVERSE)

2700-4 (7/71)

United States Department of Agriculture Forest Service	a. Record no. (1-2)	b. Region (3-4)	c. Forest (5-6)
AMENDMENT FOR SPECIAL USE PERMIT Ref: FSM 2714	70	04	05
	d. District (7-8)	e. User number (9-12)	f. Kind of use (13-15)
	02	4067	412
THIS AMENDMENT IS ATTACHED TO AND MADE A PART OF THE ☐ TERM ☒ ANNUAL PERMIT	g. State (16-17)	h. County (18-20)	i. Card no. (21)
	16	029	1

For a processing plant and related facilities (KIND OF PERMIT) issued to J. R. Simplot Company (NAME OF PERMITTEE), on 8/17/82 (DATE OF PERMIT)

which is hereby amended as follows: On first page:

Add to each line of legal description: Boise Meridian

Add:

SW¼SW¼SW¼	Sec. 17, T8S, R46E, B.M.
S½SE¼SE¼	Sec. 18, T8S, R46E, B.M.
N½N½NW¼	Sec. 20, T8S, R46E, B.M.

Delete:

This permit covers 750* acres and/or --- miles and is issued for the purpose of:

Mill site, stockpiles, waste dumps, service roads, warehouse facilities, offices, parking area, maintenance shops, processing plant and related facilities, and other improvements as approved for processing of phosphate rack from Federal Phosphate Lease I-012980.

Add:

This permit covers 820* acres and/or --- miles and is issued for the purpose of:

Mill site, stockpiles, waste dumps, service roads, warehouse facilities, offices, parking area, maintenance shops, processing plant, tailings line, and related facilities, and other improvements as approved for processing of phosphate rock from Federal Phosphate Lease I-012980.

FILMED
DEC 09 1991

This Amendment is accepted subject to the conditions set forth herein, and to conditions _____ to _____ attached hereto and made a part of this Amendment.

	NAME OF PERMITTEE	SIGNATURE OF AUTHORIZED OFFICER / TITLE	DATE
PERMITTEE	J. R. Simplot Company	President	January 18, 1983
ISSUING OFFICER	NAME AND SIGNATURE	TITLE	DATE 1/21/83

APR 10 1984

DEED

The Grantor, ATLANTIC RICHFIELD COMPANY, a Pennsylvania corporation, successor by merger to The Anaconda Company, a former Delaware corporation, and to The Anaconda Company, a former Montana corporation, 555 Seventeenth Street, Denver, Colorado 80202, in consideration of One Dollar ($1.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby conveys to the Grantee, J. R. SIMPLOT COMPANY, a Nevada corporation, P. O. Box 912, Pocatello, Idaho 83201, all right, title and interest of Grantor in those certain fee lands ("Fee Lands") and patented mining claims ("Patented Claims") more particularly described on attached Exhibits A and B, including improvements, appurtenances, severed ore, stockpiles and tailings, along with any associated water rights, including, but not limited to State of Idaho Water License Number 27-2168.

EXCEPTING AND RESERVING unto Grantor all of the oil, gas, hydrocarbons and associated substances in and under the Patented Claims and Fee Lands, together with the right of ingress and egress at all reasonable times for the purpose of drilling, exploring, operating and developing the same for oil, gas and associated hydrocarbons and substances, and producing, removing, storing, handling, transporting and marketing the same therefrom, and the use of so much of the surface as may be necessary and incident thereto. The holder of the reserved hydrocarbon rights shall compensate the Grantee for all damage to the non-reserved estate and said holder shall coordinate its activities with Grantee's activities.

Grantor warrants to Grantee that Grantor has not previously conveyed the Fee Lands and Patented Claims or any interest therein to any party other than Grantee and that the same is free from encumbrances done, made or suffered by Grantor provided, however, the Grantor shall not warrant and Grantee shall be solely responsible for all maintenance of title required of Grantee under the Lease and Agreement between Grantor's predecessor and Grantee dated June 24, 1960. Grantor makes no warranties with respect to any water rights conveyed hereunder.

Grantee acknowledges that its representatives have fully inspected the Fee Lands and Patented Claims and Grantee is fully aware of and familiar with the boundaries and conditions thereof, including the existence of hazardous and dangerous conditions and structures on and in the Fee Lands and Patented Claims. Grantee is aware that the Fee Lands and Patented Claims have been or may have been used for mining, minerals processing and associated industrial activities; that there are or may be conditions and hazards on-site; and that there may be hazardous and dangerous conditions and structures not visible or ascertainable in a surface inspection. Grantee assumes all liabilities associated with the Fee Lands and Patented Claims in any way and accepts the Fee Lands and Patented Claims in their current condition, "as is," and without any warranty from Grantor as to the condition of the Fee Lands and Patented Claims. GRANTOR HAS MADE NO REPRESENTATIONS OR WARRANTY WITH RESPECT TO THE CONDITION OR SUITABILITY OF ANY STRUCTURES, FIXTURES, OR TANGIBLE PERSONAL PROPERTY INCLUDED IN THE FEE LANDS AND PATENTED CLAIMS AND GRANTEE IS ACQUIRING SUCH PROPERTY WITHOUT WARRANTY OF ANY KIND, EXPRESSLY INCLUDING ANY IMPLIED WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

MICROFILMED

DEC 09 1991

STATE OF IDAHO } ss 120150
County of Caribou }
I Hereby certify that this instrument was filed
at the request of Caribou Title Co.
at 2:35 o'clock P M this 28th day of
March, 19 84 in my office and duly
recorded in Microfilm Records
Myrna W. Archibald
Ex-Officio Recorder 20.00 Deputy

Grantee agrees to indemnify Grantor and hold Grantor harmless from all claims, demands, damages and liabilities, whenever occurring, arising or resulting from the condition of the Fee Lands and Patented Claims or the use or occupancy of the Fee Lands and Patented Claims by Grantee or Grantee's successors and assigns.

Executed effective as of the 28th day of March, 1984.

ATLANTIC RICHFIELD COMPANY

By Theo L Polanek
Senior Vice President
Anaconda Minerals Company,
a Division of
Atlantic Richfield Company.

STATE OF COLORADO)
: ss.
City and County of Denver)

On this 27th day of March in the year 19 84, before me, Candace Lotzer, a Notary Public, personally appeared Theo L. Polanek, known to me to be a Senior Vice President of Anaconda Minerals Company, a Division of Atlantic Richfield Company, a Pennsylvania corporation, the person who executed the above instrument on behalf of said corporation with authority pursuant to Resolution of that corporation's Board of Directors, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Candace Lotzer
Notary Public
Residing at: 3466 S. Pierce
Englewood, Colorado 80110

My commission expires
July 28, 1986

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DEC 09 1991

Exhibit B

Caribou County, Idaho:

Township 8 South, Range 42 East of the Boise Meridian:

Section 13: E½E½NW¼, NE¼NE¼SW¼.
Section 14: W½NW¼.
Section 15: E½, EXCEPT THEREFROM, Beginning at Corner No. 1, of the following described tract: whence the Southeast corner of said Section 15, bears South 42°6'14" East, a distance of 3668 feet, more or less; thence West 180 feet, more or less, to Corner No. 2 of said tract, which corner is on the North and South Quarter section line of said Section 15; thence North, along said North and South Quarter section line, a distance of 242 feet, more or less, to Corner No. 3 of said tract; thence East 180 feet, more or less, to Corner No. 4 of said tract; thence South 242 feet, more or less, to said Corner No. 1, the place of beginning.
Section 22: W½E½NE¼, W½NE¼, E½SE¼.
Section 23: W½SW¼.

Subject to the exceptions and reservations of record including those to the United States of all the phosphate in the above described lands as contained in the patents issued by the United States.

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DEC 09 1991

THIS IS NOT A BILL

00000001792A

CATEGORY DESCRIPTION	LOTS/ACRES	MARKET VALUE
05 DRY GRAZING	840.00	50,842

1991 TAXPAYERS VALUATION ASSESSMENT NOTICE

Taxes are based on the valuation listed on this statement

IF THERE ARE ANY QUESTIONS REGARDING THIS STATEMENT NOTIFY THE ASSESSOR'S OFFICE BEFORE

06/24/91

See the reverse side for further references

KEEP THIS COPY FOR YOUR RECORDS

Mail To:

SIMPLOT, J.R. CO.
BOX 27

BOISE ID 83707-0000

TOTALS* 840.00 50,842

SE1/4NE1/4, E1/2SE1/4 SEC 20,
N1/2,N1/2S1/2,S1/2SW1/4 SEC 21
NE1/4 SEC 29, 840 AC. T8S R46E

PROPERTY ADDRESS

PARCEL NO. 00000001792A TAX CODE 6

DEC 09 1991

Form 222
1-87

Page ____ of ____

RECEIVED
AUG 22 1991
Department of Water Resources

3863

RECEIVED
JUL 16 1991
Department of Water Resources

COPY
Department of Water Resources

Transfer No.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1

Name of applicant J.R. Simplot Company Phone (208) 336-2110

Post Office address P.O. Box 27, Boise, Idaho 83707

A. PURPOSE OF TRANSFER

1. ☐ Change point of diversion ☐ Add diversion point(s) ☒ Change place of use
   ☐ Change nature of use ☐ Change period of use ☐ Other ____

2. Describe the reason for the proposed changes A pipeline which conveys phosphate slurry from Simplot's Smoky Canyon Mine to Conda, ID will soon be extended to Simplot's chemical manufacturing plant near Pocatello, Idaho. The current practice of beneficiating phosphate slurry at the Conda plant will be transferred to the Pocatello facility once pipeline construction (Cont)

B. DESCRIPTION OF RIGHT(S) OR PORTION THEREOF, AFTER THE REQUESTED CHANGE (see remarks)

1.

Right Number	Priority	Amount (cfs/ac-ft)	Nature of Use	Period of Use
24-07113	9/26/80	3.48	Industrial	1/1 to 12/31
				to
				to
				to

2. Total amount of water being transferred 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

3. Source of water Groundwater tributary to ____

4. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

5. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	45E	25													I			I	
8S	46E	21							I										
6S	34E	7									I					I	I		

Total acres NA

FINDINGS ATTACH
DEC 09 1991

Page _____ of _____ Transfer No. _____

PART 1

6. General Information:

a. Description of diversion system Well, pumps, pipeline

b. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? _____ Yes X No. If yes, provide a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes.

c. Describe the affect on the land now irrigated if the place of use is changed pursuant to this transfer:

There is no irrigation resulting from this appropriation.

d. Remarks:

is complete. The proposed transfer will effectively add the Pocatello facility to the licensed place of use.

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Transfer of Water Rights No. _____

And said application is hereby _____, subject to the following limitations and conditions:

Witness my hand this _____ day of _____, 19____.

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DEC 09 1991

Page _____ of _____ Transfer No. _____

DEC 09 1991

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 2

(Attach one copy for each right)

A. DESCRIPTION OF RIGHT AS RECORDED

1. Right evidenced by:

   a. Decree No. _____ Decreed to _____

   in case of _____ vs. _____

   dated _____ in _____ county of _____

   b. License No. 24-07113 issued by the Idaho Department of Water Resources.

   c. Claim No. _____ on file with the Idaho Department of Water Resources.

   d. Transfer No. _____ which produced this right.

2. Attach a copy of last year's tax notice for the property to which the water right is appurtenant or other documents which show ownership. Label document as attachment A. Check appropriate box below:

   ☒ Tax Notice ☐ Warranty Deed ☒ Other Special USFS Use Permit.

3. Source of water Groundwater tributary to _____

4. Date or priority 9/26/80

5. Water is used for the following purpose:

   amount 3.48 (cfs/ac-ft) for Industrial purposes from 1/1 to 12/31

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

   amount _____ (cfs/ac-ft) for _____ purposes from _____ to _____

6. Total amount of water under right 3.48 cubic feet per second and/or 1,615.2 acre-feet per annum.

7. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		SE	SE	24	8S	45E	Caribou	

8. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
8S	42E	15				I													
8S	45E	25													I			I	
8S	46E	21							I										

Total acres 0

9. Describe any other water rights used for the same purpose as described above _____

Page _____ of _____ **PART 2** Transfer No. _____

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non-use?

_____ If yes, describe _____

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED

(If the entire right is to be changed by the applicant, omit part B and C.)

1. amount _____ for _____ purposes from _____ to _____
(cfs/ac-ft)
amount _____ for _____ purposes from _____ to _____
(cfs/ac-ft)
amount _____ for _____ purposes from _____ to _____
(cfs/ac-ft)

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
	SE							

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
~~8S~~	~~42E~~	~~15~~				I					I								

Total acres _____

C. DESCRIPTION OF UNCHANGED PORTION OF RIGHT *(omit if there is no change)*

1. amount ~~3.48 c.f.s/1,615.2 acft.~~ for ~~Industrial~~ purposes from ~~1/1~~ to ~~12/31~~
(cfs/ac-ft)
amount _____ for _____ purposes from _____ to _____
(cfs/ac-ft)
amount _____ for _____ purposes from _____ to _____
(cfs/ac-ft)

2. Point(s) of Diversion:

Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Local name for diversion
		~~SE~~	~~SE~~	~~24~~	~~8S~~	~~45E~~	~~Caribou~~	

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE ¼				NW ¼				SW ¼				SE ¼				Totals
			NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	
~~8S~~	~~45E~~	~~25~~													I			I	
	~~46E~~	~~21~~							I										

Total acres NA

Page _____ of _____

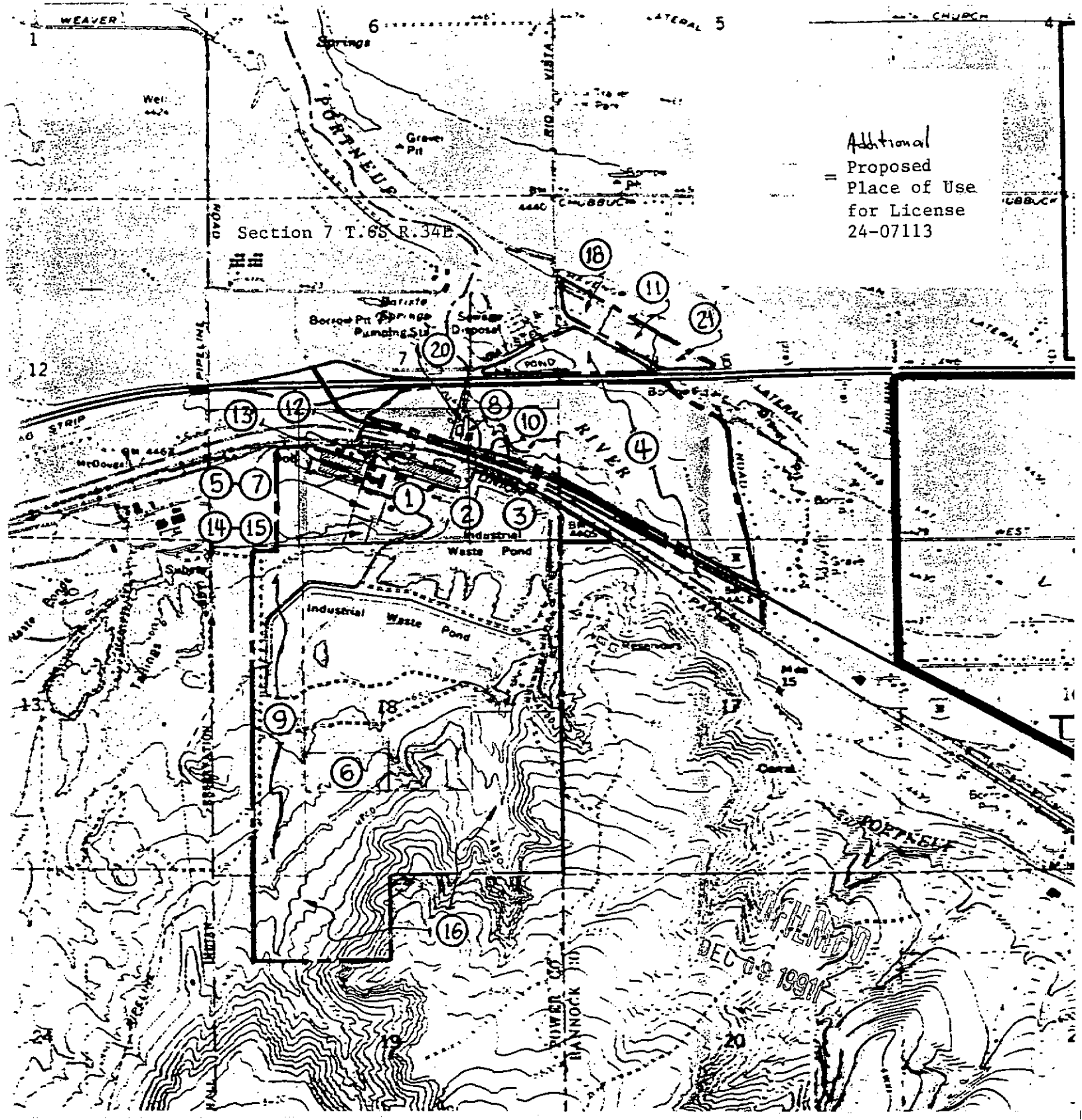
Transfer No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT

PART 3

A. Draw a map or attach a USGS map indicating the new point(s) of diversion and/or the new place of use for rights described in part 1. Clearly depict the land by section, township and range number.



Page _____ of _____ Transfer No. _____

PART 3

B. CHANGES IN NATURE OF USE

1	New Nature of Use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use
				_____ to _____
				_____ to _____

2. Quantity and quality of return flows and location of discharge:
No effect on other current water users.

3. Describe effects on other water uses resulting from the proposed change:

I hereby assert that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge.

I understand that any willful misrepresentations made in this application may result in voiding its approval.

Gordon C. Smith
Gordon C. Smith (Signature of Applicant)
President, J.R. Simplot Company

Subscribed and sworn to before me this 16 day of July, 19 91.

Kelline Eaton
(Notary Public)

My commission expires 10-13-92

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by _____ Date 7-16-91 Protest filed by _____

Prelim. check by _____ Fee $50.00 _____

Receipted by #CO21188 Date 7-16-91 _____

Published in Caribou County Sun _____ Copies of protest forwarded by _____

Pub. dates 8-22 & 29-91 Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☐ approval ☐ denial

_____ rec'd. _____ by _____

Copy of transfer sent to lien holder _____

MICROFILMED

DEC 09 1991

NOTICE OF PROPOSED CHANGE OF A WATER RIGHT
NO. 24-07113

Notice is hereby given that J.R. Simplot has applied to the Department of Water Resources to change place of use of the waters of a groundwater source. The right sought to be changed is evidenced by License and recorded as follows:

LICENSE NO. 24-07113 AMOUNT: 3.48 cfs

PRIORITY: 9-26-80

POINT(S) OF DIVERSION: SESE, S24, T08S, R45E, B.M. CARIBOU COUNTY

The water is used from January 1 to December 31 for industrial purposes within the SENE, S15, T08S, R42E; E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E, B.M.

TO BE CHANGED AS FOLLOWS:

The water will be used within the E1/2SE, S25, T08S, R45E; SWNW, S21, T08S, R46E (Soda Springs Plant, Caribou County); E1/2SW, W1/2SE, S07, T06S, R34E,(Pocatello Plant, Power County)

Any protests against the proposed change must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before September 9, 1991.

R. Keith Higginson
Director

Published in the Caribou County Sun on August 22 & 29, 1991.

MICROFILMED
DEC 09 1991

RECEIVED
AUG 22 1991
Department of Water Resources

March 19, 1990

J.R. SIMPLOT CO.
P.O. BOX 912
POCATELLO, ID 83204

RE: PERMIT NO. 24-07113

Dear Permit Holder(s):

Enclosed herewith is a copy of the Water Right License issued on the above referenced permit along with a copy of your approved application for amendment.

Should you have any questions regarding these documents, please feel free to contact our office.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:sc

Enclosure

MICROFILMED
MAR 20 1990

11-Jan-1990

Caribou County Sun
P.O. Box 815
Soda Springs, ID 83276

RE: Application for Amendment No. 24-07113
Claim to Water Right No.'s 11-4334 & 11-4335

Gentlemen:

Would you please submit an affidavit of publication and certified bill in connection with the above referenced applications. The legal notice No. was to have been published in your paper on was to have been published on December 6 & 13, 1989.

Your cooperation in this matter is greatly appreciated.

Sincerely,

Rita Bodell
Office Secretary

RECEIVED
MAR 20 1990

APPLICATION FOR AMENDMENT

(For Licensing Purposes)

NO. 24-07113

Notice is hereby given that Permit No. 24-07113 in the name of J.R. Simplot Co., Pocatello, ID, was issued for the diversion of 4.46 cfs of water from a groundwater source with the point of diversion within the SESE Sec. 24, Township 8S, Range 45E, B.M., Caribou County; to be used for Industrial purposes from January 1 to December 31 within the NESE Sec. 25, Township 8S, Range 45E, B.M.

The permit holder now proposes to amend Permit No. 24-07113, changing the place of use to SENE Sec. 15, Township 8S, Range 42E; NESE SESE Sec. 25, Township 8S, Range 45E; SWNW Sec. 21, Township 8S, Range 46E, B.M. and the rate of diversion to 3.48 cfs.

Any protest to the Licensing Amendment must be filed with the Idaho Department of Water Resources, 150 Shoup Ave., Idaho Falls, ID, 83402, on or before December 26, 1989.

R. Keith Higginson

Director

Published in the Caribou County Sun on December 7 & 14, 1989.

MICROFILMED

MAR 20 1990

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DEC 21 1988
Department of Water Resources
Eastern District Office

CONDA-POCATELLO PIPELINE PROJECT
REQUEST FOR PUBLIC COMMENTS

The J. R. Simplot Company (Simplot) proposes to construct and operate a nine-inch-diameter buried phosphate-slurry pipeline from Conda, Idaho, to the company's manufacturing complex near Pocatello, Idaho; a distance of approximately 58 miles. The operational life of the project is expected to be 40-50 years. The project is known as the Conda-Pocatello Pipeline Project (Project) and would be located in Caribou, Bannock, and Power Counties. Construction of the Project is planned to begin in Spring of 1991 and be completed by Fall of 1991.

The proposed pipeline would cross approximately 4.5 miles of land administered by the Bureau of Land Management (BLM) and approximately 5.5 miles of land administered by the Forest Service (FS). The BLM will serve as the lead federal agency in cooperation with the FS to assure that the requirements of the federal regulations are satisfied.

PURPOSE OF AND NEED FOR THE PROPOSED PROJECT

As a result of recent competition in the fertilizer industry, there has been a curtailment of production and even permanent closure of a significant segment of fertilizer manufacturing in the United States. Replacement of hauling the ore by rail with a more efficient slurry pipeline is a major component of a large integrated project being undertaken at Simplot's Pocatello fertilizer complex, designed to produce significant improvements in operations. Completion of the Project would thus help maintain competitiveness in the world-wide phosphate market and assure the long-term stability of this important southeastern Idaho industry.

The use of the pipeline slurry at the company's Pocatello production facility is also expected to result in environmental benefits. The wet slurry system will eliminate all outdoor storage and handling of dry ore as is presently practiced. Therefore, the problem of wind-blown fugitive dust emissions from these sources will be effectively eliminated. In addition, dust emissions from several permitted ore-processing sources will be reduced significantly. The net result of these changes is expected to be an improvement in local air quality.

TECHNICAL STUDIES

Simplot has conducted technical systems-engineering studies to narrow the range of general routing and design possibilities. The criteria considered in the technical evaluation of the general routes include (1) length of the pipeline, (2) number of pumping stations required, (3) location of the pumping stations, and (4) physical location of the pipeline. The enclosed map illustrates the proposed pipeline study area.

As a result of the technical studies, a number of routing possibilities were eliminated for the reasons that follow: routes that would serve the area of the Gay Mine were eliminated due to the depletion of reserves at the mine, the routes that paralleled the railroad were eliminated because of many obstacles and the costs associated with the installation of a pipeline through the railroad yards in the Pocatello area, and the longest routes requiring more than one pumping station were eliminated due to engineering constraints and tremendous costs. The potential, general routes that remained are routes of similar length and require only one pumping station.

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ENVIRONMENTAL ANALYSIS

In accordance with the National Environmental Policy Act of 1969 (NEPA), the BLM will be responsible for overseeing the completion of environmental studies and preparation of an environmental document. The object of the environmental studies is to comprehensively study the effects on the human, natural, and cultural environments that would be caused by the construction, operation, and maintenance of the proposed pipeline, to explore the impacts of various alternatives, and to develop ways to avoid or reduce any potential impacts to sensitive features of the environment. The studies will address:

Human Environment

- Existing and planned land uses; such as agriculture, residential, urban, rural, commercial/industrial, mining, parks, recreation, and other uses
- Scenic or visual characteristics of the local landscape as affected by the proposed pipeline
- Social and economic effects

Natural Environment

- Earth resources such as geology, soils, air, and water resources
- Biological resources including wildlife, vegetation, and threatened and endangered species of plants and animals
- Floodplains and wetlands

Cultural Environment

- Prehistoric and historic cultural resources
- Native American concerns

The consulting firm of Dames & Moore has been selected by Simplot to conduct the environmental studies and assist the BLM/FS in preparing the environmental document. The studies are scheduled to begin in January of 1989. First, an environmental overview of the study area will be conducted to screen the general routes technically studied by Simplot; refine and identify reasonable alternative route options for the pipeline; and identify key issues and concerns. Then, the studies will be focused on a corridor-specific inventory of resources, assessment of impacts to those resources, comparison of route options, and selection of an environmentally preferred route. Completion of the environmental studies is presently scheduled for Spring of 1989 followed by the preparation of the environmental document.

PUBLIC COMMENT

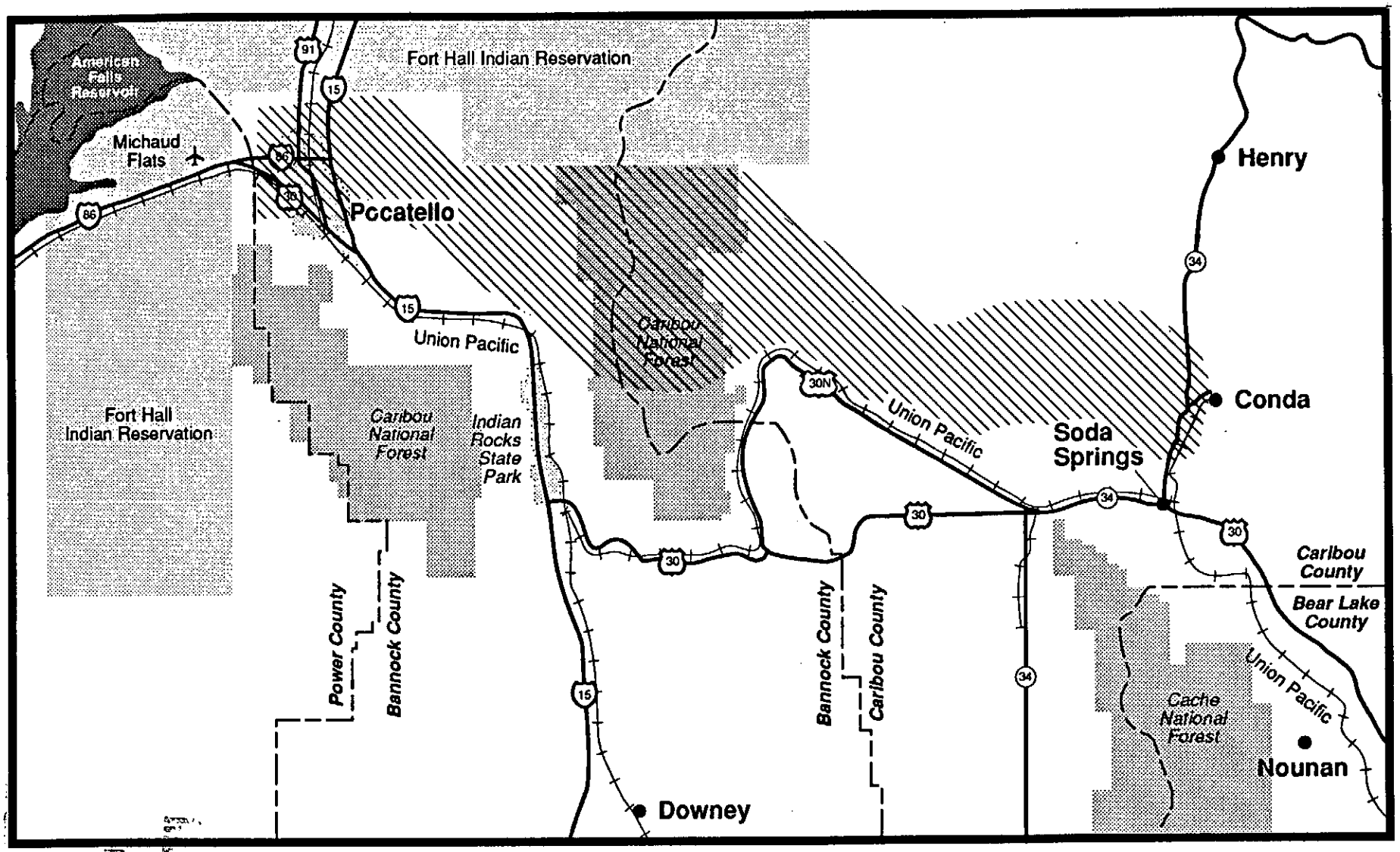
Integral to the environmental process is the solicitation of comments from the various federal, state, and local agencies, and interested organizations and individuals to assure that the most accurate and current environmental information and public opinion are incorporated into planning and decision-making. This is the initial opportunity to comment on the Project. The BLM/FS are providing this Project information to the public at an early stage for the public to offer comments. The comments will assist in identifying the scope of issues, concerns, and opportunities to be addressed during the environmental studies in preparation of the environmental document.

A response sheet has been provided for all interested agencies, organizations, and individuals to submit questions, comments, and suggestions regarding the scope of the Project. Please submit your comments by January 20, 1989. Those interested in receiving information over the course of the Project should send names and addresses to be included on the Project mailing list. We appreciate your time and effort in taking an interest in this Project. We look forward to your additional input in the future.

For further information on the Conda-Pocatello Pipeline Project contact Ms. Debra A. Kovar, Project Manager, Bureau of Land Management, Pocatello Resource Area, 250 South 4th Avenue, Federal Building, Room 172, Pocatello, Idaho, 83201, (208) 236-6860.

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Proposed Pipeline Study Area

PROJECT VICINITY MAP

Conda-Pocatello Pipeline Project

RECEIVED
MAR 20 1990

RECEIVED
JUN 16 1982
Department of Water Resources

Record of Decision
on the
Mining and Reclamation Plan
for the
Smoky Canyon Phosphate Mine
of
J. R. Simplot Company
on the
Caribou National Forest
in
Caribou County, Idaho

RECEIVED
JUN 28 1982
Department of Water Resources
Eastern District Office

Decision

Based on the analysis and evaluation in the Final Impact Statement for the Smoky Canyon Mining and Reclamation Plan, it is my decision to approve Alternative 3 as outlined in the Impact Statement, with Option C for Mining Sequence and Waste Disposal, and Option A-1 for the slurry pipeline route.

Alternatives Considered

The following alternatives were considered in reaching this decision:

1. No Action, which would constitute rejection of the proposal.

2. Deferment of Action, which would delay a decision to either approve or reject a mining and reclamation plan until some later time. Such an action would necessitate completion of a supplemental environmental assessment or statement based on either the proposed plan or a modified plan.

3. Approval Action, which could be any of the several option component alternatives addressed in the environmental statement.

Project Description

The proposed phosphate mining and processing project will be located 25 miles east of Soda Springs, Idaho and 10 miles west of Afton, Wyoming. Ore will be mined by a surface mining method from Phosphate Lease Idaho 012890 which covers 2,520 acres. Mining will disturb about 1,300 acres over a 30-year period. Surface reclamation will proceed concurrent with mining, with only the minimum necessary area unreclaimed at any time.

About 2 million tons of phosphate rock will be mined annually. The ore will be beneficiated at the minesite. The tailings will be impounded on private land near the mine. The ore concentrate will be transported in slurry form through a burried pipeline to the company's existing plant at Conda, Idaho, a distance of about 25 miles. About 800 acre-feet of water from wells near the mine will be used annually to transport the material through the slurry line.

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The project will employ about 95 people most of whom will probably reside in the Star Valley area in Wyoming. The access road from Star Valley to the mine site will be improved and maintained.

Description of Alternatives

The No Action and Deferment of Action Alternatives would have no adverse impacts on the physical and biological environment, but would have severe impacts on the social and economic components of the human environment.

Alternative 3 consists of eight components:

1. Mine panel sequence and waste disposal sites. (three viable combinations)
2. Slurry pipeline routes. (four considered)
3. Electric power transmission routes.
4. Millsite location.
5. Tailings pond location.
6. Ore and waste transport.
7. Tailings pipeline route.
8. Access route.

Two or more alternatives were initially considered for Components 3 through 8 inclusive. Preliminary analysis showed that only the company proposed alternatives were viable. The others were, therefore, dropped from further consideration.

Five waste disposal sites external to the mine and backfill of mined areas were considered in conjunction with five mine panels which could be mined in three different sequences. This resulted in three viable options for mining which were evaluated.

Four slurry pipeline routes, each economically and physically viable, were presented as options for evaluation. These routes were dictated by the topography and engineering constraints and within reasonable proximity of the most direct route.

Basis for Decision

The J. R. Simplot Company has an impending need for a new source of phosphate rock to supply their fertilizer operations. They hold the Smoky Canyon Lease which give them the right to mine and use the phosphate rock therefrom. It is the most viable source for them to develop at this time. To either reject (Alternate 1) or delay action (Alternate 2) on the proposal is not warranted. Either of these alternatives would have serious adverse social and economic impacts.

Under the Approval Action Alternatives the Panel Mining Sequence/Waste Disposal Option and the slurry pipeline route option with the least environmental impact were selected.

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Mitigation and Monitoring

The Mitigating Measures and Management Constraints and Guidelines included in Chapter 4 and those incorporated in the Slurryline Plan and in the Mine Plan in the Appendix of the E.I.S. will be included as a condition of permits that are issued for development of improvements on the National Forest as appropriate.

The monitoring program described in the Final E.I.S. is adopted with the addition of flow data requested by the Wyoming Game and Fish Department in their April 12, 1982 letter for Auburn Hatchery Spring.

This decision is not subject to administrative review pursuant to 36CFR 211.19.

Charles J. Hendricks

CHARLES J. HENDRICKS
Forest Supervisor
Caribou National Forest

6/15/82
Date

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MAR 20 1990

RECORD OF DECISION
ON
MINING AND RECLAMATION PLAN
FOR
IDAHO 012890
SMOKY CANYON PHOSPHATE MINE
J.R. SIMPLOT COMPANY
CARIBOU COUNTY, IDAHO

INTRODUCTION

This Record of Decision is issued pursuant to Regulations of the Council on Environmental Quality (40 CFR Part 1505) and Implementing Procedures of the U.S. Department of the Interior (516 DM 5). Copies of this Decision have been sent to interested parties. Also, copies of the Decision are available to the public from U.S. Minerals Management Service offices at Pocatello, Idaho and Menlo Park, California and from U.S. Forest Service offices at Pocatello and Soda Springs, Idaho and Afton, Wyoming.

DECISION

It is the decision of the Minerals Mangement Service, U.S. Department of the Interior, to approve the proposed phosphate mining, processing and slurry pipeline project of the J.R. Simplot Company for its Smoky Canyon phosphate lease, Idaho 012890.

PROJECT DESCRIPTION

The proposed phosphate mining/processing project will be located 25 miles east of Soda Springs, Idaho, and 10 miles west of Afton, Wyoming. The lease area involves 2,520 acres and surface mining will disturb about 1,300 acres over a 30-year period. An additional surface disturbance of about 500 acres is expected for power transmission lines, tailings ponds, tailings pipeline, millsite, slurry pipeline, and access roads.

About 2 million tons of phosphate rock will be mined each year by surface mining methods. Overburden waste from the mine will be placed in surface dumps and used as backfill in mined-out pits. The ore will be beneficiated onsite with tailings impounded on private land about 1 mile east of the mine. The beneficiated ore will be transported about 25 miles in a buried slurry pipeline to an existing Company plant at Conda, Idaho. About 800 acre-feet of water a year, supplied from a well near the mine, will be required for the slurry line. From Conda, the phosphate rock will be shipped by rail to the Company's existing fertilizer plant at Pocatello, Idaho and to chemical processing facilities at other locations.

The estimated 95 mine employees required for the project will probably reside in the Star Valley area in Wyoming. Access roads will be improved and maintained between Auburn, Wyoming, and the mine.

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Description of Alternatives

The following alternatives were considered by Minerals Management Service before reaching its decision:

1. No Action, which would constitute rejection of the proposal.

2. Deferment of Action, which would delay a decision to either approve or reject a mining and reclamation plan until some later time. Such an action would necessitate completion of a supplemental environmental assessment or statement based on either the proposed plan or a modified plan.

3. Approval Action, which could be any of the several option component alternatives addressed in the Environmental Statement.

Under the No Action and Deferment of Action Alternatives there would be no impact on the existing physical and biological environment. Adverse impacts of these alternatives are associated with the social and economic components of the human environment.

The Smoky Canyon Mine is proposed as a replacement source of ore production currently obtained from the Conda Mine. The Conda Mine will be phased out over the next few years. Without a new source of ore to furnish the Company's fertilizer plant at Pocatello, Idaho, as well as Company plants in Manitoba, Canada and Helms and El Centro, California, continued operation of these plants would be in jeopardy.

Under the Approval Action Alternative several option component alternatives were considered to determine the combinations represented that would be the most feasible, from an economic and technical standpoint, and the most environmentally preferable.

The Smoky Canyon Project contains eight components:

1. Mine panel sequence and waste disposal locations
2. Slurry pipeline routing
3. Transmission line routing
4. Millsite location
5. Tailings ponds location
6. Ore and waste transport
7. Tailings line routing
8. Access road location

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Analyses of these components resulted in the findings that there were no viable options for six of the eight components other than that which was proposed by the Company in its plan. These are as follows:

Transmission line routing: The transmission line will run from the Dry Creek substation near Fairview, Wyoming, due west to the mine site. Other routes were examined but they did not satisfy the system wide network planned for this area by the power distribution company.

Mill site location: The mill site will be located in South Smoky Canyon near the mine. Four sites were evaluated but only the selected site met the criteria of size, elevation, accessibility, location and environmental acceptability.

Tailings ponds location: The tailings ponds will be located in the Roberts Creek drainage. Two other suitable sites were considered but these are located on private lands not available for this use.

Ore and waste transport: Ore and waste will be mined and transported by shovels and trucks with the addition of a conveyor system.

Tailings line route: The tailings pipeline between the mill and tailings ponds will generally follow Smoky Canyon and cross a low ridge to Roberts Creek. Another route considered was dismissed because of its conflict with mining operations.

Access road location: The access road to the mine, mill and tailings ponds will involve upgrading the existing access route from Auburn, Wyoming to Smoky Canyon. A possible route from Fairview to Sage Creek was considered but because of greater environmental impacts was not acceptable.

The remaining components, mining sequence and waste disposal sites were reviewed under three separate options and the slurry pipeline was reviewed under four separate routes.

Mining/Mine Waste Disposal: The only feasible way to mine this deposit is by surface mining methods. In mining the estimated 58 million tons of phosphate ore, approximately 196 million bank cubic yards of waste will have to be removed and placed in both external waste dumps and used as backfill in the mined-out pits. The location of the external dump sites and sequencing of mining to provide for the maximum use of waste as backfill were the most important aspects in the consideration of the three separate options.

The three mining options considered, involving five mine panels (A-E), were:

1. Option A.
   External waste dumps - Smoky Ridge (I)
   South Smoky Canyon (II)
   Roberts Creek (III)
   Backfill - All but south end panel C
   All but south end panel E

2. Option B
   External waste dumps - Smoky Ridge (I)
   - Smoky Canyon (IV)
   Backfill - All but southeast end of panel B
   All but south end of panel E

3. Option C
   External waste dumps - Smoky Ridge (I)
   - Pole Canyon (V)
   Backfill - All but southeast end of panel B
   - All but south end panel E

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Slurry Pipeline Routes: The only feasible way to transport the beneficiated phosphate ore from the Smoky Canyon mine site would be by slurry pipeline. Other transportation methods, such as truck haul, railroad, conveyor, or a combination of any of the three, were analyzed. From the standpoint of economics, energy consumption, engineering and environmental impacts the slurry pipeline method was the only reasonable option to pursue.

Four possible routes of the slurry pipeline from the mine to Conda, Idaho, were evaluated. Because of the terrain and the location of existing improvements, all four follow a common route from the slurry plant site to the mouth of Timber Canyon. All routes are also common on the west end, from the mouth of Johnson Creek to Conda.

1. Route A would proceed from the mill northerly along South Smoky Canyon, westerly up Smoky Canyon, down Timber Creek, across Diamond Creek, traverse the east slope of Dry Ridge to the saddle at the head of Hornet Creek, descend the west slope of Dry Ridge, cross Dry Valley and follow the Lonetree Springs Road to Slug Creek valley, proceed to the mouth of Johnson Creek, follow the Mill Fork of the Trail Creek Road to the Trail Canyon saddle, and then continues through Shields Canyon to the Conda plant.

2. Route A-1 would depart route A at Diamond Creek, follow the north side of Stewart Creek for about a mile and a half, thence up North Stewart Canyon to rejoin route A at the saddle between the Stewart Creek and Hornet Creek watersheds.

3. Route B diverts from route A at the top of Dry Ridge, follows Maybe Canyon to its mouth, crosses Dry Valley, follows Caldwell Canyon over Schmid Ridge, and rejoins route A at the mouth of Johnson Creek.

4. Route C departs from route A at Diamond Creek, follows Stewart Creek up to the 7,700-foot elevation where a tunnel or borehole is driven through Dry Ridge, descends the west slope of Dry Ridge, and joins route A in Dry Valley.

BASIS FOR DECISION

Development of the J.R. Simplot Company's Smoky Canyon lease is considered to be a viable means of meeting the needs for a new source of phosphate ore for the Company's fertilizer plants. Under the terms and conditions of the lease, issued effective October 1, 1962, the lessee has the exclusive right to mine and dispose of all the phosphate and phosphate rock and associated and related minerals, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the leased deposits. To either reject or delay action on approval of the proposal is not warranted. Rather, it would be an adverse action to the public interest nationally, regionally, and locally with respect to the development of the Nation's domestic mineral resources and the benefits derived therefrom. For these reasons the alternatives of No Action and Deferment of Action were dismissed.

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Under the Approval Action Alternative, only the three mine/mine waste disposal options and the four slurry pipelines routes had to be further considered. The environmentally preferred mine option and slurry line route were Option C and Route A-1. In addition to being environmentally preferred, they were also the preferred Option and Route on the bases of economics and technical feasibility.

Mine Option C was selected as the most suitable because of the location of exterior dumpsites I (Smoky Ridge) and V (Pole Canyon), and the complete backfilling of mine panel C. Use of dumpsite II (South Smoky Canyon) was of little concern. The location of dumpsite III (Roberts Creek), however, presented several problems. It would be located immediately above the tailings ponds which would complicate the planned diversion of Roberts Creek around the ponds, the competency of the foundation materials underlying the site is questionable, the site is presently valuable wildlife habitat, and the dumpsite, in line with mine panel B and the tailings ponds, could create a 3-mile barrier to big game. Dumpsite IV (Smoky Canyon) was the least suitable of the five possible external waste dump sites because the existing and future public access is through Smoky Canyon. Also, the waste dump would be highly visible and would threaten the fishery resource in middle and lower Smoky Creek. On the other hand, dumpsite V (Pole Canyon) will not be visible from any existing or planned public access routes, the foundation material is competent, Pole Creek contains no fishery resource, and there is sufficient space at the lower end of Pole Canyon to construct a sediment pond. Complete backfilling of mine panel C is important for reasons of safety and esthetics as the existing and future access road through Smoky Canyon is within close proximity of this mine pit.

Slurry Route A-1 was judged to be the most environmentally desirable over the other three possible routes. Also, Route A-1 was considered best from the standpoint of economics, engineering feasibility and for easement acquisition. The criteria used for environmental evaluation were water use, wildlife habitat, facilities failure, future use opportunity, reclamation and visual. The evaluation of the four routes were as follows:

Water use is the same for all alternatives. Impacts on wildlife habitat for routes A-1 and C are equal. These two routes avoid important big game habitat between Stewart Canyon and Hornet Canyon, while routes A and B pass through the heart of that area. Under facilities failure, the potential for impacts on surface resources due to a rupture of the slurry line, routes A, A-1, and C rate the same, with route B trailing. Stream crossings are major points for potential impacts. These three routes cross creeks in close proximity to each other, whereas route B crosses Dry Creek and Slug Creek downstream from the others closer to the Blackfoot River. Routes A-1 and C rank equally high for reclamation potential, primarily because they both avoid a long traverse on a steep sidehill in climbing from Diamond Creek to Dry Ridge, the course followed by routes A and B. Visually, route A-1 is best because it avoids the long sidehill slope followed by routes A and B in climbing from Diamond Creek to Dry Ridge.

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Routes A-1 and C ranked lower than alternative routes A and B in water quality because these routes would be parallel and in close proximity to Stewart Creek, where sediment entering the stream could be a problem during construction. Under erosion/sedimentation, route C outranks routes A and A-1 due to its avoiding about 400 feet of climb in elevation by tunneling through Dry Ridge. The impact on fisheries parallels the impact on water quality, and for this reason routes A, A-1, and C are less favorable to fisheries than is route B. Under elk calving, route A-1 is second only to route B, which avoids major elk calving areas entirely.

CONCLUSION

The benefits derived from the proposed Smoky Canyon mining project have been weighed against the potential environmental and social impacts. Reasonable project alternatives have been given serious consideration. As a result of these evaluations the Minerals Mangement Service has concluded that the project should be approved. The Mitigation Measures and Management Constraints and Guidelines contained in Chapter 4 and those incorporated in the Slurryline Plan and Mine and Reclamation Plan in the Appendix of the E.I.S., have been adopted as conditions to approval of mine and reclamation plans, or modifications thereof, for the Smoky Canyon project. The Monitoring Program, described in the Final E.I.S., with the addition of collection of flow data at the Auburn Hatchery Spring, as requested by the Wyoming State Game and Fish Department, are also conditions to approval of Smoky Canyon Project plans. The Mining Supervisor, in cooperation with appropriate Federal, State and local agencies, will inspect operational activities to assure compliance with approved plans as provided by the statutes and regulations.

Barney Brunelle — June 15, 1982
Date

Barney Brunelle
District Mining Supervisor
Pocatello District Office, Western Region
Minerals Management Service
U.S. Department of the Interior

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MEMORANDUM

TO: File 24-7113

FROM: Sharla

DATE: November 1, 1989

RE: Licensing Amendment

On this date, a copy of the licensing amendment was sent to Eastern Region for advertising purposes. Glen Saxton determined that this amendment needed to be advertised because of EIS.

Licensing will be held until advertising is completed.

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November 1, 1989

Earl Mapes, Director
Regulatory Affairs
J. R. Simplot Company
P. O. Box 912
Pocatello, ID 83204

Dear Mr. Mapes:

Re: Permit No. 24-7113 - Application for Amendment

As requested in your letter of October 9, 1989, the department is returning the Draft and Final Environmental Impact Statement for the Smoky Canyon Phosphate Mine. Thank you for providing them.

The department has determined it necessary to advertise the Application for Amendment. The document has been returned to the region for this purpose.

If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

RITA I. FLECK
Secretary/Records Manager

Enclosures

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MAR 20 1990

Simplot

J. R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83204
(208) 232-6620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

MINERALS & CHEMICAL DIVISION

October 9, 1989

RECEIVED
OCT 11 1989
Department of Water Resources

yyy

Mr. Glen Saxton
Idaho State Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, ID 83720

Ref: Permit No. 24-7113

Dear Mr. Saxton:

As you will recall, I spoke with you from Ervin Ballou's office on Friday, Sept. 29 regarding the licensing status of permit number 24-7113 assigned to the industrial well located at the J. R. Simplot Company Smoky Canyon Mine in Caribou County.

From our conversation, it is my understanding that the licensing process is presently being delayed pending resolution of remaining Departmental questions regarding water useage in the original slurry pipeline segment from Smoky Canyon to Conda. More specifically, I understood you to say that one of the major questions outstanding is that of adequate opportunity being afforded the public for comments on water useage in the pipeline during the EIS process carried out in 1981 and 1982.

To aid in resolution of this issue and as promised, I have enclosed a copy of the draft and final EIS documents for the Smoky Canyon Mine project. The phosphate slurry pipeline extending from the Smoky Canyon Mine to Conda is a major component of this large and complex project. As such, it was the subject of much discussion throughout the EIS process and is reflected accordingly in the documents. I would specifically direct your attention to "Appendix B" (Phosphate Slurry Pipeline Plan) of the draft EIS where the slurry pipeline is described in significant detail including water requirements for its operation.

We are pleased to provide you with these documents for your temporary use in evaluation of the Smoky Canyon project. Because we have so few sets remaining however, I must request that they be returned upon completion of your review. I trust they will prove helpful to you in determining the adequacy of public comment

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MAR 20 1990

opportunities during the EIS review process in 1981 and 1982. If I may be of further assistance in providing other needed information relevant to the licensing of Permit No. 24-7113, please contact me.

Sincerely,

Earl C. Mapes
Director, Regulatory Affairs

ECM:smw

Enclosures

pc: Bob Black w/o encl.
Bruce Belzer w/o encl.
Howard Jones (IDWR-IF)

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MAR 20 1990

Simplot

MINERALS & CHEMICAL DIVISION

J. R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83204
(208) 232-6620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

RECEIVED
APR 13 1989
Department of Water Resources

March 12, 1989

State of Idaho
Department of Water Resources
1301 North Orchard Street
Statehouse Mall
Boise, ID 83720

Attn: Mr. Jim Johnson

Dear Mr. Johnson:

Please find enclosed the signed application for Amendment to Water Right #24-07113 and a draft in the amount of twenty dollars for the required filing fee.

From my discussion with you earlier in the week, it is my understanding that his amendment reflects the addition of Conda, Idaho (Township 085, Range 42E, Section 15) as a recognized point of use for the water permitted under 24-07113 in September 1980. It is our intent to request a "transfer" of this point of use from Conda to Pocatello at some future date prior to construction of the new slurry pipeline segment between these locations.

Thank you for your timely assistance in this matter.

Sincerely,

Earl Mapes

Earl Mapes
Director, Regulatory Affairs

EM/kb

Encl.

cc: Howard Jones, Department Water Resources
Bob Black

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MAR 20 1990

March 20, 1989

J.R. SIMPLOT CO.
P.O. BOX 912
POCATELLO, ID 83204

RE: PERMIT NO. 24-07113

Dear Permit Holder(s):

The above referenced water right is in the process of being licensed. However, before a license can be issued, your permit must be amended to correspond with the findings of the Department's field examiner.

The enclosed application for amendment contains information that will be included on the license when it is issued. Please review carefully and if you concur, sign the amendment and return with the $20.00 filing fee within 30 days.

If you do not concur with these findings or if you have any questions, please contact us within the 30-day period.

Sincerely,

JIM JOHNSON
Water Rights Supervisor

JJ:sc

Enclosure

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MAR 20 1990

Form 219B
5/84

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

LICENSING REPORT

Permit No. _____

1. **Measurement Calculations**
   a) Field Measurement Calculations (Include theoretical capacities and system capacity)

1560 gpm ÷ 448.8 ~~gpm~~ = 3.475 ≈ 3.48 cfs

   b) Volume Calculations for Irrigation:

$V_{I.R.}$ = (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 $V_{D.R.}$ = _____

   c) Volume Calculations for Other Uses:

$V = 3.48\ \text{cfs} \times 1.9835\ \text{AF/cfs} \times 4.5\ \text{days/week} \times 52\ \text{weeks/yr.} = 1615.2\ \text{AFA}$

2. **Overlap Review**
   a) Other water rights with same place of use: _____

   b) Other water rights with same point of diversion: 24-7169 – different well, no overlap.

   c) Analysis:

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MAR 20 1990

exam fee timely-
pd. #200.

30 day
ADD P/U's

RECOMMENDED AMOUNTS

3.

Permit No.	Priority	Amount	App. Date	Date Proof Submitted	System Capacity
24-7113	9-26-1980	3.48 cfs	9-26-1980	6-28-1985	3.48 cfs

4. Permit Holder: J. R. Simplot Company

Address: P.O. Box 912, Pocatello, ID 83204

5. Source: groundwater tributary to —

6. Beneficial Use

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Industrial	1-1	12-31	3.48 cfs	1615.2 AFA
Allowable Maximums:			3.48 cfs	1615.2 AFA

7. Point(s) of Diversion: ✓

No.	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County
			SE	SE	24	8S	45E	Caribou

8. Place(s) of Use add p/u's

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	
8S	45E	25													X			X	
8S	46E	21							X										
8S	42E	15				X													
Total Acres																			

9. Recommended Conditions/Remarks: Smoky Canyon

Industrial use is for slurry plant, tailings dam replenishment and phosphate plant in Conda, Idaho.

R06 R09

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MAR 20 1990

10. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☑ Add P.U. as reflected above ☐ Other

11. Examiner's Signature _____ Date _____

Checked in Regional Office by _____ Date _____

Approved in State Office by Kay Walker Date 3/14/89

POINT OF DIVERSION OVERLAP REVIEW

WR-NUMBER	TWP	RNG	SC	TRACT 1\4	1\4	1\4	LT	#SOURCE	#NAME
2407113	08S	45E	24		SE	SE		GROUNDWATER	J.R. SIMPLOT C
2407169								GROUNDWATER	J. R. SIMPLOT
2407113	08S	46E	17		SW	SW		GROUNDWATER	J.R. SIMPLOT C
2407113	08S	45E	36		SE	SE		GROUNDWATER	J.R. SIMPLOT C
2407113	08S	45E	25		SE	SE		GROUNDWATER	J.R. SIMPLOT C
2407164								GROUNDWATER	J.R. SIMPLOT C

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MAR 20 1990

RE-EXAM

RECEIVED
FEB 03 1989
Department of Water Resources

Form 219
6/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 24-7113

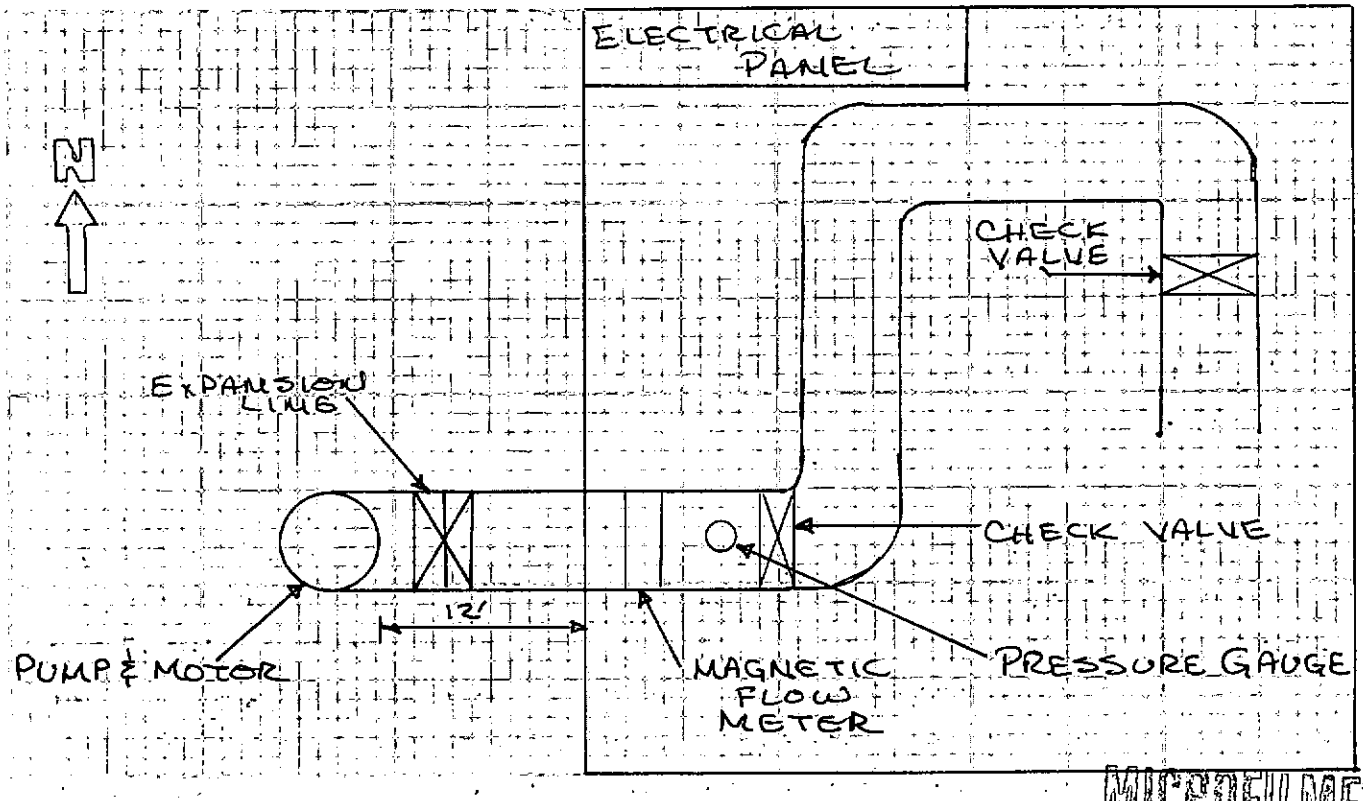
1. Owner: J.R. SIMPLOT COMPANY Phone No. 232-6620
   Current Address: P.O. BOX 912, POCATELLO, ID 83201
2. Accompanied by: DENNIS FACER EXAM. DATE: 01/11/89
   Address: AS ABOVE Phone No. 225-9861
   Relationship to Permit Holder: PROJECT ENGINEER
3. Source: GROUNDWATER tributary to N/A

B. OVERLAP REVIEW

1. Other water rights with same place of use: N/A
   ☐ Copies Attached
2. Other water rights with same point of diversion: N/A
   ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



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Scale: 1" = NO SCALE.

2. ☐ Copy of U.S.G.S. Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).
   ☐ Aerial Photo Attached (required for irrigation of 10 acres or more).
   ☒ Photo of Diversion and System Attached (required for all but single household domestic groundwater, and stockwater.

MAR 20 1990

System Description (continued)

3. **Narrative:** Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

WATER PUMPED FROM THE WELL LOCATED IN THE SE¼, SE¼, SEC 24; T8S; R45E IS USED TO REPLENISH WATER LOST BY EVAPORATION ECT. FROM WATER THAT IS USED FROM THE TAILINGS DAM ON ROBERTS CREEK LOCATED IN THE SW¼, NW¼, SEC 21; T8S; R46E. THEN TRAVELS THROUGH 26.9 MILES OF 8" DIAMETER PIPE TO THE PLANT IN CONDA ID. LOCATED IN THE SE¼, NE¼ SEC 15; T8S; R42E. WATER FROM THE TAILINGS DAM ON ROBERTS CREEK IS PUMPED TO THE SLURRY PLANT BY WAY OF 6-450 H.P PUMPS. WELL DEPTH ACCORDING TO DENNIS FACER ENGINEER J.R. SIMPLOT CO IS CASED TO THE DEPTH OF 1100 FOOT.

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	GENERAL ELECTRIC	450	HWJ817011	JOHNSON	ITT49021

**Code to correspond with No. on map and aerial photo*

5. **Point(s) of Diversion:**

Ident. No.	Gov't. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
			SE	SE	24	8 So.	45E	CARIBOU	USGS MAP

6. **Place(s) of Use:** Indicate Method of Determination

	Twp.	Rge.	Sec.	NE¼				NW¼				SW¼				SE¼				Totals
				NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
SLURRY PLANT →	8S	45E	25													X			X	
TAILINGS DAM →	8S	46E	21							X										
CONDA PLANT →	8S	42E ~~43E~~ CM	15				X													

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MAR 20 1990

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D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
SPARLING MAGNETIC FLOW METER			620	0101078349		6/23/87

2. **Measurements:**

PRESSURE: 28 P.S.I. @ PRESSURE GAUGE

FLOW: 1560 GPM

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method: 3.5 CFS

2. Alternate Method for Checking Purposes:

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3) : Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (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:

3.5 CFS x 1.9835 AF/CFS x 4.5 DAYS/WEEK x 52 WEEKS/YEAR = 1629.0 AR

MICROFILMED

MAR 20 1990

H. REMARKS AND OVERLAP REVIEW ANALYSIS

THIS EXAM WAS A RE-EXAM TO CONFIRM THE 26.9 MILE, 8" IN DIAMETER SLURRY PIPELINE TO CONDA AND PLACES OF USE. DATE 01/11/89

I. RECOMMENDATIONS

1. **Recommended Amounts**

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
INDUSTRIAL	01/01	12/31	3.5	1624.5
		Totals:	3.5	1624.5

2. **Recommended Amendments**

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

J. AUTHENTICATION

Field Examiner's Name: CHARLES E. MULLINS

Signature: Charles E. Mullins

Certification Date: 01/11/89

Field Report Preparation Date: 01/26/89

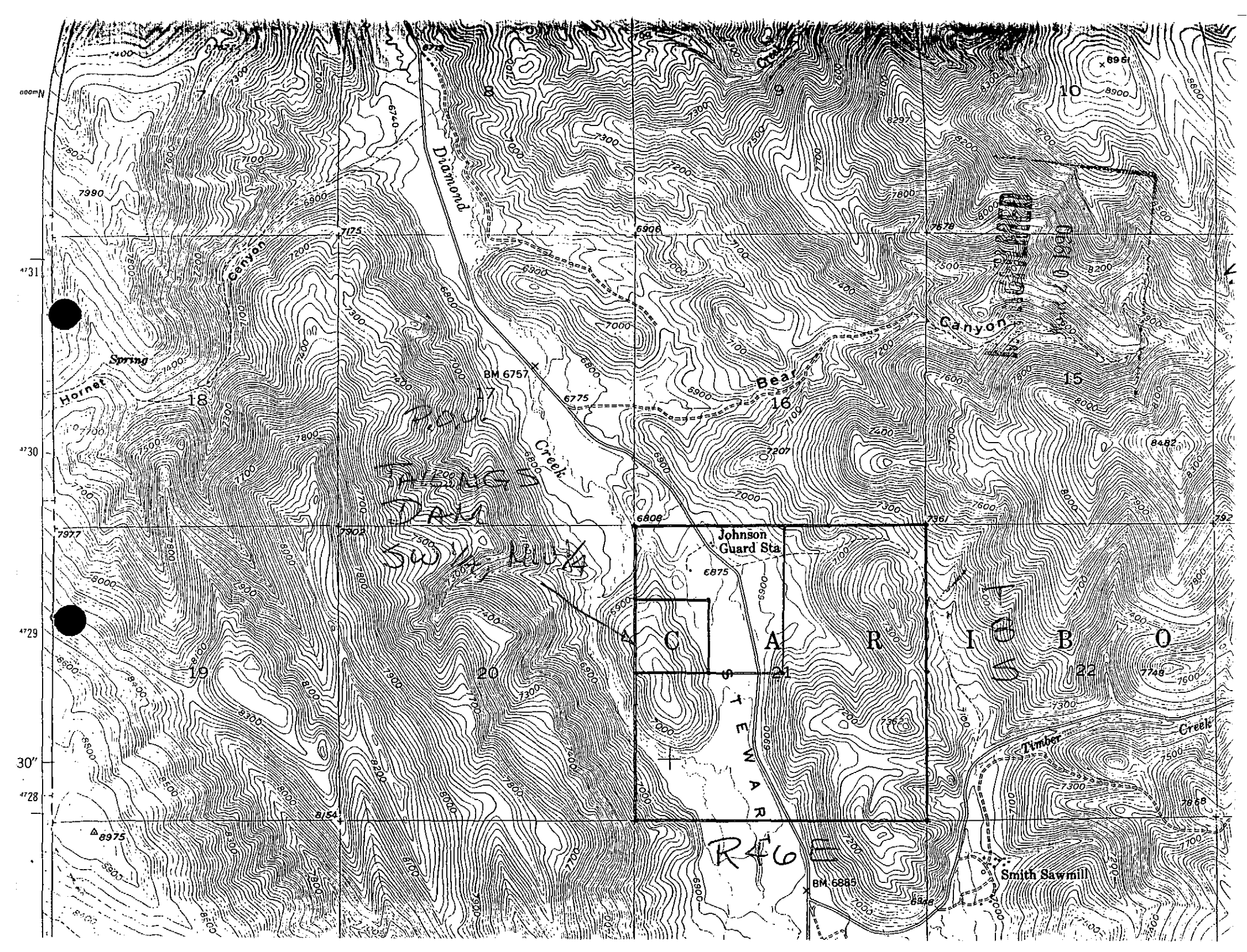
Steve M Lovant Jan-31-1989

CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

MICROFILMED

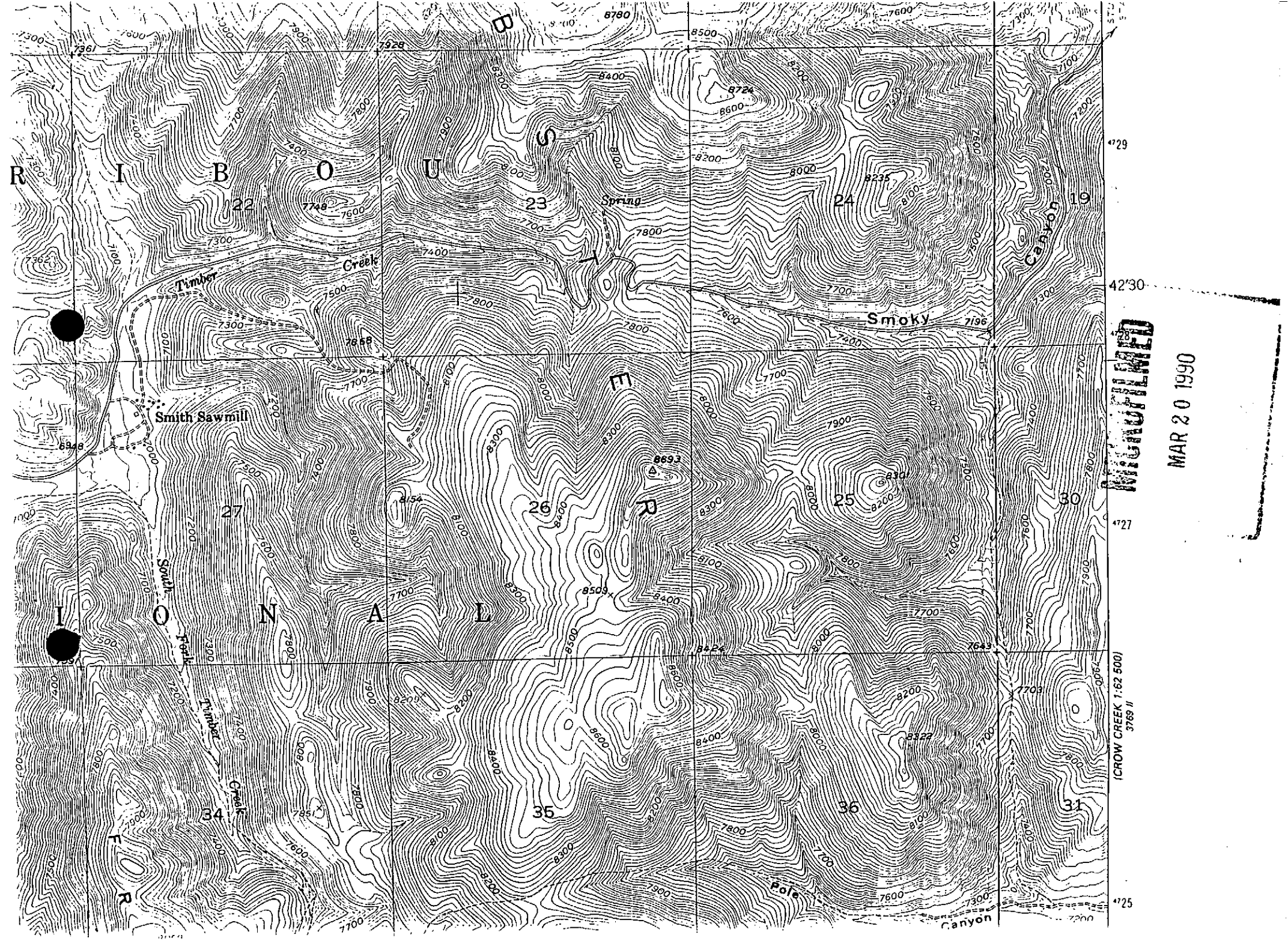
MAR 20 1990

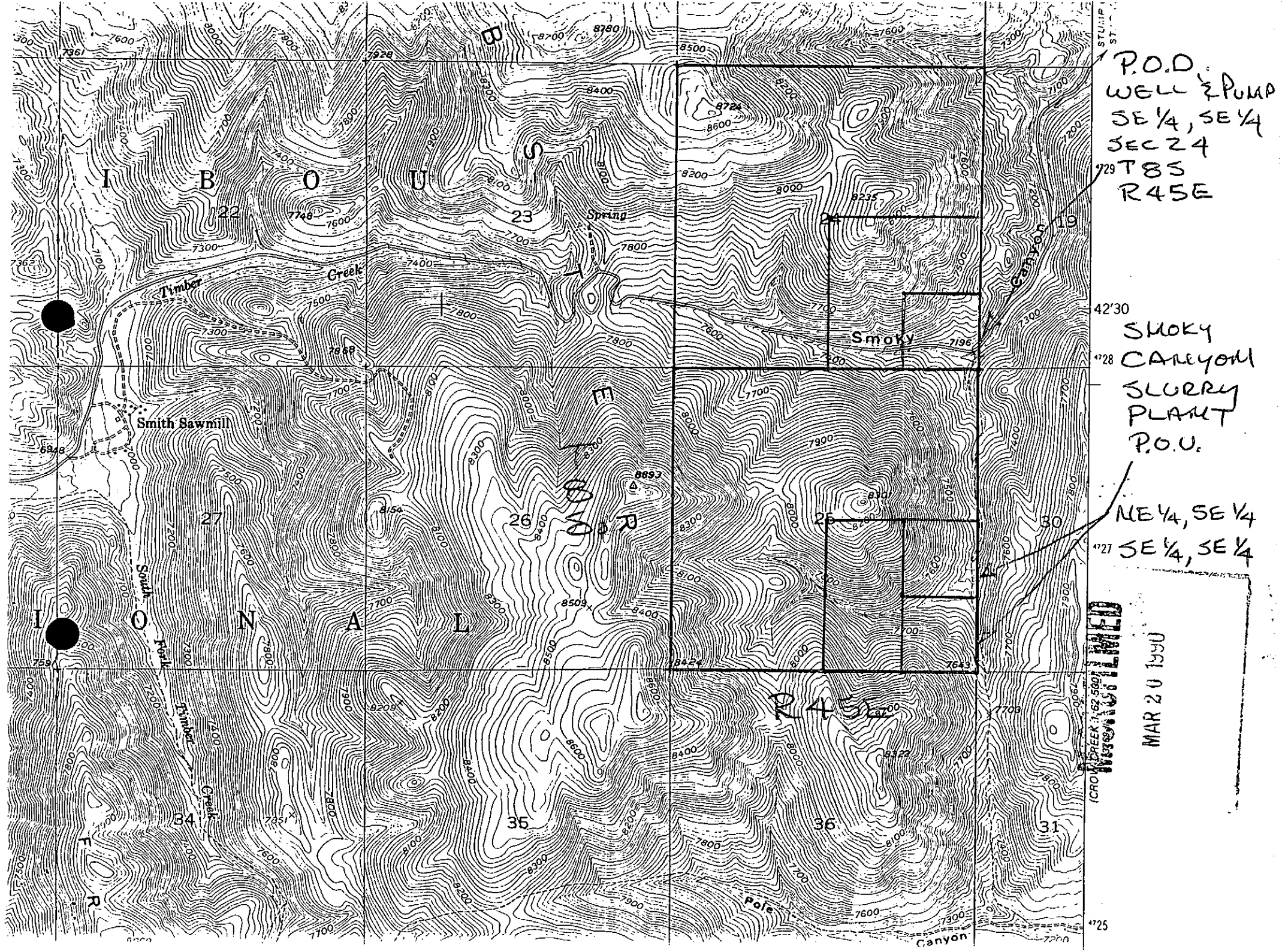

Diamond
Canyon
Spring
Hornet
Creek
Bear
Canyon
Johnson
Guard Sta
Timber
Creek
Smith Sawmill
BM 6757
BM 6885
T 6 S
R 46 E
C A R I B O
T E W A R
18
17
16
15
19
20
21
22
7990
7977
7902
8154
8975
7175
6906
7678
6808
7361
6875
7207
8482
7748
7858
7962
6775
6740
6956
8900
8600
8700
8200
8000
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4728
30"

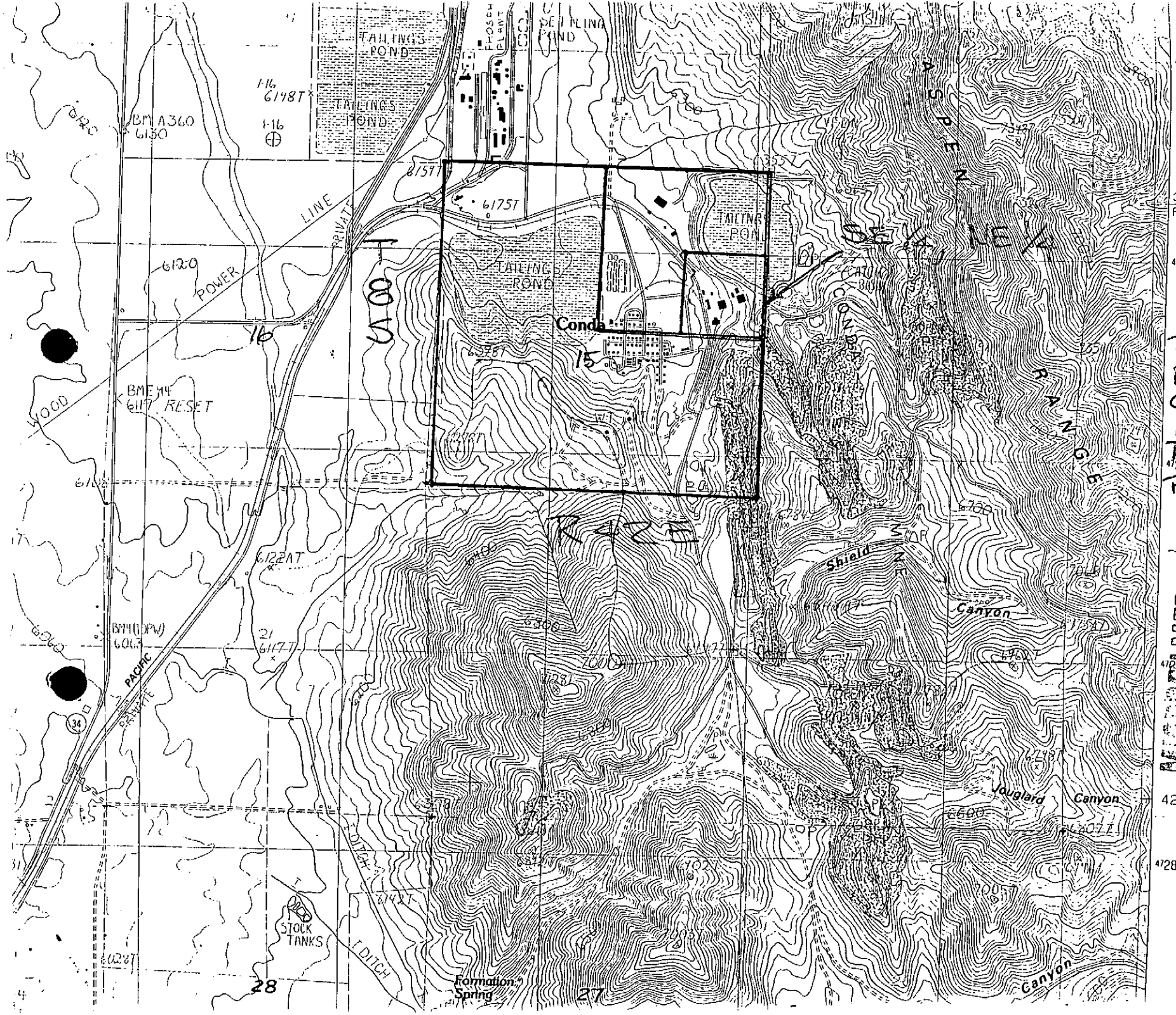
7/19/91

This copy is from the next Quad map west. However, the location described seems to be right (or close) anyway!

AM


R I B O U S
T 1 S
R I O N A L F O R
22
23
24
19
27
26
25
30
34
35
36
31
Spring
Timber Creek
Smoky Canyon
Smith Sawmill
South Fork
Timber Creek
Pole Canyon
7928
8780
8724
8235
7748
7668
7196
8693
8154
8509
8424
7643
7703
8301
8329
6948
7961
42°30
4729
4727
4725
MAR 20 1990
(CROW CREEK 1:62 500)
3769 II

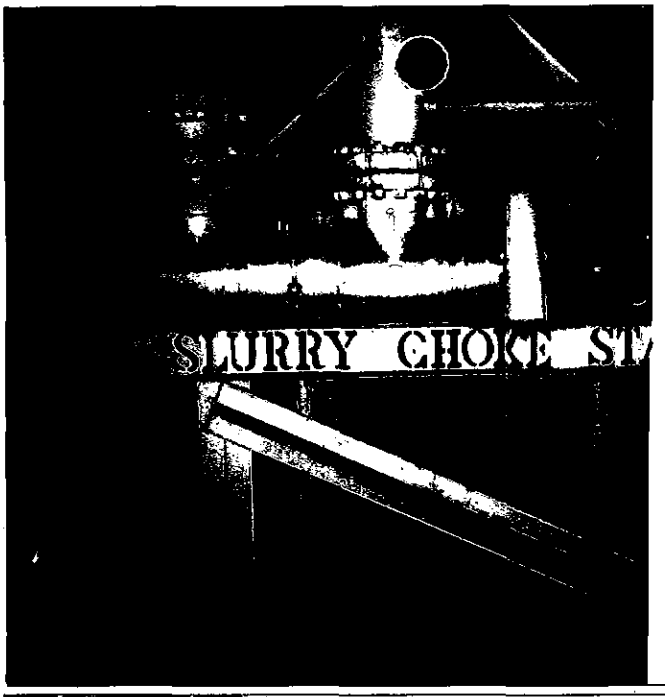

P.O.D.
WELL & PUMP
SE 1/4, SE 1/4
SEC 24
T 8 S
R 45 E
42'30
SMOKY
CANYON
SLURRY
PLANT
P.O.U.
NE 1/4, SE 1/4
SE 1/4, SE 1/4
MAR 20 1990
Smoky
Spring
Timber
Creek
Smith Sawmill
South Fork
Timber Creek
Pole Canyon
Canyon
IBOUS
TOOELE
ROAD
45
22
23
24
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26
27
30
31
34
35
36
19



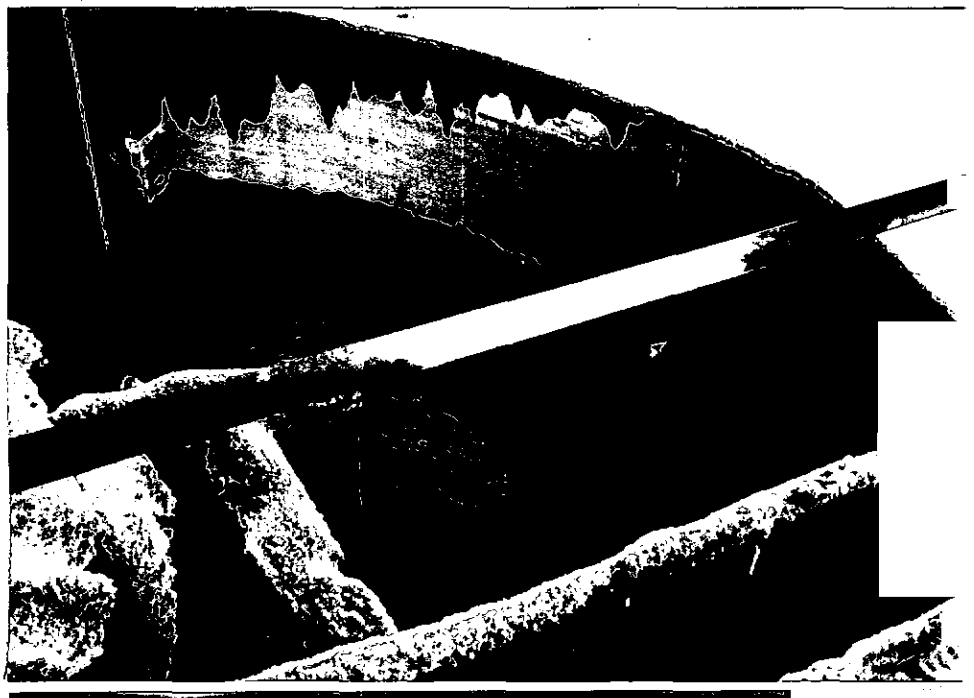
P.O.U.
26.9 MILE SLURRY PIPELINE FROM SMOKY CANYON ENDS IN CONDA, ID, PHOSPHATE PLANT

RECEIVED
MAR 20 1990

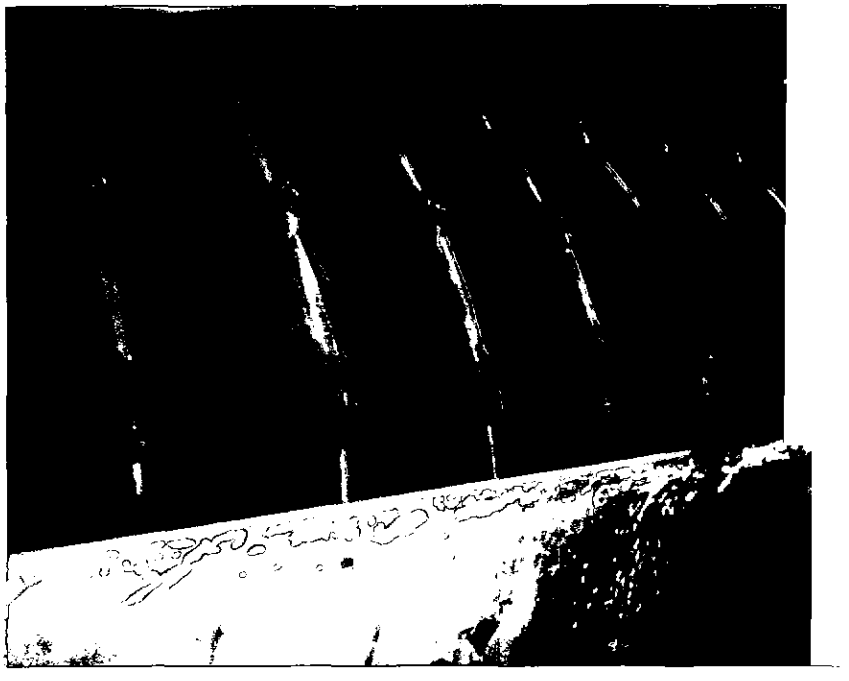
SLURRY CHOKE STATION
COMDA, IDAHO
01/11/89



SLURRY TANK AT END OF 26.9 MILE PIPELINE FROM SMOKY CANYON TO COMDA, ID



PROCESS TO EXTRACT PHOSPHATE FROM SLURRY PIPELINE COMDA, ID



MICROFILMED
MAR 20 1990

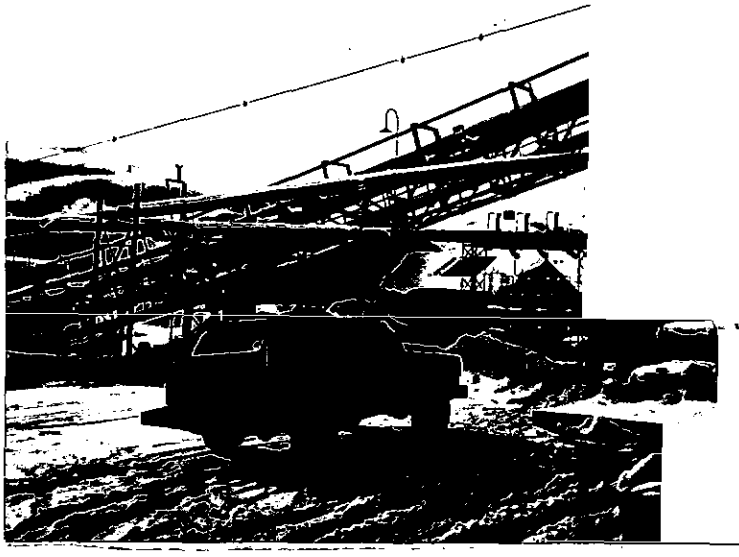
SLURRY PIPELING GOING INTO PLANT AT COMDA, ID FROM SMOKY CANYON MINE 26.9 MILES EAST
01/11/89



8" IN DIAMETER PIPE GOING INTO COMDA, ID. PROCESSING PLANT



PIPE FROM SMOKY CANYON GOING INTO PLANT IN COMDA, ID.



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MAR 20 1990

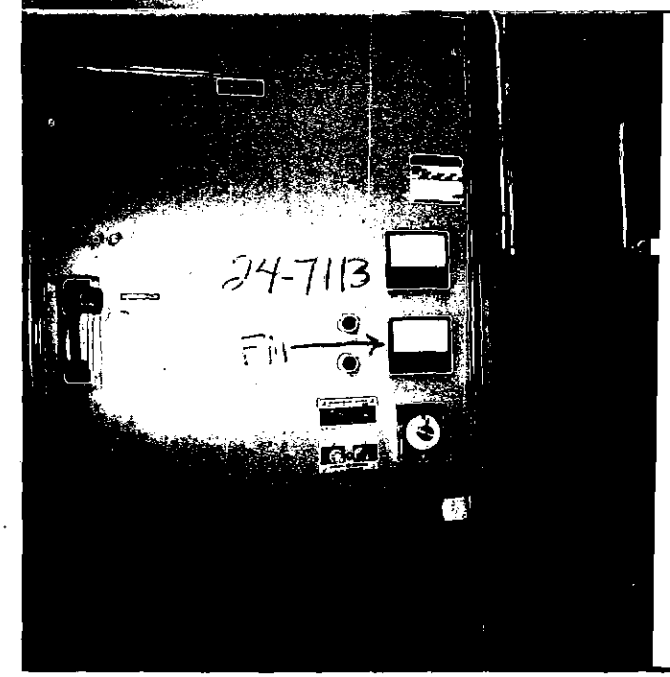
WELL SITE & PUMP, G.E. 450 H.P. SERIAL NO. HWJ [redacted]7011 JOHNSON. PUMP SERIAL NO. ITT49021.
POINT OF DIVERSION SE¼, SE¼, SEC 29; T8S; R45E
(01/11/89)



PUMP, MOTOR, & SHELTER WHICH HOUSES ELECTRICAL PANEL, VALVES, GAUGES, ECT



ELECTRICAL PANEL



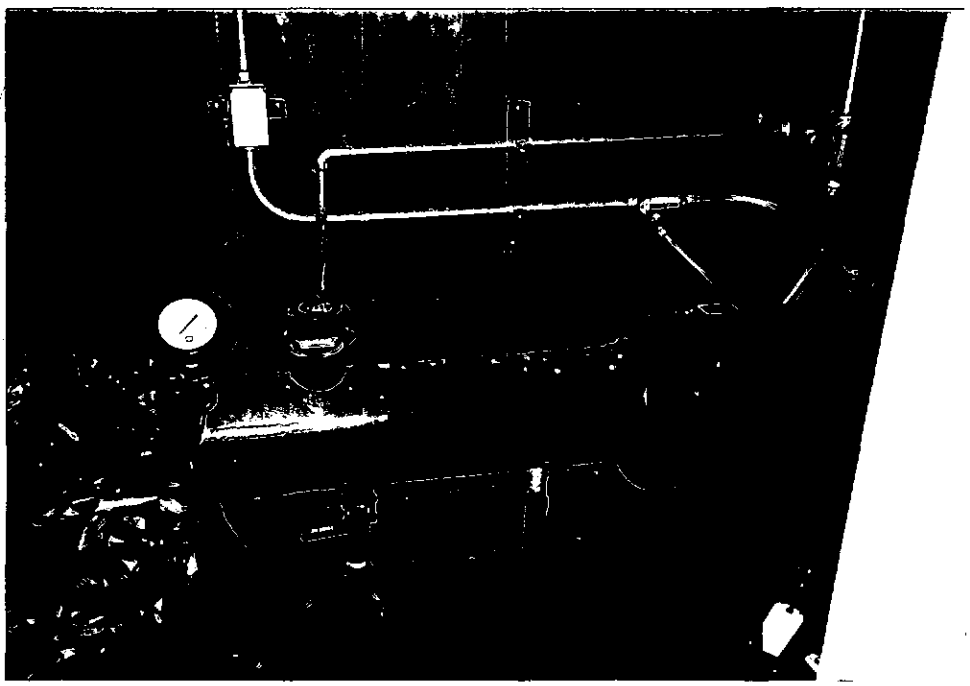
MICROFILMED
MAR 20 1990

INSIDE SHELTER FOR 24-7113 ELECTRICAL PANEL, VALVES, GAUGES ECT.

(01/11/89)



MAGNETIC FLOW METER PRESSURE GAUGE & CHECK VALVE



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MAR 20 1990

Form 219-S.A.
6/86

w/24-7169

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

24-7113
Permit No.

Staff Analysis Sheet
for
Beneficial Use Field Report

Simplot
ESV 2/10/87

RECEIVED
OCT 23 1987
Department of Water Resources

A. Prior to Conducting the Exam, the File Contains:

- [x] Blank Field Report Form
- [x] Copy of Permit
- [x] Copies of any Amendments/Orders with conditions of approval
- [x] Computer Data Proof Report
- [x] Copy of U.S.G.S. Quad
- [x] Check for Government Lots. If so, make a copy of Government Plat

Check of P/D index COS 10/25/87 (Initial and date)

Overlap? ☐yes [x]no If yes: ☐copy of exam(s) attached?
Type of Overlap? ☐Add acres or uses to existing system
☐Increase rate of flow or volume
☐Other: _____

Check of P/U index COS 10/25/87 (Initial and date)

Overlap? ☐yes [x]no If yes: ☐copy of water right(s) attached?
Type of Overlap? ☐Increase rate of flow or volume
☐Add P/D's
☐Increase number of acres within tracts
☐Other: _____

Aerial Photo

Required? ☐yes ☐no If yes: ☐copy attached?

Scheduling Letter sent? _____ (Initial and date)

☐Appointment made and telephone conversation memo attached

B. After Conducting the Exam, the File Contains:

- [x] Fully completed and signed Field Report Form
- [x] Photographs of Point of Diversion and Place of Use
- ☐Corrected Computer Data Proof Report with recommended license information, and date and signature of examiner.

C. Review and Processing:

Exam Completed 10/23/87 Carol Slaughterbeck (Signature of examiner and date)
Exam Reviewed by Senior Water Resource Agent AL 9-22-87 (Initial and date)
Exam Reviewed by Manager of Regional Office SM 9-22-87 (Initial and date)
Exam Date Entered in Computer _____ (Initial and date)
Exam sent to State Office 10/21/87 (Initial and date)
Copy of Staff Analysis Sheet sent to Manager of Regional Office and Original Refiled in White File _____ (Initial and date)

See
Re-exam of
1/11/89 - tw

Form 219
6/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 24-7113

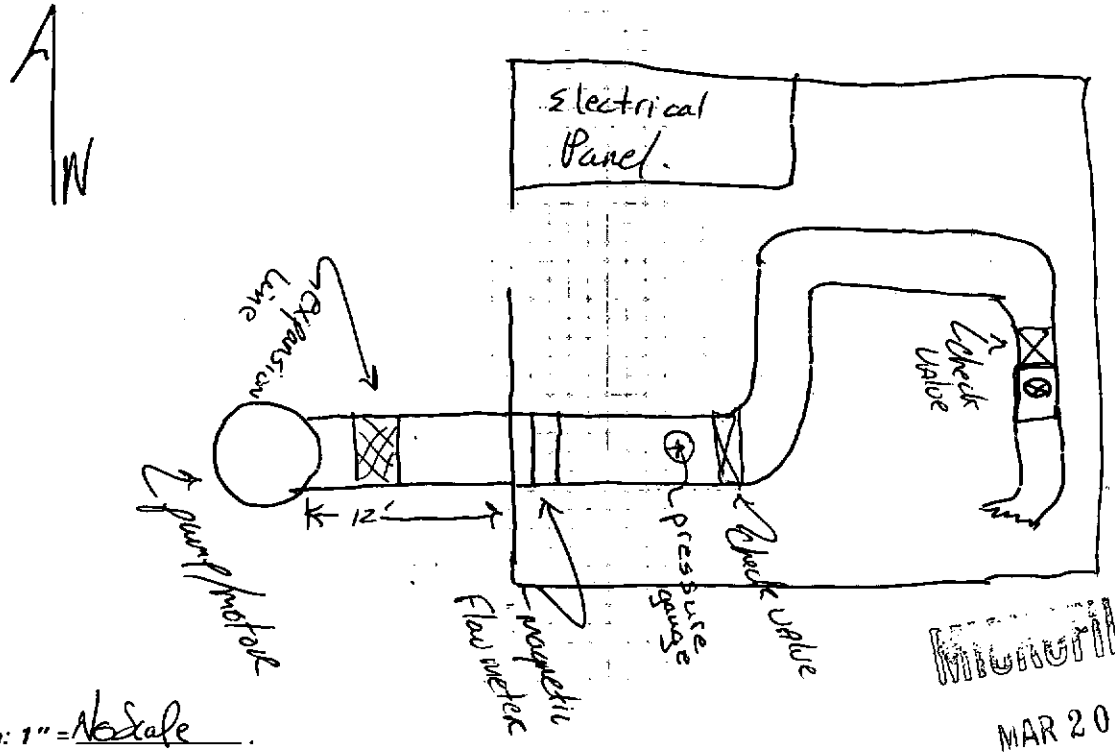
1. Owner: J.R. Simplot Company Phone No. 233-7500
   Current Address: P.O. Box 912, Pocatello Idaho 83201
2. Accompanied by: Verden Andrews EXAM. DATE: 6-23-87
   Address: P.O. Box 1021 Afton Wy. 83110 Phone No (307) 886-3081
   Relationship to Permit Holder: Asst. Maintenance Manager
3. Source: Groundwater tributary to ——

B. OVERLAP REVIEW

1. Other water rights with same place of use: N.A.
   ☐ Copies Attached
2. Other water rights with same point of diversion: N.A.
   ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram**: Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



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MAR 20 1990

Scale: 1" = No Scale.

2. ☑ Copy of U.S.G.S. Quadrangle Attached
   Showing location(s) of point(s) of diversion and place(s) of use (required).
   ☐ Aerial Photo Attached
   (required for irrigation of 10 acres or more).
   ☑ Photo of Diversion and System Attached
   (required for all but single household domestic groundwater, and stockwater.

System Description (continued)

3. **Narrative:** Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

Well/pump to mainline to the tailings and then to the slurry plant.
The water from the tailings pond is pumped up to the slurry plant by way of 6-450hp motor/pumps.
4600 gpd per pump - 20" mainline back to mill
Well depth = ? cased to 860'
water level unknown

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	G.E.	450	HWJ817011	Johnston	ITT49021

**Code to correspond with No. on map and aerial photo*

5. **Point(s) of Diversion:**

Ident. No.	Gov't. Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
			SE	SE	24	8S	45E	Caribou	USGS

6. **Place(s) of Use:** Indicate Method of Determination USGS

Twp.	Rge.	Sec.	NE¼				NW¼				SW¼				SE¼				Totals
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
8S	45E	~~24~~													X			X	
		25																	
		SM 9-30-1987																	

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D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow meter	(Sparling Magnetic Flow Meter)			Model 620		6-23-87
				0101783c/9		

2. **Measurements:**

pressure: 28 psi at pressure gauge flow: 1560 gpm

pressure reading on pump = 76psi not correct

Mainline 8" o.d. 8" Sparling meter

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method: 3.5 cfs

2. Alternate Method for Checking Purposes:

~~Q= 450(8.814)(.32)~~

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3) ; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Ampsx .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (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:

3.5cfs x 1.9835af/cfs x 4 1/2 days/week x 52 weeks/year = 1624.5afa

H. REMARKS AND OVERLAP REVIEW ANALYSIS

I. RECOMMENDATIONS

1. **Recommended Amounts**

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Industrial	1-1	12-31	3.5	1624.5
Totals:			3.5	1624.5

2. **Recommended Amendments**

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☒ Add P.U. as reflected above ☐ Other

J. AUTHENTICATION

Field Examiner's Name: Carol Slaughterbeck

Signature: Carol Slaughterbeck

Certification Date: 9/30/1987

Field Report Preparation Date: _____

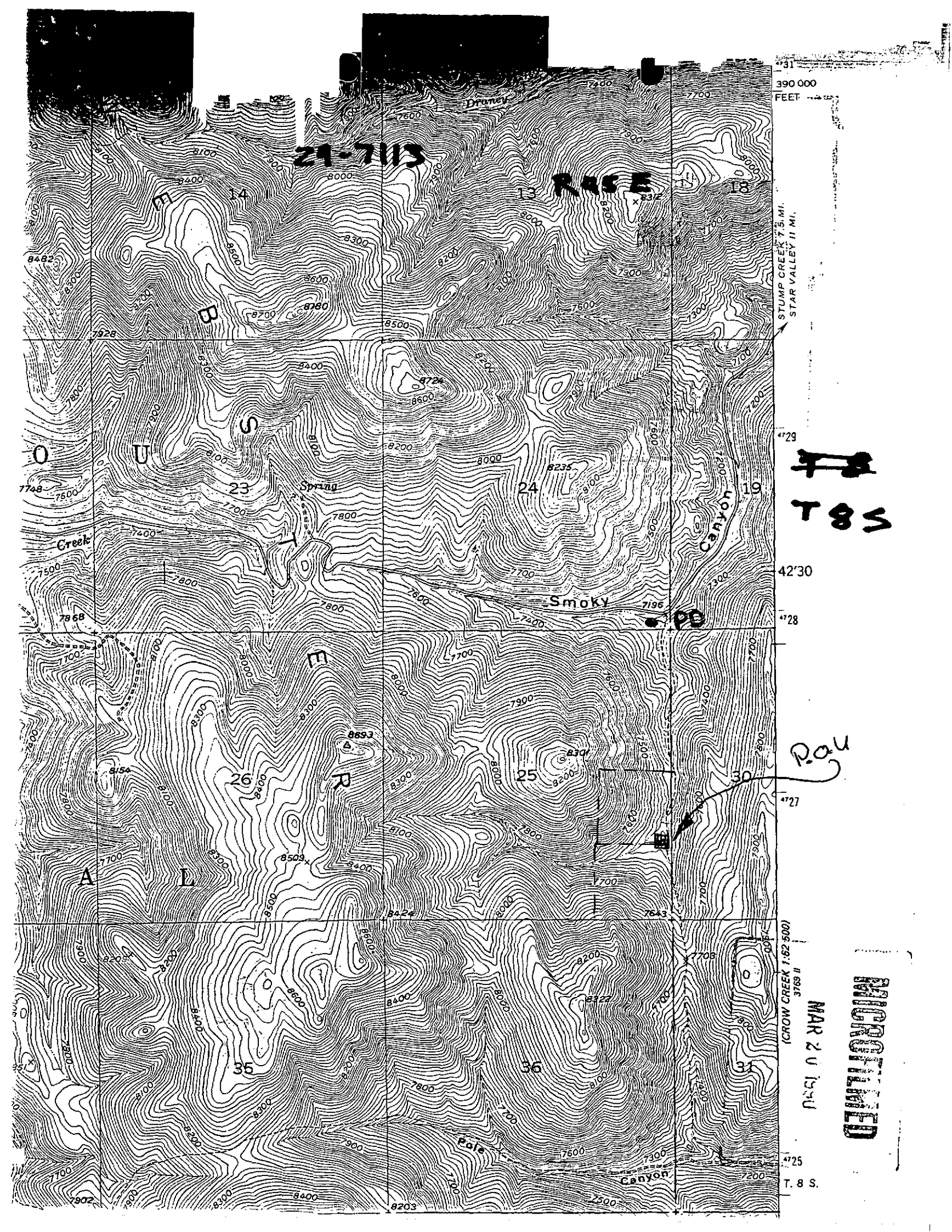
Stacy McCormick

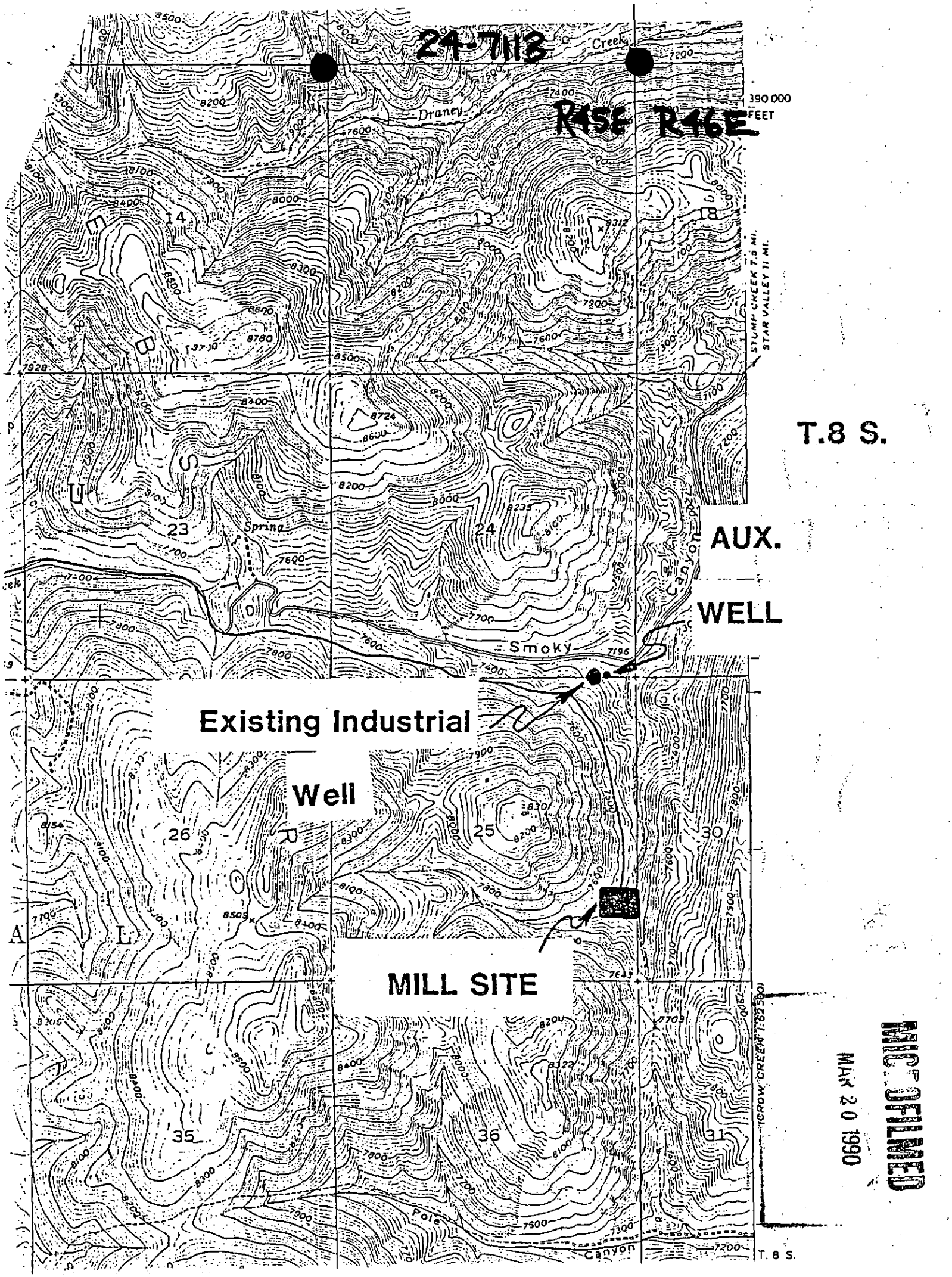
CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

MICROFILMED

MAR 2 0 1990


21-7113
R45E
13
14
18
19
23
24
25
26
30
35
36
31
T8S
T. 8 S.
Smoky
Canyon
Spring
Creek
Pole
Canyon
Druney
STUMP CREEK 7.5 MI.
STAR VALLEY II MI.
(CROW CREEK 1:62 500)
3769 II
390 000
FEET
42'30
4729
4728
4727
4725
8482
8180
7928
8724
8235
7748
7868
7196
8693
8154
8424
7643
8509
8209
8322
8203
7902
8312
8301
7708
P.O.
RECEIVED
MAR 2 0 1980

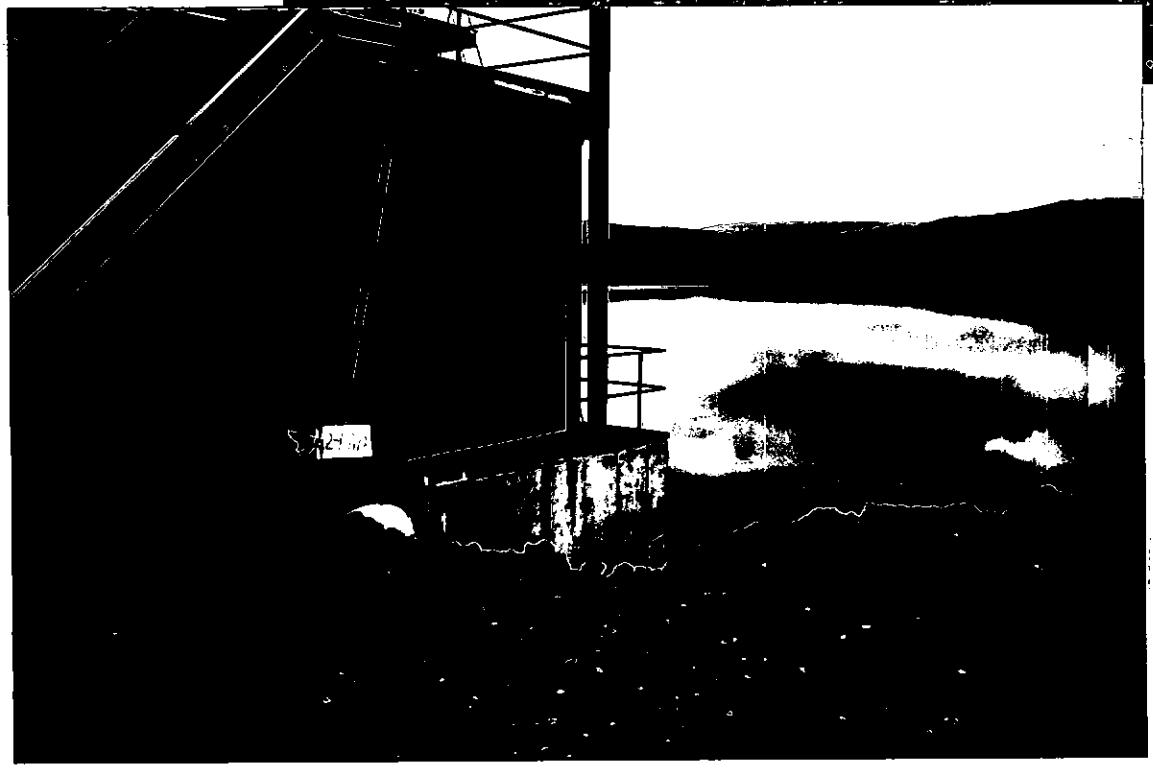

24-7113
R15E R16E
390 000 FEET
T.8 S.
AUX.
WELL
Existing Industrial
Well
MILL SITE
Draney Creek
Smoky Canyon
Spring
Pole Canyon
T. 8 S.
13
14
18
23
24
25
26
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36
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MAR 20 1990

24-7113

tailings pond at Simplot phosphate mine







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MAR 20 1990

24-7113



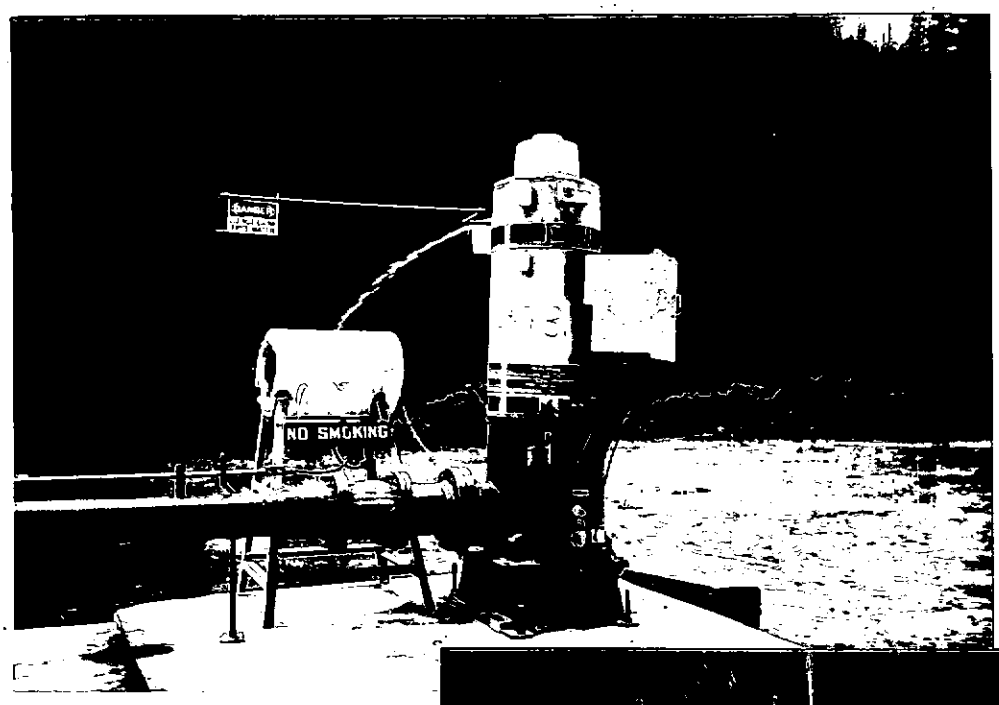


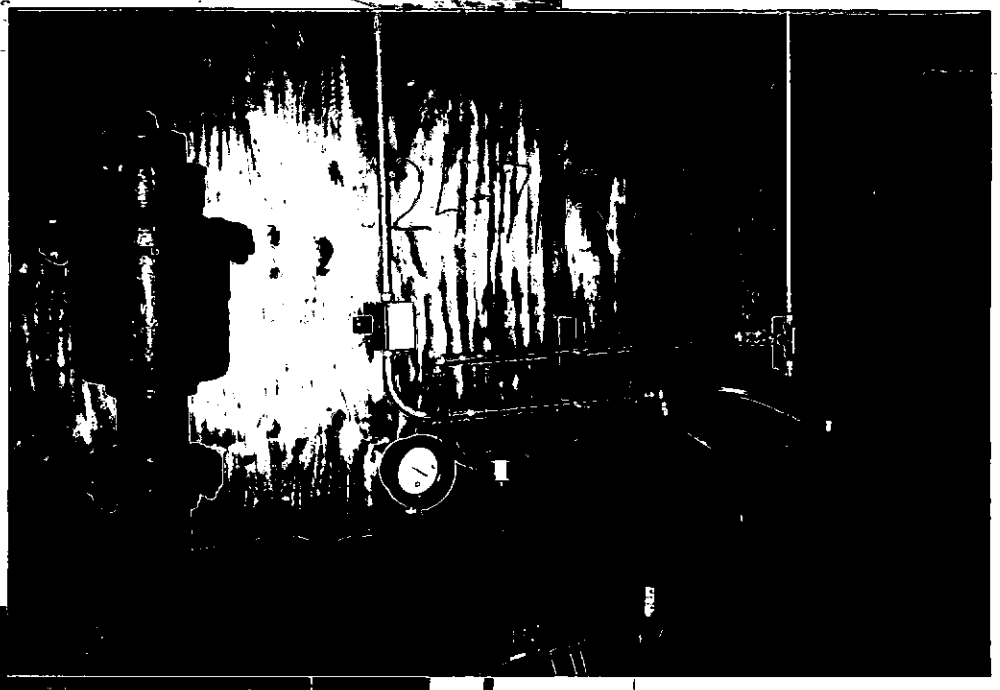
pumps at tailings pond- pump up to Simplot phosphate mine



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MAR 2 0 1990

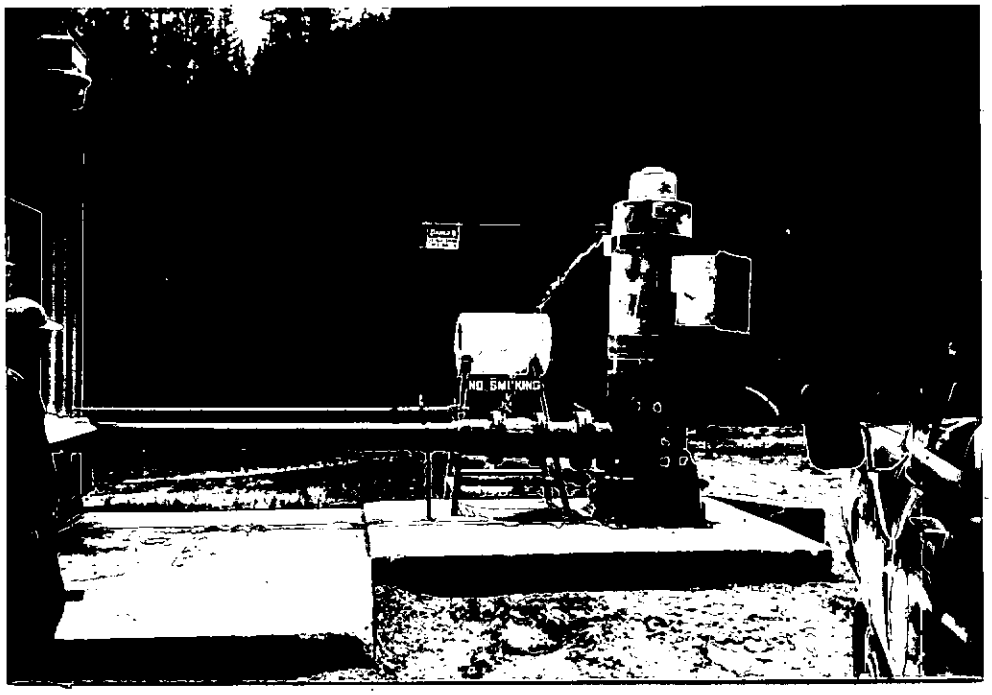
24-7113

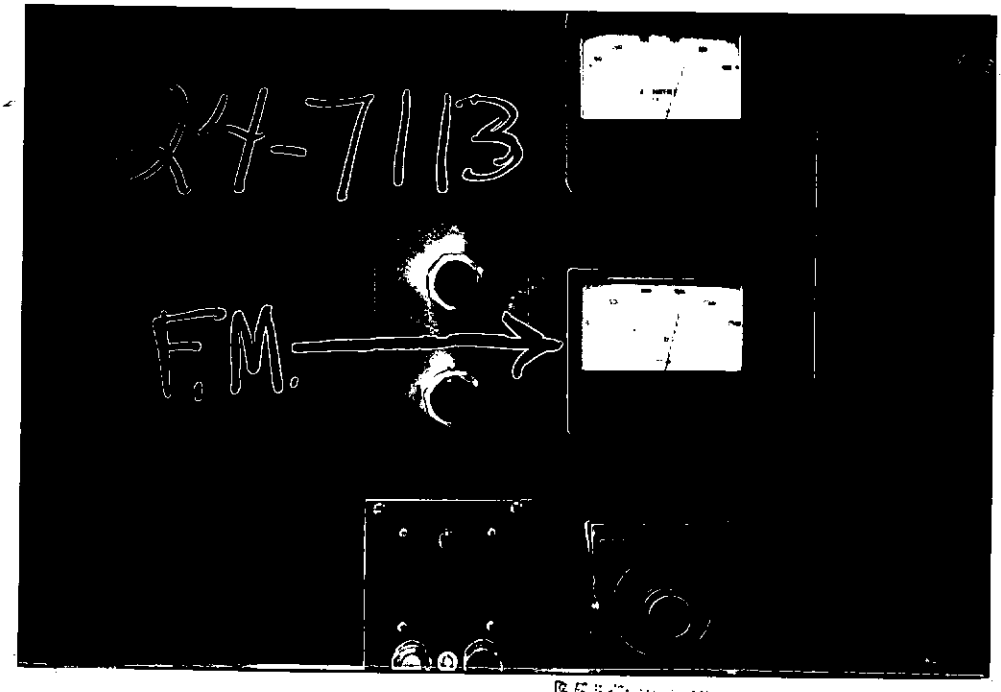






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MAR 20 1990





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MAR 2 0 1990

March 9, 1989

Earl C. Mapes
J. R. Simplot Co.
P.O. Box 912
Pocatello, ID 83204

RE: Permit No. 24-7113

Dear Mr. Mapes:

I have reviewed your letter in connection with use of water under the above referenced permit and your planned extension of a slurry pipeline from Conda, Idaho to Pocatello, Idaho.

This matter first came to my attention after reviewing a notice, perhaps a draft EIS, relative to the extended pipeline. After reviewing the water rights of record, I determined that the field examination conducted in June of 1987 did not describe the pipeline from Smokey Canyon mine to Conda. After discussing this matter with Harold Jones of our Idaho Falls office, we concluded that a re-examination of the existing system was appropriate. The re-exam was conducted in January 1989 and ultimately confirmed that the water was used in the transport of slurry to Conda. The examination has been forwarded to this office, since the next action is to issue a license confirming the extent of the water right developed.

Your letter generally describes the company's intentions relative to extending the slurry line another 57 miles to Pocatello. The additional water to initially fill the additional pipeline as described in your letter is essentially insignificant when compared to the total volume diverted under the right.

At this point you need to either obtain a water right in connection with the pipeline extension or change an existing right to represent the anticipated use as described below.

After a license has been issued in connection with Permit No. 24-7113, one option is to submit a "transfer" to change certain portions of the licensed right provided the original right is not enlarged (i.e. in rate, total volume or consumptive volume) and there is not injury to other existing water rights. If the changed use will enlarge any of these parameters, a new application for permit for the enlargement must be submitted to the department.

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MAR 20 1990

Recognize that the extent of development under right 24-7113 has already occurred, since you have submitted proof of beneficial use and the department has examined the use. Department examiners have recommended that a rate of 3.5 cfs be licensed under this permit. The undeveloped portion of this permit (i.e. 4.46 cfs minus 3.5 cfs) will be of no effect.

The department cannot determine at this point whether a transfer or new application is applicable, since we do not know the specifics of the planned operation to the extent we can determine whether the existing use will be enlarged. Please provide appropriate details to our Eastern Regional office in Idaho Falls in order to determine the proper type of filing needed.

Sincerely,

L. GLEN SAXTON, Chief
Water Allocation Bureau

c: E. Region

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MAR 20 1989

Simplot

J. R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83204
(208) 232-6620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

MINERALS & CHEMICAL DIVISION

RECEIVED
MAR 2 1989
Department of Water Resources
Western Regional Office

February 28, 1989

Idaho Dept. of Water Resources
Western Region Office
2735 Airport Way
Boise, ID 83705

RECEIVED
MAR 03 1989
Department of Water Resources

Attn: Mr. Glenn Saxton

Dear Mr. Saxton:

Several weeks ago, I discussed with Mr. Harold Jones of the I.D.W.R., Idaho Falls office, questions regarding possible permits and other requirements needed for department approval of a project extending the J.R. Simplot Company phosphate slurry line from its present terminus at Conda on to the Company's Pocatello fertilizer processing plant. During subsequent telephone conversations with Mr. Jones, questions arose regarding the original authorization for and use of appropriated groundwater at the Smoky Canyon Mine/Mill site for use in the original slurry line system between the mine and the Simplot Conda facility. In addition, Mr. Jones indicated that the Department also has questions and concerns about water useage in the extended slurry pipeline system in reference to points of use and volume of water relative to the present pipeline and permitted water.

My purpose for writing this letter is to provide information to the Department which hopefully will answer most of these questions. As you know, the J.R. Simplot Company is presently authorized to appropriate 4.46 cubic feet-per-second (2,001 gallons/min) of groundwater at the Smoky Canyon Mine/Mill site. This water is used in the mine milling process, closed loop tailings transport system, and phosphate slurry pipeline between the Smoky Canyon Mine and Conda, some 26 miles distant. This water use is authorized under permit number 24-7113 issued by the Idaho Dept. of Water Resources in 1981 and is discussed in the draft and final E.I.S. documents prepared for the Smoky Canyon Phosphate Mine dated September, 1981 and March, 1982 respectively.

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MAR 20 1990

The second phase of the slurry pipeline, for which we are now planning, will add an additional 57 miles (approx.) segment of pipeline to the presently operating 26 mile system. The new segment will extend from Conda to the Simplot Company's fertilizer manufacturing complex at Pocatello. As I understand it, one of the Department's questions regarding this project is that of additional water useage over the present system

6.5 AF

requirements. Upon startup of the new slurry line segment, it will require approximately 283,000 gallons of water, present within the initial slurry charge, to fill the 57 mile section of pipeline. Once, this is accomplished however, the instantaneous rate of water useage in the overall 83 mile slurry transport system from Smoky Canyon Mine to Pocatello, will remain the same as it currently is for the existing 26 mile system. Instantaneous rates of makeup water to the mine/mill closed loop tailings system will also remain unchanged.

Based on a future typical weekly slurry line pumping schedule however, there will be an overall increase in water useage as compared to the present. This will occur by virtue of increased mine/mill production and the attendant increase in slurry pumping hours each week. At the present time for example, the mine/mill operates five days per week with the slurry line operating a maximum of 109 hours during this period. Upon completion of the Conda to Pocatello segment of the slurry line, the mine/mill production schedule will increase to seven days per week with the slurry pumping schedule increased accordingly. Again, I wish to emphasize however, that the total instantaneous groundwater withdrawal rate will not exceed the permitted 4.46 cubic feet-per-second.

To further illustrate and clarify this statement, the maximum pumping rate which can be achieved in the present 26 mile system and also in the completed 83 mile system is 850 gallons water/minute (1.89 ft3/sec.). This rate is possible only if water alone (no phosphate ore) is pumped through the pipeline. Typically when phosphate ore is being transported in a normal manner, water useage will average about 550 gallons/minute (1.23 ft3/sec.). Added to slurry line useage is another 150 gallons/minute (0.33 ft3/sec.) for the closed loop tailings water system makeup, dust control, and all other uses at the Smoky Canyon Mine/Mill site. The maximum groundwater withdrawal rate at present and following completion of the new pipeline segment therefore would be 1,000 gallons/min. (2.23 ft3/sec.) but more typically is and will be approximately 700 gallons/min. (1.56 ft3/sec.).

Upon completion of the final segment of pipeline, the point of discharge for slurry transport water will shift from Conda to Pocatello. At Pocatello, the slurry transport water will be used directly in the manufacturing process, replacing a like volume of groundwater presently being pumped from wells at the fertilizer manufacturing facility.

In summary, the new slurry pipeline willnot result in groundwater withdrawal rates in excess of the permitted amount at the Smoky Canyon Mine site. The primary use of the permitted water will remain unchanged from the present time, that being slurry

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MAR 20 1990

transport fluid and mill tailings transport. The point of discharge for the water will shift from Conda to Pocatello. I hope this brief discussion of the new slurry line and integrated system has provided answers to questions which you may have regarding water use, etc. If I can provide any additional information, please contact me.

Sincerely,

Earl C Mapes

Earl C. Mapes
Director Regulatory Affairs

ECM:sw

cc: Mr. Harold Jones
Idaho Dept. of Water Resources
150 Shoup Ave.
Idaho Falls, Idaho

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MAR 20 1990

INTER-DEPARTMENT MEMO — 1

FROM Glen

DATE 1-04-89

TO Exam file 24-7113

~~SUBJECT~~ - From a discussion today w/ Skip Jones Eastern Region will check into the 26 mi pipeline from Smoky Canyon to Conda, since the permit doesn't show this nor does the exam show it.

- Permit may need to be amended.

RECEIVED
MAR 20 1990

SIGNATURE

4/86

RECEIVED
FEB 9 1987
Department of Water Resources
Eastern District Office

For Office Use Only
Fee Received 200.00
Date 2-9-87
Receipt # 41036
Receipt by MMO
Sent to S.O. _____

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

EXAMINATION FEE INFORMATION

RECEIVED
FEB 27 1987
Department of Water Resources

1. Permit No. 24-7113

ONE OF THE FOLLOWING BOXES SHOULD BE MARKED TO DESIGNATE YOUR CHOICE:

☒ I choose to have the department make the field examination of this permit, attached is the examination fee. (If this box is marked, complete items 1 thru 8.)

2. Permit Holder: J. R. Simplot Company

3. Post Office Address: P.O. Box 27, Boise, Idaho 83707

Telephone No. (208)336-2110

4. Source of Water: Groundwater

5. Extent of Use:

Domestic _____(No. of households) Stockwater_____(No. and type of stock)

Irrigation_____(acres) Other/Remark Industrial

6. Total rate &/or volume for which proof is submitted 4.46 cfs _____acre-feet

7. Show the date water was first diverted and beneficially used under this permit:

October 1983

8. Person to contact to accompany the department representative during the field examination:

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MAR 20 1990

Bob Black
(Name)

P.O. Box 1012 Afton, Wyoming 83110 (208)225-9861
(Address) (Telephone Number)

☐ I choose to have the field examination conducted by a certified water right examiner. Attached is a statement from the certified examiner I have selected verifying that he has been retained to conduct the examination. (If this box is marked, complete items 1 thru 7.)

February 5, 1987
Date

J.R. SIMPLOT COMPANY
By Lowell Graves Secretary
Signature of Permit Holder (and title, if appropriate)

Copy returned

State of Idaho

Department of Water Resources

LICENSE EXAMINATION FEE SCHEDULE

(c.f.s. = cubic feet per second
AF = acre feet)

cfs	AF	Fee
0 - 0.04	0 - 4	$ 0
.05 - 0.20	5 - 20	50.00
.21 - 1.0	21 - 100	100.00
1.01 - 2.0	101 - 200	125.00
2.01 - 3.0	201 - 300	150.00
3.01 - 4.0	301 - 400	175.00
4.01 - 5.0	401 - 500	200.00
5.01 - 6.0	501 - 600	225.00
6.01 - 7.0	601 - 700	250.00
7.01 - 8.0	701 - 800	275.00
8.01 - 9.0	801 - 900	300.00
9.01 - 10.0	901 - 1000	325.00
10.01 - 11.0	1001 - 1100	350.00
11.01 - 12.0	1101 - 1200	375.00
12.01 - 13.0	1201 - 1300	400.00
13.01 - 14.0	1301 - 1400	425.00
14.01 - 15.0	1401 - 1500	450.00
15.01 - 16.0	1501 - 1600	475.00
16.01 - 17.0	1601 - 1700	500.00
17.01 - 18.0	1701 - 1800	525.00
18.01 - 19.0	1801 - 1900	550.00
19.01 - 20.0	1901 - 2000	575.00
20.01 & over	2001 & over	600.00

Checks should be made payable to the
Department of Water Resources

No fee is required for single family
domestic use or stockwater use.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION

John V. Evans
Governor

A. Kenneth Dunn
Director

150 Shoup — Suite 15
Idaho Falls, Idaho 83402
(208) 525-7161

January 26, 1987

24-7113
J.R. SIMPLOT CO.
P.O. BOX 27
BOISE, ID 83707

CERTIFIED
No. 0013750

EXAMINATION FEE NOTICE

Dear Permit Holder:

Department records show that proof of beneficial use has been submitted for the above-referenced permit, but that a field examination has not yet been conducted to determine the extent of beneficial use of the water for licensing purposes.

House Bill 671 (effective April 4, 1986) enacted by the 1986 Idaho Legislature requires the payment of a fee before this Department can conduct the field examination needed to issue a license confirming use of water under the permit. This letter is notification that the license examination fee is due within sixty (60) days of the date of this letter. The examination fee information sheet (enclosed) must be returned with the fee.

As an alternative to submitting the fee, the Department will accept a field examination report completed by a certified water right examiner from the private sector. If you choose to have the examination done by a certified water right examiner, you need not submit the license examination fee to the Department, but you must within sixty (60) days of the date of this letter return to the Department, the examination fee information sheet showing appropriate information together with a statement from the certified examiner to verify that you have retained a certified examiner to conduct the field examination. If you choose this alternative, a completed field examination report must be submitted within one year of the date of this letter. You cannot later change your decision to use this alternative and submit the fee needed for the Department to conduct the field examination, but you may change to another certified examiner.

Certified water right examiners are licensed engineers, geologists, or land surveyors certified by the Department to conduct water right examinations. The procedure for certifying examiners results from the recently enacted HB 671 and is being developed at this time. A listing of certified water right examiners will be available from this Department when examiners have been certified.

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MAR 20 1990

If your permitted use, in fact, has already been examined by the Department and you have not asked to have the examination repeated, the fee requirement is not applicable to your permit. If you believe this is the case, please contact the Department.

The license examination fee is to be based on the amount of water you indicate you have developed, as listed in item 6 on the examination fee information sheet. The amount of water on which the examination fee is based can be less than the permitted amount, if less water has been diverted and benefically used. The licensed amount of water, however, will not exceed the amount you claim on the examination fee information sheet. The enclosed license examination fee schedule shows a listing of applicable fees.

FAILURE TO SUBMIT WITHIN THE SIXTY (60) DAY PERIOD THE FEE OR THE STATEMENT THAT A CERTIFIED EXAMINER HAS BEEN RETAINED TO MAKE THE FIELD EXAMINATION WILL BE CAUSE TO ADVANCE THE PRIORITY OF THE PERMIT ONE DAY FOR EACH DAY THAT THE FEE SUBMITTAL IS LATE.

FAILURE TO SUBMIT THE FEE OR THE COMPLETED FIELD EXAMINATION REPORT WITHIN A YEAR WILL BE CAUSE TO CONSIDER THE PROOF OF BENEFICIAL USE TO BE INCOMPLETE AND TO LAPSE THE PERMIT.

The attached examination fee information sheet and the fee may be submitted to the following Department office:

Eastern Region
Idaho Dept. of Water Resources
150 Shoup Ave., Suite 15
Idaho Falls, Idaho 83401
Phone: 525-7161

Very Truly Yours,

Ronald D. Carlson
Eastern Regional Manager

Enclosures

MICROFILMED
MAR 20 1990

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

A. KENNETH DUNN
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

December 17, 1985

J.R. Simplot Company
Box 27
Boise, ID 83707

Re: Water Right No. 24-7113

Gentlemen:

The proof of beneficial use (Form A) which was received in this office on October 22, 1985 is being returned to you because proof of beneficial use was previously submitted on June 28, 1985 for this same water right.

If you have any questions, please feel free to contact Rita Fleck of this office at 334-4290.

Sincerely,

Linda D. Smith

LINDA D. SMITH
Receptionist

Enclosure

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MAR 20 1990

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES
Eastern Region

---

150 Shoup, Suite 15
Idaho Falls, Idaho 83402
(208) 525-7161

NOVEMBER 13, 1985

J.R. SIMPLOT COMPANY
BOX 27
BOISE ID 83707

RE: Permit No. 24-7113

Dear Permit Holder:

We acknowledge receipt of your statement submitted as proof of beneficial use for the above referenced permit.

Before a license can be issued, a field examination must be made by a representative of this department.

A condition of approval of your original permit required the installation of an access port which, according to the proof card submitted by you, has not been installed. An access port must be installed prior to the time a field examination is made.

A field examiner will contact you to arrange to examine your system.

If you have any questions regarding the field examination, please contact this office by phone at 525-7161 or in person in the third floor State Office Building, 150 Shoup, Idaho Falls, Idaho.

Sincerely,
s/HAROLD W. JONES
Sr. Resource Agent

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MAR 20 1990

Form 204-p
6/82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

COMMENCEMENT OF WORKS

Permit No. 24-7113

Name(s) of Permit Holder(s): J. R. Simplot Company

Post Office Address: P. O. Box 27, Boise, Idaho 83707 Tel. No. 233-7500

☒ I hereby certify that construction of diversion works for the above referenced permit began on October 1982. I understand that I must continue to develop the water system with due diligence to maintain a valid permit.

☐ I hereby certify that construction of diverting works on the above referenced project has not yet begun due to the following reason beyond my control*:

_____

_____

*Note: A financing difficulty is not an acceptable reason.

6/21/83
Date

by Raymond L. Grauer - Secretary
Signature of Permit Holder

RECEIVED
MAR 20 1990
Water Resources

PLACE
STAMP
HERE



IDAHO DEPARTMENT OF WATER RESOURCES
STATEHOUSE
BOISE, IDAHO 83720

Form 217
12/84

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

RECEIVED
JUN 28 1985
Department of Water Resources

PROOF OF BENEFICIAL USE

The Idaho Department of Water Resources will consider this form as a statement that the permit holder(s) has completed development under this permit and that water has been applied according to the provisions of the permit for the beneficial use(s) described below:

Permit No. 24-7113

Name(s) of Permit Holder: J.R. SIMPLOT COMPANY

Post Office Address: BOX 27, BOISE, IDAHO 83707

Telephone No. 208-336-2110

Source of Water: GROUND WATER

Extent of Use:

Domestic _____ (number of households)

Stockwater _____ (number and type of stock)

Irrigation _____ (acres)

Other/Remarks INDUSTRIAL 4.46 CFS

Indicate the date water was first diverted and beneficially used under this permit: October 1983

Measuring Device: Required? ☐ Yes ☐ No ?
Installed? ☒ Yes ☐ No

Flow Measurement Port: Required? ☐ Yes ☐ No ?
Installed? ☐ Yes ☒ No

Person to contact to accompany the Department representative during the field examination:

WAYNE PERKINS - J.R. SIMPLOT CO - SMOKY CANYON
(Name)

BOX 1290, AFTON, WYO 83110 (Address) 307-886-9861 (Telephone Number)

The above information is a true statement of the extent to which the above numbered permit has been developed.

6/24/85
Date

Wayne Perk. - Mill Sup't.
Signature of Permit Holder (and Title, if appropriate)

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KW

February 23, 1982

George L. Christopulos
State Engineer
Barrett Building
Cheyenne, WY 82002

Dear Mr. Christopulos:

Re: Smoky Canyon Phosphate Mine

Your letter of January 12, 1982 has been referred to me for response. I am forwarding the following documents supplied by the J. R. Simplot Company for review by your staff. The documents include:

1. Well driller's report (3),
2. Additional water quality monitoring - 1981 program
3. Water quality report - Smoky Canyon Well Test Idaho Health & Welfare 81-12-34,
4. Hydrology of the Smoky Canyon Mine Site - Siting of an industrial well and
5. Hydrology of the Smoky Canyon Mine Site - Results of well drilling and pump test.

Department staff currently is reviewing the data available.

I would appreciate comments from your staff after they have had an opportunity to review the data.

Sincerely,

NORMAN C. YOUNG
Administrator

cc: John Teichert

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State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

A. KENNETH DUNN
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

February 17, 1982

MEMO

TO: Glen Saxton, Operations Bureau

FROM: Bill Ondrechen, Hydrology Section WTO

SUBJECT: PERMIT 24-7113
J.R. SIMPLOT, SMOKY CANYON PROJECT

An examination of the two reports prepared for Simplot Company by Dale Ralston (Siting of an Industrial Well, April 1980 and Results of Well Drilling and Pump Testing, October 1981) reveals new information about the hydrogeology of the Smoky Canyon area, but no definite answers as to whether pumping from the Wells Formation will impact surface water. The geology and groundwater flow systems in the area are sufficiently complex that definitive answers are probably out of the question.

The 1980 report emphasizes the regional nature of the Wells Fm. as an aquifer, stating that any pumpage from it will affect recharge to and discharge from the aquifer. It further states that flow through the Wells Fm. is thought to be in a generally northerly direction and that the flow system receives recharge over a larger area than that represented by the drainage basins on the east side of the Webster Range. Also mentioned is the possible interconnection of the aquifer with several large springs issuing along a fault in Sage Valley, several miles to the east of the well site. This possible interconnection was not mentioned in Mr. Winter's thesis. The springs I mentioned as not being connected with the Wells Fm. were issuing from the overlying Dinwoody Fm. and were much closer to the well site than the springs discussed in Ralston's reports.

The results of the pump test described in the October 1981 report reveal more information, but do not answer all our questions. Because the direction of water movement in the Wells Formation is not known, it is difficult to estimate the impact of pumpage.

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The interconnection of the pumped well and the springs (Lower South Sage, Hoopes, Lower Smoky Canyon, and Roberts Spring) is not believed to be very direct because of the considerable difference between water levels in the well and the discharge elevation of the springs. However, the evidence is not conclusive on this point. Measurements taken on the springs during the pump test do not show any effects, but the test was probably not of sufficient length for effects to be felt. The aquifer test data also suggests that the springs might be affected only after a very long lag time.

The conclusions that may be stated at this point are as follows:

1. The interconnected ground and surface water systems in the overlying Dinwoody Fm. are probably isolated from the Wells Formation.

2. The discharge of several springs to the east of the well site is thought to be from the Wells Formation. Since not enough is known about this flow system, it is not to say what the effects, if any, on the springs will be.

3. Continued periodic measurements of the springs might be the only way to detect a change in groundwater discharge. The Wells Fm. is a large, regional aquifer. Only a portion of its discharge is in these springs and the amount of water expected to be pumped is small relative to that in storage or in transit through the system.

WO:mb

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J. R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83201
(208) 232-6620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

MINERALS & CHEMICAL DIVISION

RECEIVED
FEB 2 1982
Department of Water Resources

February 1, 1982

Mr. L. Glen Saxton
Chief, Operations Bureau
Idaho Dept. of Water Resources
State Office, 450 W. State St.
Boise, Idaho 83720

Dear Glen:

In response to your request for information on the hydrologic testing of wells at the site of the proposed Smoky Canyon Phosphate Project, I am enclosing the following documents:

1. Responses to Concerned Comments Relative to Ground Water Hydrology at the Smoky Canyon Mine Development, Caribou County, Idaho (including situation map and geologic cross section)
2. Well Drillers Report - IDWR Form 238-7 1/78 3 each
3. Additional Water Monitoring - 1981 Program
4. Water Quality Report - Smoky Canyon Well Test IDH&W 81-12-34
5. Hydrology of the Smoky Canyon Mine Site - A Reconnaissance (already sent)
6. Hydrology of the Smoky Canyon Mine Site - Siting of an Industrial Well
7. Hydrology of the Smoky Canyon Mine Site - Results of Well Drilling and Pump Test

If you have any questions regarding this situation, please do not hesitate to contact this office.

Sincerely,

R. V. Kimball
Director, Mine Planning

RVK:ds

Enclosures

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RESPONSES TO THE CONCERNED COMMENTS RELATIVE TO GROUND WATER HYDROLOGY AT THE SMOKY CANYON MINE DEVELOPMENT, CARIBOU COUNTY, IDAHO

Concern has been expressed by the Wyoming Attorney General, the Wyoming State Engineer's Office and others with regard to the applicability of Article IV of the Snake River Compact which provides, in part:

> ". . . no water of any tributary of the Salt River heading in Idaho shall be diverted in Idaho for use outside the drainage area of said tributary, except with the approval of Wyoming."

The Idaho Department of Water Resources has taken this issue under advisement and the Department's attorney has reviewed Article IV of the Snake River Compact. The conclusion reached by the attorney was that unless clear evidence exists to show that the industrial well would interfere with the water of a surface tributary of the Salt River, the compact provision does not apply. Furthermore, after review of the background material concerning the Smoky Canyon Phosphate Mine, the Attorney General of the State of Idaho has concluded that in all probability the industrial well in question will not affect the surface flows of the Salt River and its tributaries.

Technical information has been provided to the Wyoming State Engineer's Office (Supt. Water Division No. 4) together with an explanation of the department's conclusion that withdrawal of water from

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the Wells Formation (which is the primary aquifer to be tapped by the industrial well) will not adversely affect surface water flows in the Smoky Creek or Crow Creek Basins.

To further substantiate this conclusion, an extract from the communication submitted by Idaho Department of Water Resources to the Wyoming State Engineer's office states:

"One possible reason that recharge on the ridge that forms the Webster Syncline does not reach the Wells Formation is that several units of the Rex Chert (Cpr on plate 12 and Ppr on Bulletin 1217 figure) are very massive and unless highly fractured are likely to be barriers to downward movement of groundwater. This would tend to isolate the flow systems in the overlying Dinwoody Formation from the Wells Formation.

As further evidence of the isolation of the ground water regime which is primarily contained within the upper Wells Sandstone Member aquifer, IDWR cites the several springs issuing from the lower part of the Dinwoody Formation (including a 22 gpm flow in Smoky Canyon) which overlies the Rex Chert, as evidence that the ground water flow systems in the upper rock units are separated from the Wells Formation aquifer. Consequently, there is considerable evidence that the Wells Formation is not connected with Smoky Creek, but probably part of a deeper, more regional groundwater flow system. Therefore, if the industrial well is so constructed as to case out the groundwater above the Rex Chert, the effects of withdrawal would be confined to the Wells Formation.

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On the basis of the IDWR review of the technical data relative to the area, the department approved a water well permit application with the condition that a pump test be conducted. The results of this pump test are described in the report by the consulting hydrologist (Hydrogeology of The Smoky Canyon Mine Site - Results of Well Drilling And Pump Testing, Ralston, Dale R., October, 1981) with the following conclusions:

Although the water level in the pumping test well dropped 48 feet, neither of the two monitor test wells showed any decline nor did any of the springs which were also monitored before, during and after the pump test. The results of the pump test indicate that the effect on ground water was very local. After three days of pumpage, there had been no more than about one tenth of a foot of decline any further than 200 feet from the pumping well. Also, the static water level in the pumping well is about 300 feet higher than the elevation of the springs. Consequently, if there is any impact on these springs, which is highly improbable, then there is a huge lag time - a lag time measured in years. Therefore, there would be a very long delay in any impact on the springs and a very minimal, perhaps nonmeasureable effect on spring flow. This is the result of the isolation of the tapped aquifer from the groundwater flow regime supplying the springs in the area as well as the considerable residence time for ground water from the recharge areas to issue from these springs.

The suggestion that dye be placed in the aquifer via injection into the test well to trace any connection to the interstate drainages is not a practical field test. The water from similar flow systems in the Wells

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Fm. has been tentatively age dated in the range of 5,000 to 15,000 years, the time required for water to move from recharge areas to spring discharge points.

The Wyoming State Engineer has indicated that there may be a question as to who should get the credit for the gain on the Bear River drainage. This implies that there would be an interbasin transfer of waters via the slurry pipeline from the Snake River basin to the Bear River basin. The slurry pipeline will discharge into a terminal facility which is essentially a dewatering and filtering operation. The water thus derived would, however, be utilized as make-up water at the Conda Operation and consequently not discharged to downstream receiving waters. The Conda beneficiation plant which incorporates a tailings disposal facility utilizes a closed circuit decant water reclaim system. Water from the slurry pipeline would merely serve as a substitute for some of the make-up water currently being pumped from industrial wells near the Conda Operation. The Smoky Canyon Operation would not, just as the Conda Operation does not, rely on surface water resources; consequently, no surface water rights are considered to be in jeopardy.

Pursuant to the request of the Governor of the State of Wyoming, full access to all data and information used in the hydrologic assessment has been implemented by the Idaho Department of Water Resources.

The Smoky Canyon Operation water monitoring program has already been expanded to include the spring at the location of the State Fish Hatchery and the nearby commercial trout ranch. Also, a culinary water well at the Draney Ranch will also be monitored as well as water quality and flow

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rates on Draney Creek. However, it is the considered opinion of the consulting hydrologist that guage stations on lower Tygee and Stump creeks are too far removed from the areas of influence to provide any substantive data because of the preponderance of inflow from other tributaries. A complete and accurate groundwater/surface water monitoring program has already been implemented with the drilling of the three test wells and expansion of the surface water monitoring effort. This data will be made available to the Supt. Water Division No. 4 of the Wyoming State Engineer's office on a quality assurance basis.

The statement in the DEIS to the effect that no significant hydrological effects are expected to occur to streams off the lease due to mine development and operation (pg. 5-34) is not considered to be inconsistent with the information in the fourth paragraph on page 5-28, where it is stated that most of Roberts Creek would be lost as a free-flowing stream due to construction of the tailing ponds. First of all, Roberts Creek is an intermittent stream and accommodates only spring runoff through the length of its course. However, the stream course will be diverted around the tailings dams so that runoff will not be impounded except in the tailings pond areas themselves. Electro shocking surveys by personnel of the Idaho Fish and Game have developed no game fish in either the small stream course or at the spring on upper Roberts Creek, consequently, no significant ecological effects are expected to occur.

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The Wyoming Game & Fish Department has expressed several concerns to avoid impacts the wildlife resources of Wyoming. The recommendation that provisions should include permanent diversion around the tailings pond sites to prevent poisonous wastes from reaching the important trout waters downstream has been accommodated in that design of the tailings dams will include permanent diversions. These structures will be designed by a competent professional consulting firm and be approved by the Idaho Department of Water Resources in accordance with the appropriate Tailings Dam Safety Regulations of the State of Idaho. The tailings disposal system is designed as a closed circuit operation whereby the tailings are discharged into the pond, decanted and the decant water then pumped back to the mill and added as make-up water. None of the tailings water is discharged to downstream receiving waters and the tailings dam structure is designed with sufficient freeboard to accommodate a 100 year event for surface runoff from the area of influence in the Roberts Creek drainage. In consideration of the zero discharge mode of the tailings system, no NPDES permits should be required.

The Idaho State Department of Health & Welfare, Division of Environment expressed the concern that groundwater quality possibly could not be ascertained from the headwater streams and springs. The recommendation was made that monitor wells should be drilled to verify that the springs and streams are representative of the aquifers. This recommendation was taken and three monitor wells were drilled and are being monitored both for static water levels and ground water quality as

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part of the revised monitoring program. As far as any impact on the surface waters from test pumping of the well is concerned, it was deduced that there was no impact on the surface waters as a result of water sample analyses collected during the pump test. The following data are submitted:

Inorganic	Analysis (ppm)	Max. Allowable Limit (ppm)
Fluoride	0.20	1.4 - 2.4
Nitrate (As N)	0.26	10
Sulfate	14	250
O - PO_4	0.07	No Std.
Cadmium	0.001	0.010

These inorganic chemical analyses are compared to the primary drinking water standards and indicate that ground water leaching from the Phosphoria Fm has not taken any significant concentrations of these ions into solution.

Another concern was the impact on the surface waters from test pumping from discharge energy. The test pump discharge was routed into the upper Smoky Creek channel where it coursed downstream approximately 100 yards and subbed out dissapating into the permeable sandstone. This is the case with Smoky Creek during the year except for the spring runoff surge. This stream originates with a spring near the Smoky - Timber Creek saddle and flows down to the confluence with South Smoky Creek (an intermittent stream also dry most of the year) where the stream subs into the ground water regime. Consequently, there was no discharge of pump test effluent into lower Smoky Creek.

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Concern has been expressed relative to the hazardous waste potential of the tailings liquid. A study was recently commissioned by EPA to examine the four basic types of analyses: (Ref. PEDCO Environmental Inc., December, 1980)

Total analyses of solids and slurries

Total analyses of liquids

Analysis of acetic acid extracts of solids/slurries

Analysis of deionized water extracts of solids and slurries

Considering the whole hazardous waste situation, it must be remembered that EPA has exempted the phosphate industry from classification under the hazardous waste standards. The phosphate industry has been designated under the "Special Waste" category and therefore is not constrained by the hazardous waste regulations. Furthermore, results of the PEDCO Study would indicate that there is no basis for designation of phosphates under hazardous waste, consequently, EPA is not likely to recommend regulation under hazardous waste regulation.

The major objective of the EPA study was to evaluate the environmental impact of solid waste management practices currently in use by the mining industry for purposes of determining the need for mining waste management regulations and/or guidelines under RCRA. This report may be summarized for samples analyzed from the Conda Operation which are analagous to the Smoky Canyon Operation as follows:

All samples were below the Hazardous Waste Standards.

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The tailings liquid analyses were the closest to the hazardous waste standards but it must be remembered that the tailings disposal system is a closed circuit system whereby tailings liquid is decanted and recycled back to the process stream as make-up water in the mill. No discharge of tailings will be required into downstream receiving waters and, therefore, no NPDES permit will be needed. A slight elevation of total dissolved solids was detected but this sample was collected without decanting and the analyses was still below the HW standard. Other analyses showed SO_4, Fl, and NO_3 at approximately 1/4 the HW std. All others, such as Cr and As, although elevated, were only approximately 1/10 the HW std. In other words, of approximately 100 analyses performed on six different samples, only one sample had a value 1/4 the HW std. and all others were less than 1/10 the HW std.

Examination of the radionuclides by PEDCO revealed that the RA 226 value was less than the drinking water standard of 3 pico curies per liter. Also, gross alpha was less than the 3 pCi/L. Gross beta, which was obviously less than 50 pCi/L standard, was therefore not done.

Considering leachate values in the upper Blackfoot River basin, maximum measured Ra 226 concentrations were 1.8 pCi/L in water and 1.8 and 3.9 pCi/g in bottom material from streams and sediment-retention ponds, respectively. Dissolved radionuclide concentrations in two main-stem streams immediately below active mining sites averaged 0.11 pCi/L Ra 226 and 2.0 ug/L uranium. In streams not near active mining sites, dissolved radionuclides averaged about 0.8 pCi/L Ra 226 and about 0.6 ug/L uranium. All radionuclide concentrations were within the limits

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of State and Federal water-quality standards. Because radionuclides were observed only in trace concentrations, the need for further radionuclide monitoring was deemed to be minimal. (Ref. Radionuclide Concentrations In Streams In the Upper Blackfoot River Basin, Southeastern Idaho, USGS OFR 81-142).

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Effects of the Industrial Well (5-39)

The comment concerning total use of water consumed does not take into consideration the fact that the mill will not be running seven days a week, but operations will be interrupted for scheduled maintenance, repairs and turn-around. A closer examination of the mine plan would have also indicated that total consumption is estimated at 1,100 acre feet per year, but slurry line consumption is designed at about 800 acre feet per year. The balance of 300 acre feet per year would be consumed for plant wash down, dust suppression, etc. However, it must be remembered that the tailings disposal system is a closed circuit operation; consequently, the decanted tailings water will be returned as make-up-water to plant process and reused over and over again. Therefore, the extrapolation of 6.67 cfs to 4,829 acre feet per year is completely erroneous. Even though the industrial well capacity could be 3,000 gpm the pump rate is irrelevant and the conflict is in multiplying uses without considering interruptable mill schedules and intermittent wash down or dust suppression requirements, e.g., pumping an estimated 750 gallons per minute flow rate for the slurry produces approximately 800 acre feet per year.

Mitigating Measures Pg. 4-36

The allegation that "mitigating measures" are needed for the removal of 800 acre feet of water from the watershed is not valid since the water is removed from a ground water source and the flow regime is westerly to the axis of the Webster Syncline and consequently does not issue as surface drainage into tributaries of the Salt River.

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Design parameters for the operation of the slurry line anticipate 170 tons per hour at 95% physical availability at approximately 8,700 hours per year with an 8 inch diameter line and a velocity of 5 feet per second. Flow rate for the slurry is approximately 780 gallons per minute at 55% solids by weight producing 894 acre feet per year consumption. However, a projected increase in throughput tonnage of the slurry consist will result in a decrease in annual water consumption to about 800 acre feet as a result of the increase in percentage of solids in the slurry consist.

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STATE OF IDAHO
PARTMENT OF WATER RESOURCE

WELL DRILLER'S REPORT

USE TYPEWRITER OR BALLPOINT PEN

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name: J. R. Simplot (Minerals & Chemicals)

Address: P.O. Box 912 Pocatello, Idaho

Owner's Permit No. (Smokey Canyon)

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other Plastic

Thickness	Diameter	From	To
.250 inches	8" inches	+ 13" feet	350 feet
.250 inches	6" inches	+24" feet	770 feet
Plastic inches	4" inches	710 feet	940 feet
inches	inches	feet	feet

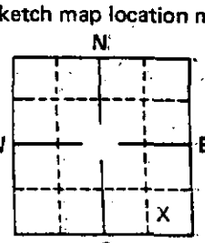
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☒ Factory ☒ Knife ☐ Torch
Size of perforation 1/3 inches by 4 inches

Number		From	To
6" - 12per Ft.	perforations	570 feet	770 feet
6" - 12	perforations	330 feet	390 feet
4" - 2 per Ft.	perforations	710 feet	940 feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name
Type Model No.
Diameter Slot size Set from feet to feet
Diameter Slot size Set from feet to feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☒ Solvent Weld ☐ Cemented between strata
Describe access port Well Seal

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name
Lot No. Block No.
County CARIBOU

SE ¼ SE ¼ Sec. 24, T. 8 N/S, R. 45 E/W.

7. WATER LEVEL

Static water level 297' feet below land surface
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature °F. Quality

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
190		

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
20"	0	10	Dry Clay		X
	10	23	Wet Clay	X	
	23	125	Soft Gray Shale	X	
	125	160	Med. Gray Shale	X	
	160	250	Hard Black Shale	X	
	250	260	Soft Loose Shale	X	
	260	275	Hard Black Shale	X	
	275	283	Loose Black Shale	X	
	283	325	Hard Black Shale	X	
	325	337	Loose Sandstone Gray	X	
	337	350	Clay & Some Shale	X	
8"	350	370	Streaks of Hard & Soft Shale	X	
	370	500	Hard Black Shale	X	
	500	600	Hard Brown Limestone	X	
	600	720	Light Brown Sandstone	X	
	720	800	Light Brown Sandstone & Streaks of Red Sandstone	X	
6"	800	1000	Light Sandstone & Streaks of Limestone	X	

10.

Work started 9/3/81 finished 10/7/81

11. DRILLERS CERTIFICATION

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

Firm Name Jack Cushman Drilling Firm No. 94
Address 1405 South Broadway Blackfoot, Idaho Date 10/22/81
Signed by (Firm Official)
and (Operator)

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USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

orm 238-7
/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name J. R. Simplot (Minerals & Chemicals)

Address P.O. Box 912 Pocatello, Idaho

Owner's Permit No. (Lower Smokey Canyon)

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☒ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☒ Other Monitor (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☒ Other Plastic

Thickness	Diameter	From	To
.250 inches	8" inches	+ 18" feet	22' feet
Plastic inches	4" inches	18" feet	130' feet
inches	inches	feet	feet
inches	inches	feet	feet

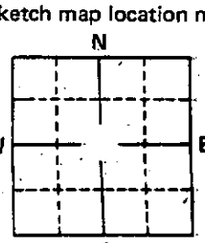
Was casing drive shoe used? ☐ Yes ☒ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☒ Factory ☐ Knife ☐ Torch
Size of perforation 1/8 inches by 4 inches

Number	From	To
4" - 2 perforations	+18" feet	130' feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name
Type Model No.
Diameter Slot size Set from feet to feet
Diameter Slot size Set from feet to feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☒ Solvent Weld ☐ Cemented between strata
Describe access port Cap

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name
Lot No. Block No.
County CARIBOU
E ¼ SE ¼ Sec. 18, T. 8 N/S, R. 46 E/W

7. WATER LEVEL

Static water level 50' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature °F. Quality

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8"	0	22	Top Soil		X
	22	130	Yellow & White Sandstone	X	

10.

Work started 8/26/81 finished 8/28/81

11. DRILLERS CERTIFICATION

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

Firm Name Jack Cushman Drilling Firm No. 94
1405 South Broadway
Address Blackfoot, Idaho Date 10/22/81
Signed by (Firm Official)
and
(Operator)

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Form 238-7
1/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name J. R. Simplot (Minerals & Chemicals)

Address P.O. Box 912 Pocatello, Idaho

Owner's Permit No. (Pole Canyon)

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☒ Other Monitor Well (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☒ Other Plastic

Thickness		Diameter		From		To	
.250	inches	8"	inches +	18"	feet	35'	feet
.250	inches	6"	inches	18"	feet	430'	feet
Plastic	inches	4"	inches	800'	feet	900'	feet
	inches		inches		feet		feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☒ Factory ☒ Knife ☐ Torch
Size of perforation 1/8 inches by 4 inches

Number		From		To	
4"-2 per F	perforations	300'	feet	900'	feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name
Type Model No.
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth Material used in seal ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☒ Solvent Weld ☐ Cemented between strata
Describe access port Cap

6. LOCATION OF WELL

Sketch map location must agree with written location.

N / W / E / S

Subdivision Name
Lot No. Block No.
County CARIBOU

SE ¼ SE ¼ Sec. 36, T. 8 N/S, R. 45 E/W.

7. WATER LEVEL

Static water level 475' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature °F. Quality

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No

10.

Work started finished

11. DRILLERS CERTIFICATION

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

Firm Name Jack Cushman Drilling Firm No. 94
1405 South Broadway
Address Blackfoot, Idaho Date 10/23/81
Signed by (Firm Official)
and
(Operator)

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HWH 0296

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Canary - H&W Region/District
Pink - H&W Region/District
Goldenrod - Laboratory

State of Idaho
DEPARTMENT OF HEALTH & WELFARE

WATER QUALITY REPORT
INORGANIC CHEMICAL CONTAMINANTS
Drinking Water Systems

(See Instructions on Back of Form)

$1.34.50

LAB NAME (Check One)
☐ Boise
☐ Coeur d'Alene
☐ Pocatello

SMOKY CANYON DUMP TEST 81-12-34

Name of Water System: Well #3 Smoky Canyon	County:	Date Collected (10-15): 1012381 (Mo Day Yr)	Office Use Only: PWS ID (1-7)
REPORT RESULTS TO:			
Full Name: J.R. SIMPLOT, MINERALS & CHEMICAL DIVISION		Time Collected (16-19): 10:30 (20) Circle AM PM	LID: 0 0 2 0 0 0 3 — Trans Code (8-9)
Address: CONDA MINE P.O. BOX 67		Collected By: K. Perkins	
City: CONDA	State: IDAHO	Zip Code: 83230	
Sample Location: (21-23)		Container Type: ☐ Glass ☒ Plastic	Preservative Used: ☐ None ☑ Nitric Acid ☐ Sodium Hydroxide ☑ Sulfuric Acid ☐ Other
Sample Type (Check One) (24): ☐ D - REG. DISTRIBUTION ☐ C - CHECK ☐ P - PLANT TAP ☐ R - RAW WATER ☐ S - SPECIAL			

COMMON CHEMICAL CONTAMINANTS

PRIMARY

✓	ID (25-28)	CONTAMINANT NAME Maximum Allowable Level	Method (29-31)	ANALYSIS RESULTS* (32-39)	Analysis Date (40-45) Mo Day Yr	Analyst Initials	LAB NAME	Office Use Only LAB ID (46-50)
	1005	Arsenic .05	12					
	1010	Barium 1	101					
✓	1015	Cadmium .010	125	.001	12 9 81	BP		1
	1020	Chromium .05	125					
✓	1025	Fluoride 1.4-2.4	~~125~~ 197	.20	10 30 81	CHS	Roc	00006
	1030	Lead .05	125					
	1035	Mercury .002	103					
✓	1040	Nitrate (As N) 10	109	.26	11 13 81	CHS	Roc	00006
	1045	Selenium .01	125					
	1050	Silver .05	125					
	1052	Sodium	101					
	1024	Cyanide .2	111					

SECONDARY

✓	ID	CONTAMINANT NAME Maximum Limit	Method	ANALYSIS RESULTS*
	1017	Chloride 250	153	
	1905	Color (C.U.) 15 units	129	
	1022	Copper 1	101	
	1027	Hydrogen Sulfide .05	155	
	1028	Iron .3	101	
	1032	Manganese .05	101	
	1920	Odor No. (T.O.) 3	133	
	2910	Phenols .001	209	
✓	1055	Sulfate 250	137	14
	2905	Surfactants .5	207	
	1930	Total Dissolved Solids 500	139	
	1095	Zinc 5	101	

OTHER

✓	ID	CONTAMINANT NAME	Method	ANALYSIS* RESULTS
	1927	Alkalinity (Total)	157	
	1003	Ammonia (As N)	147	
	1016	Calcium	141	
	1915	Hardness (as $CaCO_3$)	141	
	1031	Magnesium	101	
	1925	pH (pH units)	135	
	1042	Potassium	101	
	1049	Silica	143	
	1926	Spec. Cond. umhos/cm	145	
✓		C-Rec'd		07

Results Expressed in mg/liter Unless Indicated Otherwise

Sent to Bob Truchot Y.A. Dodds DEC 14 1981
Conda, Idaho RUR 1-12-82

Lab Supervisor Signature: C. Tidwell

Analysis Completion Date (Mo, Day, Year): 12-9-81

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ADDITIONAL WATER MONITORING - 1981 PROGRAM

A surface and groundwater monitoring program has been initiated at the Smoky Canyon project area. Base line data has been collected over the past two years at the following sites:

SITES (Figures 2-13, 2-14 DES)	LOCATION
10-11	Upper and Lower Smoky Creek
8-9	Upper and Lower Pole Creek
6-7	Upper and Lower North Sage Creek
30	Hoopes Springs
4-5-3	Upper, Middle and Lower South Sage Creek
Near 13	Lower Roberts Creek
12-14	Upper and Lower Tygee Creek

With the exception of lower Roberts Creek and the upper and lower Tygee creek sites, these sites are being monitored once a month through fall and winter, twice a month in early spring, and weekly during late spring and early summer. Additional monitoring is done in a attempt to bracket peak spring run-off. This general yearly schedule will continue through the construction phase, and the mine production and reclamation phases. Lower Roberts and lower Tygee Creeks will be sampled again once tailing pond construction begins. These creeks will likewise be sampled during mine production and reclamation phases.

In addition, the monitoring program is being expanded to include Draney Creek and the springs at the Auburn Hatchery and the Star Valley Trout Ranch. Also, previously collected data from the Auburn Hatchery will be accessed and incorporated into the data base. A culinary well at the Draney Ranch will be monitored. In the spring of 1982, weirs will be installed at these additional sample sites.

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Sample parameters for each site include:

1. Air temperature (^{o}C.).
2. Water temperature (^{o}C.).
3. Dissolved Oxygen (ppm).
4. pH.
5. Turbidity (NTU).
6. Specific conductivity (u mohs/cm).
7. Flow (cfs).
8. Alkalinity (HCO_3 - ppm).
9. Suspended Solids (mg/l).
10. Dissolved Solids (mg/l).
11. Total Solids (mg/l).

Ground water monitoring has been extended to include both the upper and lower Smoky Canyon wells and the Pole Canyon well. These will be monitored for water levels and the above cited parameters except flow.

A quality assurance program has been initiated by the J.R. Simplot Company's Department of Environmental Engineering to include submitting sample splits to an independent laboratory.

The parameters shown in the accompanying table are being analyzed from each of the sample sites on a semi-annual basis. This program will continue during mine production and reclamation.

The monitoring program will be reviewed annually by the District Mining Supervisor and, after consultation with other appropriate Federal officials and with officials of the states of Wyoming and Idaho, the program will be adjusted as needed.

1/26/82/ds

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Table 4-___ - Additional Water Quality Parameters to be Measured

Parameter	Units
Calcium	mg/l
Magnesium	mg/l
Sodium	mg/l
Potassium	mg/l
Carbonates	mg/l
Bicarbonates	mg/l
Sulfates	mg/l as SO_4
Chlorides	mg/l
Nitrates	mg/l as N
Fluorides	mg/l
Nitrogen, Total	mg/l as N
Nitrogen, Ammonia	mg/l as N
Nitrogen, Unionized NH_3	mg/l as N
Nitrogen, Nitrite	mg/l as N
Nitrogen, Organic	mg/l as N
Phosphate, Total	mg/l as P
Phosphate, Meta	mg/l as P
Phosphate, Organic	mg/l as P
Phosphate, Ortho	mg/l as P
Oxygen, Dissolved (DO)	mg/l
BOD	mg/l
COD	mg/l
Fecal Coliform	No./100 ml
Total Coliform	No./100 ml

Parameter	Units
Oil and Grease	mg/l
Color	Units
Odor	Units
Aluminum, Total	mg/l
Aluminum, Dissolved	mg/l
Antimony, Total	mg/l
Antimony, Dissolved	mg/l
Arsenic, Total	mg/l
Arsenic, Dissolved	mg/l
Barium, Total	mg/l
Barium, Dissolved	mg/l
Beryllium, Total	mg/l
Beryllium, Dissolved	mg/l
Boron, Total	mg/l
Boron, Dissolved	mg/l
Cadmium, Total	mg/l
Cadmium, Dissolved	mg/l
Chromium, Total	mg/l
Chromium, Total Cr^{+6}	mg/l
Chromium, Total Cr^{+3}	mg/l
Chromium, Dissolved	mg/l
Chromium, Dissolved Cr^{+6}	mg/l
Chromium, Dissolved, Cr^{+3}	mg/l

Parameter	Units
Copper, Total	mg/l
Copper, Dissolved	mg/l
Iron, Total	mg/l
Iron, Dissolved	mg/l
Lead, Total	mg/l
Lead, Dissolved	mg/l
Manganese, Total	mg/l
Manganese, Dissolved	mg/l
Mercury, Total	mg/l
Mercury, Dissolved	mg/l
Molybdenum, Total	mg/l
Molybdenum, Dissolved	mg/l
Nickel, Total	mg/l
Nickel, Dissolved	mg/l
Selenium, Total	mg/l
Selenium, Dissolved	mg/l
Silica, Total	mg/l
Silica, Dissolved	mg/l
Silver, Total	mg/l
Silver, Dissolved	mg/l
Uranium, Total	mg/l
Uranium, Dissolved	mg/l
Vanadium, Total	mg/l
Vanadium, Dissolved	mg/l
Zinc, Total	mg/l
Zinc, Dissolved	mg/l

PHOTOSTAT

January 20, 1982

Bob Kimball
J. R. Simplot Company
P. O. Box 912
Pocatello, ID 83201

Dear Mr. Kimball:

Re: Permit No. 24-7113

If you will recall, there has been considerable concern in the past by the state of Wyoming relative to the use of water in connection with your proposed Smoky Canyon Phosphate project.

Enclosed for your information are two letters which indicate the potential interference between groundwater diversion and surface water flows continues to be a concern to Wyoming. The issue that Wyoming raises is that if groundwater diversions are determined to affect the surface water flows in the Salt River drainage, provisions of the Snake River Compact must be followed.

In your letter of February 10, 1981, you stated your company planned to do Hydrologic testing of wells in the area and to install and monitor piezometers. Please forward to the department the results of that testing including the location and depths of the wells, guantities and rates of water produced and any other pertient information used to evaluate the effects that pumping would have on other water resources in the area.

Since the interrelation between groundwater and surface water is often complex, the data you provide may alleviate potential interference concerns.

Thank you for your cooperation in this matter.

Sincerely,

L. GLEN SAXTON
Chief, Operations Bureau

Enclosures: 2

cc: John Teichert

RECEIVED

GLEN

THE STATE OF WYOMING

RECEIVED
JAN 14 1982
Department of Water Resources

ED HERSCHLER
GOVERNOR

State Engineer's Office

BARRETT BUILDING CHEYENNE, WYOMING 82002

January 12, 1982

Mr. A. Kenneth Dunn, Director
Department of Water Resources
State of Idaho
State Office
450 West State Street
Boise, Idaho 83720

Re: Smoky Canyon Phosphate Mine

Dear Mr. Dunn:

This letter is in response to the suggestion made in David H. Leroy's, Attorney General for the State of Idaho, letter of November 18, 1981 to Steven F. Freudenthal, Attorney General for the State of Wyoming, concerning the Wyoming State Engineer's preparation of a detailed technical proposal to evaluate the effects on other water resources in the vicinity of the above-referenced project.

As we understand the situation, a permit to appropriate ground water has been granted to J.R. Simplot Company to appropriate 4.46 cfs (2000 gpm) of ground water from the Wells Formation. It was noted that some monitor wells were to be completed in conjunction with this project to evaluate the effects on other water resources. Before my staff can proceed to evaluate the project, we need to know the details of the testing program. Specifically, we need to know the depth of the wells, locations of the wells with respect to each other, quantities and rates of water produced, and any other information deemed pertinent to evaluating the effects pumpage would produce on other water resources.

In discussing this matter with my staff, it would appear that a number of variables involved with monitoring stream flow would preclude gathering any meaningful data which could be utilized in assessing effects. It is felt that perhaps monitor wells might be a more acceptable approach to the problem; however, we would appreciate an opportunity to review the testing and monitoring program Simplot has indicated they plan to conduct.

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I appreciate your cooperation in this matter. As I am certain you can appreciate, the interrelationship of ground and surface water is often complex. I do have a responsibility, however, to the appropriators of Wyoming in seeing that every reasonable effort is made to keep their water rights whole.

Sincerely,

George L. Christopulos

GEORGE L. CHRISTOPULOS
State Engineer

GLC/ht

cc: Steven F. Freudenthal
Attorney General
State of Wyoming

John Teichert
Superintendent
Water Division No. Four

MICROFILMED

STATE OF WYOMING
STATE ENGINEER'S OFFICE
CHEYENNE, WYOMING 82002

Mr. A. Kenneth Dunn, Director
Department of Water Resources
State of Idaho
State Office
450 West State Street
Boise, Idaho 83720

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THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

In reply refer to:

Attorney General

CHEYENNE, WYOMING 82002
PHONE 307 777-7841

STEVEN F. FREUDENTHAL
ATTORNEY GENERAL

RECEIVED
OCT 22 1981
Department of Water Resources

October 14, 1981

Mr. A. Kenneth Dunn
Director
Department of Water Resources
State of Idaho
State Office
450 West State Street
Boise, Idaho 83720

Mr. Charles Hendricks
Forest Supervisor
Caribou National Forest
Suite 294, Federal Building
2507 4th Avenue
Pocatello, Idaho 83201

Gentlemen:

This letter is written with respect to the draft environmental impact statement for the Smoky Canyon Phosphate Mine, Caribou County, Idaho, dated September, 1981, and State of Idaho, Department of Water Resources, Application for Permit to Appropriate Public Waters of the State of Idaho, bearing Identification No. 24-7113, submitted by the J.R. Simplot Company. The draft EIS and the Application for Permit deal with the use of groundwater wells located in Idaho on tributaries of the Salt River approximately ten miles west of Afton, Wyoming, to provide water to slurry phosphate approximately 26 miles to the Town of Conda, Idaho. The proposed groundwater withdrawals may affect the surface flows of the Salt River and its tributaries (all of which are tributaries of the Snake River). By virtue of the slurry process, the water so produced would be transferred out of the Salt River Drainage.

The Snake River Compact, Article IV, provides, in part:

> ". . . no water of any tributary of the Salt River heading in Idaho shall be diverted in Idaho for use outside the drainage area of said tributary, except with the approval of Wyoming."

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Although the Compact only deals with surface water, it has a direct bearing upon the proposed groundwater withdrawal. Specifically, it is the State of Wyoming's position that the State of Idaho has an obligation to require such monitoring wells and measuring devices in the area of the wells to continuously demonstrate that the groundwater withdrawal is not affecting surface water flows within the Salt River Drainage. In the event, that any connection between the groundwater withdrawals and surface water in the Salt River Drainage is shown by the monitoring program, the State of Idaho is required by the Compact to immediately place the permit and withdrawals under the permit in abeyance and seek the approval of Wyoming under Article IV of the Compact.

The primary purpose of this letter is to advise all parties concerned that the State of Wyoming has not approved the potential diversion of any water of any tributary of the Salt River heading in Idaho to be diverted in Idaho for use outside the drainage area of said tributary. And in the event that actual operation shows diversion of such water, Idaho must seek and receive the approval of Wyoming for such continued diversions.

Very truly yours,

Steven F. Freudenthal

Steven F. Freudenthal
Attorney General

SFF:llc

CC: Governor Herschler
George Christopulos, State Engineer
David Leroy, Attorney General of Idaho

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October 6, 1981

George Christopulos
Wyoming State Engineer
Barrett Building
Cheyenne, WY 82002

Dear George:

At the recent Western State Engineers Conference in Salt Lake you requested information concerning the filing by J. R. Simplot Co. in the Stump Creek/Crow Creek drainage. I am enclosing a copy of the permit approved on May 21, 1981, and a copy of a letter addressed to John Tiechert of your department describing the review given the application.

The application was approved with a requirement that the permit holder conduct a pump test if it appears that other rights are being affected. As you and I discussed at Salt Lake City, the department review did not indicate that starting a continuous measurement of flow in the surface stream could provide useful data to determine interference between groundwater pumping and the surface stream. Long-term monitoring and correlation with measurements, in other comparable streams would be required to make a meaningful analysis unless the effect was so obvious that the relationship would be determined by a pump test.

If I can provide further information please contact me.

Sincerely,

NORMAN C. YOUNG
Administrator
Resources Administration Division

NCY:alw
Encls.

June 1, 1981

J. R. Simplot Co.
P.O. Box 912
Pocatello, Idaho 83201

Dear Sirs,

RE: Permit No. 24-7113

Enclosed is a copy of your approved Application for Permit. We direct your attention to the conditions of approval as listed on the fourth page.

Be sure to note the special condition requiring you to install an access port or other device to provide for the installation of measuring equipment by the Department. Enclosed are specifications for the installation of the access port, as well as a list of measuring device options.

Also, please note the other special condttions required by this permit on page four.

Sincerely,

DAVID R. TUTHILL, JR., P.E.
Supervisor, Water Allocation Section

Enclosure

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Form No. 202a
3/79

State of Idaho

Department of Water Resources

APPLICATION FOR PERMIT ANALYSIS SHEET

INITIAL REVIEW BY: JOHN K. APPLICATION NUMBER: 24-7113

CHECK:

- ☑ Source.
- ☑ Point of diversion.
- ☑ County.
- ☑ Quantity of water and period of use.
- ☑ Description of diverting works.
- ☑ Time required for beneficial use of water.
- ☑ Place of use or acres irrigated.
- ☑ Map.
- ☑ Signature.
- ☑ Fee.

Field check by: _____
Date: _____
Comments: _____

- ☐ Yes ☑ No Field check required.
- ☐ Yes ☑ No Critical groundwater area.
- ☐ Yes ☑ No Request dam safety information. Sent by: _____ Date: _____
- ☑ Yes ☐ No* In form to receipt.

*REQUEST THE FOLLOWING ADDITIONAL INFORMATION FROM THE APPLICANT:

Willis Tarbet – Simplot – water from slurry line will be used to replace one of the industrial wells for use in the Cordex plant. will be diverted into tailings impoundment. All seepage will drain into ~~Blank~~ Basin 27. (Snake River System.) phone 233-2500. EXT. 453 Janette Buckley (Sec.)

SEND COPIES TO:

	Copies sent by:	Date:
☐ Idaho State Health Department.		
☐ Idaho Fish and Game Department.		
☐ Idaho Department of Lands.		
☐ U.S. Bureau of Land Management.		
☑ U.S. Forest Service.	EW	10/15/80
☑ Other John A. Taibart.	EW	10/7/80

PROCESSING:

- ☐ Yes ☑ No Platted by: _____ Map No. _____
- ☐ Yes ☑ No Other rights on same place of use. _____
- ☑ Yes ☐ No* In form for advertising. Final date for protests: Nov. 10 ✓
- ☐ Yes ☑ No Protests received. If yes, record information on 4th page of application.

FINAL REGIONAL PROCESSING REVIEW:

- ☑ Affidavit of publication received. Date: 11-12-1980. ✓
- ☑ Application published correctly. If not, record action taken: _____
- ☑ Fee amount, receipt date & number, recorded on application.
- ☑ Publication dates and paper, recorded on application.
- ☑ Protests, dates, withdrawal, etc., recorded on application.
- ☑ Recommendation & initial, recorded on application.
- ☐ Yes ☑ No Measuring device required.
- ☑ Yes ☐ No Access port required.
- ☐ Yes ☑ No Will water be delivered by watermaster? If yes, what district? _____
- 9-18-1980. Date of priority recommended. ✓
- Special conditions of approval or cover letter. _____

Code 04.

By: Ernest Carlsen. Date: 11-18-1980.

STATE OFFICE REVIEW: return receipt w/cover letters (Cor item 4 & 7

SLW LD3 01C, 04, 06A, 09C

☐ See attached sheet for more information.

By: Robyn Date: 12/2/80

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

A. KENNETH DUNN
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

May 21, 1981

Mr. John A. Tiechert
Supt. Water Division No. 4
State Engineer's Office
Barrett Building
Cheyenne, WY 82002

Dear Mr. Tiechert:

Re: Application for Permit No. 24-7113 -- J. R. Simplot Co.

As a followup to our phone conversation of approximately a week ago, I am forwarding copies of technical information that you requested together with an explanation of the department's conclusion that withdrawal of water from the Wells Formation likely will not adversely affect surface water flows in the Smoky Creek or Crow Creek basins.

Refering to the crossection O'-O" on the map and plate 12 (from USGS Professional Paper 152) and B'-B" and map (from USGS Bulletin 1217), the structure in the Smoky Canyon can be seen. Since neither of the USGS reports deal specifically with groundwater, other sources of data on this subject were examined. One source of information was Gerry Winter, a former University of Idaho graduate student whose thesis research was conducted in the area. Another source was a report by K. A. Sylvester, published by the Idaho Bureau of Mines and Geology. This report dealt with a nearby, but similar area.

One possible reason that recharge on the ridge that forms the Webster Syncline does not reach the Wells Formation is that several units of the Rex Chert (Cpb on plate 12 and Ppr on Bulletin 1217 figure) are very massive and unless highly fractured are likely to be barriers to downward movement of groundwater. This would tend to isolate the flow systems in the overlying Dinwoody Formation from the Wells Formation. Mr. Winter mentioned several springs issuing from the lower part of the Dinwoody Formation (including a 22 gpm flow in Smoky Canyon) which overlies the Rex Chert, as evidence that the groundwater flow systems in the upper rock units are separated from the Wells Formation.

Since Smoky Creek contacts the Wells Formation as it flows eastward, it might be a source of recharge to or discharge from the Wells Formation. Mr. Winter said, however, that he measured no gain or loss in Smoky Creek as it crossed

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the Phosphoria Formation (and the Rex Chert). Since the department has not yet had the opportunity to read Mr. Winter's thesis, all of the information pertaining to it was obtained from Mr. Winter in a telephone conversation.

Although there probably is not enough information on the groundwater flow systems in the area to show conclusively that withdrawal of water from the Wells Formation will not reduce flows in Smoky Canyon Creek, there is considerable evidence that the Wells Formation is not highly connected with Smoky Creek, but probably part of a deeper, more regional groundwater flow system. If the well(s) were constructed so as to case out the groundwater above the Rex Chert, the effects of withdrawal would be confined to the Wells Formation.

References

Mansfield, G. R., 1927, The Geography, Geology, and Mineral Resources of Southeastern Idaho; USGS Prof. Paper 152.

Montgomery, K. M., Cheney, T. M., 1967, Geology of Stewart Flat Quadrangle, Caribou County, Idaho; USGS Bulletin 1217.

Sylvester, K. A., 1975, A Preliminary Evaluation of Ground Water in Upper Dry Valley and Little Long Valley, Caribou County, Idaho; Idaho Bureau of Mines and Geology Pamphlet 159.

Winter, Gerry, 1981, Personal communication.

Based on the department's review of technical data relative to the area, the department will issue Application for Permit No. 24-7113 with the condition that the applicant will be required to conduct a pump test if the director determines there is a reasonable necessity for the test.

I trust the transmittal of this information will provide the necessary technical data to support the department's action in this matter.

Sincerely,

L. Glen Saxton

L. GLEN SAXTON
Chief, Operations Bureau

Enclosures

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WTO
5/12/81

REFERING TO THE CROSSECTION O'–O" ON THE MAP AND PLATE 12 (FROM USGS PROFESSIONAL PAPER 152) AND B'–B" AND MAP (FROM USGS BULLETIN 1217), THE STRUCTURE IN THE SMOKY CANYON CAN BE SEEN. SINCE NEITHER OF THE USGS REPORTS DEALS SPECIFICALLY WITH GROUNDWATER, OTHER SOURCES OF DATA ON THIS SUBJECT WERE EXAMINED. ONE SOURCE OF INFORMATION WAS GERRY WINTER, A FORMER UNIV. OF IDAHO GRADUATE STUDENT WHOSE THESIS RESEARCH WAS CONDUCTED IN THE AREA. ANOTHER SOURCE WAS A REPORT BY K.A. SYLVESTER, PUBLISHED BY THE IDAHO BUREAU OF MINES AND GEOLOGY. THIS REPORT DEALT WITH A NEARBY, BUT SIMILAR, AREA.

ONE POSSIBLE REASON THAT RECHARGE ON THE RIDGE THAT FORMS THE WEBSTER SYNCLINE DOES NOT REACH THE WELLS FORMATION IS THAT SEVERAL UNITS OF THE REX CHERT (C_{pb} ON PLATE 12 AND P_{PR} ON BULL. 1217 FIGURE) ARE VERY MASSIVE, AND UNLESS HIGHLY FRACTURED ARE LIKELY TO BE BARRIERS TO DOWNWARD MOVEMENT OF GROUND WATER. THIS WOULD TEND TO ISOLATE THE FLOW SYSTEMS IN THE OVERLYING 'DINWOODY FORMATION' FROM THE WELLS FM. MR. WINTER MENTIONED SEVERAL SPRINGS ISSUING FROM THE LOWER PART OF THE DINWOODY FM (INCLUDING A 22 GPM FLOW IN SMOKY CANYON) WHICH OVERLIES THE REX CHERT, AS EVIDENCE THAT THE GROUND WATER FLOW SYSTEMS IN THE UPPER ROCK UNITS ARE SEPARATED FROM THE WELLS FM.

SINCE SMOKY CREEK CONTACTS THE WELLS FM AS IT FLOWS EASTWARD, IT MIGHT BE A SOURCE OF RECHARGE TO OR DISCHARGE FROM THE WELLS FM. MR. WINTER SAID, HOWEVER, THAT

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HE MEASURED NO GAIN OR LOSS IN SMOKY CR. AS IT CROSSED THE WELLS FM. HIS MEASUREMENTS DID SHOW SMOKY CR. GAINING FLOW FROM GROUNDWATER FROM ITS SOURCE DOWN TO WHERE IT CROSSED THE PHOSPHORIA FM. (AND THE REX CHERT). SINCE ~~I~~ the Dept has not ~~HAVENT~~ YET HAD THE OPPORTUNITY TO READ MR. WINTER'S THESIS, ALL OF THE INFORMATION PERTAINING TO IT WAS OBTAINED FROM MR. WINTER IN A TELEPHONE CONVERSATION.

ALTHOUGH THERE PROBABLY IS NOT ENOUGH INFORMATION ON THE GROUNDWATER FLOW SYSTEMS IN THE AREA TO SHOW CONCLUSIVELY THAT WITHDRAWAL OF WATER FROM THE WELLS FORMATION WILL NOT REDUCE FLOWS IN SMOKY CANYON CREEK, THERE IS CONSIDERABLE EVIDENCE THAT THE WELLS FM IS NOT HIGHLY CONNECTED WITH SMOKY CREEK, BUT PROBABLY PART OF A DEEPER, MORE REGIONAL GROUNDWATER FLOW SYSTEM. IF THE WELL(S) WERE CONSTRUCTED SO AS TO CASE OUT THE GROUND WATER ABOVE THE REX CHERT, THE EFFECTS OF WITHDRAWAL WOULD BE CONFINED TO THE WELLS FORMATION.

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References

Mansfield, G.R., 1927, The geography, geology, and mineral resources of southeastern Idaho: USGS Prof. Paper 152.

Montgomery, K.M., Cheney, T.M., 1967, Geology of Stewart Flat quadrangle, Caribou County, Idaho: USGS Bulletin 1217.

Sylvester, K.A., 1975, A preliminary evaluation of ground water in Upper Dry Valley and Little Long Valley, Caribou County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 159.

Winter, Gerry, 1981, Personal communication.

(See next page)

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INTER-DEPARTMENT MEMO — 1

DATE

FROM Glen S

TO File 24-7113

SUBJECT At the Bear River meeting in Salt Lake on April 20, the Director discussed this application w/ John Teichert.

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SIGNATURE

THE STATE OF WYOMING

RECEIVED

APR 8 1981

ED HERSCHLER
GOVERNOR

Department of Water Resources

Board of Control

BARRETT BUILDING

April ~~June~~ 3, 1981

CHEYENNE, WYOMING 82002

Cokeville, Wyoming
(307) 279-3441

Mr. L Glen Saxton
Chief, Operations Bureau
Dept. Water Resources
State Office, 450 W State St.
Boise, Idaho 83720

Dear Mr. Saxton:

Re: Simplot well application

In answer to your letter of March 12, 1981, it was hoped that a meeting might be held in conjunction with the Bear River Commission Meeting in Salt Lake on, I believe April 27th. Both George Christopulos and myself should be present at that time. It is my understanding that Steve Allred has resigned, so don't know who all might represent Idaho, but if it can be arranged perhaps we could have an informal discussion of Simplots preposal and possible effects, at that time.

I shoud mention that some of the concern that has been expressed to me has come from Idaho users on Stump and Crow Creek. While there may be no reason for Allarm, the fact that the area is faulted and broken up makes it more difficult to predict where the water might originate or where it might be discharged from a formation. We do have obligations to our present water users.

As far as I know there arent much for records on either the Stump or Crow Creek drainages, perhaps a request should be made to the U.S.G.S. by the two states to gather some information and if possible to monitor the wells and effects if any.

If such a meeting can be arranged please let me know. We would be happy to have prepres_entatives from Simplot alsopresent.

Sincerely

John A. Teichert

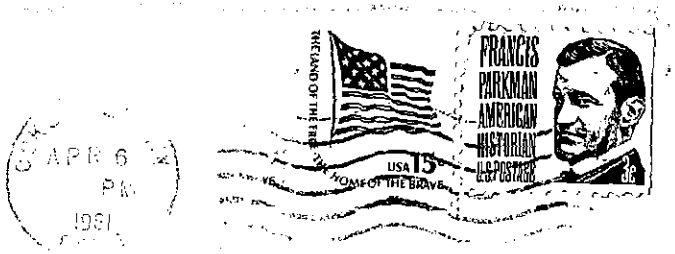
John A. Teichert, Supt
Water Div. # 4

cc. George Christopulos

MICROFILMED

JOHN A. TEICHERT
SUPT., WATER DIV. NO. 4
P. O. BOX 347
COKEVILLE, WYOMING 83114





Mr. Glen Saxton
Chief, Operations Bur.
Dept. Water Resources
State Office, 450 W State St.
Boise, Idaho 83720

MICROFILMED

March 12, 1981

John A. Teichert
Supt. Water Division No. 4
State Engineer's Office
Barrett Building
Cheyenne, WY 82002

Dear Mr. Teichert:

Re: Application for Permit No. 24-7113 -- J. R. Simplot Company

Since my correspondence with you on December 23, 1980, I have contacted the applicant relative to concerns you have expressed in your past correspondence. The applicant has corresponded with me further describing the proposed operation. Based on the applicant's letter of February 10, 1981, I have asked our Hydrology Section to look into the matter of potential well interference with surface water flows.

Information from several sources was examined to determine the impact of the proposed wells on surface water and groundwater in the Smoky and Crow Creek basins.

Mr. Gerry Winter, a former University of Idaho graduate student now employed as a consulting geologist, was contacted. His thesis research dealt with the groundwater flow systems in the immediate vicinity of the proposed well(s). Mr. Winter's feeling was that the Wells Formation, the target aquifer, was discharging to the deeper, regional flow system and was not connected with surface streams in the area. He cited evidence that the Phosphoria Formation, which overlies the Wells Formation, has several impermeable layers in it that prevent downward movement of groundwater from overlaying strata. There are numerous springs along the contact of the overlying Dinwoody Formation and the Phosphoria Formation. These springs discharge to surface streams.

Mr. Winter measured groundwater gain to Smoky Creek, Sage Creek and other streams as they flow eastward toward the Salt River and found that the streams were effluent (gaining flow from groundwater) until they reached the exposed Wells Formation, at which point they showed no gain, or a slight loss. Geologic maps and cross sections of the area are found in two references:

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Geography, Geology and Mineral Resources of Southeastern Idaho. U.S.G.S. Prof. Paper 152.

Geology of the Stewart Flat Quadrangle Southeastern Idaho. U.S.G.S. Bull. 1217.

The geologic cross sections in bothereferences show very extensive outcrops of the Wells Formation on the west side of the physiographic divide, and very limited exposures of the Wells Formation east of the divide. Contact of the Wells Formation with other units to the east is limited by faulting. Although it is impossible to say with absolute certainty that withdrawal of water from the Wells Formation will not affect surface streams, it appears that the impermeable members of the Phosphoria Formation separate the upper groundwater flow systems from those of the Wells Formation. Faulting likely limits the eastward flow, if any, in the Wells Formation. Pumping of water from the Wells Formation might affect streamflows of Diamond Creek in the Blackfoot River basin simply because more extensive outcrops of the Wells Formation occur in the Diamond Creek basin.

I also asked the Department's attorney to review Article IV of the Snake River Compact. The conclusion reached by our attorney was that unless clear evidence exists to show that the wells would interfere with the water of a surface tributary of the Salt River, the compact provision does not apply.

I will appreciate your evaluation of the evidence available and a re-evaluation of your position in this matter.

Please contact me with questions you may have.

Sincerely,

L. GLEN SAXTON
Chief, Operations Bureau

LGS:rf

cc: Bob Kimball of
J. R. Simplot Company

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

C. STEPHEN ALLRED
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

March 10, 1981

MEMO

TO: L. Glen Saxton, Operations Bureau
Dave Tuthill, Water Allocation Section

FROM: Bill Ondrechen & Alan Robertson, Hydrology Section

SUBJECT: APPLICATION FOR PERMIT 24-7113. J.R. SIMPLOT CO. WELLS, SALT RIVER DRAINAGE

Information from several sources was examined to determine the impact of the proposed wells on surface water and groundwater in the Smoky and Crow Creek basins.

Mr. Gerry Winter, a former U. of Idaho graduate student now employed as a consulting geologist, was contacted. His thesis research dealt with the groundwater flow systems in the immediate vicinity of the proposed well(s). Mr. Winter's feeling was that the Wells Formation, the target aquifer, was discharging to the deeper, regional flow system and was not connected with surface streams in the area. He cited evidence that the Phosphoria Formation, which overlies the Wells Fm., has several impermeable layers in it that prevent downward movement of groundwater from overlying strata. There are numerous springs along the contact of the overlying Dinwoody Fm. and the Phosphoria Fm. These springs discharge to surface streams.

Mr. Winter measured groundwater gain to Smoky Creek, Sage Creek and other streams as they flow eastward toward the Salt River and found that the streams were effluent (gaining flow from groundwater) until they reached the exposed Wells Fm., at which point they showed no gain, or a slight loss. Geologic maps and cross sections of the area are found in two references:

Geography, Geology and Mineral Resources of Southeastern Idaho. U.S.G.S. Prof. Paper 152.

Geology of the Stewart Flat Quadrangle Southeastern Idaho. U.S.G.S. Bull. 1217.

MICROFILMED

The geologic cross sections in both references show very extensive outcrops of the Wells Fm. on the west side of the physiographic divide, and very limited exposures of the Wells Fm. east of the divide. Contact of the Wells Fm. with other units to the east is limited by faulting. Although it is impossible to say with absolute certainty that withdrawal of water from the Wells Fm. will not affect surface streams, it appears that the impermeable members of the Phosphoria Fm. separate the upper groundwater flow systems from those of the Wells Fm. Faulting likely limits the eastward flow, if any, in the Wells Fm. Pumping of water from the Wells Fm. might affect streamflows of Diamond Creek in the Blackfoot River basin simply because more extensive outcrops of the Wells Fm. occur in the Diamond Creek basin.

WO:mb

MICROFILMED

MEMORANDUM 2/20/81

TO: GLEN Saxton

FROM: Phil Rassier

I have reviewed article III of the Snake River Compact refered to in John Teichert's letter of 11-21-80. The compact appears at I.C. §42-3401. Mr. Teichert's letter correctly quotes the language of Art. III. The question posed is whether the water to be diverted by the proposed Simplot well is regulated by the compact provision.

The language "no water of any tributary of the Salt River heading in Idaho shall be diverted in Idaho for use outside the drainage area of said tributary except with the approval of Wyoming," clearly has reference to surface waters. Unless clear evidence exists to show the well would interfer with the water of a tributary to the Salt River, the compact provision does not apply. If the states differ in their interpretation of the evidence respecting interference, article VI C. provides a means for resolving the dispute.

J. R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83201
(208) 232-6620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

MINERALS & CHEMICAL DIVISION

RECEIVED
FEB 12 1981
Department of Water Resources

February 10, 1981

L. Glen Saxton
Chief, Operations Bureau
Department of Water Resources
Statehouse
Boise, Idaho 83720

Dear Mr. Saxton:

This letter is in response to your letter of December 23, 1980, transmitting a copy of a letter from the Wyoming State Engineer expressing concern with respect to the test wells proposed to be drilled by the J. R. Simplot Company at Smoky Canyon. We believe that operation of these test wells will not impact springs located in the headwaters of streams that flow from Idaho into Wyoming. This belief is based upon the best data available of the complex ground water flow systems that exist in the Thrust Belt of Idaho.

The test wells proposed in the Smoky Canyon area will not derive water from the Madison Limestone. Rather, the Wells formation is the target aquifer for this development. Once we have completed the hydrologic testing on these wells and piezometers have been installed we feel confident that the data will show that the target groundwater does not recharge any tributory of the Salt River, or, at least, any potential impacts on that system will be negligible.

It is our intent, once these tests are completed, to select one well as the primary source for a 2,000 gpm supply for our slurry pipeline to conduct mine ore from Smoky Canyon to our plant. The water will then be returned to waters of Idaho. The other wells will be used to monitor groundwater hydrology in the future.

We do not believe that the provisions of the Snake River Compact would prevent our development of this new groundwater, expecially if the test data developed by these test wells shows little or no impact upon surface water rights governed by the Snake River Compact, as we feel the data now available would show.

Mr. Teichert also mentioned, in the third paragraph of his letter, that dye should be placed in the well to trace any connection to the interstate drainages. This is not a practical field test. The water from similar flow

systems in the Wells formation has been tentatively age dated in the range of 5,000 to 15,000 years, the time required for water to move from recharge areas to spring discharge points.

Please contact me if you or Mr. Teichert have any questions concerning any of the ground water data presently available on Smoky Canyon. We trust that you will now continue processing our application in the timely and appropriate manner required by Idaho Law.

Sincerely,

R. V. Kimball
Director, Mine Planning

RVK:jb

cc: Blair Jaynes

MICROFILMED

Simplot
MINERALS & CHEMICAL DIVISION
Mining Department
P.O. BOX 912
POCATELLO, IDAHO 83201

POCATELLO IDAHO FEB 10 '81

15

MICROFILMED

Mr. L. Glen Saxton
Chief, Operations Bureau
Department of Water Resources
Statehouse
Boise, Idaho 83720

December 23, 1980

John A. Teichert
Supt. Water Division No. 4
State Engineer's Office
Barrett Building
Cheyenne, WX 82002

Dear Mr. Teichert:

Re: Application for Permit No. 24-7113
J. R. Simplot Company

Your letter of November 21, 1980 has been referred to me for response.

I have enclosed for your information and/or use a copy of the application submitted by the J. R. Simplot Company to the Idaho Department of Water Resources. The application has been advertised pursuant to statutory procedures and no protests have been received. The Department will, however, hold the application pending further research and efforts to satisfactorily resolve the concerns you have raised.

I will correspond with the applicant and advise of your concerns in an effort to determine what information and/or existing studies that may be available on the area in question.

On a related but slightly different matter, Idaho is certainly willing to develop a priority of nights scheduling with Wyoming on Stump Creek and/or Crow Creek if that ultimately is determined to be necessary for the mutual protection of water users in both states.

I will ask the applicant to contact you directly with any information he may have.

If a resolution cannot be worked out short of a meeting with Idaho, Wyoming and the applicant, please advise me and such a meeting will be scheduled.

MICROFILMED

Continued cooperation between our states is certainly desirable to Idaho.

Please contact me if you have additional questions.

Sincerely,

L. GLEN SAXTON
Chief, Operations Bureau

LGS:rf

Enclosure

cc: Eastern Region

December 23, 1980

Bob Kimball
J. R. Simplot Company
P. O. Box 912
Pocatello, ID 83201

Dear Mr. Kimball:

Re: Application for Permit No. 24-7113
(J. R. Simplot Company)

Enclosed is a copy of a letter to the Department from the State Engineer's Office in Wyoming. The letter expresses some concerns relative to your application for diversion of water at your Smoky Canyon Mine in Caribou County, Idaho.

Your company may have some data, or documentation that perhaps could resolve Wyoming's concerns. To that end, I have corresponded with Wyoming and have advised that you will likely contact them.

If satisfactory resolution cannot be accomplished, a meeting will ultimately be scheduled between Idaho, Wyoming and the J. R. Simplot Company to further discuss the matter.

The Idaho Department of Water Resources will hold the application, without approval until the concerns raised have been addressed and/or resolved.

Please feel free to contact me if you have questions.

Sincerely,

L. GLEN SAXTON
Chief, Operations Bureau

LGS:rf

Enclosure

cc: Eastern Regional Office

RECEIVED

NOV 25 1980

THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Water Resources

State Engineer's Office

BARRETT BUILDING CHEYENNE, WYOMING 82002

November 21, 1980

C. Stephen Allred
Director, Department of Water Resources
State Office, 450 W. State Street
Boise, Idaho 83720

Dear Steve:

In answer to Mr. Ronald D. Carlson's letter, I still have concern about the location of the Simplot Wells. It would appear that two locations would be in the Stump Creek drainage and one in the Crow Creek drainage. Both of these drainages are of short supply during the irrigation season. Article IV of the Snake River Compact states, "no water of any tributary of the Salt River heading in Idaho shall be diverted in Idaho for use outside the drainage area of said tributary except with the approval of Wyoming."

Mr. Carlson suggests, because of the depth of the wells, they would have little impact on existing water rights in either Idaho or Wyoming. I'm not that sure. There are many springs that arise in the area. I don't know what formations might contribute to these springs, but feel the larger springs would arise in the Madison Formation and I would assume that Simplot is looking to the Madison Formation, but not having geologic maps of the area and because of the complications of the overthrust area, this is hard to know without some further study.

If the wells are drilled, I feel a dye should be placed in the wells and an effort should be made to see if it might be detected in either drainage. Some way we need to know that this proposal can be accomplished without injury. Idaho has never been regulated for the Wyoming water users in this area. Perhaps a priority schedule on Stump Creek and Crow Creek should be worked out between Idaho and Wyoming, then if the wells affect either drainage, Simplot should either buy water from someone in Idaho that would be in priority, or help in building storage in these drainages.

There may be a question as to who should get the credit for the gain on the Bear River drainage. Wyoming may have call for trade offs with proposals of their own, but my main concern, at present, is the effect that these wells will have on the Stump Creek and Crow Creek water rights. The rights have to be protected. This concern has also been expressed by some Idaho users. I feel further study and information is needed before I could

recommend that Wyoming agree to such a proposal.

Sincerely,

John A. Teichert

JOHN A. TEICHERT
Supt. Water Division No. 4

JAT/llw
cc: Wyoming State Engineer
Barrett Building
Cheyenne, Wyoming 82002

Ronald Carlson
1515 Lincoln Road
Idaho Falls, Idaho 83401

October 14, 1980

RE: Application for Permit No. 24-7113 J.R. SIMPOOT COMPANY

Caribou National Forest
District Ranger
P.O. Box 635
Soda Springs, Idaho 83276

Dear Sir:

We are enclosing a copy of an application that may be of interest to your agency. Please review the application and submit any comments you may have to our Department as soon as possible. The last date of protest is November 10, 1980, and we are required to take final action shortly thereafter.

If we may be of further assistance, please feel free to contact us.

Respectfully submitted,

ERNEST CARLSEN
Sr. Resource Analyst

EC:cw:kw

Enclosure

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
EASTERN REGION

John V. Evans
Governor

C. Stephen Allred
Director

1515 Lincoln Road
Idaho Falls, Idaho 83401
(208) 523-7186

October 7, 1980

John A. Teichert
Superintendent, Water Division
Board of Control
Barrett Building
Cheyenne, WY 82002

Dear Mr. Teichert:

On September 26, 1980, we received the enclosed application from the J. R. Simplot Company.

We have reviewed the available data and estimate the water diverted under this right would represent a maximum net depletion from the basin of about 2700 acre feet per year. It appears that this depletion will have little impact on existing water rights in either Wyoming or Idaho. Because of the locations and well depth we anticipate the effect of these depletions to remain in Idaho. Unfortunately, data are very scarce, but those we do have do not provide reason for concern and probably do not justify the cost of a more detailed study.

Sincerely,

RONALD D. CARLSON
Eastern Regional Supervisor

RDC:kw
Enclosure

CONVERSATION MEMORANDUM

DATE 9/29/1980

FILE J. R. Simplot Co.

NAME OF PARTY Bob Kimble

EMPLOYEE Ernest Carlsen

RE: Best well will be reamed to 12" diameter and used to supply water to slurry plan then to slurry pipeline. Pipeline will be approximately 25 miles long extending to ~~Condia~~ Conda. Anticipate production by spring of 1984. Period of use for pipeline year around. 8" diameter steel pipe for slurry pipeline.

E.I.S. will be completed by January 1982.

MICROFILMED

yellow copy

State of Idaho

DEPARTMENT OF WATER RESOURCES

STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

C. STEPHEN ALLRED
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

September 11, 1980

Board of Control
Barrett Building
Cheyenne, Wyoming 82002

Attn: Mr. John A. Teichert
Superintendent, Water Division No. 4

Dear Mr. Teichert:

We are in receipt of your letter dated August 14, 1980 in which you expressed a possible future water conflict in the Crow Creek/Stump Creek area near Soda Springs. Our water rights staff has researched the new water right filings in that area, and has found no filings in the name of Simplot Mining Company or for the purpose of mining within Water Basin 24, which includes both Crow Creek and Stump Creek.

To insure that any new water uses in the area within Idaho are recorded, personnel from our Eastern Regional office will contact the Simplot Mining Company. After they obtain additional information about the mining activities as related to water uses, they will contact your office to discuss any anticipated water supply problems.

Thank you for alerting our office to this potential trouble area.

Sincerely,

C. STEPHEN ALLRED
Director

CSA:DRT:jg

c.c. Eastern Region

RECEIVED

yellow copy

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

C. STEPHEN ALLRED
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

September 11, 1980

RECEIVED
SEP 18 1980
Department of Water Resources
Eastern District Office

Board of Control
Barrett Building
Cheyenne, Wyoming 82002

Attn: Mr. John A. Teichert
Superintendent, Water Division No. 4

Dear Mr. Teichert:

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To insure that any new water uses in the area within Idaho are recorded, personnel from our Eastern Regional office will contact the Simplot Mining Company. After they obtain additional information about the mining activities as related to water uses, they will contact your office to discuss any anticipated water supply problems.

Thank you for alerting our office to this potential trouble area.

Sincerely,

C. STEPHEN ALLRED
Director

CSA:DRT:jg

c.c. Eastern Region

NOTICE OF APPLICATION FOR WATER RIGHT

Notice is hereby given that the following application(s) have been submitted for permit to appropriate the public waters of the State of Idaho:

If issued, the permit(s) will be subject to all prior water rights. Protests against the granting of any permit must be filed with the Director of the Idaho Department of Water Resources, 1515 Lincoln Road, Idaho Falls, Idaho 83401 on or before NOVEMBER 10, 1980.

C. STEPHEN ALLRED

Director

Published 10/23 & 10/30/80.

RECEIVED

24-Z113_

J.R. SIMPLOT COMPANY

P.O. BOX 912, POCATELLO, ID 83201

Source: GROUNDWATER

Date Filed: 09/18/1980

Amount: 4.46 CFS

Diversion Point: SESE Sec 24 T 08S R 45E SWSW Sec 17 T 08S R 46E SESE Sec 36 T 08S R 45E SESE Sec 25 T 08S R 45E, CARIBOU Co.

Use: INDUSTRIAL (4.46 CFS) from 01/01 to 12/31

Place of Use: NESE Sec 25 T 08S R 45E

Diversion Means: WELL, PUMP & PIPELINE.

Microfilmed

INTER-DEPARTMENT MEMO — 1

RECEIVED
SEP 8 1980
Department of Water Resources

FROM Ernest Carlsen EMC

DATE 9/5/80

TO Dave Tuthill

SUBJECT I could not locate a filing for Simplot on the slurry pipeline in question. Furthermore, I questioned Ron and he has no knowledge of the project.

SIGNATURE

THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Board of Control

BARRETT BUILDING

CHEYENNE, WYOMING 82002

RECEIVED
AUG 21 1980
Department of Water Resources

August 14, 1980

C. Stephen Allred, Director
Department of Water Resources
Statehouse
Boise, Idaho 83720

Dear Mr. Allred:

Simplot Mining Company is in the process of opening a new area for the mining of phosphate in Idaho at the head of Crow Creek and Stump Creek. It is my understanding that the ore will be crushed in the area and then conveyed to Soda Springs area by slurry pipe line for processing. I have been told that wells will be drilled in the area to furnish water for the pipe line. I feel that this is of some concern to Wyoming, in as much as it could affect the water users on either Stump Creek or Crow Creek, depending on where the wells may be drilled. Some of the water users in Idaho have also expressed some concern to me.

It would be appreciated if you could fill George and myself in as to Simplot's intentions and any applications that they may have filed. I feel that perhaps we should discuss the situation, and procedures or agreements as to how regulation might be accomplished on the drainages named above if regulation were called for. As far as I know these drainages are not covered under any compact or decree and to my knowledge there has never been any regulation in Idaho either for Wyoming or among the Idaho users. New development could alter the flow and affect the availability of water, so I feel it is important that we address the matter now.

Any information would be appreciated.

Sincerely,

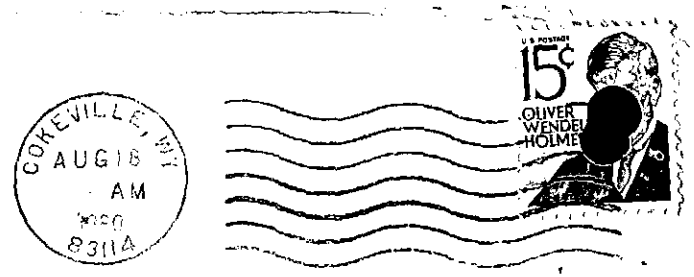
John A. Teichert

John A. Teichert
Supt. Water Division No. 4

cc: George Christopulos
State Engineer
Barrett Building
Cheyenne, WY 82002

RECEIVED
AUG 28 1980
Department of Water Resources
Eastern District Office

JOHN A. TEICHERT
SUPT.. WATER DIV. NO. 4
P. O. BOX 347
COKEVILLE. WYOMING 83114



MICROFILMED

C. Stephen Allred, Director
Department of Water Resources
Statehouse
Boise, ID 83720

3/79

IDENT. NO. 24-7113

IDAHO DEPARTMENT OF WATER RESOURCES

WATER RIGHT DATA ENTRY LOG

Initials	Date	Item
tw	10/9/80	Original form entered
		Edit Report Correct
		Date Protested
		Date of Hearing
		Date Approved/Denied (Proof due date, stage and/or status, conditions of approval, water district)
		Record Verified
		Amendment Approved
		Extension Approved
		Partial Proof
		Proof Complete
		Field Exam Received
		Field Exam Accepted and changes entered
		License Signed
		Transfer Approved
		Keypunched by State Office