

Affidavit of Publication

STATE OF IDAHO, }
COUNTY OF POWER. } ss.

Phyllis Ringe

being first duly sworn

on oath, states:

That ~~she~~ is the ~~principal clerk of the printer~~
of the Power County Press, a newspaper of general circulation
in Power County, Idaho, published weekly at American Falls
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 or advertisement was published as
per clipping attached in the regular and entire edition of said

newspaper and not in any supplement thereof for 4
successive weekly issues thereof, the date of the first publica-

tion being the 24th day of November, 1960.

the date of last publication being the

15th day of December, 1960

(Signed) Phyllis Ringe

Subscribed and sworn to before me this

15 day of December, 1960.

Thos. Parks
Notary Public, residing at American Falls,
Idaho.

My Commission expires the

(SEAL)

22 day of October, 1963.

26602

Published in the Power
County Press Nov. 24, Dec. 1,
8 and 15, 1960.

FOR COMPLETION OF WORK

Notice is hereby given that
at 10 A.M., on the 20th day of
December, 1960, at Boise,
County of Ada, State of Ida-
ho, proof will be submitted of
the completion of works for
the diversion of 160 cubic feet
per second of the waters of
Snake River in accordance
with the terms and conditions
of a certain permit heretofore
issued by the Department of
Reclamation of the State of
Idaho.

1. The name of the person or
corporation holding said per-
mit is The United States of
America, acting through the
Bureau of Reclamation of the
Department of the Interior.

2. The postoffice address of
such person or principal place
of business of such corpora-
tion is P.O. Box 937, Boise,
County of Ada, State of Ida-
ho.

3. The number of such per-
mit is 26602, and the date set
for the completion of such
work is November 13, 1961.

4. Said water is to be used
for irrigation and domestic
purposes.

5. Said works of diversion
will be fully completed on the
date set for such completion,
and the amount of water
which said works are capable
of conducting to the place of
intended use, in accordance
with the plans accompanying
the application for such per-
mit, is 160 cubic feet per sec-
ond.

6. The amount of lands for
which water is available is 11,
798.9 acres, located in the
Michaud Flats Project, Power
County, described as follows:

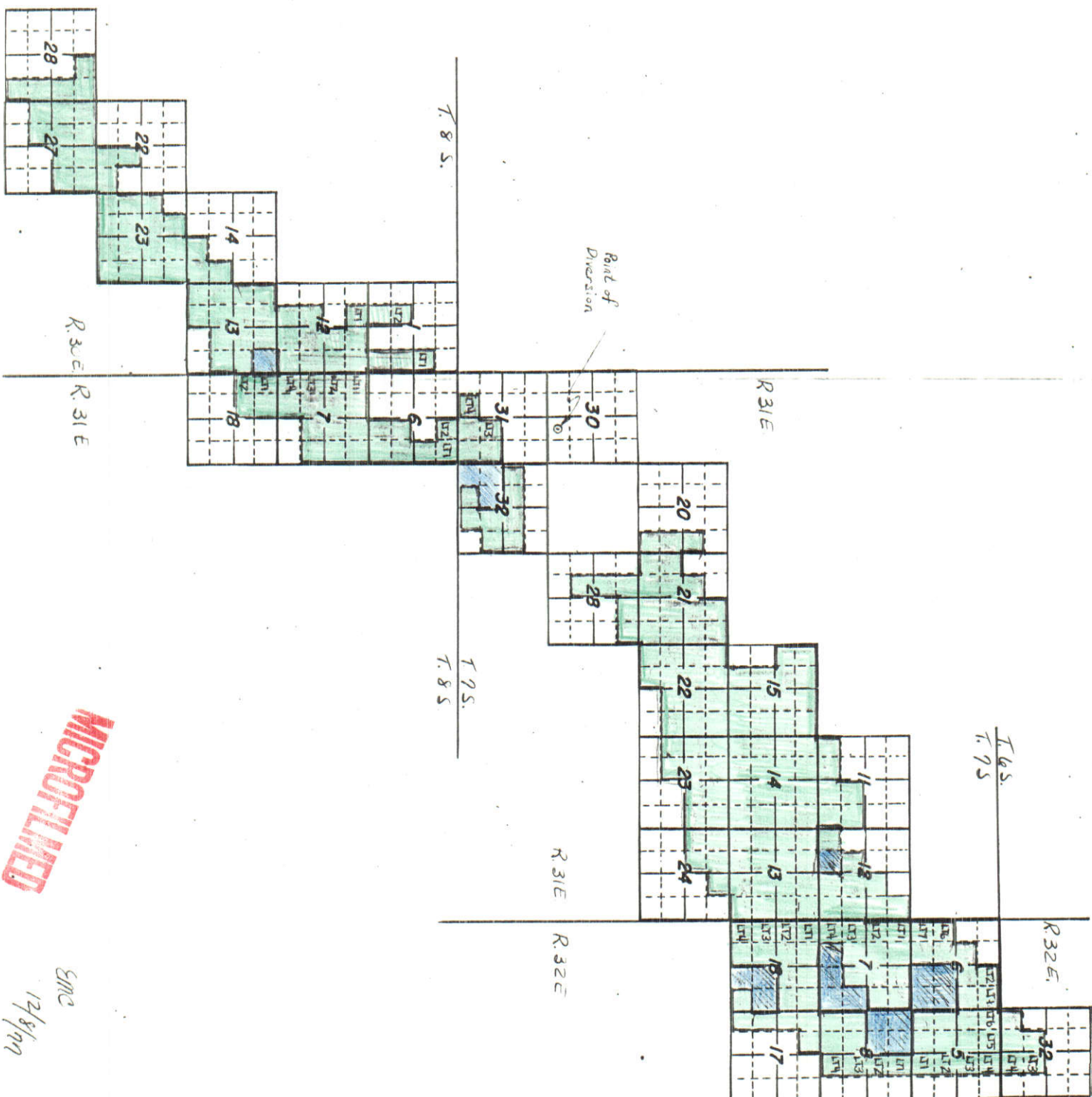
T. 6S., R. 31 E., secs. 35, 36
T. 6S., R. 32 E., secs. 29, 30,
31, 32

T. 7S., R. 31 E., secs. 1, 2, 10,
11, 12, 13, 14, 15, 16, 20,
21, 22, 23, 24, 28, 29, 31, 32
T. 7S., R. 32 E., secs. 6, 7, 8,
17, 18

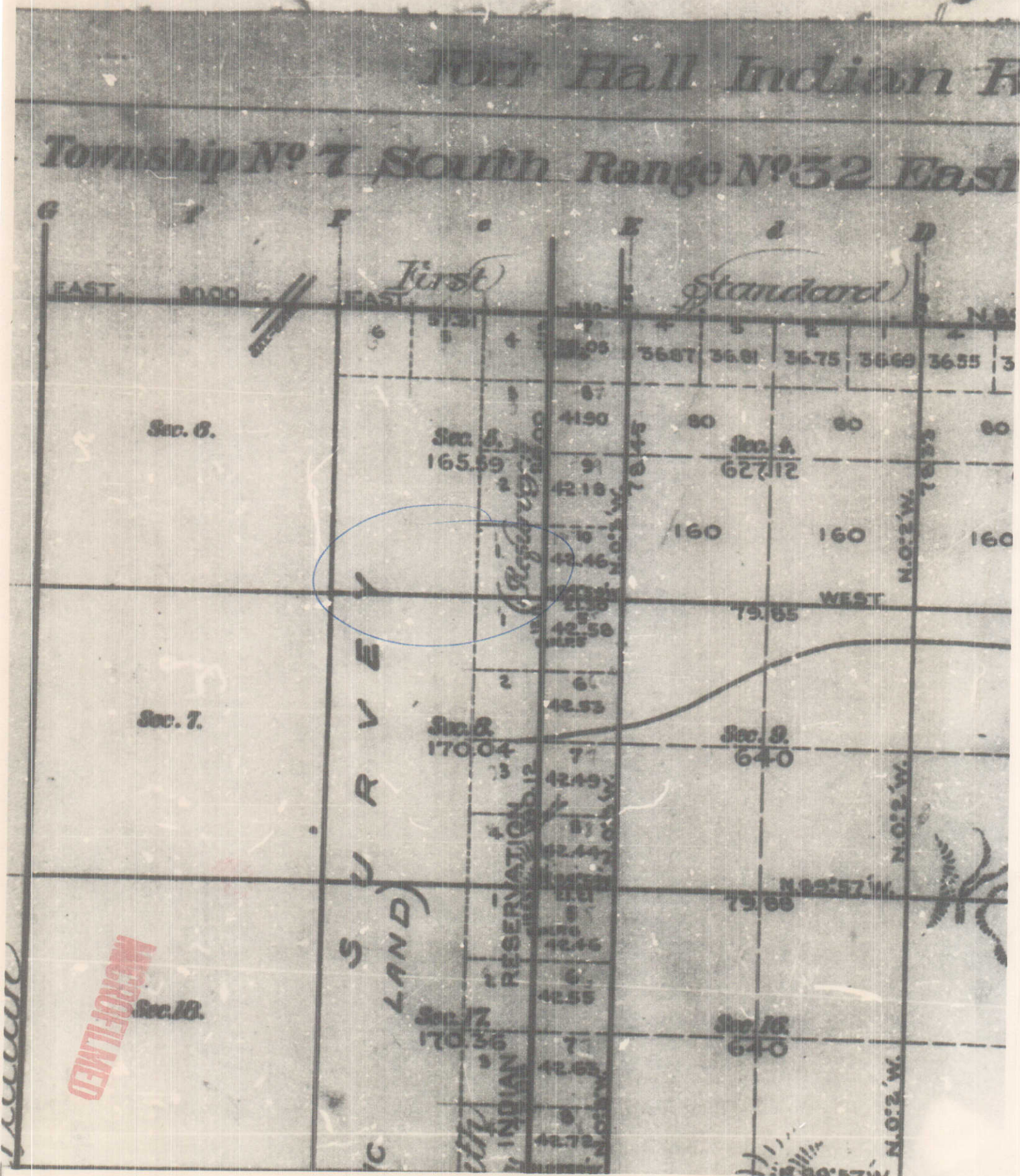
T. 8S., R. 31 E., secs. 5, 6, 7, 18
T. 8S., R. 30 E., secs. 1, 11, 12,
13, 14, 15, 21, 22, 23, 24,
26, 27, 28

GEO. N. CARTER

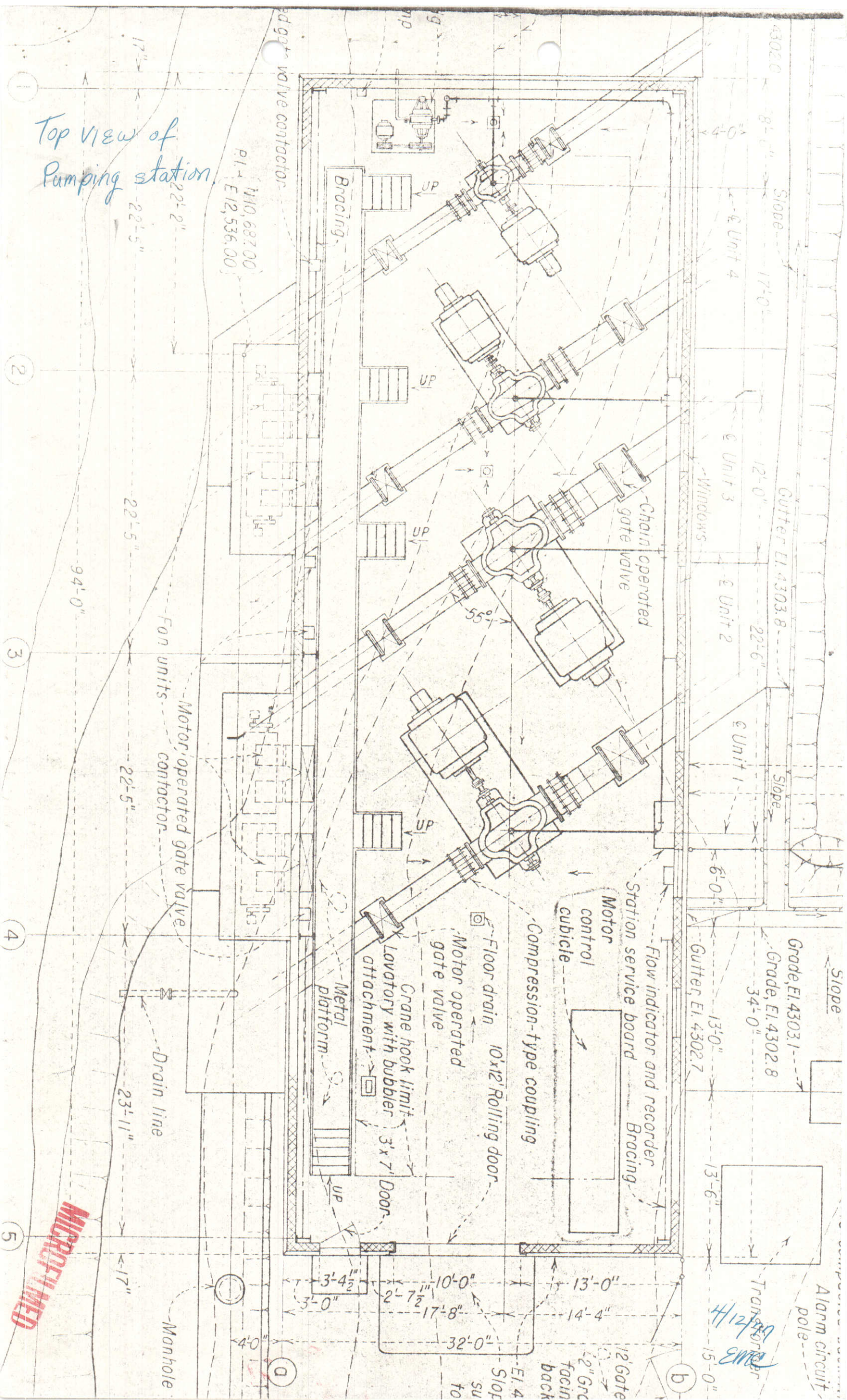
Handed in under Permit # 01-20141



RC $\frac{11/19}{81}$

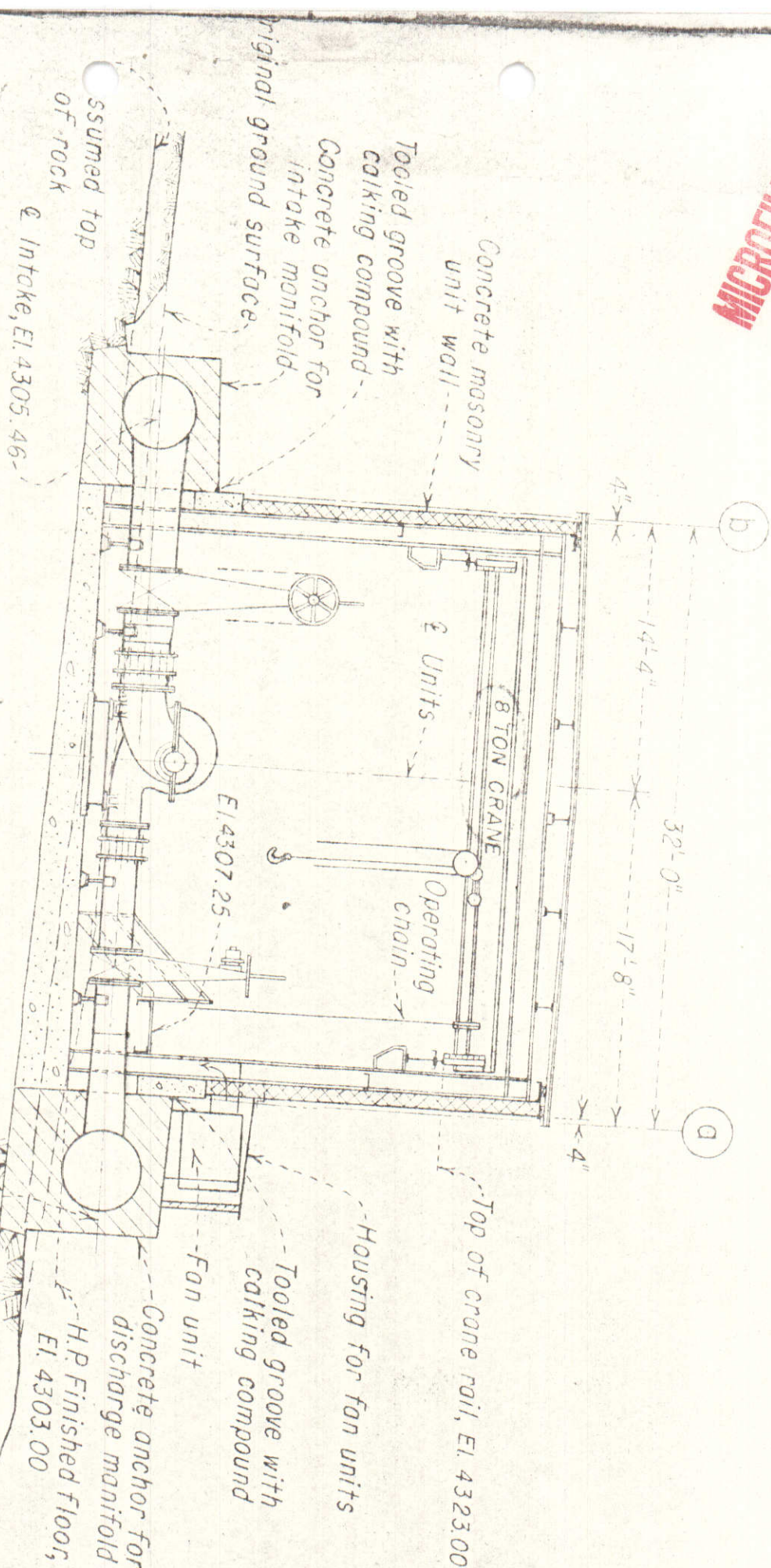


Top View of
Pumping station.



MICROFILMED

SECTION B-B



SECTION A-A

Side view of
Pumping station.

NOTES

For general notes and reference drawings, see 601-0-15.
Slopes of cuts and fills for common materials are 1 1/2:1.
Excavation slopes in rock are 1:1 unless otherwise noted.

4/12/77
EMC

SPARLING

Measuring device in use during
licensing field exam

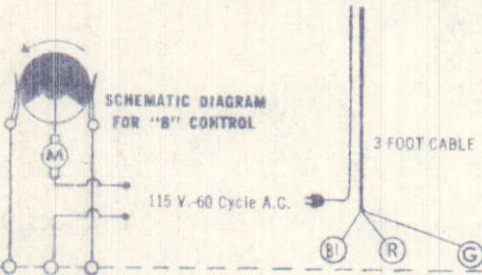
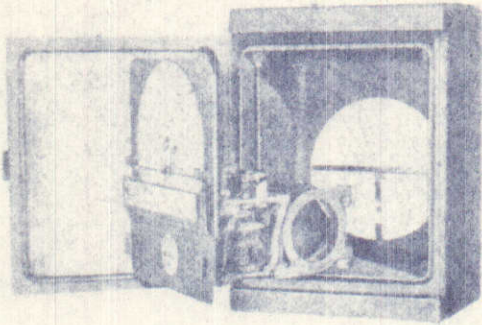
2-31

INDICATOR-TOTALIZER-RECORDER
TYPE-227 WALL MOUNTED

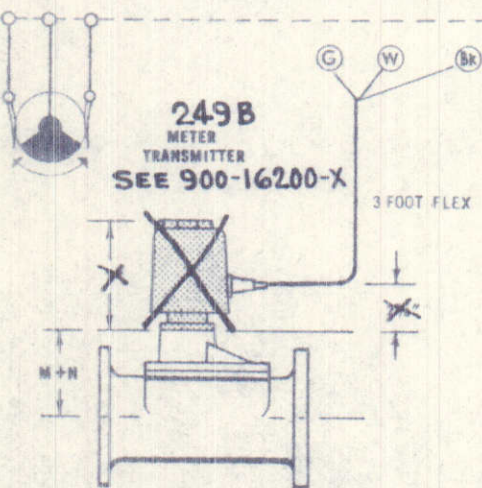
12" CIRCULAR CHART—DIFFERENTIAL GOVERNOR
7 DAY TELECHRON CHART DRIVE

SCALE = 150.0 C.F.S.
REGISTRATION = .10 ACRE FEET

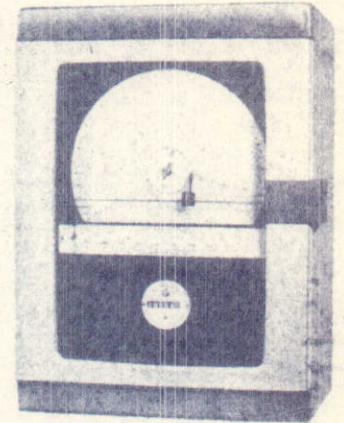
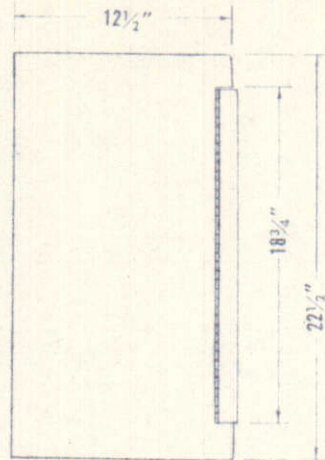
RECEIVED
OCT 28 14 AM '56
MICHAUD FLATS
PROJECT OFFICE



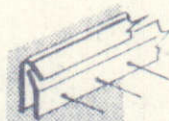
INTERMEDIATE CONNECTIONS
FURNISHED BY CUSTOMER
TO COMPLETE INSTALLATION



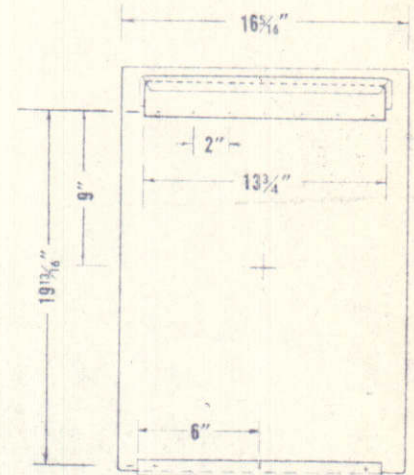
SEE DATA SHEETS FOR INFORMATION COVERING METER SIZES



CASE HANGER



HANGER DETAIL



OPERATED FROM 60" SPARLING MASTERFLO TYPE 906 METER
APPROXIMATE SHIPPING WEIGHT 100 LBS.

Accurate down to 3 per cent of maximum scale. Flow range 33 to 1. Totalization and rate indication available in any standard liquid measure.

Dual coordinating scales with evenly spaced calibration. Upper scale readings available in 10, 15, 20, 30, 40, 50, and 75 maximums with additional ciphers as required.

Mechanism and panel face are supported on an elbow hinge that allows them to be drawn forward through the door opening and turned right or left for easy inspection.

Molded plastic inner case protects mechanism from dust and dampness.

Suitable transmitter for mounting on meter-head furnished with instrument. External wiring and power connections not included. Common three-wire circuit, as shown, is recommended for short connections. Two-wire telephone circuit with rectifier and relay may be used for long distance transmission.

Cabinet finished in two-tone green; or all black if specified.

CF-313 X #425-17104
APRIL 1953 supersedes AUG., 1952
INDICATOR-TOTALIZER-RECORDER, TYPE-227
12" Circular Chart-Differential Governor

INSTRUMENTS



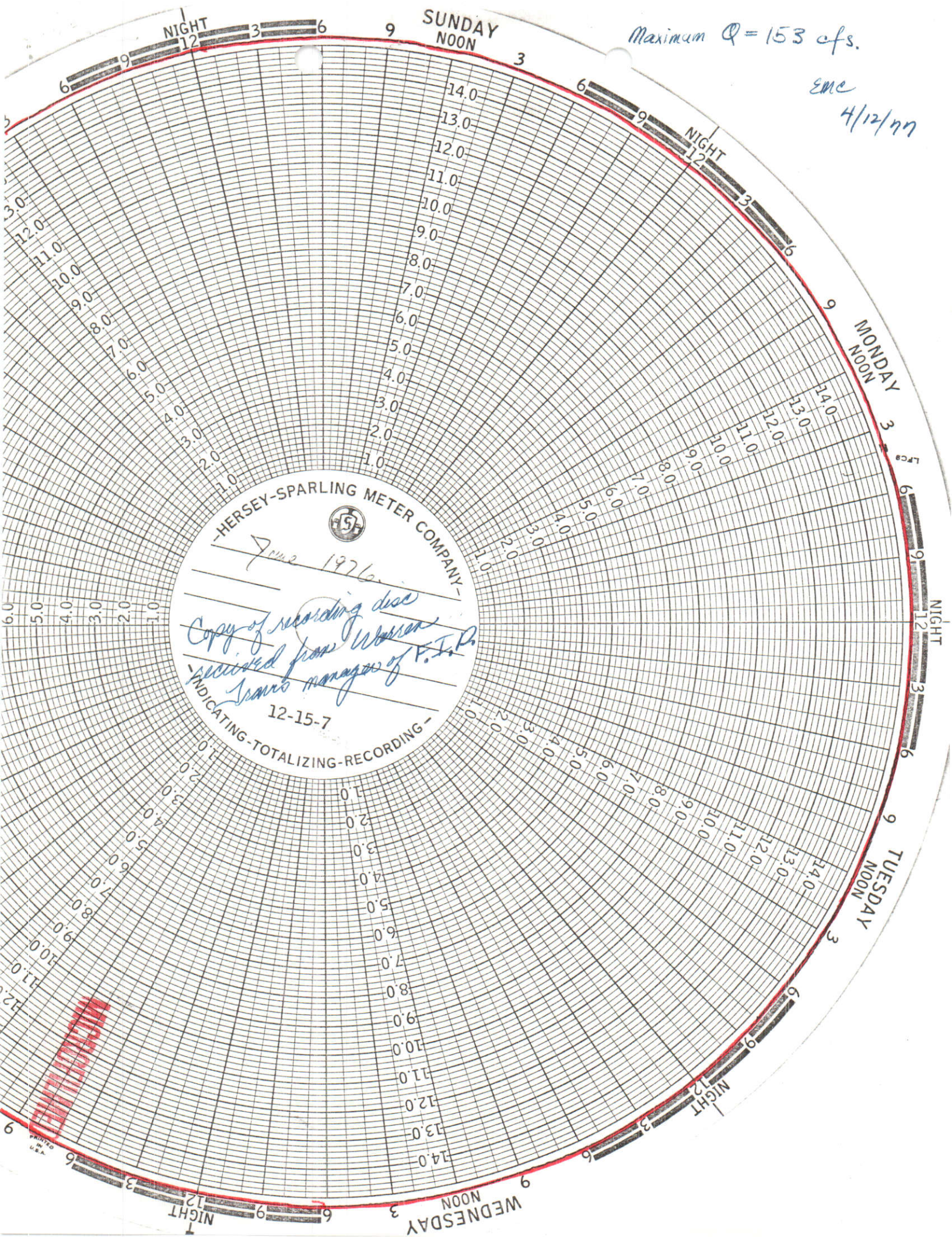
CF-313 X

MICROFILMED

4/12/77
EMC

Maximum Q = 153 cfs.

EMC
4/12/77



HERSEY-SPARLING METER COMPANY

Copy of recording disc
received from Warren
Lewis manager of F.I.R.

12-15-7

INDICATING-TOTALIZING-RECORDING

June 1976



IN REPLY
REFER TO: 424

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

MINIDOKA PROJECT

OFFICE

APR 12 1962

APR 2 1962

Gray OK 4/3
Financ in 4/5
Adum Jan 4/3
FILED

To: Project Superintendent, Burley, Idaho
From: Regional Director, Boise, Idaho
Subject: Permit No. 26602, Michaud Flats Project, Idaho

Enclosed is a copy of a letter dated March 26, 1962 from the State Reclamation Engineer stating that a Certificate of Completion of Works in connection with Permit No. 26602 will be issued upon receipt of the statutory fee of \$50.00.

The statutory fee in this case is calculated as follows:

1st 10 cfs	\$5.00
Next 150 cfs at 30¢	45.00
Total	\$ 50.00

26602

*Engineer's Report made
12-22-60*

December 21, 1960

RE: Permit No. 26602

H.T. Nelson, Regional Director, Region 1
Bureau of Reclamation
P. O. Box 937
Boise, Idaho

Attention: 150

Dear Mr. Nelson:

This acknowledges your letter of December 20 enclosing deposition of holder and two witnesses and affidavit of publication for proof of completion of works on Permit No. 26602, Michaud Flats Project.

The proofs are in acceptable form and will be filed awaiting the statutory requirement of a field examination by a representative of this office.

I am sorry but we cannot handle the Public Voucher for payment of fees in connection with this permit for two reasons:

1. We need to have the remittance for the cost of publication in a separate voucher which should be in amount \$31.05.

2. We cannot accept the fee for the proof until an engineer from this office makes a determination of the capacity of the diversion. It might or might not be the same as the amount of the permit, namely 160 c.f.s. After field examination is made you will be notified of the fee for the proof of completion of works.

The voucher enclosed with your letter is returned herewith.

Sincerely yours,

GEO. N. CARTER
State Reclamation Engineer

GNC:mr
Enc. voucher

26602

PERMIT NO. 26602

RECEIVED
DEC 2 11960

Proof of Completion of Works

DEPOSITION OF HOLDER

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. The United States of America, acting through its Regional Director,
Region 1, Bureau of Reclamation, P. O. Box 937, Boise, Idaho.

Ques. 2. If acting in behalf of a corporation, state its name, principal place of business, your position with reference to same, and your authority for appearing in its behalf.

Ans. The United States of America, Regional Director of Region 1, Bureau of Reclamation.

Ques. 3. State number and date of permit, amount of water you are authorized to divert, source, and point of diversion. Permit No. 26602, November 13, 1958, 160 cfs,

Ans. Snake River, American Falls Dam, approximately 1,600 ft. from southeast corner of Sec. 30, T. 7 S., R. 31 E., B.M., and is in the SE $\frac{1}{4}$ of Sec. 30, T. 7 S., R. 31 E., B.M., County of Power.

Ques. 4. State purpose for which water is to be used, and, if for irrigation, state the number of acres and give description of the land you intend to reclaim.

Ans. Irrigation and domestic uses, 11,798.9 acres, described as follows
(see reverse).

Ques. 5. State whether or not the water has been turned into your works of diversion, and, if so, when and to what extent.

Ans. Yes. First water diversion in 1958 irrigation season. Irrigated lands not fully developed so full capacity has not yet been used.

Ques. 6. State whether or not the works of diversion are fully completed, and whether or not they comply in all respects with the terms of the permit.

Ans. Works of diversion are fully completed and comply with terms of the permit.

Ques. 7. If the works of diversion do not comply with all the terms of your permit, state fully those particulars in which there is any variance.

Ans.

Ques. 8. Give description of works, state dimensions and capacity of each part, and give cost of same. Pumping plant consisting of four electrically driven pumps. 5,600 ft. 60-inch diameter welded steel pipe discharge line. Approximately 22 miles

Ans. open canal. Approximately 4,400 feet 60-inch diameter buried concrete pipe. \$4,587,000.

(Sign here.)

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, in Boise

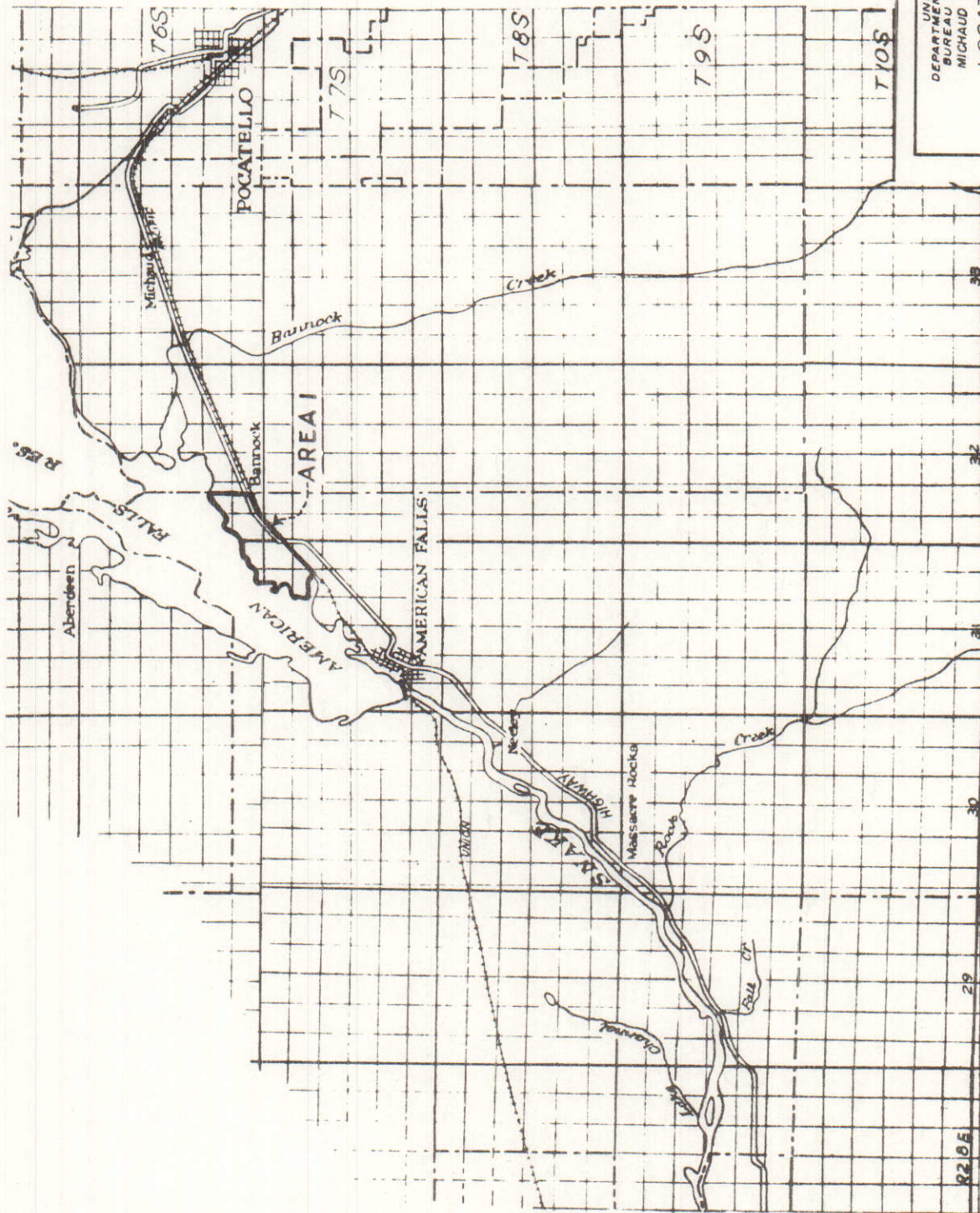
County of Ada, State of Idaho, on this 20th day of December, A. D. 1960.

My Commission expires 6/10/63

Notary Public.

26602

Engineer's Report made given to Mr. Carter

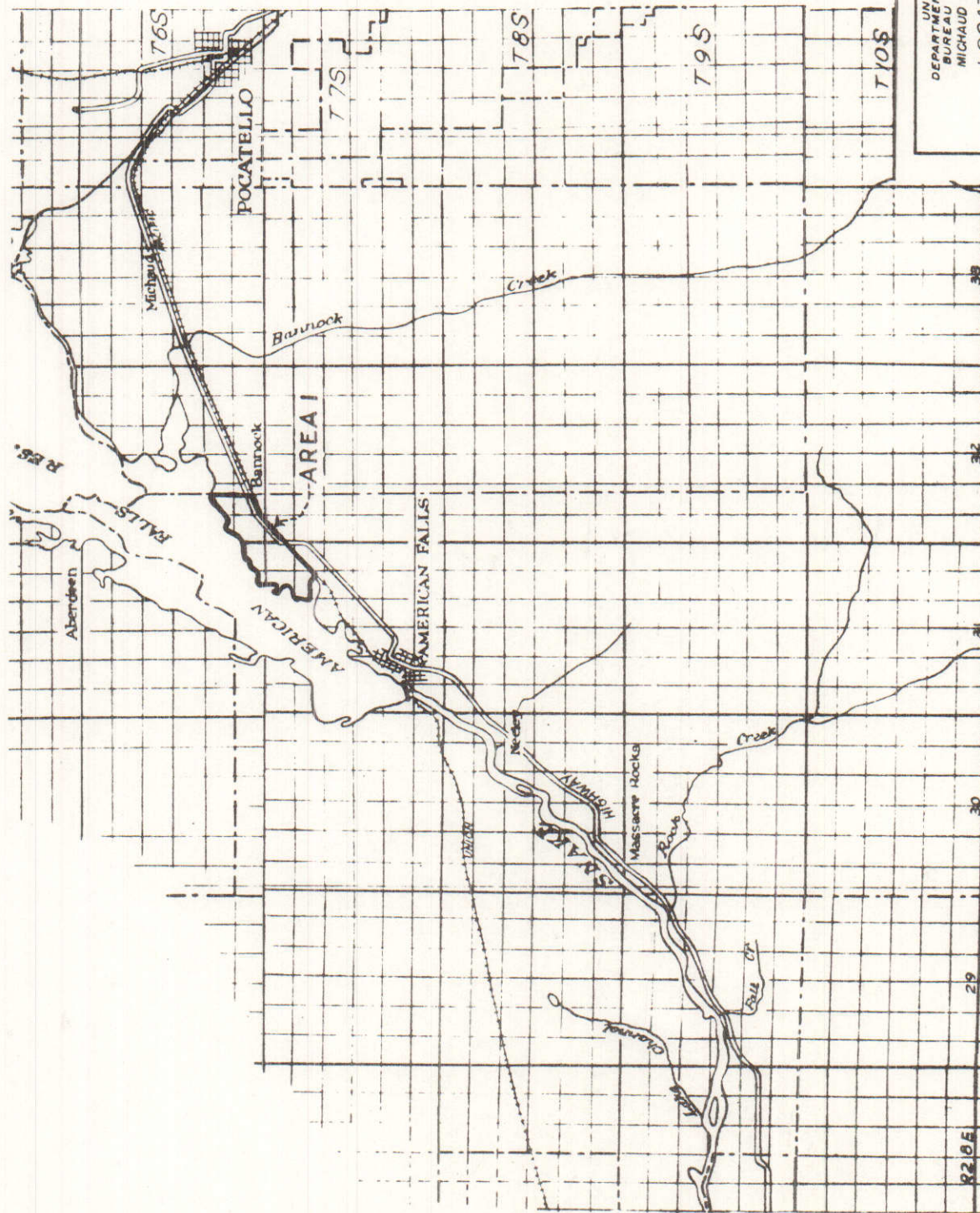


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT -
LOCATION MAP
AREA 1 WELLS

DRAWN: D.E.B. SUBMITTED: *W. H. Bennett*
TRACED: E.L.V. RECOMMENDED: *W. H. Bennett*
CHECKED: *W. H. Bennett* APPROVED: *W. H. Bennett*
AMERICAN FALLS, IDAHO 601-124-40

Sept. 13, 1955

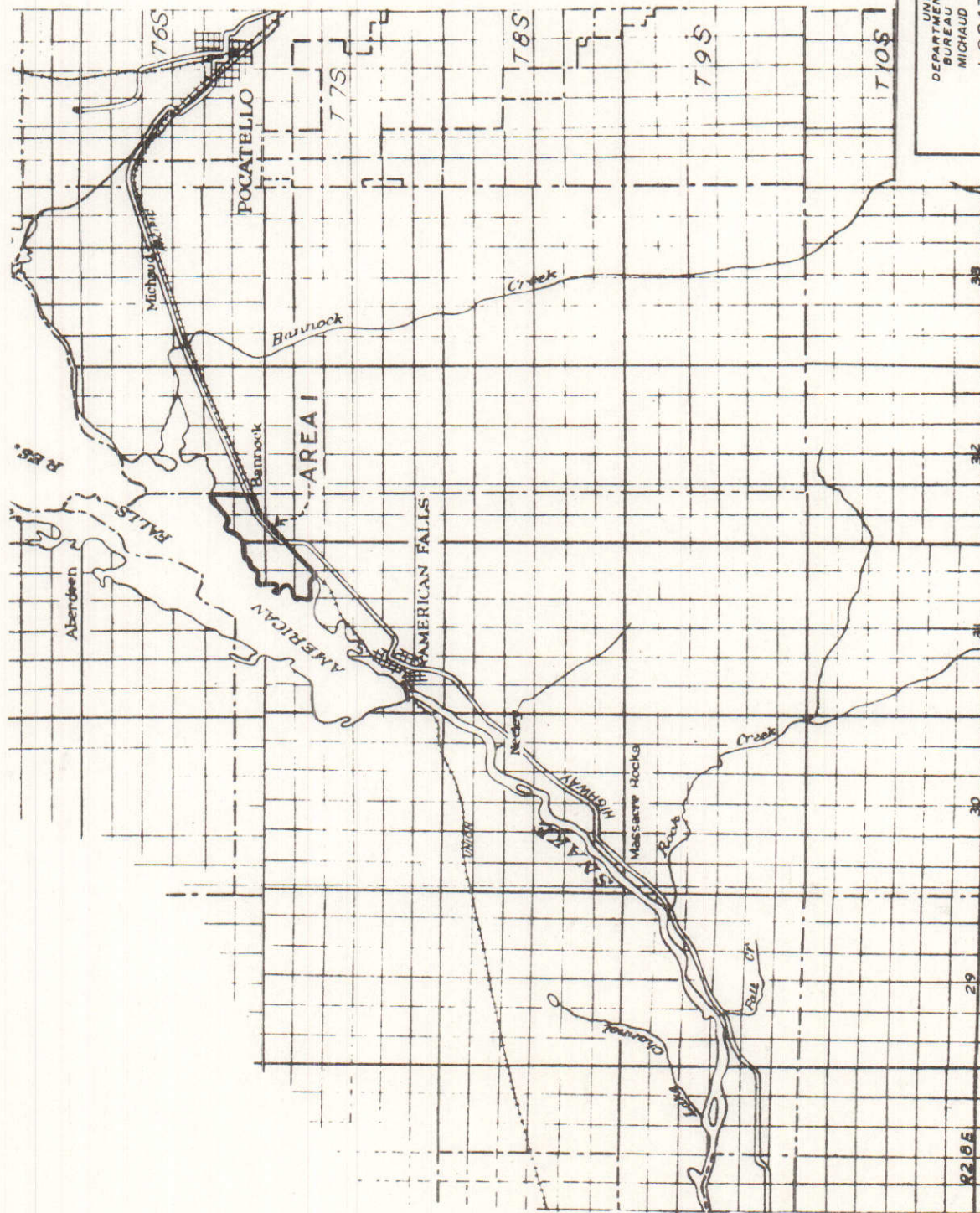
26602



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT -
LOCATION MAP
AREA 1 WELLS

DRAWN D.E.B. SUBMITTED *Wm. H. Bennett*
TRACED E.L.W. RECOMMENDED *Wm. H. Bennett*
CHECKED *Wm. H. Bennett* APPROVED *Wm. H. Bennett*
Acting Eng. Engr.
AMERICAN FALLS, IDAHO 601-124-40

Sept. 13, 1953



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT -
LOCATION MAP
AREA 1 WELLS

DRAWN D.E.B. SUBMITTED *Wm. H. Bennett*
TRACED E.L.W. RECOMMENDED *Wm. H. Bennett*
CHECKED *Wm. H. Bennett* APPROVED *Wm. H. Bennett*
Acting For Engr.
AMERICAN FALLS, IDAHO 601-124-40

Sept. 13, 1955

Affidavit of Publication

RECEIVED
NOV 7 1956
Department of Reclamation

County of Power,
State of Idaho, ss.

Phyllis Ringe

being first duly sworn
on oath, states:

That she is the chief clerk of the Power

County Press, a newspaper of general circulation in Power County, Idaho, published weekly at American Falls 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 or advertisement was published as per clipping attached in the regular and entire edition of

said newspaper and not in any supplement thereof for 3 successive weekly issues thereof, the date of the first publication being the 18th day of October, 1956 the date of last publication being the

1st day of November 1956

(Signed)

Phyllis Ringe

Subscribed and sworn to before me this

6 day of November 1956

Notary Public, residing at American Falls, Idaho.

My Commission expires the

(SEAL) 22 day of October 1959

STATE OF IDAHO DEPARTMENT OF RECLAMATION

Notice of application for permit to appropriate the public waters of the State of Idaho in accordance with the Provisions of section 42-203, Idaho code. NOTICE IS HEREBY GIVEN, That on the 11th day of June 1956, The United States of America, Regional Office 1, Bureau of Reclamation, Boise, Idaho made application No. 34428, to appropriate one hundred sixty (160) cubic feet per second of the water of Snake River, for irrigation and domestic purposes.

That the point of diversion of said waters is described as being located at American Falls Dam about 1600 feet from the SE corner of Section 30, Township 7 South, Range 31 East, B.M. and is in the SE 1/4 of Section 30, Township 7 South, Range 31 East, B.M.

That the point of use of said water is described as being located as follows:

Lands to be irrigated are the arable lands within what is called the Michaud Flats Project, Power County, described as follows:

T. 6 S., R. 31 E., Sec. 35-36;

T. 6 S., R. 32 E., Sec. 29, 30-31-32;

T. 7 S., R. 31 E., Sec. 1-2-10

11-12-13-14-15-16-20-21-22-

23-24-28-29-31-32;

T. 7 S., R. 32 E., Sec. 6-7-8

17-18;

T. 8 S., R. 30 E., Sec. 5-6-

7-18;

T. 8 S., R. 30 E., Sec. 1-11-12

13-14-15-21-22-23-24-26-27-28.

That any protest against the approval of this application must be filed in the Department of Reclamation, at Boise, Idaho, within forty (40) days from the date of this notice, and such protest shall state the name and address of the protestant, and shall clearly set forth his objections to the approval of said application.

I filed this 10th day of September, 1956.

MARK R. KULP

State Reclamation Engineer

Date of first publication October 18, 1956.

Date of last publication November

ber 1, 1956.

Last date for protest November 20, 1956.

SERVICE OF THE FOREGOING, By copy, is hereby acknowledged, this 12th day of October, 1956.

The United States of America
Bureau of Reclamation

By Wm. H. Tuller

Its Acting Regional Director

26602

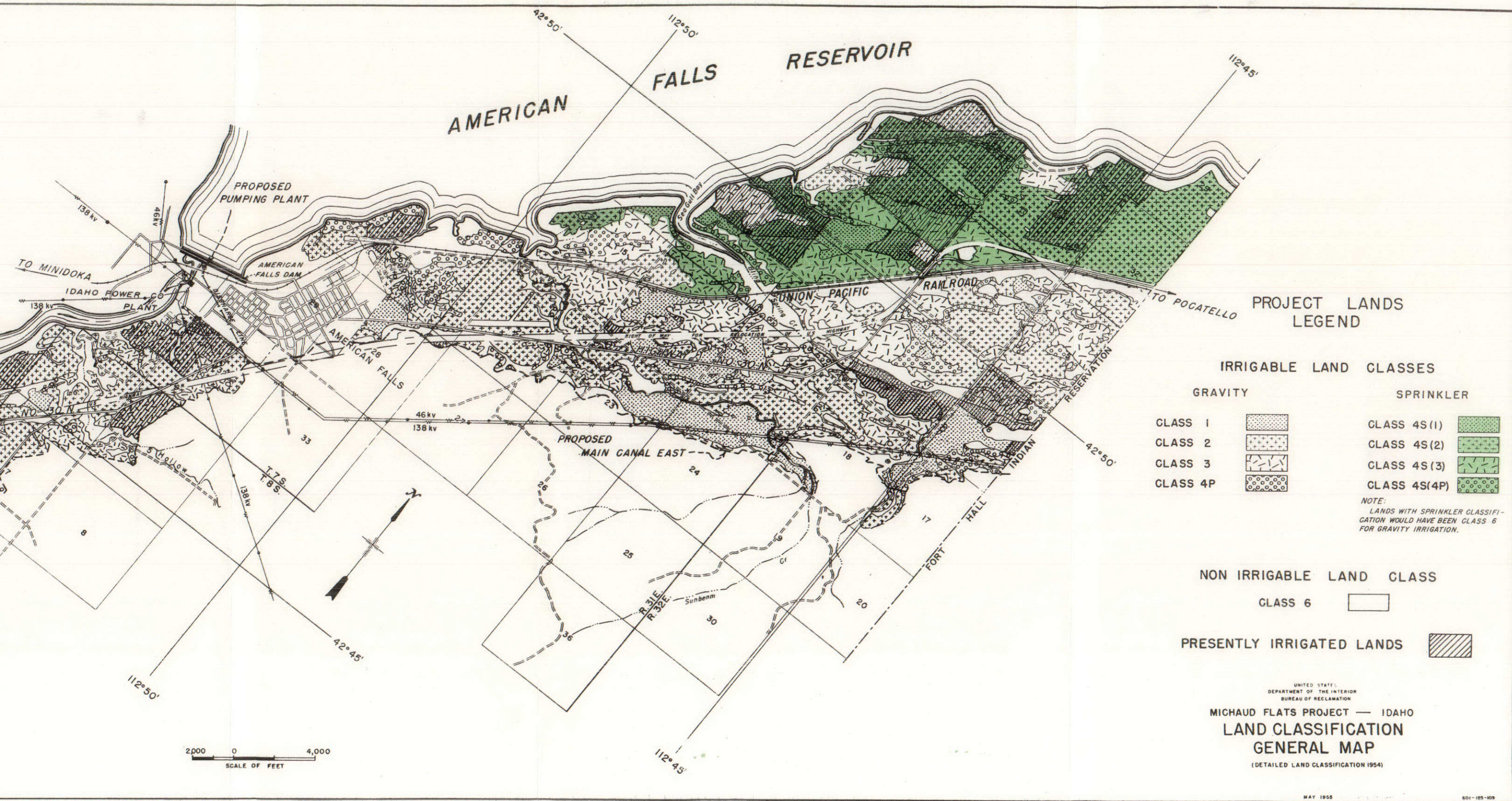
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

MICHAUD FLATS PROJECT, IDAHO

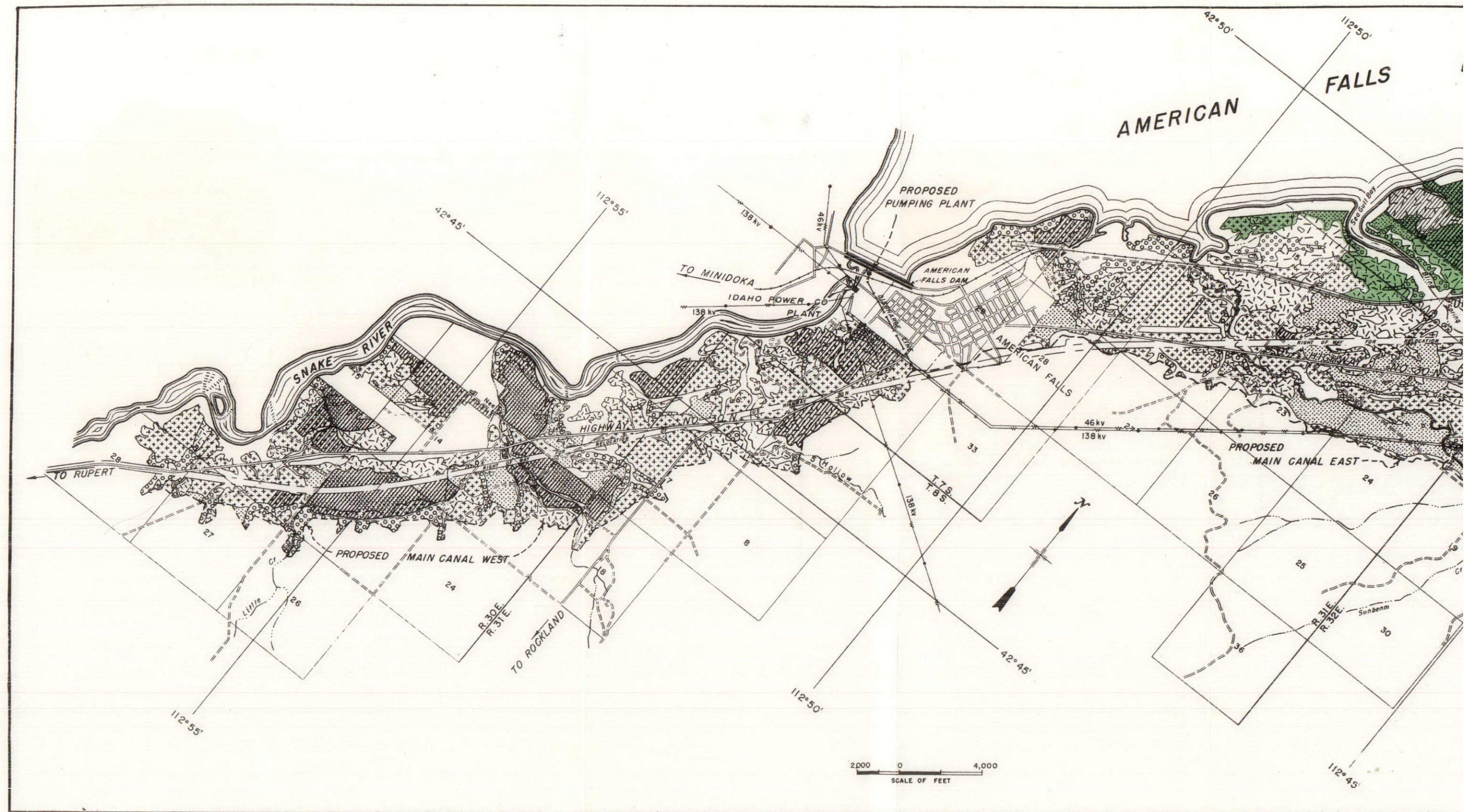
DETAILED LAND CLASSIFICATION REPORT

Boise, Idaho
September 1955

26602



26602

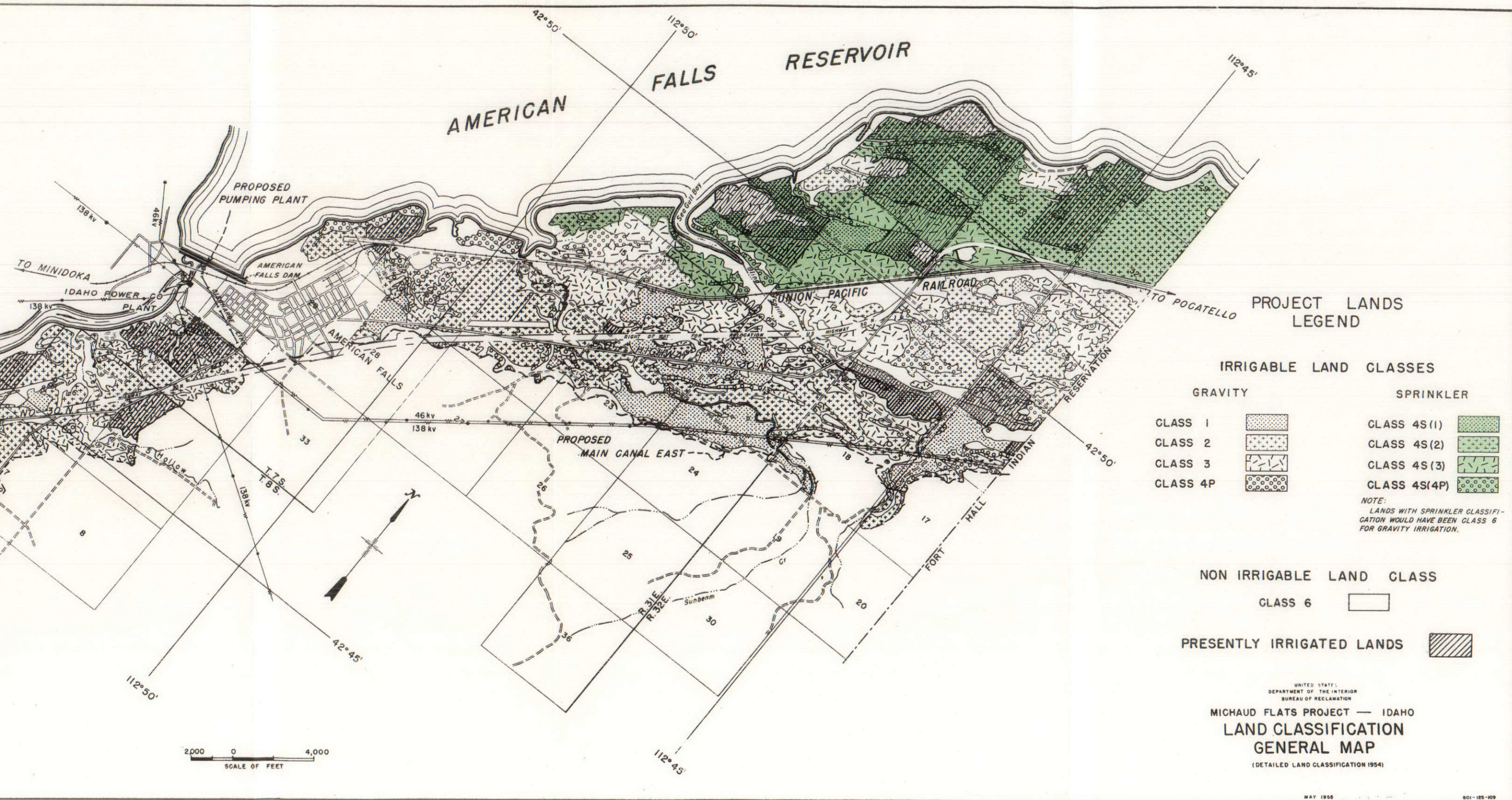


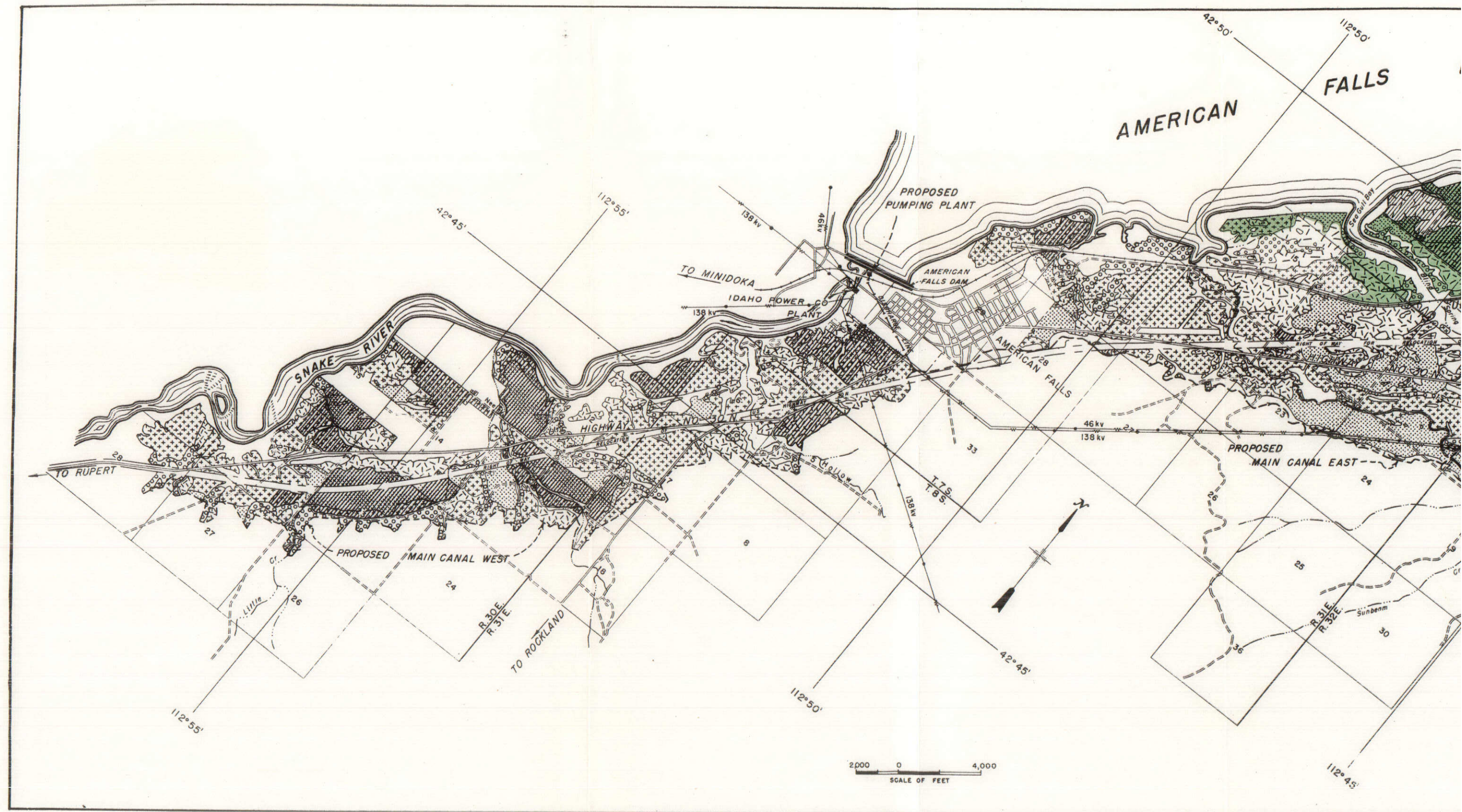
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

MICHAUD FLATS PROJECT, IDAHO

DETAILED LAND CLASSIFICATION REPORT

Boise, Idaho
September 1955





WATER RIGHT LICENSE

THIS IS TO CERTIFY, that United States of America acting through the Bureau of
Reclamation
of Boise, Idaho, has complied with the terms and conditions of Permit
No. 01-2061 issued pursuant to Application for Permit dated June 11, 1956,
and has submitted proof to the Department of Water Resources on September 30, 1971,
that he has applied water to a beneficial use; an examination by the Department indicates that the works have a
capacity for the diversion of 153.0 cfs of water from Snake River,
tributary to Columbia River, and that the permit holder has applied to a beneficial use and
established a right to use water as follows:

Director

Affidavit of Publication

STATE OF IDAHO, }
COUNTY OF POWER. } ss.

Phyllis Ringe

being first duly sworn
on oath, states:

That ~~she~~ is the ~~principal clerk of the printer~~
of the Power County Press, a newspaper of general circulation
in Power County, Idaho, published weekly at American Falls
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 or advertisement was published as
per clipping attached in the regular and entire edition of said

newspaper and not in any supplement thereof for ⁴
successive weekly issues thereof, the date of the first publica-

tion being the 24th day of November, 1960

the date of last publication being the

15th day of December, 1960

(Signed) Phyllis Ringe

Subscribed and sworn to before me this

15 day of December, 1960

T. Sparks
Notary Public, residing at American Falls,
Idaho.

My Commission expires the

(SEAL) 22 day of October, 1963

26602

8 and 10, 1960.

FOR COMPLETION OF WORK

Notice is hereby given that
at 10 A.M., on the 20th day of
December, 1960, at Boise,
County of Ada, State of Ida-
ho, proof will be submitted of
the completion of works for
the diversion of 160 cubic feet
per second of the waters of
Snake River in accordance
with the terms and conditions
of a certain permit heretofore
issued by the Department of
Reclamation of the State of
Idaho.

1. The name of the person or
corporation holding said per-
mit is The United States of
America, acting through the
Bureau of Reclamation of the
Department of the Interior.

2. The postoffice address of
such person or principal place
of business of such corpora-
tion is P.O. Box 937, Boise,
County of Ada, State of Ida-
ho.

3. The number of such per-
mit is 26602, and the date set
for the completion of such
work is November 13, 1961.

4. Said water is to be used
for irrigation and domestic
purposes.

5. Said works of diversion
will be fully completed on the
date set for such completion,
and the amount of water
which said works are capable
of conducting to the place of
intended use, in accordance
with the plans accompanying
the application for such per-
mit is 160 cubic feet per sec-

The amount of lands to
which water is available is 1
9 acres, located in the
Grand State Project, Power
County, described as follows:
SS., R. 31 E., secs. 35, 36,
38., R. 32 E., secs. 29,
31, 32

78., R. 31 E., secs. 1, 2,
11, 12, 13, 14, 15, 16,
21, 22, 23, 24, 28, 29, 31,
78., R. 32 E., secs. 6, 7,
17, 18

SS., R. 31 E., secs. 5, 6, 7,
SS., R. 30 E., secs. 1, 11,
13, 14, 15, 21, 22, 23, 24,
26, 27, 28

GEO. N. CARTER

BEFORE THE STATE RECLAMATION ENGINEER

OF THE

STATE OF IDAHO

IN THE MATTER OF PERMIT NO. 26602)

in the name of The United States of America)

Box 937, Boise, Idaho)

ORDER MODIFYING REQUIREMENTS
FOR COMPLETION OF PERMIT TO
APPROPRIATE WATER

WHEREAS, the 39th Idaho Legislature made certain amendments to the Idaho Water Law; and,

WHEREAS, these changes raised questions as to the procedures to be followed by holders of permits issued prior to the effective date of the amendments, May 31, 1967; and,

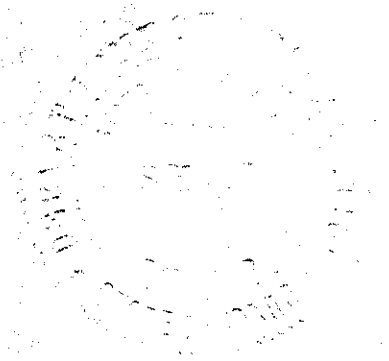
WHEREAS, on August 1, 1968, the Department of Reclamation adopted Rules of Practice and Procedures for the processing of such permits issued prior to May 31, 1967; and,

WHEREAS, Permit No. 26602 was issued previous to that date;

NOW THEREFORE, the requirements for completion of the above-numbered permit are hereby modified to conform to the adopted Rules of Practice and Procedures as follows:

1. The above-numbered permit will be completed under the terms of Title 42, Chapter 2, Idaho Code, as amended by the 39th Idaho Legislature.

Dated this 21st day of Aug., 1969.


R. Keith Higginson

R. KEITH HIGGINSON
State Reclamation Engineer

by *Jack A. Barnett*

JACK A. BARNETT
Deputy State Reclamation Engineer

26602

01-2061

STATE OF IDAHO
DEPARTMENT OF RECLAMATION

APPLICATION FOR EXTENSION OF TIME

State of Idaho)
County of Ada)

Permit No. 26602

The United States of America, acting through the Regional Director,
Region 1, Bureau of Reclamation, _____ of Box 8008, Boise
(name) (address)

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

That he is the holder, or the duly authorized agent of the holder, of Permit to Appropri-
ate the Public Waters of the State of Idaho No. 26602.

That under the terms and conditions of said permit, ^{beneficial use} ~~work~~ thereunder was required to be
completed by November 13, 19 69.

That he has heretofore performed the following work described under said permit: _____
Proof of completion of works made December 20, 1960. Basic system completed then,
but not all of the land has been irrigated. Alterations in main East and West canals
nearly completed, but still in process.

Basic features Costing \$ 4,587,000

That he is unable to complete the ^{beneficial use} ~~remainder of the work~~ within the required time for the
following reasons, to-wit: Alterations in the West canal and East canal, both nearly
complete at a cost of approximately \$270,000, will permit irrigation of full area
described in application. Full area should be irrigated by 1971.

WHEREFORE, he asks that the State Reclamation Engineer extend the time for the com-
pletion of obligations under said permit to November 13, 19 71.

Norman H. Moore

(signature) Acting Regional Director

Subscribed and sworn to before me this 4th day of September, 1969.

John H. Welch

(notary public)

My commission expires 6-10-71.

Date of receipt at office of Department of Reclamation _____

ACTION OF STATE RECLAMATION ENGINEER

I, R. KEITH HIGGINSON, State Reclamation Engineer of the State of Idaho,
hereby approve Application for Extension of Time for Permit No. 26602 to November
13, 1971.

Witness my hand this 16th day of September, 19 69.

R. Keith Higginson

State Reclamation Engineer

Identification No. _____

Permit No. 26602

STATE OF IDAHO

DEPARTMENT OF [REDACTED] WATER ADMINISTRATION

PROOF OF APPLICATION OF WATER TO BENEFICIAL USE

1. a) Name of Permit Holder The United States of America, acting through the Bureau of Reclamation
b) Post Office Address P. O. Box 8008, Boise, Idaho 83707

2. Permit Number 26602

3. Date of Priority that you are prepared to establish June 11, 1956

4. a) Source from which water was appropriated Snake River

b) Location of the point of diversion: SW 1/4 SE 1/4, Section 30

Township 7 South, Range 31 East Boise Meridian, Other points of diversion: _____

5. a) The amount of water and use to which the water has been applied:

amount 160 cfs for irrigation purposes from April 10 to October 31 incl.
(cfs and/or acre feet per annum) (Month-Day) (Month-Day)

amount _____ for _____ purposes from _____ to _____ incl.
(cfs and/or acre feet per annum) (Month-Day) (Month-Day)

amount _____ for _____ purposes from _____ to _____ incl.
(cfs and/or acre feet per annum) (Month-Day) (Month-Day)

b) Total amount appropriated 33,100 cfs and/or acre feet per annum

c) Describe how and by whom measurement of rate of flow or amount of storage was made and the qualifications of the person making the measurement: Measured by use of a Sparling flow meter by the Manager of the Falls Irrigation District. The measurements are checked periodically by a current meter used by a hydrographer of State Water District No. 01.

6. If the means of diversion and conveyance are owned by someone other than the Permit Holder:

a) Give the name or description of the canal, ditch or other works by which the water is conducted to the place of use: _____

b) Describe the agreement or understanding by which you take water from the works: _____

7. a) Briefly describe the works for diverting and conveying the water to the place of use, (If from a subterranean source, give the pump size, motor size, size of well casing, depth of well; if from surface water, give brief

description of diversion structure and/or canal or ditch) Water passed through one of the outlets of the American Falls Dam to a 4-unit pumping plant, pumped through a 60-inch diameter, 5,600 foot long discharge pipe, then distributed through gravity canal and lateral system. Pumping plant has a capacity of 126 cfs when the reservoir is low, 160 cfs with a full reservoir.

b) Describe the type and size of measuring device which you have installed at your point of diversion: _____
A 5-foot diameter Sparling meter is installed in the discharge line of the pumping plant. This is checked periodically by current meter.

c) Give well drillers name and address and date the well was completed _____

*Ham typed 16-15-11
myl*

8. If for other than irrigation, describe the beneficial use to which you have applied the water and the place of use _____

9. Irrigation uses: Describe the lands irrigated by giving the acreages irrigated within each 40 acre subdivision: _____

TWP.	RANGE	SEC.	NE1/4				NW1/4				SW1/4				SE1/4				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	

Total number of acres irrigated _____

10. Remarks: _____

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

September 29, 1971
(Date)

EF Sullivan
(Signature)

State of Idaho)
County of Ada) ss.

On this 29th day of September, 1971, personally appeared before me the signer(s) of the above instrument, who duly acknowledged to me that he (~~she~~) (~~they~~) executed the same.

John H. Welch

Notary Public residing at Boise, Idaho

My commission expires 6-10-75

tion:

Total number of acres irrigated 11,621.1

9. Irrigation uses: Describe the lands irrigated by giving the acreages irrigated within each 40 acre subdivision:

TWP.	RANGE	SEC.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
6S	32E	29	-	-	19.2	-	-	-	-	6.4	26.6	-	34.0	39.0	-	35.8	34.6	-	194.6
6S	32E	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.7	25.7
6S	32E	32	-	35.0	34.7	-	38.9	38.8	39.3	39.6	29.0	38.8	22.4	38.0	-	23.5	33.8	-	411.8
6S	32E	31	39.3	31.5	39.8	38.7	2.8	-	23.2	34.0	39.4	38.4	38.7	40.0	38.7	39.9	36.5	18.2	499.1
6S	31E	36	-	-	26.4	27.3	-	-	-	24.5	39.3	12.6	38.5	38.8	39.0	34.1	38.5	38.1	362.1
6S	31E	35	-	-	-	-	-	-	-	-	-	-	-	-	.2	-	-	23.6	23.8
7S	32E	5	-	34.3	34.6	-	40.0	40.0	39.2	38.6	40.2	36.5	37.8	41.0	-	35.1	36.2	-	453.5
7S	32E	6	37.0	10.8	36.7	40.0	19.6	37.5	10.1	11.7	38.8	10.7	22.4	37.5	40.0	40.0	39.3	38.7	470.8
7S	32E	8	-	32.8	33.9	-	-	-	-	-	25.1	39.9	39.8	22.1	-	33.3	10.7	-	237.6
7S	32E	7	36.2	37.2	37.9	32.3	36.2	27.2	37.3	39.4	25.0	38.8	31.8	-	0.1	17.4	-	-	396.8
7S	32E	17	-	-	-	-	8.8	26.5	20.5	-	-	21.3	15.8	-	-	-	-	-	92.9
7S	32E	18	37.1	38.9	37.5	34.5	38.6	38.0	39.0	37.0	39.9	36.0	29.4	24.8	-	-	-	7.6	438.3
7S	32E	19	-	-	-	-	40.0	30.0	-	-	-	-	-	-	-	-	-	-	70.0
7S	31E	1	38.7	39.9	38.9	37.8	39.3	38.7	37.5	38.4	38.8	37.6	38.5	38.9	36.6	39.0	38.9	16.8	593.7
7S	31E	2	16.8	0.1	10.0	40.2	-	-	-	-	-	-	-	11.8	38.6	19.3	32.0	37.4	206.2
7S	31E	11	38.6	39.9	38.5	37.6	32.4	2.7	21.4	37.5	19.0	16.6	13.2	24.9	20.3	19.6	22.6	9.5	394.3
7S	31E	10	-	-	-	-	-	-	-	-	-	-	-	-	1.3	0.1	25.7	27.0	54.1
7S	31E	13	31.9	37.9	37.9	38.1	29.4	21.9	34.1	37.0	37.5	36.7	35.2	36.6	35.4	35.8	36.7	27.6	543.7
7S	31E	14	38.0	30.6	33.9	23.0	39.1	38.0	30.0	32.4	35.0	38.9	26.4	30.9	35.1	29.9	36.6	35.2	533.0
7S	31E	15	38.9	39.6	39.9	36.2	29.3	1.3	27.8	32.7	35.4	-	-	37.0	35.4	33.3	39.8	38.6	465.2
7S	31E	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0-
7S	31E	24	-	19.8	-	-	34.9	37.2	13.6	0.7	-	-	-	-	-	-	-	-	106.2
7S	31E	23	35.9	37.6	30.4	24.4	36.0	26.2	30.5	33.1	3.0	16.1	-	-	-	-	-	-	273.2
7S	31E	22	19.4	31.1	17.8	23.7	38.8	35.3	7.0	32.1	22.7	16.7	5.0	11.1	30.2	34.6	-	-	325.5
7S	31E	21	28.5	4.0	38.6	40.2	-	-	-	18.5	39.5	31.1	19.9	39.2	39.3	39.5	34.3	15.6	388.2
7S	31E	20	0.1	-	-	21.8	-	-	-	-	-	-	-	-	28.4	-	-	13.0	63.3
7S	31E	28	1.7	3.3	-	-	34.5	-	-	27.8	3.4	-	-	-	-	-	-	-	70.7
7S	31E	32	-	-	27.0	1.3	-	-	36.7	33.9	27.1	39.0	32.4	24.1	0.9	31.7	39.2	-	293.3
7S	31E	31	-	-	-	-	-	-	-	-	-	-	-	-	2.4	37.3	15.3	29.3	121.2
8S	31E	6	31.1	27.4	10.3	18.2	9.3	14.2	19.0	36.6	31.9	20.0	11.8	11.4	13.9	16.9	25.5	28.2	325.7
8S	31E	7	37.9	36.1	36.9	39.3	28.5	10.8	17.0	35.0	36.8	18.9	10.8	34.9	39.3	38.4	-	-	420.6
8S	31E	18	-	-	-	-	25.1	1.0	2.1	9.6	-	-	-	-	-	-	-	-	37.8

Total number of acres irrigated

Permit No. 26602 ✓
 CERTIFICATE OF COMPLETION OF WORKS

TO ALL WHOM IT MAY CONCERN:

This is to certify that THE UNITED STATES OF AMERICA Acting through THE BUREAU OF RECLAMATION of Boise, County of Ada, and State of Idaho, the holder of Permit No. 26602, issued upon Application No. 34428 bearing date of priority of June 11, 1956, authorizing the diversion of 160 second feet of the waters of Snake River County of Power, State of Idaho, for Irrigation and domestic purposes, has fully complied with the provisions of the laws of the State of Idaho relating to the proof of completion of the works of diversion set out and described in said Permit; that said works are adequate for diverting and conveying to the place of intended use 160 second feet of the waters of Snake River tributary of Columbia River that the point of diversion of said waters SE $\frac{1}{4}$, Sec. 30, T. 7 S., R. 31 E., B.M. and that the lands proposed to be irrigated by the use of said water are described as follows, to-wit: approximately 11, 798.9 acres in Secs. 35, 36, T. 6 S., R. 31 E., B.M.; Secs. 29, 30, 31, 32, T. 6 S., R. 32 E., B.M.; Secs. 1, 2, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 28, 29, 31, 32, T. 7 S., R. 31 E., B.M.; Secs. 6, 7, 8, 17, 18, T. 7 S., R. 32 E., B.M.; Secs. 1, 11, 12, 13, 14, 15, 21, 22, 23, 24, 26, 27, 28, T. 8 S., R. 30 E., B.M.; Secs. 5, 6, 7, 18, T. 8 S., R. 31 E., B.M.

Witness my hand this 19th day of April, A. D. 1962.

/s/ CARL E. TAPPAN
 Assistant State Reclamation Engineer

Proof of Completion of Works Made: December 20, 1960

EXTENSION OF TIME APPLICATION ✓

I, R. Keith Higginson, State Reclamation Engineer of the State of Idaho, hereby approve the above application for extension of time for Permit 26602 to November 13, 1969.

Witness my hand this 7th day of September, 1967.

/s/ R. KEITH HIGGINSON
 State Reclamation Engineer

WATER RIGHT NUMBER 01-2061

OWNER LAST NAME - U.S. DEPT. OF INTERIOR

FIRST NAME - ORIG OWNER -

ADDRESS LINE 1 - BUREAU OF RECLAMATION

ADDRESS LINE 2 - ATTN: 424 BOX 043

ADDRESS LINE 3 - 550 W. FORT ST.

CITY - BOISE

STATE - ID ZIP CODE - 83724

SOURCE - SNAKE RIVER

TRIBUTARY OF - COLUMBIA RIVER

STAGE - LICENSE

STATUS -

PRIORITY - 06-11-1956 COUNTY - POWER

TOTAL DIV. RATE - 153.0000 -CFS

TOTAL DIV. VOLUME - 27121.50 AFA TRFR/AMEND -

WATER DIST. - 01 DLE/CAREY ACT - RIGHT BASIS - C

DIVERSION POINT - SWSE 30 07S 31E LOT REDIV -

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

FROM - 04-01 TO - 10-31 USE - IRRIGATION

USE DIV. RATE - 153.0000 CFS USE DIV. VOLUME - 27121.50 AFA

USE -

PLACE OF USE - TWN RNG SEC

DECREE NAME -

DATE -

TOTAL ACRES

0

REMARKS - P/U 7843 AC. WITHIN THE FALLS IRR. DIST.

NON IRRIG USE -

OTHER RIGHTS FOR SAME USE -

PROOF DUE -

PERMIT/DENIED -

PROTESTED -

HEARING -

OLD NO. -

PROOF MADE - FLD EXAM - COND. OF APPROVAL - R01 R04 R30

DIVERSION MEANS -

3/79

IDENT. NO. 0/- 2061

ID A H O D E P A R T M E N T O F W A T E R R E S O U R C E S

WATER RIGHT
DATA ENTRY LOG

[illegible]

April 30, 1982

United States of America acting through
the Bureau of Reclamation
Box 043-550 West Fort Street
Boise, ID 83724

RE: Permit No. 01-2061

Gentlemen:

Enclosed herewith is a copy of the Water Right License issued on the above
referenced Permit.

Sincerely,

A handwritten signature in cursive script that reads "Jim Johnson".

JIM JOHNSON
Water Distribution Supervisor

JJ:kw
Enclosure

DEPARTMENT OF WATER RESOURCES
STATEHOUSE
BOISE, IDAHO 83720

United States of America acting
through Bureau of Reclamation
~~Box 9008~~
Boise, ID 83707

BLM 08 772309N1 04/23/82

USA 08 772309N1 04/23/82

RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD

RECEIVED
APR 27 1982
Department of Water Resources

April 21, 1982

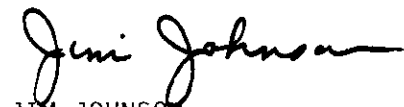
RE: Permit No. 01-2061

United States of America acting through
the Bureau of Reclamation
Box 8008
Boise, ID 83707

Gentlemen:

Enclosed herewith is a copy of the Water Right License issued on the above
referenced Permit.

Sincerely,



JIM JOHNSON
Water Distribution Supervisor

JJ:kw
Enclosure

MICROFILMED

INTER-DEPARTMENT MEMO — 1

FROM

Men S

DATE

3-15-82

TO

Tim J.

SUBJECT

- I like the language you suggest in option. 2. If we use that language, an amendment will not be necessary
- Plz prepare license in that form.

Plz

SIGNATURE

MEMO

TO: File 01-2061

FROM: Jim Johnson

DATE: March 11, 1982

RE: Licensing of Water Right

This water right is ready for licensing. It appears that we have 3 options to choose from concerning how the license will be issued.

Option 1: Issue license with place of use described as "7749 acres within the boundaries of the Falls Irrigation District". This option follows past Department policy for licensing water rights within irrigation districts, however, the 7749 acres are the number of acres determined to be irrigated when the field exam was made in 1977.

Option 2: Issue the license with "7843 acres within the boundaries of Falls Irrigation District". The 7843 acres are acres that were determined by USBR Employees and Falls Irrigation District manager. See letter of February 4, 1982.

Option 3: Issue the license without the number of acres irrigated identified i.e. "Lands irrigated within the Falls Irrigation District". The above place of use description follows more closely the direction given in Statute 42-219, i.e. "license issued shall not be necessary to give a description of the land by legal subdivisions but a general description of the entire area under the canal system shall be sufficient and the water diverted and water right acquired thereby shall relate to the entire project and the water used under the project shall be sufficient proof of beneficial use without regard as to whether each and every acre under the project is irrigated or not". This option may resolve the difference in acres irrigated in Options 1 & 2, however, it does not follow the past policy of the Department even though the statute appears not to require acres irrigated to be identified.

MICROFILMED



United States Department of the Interior

BUREAU OF RECLAMATION
~~WATER AND POWER RESOURCES SERVICE~~
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043-550 WEST FORT STREET
BOISE, IDAHO 83724

RECEIVED

FEB 5 1982

Department of Water Resource

IN REPLY
REFER TO: PN 420
870.-

FEB 4 1982

Mr. Jim Johnson
Water Distribution Supervisor
Idaho Department of Water Resources
Statehouse
Boise, Idaho 83720

Dear Mr. Johnson:

Re: Permit No. 01-2061 - Michaud Flats
Project

Your letter of November 30, 1981 transmitted a land list and proposed amendment to permit No. 01-2061 resulting from your field examination of the irrigation works. This material has been reviewed by our Minidoka Project personnel in Burley in collaboration with the Falls Irrigation District. Several changes to the land list attached to the proposed amendment are suggested, as indicated on the enclosed marked copy. The enclosed list summarizes the reasons for the changes.

It is our interpretation that you intend to make the land list an attachment to the license. We would much prefer that the license specify only the authorized service acreage with the boundaries of the irrigation district, as has been done on most other Reclamation Projects. This permits minor adjustment to the service area within the district to be made without the inclusion - exclusion procedure, which greatly reduces costs and paper work for such minor changes.

If this is acceptable the following language could be substituted for item 3 of the amendment form:

"7843 acres within the boundaries of the Falls Irrigation District."

If this approach is used the permit may not need to be amended. Please advise us of your findings.

Sincerely yours,

L.W. Lloyd

Regional Director

Enclosures

Enclosure No. 1

Falls Irrigation District
Land List Attachment Corrections

7 S., 32 E., Sec. 17 - NW $\frac{1}{4}$ & SW $\frac{1}{4}$ of SW $\frac{1}{4}$ from 21 to 27 acres and 16 to 36 acres, USBR Re-Classif. in 1977 (Blind Spring Creek moved over to side of Valley).

Sec. 18 - NE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, & SE $\frac{1}{4}$ of SW $\frac{1}{4}$ from 40 to 18 acres, 36 to 33 acres, 29 to 36 acres, and 25 to 37 acres, Re-Classif. 1977 and again in 1981 (farmer had complained).

7 S., 31 E., Sec. 11 - NE $\frac{1}{4}$ & NW $\frac{1}{4}$ of SE $\frac{1}{4}$, from 20 to 0 acres and 20 to 0 acres, irrigated from wells.

Sec. 12 - SE $\frac{1}{4}$ of SW $\frac{1}{4}$ and SW $\frac{1}{4}$ and SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 0 to 6 acres, 19 to 33 acres, and 19 to 26 acres, Re-Classif. in 1977.

Sec. 13 - NW $\frac{1}{4}$ of NW $\frac{1}{4}$ from 22 to 27 acres, Re-Classif in 1977.

Sec. 28 - NE $\frac{1}{4}$ & SE $\frac{1}{4}$ of NW $\frac{1}{4}$ from 35 to 25 acres and 28 to 23 acres, excluded for housing development between 1977 and 1981.

Sec. 31 - SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 37 to 26 acres, excluded for housing development 1977 to 1981.

8 S., 31 E., Sec. 6 - NE $\frac{1}{4}$ of NE $\frac{1}{4}$ (Lot 1) from 31 to 27 acres, excluded for housing development 1977 to 1981.

Sec. 18 - NE $\frac{1}{4}$ of NW $\frac{1}{4}$ from 25 to 34 acres, Re-Classif. 1977.

8 S., 30 E., Sec. 1 - SE $\frac{1}{4}$ of NE $\frac{1}{4}$, SE $\frac{1}{4}$ of SW $\frac{1}{4}$, and SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 8 to 28 acres, 16 to 26 acres, 32 to 38 acres, Re-Classif. 1977.

Sec. 12 - NE $\frac{1}{4}$ of NW $\frac{1}{4}$ from 18 to 8 acres, error on Land List Attachment. NE $\frac{1}{4}$ of SW $\frac{1}{4}$ and NE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, & SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 15 to 22 acres and 21 to 35 acres, 5 to 16 acres, 27 to 30 acres, and 20 to 13 acres, Re-Classif. 1977.

Sec. 13 - SW $\frac{1}{4}$ & SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 0 to 20 acres and 0 to 20 acres, petitioned into the district and Re-Classif. in 1978.

Sec. 22 - NW $\frac{1}{4}$ & SW $\frac{1}{4}$ of SE $\frac{1}{4}$ from 34 to 0 acres and 30 to 24 acres, excluded by district in 1978 (freeway went through and cutoff water canal).

Sec. 27 - NW $\frac{1}{4}$ of NW $\frac{1}{4}$ from 21 to 15 acres, excluded by district 1978 (freeway went through and cutoff canal water - drilled new well #16). SW $\frac{1}{4}$ of NW $\frac{1}{4}$ from 38 to 42 acres, canal removed = gained irrigable acres (freeway went through and cutoff canal).

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Enclosure No. 1

Page 2

8 S., 30 E., Sec. 28 - NE $\frac{1}{4}$ & NW $\frac{1}{4}$ of NE $\frac{1}{4}$ from 29 to 0 acres and 35 to 0 acres, irrigated from well #16 (freeway cutoff canal water). NE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 33 to 39 acres, gained 3 acres from Re-Classif. in 1977; and gained 3 acres from canal removal due to freeway cutoff. SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 5 to 0 acres Re-Classif 1977.

Sec. 26 - NW $\frac{1}{4}$ & SW $\frac{1}{4}$ of NW $\frac{1}{4}$ from 0 to 2 acres and 0 to 48 acres, error = were not included on Land List Attachment.

7 S., 31 E., Sec. 10 - NE $\frac{1}{4}$, SW $\frac{1}{4}$, & SE $\frac{1}{4}$ of SE $\frac{1}{4}$ from 0 to 1 acres, 0 to 26 acres, and 0 to 27 acres, error = were not included on Land List Attachment.

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
LICENSING
APPLICATION FOR AMENDMENT OF A PERMIT

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

Comes now United States of America acting through the Bureau of Reclamation
of (address) Boise, Idaho 83707, 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. 01-2061, and requests that the permit and permit map be changed as follows:

NO CHANGE
1. Point of diversion: $\frac{1}{4}$ $\frac{1}{4}$, Section , Township , Range , B.M.,
County of . Other points of diversion:

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)
NO CHANGE
Amount for purposes from to (both dates inclusive)
(cfs or acre feet per annum)
Amount for purposes from to (both dates inclusive)
(cfs or acre feet per annum)
Amount for purposes from to (both dates inclusive)
(cfs or acre feet per annum)
Amount for purposes from to (both dates inclusive)
(cfs or acre feet per annum)

3. Place of use or land to be irrigated:
SEE ATTACHED LAND LIST

TWP	RGE	SEC	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				TOTALS
			NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	

Total number of acres to be irrigated =

4. a. Who owns the property at the point of diversion?
b. Who owns the land to be irrigated or the place of use?
c. If the property is owned by a person other than the applicant, describe the arrangement enabling the
applicant to make this filing:

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

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

SEE ATTACHED MAP

Scale: 2 inches equal 1 mile.

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

Signed at _____, this _____ day of _____, 19 _____.

(Signature)

FOR DEPARTMENT USE ONLY

Preliminary check by _____ Fee = \$20.00 Received by _____ Date _____

Publication prepared by _____ Date _____ Published in _____

Publication dates _____

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

I, _____, Director of the Department of Water Resources hereby

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

Director

MICROFILMED

LAND LIST ATTACHMENT

Description and location of place of use:

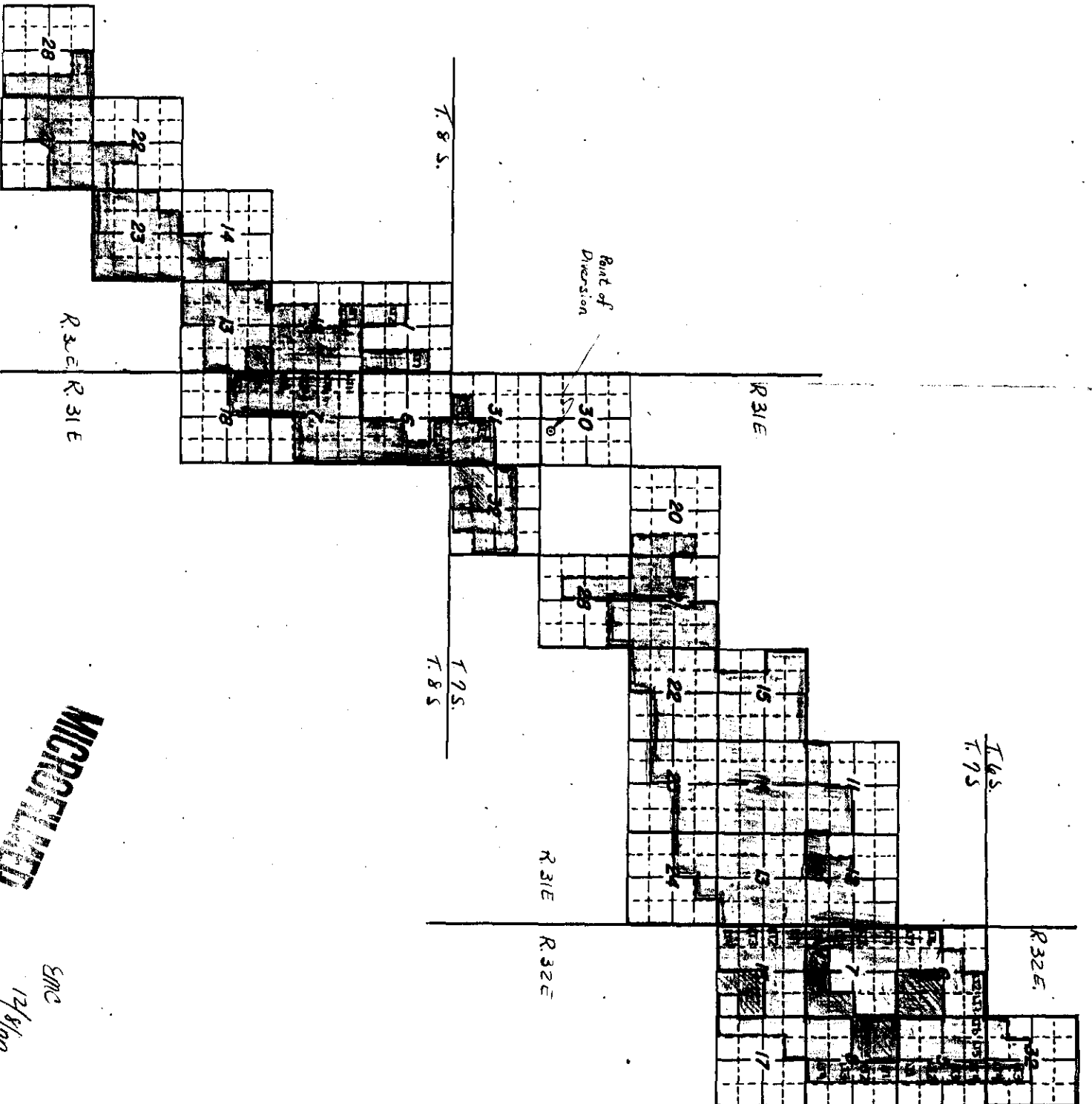
TWP.	RANGE	SEC.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
6S	32E	32									3		22	38		L.3	L.4		114
																17	34		
7S	32E	5		L.4	L.3		L.5	L.6			39	39	40	37	38	41	L.2	L.1	454
				34	35		40	40								35	36		
		6	L.1	L.2									L.6	L.7					247
			37	11	37	40					12	39	11	22	38				
		7	36	37	38	32	36	L.1	L.2				L.3	L.4		17			395
								27	37	39	25	39	32						
		8		L.1	L.2											L.3	L.4		
				33	34						25	40	40	22		33	11		238
		17										27	36						
							9	27	21										~~94~~ 120
		18	37	39	38	35	39	L.1	L.2			18	L.3	L.4	37				8
								38	39	37		~~40~~	~~33~~	~~28~~	~~29~~	~~25~~			~~440~~ 434 1782
7S	31E	11													13	25	~~20~~	~~20~~	111 71
																	23	10	
		12	3		16	19					39		3		6	29	32	~~19~~	~~19~~ 206
		13	32	38	38	38	23	~~22~~	34	37	38	37	35	37	35	36	37	28	~~545~~ 550
		14	38	31	34	23	39	38	30	32	35	39	26	31	35	30	37	35	533
		15	39	40	40	36	29	1	28	33	35				37	35	33	40	465
		20				22									28			10	60
		21	29	4	39	40					19	40	31	20	39	39	40	34	390
		22	19	31	18	24	39	35	7	32	23	17	5	11	30	35			326
		23	36	38	30	24	36	26	31	33	3	16							273
		24		20															
							35	37	14	1									107
		28	2	3			~~25~~			~~23~~	3								~~71~~ 66
		31													L.4	L.3	26		~~120~~ 109
															2	37	15	29	
		32				27	1				37	34			25	1	32	39	196
8S	31E	6	L.1	L.2		18										14	5	26	28
			~~37~~	~~27~~															~~143~~ 145
		7	38	36	37	39	28	L.1	L.2			L.3	L.4		35	39	38		410
							34	L.1	L.2										
		18					~~25~~	1	2	10									~~28~~ 47 697
8S	30E	1					L.1				L.2		L.3					38	
							~~25~~				2		~~26~~	~~16~~	34			~~32~~	~~128~~
		12	37	37	36	22	L.1				~~22~~				35	16	30	13	
							~~26~~				~~13~~				30	~~21~~	~~5~~	~~27~~	~~20~~ 286
		13		19	25	32	20	6	24	24	37	39	38	35	39	35	20	20	~~379~~ 413
		14													10		6	36	52
		22														0	24		
																~~34~~	~~20~~	39	~~100~~ 63
		23	37	36	37	37	5		6	12	38	33	33	40	40	40	40	40	474
		27	38	38	36	17	31	15	42										~~202~~ 300
		28	~~29~~	~~35~~		28		~~21~~	~~20~~	39	13	31							~~230~~ 671702
		26						2	L.1	48									50
7	31	10													1		26	27	54
																			7843

Total number of acres to be irrigated:

7,743

7843

lands irrigated under Permit # 01/2001



MICROFILMED

BMC
12/8/99



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

November 30, 1981

RE: Permit No. 01-2061

United States of America acting through
the Bureau of Reclamation
Box 8008
Boise, ID 83707

Gentlemen:

A representative of this Department made an examination of the works covered by your Permit No. 01-2061 and has found the following:

Amount of water that can be recognized as beneficially used under
Idaho law: 153.0 cfs Source: Snake River

The maximum quantity diverted shall not exceed 27,121.5 acre feet
per year.

Point of diversion: SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 30, Twp. 7S, Rge. 31E, Power County

Beneficial use: Irrigation of 7,749 acres - see land list attachment.

Priority date established: June 11, 1956

In order for the Department to issue the above license, it will be necessary for you to amend the permit to correspond with the findings of the field examiner. We are enclosing a partially completed amendment form for your use in this matter.

Please sign the amendment application and return it to this office along with a \$20.00 filing fee within 30 days in order that we might issue your license as set forth above. If you do not concur with these findings or have any questions, please contact us within the 30-day period.

Sincerely,

JIM JOHNSON
Water Distribution Supervisor

JJ:kw
Enclosure

DEPARTMENT OF WATER ADMINISTRATION
FIELD REPORT

1. Name of permit holder United States of America, Bureau of Reclamation
Postoffice address P.O. Box 042, Boise, ID 83724 Phone
Person to contact Phone

2. Source of water supply: Groundwater Surface water X Snake River
(name spring, stream, etc.)
Tributary to

3. Water will be used for the following purposes:
Amount 160.0 c.f.s. for irrigation
AF/Annum (nature of use)
Period of Use: from April 1 to Oct. 31
(mo.-day) inclusive (mo.-day)
Amount c.f.s. for
AF/Annum (nature of use)
Period of Use: from to
(mo.-day) inclusive (mo.-day)
Amount c.f.s. for
AF/Annum (nature of use)
Period of Use: from to
(mo.-day) inclusive (mo.-day)
Other uses:

Permit No. 26602/01-2061
Examination for b/u

4. Total amount to be appropriated:
Max Rate of Diversion 160 cubic feet per second and annual volume AF/Annum.
5. Location of Point(s) of Diversion: American Falls Dam
Township 7S N/S, Range 31E E/W, B.M., Section 30, Subdivision SW 1/4 SE 1/4, Power
County
Township N/S, Range E/W, B.M., Section, Subdivision 1/4 1/4,
County
Township N/S, Range E/W, B.M., Section, Subdivision 1/4 1/4,
County
Other Points of Diversions:

Description of diverting works:

Measuring device required: yes no X

6. Lands to be irrigated or place of use.

Table with 18 columns: TWP., RANGE, SEC., NE 1/4, NW 1/4, SW 1/4, SE 1/4, NE 1/4, NW 1/4, SW 1/4, SE 1/4, NE 1/4, NW 1/4, SW 1/4, SE 1/4, NE 1/4, NW 1/4, SW 1/4, SE 1/4, TOTALS. Content includes 'SEE ATTACHED LAND LIST WHICH WAS SUBMITTED WITH PROOF'.

TOTAL ACREAGE

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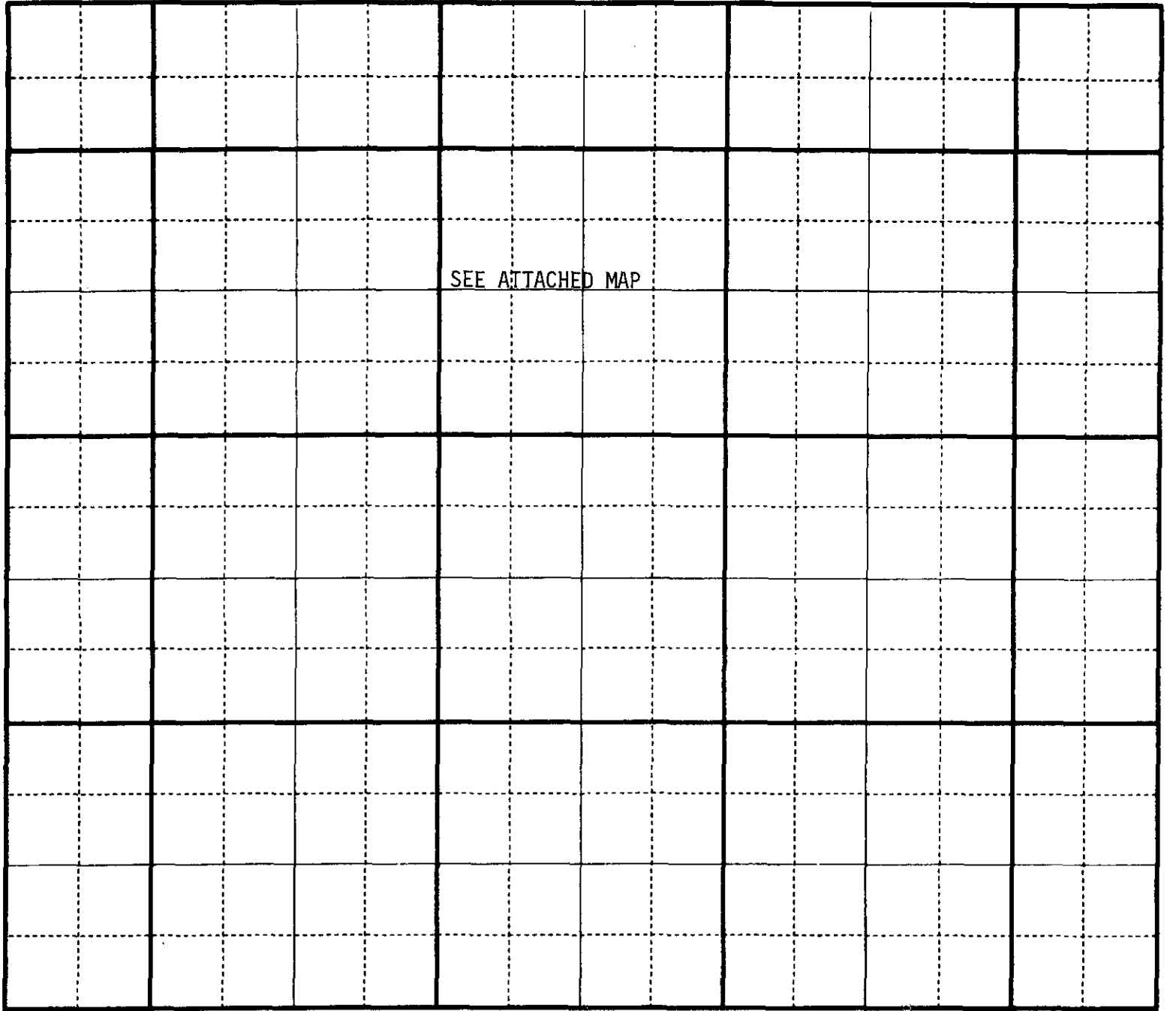


Diagram of System

SEE ATTACHED ILLUSTRATIONS

MICROFILMED

DATE OF EXAM 4-5-77, 4-12-77

ACREAGE
Found 7749
Recommended 7749

Irrigation Requirement 3.5 Ac Ft/Ac

USE
Irrigation Q 29.98 c.f.s. V = 27121.5 AF/Ann. from 4-1 to 10-31
Domestic Q = see overlap c.f.s. V = _____ AF/Ann. from _____ to _____
Livestock Q = Review c.f.s. V = _____ AF/Ann. from _____ to _____

Is water co-mingled? yes X no _____

Name source: ground water
twp. 7S N/S, Rge 31E E/W, B.M., Sec. 32, Sub. SW 1/4 SE 1/4 Power
8S 30E 23 NW SE, Power County

Exchange? yes _____ no _____

Name source exchanged with: _____
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County

Point of injection:
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County

Point of exchange:
twp. _____ N/S, Rge _____ E/W, B.M., Sec. _____, Sub. _____ 1/4 _____ 1/4 _____ County

(See attached information on measuring device)

Total Q measured 153 cfs capacity Method of measurement totalizing recordings

Total Q recommended 29.98 cfs type 227 wall
* see overlap No. mounted Type V Condition good

* 14628.47 af/ann. Hersey Sparling Totalizing Meter

Recommended Amendments:

P.D. _____
Place of Use ✓ original land list did not include T. 7S, R. 31E, Sec. 12
Other _____
None _____

MEASUREMENT CALCULATION:
For "Q", refer to attached recording charts.

$V = 3.5 \times 7749 = 27121.5$ af/ann. $29.98 \times 246 \times 1.9835 = 14628.47$
 $.02 \text{ cfs/Ac} = 7749 \times .02 = 154.98 \text{ cfs}$ $154.98 \times 1.9835 \times 246 = 75,621.1$ EMC
Allow capacity = 153.0 ✓ 12/8/77

SYSTEM DESCRIPTION:

Four Worthington centrifugal pumps with Ideal Electric synchronous motors
1) S/N 1520485 rated 18,850 gpm at 720 rpm No. 209352 rated 1250 hp at 720 rpm
2) S/N 1520486 rated 18,850 gpm at 720 rpm No. 209351 rated 1250 hp at 720 rpm
3) S/N 1520487 rated 12,566 gpm at 900 rpm No. 209355 rated 800 hp at 900 rpm
4) S/N 1520488 rated 6,283 gpm at 1200 rpm No. 209357 rated 400 hp at 1200 rpm
pumps motors.

REMARKS:
Water is pumped from American Falls Reservoir into 60" diameter pipe which empties
into Falls Irrigation Canal (SENE, Sec. 32, T. 7S, R. 31E) at the bifurcation reservoir.
Examination was conducted with the aid of Warren Travis, Manager for Falls Irrigation
District. This license in conjunction with license 01-0013 brings the land described
up to the full inch per acre.

Examiner's Signature Ernest McCarson Date 12/8/77
Checked by John D. Carlson Date 3/19/79
Approved by Rolyn Date 11/19/1981

* See overlap review for explanation
on amount changes.

Overlap Review for 01-2061

Decree 01-0013 Snake River P/D 44 (SESE)
Sec. 30 T7S R30E

125.0 acs

P/D see field exam &
copy of decree
attached

Explanation -

The field examiner recommended the following amounts

$$7749 \text{ ac} \times .02 = 154.98$$

$$\begin{array}{r} - 125.00 \\ \hline 29.98 \end{array} \quad \begin{array}{l} \text{Decree 01-0013} \\ \text{License for 01-2061} \end{array}$$

Taking a closer look at the lands in question, I find that Decree 01-0013 does not identify the amount of acres in each tract, & has more land than what the field examiner found for 01-2061. See copy of decree.

I also found that 01-2061 has lands that are not covered in Decree 01-0013. See field exam's land list.

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Conclusion:

- 1) Both rights overlap some lands ^{but not} all lands
- 2) Both rights have the same source but different P/D's.

Recommend licensing 01-2061 for .02 cfs/AC & limiting to capacity of system. (153.0 cfs)
Also condition the license that when combined w/01-0013 will not exceed .02 cfs/AC nor 3.5 AFA/AC.

With this in mind - if one P/D breaks down then most of the lands will be able to be irrigated effectively.

RC $\frac{11/19}{81}$

MICROFILMED

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TH. No. 14, Town Ship Seven, Range 30 East of the Boise Meridian. Beginning at the Northwest corner of Section 15, Township 8 South of Range 30 East of the Boise Meridian; thence running South 600 feet; thence East 1836 feet to intersect left bank of the Snake River; thence North 5° 37' West along left bank 662 feet to the North line of Section 15; thence East along said line 1865 feet to the place of beginning.

Tax No. 31, Township 8 South, Range 30 East of the Boise Meridian. All that portion of the Northwest Quarter of the Northwest Quarter, Section 14, Township 8 South, Range 30 East of the Boise Meridian, excepting from said tract the following described tract of land, to-wit: Beginning at the Southwest corner of the said Northwest Quarter of the Northwest Quarter of Section 14; running thence East 495.0 feet; thence North 440.0 feet; thence West 495.0 feet; thence South 440 feet to the point of beginning.

01 0013 G. Falls Irrigation District.

125.00 cubic feet of water per second.

Point of Diversion

different
p/d

Lot Four (4) Southeast Quarter of the Southeast Quarter (SE 1/4 SE 1/4) of Section Thirty (30), Township Seven (7) South, Range Thirty (30) E. B. M.

Lands to Which Appurtenant

All irrigable lands within the district boundary in Secs. 5, 6, 7, 8, 17, 18 of Twp. 7 S., R. 32 E., B. M.

All irrigable lands within the district boundary in Secs. 12, 13, 14, 15, 20, 21, 22, 23, 24, 27, 31, 32 of Twp. 7 S., R. 31 E., B. M.

All irrigable lands within the district boundary in Secs. 5, 6, 7, 18 of Twp. 8 S., R. 31 E., B. M.

All irrigable lands within the district boundary in Secs. 1, 11, 12, 13, 14, 15, 21, 22, 23, 24, 26, 27, 28 of Twp. 8 S., R. 30 E., B. M.

01 0014 H. A & B Irrigation District.

267.00 cubic feet of water per second.

Point of Diversion

Southeast Quarter of the Southwest Quarter (SE 1/4 SW 1/4), Section Twenty-four (24), Township Ten (10) South, Range Twenty-one (21) E. B. M.

Lands to Which Appurtenant

Township Eight (8) South, Range Twenty-five (25) East of Boise Meridian: Sections Two (2) through Twenty-four (24) inclusive, Sections Twenty-seven (27) through Thirty (30) inclusive;

Township Seven (7) South, Range Twenty-five (25) East of Boise Meridian; Sections Twenty-seven (27) through Thirty-four (34) inclusive;

✓ = covered by 01-2061 ○ = not covered by 01-2061

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Land list established from licensing field exam.

LAND LIST ATTACHMENT

Description and location of place of use:

See microfilm

TWP.	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
6 ^s	32 ^s	32									3		22	38	L#3 17	L#4 34			114 ✓
7 ^s	32 ^s	5		L#4 34	L#3 35		L#5 40	L#6 40	39	39	40	37	38	(41)	L#2 35	L#1 36			454 ✓
"	"	6	L#1 37	L#2 11	37	40				12	39	L#6 11	L#7 22	38					247 ✓
"	"	7	36	37	38	32	36	L#1 27	L#2 37	39	25	L#3 39	L#4 32		17				395 ✓
"	"	8		L#1 33	L#2 34						25	40	40	22	L#3 33	L#4 11			238 ✓
		17					9	27	21			21	16						94 ✓
		18	37	39	38	35	39	L#1 38	L#2 39	37	40	L#3 36	L#4 29	25				8	440 ✓
7 ^s	31 ^s	11										13	25	20	20	23	10		111 ✓ 1982
		12	3		16	19				39		3		29	32	19	19		179 ✓
		13	32	38	38	38	23	22	34	37	38	37	35	37	35	36	37	28	545 ✓
		14	38	31	34	23	39	38	30	32	35	39	26	31	35	30	37	35	533 ✓
		15	39	40	40	36	29	1	28	33	35			37	35	33	40	39	465 ✓
		20				22									28		10		60 ✓
		21	29	4	39	40				19	40	31	20	39	39	40	34	16	392 ✓
		22	19	31	18	24	39	35	7	32	23	17	5	11	20	35			326 ✓
		23	36	39	20	24	36	26	21	23	3	16							273 ✓
		24		20			35	27	14	1									137 ✓
		* 28	2	3			35			28	3								71 ✓
		31											L#4 2	37	L#3 15	29	37		122 ✓
		32			27	1			37	34			25	1	32	39			196 ✓
8 ^s	31 ^E	6	L#1 31	L#2 27		18									14	5	26	28	149 ✓ 3376
		7	38	36	37	39	28	L#1 1	L#2 17	35	37	L#3 19	L#4 11	35	39	38			410 ✓
		18					25	L#1 1	L#2 2	10									38 ✓
8 ^s	30 ^E	1				L#1 8					L#2 2			16	34			32	92 ✓
		12	37	37	36	22	L#1 18				15			30	21	5	27	20	268 ✓
		13		19	25	32	20	6	24	24	37	39	38	35	39	35			373 ✓
		14												10		6	36		52 ✓
		* 22													34	30	39		103 ✓
		23	37	36	37	37	5		6	12	38	33	33	40	40	40	40	40	474 ✓
		27	38	38	36	17	31	21	38	39	13	31							302 ✓
		28	29	35		22									22		5		130 ✓
Total number of acres irrigated																		5	7749 ✓ 2311

□ = covered by Decree 01-0013

* = not covered by 01-0013

EMC
12/8/77

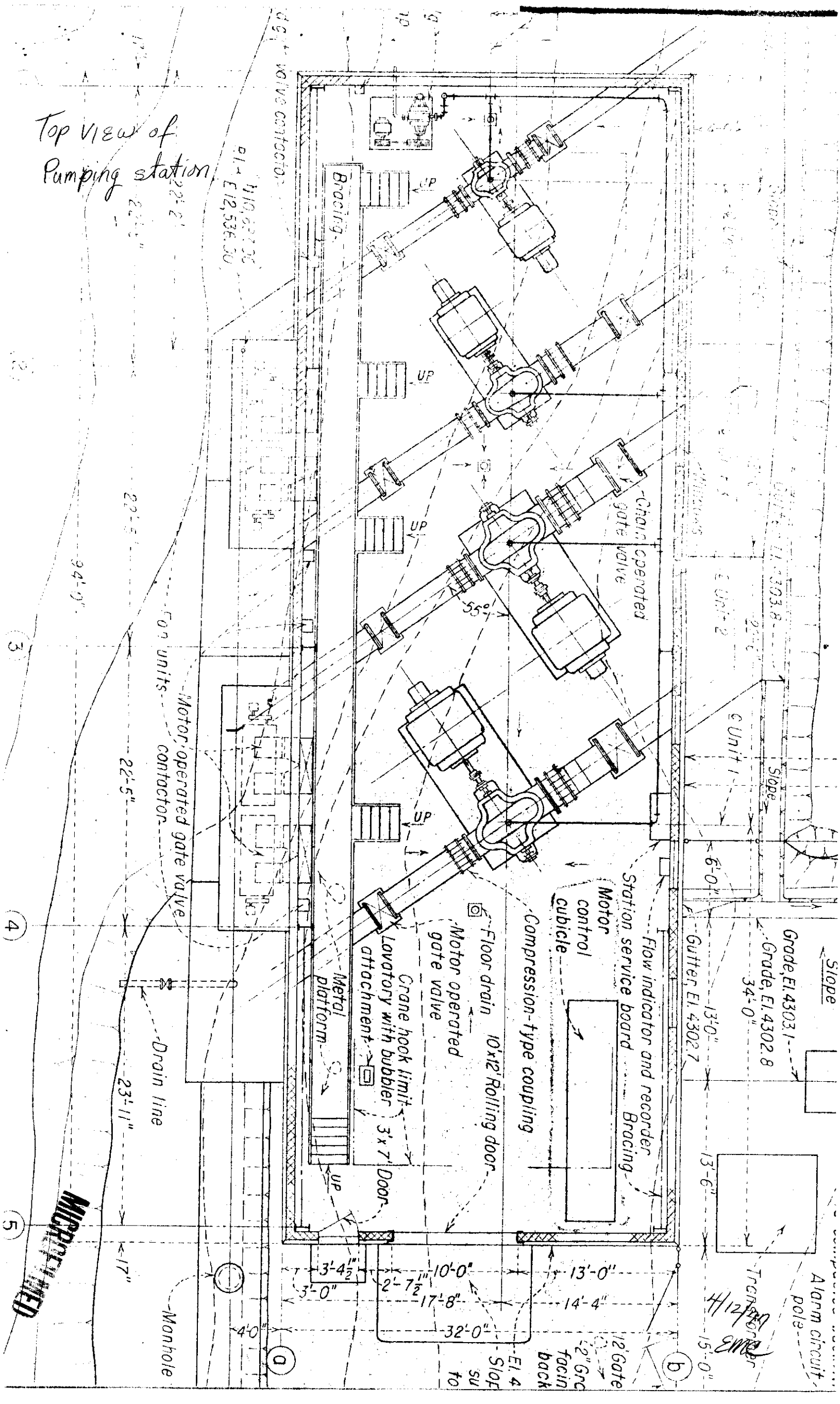
Section 5 T 75 R 32E

RC 11/19
81

JESW is not a GL

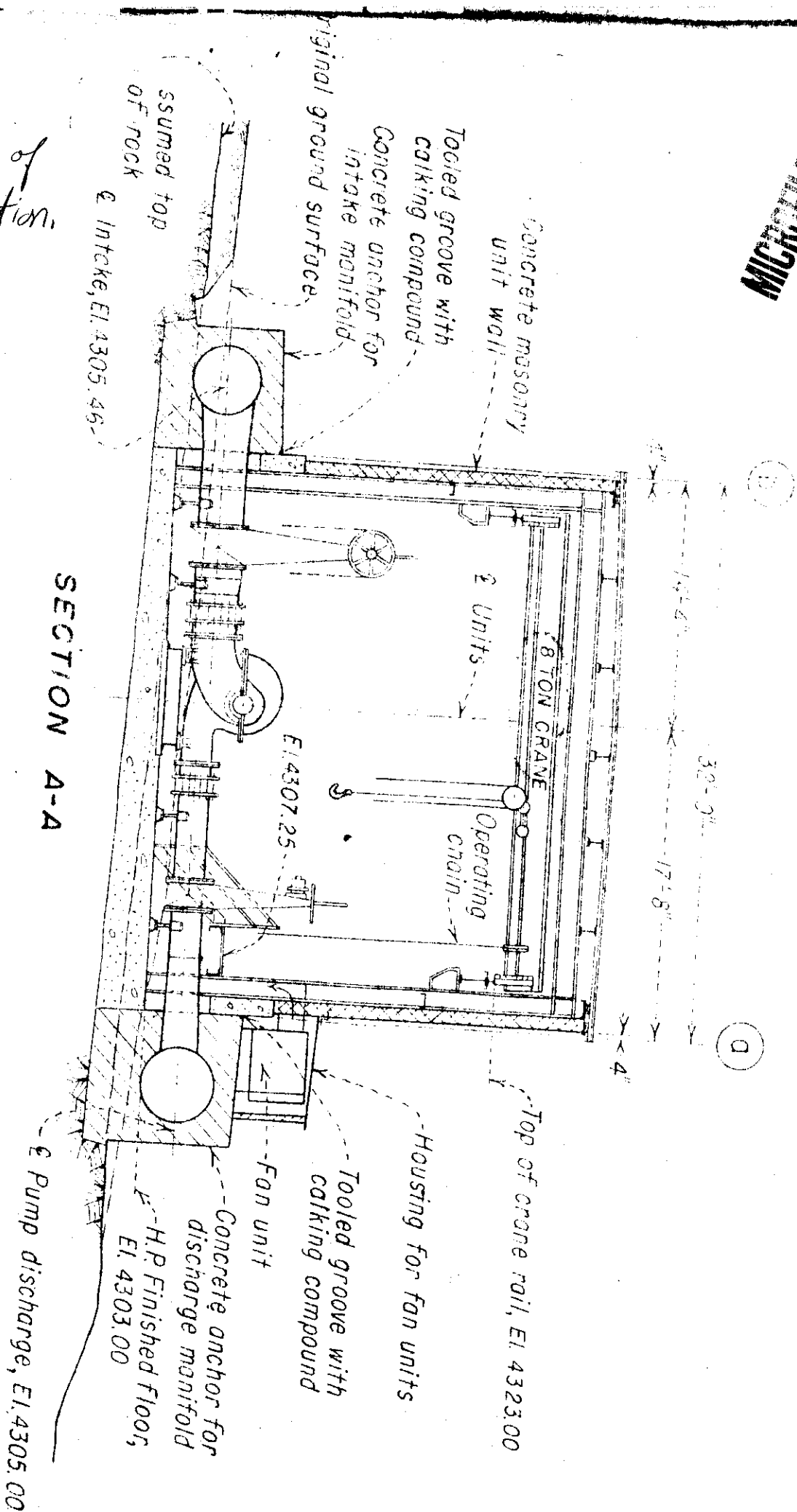


Top View of
Pumping station



DEWITT
MICROFILMED

SECTION B-B



NOTES

For general notes and reference drawings, see 601-0-15.
Slopes of cuts and fills for common materials are 1 1/2:1.
Unless otherwise noted.
Excavation slopes in rock are 1:1 unless noted.

Side view of
Pumping station.

EXPLANATION

4/12/77
EMC

Measuring device in use during
INDICATOR TOTALIZER-RECORDER
licensing field

TYPE 227 WALL MOUNTED

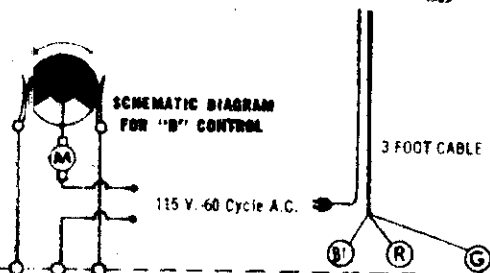
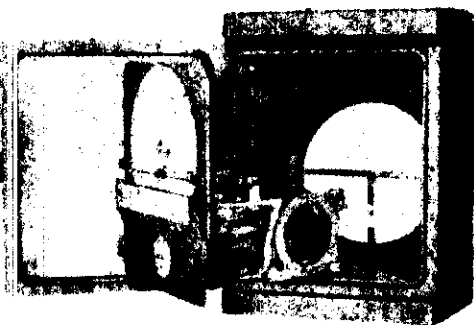
CIRCULAR CHART DIFFERENTIAL GOVERNOR
7 DAY TELECHRON CHART DRIVE

SCALE - 150.0 C.F.S.

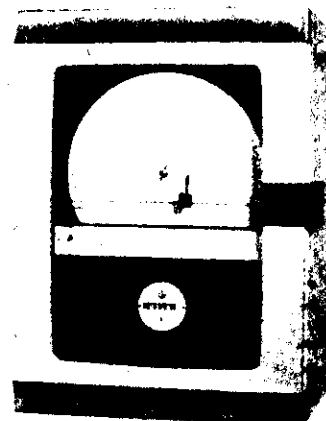
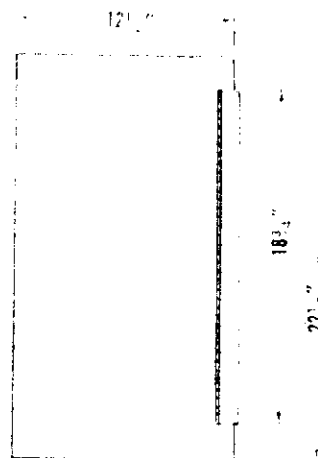
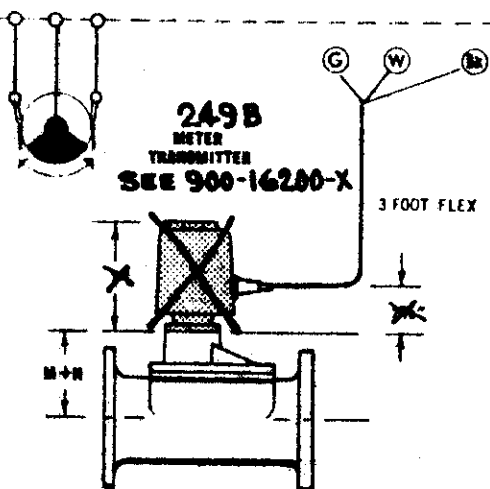
REGISTRATION - .10 ACRE

RECEIVED

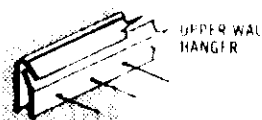
APR 2 8 34 AM '56
MICHAUD FLATS
PROJECT OFFICE



INTERMEDIATE CONNECTIONS
FURNISHED BY CUSTOMER
TO COMPLETE INSTALLATION



CASE HANGER

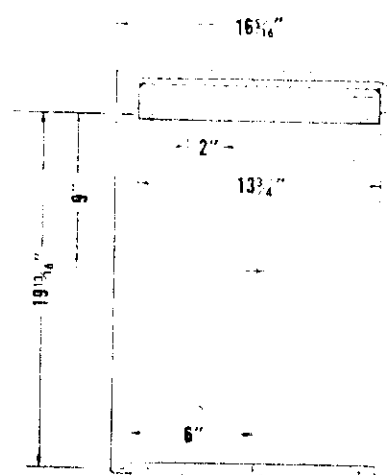


UPPER WALL
HANGER

HANGER DETAIL



LOWER WALL
HANGER



OPERATED FROM 60" SPARLING MASTERFLO TYPE 906 METER
APPROXIMATE SHIPPING WEIGHT 100 LBS.

Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale.

Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale.

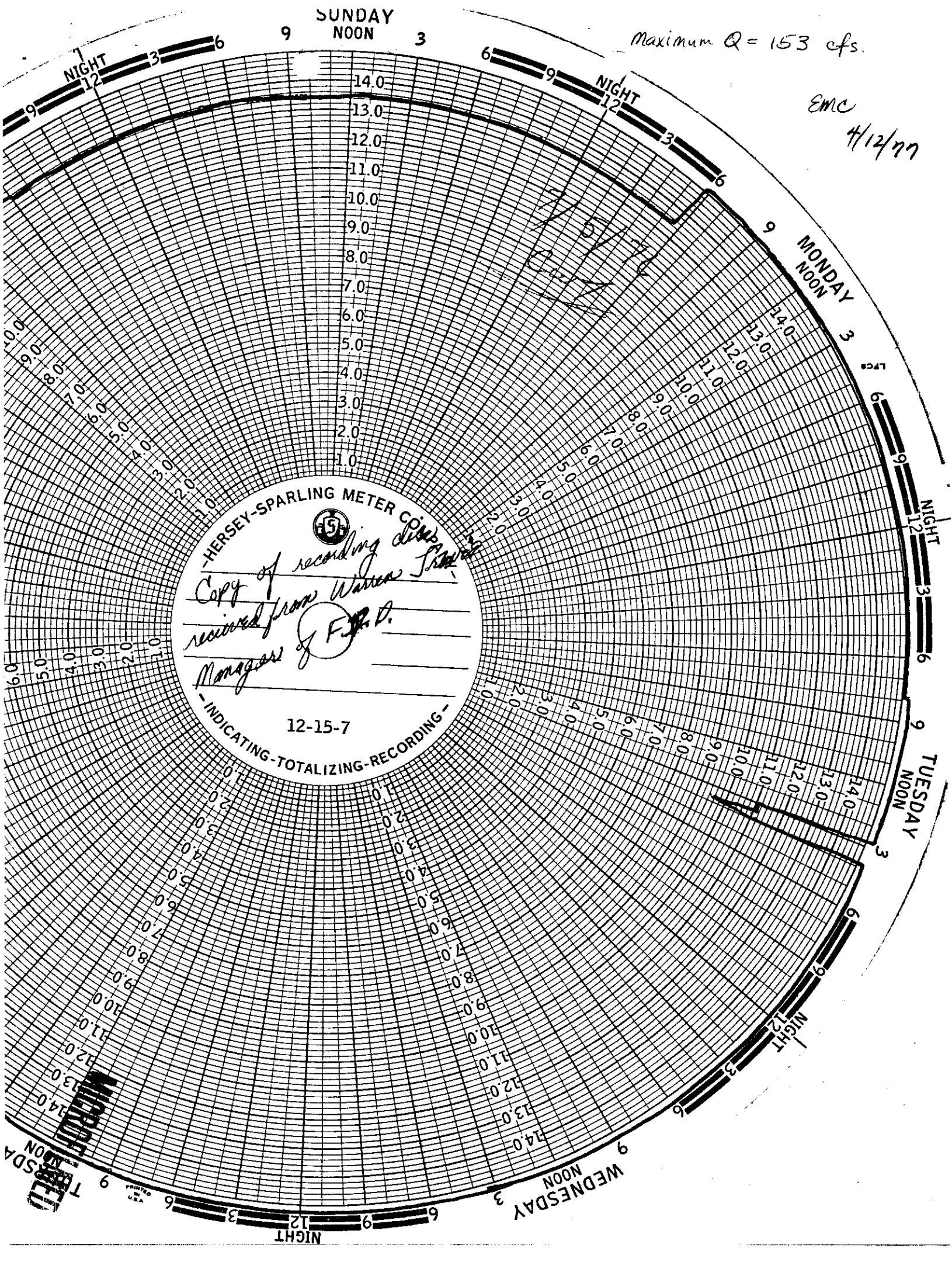
Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale. Flow scale is graduated in 100% of maximum scale.

Molded plastic inner case protects mechanism from dust and dampness.

Suitable transmitter for mounting on meter head furnished with instrument. External wiring and power connections not included. Common three-wire circuit, as shown, is recommended for short connections. Two-wire telephone circuit with resistor and relay may be used for long distance transmission.

Cabinet finished in two-tone green; or all black if specified.

4/12/77
EMC
CF-113 X



Maximum Q = 153 cfs.

EMC
4/12/77

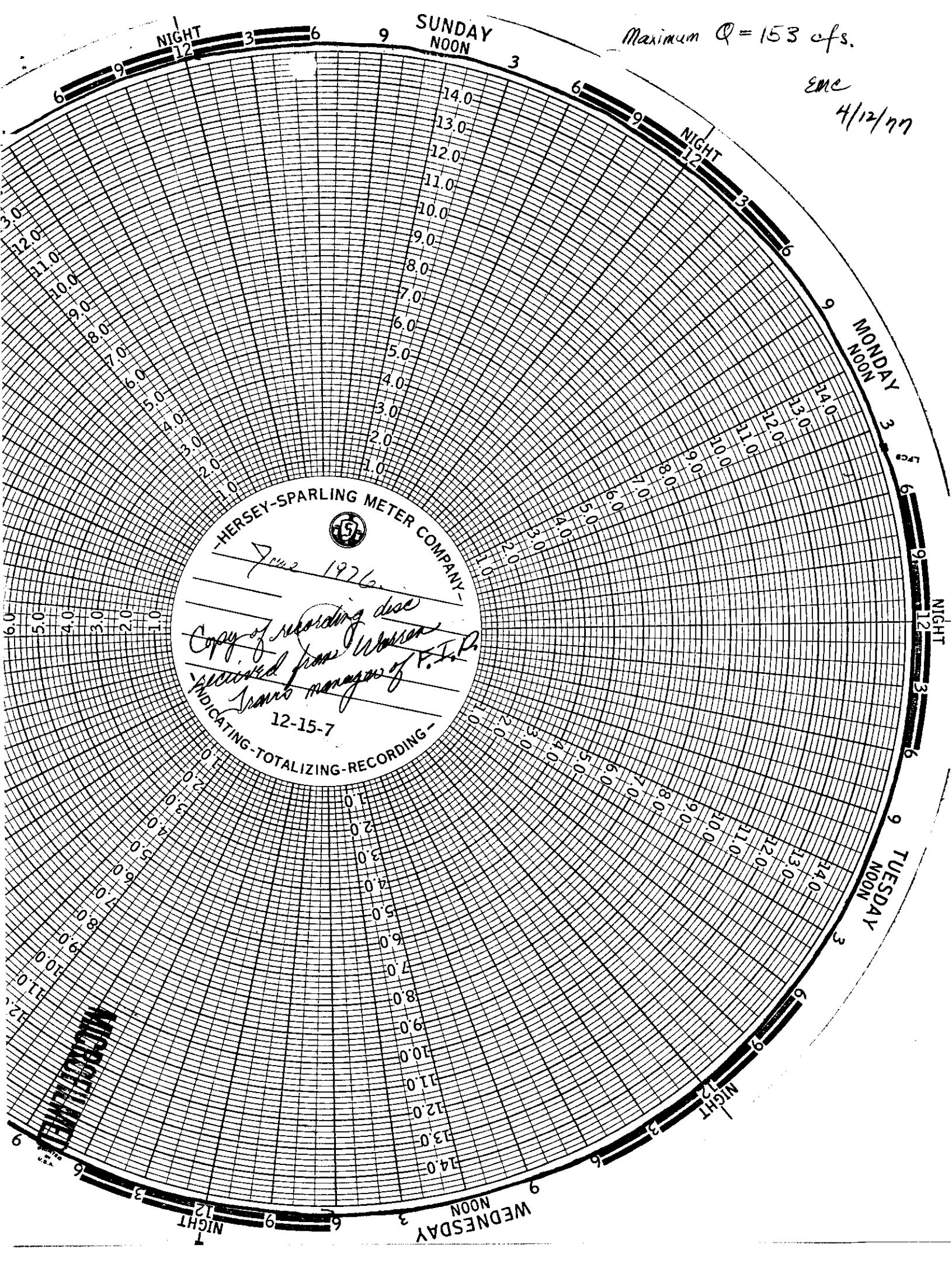
HERSEY-SPARLING METER CO.
Copy of recording disc
received from Warren Smith
Manager of F.P.D.

12-15-7

INDICATING-TOTALIZING-RECORDING-

NOV 1977

PRINTED
IN U.S.A.



Maximum Q = 153 cfs.

EMC
4/12/77

HERSEY-SPARLING METER COMPANY
June 1976

Copy of recording disc
received from Watson
Sams manager of F.I.P.

12-15-7

INDICATING-TOTALIZING-RECORDING-

The field exam
is done &
the rough draft
is being com-
pleted.

js Talk 3
11/28/78 w/Ernie
C.

October 11, 1971

Re: Permit No. 26602/01-2061 - (Michaud Flats Project) - 424

Regional Director
Bureau of Reclamation
P. O. Box 8008
Boise, Idaho 83707

Gentlemen:

We acknowledge receipt of the affidavit 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 from this Department. We cannot tell just when this examination will be made, but our examiner will contact you at the time he makes the examination so that you may arrange to have someone show him the system.

Very truly yours,

BOBBY D. FLEENOR
Assistant Director

BDF:DR

01-2061



United States Department of the Interior

BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 1

BOX 8008

BOISE, IDAHO 83707

IN REPLY
REFER TO: 424

SEP 29 1971

Mr. R. Keith Higginson, Director
Department of Water Administration
State of Idaho
Statehouse Annex 2
Boise, Idaho 83707

Dear Mr. Higginson:

Enclosed is the Proof of Application of Water to Beneficial Use
in connection with permit No. 26602/01-2061 (Michaud Flats project).

During the past three or four years the Falls Irrigation District
has been changing and improving some of the distribution system
so the full project acreage, as contemplated in the initial appli-
cation, could be irrigated. The acreage so irrigated in 1971 is
near the original total. The amount of water applied, as shown
in 5b, is an estimated total for 1971 and future years based on
the requirements in earlier years on a smaller acreage.

Sincerely,

Regional Director

Enclosure

01-2061

PLEASE FURNISH SERVICE(S) INDICATED BY CHECKED BLOCK(S).
REQUIRED FEE(S) PAID.

☐ Show to whom, date and address
where delivered

☐ Deliver ONLY
to addressee

RECEIPT

Received the numbered article described below.

REGISTERED NO.

SIGNATURE OR NAME OF ADDRESSEE *(Must always be filled in)*

CERTIFIED NO.

23037

1

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

INSURED NO.

2

DATE DELIVERED

SHOW WHERE DELIVERED *(only if requested)*

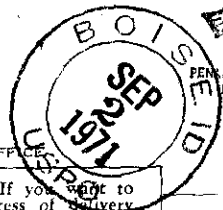
3

SEP 2 1971

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PS Form 3811 Apr. 1969 65-10-71548-11

POSTMARK OF DELIVERING OFFICE



PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, \$300

Print your name and address below. If you want to restrict delivery, or to have the address of delivery shown on this receipt, check block(s) on other side. Moisten gummed ends and attach this card to back of article.



RETURN
TO

DEPARTMENT

September 1, 1971 CERTIFIED MAIL #23037

Re: Permit No. 26602/01-2061 (Michaud Flats Project)

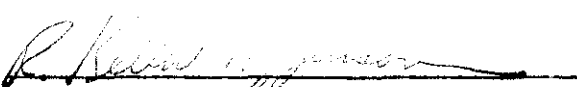
Bureau of Reclamation
Box 8008
Boise, Idaho

Gentlemen:

One of the conditions of approval of your water Permit No. 26602/01-2061 (see last page of your approved permit) was that evidence of the extent of development be submitted as proof of application of water to beneficial use to this office on or before November 13, 1971. Enclosed is an affidavit form which must be used to submit the required proof of beneficial use.

If you have not fully completed your project, and you have not previously received an extension of time, you may request an extension of time provided the delay is for reasonable cause as indicated in Section 42-204, Idaho Code, amended. If you have been prevented from proceeding by a governmental agency or by litigation, more than one extension of time can be granted.

Either the beneficial use affidavit or a request for an extension of time must be received by this Department on or before the above mentioned date, otherwise the permit will lapse and be of no further force or effect.


R. KEITH HIGGINSON
Director

Enc. Proof affidavit
dr

61-2061

September 16, 1969

Re: Permit No. 26602

Norman H. Moore
Regional, Bureau of Reclamation
Box 8008
Boise, Idaho

Dear Mr. Moore:

We are enclosing a copy of the APPROVED Application for
Extension of Time for the above referenced permit.

If we may be of further assistance, please advise.

Very truly yours,

Donald W. McEldowney
Appropriation Examiner

DWM:JMB

Enc. Copy of Application for Extension of Time

21.6.69
10.10.69



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION I

BOX 8008

BOISE, IDAHO 83707

RECEIVED

Department of the Interior

IN REPLY
REFER TO: 424

SEP 4 1969

Mr. R. Keith Higginson
State Reclamation Engineer
Statehouse - Annex 2
Boise, Idaho 83701

Dear Mr. Higginson:

Enclosed is an application for an extension of time to submit proof of beneficial use in connection with Permit No. 26602. This is the permit for diversion of water from Snake River for irrigation of 11,798.9 acres in the Michaud Flats Project. During the past 2 years the Bureau and the Falls Irrigation District have been making some modifications in both the East and West main canals so more land could be served from the canals. We anticipate that approximately the full acreage described in our application will be irrigated by 1971.

We would appreciate a two year extension of time, as is indicated on the enclosed application.

Sincerely,

Norman H. Moore

Acting Regional Director

Enclosure

Copy to: Mr. Robert E. Wagner, Manager, Falls Irrigation District,
P. O. Box 5, American Falls, Idaho 83221
(w/encl.)

31-000
10-10-69

September 1, 1969

Re: Permit No. 26602

Regional Director, Region I
Bureau of Reclamation
Box 8008
Boise, Idaho

Gentlemen:

During the 1967 session of the Idaho Legislature, certain amendments were made in the law pertaining to the procedures for making proof of beneficial use of water. In order for the Department to comply with these changes, Rules of Practice and Procedure were adopted on August 1, 1968. Generally, these procedures and the amended law make it simpler for a person to make proof and relieve the permit holder from making separate proofs of completion of works and beneficial use of water.

The enclosed order modifies your permit to comply with these rules and regulations.

Should you require additional information, we will be glad to supply it upon request at any time.

Very truly yours,

Donald W. McEldowney
Appropriation Examiner

DWM:DR
Enc: Order
Proof due notice
Proof package

26602

26602

INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Show to whom, date, and
address where delivered

☐ Deliver ONLY
to addressee

(Additional charges required for these services)

RECEIPT

Received the numbered article described below.

REGISTERED NO.

SIGNATURE OR NAME OF ADDRESSEE (Must always be filled in)

CERTIFIED NO.

1

B.O.R.

21260

2

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

INSURED NO.

Morgan

DATE DELIVERED

SHOW WHERE DELIVERED (only if requested)

SEP - 2 1960

3

01-2061

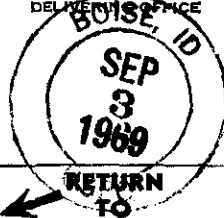
POD Form 3811 Apr. 1967 655-16-71648-10

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, \$300

SEP 4 1969

POSTMARK OF
DELIVERY OFFICE



INSTRUCTIONS: Show name and address below and complete instructions on other side, where applicable. Moisten gummed ends, attach and fold flaps to back of article. Print on front of article RETURN RECEIPT REQUESTED.

NAME OF SENDER

STREET AND NO. OR P.O. BOX

POST OFFICE, STATE, AND ZIP CODE

Department of Reclamatic
Annex #2 Statehouse
Boise, Idaho 83707

CERTIFIED MAIL

September 1, 1969

Re: Permit No. 26602

Regional Director, Region 1
Bureau of Reclamation
Box 8008
Boise, Idaho

Gentlemen:

One of the conditions of the approval of your permit no. 26602 was that proof of application of the water to beneficial use be submitted to this office on or before November 13, 1969.

Enclosed is an affidavit form which must be used to submit this proof. You may request an extension of time provided the delay is for reasonable cause as indicated in Section 42-204, Idaho Code Amended.

Either the proof or a request for extension of time must be received by this department on or before the above mentioned date, otherwise the permit will lapse and be of no further force or effect.

R. Keith Higginson

State Reclamation Engineer

Enc: Proof form
DR

26602
012061

September 12, 1967

RE: Permit 26602

H. T. Nelson
Regional Director
Bureau of Reclamation
P.O. Box 8008
Boise, Idaho 83707

Dear Mr. Nelson:

Enclosed is a copy of the Extension of Time on the above referenced permit. You will note this Extension is to November 13, 1969 as requested.

Very truly yours,

M. RUSSELL BOSCH
Office Manager

MRB:ejw

Encl: Extension

26602



UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

REGIONAL OFFICE REGION I

BOX 8008

BOISE, IDAHO 83707

IN REPLY
REFER TO 424

RECEIVED
AUG 28 1967
Department of Reclamation

AUG 25 1967

Mr. R. Keith Higginson
State Reclamation Engineer
107 State House
Boise, Idaho 83701

Re: Permit No. 26602

Dear Mr. Higginson:

Enclosed is an application for a 2-year extension of time to submit proof of beneficial use in connection with Permit No. 26602. This is the permit for diversion of water from Snake River to irrigate 11,798.9 acres in the Michaud Flats Project.

The full acreage has not been irrigated. We are now planning some alterations in the West Canal that will permit irrigation of more of the acreage included in our application. It is expected that in two more years irrigation water will be beneficially applied to approximately the full acreage that is to be developed under this permit.

Very truly yours,

William H. More
Acting for H. T. Nelson
Regional Director

Enclosure

Copy to: Mr. Robert E. Wagner, Manager, Falls Irrigation District,
P. O. Box 5, American Falls, Idaho 83211
(w/c encl.)

26602

STATE OF IDAHO
DEPARTMENT OF RECLAMATION

DEPARTMENT OF RECLAMATION

APPLICATION FOR EXTENSION OF TIME

State of Idaho)
County of Ada)

Permit No. 26602

The United States of America, acting through the
Regional Director, Region I, Bur. of Recl of Box 8008, Boise, Idaho
(name) (address)

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

That he is the holder, or the duly authorized agent of the holder, of Permit to Appropriate the Public Waters of the State of Idaho No. 26602.

That under the terms and conditions of said permit, ^{beneficial use} ~~work thereunder~~ was required to be completed by November 13, 19 67.

That he has heretofore performed the following work described under said permit: Proof of completion of works made December 20, 1960. Basic system completed then, but not all of the land has been irrigated.

Costing \$ 4,587,000

That he is unable to complete the ^{beneficial use} ~~remainder of the work~~ within the required time for the following reasons, to-wit: With some alteration in the West Canal now planned, it is expected that approximately 900 acres of land will be added to the project irrigable area by 1970. This added acreage is included in the 11,798.9 project total described in our application.

WHEREFORE, he asks that the State Reclamation Engineer extend the time for the completion of obligations under said permit to November 13, 19 69.

Norman H. Moore
(signature) Acting Regional Director

Subscribed and sworn to before me this 25th day of August, 19 67.

John H. Zwick
(notary public)

My commission expires 6-10-71.

Date of receipt at office of Department of Reclamation August 28, 1967

ACTION OF STATE RECLAMATION ENGINEER

I, R. KEITH HIGGINSON, State Reclamation Engineer of the State of Idaho, hereby approve the above application for extension of time for permit 26602 to November 13, 1969.

Witness my hand this 7th day of September, 19 67.

R. Keith Higgins
State Reclamation Engineer

26602

August 2, 1967

Re: Permit No. 26602

Regional Director, Region #1
Bureau of Reclamation
Box 937
Boise, Idaho

Dear Sir: Proof of completion of works and application of water to beneficial use for the above referenced permit is due not later than _____.

Under the terms of your permit, it is required that a notice be published once a week for four consecutive weeks in a local newspaper showing your intent to submit proof. The proof will consist of depositions which the permit holder and two disinterested witnesses must complete before the listed notary public, and must be accompanied by an affidavit of publication of the legal notice.

We have prepared the enclosed notice from the information on your permit. The complete name and address of a notary public of the State of Idaho must be entered together with a date for you to appear before the notary. Allow at least 40 days from the date the notice is mailed to this department for your appearance before the notary.

If you find any discrepancy in the notice or have made any changes, please advise this department and we will assist you in doing whatever may be necessary to assure correct publication.

If the enclosed notice is correct, complete the blank spaces and sign the form authorizing us to publish the notice at your expense and return all forms. At the time we send the notice to the newspaper, you will be supplied with further instructions.

If you do not desire to complete the proofs and obtain a license of water right, you are requested to complete the relinquishment portion of this form below and return it to the Department of Reclamation.


State Reclamation Engineer

RELINQUISHMENT

I hereby relinquish to the State of Idaho, all my right, title and interest in and to Permit to Appropriate the Public Waters of the State of Idaho, No. _____.

Dated _____.

permit holder

26602

April 20, 1962

RE: Permit Nos. 26216, 26602, R-670

Harold T. Nelson, Regional Director, Region 1
Bureau of Reclamation
Box 937
Boise, Idaho

Dear Mr. Nelson:

Enclosed are the Certificates of Completion of Works on the
above numbered permits.

Also enclosed are departmental receipts No. 31015 in the
amount of \$1682.00, 31016, \$74.00, and 31017, \$50.00 covering
the fees for the Certificates.

Very truly yours,

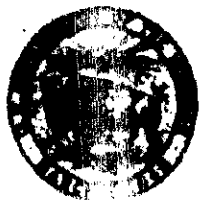
GEO. W. CARTER
State Reclamation Engineer
By

(Mrs.) Edna P. Rule
Chief Clerk

EPR:mr

Enc. certificates 3
receipts 3

26602



UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

IN REPLY
REFER 424

APR 2 1962

Gray OK 4/3
Financ 4/5
Anderson Jan 4/3

To: Project Superintendent, Burley, Idaho

From: Regional Director, Boise, Idaho

Subject: Permit No. 26602, Michaud Flats Project, Idaho

Enclosed is a copy of a letter dated March 26, 1962 from the State Reclamation Engineer stating that a Certificate of Completion of Works in connection with Permit No. 26602 will be issued upon receipt of the statutory fee of \$50.00.

The statutory fee in this case is calculated as follows:

1st 10 cfs	\$5.00
Next 150 cfs at 30¢	<u>45.00</u>
Total	\$ 50.00

26602

March 26, 1962

RE: Permit No. 26602

Harold T. Nelson, Regional Director, Region 1
Bureau of Reclamation
Box 937
Boise, Idaho

Dear Mr. Nelson:

Our engineer's report on his inspection of the completion of works under the terms of Permit No. 26602 shows that the pumping plant is capable of conveying 160 c.f.s. or 8,000 miner's inches of water for irrigation and domestic use.

Upon receipt of the statutory fee of \$50.00 we will issue the Certificate of Completion of Works with point of diversion in the SW¹/₄ of Section 30, Township 7 South, Range 31 East to irrigate approximately 11,798.9 acres in Sec. 35, 36, T. 6 S., R. 31 E., B.M.; Sec. 29, 30, 31, 32, T. 6 S., R. 32 E., B.M.; Sec. 1, 2, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 28, 29, 31, 32, T. 7 S., R. 31 E., B.M.; Sec. 6, 7, 8, 17, 18, T. 7 S., R. 32 E., B.M.; Sec. 1, 11, 12, 13, 14, 15, 21, 22, 23, 24, 26, 27, 28, T. 8 S., R. 30 E., B.M.; Sec. 5, 6, 7, 18, R. 8 S., R. 31 E., B.M.

Very truly yours,

GEO. N. CARTER
State Reclamation Engineer
By

(Mrs.) Edna P. Rule
Chief Clerk

ELH:mrx

26602

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE, IDAHO
REPORT OF ENGINEER

Permit No. 26602This proof is for Completion of Works In Water District No. _____

1. Name of applicant U. S. Bureau of Reclamation
2. Source of water supply: Snake River
3. Location of point of diversion: Is in the SE¹₄ of Section 30
T. 7 S R. 31 EBM County of Power
4. Describe works as they exist, giving dimensions and capacities of same: River pumping plant includes four, electrically driven, horizontal shaft, centrifugal-type pump units of varying capacities. TDH 140-195 feet. Total power rating 3,700 h. p. Discharge line, 300 feet, 60-inch steel and 5,170 feet of concrete pipe, discharging into two canals through bifurcation works. Estimate maximum capacity with high reservoir pool 160 cfs. Main Canal East, initial bottom width 10 feet, side slopes 2:1, length 10.5 miles, estimated maximum capacity 110 cfs. Main Canal West, initial bottom width 7 feet, side slopes 1-1/2:1, length 12 miles and estimated maximum capacity 50 cfs. Approximately 14 miles of open earth lateral and 14.5 miles of buried steel pipe laterals have been constructed
5. Water is used for: irrigation and domestic
6. State whether or not water has been turned into works of diversion: _____

7. List legal subdivisions of lands to be irrigated. If proof is for beneficial use, give exact number of acres under cultivation in each forty-acre tract. (Describe manner and place of use if other than irrigation):

T. 6 S., R. 31 E., Sec. 35-36; T. 6 S., R. 32 E., Sec. 29-30-31-32;
T. 7 S., R. 31 E., Sec. 1-2-10-11-12-13-14-15-16-20-21-22-23-24-28-29-31-32;
T. 7 S., R. 32 E., Sec. 6-7-8-17-18;
T. 8 S., R. 31 E., Sec. 5-6-7-18;
T. 8 S., R. 30 E., Sec. 1-11-12-13-14-15-21-22-23-24-26-27-28.

(Submit map on attached plat, showing location and details of above description.)

8. What large stream would the water here appropriated finally reach? _____

Remarks: _____

This examination was made on the _____ day of Sept, 19 60

(Signed) _____

Examiner.

26602

U. S. Bureau of Reclamation
Regional Director, Region I
Box 937, Boise, Idaho
Permit No. 26602

Examination for Completion of Works

County Power

Sec. 30 T 7 S R. 31 E 6 N

Quantity: 160 a.f.s.

Source: Snake River

P.D.: SE 4, Sec. 30, T. 7 S. - R. 31 E. 6 N

Use: Irrigation & Domestic

Filed: June 11, 1956

Due: 9/14. 11/13/67

Extension: -

Completion of Works: Due 11/13/61

Other Rights: See attached schedule

Michael

INSTRUCTIONS TO EXAMINERS

1. Always carefully note the location of the point of diversion and accurately plat same.
2. When proof is for beneficial use, carefully check up the number of acres actually irrigated in each forty and accurately plat same.
3. Make a map showing the correct location of streams and ditches, and the irrigated lands, and any adjacent permanent landmarks, such as towns, lakes, large streams and public roads.
4. If any unusual conditions are discovered, make plain statement of them under remarks.
5. Always see the holder, if possible, and go over the whole ground with him and make your report only upon actual existing facts and conditions.
6. Give general characteristics of soils, topography, and crops raised.

STATE OF IDAHO
DEPARTMENT OF RECLAMATION
BOISE

REPORT OF ENGINEER

PERMIT NO. 26602

REPORT ON PROOF OF Completion of Works

U. S. Bureau of Reclamation, Box 937, Boise, Idaho
ATT: Regional Director, Region 1

3-22-62

REL

Permit #26602
Michaud Flats Project

4. Describe works as they exist, giving dimensions and capacities of same.

River pumping plant includes four, electrically driven, horizontal-shaft, centrifugal-type pump units of varying capacities. TDH 140-195 feet. Total power rating 3,700 h.p. Discharge line, 300 feet 60-inch steel and 5,710 feet of concrete pipe, discharging into two canals through bifurcation works. Estimate maximum capacity with high reservoir pool 160 cfs. Main Canal East, initial bottom width 10 feet, side slopes 2:1, length 10.5 miles, estimated maximum capacity 110 cfs. Main Canal West, initial bottom width 7 feet, side slopes 1-1/2:1, length 12 miles, and estimated maximum capacity 50 cfs. Approximately 14 miles of open earth laterals and 14.5 miles of buried steel pipe laterals have been constructed.

26602

STATEMENT

The Power County Press

American Falls, Idaho

Sold To State of Idaho, Department of Reclamation

Address Boise, Idaho

DATE	DESCRIPTION	RATE	CREDIT	AMOUNT
12-15-60	For completion of work 69 lines, 4 publications Permit No. 26602	.15-.10		31.05
<i>Pd. 1-25-61</i> THE POWER COUNTY PRESS American Falls, Idaho <i>by Phyllis Genge</i> 26602				

All accounts due and payable by the 10th of the month.

January 26, 1961

Re: Permit No. 26602

H. T. Nelson, Regional Director
Region No. 1, Bureau of Reclamation
P. O. Box 937, Boise, Idaho

Dear Mr. Nelson:

We enclose the statement from the Power County
Press showing that the four publications on completion of works
on Permit No. 26602 have been paid.

It was mailed to this office in error.

Very truly yours,

GEO. N. CARTER
State Reclamation Engineer

By:

(Mrs.) Edna P. Rule
Chief Clerk

EPR

Enc. statement

26602

January 24, 1961

RE: Permit No. 26602
Bureau of Reclamation

Phyllis Ringe, Principal Clerk
Power County Press
American Falls, Idaho

Dear Miss Ringe:

We are enclosing a check in the amount of \$31.05 made payable to the State Reclamation Engineer which he has endorsed to you. This check was issued to cover the publication cost in connection with the Permit listed above.

A receipt in duplicate will be appreciated.

Very truly yours,

GEO. N. CARTER
State Reclamation Engineer

By:

(Mrs.) Edna P. Rule
Chief Clerk

EPR
Encl. (1) check

cc: H. T. Nelson, Regional Director
Region No. 1, Bureau of Reclamation
P. O. Box 937, Boise, Idaho

26602

January 3, 1961

Re: Permit No. 26602

H. T. Nelson, Regional Director
Region No. 1, Bureau of Reclamation
P. O. Box 937, Boise, Idaho

Dear Mr. Nelson:

We enclose Purchase Voucher No. 1034, properly
signed for the fees of \$31.05 in connection with Permit No.
26602, Michaud Flats Project.

Very truly yours,

GEO. N. CARTER
State Reclamation Engineer

By:

(Mrs.) Edna P. Rule
Chief Clerk

EP:rew

Enc. voucher

26602



IN REPLY
REFER TO: 150

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

RECEIVED
DEC 29 1960

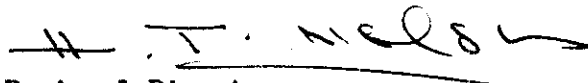
Department of Reclamation

DEC 28 1960
Mr. George N. Carter
State Reclamation Engineer
Department of Reclamation
Boise, Idaho

Dear Mr. Carter:

In response to your letter of December 21, there is enclosed a corrected voucher in the amount of \$31.05 covering fee for publishing notices in connection with proof of completion of works under Permit No. 26602, Michaud Flats Project. After the voucher has been signed will you please return it to this office so that it may be placed in line for payment.

Sincerely yours,


Regional Director

Enclosure

26602

*Engineering Report Made
12-22-60*

December 21, 1960

RE: Permit No. 26602

H.T. Nelson, Regional Director, Region 1
Bureau of Reclamation
P. O. Box 937
Boise, Idaho

Attention: 150

Dear Mr. Nelson:

This acknowledges your letter of December 20 enclosing deposition of holder and two witnesses and affidavit of publication for proof of completion of works on Permit No. 26602, Michaud Flats Project.

The proofs are in acceptable form and will be filed awaiting the statutory requirement of a field examination by a representative of this office.

I am sorry but we cannot handle the Public Voucher for payment of fees in connection with this permit for two reasons:

1. We need to have the remittance for the cost of publication in a separate voucher which should be in amount \$31.05.

2. We cannot accept the fee for the proof until an engineer from this office makes a determination of the capacity of the diversion. It might or might not be the same as the amount of the permit, namely 160 c.f.s. After field examination is made you will be notified of the fee for the proof of completion of works.

The voucher enclosed with your letter is returned herewith.

Sincerely yours,

GEO. N. CARTER
State Reclamation Engineer

GNC:mr
Enc. voucher

26602



IN REPLY
REFER TO: 150

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

RECEIVED
DEC 2 11 1960
Department of the Interior

DEC 20 1960

Certified Mail
Return Receipt Requested

Mr. George N. Carter
State Reclamation Engineer
Department of Reclamation
Boise, Idaho

Dear Mr. Carter:

Pursuant to the published notices proof has been taken of the completion of construction of the pumping plant to serve the Michaud Flats Project of the Bureau of Reclamation in Power County under Permit No. 26602. Enclosed for filing are the deposition of H. T. Nelson, Regional Director, representing the United States as the holder of Permit No. 26602, and the depositions of M. B. Austin and Robert H. Harris as witnesses to this Proof of Completion of Works. These depositions were made before John H. Welch, notary public, on December 20, 1960. Enclosed also is an affidavit of publication from the Power County Press pertaining to the published notice. Enclosed is a voucher in the amount of \$81.05 covering the costs of this proof.

Sincerely yours,

H. T. Nelson
Regional Director

Enclosures

*LW for not yet known
Make voucher for \$81.05*

26602

PERMIT NO. 26602

RECEIVED
DEC 2 11960

Proof of Completion of Works

DEPOSITION OF HOLDER

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. The United States of America, acting through its Regional Director,
Region 1, Bureau of Reclamation, P. O. Box 937, Boise, Idaho.

Ques. 2. If acting in behalf of a corporation, state its name, principal place of business, your position with reference to same, and your authority for appearing in its behalf.

Ans. The United States of America, Regional Director of Region 1, Bureau of Reclamation.

Ques. 3. State number and date of permit, amount of water you are authorized to divert, source, and point of diversion. Permit No. 26602, November 13, 1958, 160 cfs, ^{2/1956}
Ans. Snake River, American Falls Dam, approximately 1,600 ft. from southeast corner of Sec. 30, T. 7 S., R. 31 E., B.M., and is in the SE 1/4 of Sec. 30, T. 7 S., R. 31 E., B.M., County of Power.

Ques. 4. State purpose for which water is to be used, and, if for irrigation, state the number of acres and give description of the land you intend to reclaim.

Ans. Irrigation and domestic uses, 11,798.9 acres, described as follows
(see reverse).

Ques. 5. State whether or not the water has been turned into your works of diversion, and, if so, when and to what extent.

Ans. Yes. First water diversion in 1958 irrigation season. Irrigated lands not fully developed so full capacity has not yet been used.

Ques. 6. State whether or not the works of diversion are fully completed, and whether or not they comply in all respects with the terms of the permit.

Ans. Works of diversion are fully completed and comply with terms of the permit.

Ques. 7. If the works of diversion do not comply with all the terms of your permit, state fully those particulars in which there is any variance.

Ans.

Ques. 8. Give description of works, state dimensions and capacity of each part, and give cost of same. Pumping plant consisting of four electrically driven pumps, 5,600 ft. 60-inch diameter welded steel pipe discharge line. Approximately 22 miles
Ans. open canal. Approximately 4,400 feet 60-inch diameter buried concrete pipe. \$4,587,000.

(Sign here.)

H. T. Weller

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, in Boise

County of Ada, State of Idaho, on this 20th day of December, A. D. 1960.

My Commission expires 6/10/63

John H. Weller
Notary Public.

26602

Engineer's Report made by James L. Carter

T. 6 S., R. 31 E., Sec. 35-36;
T. 6 S., R. 32 E., Sec. 29-30-31-32;
T. 7 S., R. 31 E., Sec. 1-2-10-11-12-13-14-15-16-20-21-22-23-24-28-29-31-32;
T. 7 S., R. 32 E., Sec. 6-7-8-17-18;
T. 8 S., R. 31 E., Sec. 5-6-7-18;
T. 8 S., R. 30 E., Sec. 1-11-12-13-14-15-21-22-23-24-26-27-28.

The Depositions of two Witnesses, in this form, taken separately, required in each case.

Permit No. 26602

Proof of Completion of Works

DEPOSITION OF WITNESS

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. Robert H. Harris, Boise, Idaho, Supervisory General Engineer (Regional Engineer), P. O. Box 937, Boise, Idaho

Ques. 2. Are you acquainted with United States of America, the holder of Permit No. 26602, authorizing the diversion of 160 second-feet of the waters of Snake River, at American Falls Dam for irrigation purposes? How long have you known him, and where does he reside?
and domestic

Ans. Yes

Ques. 3. Have you read or heard read said Permit No. 26602, and are you familiar with its terms and conditions?

Ans. Yes

Ques. 4. (If for irrigation purposes). Are you acquainted with the land proposed to be irrigated under said permit? If so, describe same, state its character, and give your estimate of the amount of water required for its profitable cultivation.

Ans. Yes. They are fine sandy loams and silt loams ranging in depth from 14 inches to over 5 feet over gravel or basalt. Approximately 4.5 acre-feet an acre.

Ques. 5. Are the works of diversion fully completed and of sufficient capacity to convey the entire amount of water set out in the permit from point of diversion to place of use?

Ans. Yes

Ques. 6. Describe the works of diversion as they now exist, and give your estimate of their capacity.

Ans. Pumping plant with intake through existing penstock opening in original American Falls Dam. There are four electrically driven pump units with different capacities. Maximum combined capacity approximately 160 cfs with high pool levels in American Falls Reservoir.

(Sign here)

Robert H. Harris

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, at my office in Boise

County of Ada, State of Idaho, on this 20th day of December, A. D. 19 60

My commission expires 6/10/63

John H. Welch

26602

The Depositions of two Witnesses, in this form, taken separately, required in each case.

Permit No. 26602

Proof of Completion of Works

DEPOSITION OF WITNESS

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. M. B. Austin, Boise, Idaho, Civil Engineer, P.O. Box 937, Boise, Idaho

Ques. 2. Are you acquainted with United States of America, the holder of Permit No. 26602, authorizing the diversion of 160 second-feet of the waters of Snake River, at American Falls Dam for irrigation purposes? How long have you known him, and where does he reside?

and domestic

Ans. Yes

Ques. 3. Have you read or heard read said Permit No. 26602, and are you familiar with its terms and conditions?

Ans. Yes

Ques. 4. (If for irrigation purposes). Are you acquainted with the land proposed to be irrigated under said permit? If so, describe same, state its character, and give your estimate of the amount of water required for its profitable cultivation.

Ans. Yes. They are fine sandy loams and silt loams ranging in depth from 14 inches to over 5 feet over gravel or basalt. Approximately 4.5 acre-feet an acre.

Ques. 5. Are the works of diversion fully completed and of sufficient capacity to convey the entire amount of water set out in the permit from point of diversion to place of use?

Ans. Yes

Ques. 6. Describe the works of diversion as they now exist, and give your estimate of their capacity.

Ans. Pumping plant with intake through existing penstock opening in original American Falls Dam. There are four electrically driven pump units with different capacities. Maximum combined capacity approximately 160 cfs with high pool levels in American Falls Reservoir.

(Sign here.)

M. B. Austin

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, at my office in Boise County of Ada, State of Idaho, on this 20th day of December, A. D. 19 60.

My commission expires 6/10/63

John H. Welch

26602

STATE OF IDAHO

DEPARTMENT OF RECLAMATION

Boise, Idaho

Re: Permit No. 26602
U.S.A., Bureau of Reclamation
Department of Interior

Date: November 17, 1960

Power County Press,
American Falls, Idaho.

Gentlemen:

Enclosed you will find notice for publication, once a week for four consecutive weeks prior to **December 20, 1960** the date set for proof;

the expense of the publication is to be paid by the applicant **The United States of America, acting through the Bureau of Reclamation of the Department of Interior** of **Box 937, Boise, Idaho**

to whom you should furnish proof of publication on or prior to the date set for proof.

Please acknowledge receipt of this notice and furnish this office with a copy or tear sheet of the first publication.**

Very truly yours,


GEO. N. CARTER
State Reclamation Engineer

** If the first copy is not received in this office for checking purposes and errors appear in subsequent issues, it is possible that re-publication of corrected copy will be at your own expense

Encl.

26602

NOV 1 7 1960
Department of Reclamation

NOTICE TO ACCOMPANY THIS LETTER MUST BE MADE IN DUPLICATE

(Date) November 14, 1960

(P. O.) Box 937, Boise, Idaho

TO THE STATE RECLAMATION ENGINEER:

Boise, Idaho

Dear Sir:

You are hereby authorized to have the attached notices published at my expense in the
Power County Press of American Falls, Idaho published in
the county in which the works are situated.

Power Co. ✓

M. B. Austin
Acting Regional Director
Bureau of Reclamation

(In case of canals or other works designed to divert and carry more than 50 cubic feet of water per second, the following certificate must be signed by a well known and competent engineer.)

I hereby certify that the facts set forth in the attached notice are true.

M. B. Austin
Engineer.

26602

STATE OF IDAHO

DEPARTMENT OF RECLAMATION

BOISE
November 17, 1960

Re: Permit No. 26602

U. S. Department of the Interior,
Bureau of Reclamation,
Box 937,
Boise, Idaho.

Gentlemen:

This acknowledges the Notice of Proof of Completion of Works ~~and Application of~~
~~Water to Bear River~~ under Permit No. 26602. The proofs are to be
made at 10:00 o'clock A.M., on the 20th day of December, 1960, ~~1959~~
before John H. Welch, c/o USER, Boise, Idaho, Notary Public.

As of this date we have mailed the Notice to the Power County Press
with instructions to publish it once a week for four consecutive weeks prior to
the date set for final proof and then mail the affidavit of publication and
statement of costs to you.

It is important that the enclosed depositions be executed by you and two disin-
terested witnesses who are familiar with the terms of the permit and the work
done thereunder, at the place, on the date, and at the time and before the Notary,
as advertised. It is very important and necessary that each question be answered
in detail.

In returning the depositions to this office, be sure that all copies have been
signed, the Notary's seal has been placed on each and that all depositions, (holder
and two witnesses) are being returned. Also be sure to enclose the Affidavit of
Publication.

Very truly yours,

GEO. N. CARTER
State Reclamation Engineer

By:

Rule
(Mrs.) Edna P. ~~Rodriguez~~
Chief Clerk

26602

Encl.
EPR: pmk
cc: Notary

Notice for Publication

FOR COMPLETION OF WORKS

Notice is hereby given that at 10 A. M., on the 20th day of December

1960, at Boise, County of Ada, State of Idaho.

before John H. Welch, a notary public for Idaho, proof will be submitted of the completion of works for the diversion of 160 cubic feet per second of the waters of Snake River

in accordance with the terms and conditions of a certain permit heretofore issued by the Department of Reclamation of the State of Idaho.

1. The name of the person or corporation holding said permit is The United States of America, acting through the Bureau of Reclamation of the Department of the Interior.

2. The postoffice address of such person or principal place of business of such corporation is P. O. Box 937, Boise, County of Ada, State of Idaho.

3. The number of such permit is 26602, and the date set for the completion of such work is

November 13, 1961

4. Said water is to be used for irrigation and domestic purposes.

5. Said works of diversion will be fully completed on the date set for such completion, and the amount of water which said works are capable of conducting to the place of intended use, in accordance with the plans accompanying the application for such permit, is 160 cubic feet per second.

6. The amount of lands for which said water is available is 11,798.9 acres, located in the Michaud Flats Project, Power County, described as follows:

T. 6 S., R. 31 E., secs. 35, 36
T. 6 S., R. 32 E., secs. 29, 30, 31, 32
T. 7 S., R. 31 E., secs. 1, 2, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 28, 29, 31, 32
T. 7 S., R. 32 E., secs. 6, 7, 8, 17, 18
T. 8 S., R. 31 E., secs. 5, 6, 7, 18
T. 8 S., R. 30 E., secs. 1, 11, 12, 13, 14, 15, 21, 22, 23, 24, 26, 27, 28

GEO. N. CARTER

Commissioner of Reclamation
 State Reclamation Engineer

26602



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

IN REPLY
REFER TO: 150

Registered Mail
Return Receipt Requested

NOV 16 1960

Mr. George N. Carter
State Reclamation Engineer
State House
Boise, Idaho

Dear Mr. Carter:

I wish to hereby give notice that I am prepared to submit Proof of Completion of Works under Permit No. 26602 relative to the diversion of 160 cubic feet per second of waters of the Snake River. There is enclosed, in duplicate, your Form 8 entitled "Notice for Publication" that has been prepared for signature.

There is also enclosed your Form No. 11 authorizing publication of the notice in the Power County Press of American Falls, Idaho. This form is also certified to by an engineer as required by sec. 42-214 of the Idaho Code.

It would be appreciated if you would submit a bill to this office after you have received from the publisher the amount due for printing the advertisement notice. I will then have a voucher prepared for your execution in order that you may be reimbursed for such amount.

Sincerely yours,

M. B. Austin

Acting Regional Director

Enclosures

26602



IN REPLY
REFER TO: 150

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION 1
BOX 937, BOISE, IDAHO

RECEIVED
MAR 20 1959
Department of Reclamation

MAR 19 1959

Mr. George N. Carter
State Reclamation Engineer
Boise, Idaho

Dear Mr. Carter:

Permit Nos. 26602 and G-26603, pertaining to the Michaud Flats Project of the Bureau of Reclamation, require that proof of completion of one-fifth of the work be made by May 13, 1959. As you know, the Project is almost 100 percent complete and we hope to be able to make proof of completion of works later this spring or early this summer.

In the meantime, it would be appreciated if you would regard this letter as proof of completion of one-fifth of the work prior to the May 13 deadline.

OK GML
3-19-59

Sincerely yours,

H. T. Wols
Regional Director

26602

100C-240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

RECEIVED
JUL 13 1956
Department of Reclamation

- - -

Schedule, General Provisions, Specifications, and Drawing

- - -

DRILLING FOUR TO SIX WELLS
AREA I

- - -

Michaud Flats Project, Idaho

=====

Bids will be received at the office of the Bureau of Reclamation,
American Falls, Idaho, until 10 a.m., Mountain Standard Time, February 7,
1956.

(Price \$0.50)

26602

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Drawing

39. Drawing

26602

DRILLING FOUR TO SIX WELLS - AREA 1

MICHAUD FLATS PROJECT
AMERICAN FALLS, IDAHO

Bids will be considered on all of the following schedule, but no bid will be considered for only a part of the schedule.

SCHEDULE

Item No.	Work or material	Quantity and unit	Unit price	Amount
1	Moving in, setting up, dismantling and removing equipment	For the lump sum of		\$
2	Drilling 24-inch-diameter hole	1500 lin. ft.	\$	
3	Furnishing, installing, and removing temporary outer casing	1500 lin. ft.		
4	Furnishing and installing 14-inch casing	700 lin. ft.		
5	Furnishing and installing 12-inch casing	550 lin. ft.		
6	Installing 14-inch and/or 12-inch diameter well screens	250 lin. ft.		
7	Placing gravel packing	100 cu. yds.		
8	Backfilling	500 lin. ft.		
9	Developing wells	200 hours		
10	Furnishing, installing and removing test pump for each pumping test	5 tests		
11	Test pumping	120 hours		
TOTAL FOR SCHEDULE				\$

GUARANTY

It is hereby guaranteed that all articles, materials, and supplies used will conform to the clause "Buy American Act" of the General Provisions, except as noted below.

The cost of the articles, materials, and supplies listed above will be _____ percent of the total cost of all of the articles, materials, and supplies used.

NOTE: Unless bidder intends to take exception to the Buy American Act it is unnecessary to fill out this form.

26602

11. PERMITS AND RESPONSIBILITY FOR WORK, ETC.

The Contractor shall, without additional expense to the Government, obtain all licenses and permits required for the prosecution of the work. He shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the work. He shall also be responsible for all materials delivered and work performed until completion and final acceptance, except for any completed unit thereof which theretofore may have been finally accepted.

12. OTHER CONTRACTS

The Government may undertake or award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors and Government employees and carefully fit his own work to such additional work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees.

13. PATENT INDEMNITY

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents and employees against liability, including costs and expenses, for infringement upon any Letters Patent of the United States (except Letters Patent issued upon an application which is now or may hereafter be, for reasons of national security, ordered by the Government to be kept secret or otherwise withheld from issue) arising out of the performance of this contract or out of the use or disposal by or for the account of the Government of supplies furnished or construction work performed hereunder.

14. ADDITIONAL BOND SECURITY

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the Government, or if any such surety fails to furnish reports as to his financial condition from time to time as requested by the Government, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the Government and of persons supplying labor or materials in the prosecution of the work contemplated by this contract.

15. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

16. OFFICIALS NOT TO BENEFIT

No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

17. BUY AMERICAN ACT

The Contractor agrees that in the performance of the work under this contract the Contractor, subcontractors, material men and suppliers shall use only such unmanufactured articles, materials and supplies (which term "articles, materials and supplies" is hereinafter referred to in this clause as "Supplies") as have been mined or produced in the United States, and only such manufactured supplies as have been manufactured in the United States substantially all from supplies mined, produced, or manufactured, as the case may be, in the United States. Pursuant to the Buy American Act (41 U. S. C. 10a-d), the

foregoing provisions shall not apply (i) with respect to supplies excepted by the head of the department from the application of that Act, (ii) with respect to supplies for use outside the United States, or (iii) with respect to the supplies to be used in the performance of work under this contract which are of a class or kind determined by the head of the department or his duly authorized representative not to be mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, or (iv) with respect to such supplies, from which the supplies to be used in the performance of work under this contract are manufactured, as are of a class or kind determined by the head of the department or his duly authorized representative not to be mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, provided that this exception (iv) shall not permit the use in the performance of work under this contract of supplies manufactured outside the United States if such supplies are manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

18. CONVICT LABOR

In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment at hard labor.

19. NONDISCRIMINATION IN EMPLOYMENT

In connection with the performance of work under this contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin; and further agrees to insert the foregoing provision in all subcontracts hereunder except subcontracts for standard commercial supplies or for raw materials.

20. DAVIS-BACON ACT (40 U. S. C. 276a-a(7))

(a) All mechanics and laborers employed or working directly upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Copeland Act (Anti-Kickback) Regulations (29 CFR, Part 3)) the full amounts due at time of payment, computed at wage rates not less than those contained in the wage determination decision of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and such laborers and mechanics; and a copy of the wage determination decision shall be kept posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers.

(b) In the event it is found by the Contracting Officer that any laborer or mechanic employed by the Contractor or any subcontractor directly on the site of the work covered by this contract has been or is being paid at a rate of wages less than the rate of wages required by paragraph (a) of this clause, the Contracting Officer may (1) by written notice to the Government Prime Contractor terminate his right to proceed with the work, or such part of the work as to which there has been a failure to pay said required wages, and (2) prosecute the work to completion by contract or otherwise, whereupon such Contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

(c) Paragraphs (a) and (b) of this clause shall apply to this contract to the extent that it is (1) a prime contract with the Government subject to the Davis-Bacon Act or (2) a subcontract under such prime contract.

21. EIGHT-HOUR LAWS—OVERTIME COMPENSATION

No laborer or mechanic doing any part of the work contemplated by this contract, in the employ of the Contractor

or any subcontractor contracting for any part of said work contemplated, shall be required or permitted to work more than eight hours in any one calendar day upon such work, except upon the condition that compensation is paid to such laborer or mechanic in accordance with the provisions of this clause. The wages of every laborer and mechanic employed by the Contractor or any subcontractor engaged in the performance of this contract shall be computed on a basic day rate of eight hours per day and work in excess of eight hours per day is permitted only upon the condition that every such laborer and mechanic shall be compensated for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay. For each violation of the requirements of this clause a penalty of five dollars shall be imposed for each laborer or mechanic for every calendar day in which such employee is required or permitted to labor more than eight hours upon said work without receiving compensation computed in accordance with this clause, and all penalties thus imposed shall be withheld for the use and benefit of the Government: *Provided*, That this stipulation shall be subject in all respects to the exceptions and provisions of the Eight-Hour Laws as set forth in 40 U. S. C. 321, 324, 325, 325a, and 326, which relate to hours of labor and compensation for overtime.

22. APPRENTICES

Apprentices will be permitted to work only under a bona fide apprenticeship program registered with a State Apprenticeship Council which is recognized by the Federal Committee on Apprenticeship, U. S. Department of Labor; or if no such recognized Council exists in a State, under a program registered with the Bureau of Apprenticeship, U. S. Department of Labor.

23. PAYROLL RECORDS AND PAYROLLS

(a) Payroll records will be maintained during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records will contain the name and address of each such employee, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid. The Contractor will make his employment records available for inspection by authorized representatives of the Contracting Officer and the U. S. Department of Labor, and will permit such representatives to interview employees during working hours on the job.

(b) A certified copy of all payrolls will be submitted weekly to the Contracting Officer. The Government Prime Contractor will be responsible for the submission of certified copies of the payrolls of all subcontractors. The certification will affirm that the payrolls are correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the wage determination decision of the Secretary of Labor attached to this contract, and that the classifications set forth for each laborer or mechanic conform with the work he performed.

24. COPELAND (ANTI-KICKBACK) ACT—NONREBATE OF WAGES.

The regulations of the Secretary of Labor applicable to Contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Contractor will comply with these regulations and any amendments or modifications thereof and the Government Prime Contractor will be responsible for the submission of affidavits required of subcontractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

25. WITHHOLDING OF FUNDS TO ASSURE WAGE PAYMENT

There may be withheld from the Contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor or any subcontractor the full amount of wages required by this contract. In the event of failure to pay any laborer or mechanic all or part of the wages required by this contract, the Contracting Officer may take such action as may be necessary to cause the suspension, until such violations have ceased, of any further payment, advance, or guarantee of funds to or for the Government Prime Contractor.

26. SUBCONTRACTS—TERMINATION

The Contractor agrees to insert Clauses 20 through 26 hereof in all subcontracts and further agrees that a breach of any of the requirements of these clauses may be grounds for termination of this contract. The term "Contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "Government Prime Contractor."

26602

GENERAL PROVISIONS (CONSTRUCTION CONTRACTS)

1. DEFINITIONS

(a) The term "head of the department" as used herein shall mean the head or any assistant head of the executive department or independent establishment involved, and the term "his duly authorized representative" shall mean any person authorized to act for him other than the Contracting Officer.

(b) The term "Contracting Officer" as used herein, shall include his duly appointed successor or his authorized representative.

2. SPECIFICATIONS AND DRAWINGS

The Contractor shall keep on the work a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In any case of discrepancy either in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without this determination shall be at his own risk and expense. The Contracting Officer shall furnish from time to time such detail drawings and other information as he may consider necessary, unless otherwise provided.

3. CHANGES

The Contracting Officer may at any time, by a written order, and without notice to the sureties, make changes in the drawings and/or specifications of this contract and within the general scope thereof. If such changes cause an increase or decrease in the amount due under this contract, or in the time required for its performance, an equitable adjustment shall be made and the contract shall be modified in writing accordingly. Any claim of the Contractor for adjustment under this clause must be asserted in writing within 30 days from the date of receipt by the Contractor of the notification of change: *Provided, however*, That the Contracting Officer, if he determines that the facts justify such action, may receive and consider, and adjust any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made the dispute shall be determined as provided in Clause 6 hereof. But nothing provided in this clause shall excuse the Contractor from proceeding with the prosecution of the work as changed. Except as otherwise herein provided, no charge for any extra work or material will be allowed.

4. CHANGED CONDITIONS

The Contractor shall promptly, and before such conditions are disturbed, notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The Contracting Officer shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or the time required for, performance of this contract, an equitable adjustment shall be made and the contract modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given notice as above required; provided that the Contracting Officer may, if he determines the facts so justify, consider and adjust any such claim asserted before the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in Clause 6 hereof.

5. TERMINATION FOR DEFAULT—DAMAGES FOR DELAY—TIME EXTENSIONS

(a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the Government may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the Government may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the Government for any excess cost occasioned the Government thereby, and for liquidated damages for delay, as fixed in the specifications or accompanying papers, until such reasonable time as may be required for the final completion of the work, or if liquidated damages are not so fixed, any actual damages occasioned by such delay. If the Contractor's right to proceed is so terminated, the Government may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and necessary therefor.

(b) If the Government does not terminate the right of the Contractor to proceed, as provided in paragraph (a) hereof, the Contractor shall continue the work, in which event he and his sureties shall be liable to the Government, in the amount set forth in the specifications or accompanying papers, for fixed, agreed, and liquidated damages for each calendar day of delay until the work is completed or accepted, or if liquidated damages are not so fixed, any actual damages occasioned by such delay.

(c) The right of the Contractor to proceed shall not be terminated, as provided in paragraph (a) hereof, nor the Contractor charged with liquidated or actual damages, as provided in paragraph (b) hereof because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Government, in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, or delays of subcontractors or suppliers due to such causes: *Provided*, That the Contractor shall within 10 days from the beginning of any such delay, unless the Contracting Officer shall grant a further period of time prior to the date of final settlement of the contract, notify the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when in his judgment the findings of fact justify such an extension, and his findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal as provided in Clause 6 hereof.

6. DISPUTES

Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. Within 30 days from the date of receipt of such copy, the Contractor may appeal by mailing or otherwise furnishing to the Contracting Officer a written appeal addressed to the head of the department, and the decision of the head of the department or his duly authorized representatives for the hearings of such appeals shall, unless determined by a court of competent jurisdiction to have been fraudulent, arbitrary, capricious, or so grossly erroneous as necessarily to imply bad faith, be final and conclusive: *Provided*, That, if no such appeal to the head

of the department is taken, the decision of the Contracting Officer shall be final and conclusive. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

7. PAYMENTS TO CONTRACTORS

(a) Unless otherwise provided in the specifications, partial payments will be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable, or at more frequent intervals as determined by the Contracting Officer, on estimates made and approved by the Contracting Officer. In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.

(b) In making such partial payments there shall be retained 10 percent on the estimated amount until final completion and acceptance of all work covered by the contract: *Provided, however,* That the Contracting Officer, at any time after 50 percent of the work has been completed, if he finds that satisfactory progress is being made, may make any of the remaining partial payments in full: *And provided further,* That on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made in full, including retained percentage thereon, less authorized deductions.

(c) All material and work covered by partial payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Government to require the fulfillment of all of the terms of the contract.

(d) Upon completion and acceptance of all work required hereunder, the amount due the Contractor under this contract will be paid upon the presentation of a properly executed and duly certified voucher therefor, after the Contractor shall have furnished the Government with a release, if required, of all claims against the Government arising under and by virtue of this contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release in stated amounts to be set forth therein. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (41 U. S. C. 15), a release may also be required of the assignee at the option of the Contracting Officer.

8. MATERIALS AND WORKMANSHIP

Unless otherwise specifically provided for in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade of their respective kinds for the purpose and all workmanship shall be first class. Where equipment, materials, or articles are referred to in the specifications as "equal to" any particular standard, the Contracting Officer shall decide the question of equality. The Contractor shall furnish to the Contracting Officer for his approval the name of the manufacturer of machinery, mechanical and other equipment which he contemplates incorporating in the work, together with their performance capacities and other pertinent information. When required by the specifications, or when called for by the Contracting Officer, the Contractor shall furnish the Contracting Officer for approval full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection. The Contracting Officer may

in writing require the Contractor to remove from the work such employee as the Contracting Officer deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed by the Contracting Officer to be contrary to the public interest.

9. INSPECTION

(a) Except as otherwise provided in paragraph (d) hereof all material and workmanship, if not otherwise designated by the specifications, shall be subject to inspection, examination, and test by the Contracting Officer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction are carried on. The Government shall have the right to reject defective material and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefor, and the Contractor shall promptly segregate and remove the rejected material from the premises. If the Contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship the Government may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost thereof to the Contractor, or may terminate the right of the Contractor to proceed as provided in Clause 5 of this contract, the Contractor and surety being liable for any damage to the same extent as provided in said Clause 5 for terminations thereunder.

(b) The Contractor shall furnish promptly without additional charge, all reasonable facilities, labor, and materials necessary for the safe and convenient inspection and test that may be required by the Contracting Officer. All inspection and tests by the Government shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be as described in the specifications. The Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time inspection is requested by the Contractor.

(c) Should it be considered necessary or advisable by the Government at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect, due to fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the actual direct cost of labor and material necessarily involved in the examination and replacement, plus 15 percent, shall be allowed the Contractor and he shall, in addition, if completion of the work has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

(d) Inspection of material and finished articles to be incorporated in the work at the site shall be made at the place of production, manufacture, or shipment, whenever the quantity justifies it, unless otherwise stated in the specifications; and such inspection and written or other formal acceptance, unless otherwise stated in the specifications, shall be final, except as regards latent defects, departures from specific requirements of the contract, damage or loss in transit, fraud, or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of material and workmanship for final acceptance as a whole or in part shall be made at the site. Nothing contained in this paragraph (d) shall in any way restrict the Government's rights under any warranty or guarantee.

10. SUPERINTENDENCE BY CONTRACTOR

The Contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Contracting Officer, on the work at all times during progress, with authority to act for him.

27. MODIFICATIONS TO GENERAL PROVISIONS.

(a) Clause No. 5. --In the seventh line from the bottom of Clause No. 5(c) the period after the word "delay" is deleted, a colon is substituted therefor, and the following is added:

"Provided further, That the contractor shall be excused for delays of suppliers only if the contracting officer shall determine that the materials or supplies to be furnished are not procurable in the open market."

(b) Clause No. 6. --The clause is entirely deleted and the following substituted therefor:

"DISPUTE - Except as otherwise provided in this contract, any dispute concerning a question of facts arising under this contract which is not disposed of by agreement shall be decided by the contracting officer, who shall furnish to the contractor a written copy of his decision. Such decision shall be final and conclusive unless within 30 days from the date of receipt thereof, the contractor appeals therefrom by mailing or otherwise furnishing to the contracting officer a written appeal addressed to the Secretary. The decision of the Secretary or his duly authorized representatives upon such appeal shall be final and conclusive unless the decision is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under the 'Disputes' clause, the contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the contractor shall proceed diligently with the performance of the contract and in accordance with the contracting officer's decision."

(c) Clause No. 11. --At the end of Clause No. 11 the following is added:

"Upon completion of the contract, or final acceptance of any completed unit thereof, the work shall be delivered complete and undamaged."

(d) Clause No. 13. --At the end of Clause No. 13 the following is added:

"Any patented invention, the use of which by these specifications is required or permitted in the alternative to be used and which the United States has the right to use royalty free, shall be available to the contractor without the payment of the royalty."

(e) Clause No. 19. --Clause No. 19 is deleted and the following substituted therefor:

"19. NONDISCRIMINATION IN EMPLOYMENT--In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, religion, color, or national origin. The aforesaid provision shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

"The contractor further agrees to insert the foregoing provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials."

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Bureau of Reclamation
(Constr. - Contingency)

GENERAL CONDITIONS

1. Bonds. (a) Bid bond. --The bidder shall furnish guarantee with each bid in an amount not less than 10 percent of the amount of the bid: Provided, That guarantee in excess of \$2,000,000 will not be required.

(b) The contractor shall furnish bonds as follows:

(1) Performance bond. --The performance bond shall be furnished in accordance with the following table:

<u>Amount of contract</u>	<u>Performance bond</u>
Up to \$1,000,000	Not less than 50 percent of contract
\$1,000,000 to \$5,000,000	Not less than 40 percent of contract
\$5,000,000 to \$10,000,000	Not less than 30 percent of contract
\$10,000,000 to \$25,000,000	Not less than 20 percent of contract
\$25,000,000 and over	\$5,000,000

Bonds in amounts of \$1,000 or less will be made in multiples of \$100; in amounts exceeding \$1,000 but not exceeding \$5,000, in multiples of \$500; in amounts exceeding \$5,000, in multiples of \$1,000: Provided, That the amount of the bond shall be fixed by the contracting officer at the lowest sum that fulfills all conditions of the contract.

(2) Payment bond. --If the amount of the contract exceeds \$2,000, the contractor shall furnish to the United States, in addition to the bond required under (b)(1) hereof, a payment bond with a surety or sureties satisfactory to the officer awarding the contract, for the protection of all persons supplying labor and material in the prosecution of the work provided for in the contract, for the use of each such person. Whenever the total amount payable by the terms of the contract shall be not more than \$1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than \$1,000,000 and not more than \$5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than \$5,000,000, the payment bond shall be in the sum of \$2,500,000.

2. Climatic conditions. The contracting officer may order the contractor to suspend any work that may be subject to damage by climatic conditions.

3. Rights-of-way. The Government will provide the right-of-way or the site for permanent works or installations, the site for borrow pits, channels, spoil banks, and ditches, and right-of-way for access thereto over routes established by the contracting officer. The contractor will be permitted to use such land for construction purposes, but any additional right-of-way or land desired by the contractor for construction purposes shall be provided by the contractor without expense to the Government.

4. Quantities and unit prices. The quantities noted in the schedule are approximations for comparing bids, and no claim shall be made against the Government for excess or deficiency therein, actual or relative. Payment at the prices agreed upon will be in full for the completed work and will cover materials, supplies, labor, tools, machinery, and all other expenditures incident to satisfactory compliance with the contract, unless otherwise specifically provided.

5. Contractor's cost data. The contracting officer, through his authorized agents, shall have access to all pay rolls, records of personnel, invoices of materials, records of plant and equipment, and any and all other data relevant to the performance of the contract or necessary to determine its costs.

6. Sanitation. The contracting officer may establish sanitary and police rules and regulations for all forces employed under this contract, and if the contractor fails to enforce these rules the contracting officer may enforce them at the expense of the contractor.

7. Extras. The contractor shall, when ordered in writing by the contracting officer, in accordance with Clause 3 of the General Provisions, perform extra work and furnish extra material, not required by the specifications or included in the schedule, but forming an inseparable part of the work contracted for. Extra work and material will ordinarily be paid for at the lump-sum or unit price stated in the order. Whenever, in the judgment of the contracting officer, it is impracticable, because of the nature of the work or for any other reason to otherwise fix the price in the order, the extra work and material shall be paid for at the actual necessary cost as determined by the contracting officer, plus an allowance, not to exceed 15 percent of such actual necessary cost of the extra work and materials, for superintendence, general expense, and profit. The actual necessary cost will include all reasonable expenditures for material, labor (including compensation insurance and social security taxes), and supplies furnished by the contractor, and a reasonable allowance for the use of his plant and equipment, where required, but will in no case include any allowance for office expenses, general superintendence, or other general expenses.

8. Cleaning up. Upon completion of the work the contractor shall remove from the vicinity of the work all plant, buildings, rubbish, unused materials, concrete forms, and other like material, belonging to him or used under his direction during construction, and in

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the event of his failure to do so the same may be removed by the Government at the expense of the contractor, and his surety or sureties shall be liable therefor.

9. Protests. If the contractor considers any work demanded of him to be outside of the requirements of the contract, or considers any record or ruling of the contracting officer or of the inspectors to be unfair, he shall immediately upon such work being demanded or such record or ruling being made, ask, in writing, for written instructions or decision, whereupon he shall proceed without delay to perform the work or to conform to the record or ruling, and, within thirty (30) calendar days after date of receipt of the written instructions or decision (unless the contracting officer shall grant a further period of time prior to commencement of the work affected) he shall file a written protest with the contracting officer, stating clearly and in detail the basis of his protest. Except for such protests as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions, or decisions of the contracting officer shall be final and conclusive. Instructions and/or decisions of the contracting officer contained in letters transmitting drawings to the contractor shall be considered as written instructions or decisions subject to protest as herein provided.

10. Accident prevention. The contractor shall, at all times, exercise reasonable precautions for the safety of employees in the performance of this contract, and shall comply with all applicable provisions of Federal, State, and municipal safety laws and building and construction codes. The contractor shall also comply with the provisions of the Bureau of Reclamation publication "Safety Requirements for Construction by Contract," in effect on date bids are opened, so far as applicable, as determined by the contracting officer and unless such provisions are incompatible with Federal, State, or municipal laws or regulations. Monthly reports of all lost-time accidents shall be promptly submitted giving such data as may be prescribed by the contracting officer. Nothing in this paragraph shall be construed to permit the enforcement of any laws, codes, or regulations herein specified by any except the contracting officer.

11. Suspension of work. The Government may at any time suspend the whole or any portion of the work under this contract but this right to suspend the work shall not be construed as denying the contractor actual, reasonable, and necessary expenses due to delays, caused by such suspension, it being understood that expenses will not be allowed for such suspensions when ordered by the Government on account of weather conditions or on account of the failure of Congress to make the necessary appropriations for expenditures under this contract.

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on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question, accompanied by the recommendation of the contracting officer, shall be referred to the Secretary of Labor for final determination.

The wage rates contained in this decision are straight hourly wage rates. In some areas management and labor organizations in the construction industry have collectively bargained for health and welfare fund contributions. Such contributions are not included in wage rates determined by the Secretary of Labor for construction projects.

While the wage rates shown are the minimum rates required by these specifications to be paid during the life of the contract, it is the responsibility of bidders to inform themselves as to local labor conditions such as the length of workday or workweek, overtime compensation, health and welfare contributions, labor supply, and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

The regulations of the Secretary of Labor, effective July 1, 1951, provide in Title 29, Subtitle A, Part 5.4(b), Code of Federal Regulations, as follows: "All actions changing or modifying an original wage determination prior to the award of the contract or contracts for which the determination was sought shall be applicable thereto but modifications received by the agency later than 5 days before the opening of bids shall not be effective if the award is made within 30 days after the opening of the bids or 90 days from the date of the original wage determination whichever is the earlier."

15. Payments and funds. In preparing estimates for partial payments, consideration will be given to the delivery on the site of items of materials which will become a part of the finished construction work and for which payment in full has been made by the contractor, except that no consideration will be given to individual purchases of less than two hundred dollars (\$200.00) for any one item. No consideration will be given to any other preparatory work done. Special provisions relating to payments and funds are as follows:

(a) Section 12 of the Reclamation Project Act of 1939, provides as follows: "When appropriations have been made for the commencement or continuation of construction or operation and maintenance of any project, the Secretary may, in connection with such construction or operation and maintenance, enter into contract for miscellaneous services, for materials and supplies, as well as for construction, which may cover such periods of time as the Secretary may consider necessary but in which the liability of the United States shall be contingent upon appropriations being made therefor" (43 U.S.C. 388).

(b) Under the contract to be entered into under these specifications such work as may be done in excess of the amount for which funds are available for payments set forth in Subparagraph (c), modified pursuant to Subparagraphs (d) and (e) hereof, will be continued with funds to be hereafter appropriated.

SPECIAL CONDITIONS

12. The requirement. It is required that from four (4) to six (6) water-supply wells be drilled, cased, developed, tested, and completed in accordance with the Standard Form of Construction Contract No. 23, including the General Provisions (Standard Form No. 23A), these specifications and the drawing listed in Paragraph 39 hereof. The well sites are located within the general area designated as "Area 1" on Drawing No. 601-124-40, included and made a part of these specifications. Area 1 is situated from 6 to 9 miles northeast of American Falls, Power County, Idaho.

It is expected that five (5) wells will be required and the quantities shown in the schedule for the items listed therein have been estimated on that basis. The exact number of wells that may be required and directed, however, will depend upon the yields obtained from the first two wells completed under these specifications and upon the yields obtained from wells being drilled in the same area under prior Specifications No. 100C-238; Provided, however, That the number of wells to be drilled and completed under these specifications shall be not less than four (4) and not more than (6). Payment for work performed within the quantity limitations set out above will be made at the contract prices therefor and the contractor shall be entitled to no adjustment in compensation by reason of increase or decrease in quantities resulting from any requirement for one more or one less well than the expected five.

13. Description of the work. The work to be performed under these specifications includes the drilling, developing, and testing of from four to six 24-inch-diameter irrigation water-supply wells; furnishing and installing casings; and installing screens and gravel packing. Information available as to materials that may be encountered in drilling is described in Paragraph 26. The minimum depth of drilling in each well is 200 feet and the minimum depth of drilling to a minimum diameter of 24 inches is 150 feet. The maximum depth of drilling required is 400 feet. Gravel packing will be required around all well screens.

14. Rates of wages. Pursuant to the provisions of the Davis-Bacon Act, as amended (49 Stat. 1011; 40 U.S.C. 276(a)), the Secretary of Labor has determined that the following rates of wages are the prevailing rates of wages for the classifications specified in the locality of the work covered by these specifications, and said rates of wages shall be the minimum rates per hour to be paid for the work covered by these specifications.

<u>Classification</u>	<u>Rate per hour</u>
Iron workers, structural	\$2.875
Laborers	2.00
Mixers, concrete, mobile	2.53
Mixers (5-bag and over)	2.38
Truck driver, pickups and flatbeds to 5 tons	2.13
Truck driver, flatbed, 5 to 15 tons	2.18
Truck driver, flatbed, 15 to 20 tons	2.28
Pumps, over 4-inch	2.23
Drills, churn	2.58
Welders--Receive rate prescribed for craft performing operation to which welding is incidental	

Any class of laborers and mechanics not listed above, which will be employed on this contract, shall be classified or reclassified conformably to the foregoing schedule. In the event the interested parties cannot agree

(i) Should Congress fail to provide the expected additional funds during its regular session, the contract may be terminated and considered to be completed at the option of the contractor, without prejudice to him at any time not later than 30 days after payments are discontinued, or if payments have been previously discontinued, not later than 30 days after passage of the Act which would ordinarily carry an appropriation for continuing the work, or after the adjournment of Congress without passing such Act.

16. Commencement, prosecution and completion of work. (a) Completion period.--The contractor shall begin work within twenty (20) calendar days after date of receipt of notice to proceed, and shall complete all of the work within the number of calendar days from the date of receipt of such notice shown in the following tabulation: Provided, That the period allowed for the completion of the work, or any part thereof for which separate completion period is stated, shall be reduced by one (1) calendar day for each calendar day in excess of ten (10) calendar days, or any extension thereof, elapsing between the contractor's receipt of and return of properly executed contract and performance and payment bonds as required in United States Standard Form No. 21:

First two wells.....75 days plus 1 day for each 10 feet, or fraction thereof, of total depth required in excess of 600 feet, plus 5 days for each pumping test required.

Remaining wells..... 150 days plus 1 day for each 10 feet, or fraction thereof, of total depth required for all wells in excess of 1500 feet, plus 5 days for each pumping test required.

(b) Prosecution of the work.--The capacity of the contractor's construction plant, sequence of operations, method of operation, and the forces employed shall, at all times during the continuance of the contract, be subject to the approval of the contracting officer and shall be such as to insure the completion of the work within the specified period of time.

(c) Priorities.--If performance under these specifications is delayed by operations of the national priorities or material allocation system, the time for performance will be extended to compensate for such delays.

(d) Equipment.--In order to prosecute and complete the work as required above, the contractor shall use drilling equipment of sufficient size and tool-weight capacity to perform the drilling in an efficient and satisfactory manner within the time allowed for completion.

17. Liquidated damages. The contractor shall pay to the Government as fixed, agreed, and liquidated damages, the sum of twenty dollars (\$20.00) per day per well for each calendar day's delay in completion.

18. Equipment allowances for contract adjustments. (a) General.--If the contractor is ordered to perform extra work in accordance with Paragraph 7 of the specifications, the allowance made for the equipment used on

(c) Funds have been reserved to finance the estimated face value of the contract during the current fiscal year. The contractor will be notified of the amount so reserved.

(d) If at any time it becomes apparent to the contracting officer that the balance of this reservation is in excess of the estimated amount required to meet all payments due and to become due the contractor because of work performed or to be performed until June 30, 1956, the right is reserved to reduce said reservation by the amount of such excess. The contractor will be advised of any reduction so made.

(e) If the rate of progress of the work is such that it becomes apparent to the contracting officer that the balance of the reservation is less than the estimated amount required to meet all payments due and to become due because of work performed until June 30, 1956, the Government may reserve additional funds for payments under this contract if there be funds available for such purpose. The contractor will be advised of any additional reservation so made.

(f) It is expected that Congress will make additional appropriations applicable to work under this contract, but as to this it must be distinctly understood and agreed that the Government is in no case to be made liable for damages in connection with this contract on account of delays in payments on same due to lack of available funds. Should it become apparent to the contracting officer that available funds will be exhausted before additional funds are appropriated, the contracting officer will give 30 days' written notice to the contractor that work may be suspended by the contractor; but if the contractor so elects, he may continue work under the conditions and restrictions of the specifications, after the time set by such notice, so long as there are funds for inspection and superintendence, concerning which he will be advised; with the understanding, however, that no payment will be made for such work until sufficient additional funds have been provided by the Congress. When funds again become available, the contractor will be notified in writing as to the amount thereof reserved for payments under this contract. The amount so reserved shall be subject to decrease or increase in a manner similar to that provided in Subparagraphs (d) and (e) hereof. Should work be thus suspended, additional time for completion will be allowed equal to the period during which the work is necessarily so suspended as determined by the dates specified in the above-mentioned notices.

(g) So long as funds are available, payments will be made in accordance with the provisions of the contract. Unless otherwise authorized in writing by the contracting officer, the items of work for which payment will be made shall be limited to those listed and enumerated in the contract. The unit or lump-sum price or prices stated in the contract will be used in determining the amount to be paid and shall constitute full and final compensation for all work.

(h) The procedure above described in this paragraph shall be repeated as often as necessary on account of exhaustion of available funds and the necessity of awaiting the appropriation of additional funds by Congress.

single-shift rate for each extra shift of actual use. Allowances for use, for less than a full extra shift, will be made at a rate proportional to the extra-shift rate.

(e) Idle time.--Ownership expense allowance will be made at the full-shift rate on regular working days, if the contracting officer determines that the equipment could be used advantageously on other work under the contract and that such use is precluded by impracticability of moving. No payment will be made when equipment is idle because of major repairs. Short periods of idle time normal to regular servicing and for minor repair or maintenance requirements will not be deducted from use or operating time.

(f) Changes.--In determining the equitable adjustment to be allowed for changes ordered by the contracting officer pursuant to Clause No. 3 or 4 of the General Provisions, the allowance for equipment used in the performance of work under the order for changes may at the option of the contracting officer be determined in accordance with the provisions of this paragraph.

19. Materials furnished by the Government. The Government will furnish well screen, gravel for gravel packing, containers for drilling samples, and forms for the submission of daily drill report, pumping test data, and similar records.

20. Materials to be furnished by the contractor. The contractor shall furnish all materials required for completion of the work, except the materials listed in Paragraph 19 (Materials furnished by the Government). The materials to be furnished by the contractor shall include the following:

- (a) Temporary casing pipe.
- (b) Permanent casing.
- (c) Drive shoes.
- (d) Test pump equipment.
- (e) All other materials and supplies required for completion of the contract.

Unless otherwise specified, all materials which will become a part of the completed work shall be new and shall conform to the Federal or other specifications referred to herein.

When a separate item, which includes the furnishing of any material, is provided in the schedule, the cost of furnishing, hauling, storing, and handling shall be included in the price bid for that item. When a separate item is not provided in the schedule for furnishing any material required to be furnished by the contractor, the cost of furnishing, hauling, storing, and handling shall be included in the unit prices bid for the work for which the material is required.

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the extra work shall be determined from the schedule of average ownership expense listed in "Contractors' Equipment Ownership Expense" as published by the Associated General Contractors of America and in effect on the date of the contract. The provisions of this paragraph shall apply only for items of the contractor's equipment (including equipment owned by members of joint ventures or subcontractors) used or to be used on the original work contracted for under these specifications. Equipment shall be in good operating condition when starting work covered by the order. Rates allowed for equipment ownership expense for use of items of equipment not listed in the pamphlet shall be established conformably with the items listed.

When extra work is ordered, the contractor shall furnish a complete description of each item of equipment to be used on such extra work, listing the make, model, size, capacity, mounting, type of power and cost. The cost to be used for establishing equipment allowance rates shall be determined by dividing by two the sum of the cost of the equipment, fob factory, when purchased by the original owner and the replacement cost of equal equipment fob factory, such cost in no case to exceed replacement cost. The contractor shall furnish evidence of both costs.

Rates determined in accordance with this paragraph make no allowance for the cost of operating equipment such as operating crew labor, servicing labor and equipment, labor and parts for minor field repairs, fuel, oil, grease, and supplies. Allowance will be made in extra work orders for these items in addition to the amounts allowed for equipment use.

(b) Monthly rates.--Rates allowed as ownership expense to the contractor shall be determined by multiplying the cost of the equipment, as computed under the provisions of Subparagraph (a) hereof, by the percentage unit listed under the heading entitled "Expense Per Working Month Percent". In the application of ownership expense rates for the use of equipment, a month for each item will be considered as a period of thirty (30) calendar days measured consecutively, beginning with the first day the equipment is operated on the work covered by the order. The monthly rates will not be subject to deductions for Sundays or holidays and will be allowed for the full calendar period of use.

(c) Shift rates.--Shift rates will be determined by dividing the monthly rate by 26. A shift will be considered as a continuous operating period of 8 hours, and the shift rate shall be used whenever regular use is required for less than one month. Allowances for use for less than one full shift when working on a shift basis will be made at a rate proportional to the full-shift rate, and allowance will not be made for idle time, except as specifically provided for in Subparagraph (e) hereof. No allowance will be made for Sundays and holidays when work is not actually performed. Shift rates shall be applicable to all extra work unless monthly rates are stipulated by the contracting officer in advance of performance of the work.

(d) Extra-shift rates.--Extra-shift rates shall be applied to the second and third shifts whenever the equipment is used for more than one shift in any one day. The extra-shift rate shall be 50 percent of the basic

23. Access to the work. Rights-of-way for access to the work from existing roads will be provided by the Government in accordance with Paragraph 3. All work on the rights-of-way necessary for access to the site shall be performed by the contractor at his expense. The Government assumes no responsibility for the condition or maintenance of any existing road or structure thereon that may be used by the contractor for performing the work under these specifications and for traveling to and from the site of the work. No direct payment will be made to the contractor for constructing temporary roads used for construction operations, or for improving, repairing, or maintaining any existing road or structure thereon that may be used by the contractor for performance of the work under these specifications. The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of construction work.

24. Safety of the public. The contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient red lights, danger signals, and signs, and take all necessary precautions for the protection of the work and safety of the public. Roads and highways closed to traffic shall be protected by effective barricades on which shall be placed acceptable warning and detour signs. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise. The costs of all work required by this paragraph shall be included in the prices bid in the schedule for other items of construction work.

25. Disposal of water and excavated material. The contractor shall make satisfactory provision for drainage of the water away from each well during drilling. The contractor shall be responsible for any and all damage that may result from disposal of the water during drilling. Disposition of excavated material shall be made in an orderly manner in the vicinity of each well as directed by the contracting officer.

26. Records of subsurface investigations. The Government has not drilled any test wells at the sites of the irrigation wells covered by these specifications. Numerous private irrigation wells have been drilled in the vicinity and driller's logs of some of these wells can be inspected at the Bureau of Reclamation office, American Falls, Idaho. These records indicate that drilling will be in clays, silts, sands, and gravels. The Government does not represent that these records present accurately or completely the existing conditions and does not guarantee any interpretation of these records or the correctness of any information in them relative to geological conditions. Bidders and the contractor must assume all responsibility for deductions and conclusions which may be made as to the nature of the materials to be encountered, the difficulties of drilling and of doing other work affected by the geology at the site.

27. Moving in, setting up, dismantling and removing equipment. The item of the schedule for moving in, setting up, dismantling and removing equipment includes all work of moving equipment, materials and tools to the drilling area, and removing from the site of the work all materials, tools,

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Materials furnished by the contractor shall be of the type and quality described in these specifications. The contractor shall make diligent effort to procure the specified materials from any and all sources, but where, because of Government priorities or other causes, materials required by the specifications become unavailable, substitute materials may be used: Provided, That no substitute materials shall be used without prior written approval of the contracting officer, said written approval to state the amount of the adjustment, if any, to be made in favor of the Government. The contracting officer's determination as to whether substitution shall be permitted and as to what substitute materials may be used shall be final and conclusive. If the substitute materials approved are of less value to the Government or involve less cost to the contractor than the materials specified, an adjustment shall be made in favor of the Government, and where the amount involved or the importance of the substitution warrants, an order for changes will be issued; otherwise the adjustment will be handled by deduction from payments to the contractor on the basis of prices stated in the written approval. No payments in excess of prices bid in the schedule will be made because of substitution of one material for another, or because of the use of one alternate material in place of another.

21. Backcharges to contractor. Where these specifications or the General Provisions provide for charges to the contractor for costs incurred by the Government for services, materials, or use of equipment, such charges will include the costs of labor and materials, a reasonable allowance for use of plant and equipment, and other expenditures which can be directly assigned to the services or materials furnished, plus 15 percent of such total costs for Government overhead.

LOCAL CONDITIONS

22. Camp sites. The contractor will be permitted to use for construction-camp purposes any land available in the vicinity of the work that is the property of the Government: Provided, That such use shall not interfere with any part of the work or of the work of other contractors or of the Government in the vicinity. If private land is used by the contractor for camp or other construction purposes, the contractor shall make all necessary arrangements with the owner and shall pay all rentals or other costs connected therewith. The location, construction, maintenance, operation, and removal of the contractor's camps, and of the camps or establishments of all persons or parties in the vicinity, operating or associated with the contractor, shall be subject to the approval of the contracting officer.

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(d) Alinement.--Each well shall be drilled to its minimum depth straight enough to permit all of the following operations:

(1) Performance of a pumping test as described in Paragraph 35.

(2) The following test shall also be made in the presence of a Government inspector: At the beginning of the test, the hoisting equipment shall be placed so that the cable hangs vertically and coincides with the center of the well at the ground surface. As the drilling bit (of nominal minimum well size) is lowered or raised throughout the well from ground surface to its minimum depth, the position of the cable shall not vary more than 1-1/2 inches horizontally from the center of the well at the ground level when the suspension point is 50 feet above the ground. If a suspension point above or below 50 feet is used, the allowable deviation shall be computed by the following formula:

$$\text{Allowable deviation in inches} = .03 \times \text{height of suspension in feet}$$

(e) Abandoned well.--Any well which does not satisfy the alinement requirements will be considered an abandoned well. Any well on which the contractor voluntarily stops work before the well is drilled to the depth ordered by the contracting officer will be considered an abandoned well. Abandoned wells shall be plugged by the contractor with at least 10 cubic feet of concrete placed between 5 and 10 feet from the ground surface, all at the expense of the contractor.

(f) Protection.--During drilling, casing and testing, the well shall be protected by the contractor from contamination in a manner satisfactory to the contracting officer. The contractor shall bear any expense that may result from any damage to the well, tools or equipment that may be caused by caving, washing, or other disturbances within the well. The contractor shall preserve the well in good condition until completion of all pumping tests required and until the records have been examined by the contracting officer and the work has been accepted by the Government.

(g) Measurement and payment.--The wells will be measured for payment in linear feet from the top of the existing ground surface to the bottom of the drilled hole, including any 22-inch-diameter hole, drilled to the depth directed by the contracting officer. The measurement will be made by or shall be made in the presence of a Government inspector, as determined by the contracting officer. Payment for drilling will be made at the unit price per linear foot bid therefor in the schedule for drilling 24-inch-diameter hole. No payment will be made for an abandoned well. Prices bid in the schedule shall include the cost of drilling, all costs of disposing of the materials, furnishing all water and stabilizing material except casing, performing alinement tests, and furnishing all data, samples and reports to be furnished by the contractor.

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and equipment. Payment for moving in, setting up, dismantling and removing equipment will be made at the lump-sum price bid therefor in the schedule. Payment of 50 percent of the lump-sum price bid in the schedule for this item will be included in the next monthly estimate after the first well has been drilled to a depth of 20 feet. Payment of the remaining 50 percent of the item will be made upon completion and acceptance of all work under the contract.

DRILLING WELLS

28. Drilling wells. (a) General.--The contractor shall drill each well at the location established in the field by the contracting officer. All wells of the contract will be located within Area I as shown on Drawing No. 601-124-40 included in these specifications. Wells shall be drilled in accordance with these specifications and may be drilled by any method approved by the contracting officer.

(b) Classification of drilling.--Materials required to be penetrated in drilling the wells will not be classified for payment. Bidders and the contractor must assume all responsibilities for deductions and conclusions as to the nature of the materials to be drilled and the difficulties of drilling and maintaining the wells in good order during the drilling operations.

(c) Drilling.--Each well shall be drilled to a minimum depth of 200 feet and deeper as directed but not to exceed a depth of 400 feet. Each well shall have a minimum diameter of 24 inches to a depth of 150 feet below the surface. Below that depth, if conditions are encountered which make it necessary to reduce the diameter of the hole, the diameter may be reduced to a minimum of 22 inches, with the approval of the contracting officer. The contractor shall make diligent effort to prevent reduction in diameter.

Unless otherwise directed by the contracting officer, the well shall be started in the presence of the contracting officer, or a duly authorized Government inspector, and any work started contrary to this provision will be subject to rejection. If a well is abandoned, the contractor shall immediately start drilling another well at a nearby location designated by the contracting officer. When the drilling has reached the minimum depth specified, if, in the opinion of the contracting officer, a satisfactory water-bearing strata has not been encountered and/or a sufficient water depth for satisfactory pump operation does not exist, he may direct the contractor to continue drilling. When the contracting officer considers the hole to be sufficiently deep, he will direct the contractor to discontinue drilling.

be made at the applicable unit price bid therefor in the schedule, which unit price shall include all cost of furnishing, handling, and placing.

The length of 12-inch casing placed in an accepted well from 150 feet below the ground to the bottom of the well will be measured for payment to the nearest 0.5 foot without allowance for lap at joints. Payment for furnishing and installing 12-inch casing will be made at the applicable unit price bid therefor in the schedule, which unit price shall include all cost of furnishing, handling, and placing the 12-inch casing.

No payment will be made for casing installed in an abandoned well.

31. Installing well screens. The screens will be furnished by the Government and shall be installed by the contractor. Screens will be wire wrapped on perforated standard pipe, similar to the Stancliff screen manufactured by the Howard Smith Company, Houston, Texas. Screens will be wrapped on 1 1/4-inch O.D. perforated pipe or 12-inch I.D. perforated pipe and will be in lengths not to exceed 10 feet with one standard threaded coupling per length. Delivery of screens to the contractor will be at the Bureau of Reclamation warehouse, American Falls, Idaho. It is estimated that approximately 10 feet of 1 1/4-inch screen and 40 feet of 12-inch screen will be required in each well. The actual length of screen to be installed and the depth or depths at which it shall be placed in each well will be determined by the contracting officer upon completion of drilling at each well. A two-foot length of unperforated casing shall be fastened to the lower end of the bottom screen section and the bottom of this blank casing shall be closed by a welded steel plate 3/8 inch in thickness. The screens may be attached to the casing by welded or threaded connections. A section of 22-inch O.D. pipe at least 12 inches long shall be attached concentrically around the two-foot length of casing at the bottom of the well.

Payment for installing 1 1/4-inch and/or 12-inch-diameter well screens will be made at the unit price per linear foot bid therefor in the schedule, which unit price shall include the cost of furnishing and installing the two-foot length of casing, 22-inch guide ring and steel plate. Measurement for payment will be made only for the minimum length of screen required as directed by the contracting officer.

32. Placing gravel packing. Gravel for the gravel packing around well screens will be furnished by the Government and will be available to the contractor at a stockpile in American Falls. The contractor shall install a gravel pack in the annular space between the wall of the hole and the well screen and casing from the bottom of the hole to a point approximately 30 feet above the top of the upper screen.

The gravel pack shall be placed in the well by means of two or more pipes or tubes. The tubes shall have a diameter at least that of standard 3-inch pipe and shall extend from the ground surface to the bottom of the well and shall be raised as needed to supply the annular space with the gravel pack but not allowing gravel pack to fall freely. The tubes used shall be spaced evenly around the circumference of the hole when gravel is being placed.

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29. Temporary casing. If unstable material is encountered, the contractor shall stabilize the material in a manner approved by the contracting officer. If necessary, upon approval of the contracting officer, an oversized or outer casing shall be installed to hold the walls of the hole during drilling operations and as an aid in placing the gravel packing. If this type of casing is used, it shall be removed as specified in Paragraph 32 at the time the gravel packing is placed. Measurement for payment for furnishing, installing and removing temporary outer casing will be made of the actual length in feet of outer casing installed in the hole. If one size of protective casing is telescoped into another, no payment will be made for the portion of the casing falling inside a temporary casing for which payment has already been made. Payment for furnishing, installing, and removing temporary outer casing will be made at the unit price per linear foot bid therefor in the schedule.

30. Well casing. (a) Above 150 feet.--From approximately 12 inches above the original ground to 150 feet below the ground surface, 14-inch-diameter casing or 14-inch-diameter well screen shall be installed. The contractor shall furnish and install in each well a 14-inch-diameter steel-pipe casing from a point about 12 inches above the original ground surface to the top of the well screen. If more than one depth zone is to be screened, which will be determined by the contracting officer upon completion of drilling, the contractor shall furnish and install similar casing between the sections of screen. The casing shall be installed concentrically in the hole.

(b) Below 150 feet.--From 150 feet below the surface of the ground to the bottom of the well, 12-inch casing or 12-inch well screen shall be installed. Reduction from the 14-inch-diameter to 12-inch-diameter casing shall be made in a method approved by the contracting officer. The contractor shall furnish and install 12-inch-diameter steel-pipe casing from the above-described reduction to the top of a well screen. If more than one depth zone is to be screened, which will be determined by the contracting officer upon completion of drilling, the contractor shall furnish and install similar 12-inch casing between the sections of screen. The casing and screen shall be installed concentrically in the hole.

(c) Material.--The 14-inch and 12-inch casing shall have a 1/4-inch minimum wall thickness. The 14-inch casing shall be 14 inches O.D. and the 12-inch shall be 12.75 inches O.D. Joints in the well casing may be either welded joints or the pipe may be joined with new standard threaded pipe couplings. Welding of pipe joints shall be a full continuous running weld in accordance with the standards of the American Welding Society. All casing except temporary casing shall be new. Upon completion of the well a steel plate shall be tack-welded over the top of the casing and a 3/4-inch screwed plug shall be tapped into the center of the capping plate to allow water measurements in the well.

(d) Measurement and payment.--The length of 14-inch casing placed in an accepted well from 12 inches above ground to 150 feet below the ground will be measured for payment to the nearest 0.5 foot without allowance for lap at joints. Payment for furnishing and installing 14-inch casing will

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be measured by orifices, weir boxes, meters, or any other measuring equipment satisfactory to the contracting officer. The contractor shall furnish all equipment, fuel, lubricating oil, or other material necessary for testing the wells. The test pump equipment shall be so designed that the rate of discharge can be varied up to 1,800 gallons per minute at a head of 110 feet and shall have at least 110 feet of column. The Government cannot be held responsible for damage to the test pump or equipment.

Payment for furnishing, installing and removing the test pump for each pumping test shall be made at the lump-sum price per test bid therefor in the schedule which price shall be full payment for furnishing, transporting to the site, installing and removing the test pump and all related equipment. Measurement for payment of testing wells will be made of the actual time the test pump is operating. Payment for test pumping will be made at the unit price per hour bid therefor in the schedule, which price shall include the cost of furnishing all labor, equipment, fuel, and materials for testing the wells.

36. Records and reports. The contractor shall furnish completed drilling records and reports as follows:

(a) A daily drill report describing character of materials encountered and presenting an accurate record of the contractor's work.

(b) Water level measurements.--After water has been encountered during the drilling of the well, the contractor shall measure the distance between the water level in the drilled hole and the ground surface. The measurement shall be made each morning before drilling operations have been started and each morning thereafter until the well has been completed.

(c) Drawdown and discharge measurements during each pumping test.

Blank forms for the reports and records required above will be furnished by the contracting officer upon the request of the contractor. The contractor shall keep and furnish accurate reports and records of the well. The fact that a Government inspector may be present and keeping a record of the drilling shall not relieve the contractor of the responsibility for keeping an accurate log as described above. In the case of defective records, the contractor will be required to complete the records to the satisfaction of the contracting officer and will be entitled to no extra compensation therefor. The cost of all labor and materials required for the work described in this paragraph shall be included in the prices bid in the schedule for other items of work.

37. Samples. For all wells, the contractor shall furnish a 1/2-gallon sample of the material penetrated in each 5 feet of drilling or for each change in formation (if less than 5 feet). Each sample shall be placed in a suitable container to be furnished by the Government and plainly marked to identify the well from which it was collected and the depth interval which it represents. Samples shall be taken from the bailer and not from the slush pit and shall not be washed prior to being placed in the container. Every effort shall be made by the contractor to have

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Temporary casing, if used, shall be carefully withdrawn in 5- to 10-foot stages, and gravel shall be introduced so that each stage of hole above the bottom of the casing is completely filled before the casing is withdrawn to the next stage.

The above process shall be continued until the bottom of the temporary casing is at least 2 feet above the top of the upper screen. If the contractor elects to leave the temporary casing above this point, he may do so but no extra payment will be allowed for temporary casing left in the well.

The contractor shall pull the outer casing from the hole in such a manner that the alinement of permanent casing and screen is not disturbed. The methods of installation of outer casing and gravel packing and the method of pulling the outer casing shall be subject to the approval of the contracting officer. Prior to removal of the gravel feed tubes, the well shall be developed as provided in Paragraph 33 of the specifications. During or upon completion of development, additional gravel shall be placed as necessary to maintain the top of the gravel approximately 30 feet above the top of the upper screen. Measurement for payment for gravel packing will be made of the gravel packing actually placed, measured in the truck or by any other method approved by the contracting officer. Payment for placing gravel packing will be made at the unit price per cubic yard bid therefor in the schedule, which unit price shall include the cost of hauling and placing the gravel packing as provided.

33. Developing wells. The contractor shall develop the wells by use of a flap-valve surge block. The development shall be continued until relatively sand-free water (approximately 300 to 500 parts per million maximum) is obtained at the ground surface unless directed otherwise by the contracting officer. Measurement for payment for developing wells will be made of the actual time spent in developing the well. Payment for developing wells will be at the unit price per hour bid in the schedule for developing wells.

34. Backfilling. A concrete collar one foot in thickness shall be placed around the casing immediately above the gravel packing and allowed to harden before the backfill is placed. The annular space between casing and the wall of the hole above the concrete collar shall be backfilled to the original ground surface. The backfill materials shall be subject to approval. The top 6 feet of backfill shall be placed in 12-inch layers, each layer to be thoroughly tamped before the next layer is placed. Measurement for payment for backfilling will be made to the nearest 0.5 foot from the top of the gravel packing to the original ground surface. Payment for backfilling will be made at the unit price per linear foot bid therefor in the schedule, which payment shall include the cost of furnishing and placing the concrete collar and the approved backfill materials.

35. Testing wells. The contractor shall test the wells by pumping continuously for approximately 24 hours. Measurements shall be made to determine the drawdown of the well. All power required for performing the tests shall be furnished by the contractor. The rate of discharge shall

these samples truly representative of the materials penetrated since they will be used to select screen placement and gravel-pack design. The cost of all labor and materials required for sampling shall be included in the unit prices bid for drilling.

38. Inspection. All work will be subject to inspection unless otherwise directed. The drilling and testing of wells shall be started in the presence of an authorized Government inspector and any work started contrary to this provision shall be subject to rejection. All measurement for length and depth and for testing for capacity and drawdown shall be made only in the presence of the Government inspector. The contractor shall maintain and furnish to the contracting officer an adequate record properly authenticated by the Government inspector showing the hours required for developing the well and for operating the test pumps and testing the well.

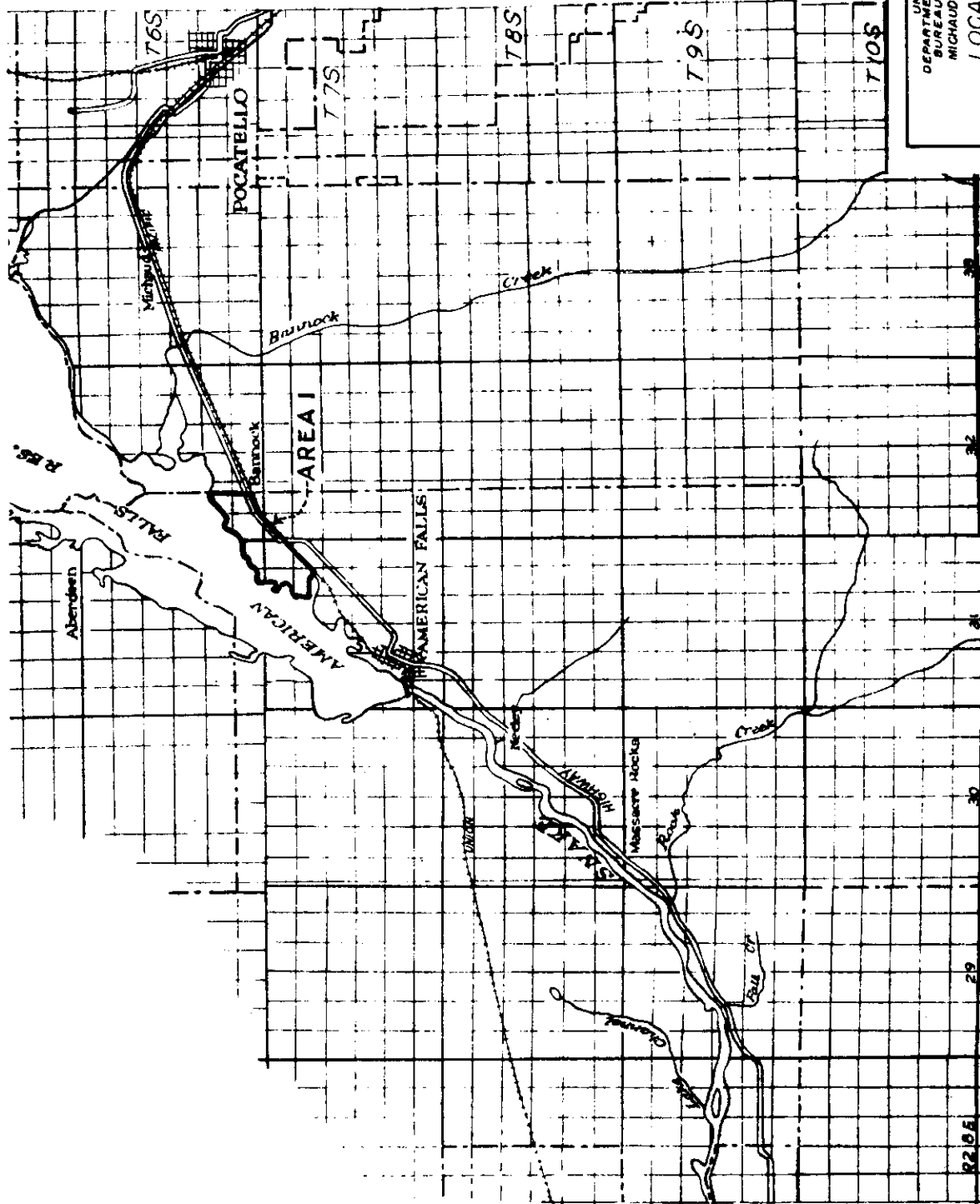
DRAWING

39. Drawing. The following drawing is made a part of these specifications:

601-124-40 -- Location Map, Area 1 Wells.

The contractor will be furnished such additional copies of the specifications and drawing as may be required for carrying out the work.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT -
LOCATION MAP
AREA 1 WELLS

DRAWN, D.E.B. SUBMITTED *[Signature]*
TRACED, E.L.W. RECOMMENDED *[Signature]*
CHECKED *[Signature]* APPROVED *[Signature]*
AMERICAN FALLS, IDAHO 601-124-90

Sep. 13, 1955

26602

Specifications No. 100C-240

100C-240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

RECEIVED
JUL 18 1957
Department of Reclamation

Schedule, General Provisions, Specifications, and Drawing

DRILLING FOUR TO SIX WELLS
AREA I

Michaud Flats Project, Idaho

Bids will be received at the office of the Bureau of Reclamation,
American Falls, Idaho, until 10 a.m., Mountain Standard Time, February 7,
1956.

(Price \$0.50)

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DRILLING FOUR TO SIX WELLS - AREA 1

MICHAUD FLATS PROJECT
AMERICAN FALLS, IDAHO

Bids will be considered on all of the following schedule, but no bid will be considered for only a part of the schedule.

SCHEDULE

Item No.	Work or material	Quantity and unit	Unit price	Amount
1	Moving in, setting up, dismantling and removing equipment	For the lump sum of		\$ _____
2	Drilling 24-inch-diameter hole	1500 lin. ft.	\$ _____	_____
3	Furnishing, installing, and removing temporary outer casing	1500 lin. ft.	_____	_____
4	Furnishing and installing 14-inch casing	700 lin. ft.	_____	_____
5	Furnishing and installing 12-inch casing	550 lin. ft.	_____	_____
6	Installing 14-inch and/or 12-inch diameter well screens	250 lin. ft.	_____	_____
7	Placing gravel packing	100 cu. yds.	_____	_____
8	Backfilling	500 lin. ft.	_____	_____
9	Developing wells	200 hours	_____	_____
10	Furnishing, installing and removing test pump for each pumping test	5 tests	_____	_____
11	Test pumping	120 hours	_____	_____
TOTAL FOR SCHEDULE				\$ _____

GUARANTY

It is hereby guaranteed that all articles, materials, and supplies used will conform to the clause "Buy American Act" of the General Provisions, except as noted below.

The cost of the articles, materials, and supplies listed above will be _____ percent of the total cost of all of the articles, materials, and supplies used.

NOTE: Unless bidder intends to take exception to the Buy American Act it is unnecessary to fill out this form.

GENERAL PROVISIONS (CONSTRUCTION CONTRACTS)

1. DEFINITIONS

(a) The term "head of the department" as used herein shall mean the head or any assistant head of the executive department or independent establishment involved, and the term "his duly authorized representative" shall mean any person authorized to act for him other than the Contracting Officer.

(b) The term "Contracting Officer" as used herein, shall include his duly appointed successor or his authorized representative.

2. SPECIFICATIONS AND DRAWINGS

The Contractor shall keep on the work a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In any case of discrepancy either in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without this determination shall be at his own risk and expense. The Contracting Officer shall furnish from time to time such detail drawings and other information as he may consider necessary, unless otherwise provided.

3. CHANGES

The Contracting Officer may at any time, by a written order, and without notice to the sureties, make changes in the drawings and/or specifications of this contract and within the general scope thereof. If such changes cause an increase or decrease in the amount due under this contract, or in the time required for its performance, an equitable adjustment shall be made and the contract shall be modified in writing accordingly. Any claim of the Contractor for adjustment under this clause must be asserted in writing within 30 days from the date of receipt by the Contractor of the notification of change: *Provided, however*, That the Contracting Officer, if he determines that the facts justify such action, may receive and consider, and adjust any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made the dispute shall be determined as provided in Clause 6 hereof. But nothing provided in this clause shall excuse the Contractor from proceeding with the prosecution of the work as changed. Except as otherwise herein provided, no charge for any extra work or material will be allowed.

4. CHANGED CONDITIONS

The Contractor shall promptly, and before such conditions are disturbed, notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The Contracting Officer shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or the time required for, performance of this contract, an equitable adjustment shall be made and the contract modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given notice as above required; provided that the Contracting Officer may, if he determines the facts so justify, consider and adjust any such claim asserted before the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in Clause 6 hereof.

5. TERMINATION FOR DEFAULT—DAMAGES FOR DELAY—TIME EXTENSIONS

(a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the Government may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the Government may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the Government for any excess cost occasioned the Government thereby, and for liquidated damages for delay, as fixed in the specifications or accompanying papers, until such reasonable time as may be required for the final completion of the work, or if liquidated damages are not so fixed, any actual damages occasioned by such delay. If the Contractor's right to proceed is so terminated, the Government may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and necessary therefor.

(b) If the Government does not terminate the right of the Contractor to proceed, as provided in paragraph (a) hereof, the Contractor shall continue the work, in which event he and his sureties shall be liable to the Government, in the amount set forth in the specifications or accompanying papers, for fixed, agreed, and liquidated damages for each calendar day of delay until the work is completed or accepted, or if liquidated damages are not so fixed, any actual damages occasioned by such delay.

(c) The right of the Contractor to proceed shall not be terminated, as provided in paragraph (a) hereof, nor the Contractor charged with liquidated or actual damages, as provided in paragraph (b) hereof because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Government, in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, or delays of subcontractors or suppliers due to such causes: *Provided*, That the Contractor shall within 10 days from the beginning of any such delay, unless the Contracting Officer shall grant a further period of time prior to the date of final settlement of the contract, notify the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when in his judgment the findings of fact justify such an extension, and his findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal as provided in Clause 6 hereof.

6. DISPUTES

Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. Within 30 days from the date of receipt of such copy, the Contractor may appeal by mailing or otherwise furnishing to the Contracting Officer a written appeal addressed to the head of the department, and the decision of the head of the department or his duly authorized representatives for the hearings of such appeals shall, unless determined by a court of competent jurisdiction to have been fraudulent, arbitrary, capricious, or so grossly erroneous as necessarily to imply bad faith, be final and conclusive: *Provided*, That, if no such appeal to the head

of the department is taken, the decision of the Contracting Officer shall be final and conclusive. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

7. PAYMENTS TO CONTRACTORS

(a) Unless otherwise provided in the specifications, partial payments will be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable, or at more frequent intervals as determined by the Contracting Officer, on estimates made and approved by the Contracting Officer. In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.

(b) In making such partial payments there shall be retained 10 percent on the estimated amount until final completion and acceptance of all work covered by the contract: *Provided, however,* That the Contracting Officer, at any time after 50 percent of the work has been completed, if he finds that satisfactory progress is being made, may make any of the remaining partial payments in full: *And provided further,* That on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made in full, including retained percentage thereon, less authorized deductions.

(c) All material and work covered by partial payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Government to require the fulfillment of all of the terms of the contract.

(d) Upon completion and acceptance of all work required hereunder, the amount due the Contractor under this contract will be paid upon the presentation of a properly executed and duly certified voucher therefor, after the Contractor shall have furnished the Government with a release, if required, of all claims against the Government arising under and by virtue of this contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release in stated amounts to be set forth therein. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (41 U. S. C. 15), a release may also be required of the assignee at the option of the Contracting Officer.

8. MATERIALS AND WORKMANSHIP

Unless otherwise specifically provided for in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade of their respective kinds for the purpose and all workmanship shall be first class. Where equipment, materials, or articles are referred to in the specifications as "equal to" any particular standard, the Contracting Officer shall decide the question of equality. The Contractor shall furnish to the Contracting Officer for his approval the name of the manufacturer of machinery, mechanical and other equipment which he contemplates incorporating in the work, together with their performance capacities and other pertinent information. When required by the specifications, or when called for by the Contracting Officer, the Contractor shall furnish the Contracting Officer for approval full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection. The Contracting Officer may

in writing require the Contractor to remove from the work such employee as the Contracting Officer deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed by the Contracting Officer to be contrary to the public interest.

9. INSPECTION

(a) Except as otherwise provided in paragraph (d) hereof all material and workmanship, if not otherwise designated by the specifications, shall be subject to inspection, examination, and test by the Contracting Officer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction are carried on. The Government shall have the right to reject defective material and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefor, and the Contractor shall promptly segregate and remove the rejected material from the premises. If the Contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship the Government may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost thereof to the Contractor, or may terminate the right of the Contractor to proceed as provided in Clause 5 of this contract, the Contractor and surety being liable for any damage to the same extent as provided in said Clause 5 for terminations thereunder.

(b) The Contractor shall furnish promptly without additional charge, all reasonable facilities, labor, and materials necessary for the safe and convenient inspection and test that may be required by the Contracting Officer. All inspection and tests by the Government shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be as described in the specifications. The Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time inspection is requested by the Contractor.

(c) Should it be considered necessary or advisable by the Government at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect, due to fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the actual direct cost of labor and material necessarily involved in the examination and replacement, plus 15 percent, shall be allowed the Contractor and he shall, in addition, if completion of the work has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

(d) Inspection of material and finished articles to be incorporated in the work at the site shall be made at the place of production, manufacture, or shipment, whenever the quantity justifies it, unless otherwise stated in the specifications; and such inspection and written or other formal acceptance, unless otherwise stated in the specifications, shall be final, except as regards latent defects, departures from specific requirements of the contract, damage or loss in transit, fraud, or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of material and workmanship for final acceptance as a whole or in part shall be made at the site. Nothing contained in this paragraph (d) shall in any way restrict the Government's rights under any warranty or guarantee.

10. SUPERINTENDENCE BY CONTRACTOR

The Contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Contracting Officer, on the work at all times during progress, with authority to act for him.

11. PERMITS AND RESPONSIBILITY FOR WORK, ETC.

The Contractor shall, without additional expense to the Government, obtain all licenses and permits required for the prosecution of the work. He shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the work. He shall also be responsible for all materials delivered and work performed until completion and final acceptance, except for any completed unit thereof which theretofore may have been finally accepted.

12. OTHER CONTRACTS

The Government may undertake or award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors and Government employees and carefully fit his own work to such additional work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees.

13. PATENT INDEMNITY

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents and employees against liability, including costs and expenses, for infringement upon any Letters Patent of the United States (except Letters Patent issued upon an application which is now or may hereafter be, for reasons of national security, ordered by the Government to be kept secret or otherwise withheld from issue) arising out of the performance of this contract or out of the use or disposal by or for the account of the Government of supplies furnished or construction work performed hereunder.

14. ADDITIONAL BOND SECURITY

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the Government, or if any such surety fails to furnish reports as to his financial condition from time to time as requested by the Government, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the Government and of persons supplying labor or materials in the prosecution of the work contemplated by this contract.

15. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

16. OFFICIALS NOT TO BENEFIT

No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

17. BUY AMERICAN ACT

The Contractor agrees that in the performance of the work under this contract the Contractor, subcontractors, material men and suppliers shall use only such unmanufactured articles, materials and supplies (which term "articles, materials and supplies" is hereinafter referred to in this clause as "Supplies") as have been mined or produced in the United States, and only such manufactured supplies as have been manufactured in the United States substantially all from supplies mined, produced, or manufactured, as the case may be, in the United States. Pursuant to the Buy American Act (41 U. S. C. 10a-d), the

foregoing provisions shall not apply (i) with respect to supplies excepted by the head of the department from the application of that Act, (ii) with respect to supplies for use outside the United States, or (iii) with respect to the supplies to be used in the performance of work under this contract which are of a class or kind determined by the head of the department or his duly authorized representative not to be mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, or (iv) with respect to such supplies, from which the supplies to be used in the performance of work under this contract are manufactured, as are of a class or kind determined by the head of the department or his duly authorized representative not to be mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, provided that this exception (iv) shall not permit the use in the performance of work under this contract of supplies manufactured outside the United States if such supplies are manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

18. CONVICT LABOR

In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment at hard labor.

19. NONDISCRIMINATION IN EMPLOYMENT

In connection with the performance of work under this contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin; and further agrees to insert the foregoing provision in all subcontracts hereunder except subcontracts for standard commercial supplies or for raw materials.

20. DAVIS-BACON ACT (40 U. S. C. 276a-a(7))

(a) All mechanics and laborers employed or working directly upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Copeland Act (Anti-Kickback) Regulations (29 CFR, Part 3)) the full amounts due at time of payment, computed at wage rates not less than those contained in the wage determination decision of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and such laborers and mechanics; and a copy of the wage determination decision shall be kept posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers.

(b) In the event it is found by the Contracting Officer that any laborer or mechanic employed by the Contractor or any subcontractor directly on the site of the work covered by this contract has been or is being paid at a rate of wages less than the rate of wages required by paragraph (a) of this clause, the Contracting Officer may (1) by written notice to the Government Prime Contractor terminate his right to proceed with the work, or such part of the work as to which there has been a failure to pay said required wages, and (2) prosecute the work to completion by contract or otherwise, whereupon such Contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

(c) Paragraphs (a) and (b) of this clause shall apply to this contract to the extent that it is (1) a prime contract with the Government subject to the Davis-Bacon Act or (2) a subcontract under such prime contract.

21. EIGHT-HOUR LAWS—OVERTIME COMPENSATION

No laborer or mechanic doing any part of the work contemplated by this contract, in the employ of the Contractor

or any subcontractor contracting for any part of said work contemplated, shall be required or permitted to work more than eight hours in any one calendar day upon such work, except upon the condition that compensation is paid to such laborer or mechanic in accordance with the provisions of this clause. The wages of every laborer and mechanic employed by the Contractor or any subcontractor engaged in the performance of this contract shall be computed on a basic day rate of eight hours per day and work in excess of eight hours per day is permitted only upon the condition that every such laborer and mechanic shall be compensated for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay. For each violation of the requirements of this clause a penalty of five dollars shall be imposed for each laborer or mechanic for every calendar day in which such employee is required or permitted to labor more than eight hours upon said work without receiving compensation computed in accordance with this clause, and all penalties thus imposed shall be withheld for the use and benefit of the Government: *Provided*, That this stipulation shall be subject in all respects to the exceptions and provisions of the Eight-Hour Laws as set forth in 40 U. S. C. 321, 324, 325, 325a, and 326, which relate to hours of labor and compensation for overtime.

22. APPRENTICES

Apprentices will be permitted to work only under a bona fide apprenticeship program registered with a State Apprenticeship Council which is recognized by the Federal Committee on Apprenticeship, U. S. Department of Labor; or if no such recognized Council exists in a State, under a program registered with the Bureau of Apprenticeship, U. S. Department of Labor.

23. PAYROLL RECORDS AND PAYROLLS

(a) Payroll records will be maintained during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records will contain the name and address of each such employee, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid. The Contractor will make his employment records available for inspection by authorized representatives of the Contracting Officer and the U. S. Department of Labor, and will permit such representatives to interview employees during working hours on the job.

(b) A certified copy of all payrolls will be submitted weekly to the Contracting Officer. The Government Prime Contractor will be responsible for the submission of certified copies of the payrolls of all subcontractors. The certification will affirm that the payrolls are correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the wage determination decision of the Secretary of Labor attached to this contract, and that the classifications set forth for each laborer or mechanic conform with the work he performed.

24. COPELAND (ANTI-KICKBACK) ACT—NONREBATE OF WAGES.

The regulations of the Secretary of Labor applicable to Contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Contractor will comply with these regulations and any amendments or modifications thereof and the Government Prime Contractor will be responsible for the submission of affidavits required of subcontractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

25. WITHHOLDING OF FUNDS TO ASSURE WAGE PAYMENT

There may be withheld from the Contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor or any subcontractor the full amount of wages required by this contract. In the event of failure to pay any laborer or mechanic all or part of the wages required by this contract, the Contracting Officer may take such action as may be necessary to cause the suspension, until such violations have ceased, of any further payment, advance, or guarantee of funds to or for the Government Prime Contractor.

26. SUBCONTRACTS—TERMINATION

The Contractor agrees to insert Clauses 20 through 26 hereof in all subcontracts and further agrees that a breach of any of the requirements of these clauses may be grounds for termination of this contract. The term "Contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "Government Prime Contractor."

27. MODIFICATIONS TO GENERAL PROVISIONS.

(a) Clause No. 5. --In the seventh line from the bottom of Clause No. 5(c) the period after the word "delay" is deleted, a colon is substituted therefor, and the following is added:

"Provided further, That the contractor shall be excused for delays of suppliers only if the contracting officer shall determine that the materials or supplies to be furnished are not procurable in the open market."

(b) Clause No. 6. --The clause is entirely deleted and the following substituted therefor:

"DISPUTE - Except as otherwise provided in this contract, any dispute concerning a question of facts arising under this contract which is not disposed of by agreement shall be decided by the contracting officer, who shall furnish to the contractor a written copy of his decision. Such decision shall be final and conclusive unless within 30 days from the date of receipt thereof, the contractor appeals therefrom by mailing or otherwise furnishing to the contracting officer a written appeal addressed to the Secretary. The decision of the Secretary or his duly authorized representatives upon such appeal shall be final and conclusive unless the decision is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under the 'Disputes' clause, the contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the contractor shall proceed diligently with the performance of the contract and in accordance with the contracting officer's decision."

(c) Clause No. 11. --At the end of Clause No. 11 the following is added:

"Upon completion of the contract, or final acceptance of any completed unit thereof, the work shall be delivered complete and undamaged."

(d) Clause No. 13. --At the end of Clause No. 13 the following is added:

"Any patented invention, the use of which by these specifications is required or permitted in the alternative to be used and which the United States has the right to use royalty free, shall be available to the contractor without the payment of the royalty."

(e) Clause No. 19. --Clause No. 19 is deleted and the following substituted therefor:

"19. NONDISCRIMINATION IN EMPLOYMENT--In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, religion, color, or national origin. The aforesaid provision shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

"The contractor further agrees to insert the foregoing provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials."

GENERAL CONDITIONS

1. Bonds. (a) Bid bond. --The bidder shall furnish guarantee with each bid in an amount not less than 10 percent of the amount of the bid: Provided, That guarantee in excess of \$2,000,000 will not be required.

(b) The contractor shall furnish bonds as follows:

(1) Performance bond. --The performance bond shall be furnished in accordance with the following table:

Amount of contract	Performance bond
Up to \$1,000,000	Not less than 50 percent of contract
\$1,000,000 to \$5,000,000	Not less than 40 percent of contract
\$5,000,000 to \$10,000,000	Not less than 30 percent of contract
\$10,000,000 to \$25,000,000	Not less than 20 percent of contract
\$25,000,000 and over	\$5,000,000

Bonds in amounts of \$1,000 or less will be made in multiples of \$100; in amounts exceeding \$1,000 but not exceeding \$5,000, in multiples of \$500; in amounts exceeding \$5,000, in multiples of \$1,000: Provided, That the amount of the bond shall be fixed by the contracting officer at the lowest sum that fulfills all conditions of the contract.

(2) Payment bond. --If the amount of the contract exceeds \$2,000, the contractor shall furnish to the United States, in addition to the bond required under (b)(1) hereof, a payment bond with a surety or sureties satisfactory to the officer awarding the contract, for the protection of all persons supplying labor and material in the prosecution of the work provided for in the contract, for the use of each such person. Whenever the total amount payable by the terms of the contract shall be not more than \$1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than \$1,000,000 and not more than \$5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than \$5,000,000, the payment bond shall be in the sum of \$2,500,000.

2. Climatic conditions. The contracting officer may order the contractor to suspend any work that may be subject to damage by climatic conditions.

3. Rights-of-way. The Government will provide the right-of-way or the site for permanent works or installations, the site for borrow pits, channels, spoil banks, and ditches, and right-of-way for access thereto over routes established by the contracting officer. The contractor will be permitted to use such land for construction purposes, but any additional right-of-way or land desired by the contractor for construction purposes shall be provided by the contractor without expense to the Government.

4. Quantities and unit prices. The quantities noted in the schedule are approximations for comparing bids, and no claim shall be made against the Government for excess or deficiency therein, actual or relative. Payment at the prices agreed upon will be in full for the completed work and will cover materials, supplies, labor, tools, machinery, and all other expenditures incident to satisfactory compliance with the contract, unless otherwise specifically provided.

5. Contractor's cost data. The contracting officer, through his authorized agents, shall have access to all pay rolls, records of personnel, invoices of materials, records of plant and equipment, and any and all other data relevant to the performance of the contract or necessary to determine its costs.

6. Sanitation. The contracting officer may establish sanitary and police rules and regulations for all forces employed under this contract, and if the contractor fails to enforce these rules the contracting officer may enforce them at the expense of the contractor.

7. Extras. The contractor shall, when ordered in writing by the contracting officer, in accordance with Clause 3 of the General Provisions, perform extra work and furnish extra material, not required by the specifications or included in the schedule, but forming an inseparable part of the work contracted for. Extra work and material will ordinarily be paid for at the lump-sum or unit price stated in the order. Whenever, in the judgment of the contracting officer, it is impracticable, because of the nature of the work or for any other reason to otherwise fix the price in the order, the extra work and material shall be paid for at the actual necessary cost as determined by the contracting officer, plus an allowance, not to exceed 15 percent of such actual necessary cost of the extra work and materials, for superintendence, general expense, and profit. The actual necessary cost will include all reasonable expenditures for material, labor (including compensation insurance and social security taxes), and supplies furnished by the contractor, and a reasonable allowance for the use of his plant and equipment, where required, but will in no case include any allowance for office expenses, general superintendence, or other general expenses.

8. Cleaning up. Upon completion of the work the contractor shall remove from the vicinity of the work all plant, buildings, rubbish, unused materials, concrete forms, and other like material, belonging to him or used under his direction during construction, and in

the event of his failure to do so the same may be removed by the Government at the expense of the contractor, and his surety or sureties shall be liable therefor.

9. Protests. If the contractor considers any work demanded of him to be outside of the requirements of the contract, or considers any record or ruling of the contracting officer or of the inspectors to be unfair, he shall immediately upon such work being demanded or such record or ruling being made, ask, in writing, for written instructions or decision, whereupon he shall proceed without delay to perform the work or to conform to the record or ruling, and, within thirty (30) calendar days after date of receipt of the written instructions or decision (unless the contracting officer shall grant a further period of time prior to commencement of the work affected) he shall file a written protest with the contracting officer, stating clearly and in detail the basis of his protest. Except for such protests as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions, or decisions of the contracting officer shall be final and conclusive. Instructions and/or decisions of the contracting officer contained in letters transmitting drawings to the contractor shall be considered as written instructions or decisions subject to protest as herein provided.

10. Accident prevention. The contractor shall, at all times, exercise reasonable precautions for the safety of employees in the performance of this contract, and shall comply with all applicable provisions of Federal, State, and municipal safety laws and building and construction codes. The contractor shall also comply with the provisions of the Bureau of Reclamation publication "Safety Requirements for Construction by Contract," in effect on date bids are opened, so far as applicable, as determined by the contracting officer and unless such provisions are incompatible with Federal, State, or municipal laws or regulations. Monthly reports of all lost-time accidents shall be promptly submitted giving such data as may be prescribed by the contracting officer. Nothing in this paragraph shall be construed to permit the enforcement of any laws, codes, or regulations herein specified by any except the contracting officer.

11. Suspension of work. The Government may at any time suspend the whole or any portion of the work under this contract but this right to suspend the work shall not be construed as denying the contractor actual, reasonable, and necessary expenses due to delays, caused by such suspension, it being understood that expenses will not be allowed for such suspensions when ordered by the Government on account of weather conditions or on account of the failure of Congress to make the necessary appropriations for expenditures under this contract.

SPECIAL CONDITIONS

12. The requirement. It is required that from four (4) to six (6) water-supply wells be drilled, cased, developed, tested, and completed in accordance with the Standard Form of Construction Contract No. 23, including the General Provisions (Standard Form No. 23A), these specifications and the drawing listed in Paragraph 39 hereof. The well sites are located within the general area designated as "Area 1" on Drawing No. 601-124-40, included and made a part of these specifications. Area 1 is situated from 6 to 9 miles northeast of American Falls, Power County, Idaho.

It is expected that five (5) wells will be required and the quantities shown in the schedule for the items listed therein have been estimated on that basis. The exact number of wells that may be required and directed, however, will depend upon the yields obtained from the first two wells completed under these specifications and upon the yields obtained from wells being drilled in the same area under prior Specifications No. 100C-238. Provided, however, That the number of wells to be drilled and completed under these specifications shall be not less than four (4) and not more than (6). Payment for work performed within the quantity limitations set out above will be made at the contract prices therefor and the contractor shall be entitled to no adjustment in compensation by reason of increase or decrease in quantities resulting from any requirement for one more or one less well than the expected five.

13. Description of the work. The work to be performed under these specifications includes the drilling, developing, and testing of from four to six 24-inch-diameter irrigation water-supply wells; furnishing and installing casings; and installing screens and gravel packing. Information available as to materials that may be encountered in drilling is described in Paragraph 26. The minimum depth of drilling in each well is 200 feet and the minimum depth of drilling to a minimum diameter of 24 inches is 150 feet. The maximum depth of drilling required is 400 feet. Gravel packing will be required around all well screens.

14. Rates of wages. Pursuant to the provisions of the Davis-Bacon Act, as amended (49 Stat. 1011; 40 U.S.C. 276(a)), the Secretary of Labor has determined that the following rates of wages are the prevailing rates of wages for the classifications specified in the locality of the work covered by these specifications, and said rates of wages shall be the minimum rates per hour to be paid for the work covered by these specifications.

<u>Classification</u>	<u>Rate per hour</u>
Iron workers, structural	\$2.875
Laborers	2.00
Mixers, concrete, mobile	2.53
Mixers (5-bag and over)	2.38
Truck driver, pickups and flatbeds to 5 tons	2.13
Truck driver, flatbed, 5 to 15 tons	2.18
Truck driver, flatbed, 15 to 20 tons	2.28
Pumps, over 4-inch	2.23
Drills, churn	2.58
Welders--Receive rate prescribed for craft performing operation to which welding is incidental	

Any class of laborers and mechanics not listed above, which will be employed on this contract, shall be classified or reclassified conformably to the foregoing schedule. In the event the interested parties cannot agree

on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question, accompanied by the recommendation of the contracting officer, shall be referred to the Secretary of Labor for final determination.

The wage rates contained in this decision are straight hourly wage rates. In some areas management and labor organizations in the construction industry have collectively bargained for health and welfare fund contributions. Such contributions are not included in wage rates determined by the Secretary of Labor for construction projects.

While the wage rates shown are the minimum rates required by these specifications to be paid during the life of the contract, it is the responsibility of bidders to inform themselves as to local labor conditions such as the length of workday or workweek, overtime compensation, health and welfare contributions, labor supply, and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

The regulations of the Secretary of Labor, effective July 1, 1951, provide in Title 29, Subtitle A, Part 5.4(b), Code of Federal Regulations, as follows: "All actions changing or modifying an original wage determination prior to the award of the contract or contracts for which the determination was sought shall be applicable thereto but modifications received by the agency later than 5 days before the opening of bids shall not be effective if the award is made within 30 days after the opening of the bids or 90 days from the date of the original wage determination whichever is the earlier."

15. Payments and funds. In preparing estimates for partial payments, consideration will be given to the delivery on the site of items of materials which will become a part of the finished construction work and for which payment in full has been made by the contractor, except that no consideration will be given to individual purchases of less than two hundred dollars (\$200.00) for any one item. No consideration will be given to any other preparatory work done. Special provisions relating to payments and funds are as follows:

(a) Section 12 of the Reclamation Project Act of 1939, provides as follows: "When appropriations have been made for the commencement or continuation of construction or operation and maintenance of any project, the Secretary may, in connection with such construction or operation and maintenance, enter into contract for miscellaneous services, for materials and supplies, as well as for construction, which may cover such periods of time as the Secretary may consider necessary but in which the liability of the United States shall be contingent upon appropriations being made therefor" (43 U.S.C. 388).

(b) Under the contract to be entered into under these specifications such work as may be done in excess of the amount for which funds are available for payments set forth in Subparagraph (c), modified pursuant to Subparagraphs (d) and (e) hereof, will be continued with funds to be hereafter appropriated.

(c) Funds have been reserved to finance the estimated face value of the contract during the current fiscal year. The contractor will be notified of the amount so reserved.

(d) If at any time it becomes apparent to the contracting officer that the balance of this reservation is in excess of the estimated amount required to meet all payments due and to become due the contractor because of work performed or to be performed until June 30, 1956, the right is reserved to reduce said reservation by the amount of such excess. The contractor will be advised of any reduction so made.

(e) If the rate of progress of the work is such that it becomes apparent to the contracting officer that the balance of the reservation is less than the estimated amount required to meet all payments due and to become due because of work performed until June 30, 1956, the Government may reserve additional funds for payments under this contract if there be funds available for such purpose. The contractor will be advised of any additional reservation so made.

(f) It is expected that Congress will make additional appropriations applicable to work under this contract, but as to this it must be distinctly understood and agreed that the Government is in no case to be made liable for damages in connection with this contract on account of delays in payments on same due to lack of available funds. Should it become apparent to the contracting officer that available funds will be exhausted before additional funds are appropriated, the contracting officer will give 30 days' written notice to the contractor that work may be suspended by the contractor; but if the contractor so elects, he may continue work under the conditions and restrictions of the specifications, after the time set by such notice, so long as there are funds for inspection and superintendence, concerning which he will be advised; with the understanding, however, that no payment will be made for such work until sufficient additional funds have been provided by the Congress. When funds again become available, the contractor will be notified in writing as to the amount thereof reserved for payments under this contract. The amount so reserved shall be subject to decrease or increase in a manner similar to that provided in Subparagraphs (d) and (e) hereof. Should work be thus suspended, additional time for completion will be allowed equal to the period during which the work is necessarily so suspended as determined by the dates specified in the above-mentioned notices.

(g) So long as funds are available, payments will be made in accordance with the provisions of the contract. Unless otherwise authorized in writing by the contracting officer, the items of work for which payment will be made shall be limited to those listed and enumerated in the contract. The unit or lump-sum price or prices stated in the contract will be used in determining the amount to be paid and shall constitute full and final compensation for all work.

(h) The procedure above described in this paragraph shall be repeated as often as necessary on account of exhaustion of available funds and the necessity of awaiting the appropriation of additional funds by Congress.

(i) Should Congress fail to provide the expected additional funds during its regular session, the contract may be terminated and considered to be completed at the option of the contractor, without prejudice to him at any time not later than 30 days after payments are discontinued, or if payments have been previously discontinued, not later than 30 days after passage of the Act which would ordinarily carry an appropriation for continuing the work, or after the adjournment of Congress without passing such Act.

16. Commencement, prosecution and completion of work. (a) Completion period.--The contractor shall begin work within twenty (20) calendar days after date of receipt of notice to proceed, and shall complete all of the work within the number of calendar days from the date of receipt of such notice shown in the following tabulation: Provided, That the period allowed for the completion of the work, or any part thereof for which separate completion period is stated, shall be reduced by one (1) calendar day for each calendar day in excess of ten (10) calendar days, or any extension thereof, elapsing between the contractor's receipt of and return of properly executed contract and performance and payment bonds as required in United States Standard Form No. 21:

First two wells.....75 days plus 1 day for each 10 feet, or fraction thereof, of total depth required in excess of 600 feet, plus 5 days for each pumping test required.

Remaining wells..... 150 days plus 1 day for each 10 feet, or fraction thereof, of total depth required for all wells in excess of 1500 feet, plus 5 days for each pumping test required.

(b) Prosecution of the work.--The capacity of the contractor's construction plant, sequence of operations, method of operation, and the forces employed shall, at all times during the continuance of the contract, be subject to the approval of the contracting officer and shall be such as to insure the completion of the work within the specified period of time.

(c) Priorities.--If performance under these specifications is delayed by operations of the national priorities or material allocation system, the time for performance will be extended to compensate for such delays.

(d) Equipment.--In order to prosecute and complete the work as required above, the contractor shall use drilling equipment of sufficient size and tool-weight capacity to perform the drilling in an efficient and satisfactory manner within the time allowed for completion.

17. Liquidated damages. The contractor shall pay to the Government as fixed, agreed, and liquidated damages, the sum of twenty dollars (\$20.00) per day per well for each calendar day's delay in completion.

18. Equipment allowances for contract adjustments. (a) General.--If the contractor is ordered to perform extra work in accordance with Paragraph 7 of the specifications, the allowance made for the equipment used on

the extra work shall be determined from the schedule of average ownership expense listed in "Contractors' Equipment Ownership Expense" as published by the Associated General Contractors of America and in effect on the date of the contract. The provisions of this paragraph shall apply only for items of the contractor's equipment (including equipment owned by members of joint ventures or subcontractors) used or to be used on the original work contracted for under these specifications. Equipment shall be in good operating condition when starting work covered by the order. Rates allowed for equipment ownership expense for use of items of equipment not listed in the pamphlet shall be established conformably with the items listed.

When extra work is ordered, the contractor shall furnish a complete description of each item of equipment to be used on such extra work, listing the make, model, size, capacity, mounting, type of power and cost. The cost to be used for establishing equipment allowance rates shall be determined by dividing by two the sum of the cost of the equipment, fob factory, when purchased by the original owner and the replacement cost of equal equipment fob factory, such cost in no case to exceed replacement cost. The contractor shall furnish evidence of both costs.

Rates determined in accordance with this paragraph make no allowance for the cost of operating equipment such as operating crew labor, servicing labor and equipment, labor and parts for minor field repairs, fuel, oil, grease, and supplies. Allowance will be made in extra work orders for these items in addition to the amounts allowed for equipment use.

(b) Monthly rates.--Rates allowed as ownership expense to the contractor shall be determined by multiplying the cost of the equipment, as computed under the provisions of Subparagraph (a) hereof, by the percentage unit listed under the heading entitled "Expense Per Working Month Percent". In the application of ownership expense rates for the use of equipment, a month for each item will be considered as a period of thirty (30) calendar days measured consecutively, beginning with the first day the equipment is operated on the work covered by the order. The monthly rates will not be subject to deductions for Sundays or holidays and will be allowed for the full calendar period of use.

(c) Shift rates.--Shift rates will be determined by dividing the monthly rate by 26. A shift will be considered as a continuous operating period of 8 hours, and the shift rate shall be used whenever regular use is required for less than one month. Allowances for use for less than one full shift when working on a shift basis will be made at a rate proportional to the full-shift rate, and allowance will not be made for idle time, except as specifically provided for in Subparagraph (e) hereof. No allowance will be made for Sundays and holidays when work is not actually performed. Shift rates shall be applicable to all extra work unless monthly rates are stipulated by the contracting officer in advance of performance of the work.

(d) Extra-shift rates.--Extra-shift rates shall be applied to the second and third shifts whenever the equipment is used for more than one shift in any one day. The extra-shift rate shall be 50 percent of the basic

single-shift rate for each extra shift of actual use. Allowances for use, for less than a full extra shift, will be made at a rate proportional to the extra-shift rate.

(e) Idle time.--Ownership expense allowance will be made at the full-shift rate on regular working days, if the contracting officer determines that the equipment could be used advantageously on other work under the contract and that such use is precluded by impracticability of moving. No payment will be made when equipment is idle because of major repairs. Short periods of idle time normal to regular servicing and for minor repair or maintenance requirements will not be deducted from use or operating time.

(f) Changes.--In determining the equitable adjustment to be allowed for changes ordered by the contracting officer pursuant to Clause No. 3 or 4 of the General Provisions, the allowance for equipment used in the performance of work under the order for changes may at the option of the contracting officer be determined in accordance with the provisions of this paragraph.

19. Materials furnished by the Government. The Government will furnish well screen, gravel for gravel packing, containers for drilling samples, and forms for the submission of daily drill report, pumping test data, and similar records.

20. Materials to be furnished by the contractor. The contractor shall furnish all materials required for completion of the work, except the materials listed in Paragraph 19 (Materials furnished by the Government). The materials to be furnished by the contractor shall include the following:

- (a) Temporary casing pipe.
- (b) Permanent casing.
- (c) Drive shoes.
- (d) Test pump equipment.
- (e) All other materials and supplies required for completion of the contract.

Unless otherwise specified, all materials which will become a part of the completed work shall be new and shall conform to the Federal or other specifications referred to herein.

When a separate item, which includes the furnishing of any material, is provided in the schedule, the cost of furnishing, hauling, storing, and handling shall be included in the price bid for that item. When a separate item is not provided in the schedule for furnishing any material required to be furnished by the contractor, the cost of furnishing, hauling, storing, and handling shall be included in the unit prices bid for the work for which the material is required.

Materials furnished by the contractor shall be of the type and quality described in these specifications. The contractor shall make diligent effort to procure the specified materials from any and all sources, but where, because of Government priorities or other causes, materials required by the specifications become unavailable, substitute materials may be used: Provided, That no substitute materials shall be used without prior written approval of the contracting officer, said written approval to state the amount of the adjustment, if any, to be made in favor of the Government. The contracting officer's determination as to whether substitution shall be permitted and as to what substitute materials may be used shall be final and conclusive. If the substitute materials approved are of less value to the Government or involve less cost to the contractor than the materials specified, an adjustment shall be made in favor of the Government, and where the amount involved or the importance of the substitution warrants, an order for changes will be issued; otherwise the adjustment will be handled by deduction from payments to the contractor on the basis of prices stated in the written approval. No payments in excess of prices bid in the schedule will be made because of substitution of one material for another, or because of the use of one alternate material in place of another.

21. Backcharges to contractor. Where these specifications or the General Provisions provide for charges to the contractor for costs incurred by the Government for services, materials, or use of equipment, such charges will include the costs of labor and materials, a reasonable allowance for use of plant and equipment, and other expenditures which can be directly assigned to the services or materials furnished, plus 15 percent of such total costs for Government overhead.

LOCAL CONDITIONS

22. Camp sites. The contractor will be permitted to use for construction-camp purposes any land available in the vicinity of the work that is the property of the Government: Provided, That such use shall not interfere with any part of the work or of the work of other contractors or of the Government in the vicinity. If private land is used by the contractor for camp or other construction purposes, the contractor shall make all necessary arrangements with the owner and shall pay all rentals or other costs connected therewith. The location, construction, maintenance, operation, and removal of the contractor's camps, and of the camps or establishments of all persons or parties in the vicinity, operating or associated with the contractor, shall be subject to the approval of the contracting officer.

23. Access to the work. Rights-of-way for access to the work from existing roads will be provided by the Government in accordance with Paragraph 3. All work on the rights-of-way necessary for access to the site shall be performed by the contractor at his expense. The Government assumes no responsibility for the condition or maintenance of any existing road or structure thereon that may be used by the contractor for performing the work under these specifications and for traveling to and from the site of the work. No direct payment will be made to the contractor for constructing temporary roads used for construction operations, or for improving, repairing, or maintaining any existing road or structure thereon that may be used by the contractor for performance of the work under these specifications. The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of construction work.

24. Safety of the public. The contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient red lights, danger signals, and signs, and take all necessary precautions for the protection of the work and safety of the public. Roads and highways closed to traffic shall be protected by effective barricades on which shall be placed acceptable warning and detour signs. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise. The costs of all work required by this paragraph shall be included in the prices bid in the schedule for other items of construction work.

25. Disposal of water and excavated material. The contractor shall make satisfactory provision for drainage of the water away from each well during drilling. The contractor shall be responsible for any and all damage that may result from disposal of the water during drilling. Disposition of excavated material shall be made in an orderly manner in the vicinity of each well as directed by the contracting officer.

26. Records of subsurface investigations. The Government has not drilled any test wells at the sites of the irrigation wells covered by these specifications. Numerous private irrigation wells have been drilled in the vicinity and driller's logs of some of these wells can be inspected at the Bureau of Reclamation office, American Falls, Idaho. These records indicate that drilling will be in clays, silts, sands, and gravels. The Government does not represent that these records present accurately or completely the existing conditions and does not guarantee any interpretation of these records or the correctness of any information in them relative to geological conditions. Bidders and the contractor must assume all responsibility for deductions and conclusions which may be made as to the nature of the materials to be encountered, the difficulties of drilling and of doing other work affected by the geology at the site.

27. Moving in, setting up, dismantling and removing equipment. The item of the schedule for moving in, setting up, dismantling and removing equipment includes all work of moving equipment, materials and tools to the drilling area, and removing from the site of the work all materials, tools,

and equipment. Payment for moving in, setting up, dismantling and removing equipment will be made at the lump-sum price bid therefor in the schedule. Payment of 50 percent of the lump-sum price bid in the schedule for this item will be included in the next monthly estimate after the first well has been drilled to a depth of 20 feet. Payment of the remaining 50 percent of the item will be made upon completion and acceptance of all work under the contract.

DRILLING WELLS

28. Drilling wells. (a) General.--The contractor shall drill each well at the location established in the field by the contracting officer. All wells of the contract will be located within Area I as shown on Drawing No. 601-124-40 included in these specifications. Wells shall be drilled in accordance with these specifications and may be drilled by any method approved by the contracting officer.

(b) Classification of drilling.--Materials required to be penetrated in drilling the wells will not be classified for payment. Bidders and the contractor must assume all responsibilities for deductions and conclusions as to the nature of the materials to be drilled and the difficulties of drilling and maintaining the wells in good order during the drilling operations.

(c) Drilling.--Each well shall be drilled to a minimum depth of 200 feet and deeper as directed but not to exceed a depth of 400 feet. Each well shall have a minimum diameter of 24 inches to a depth of 150 feet below the surface. Below that depth, if conditions are encountered which make it necessary to reduce the diameter of the hole, the diameter may be reduced to a minimum of 22 inches, with the approval of the contracting officer. The contractor shall make diligent effort to prevent reduction in diameter.

Unless otherwise directed by the contracting officer, the well shall be started in the presence of the contracting officer, or a duly authorized Government inspector, and any work started contrary to this provision will be subject to rejection. If a well is abandoned, the contractor shall immediately start drilling another well at a nearby location designated by the contracting officer. When the drilling has reached the minimum depth specified, if, in the opinion of the contracting officer, a satisfactory water-bearing strata has not been encountered and/or a sufficient water depth for satisfactory pump operation does not exist, he may direct the contractor to continue drilling. When the contracting officer considers the hole to be sufficiently deep, he will direct the contractor to discontinue drilling.

(d) Alinement.--Each well shall be drilled to its minimum depth straight enough to permit all of the following operations:

(1) Performance of a pumping test as described in Paragraph 35.

(2) The following test shall also be made in the presence of a Government inspector: At the beginning of the test, the hoisting equipment shall be placed so that the cable hangs vertically and coincides with the center of the well at the ground surface. As the drilling bit (of nominal minimum well size) is lowered or raised throughout the well from ground surface to its minimum depth, the position of the cable shall not vary more than 1-1/2 inches horizontally from the center of the well at the ground level when the suspension point is 50 feet above the ground. If a suspension point above or below 50 feet is used, the allowable deviation shall be computed by the following formula:

$$\text{Allowable deviation in inches} = .03 \times \text{height of suspension in feet}$$

(e) Abandoned well.--Any well which does not satisfy the alinement requirements will be considered an abandoned well. Any well on which the contractor voluntarily stops work before the well is drilled to the depth ordered by the contracting officer will be considered an abandoned well. Abandoned wells shall be plugged by the contractor with at least 10 cubic feet of concrete placed between 5 and 10 feet from the ground surface, all at the expense of the contractor.

(f) Protection.--During drilling, casing and testing, the well shall be protected by the contractor from contamination in a manner satisfactory to the contracting officer. The contractor shall bear any expense that may result from any damage to the well, tools or equipment that may be caused by caving, washing, or other disturbances within the well. The contractor shall preserve the well in good condition until completion of all pumping tests required and until the records have been examined by the contracting officer and the work has been accepted by the Government.

(g) Measurement and payment.--The wells will be measured for payment in linear feet from the top of the existing ground surface to the bottom of the drilled hole, including any 22-inch-diameter hole, drilled to the depth directed by the contracting officer. The measurement will be made by or shall be made in the presence of a Government inspector, as determined by the contracting officer. Payment for drilling will be made at the unit price per linear foot bid therefor in the schedule for drilling 24-inch-diameter hole. No payment will be made for an abandoned well. Prices bid in the schedule shall include the cost of drilling, all costs of disposing of the materials, furnishing all water and stabilizing material except casing, performing alinement tests, and furnishing all data, samples and reports to be furnished by the contractor.

29. Temporary casing. If unstable material is encountered, the contractor shall stabilize the material in a manner approved by the contracting officer. If necessary, upon approval of the contracting officer, an oversized or outer casing shall be installed to hold the walls of the hole during drilling operations and as an aid in placing the gravel packing. If this type of casing is used, it shall be removed as specified in Paragraph 32 at the time the gravel packing is placed. Measurement for payment for furnishing, installing and removing temporary outer casing will be made of the actual length in feet of outer casing installed in the hole. If one size of protective casing is telescoped into another, no payment will be made for the portion of the casing falling inside a temporary casing for which payment has already been made. Payment for furnishing, installing, and removing temporary outer casing will be made at the unit price per linear foot bid therefor in the schedule.

30. Well casing. (a) Above 150 feet.--From approximately 12 inches above the original ground to 150 feet below the ground surface, 14-inch-diameter casing or 14-inch-diameter well screen shall be installed. The contractor shall furnish and install in each well a 14-inch-diameter steel-pipe casing from a point about 12 inches above the original ground surface to the top of the well screen. If more than one depth zone is to be screened, which will be determined by the contracting officer upon completion of drilling, the contractor shall furnish and install similar casing between the sections of screen. The casing shall be installed concentrically in the hole.

(b) Below 150 feet.--From 150 feet below the surface of the ground to the bottom of the well, 12-inch casing or 12-inch well screen shall be installed. Reduction from the 14-inch-diameter to 12-inch-diameter casing shall be made in a method approved by the contracting officer. The contractor shall furnish and install 12-inch-diameter steel-pipe casing from the above-described reduction to the top of a well screen. If more than one depth zone is to be screened, which will be determined by the contracting officer upon completion of drilling, the contractor shall furnish and install similar 12-inch casing between the sections of screen. The casing and screen shall be installed concentrically in the hole.

(c) Material.--The 14-inch and 12-inch casing shall have a 1/4-inch minimum wall thickness. The 14-inch casing shall be 14 inches O.D. and the 12-inch shall be 12.75 inches O.D. Joints in the well casing may be either welded joints or the pipe may be joined with new standard threaded pipe couplings. Welding of pipe joints shall be a full continuous running weld in accordance with the standards of the American Welding Society. All casing except temporary casing shall be new. Upon completion of the well a steel plate shall be tack-welded over the top of the casing and a 3/4-inch screwed plug shall be tapped into the center of the capping plate to allow water measurements in the well.

(d) Measurement and payment.--The length of 14-inch casing placed in an accepted well from 12 inches above ground to 150 feet below the ground will be measured for payment to the nearest 0.5 foot without allowance for lap at joints. Payment for furnishing and installing 14-inch casing will

be made at the applicable unit price bid therefor in the schedule, which unit price shall include all cost of furnishing, handling, and placing.

The length of 12-inch casing placed in an accepted well from 150 feet below the ground to the bottom of the well will be measured for payment to the nearest 0.5 foot without allowance for lap at joints. Payment for furnishing and installing 12-inch casing will be made at the applicable unit price bid therefor in the schedule, which unit price shall include all cost of furnishing, handling, and placing the 12-inch casing.

No payment will be made for casing installed in an abandoned well.

31. Installing well screens. The screens will be furnished by the Government and shall be installed by the contractor. Screens will be wire wrapped on perforated standard pipe, similar to the Stancliff screen manufactured by the Howard Smith Company, Houston, Texas. Screens will be wrapped on 14-inch O.D. perforated pipe or 12-inch I.D. perforated pipe and will be in lengths not to exceed 10 feet with one standard threaded coupling per length. Delivery of screens to the contractor will be at the Bureau of Reclamation warehouse, American Falls, Idaho. It is estimated that approximately 10 feet of 14-inch screen and 40 feet of 12-inch screen will be required in each well. The actual length of screen to be installed and the depth or depths at which it shall be placed in each well will be determined by the contracting officer upon completion of drilling at each well. A two-foot length of unperforated casing shall be fastened to the lower end of the bottom screen section and the bottom of this blank casing shall be closed by a welded steel plate 3/8 inch in thickness. The screens may be attached to the casing by welded or threaded connections. A section of 22-inch O.D. pipe at least 12 inches long shall be attached concentrically around the two-foot length of casing at the bottom of the well.

Payment for installing 14-inch and/or 12-inch-diameter well screens will be made at the unit price per linear foot bid therefor in the schedule, which unit price shall include the cost of furnishing and installing the two-foot length of casing, 22-inch guide ring and steel plate. Measurement for payment will be made only for the minimum length of screen required as directed by the contracting officer.

32. Placing gravel packing. Gravel for the gravel packing around well screens will be furnished by the Government and will be available to the contractor at a stockpile in American Falls. The contractor shall install a gravel pack in the annular space between the wall of the hole and the well screen and casing from the bottom of the hole to a point approximately 30 feet above the top of the upper screen.

The gravel pack shall be placed in the well by means of two or more pipes or tubes. The tubes shall have a diameter at least that of standard 3-inch pipe and shall extend from the ground surface to the bottom of the well and shall be raised as needed to supply the annular space with the gravel pack but not allowing gravel pack to fall freely. The tubes used shall be spaced evenly around the circumference of the hole when gravel is being placed.

Temporary casing, if used, shall be carefully withdrawn in 5- to 10-foot stages, and gravel shall be introduced so that each stage of hole above the bottom of the casing is completely filled before the casing is withdrawn to the next stage.

The above process shall be continued until the bottom of the temporary casing is at least 2 feet above the top of the upper screen. If the contractor elects to leave the temporary casing above this point, he may do so but no extra payment will be allowed for temporary casing left in the well.

The contractor shall pull the outer casing from the hole in such a manner that the alinement of permanent casing and screen is not disturbed. The methods of installation of outer casing and gravel packing and the method of pulling the outer casing shall be subject to the approval of the contracting officer. Prior to removal of the gravel feed tubes, the well shall be developed as provided in Paragraph 33 of the specifications. During or upon completion of development, additional gravel shall be placed as necessary to maintain the top of the gravel approximately 30 feet above the top of the upper screen. Measurement for payment for gravel packing will be made of the gravel packing actually placed, measured in the truck or by any other method approved by the contracting officer. Payment for placing gravel packing will be made at the unit price per cubic yard bid therefor in the schedule, which unit price shall include the cost of hauling and placing the gravel packing as provided.

33. Developing wells. The contractor shall develop the wells by use of a flap-valve surge block. The development shall be continued until relatively sand-free water (approximately 300 to 500 parts per million maximum) is obtained at the ground surface unless directed otherwise by the contracting officer. Measurement for payment for developing wells will be made of the actual time spent in developing the well. Payment for developing wells will be at the unit price per hour bid in the schedule for developing wells.

34. Backfilling. A concrete collar one foot in thickness shall be placed around the casing immediately above the gravel packing and allowed to harden before the backfill is placed. The annular space between casing and the wall of the hole above the concrete collar shall be backfilled to the original ground surface. The backfill materials shall be subject to approval. The top 6 feet of backfill shall be placed in 12-inch layers, each layer to be thoroughly tamped before the next layer is placed. Measurement for payment for backfilling will be made to the nearest 0.5 foot from the top of the gravel packing to the original ground surface. Payment for backfilling will be made at the unit price per linear foot bid therefor in the schedule, which payment shall include the cost of furnishing and placing the concrete collar and the approved backfill materials.

35. Testing wells. The contractor shall test the wells by pumping continuously for approximately 24 hours. Measurements shall be made to determine the drawdown of the well. All power required for performing the tests shall be furnished by the contractor. The rate of discharge shall

be measured by orifices, weir boxes, meters, or any other measuring equipment satisfactory to the contracting officer. The contractor shall furnish all equipment, fuel, lubricating oil, or other material necessary for testing the wells. The test pump equipment shall be so designed that the rate of discharge can be varied up to 1,800 gallons per minute at a head of 110 feet and shall have at least 110 feet of column. The Government cannot be held responsible for damage to the test pump or equipment.

Payment for furnishing, installing and removing the test pump for each pumping test shall be made at the lump-sum price per test bid therefor in the schedule which price shall be full payment for furnishing, transporting to the site, installing and removing the test pump and all related equipment. Measurement for payment of testing wells will be made of the actual time the test pump is operating. Payment for test pumping will be made at the unit price per hour bid therefor in the schedule, which price shall include the cost of furnishing all labor, equipment, fuel, and materials for testing the wells.

36. Records and reports. The contractor shall furnish completed drilling records and reports as follows:

(a) A daily drill report describing character of materials encountered and presenting an accurate record of the contractor's work.

(b) Water level measurements.--After water has been encountered during the drilling of the well, the contractor shall measure the distance between the water level in the drilled hole and the ground surface. The measurement shall be made each morning before drilling operations have been started and each morning thereafter until the well has been completed.

(c) Drawdown and discharge measurements during each pumping test.

Blank forms for the reports and records required above will be furnished by the contracting officer upon the request of the contractor. The contractor shall keep and furnish accurate reports and records of the well. The fact that a Government inspector may be present and keeping a record of the drilling shall not relieve the contractor of the responsibility for keeping an accurate log as described above. In the case of defective records, the contractor will be required to complete the records to the satisfaction of the contracting officer and will be entitled to no extra compensation therefor. The cost of all labor and materials required for the work described in this paragraph shall be included in the prices bid in the schedule for other items of work.

37. Samples. For all wells, the contractor shall furnish a 1/2-gallon sample of the material penetrated in each 5 feet of drilling or for each change in formation (if less than 5 feet). Each sample shall be placed in a suitable container to be furnished by the Government and plainly marked to identify the well from which it was collected and the depth interval which it represents. Samples shall be taken from the bailer and not from the slush pit and shall not be washed prior to being placed in the container. Every effort shall be made by the contractor to have

these samples truly representative of the materials penetrated since they will be used to select screen placement and gravel-pack design. The cost of all labor and materials required for sampling shall be included in the unit prices bid for drilling.

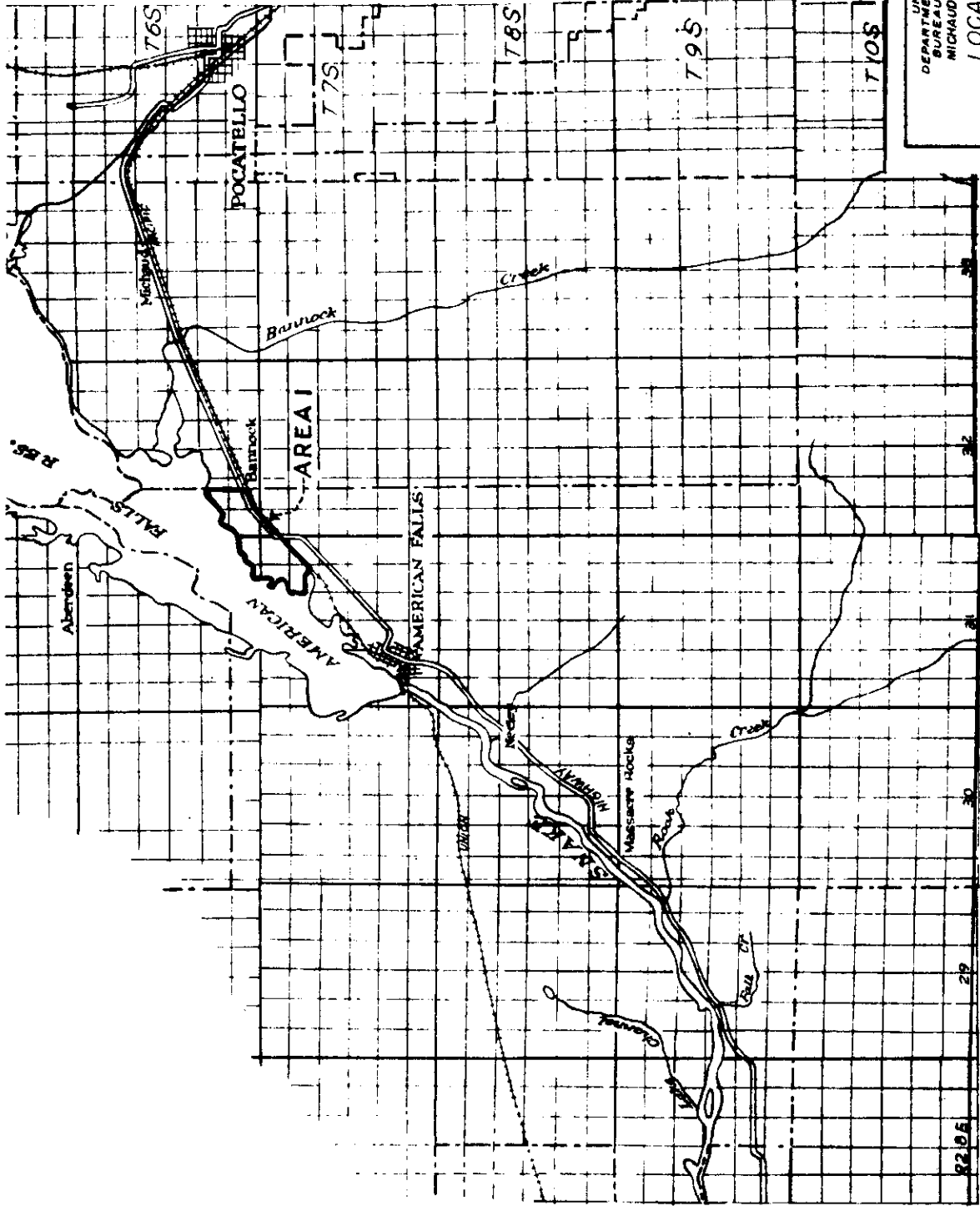
38. Inspection. All work will be subject to inspection unless otherwise directed. The drilling and testing of wells shall be started in the presence of an authorized Government inspector and any work started contrary to this provision shall be subject to rejection. All measurement for length and depth and for testing for capacity and drawdown shall be made only in the presence of the Government inspector. The contractor shall maintain and furnish to the contracting officer an adequate record properly authenticated by the Government inspector showing the hours required for developing the well and for operating the test pumps and testing the well.

DRAWING

39. Drawing. The following drawing is made a part of these specifications:

601-124-40 -- Location Map, Area 1 Wells.

The contractor will be furnished such additional copies of the specifications and drawing as may be required for carrying out the work.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT -
LOCATION MAP
AREA 1 WELLS

DRAWN D.E.B. SUBMITTED *[Signature]*
TRACED E.L.W. RECOMMENDED *[Signature]*
CHECKED *[Signature]* APPROVED *[Signature]*
ACTING NGR. ENGR.
AMERICAN FALLS, IDAHO 601-124-90

Sept. 13, 1963

December 17, 1956

U. S. Bureau of Reclamation
District Office
Burley, Idaho

Gentlemen:

Inclosed herewith are copies of two letters sent to the Power County Press, American Falls, regarding payment for publication fee for water right applications made by the Bureau. Payment through the office of the State Reclamation Engineer has been completed as indicated through special deposit and payment against the increase in the appropriation under the State warrant as listed.

Very truly yours,

Mark R. Kulp
State Reclamation Engineer

By

Secretary and Bookkeeper.

lt
Enc. 2

Water Rights Applications -
Nos. G-34427 and G-34428 -
Auditor's certificate #9494;
State warrant #86635.

26602

Publication paid by Lucie 12/14/56

December 7, 1956

Federal check from Portland, Oregon, check No. 16,755,164

as payment in advertising for the michaud Flats came in
December 7, 1956. Check given to Mr. Thompson to be
deposited by Lucy.

26602. - \$26.95

November 23, 1956

Re: Permits Nos. 26602 & G-26603

Mr. William H. Tuller
Assistant Regional Director
U. S. Bureau of Reclamation
Regional Office, Region 1
Box 937
Boise, Idaho

Dear Mr. Tuller:

We enclose Permits Nos. 26602 and G-26603 and direct your attentions to the limitations and conditions as given on the fourth page under approval of the State Reclamation Engineer.

You will note that under Permit No. 26602 you requested ten years for completion of works and an additional 10 years to complete the application of water to beneficial use and that only five years was allowed for completion of works and an additional 6 years was allowed for application of water to beneficial use which is the maximum length of time to be allowed for a Permit of 160 cubic feet per second.

On Permit No. G-26603 you requested ten years for the completion of such work and complete application of the water to the proposed use and five years was allowed which also is the maximum length of time allowed for such a Permit.

We also enclose departmental receipts Nos. 28247 for the \$44.75 filing fee for Permit No. 26602 and departmental receipt No. G-2217 for the \$29.75 filing fee for Permit No. G-26603.

Very truly yours,

MARK R. KULP
State Reclamation Engineer
By

Chief Clerk

EPR
Enc.

26602

November 21, 1956

RE: Applications Nos. G-34427 and 34428
Michaud Flats Project, Idaho.

Mr. William H. Tuller
Assistant Regional Director
U. S. Bureau of Reclamation
Regional Office, Region 1
Box 937
Boise, Idaho

Dear Mr. Tuller:

We are returning voucher in connection with publication
fee for water right applications Nos. G-34427 and 34428 (Michaud
Flats Project, Idaho), which has been properly signed by the
State Reclamation Engineer.

Very truly yours,

MARK R. KULP
State Reclamation Engineer
By

Roy W. Thompson
Office Manager

T:hll
Enc.

26602



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION I
BOX 937, BOISE, IDAHO

IN REPLY REFER TO:

RECEIVED
NOV 14 1956
Department of Reclamation

NOV 13 1956

Mr. Mark R. Kulp
State Reclamation Engineer
Boise, Idaho

Dear Mr. Kulp:

In response to your letter of November 7, there is enclosed
a voucher covering the publication fee for water right applications
G-34427 and 34428 in connection with the Michaud Flats Project, Idaho.

Sincerely yours,

Wm H. Tuller
Assistant Regional Director

Enclosure

26602

2970

26.95
29.70

70
34.65
26.75

11.60

1970

1970

1970

1970

1970

1970

1970

1970

1970

1970

1970

RECEIVED
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C.

November 7, 1956

Re: Applications Nos. G-34427 & 34428

U. S. Bureau of Reclamation
Region 1
P. O. Box 937
Boise, Idaho

ATTENTION: Mr. H. T. Nelson, Regional Director

Dear Mr. Nelson:

We now have received affidavits of publication and statements of costs from the Power County Press, in connection with notice of the applications of the U. S. Bureau of Reclamation to appropriate water from the Snake River and from percolation and seepage from the irrigation of the project lands by pumping diversion from the Snake River at American Falls Dam.

We are enclosing herewith, statement of costs for publication.

Providing, you wish this Department to pay, the same as has been done in the past, please send us a voucher covering the amount of said statement.

Very truly yours,

MARK R. KULP
State Reclamation Engineer
By

Chief Clerk

EPR
Enc.

26602



The Power County Press

BILL KING, PUBLISHER

October 16, 1956

Department of Reclamation
Boise, Idaho

Gentlemen:

We wish to acknowledge receipt of two legals for publication in the Power County Press October 13, 25, and Nov. 1, 1956. A checking copy of said legals will be mailed to your office as per your instructions.

Sincerely yours,
Bill King
Bill King

RECEIVED
OCT 17 1956
Department of Reclamation

174 IDAHO STREET

AMERICAN FALLS, IDAHO

26602

Affidavit of Publication

RECEIVED
NOV 7 1956
Department of Reclamation

County of Power,
State of Idaho, ss.

Department of Reclamation

being first duly sworn
on oath, states:

That _____ is the _____ of the Power

County Press, a newspaper of general circulation in Power County, Idaho, published weekly at American Falls 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 or advertisement was published as per clipping attached in the regular and entire edition of

said newspaper and not in any supplement thereof for _____ successive weekly issues thereof, the date of the first publication being the _____ day of _____, 19____, the date of last publication being the

_____ day of _____, 19____.

(Signed) _____

Subscribed and sworn to before me this

6 day of November, 1956

Notary Public, residing at American Falls, Idaho.

My Commission expires the

(SEAL)

22 day of October, 1959.

26602

Notice of application for permit to appropriate the public waters of the State of Idaho in accordance with the Provisions of section 42-203, Idaho code. NOTICE IS HEREBY GIVEN, That on the 11th day of June 1956, The United States of America, Regional Office 1, Bureau of Reclamation, Boise, Idaho made application No. 34423, to appropriate one hundred sixty (160) cubic feet per second of the water of Snake River, for irrigation and domestic purposes.

That the point of diversion of said waters is described as being located at American Falls Dam about 1600 feet from the SE corner of Section 30, Township 7 South, Range 31 East, B.M. and is in the SE 1/4 of Section 30, Township 7 South, Range 31 East, B.M.

That the point of use of said water is described as being located as follows:

Lands to be irrigated are the arable lands within what is called the Michaud Flats Project, Power County, described as follows:

- T. 6 S., R. 31 E., Sec. 35-36;
- T. 6 S., R. 32 E., Sec. 29, 30-31-32;
- T. 7 S., R. 31 E., Sec. 1-2-40 11-12-13-14-15-16-20-21-22-23-24-28-29-31-32;
- T. 7 S., R. 32 E., Sec. 6-7-8 17-18;
- T. 8 S., R. 30 E., Sec. 5-6-7-18;
- T. 8 S., R. 30 E., Sec. 1-11-12 13-14-15-21-22-23-24-26-27-28.

That any protest against the approval of this application must be filed in the Department of Reclamation, at Boise, Idaho, within forty (40) days from the date of this notice, and such protest shall state the name and address of the protestant, and shall clearly set forth his objections to the approval of said application.

I filed this 10th day of September, 1956.

MARK R. KULP
State Reclamation Engineer
Date of first publication October 18, 1956.
Date of last publication November

20, 1956.

SERVICE OF THE FOREGOING. By copy, is hereby acknowledged, this 12th day of October, 1956.

The United States of America
Bureau of Reclamation

October 15, 1956

Re: Application Nos. 34427 & 34428

Bureau of Reclamation
P. O. Box 937
Boise, Idaho

ATTENTION: Mr. Wm. H. Tuller

Dear Mr. Tuller:

We acknowledge receipt of the notices in connection with the Applications Nos. 34427 and 34428 with acknowledgement of service.

A copy of these notices has been sent to the Power County Press with instructions to publish them once a week for three weeks beginning with their next issue.

Since so much time has elapsed we have set the last date for protest forward one month or to November 20, 1956.

Very truly yours.

MARK R. KULP
State Reclamation Engineer
By

Chief Clerk

EPR

26602

October 15, 1956

RE: Applications Nos. 34427 and 34428

The Power County Press
American Falls
Idaho

Gentlemen:

We enclose copies of two notices, which please publish once a week for three consecutive weeks beginning with your next issue.

Please acknowledge receipt of these notices and furnish this department with a copy of your first issue containing same in order that we may check same.

Upon completion of publication, please furnish this Department with affidavits of publication and statements of costs both in triplicate.

Also, please complete these notices by filling in the Date of first publication and the Date of last publication as called for after "State Reclamation Engineer", near the bottom of the notice.

Very truly yours,

MARK R. KULP
State Reclamation Engineer
By

Chief Clerk

R:hll
Enc.

26602

NOTICE TO ACCOMPANY THIS LETTER MUST BE MADE IN DUPLICATE

(Date) October 12, 1956

(P. O.) Boise, Idaho

TO THE STATE RECLAMATION ENGINEER:

Boise, Idaho

Dear Sir:

You are hereby authorized to have the attached notice published at my expense in the

_____ of _____ published in
the county in which the works are situated.

Wm H. Tuller
Wm. H. Tuller, Acting Regional Director
Bureau of Reclamation, Region 1

(In case of canals or other works designed to divert and carry more than 50 cubic feet of water per second, the following certificate must be signed by a well-known and competent engineer.)

I hereby certify that the facts set forth in the attached notice are true.

Wm H. Tuller
Wm. H. Tuller Engineer.

26602

S T A T E O F I D A H O

DEPARTMENT OF RECLAMATION

NOTICE OF APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF IDAHO IN ACCORDANCE WITH THE PROVISIONS OF SECTION 42-203, Idaho Code.

NOTICE IS HEREBY GIVEN, That on the 11th day of June, 1956, The United States of America, Regional Office 1, Bureau of Reclamation, Boise, Idaho, made application No. 34428, to appropriate one hundred sixty (160) cubic feet per second of the waters of Snake River, for irrigation and domestic purposes.

That the point of diversion of said waters is described as being located at American Falls Dam about 1600 feet from the SE corner of Section 30, Township 7 South, Range 31 East, B.M. and is in the SE $\frac{1}{4}$ of Section 30, Township 7 South, Range 31 East, B.M.

That the point of use of said water is described as being located as follows:

Lands to be irrigated are the arable lands within what is called the Michaud Flats Project, Power County, described as follows:

T. 6 S., R. 31 E., Sec. 35-36;
T. 6 S., R. 32 E., Sec. 29-30-31-32;
T. 7 S., R. 31 E., Sec. 1-2-10-11-12-13-14-15-16-20-21-22
23-24-28-29-31-32;
T. 7 S., R. 32 E., Sec. 6-7-8-17-18;
T. 8 S., R. 31 E., Sec. 5-6-7-18;
T. 8 S., R. 30 E., Sec. 1-11-12-13-14-15-21-22-23-24-26-27-28.

That any protest against the approval of this application must be filed in the Department of Reclamation, at Boise, Idaho, within forty (40) days from the date of this notice, and such protest shall state the name and address of the protestant, and shall clearly set forth his objections to the approval of said application.

Dated this 10th day of September, 1956.

Mark R. Kulp

MARK R. KULP
State Reclamation Engineer

Date of first publication Oct. 18, 1956

Date of last publication Nov. 1, 1956

Last date for protest October 20, 1956 November 20, 1956

SERVICE OF THE FOREGOING, By copy, is hereby acknowledged, this 12th day of October, 1956.

The United States of America
Bureau of Reclamation
Applicant

By Wm H. Tuller

Its Acting Regional Director

26602

STATE OF IDAHO
DEPARTMENT OF RECLAMATION

NOTICE OF APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF IDAHO IN ACCORDANCE WITH THE PROVISIONS OF SECTION 42-203, Idaho Code.

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T. 7 S., R. 31 E., Sec. 1-2-10-11-12-13-14-15-16-20-21-22-23-24-28-29-31-32;
T. 7 S., R. 32 E., Sec. 6-7-8-17-18;
T. 8 S., R. 31 E., Sec. 5-6-7-18;
T. 8 S., R. 30 E., Sec. 1-11-12-13-14-15-21-22-23-24-26-27-28.

That any protest against the approval of this application must be filed in the Department of Reclamation, at Boise, Idaho, within forty (40) days from the date of this notice, and such protest shall state the name and address of the protestant, and shall clearly set forth his objections to the approval of said application.

Dated this 10th day of September, 1956.

MARK R. KULP
State Reclamation Engineer

Date of first publication Oct. 18 1956
Date of last publication Nov. 1 1956
Last date for protest November 20, 1956

SERVICE OF THE FOREGOING, By copy, is hereby acknowledged, this 12th day of October, 1956.

The United States of America
~~Bureau of Reclamation~~
Applicant

By WM. H. TULLER

Its Acting Regional Director

F LIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No.

Bu. Vou. No.

U. S. Department of the Interior - Bureau of Reclamation
(Department, bureau, or establishment)

Voucher prepared at
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No.

To State Reclamation Engineer
(Payee)

(Address) Boise Idaho
(City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE		AMOUNT	
				Cost	Per	Dollars	Cts.
		Filing fee for application for water to be utilized on the Michaud Flats Project, Idaho	160 cfs	\$5 first cfs	\$.25 balance	44	75

PAYMENT:

Complete ☐
Partial ☐
Final ☐

Use continuation sheet(s) if necessary

Shipped from to Weight Government B/L No. Total 44 75

(Payee must NOT use this space)

Differences

Account verified; correct for

(Signature or initials)

9/7/56

State Reclamation Department

/s/ Mark R. Kulp

State Reclamation Engineer

Contract No. Date Req. No. Date Invoice Rec'd.

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title				Limit'n. or Proj't. Amount	Appropriation Amount
Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT		OBJECTIVE CLASSIFICATION	
			Symbol	Amount	Symbol	Amount

Paid by { Check No. dated 19.... for \$ } on Treasurer of the United States in
{ Cash, \$ on 19.... } favor of payee named above.

26602

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (a) Advertising by circular letters sent to dealers.
 (b) And by notices posted in public places Yes ☐ No ☐.

(If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with Federal statutes (32 Stat. 383) and state statutes
(sec. 41-202 Idaho Code Annotated)
5. Without advertising, it being impracticable to secure competition because of

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

APPLICATION FOR PERMIT

TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF IDAHO

Application No.

Permit No.

District No.

1. Name of applicant: The United States of AmericaPost office address Box 937, Boise County Ada State Idaho

I. If applicant is a corporation, give:

(a) Date and place of incorporation:

(b) Amount of capital stock: \$ (c) Amount paid in: \$

(d) Names and addresses of directors:

II. The financial resources of the applicant are: (a) Cash on hand: \$

(b) Treasury stock: (c) Bonds to be issued:

(d) Other resources:

2. Quantity of water claimed: 160 cubic feet per second3. Source of water supply: Snake Riverwhich is tributary of Columbia River4. Location of point of diversion American Falls Dam about 1600 feet distant from the southeast cornerof Section 30, T. 7 S. R. 31 E., B. M., and is in the SE 1/4of Section 30, T. 7 S. R. 31 E., B. M., County of Power5. Water is to be used for irrigation and domestic purposes

6. If for mining, milling, power or manufacturing purposes, give:

(a) Point of use of water: feet distant from corner of Section

T., R., B. M., in the of Section, T., R., B. M.

(b) Amount of power generated: H. P., under feet head.

(c) Water is to be returned to at a point feet

distant from the corner of Section, T., R., B. M., in the

..... of Section, T., R., B. M.

7. Estimated cost of works: \$1,587,300system and small relift pumps.8. Kind of work New construction consists of main pumping plant, canal and lateral/
(Reservoir, dam, ditch, flume, pipe, etc.)9. Height of dam feet; length of dam at top feet; length of dam at bottom
(If height of dam will exceed 10 feet or will store more than 100 acre feet of water, send to Department of Reclamation for Regulations.)Existing penstock opening through American Falls Dam will be used as pumping plant intake10. Size of headgate XXXX feet; XXXX height feet.Pumping plant discharge line 5600 feet 60 inch diameter welded steel pipe11. Ditch: Width at bottom 7 feet; Width at water 18 feet; Depth of water 7.10 feet;Dimensions of XXXX buried concrete pipe: 4400 feet; Diameter of pipe 60 inches;Length of conduit XXXX canal about 22 miles. Average grade per mile 00025 - 001 feet.

26602

12. The time required for the completion of such work is ~~ten~~ years.

13. The time required for the complete application of the water to the proposed use is ten additional years.

14. The land to be irrigated is described in the following tabulation:

(Give irrigable acreage in each 40-acre subdivision)

Twp.	Range	Sec.	NE ¹ / ₄				NW ¹ / ₄				SW ¹ / ₄				SE ¹ / ₄				Totals
			NE ¹ / ₄	NW ¹ / ₄	SW ¹ / ₄	SE ¹ / ₄	NE ¹ / ₄	NW ¹ / ₄	SW ¹ / ₄	SE ¹ / ₄	NE ¹ / ₄	NW ¹ / ₄	SW ¹ / ₄	SE ¹ / ₄	NE ¹ / ₄	NW ¹ / ₄	SW ¹ / ₄	SE ¹ / ₄	
			The land to be irrigated is shown on the attached document entitled "Detailed Land Classification Report" comprising 11,790.9 arable acres. Lands to be served directly from Snake River diversion under this application are interspersed and integrated with the lands to be served by repumping from wells of return flow, seepage, and percolating waters. As to the lands to be served from wells, a precautionary ground water application for the new wells is being filed by the United States on the date of this filing, but the water supply of the project is also to be made available to the lands covered in this application now served by existing wells.																

Total Number of Acres to be Irrigated.....11,798.9.....

From Groundwater:

15. Existing water rights and/or valid permits appurtenant to the lands to be irrigated are:.....**Licenses Nos.**.....

G-22226, 21492, G-22223, 21508, 20832, 19754, G-22559, 23753, G-22542. Permits
Non. G-22224, G-22225, G-23299, G-23379, G-23380, G-24547, G-25519, 19977, 20821,
21477, 21846. From surface water: water rights to 8- 10 c.f.s. from Warm Creek and

21477, 21846. From surface water: water rights to 8- 10 c.f.s. from Warm Creek and Little Creek are thought to be valid but no detailed records have been found. Some of the lands involved in these groundwater licenses and permits will be included in the project and the water supply available under these licenses incorporated into the integrated water supply of the project.

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16. (a) Is reservoir to be used? Yes (If so, fill in (b) and (c) below.)

(b) Name of reservoir and number of Storage Permit: American Falls, License No. R-269
Palisades, Permit No. R-670

(c) Date of filing of Application for Storage Permit and Name of Applicant: American Falls, License No.

R-269 granted to the United States of America with a priority date of March 30, 1921.

Remarks: xxxxxx Palisades Permit No. R-670, with a priority date of July 28, 1939, held by
the United States through an assignment from Lynn Crandall, Watermaster of
District No. 36.

Remarks: This application is for the Michaud Flats Project, a Federal Reclamation Project authorized under the act of August 31, 1954. This application is to cover the natural flow, if any, available subsequent to all prior rights, both storage and natural flow, including rights held by the United States for other projects. Storage water is also to be available to these lands from American Falls and Palisades Reservoirs through appropriate contracts and repayment arrangements with the United States. The amount of space expected to be contracted for from American Falls Reservoir is 23,300 acre-feet and from Palisades Reservoir is 40,900 acre-feet. The amount of water available is subject to the foregoing existing rights and is subject to contractual arrangements concerning utilization of return-flow water from Federal Reclamation projects and water savings from operational and water exchange agreements. The plan of operation of the project as disclosed in the authorizing act contemplates that the water made available pursuant to this permit and diverted under contracts for storage will be reused through pumping from wells after it has been first directly applied to a portion of the area. The project operation will be such that project return flows reaching the Snake River will offset any depletions from inflow to the Snake River made by the project wells.

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.

The United States of America
Applicant.

By /s/ H. T. Nelson
H. T. Nelson, Regional Director, Agent
Reclamation, pursuant to a delegation of
authority from the Secretary of the Interior
through the Commissioner of Reclamation.

Affidavit of Permission to File on Springs

(Not to be used when spring is situated on lands owned by applicant.)

I, _____, of _____, County of _____, State of _____, do hereby certify that I am the owner of the land on which the spring mentioned in the application of _____ is located, to-wit: _____

and that I do hereby grant unto the said _____ permission to file on the said spring as set forth in the foregoing application.

STATE OF IDAHO
County of _____ } ss.

On this _____ day of _____, 195____, before me, a Notary Public for the State of Idaho, residing at _____, personally appeared _____ known to me to be the person whose name _____ subscribed to the foregoing certificate, and acknowledged to me that _____ executed the same.

Witness my hand and seal, the day and year in this certificate first above written.

My commission expires _____
Notary Public.

26602

Approval of State Reclamation Engineer

The number of this permit is

Recorded in Book Page Approved

This is to certify that I have examined the within application for a permit to appropriate the public waters of the State of Idaho, and hereby approve the same, subject to the following limitations and conditions:

Bond in the sum of \$..... to be filed before

Work to begin on or before, and to continue diligently and uninterruptedly to completion, unless temporarily interrupted by circumstances over which the permit holder has no control.

One-fifth of the work above specified to be completed on or before

The whole of said work to be completed on or before

Beneficial use of water appropriated in accordance herewith, to be made on or before

Witness my hand this day of, 195.....

.....
State Reclamation Engineer.

IN TESTIMONY WHEREOF, We, ... Governor of the State of Idaho,
and, Secretary of State of the State of Idaho, have caused
this instrument to be executed in the name of the State of Idaho, and caused the Great Seal of the State of Idaho to be
hereunto affixed, this day of, 195.....

Countersigned:

STATE OF IDAHO

By.....
Secretary of State.

By.....
Governor.

No.....	
PERMIT	
Date of first receipt at office of State Reclamation Engineer	
Returned to applicant for correction	
Corrected application received	
Fees, \$.....	
FILING FEES FOR USE PERMIT:	
For the first Sec. Ft.	\$5.00
For each additional Sec. Ft. or Fraction	
Thereof	.25

September 7, 1956

RE: Applications Nos. G-34427 and 34428

U. S. Bureau of Reclamation
Region 1
P. O. Box 937
Boise, Idaho

ATTENTION: Mr. H. T. Nelson, Regional Director

Dear Mr. Nelson:

We enclose, herewith, original and duplicate of notices in connection with the applications of the United States of America, Region 1, Bureau of Reclamation.

Please acknowledge service on the originals and return to this department with Form 11, which is authorization for us to have the notices published at your expense in the designated county newspaper.

The duplicates of the notices may be retained for your own files.

Very truly yours,

MARK R. KULP
State Reclamation Engineer
By

Roy W. Thompson
Office Manager

T:hll
Enc.

26602

September 7, 1956

RE: Applications Nos. G-34427 and 34428

U. S. Bureau of Reclamation
Region 1
P. O. Box 937
Boise, Idaho

ATTENTION: Mr. H. T. Nelson, Regional Director

Dear Mr. Nelson:

We have your applications for permits filed in connection with the Michaud Flats Project, which Applications were received in this office as of 8:00 o'clock A.M. on June 11, 1956, with your accompanying letter of June 8, 1956.

One application is for the appropriation of 160 cubic feet per second from the Snake River and has been filed as Application No. 34428.

One application is for subterranean water and 20,000 acre feet are claimed with a withdrawal rate of 100 cubic feet per second. We propose to change the claimed amount to 100 cubic feet per second to agree with our present practice of listing only storage rights in acre feet. The application has been filed as Application No. G-34427. The voucher will be completed on the basis of a direct flow diversion of 100 cubic feet per second.

On Application No. G-34427, Question No. 9 refers to a reservoir to store or accumulate ground water appropriated.

While we are in agreement that "The Project operation, however, will be such that the return flow from the project supplied storage water will offset any depletion water tributary to the Snake River that might be diverted by the project wells. Thus, the project will provide by means of return flow water from purchased stored water a source of water to make up for any depletion that ground water pumping might have on water tributary to the Snake River. Thus the project will provide a balanced water supply operation not in conflict with prior water rights" - - The facts are correct but the philosophy is at variance with the principles of Idaho water law that allows a diversion of one Miner's inch per acre direct flow which equals one acre foot per acre each 25 days or 5 acre feet in 125 days when the consumptive use is less than 2 acre feet per acre per annum. Likewise, 5 acre feet of water may be diverted to storage for each acre of land to be irrigated.

26602

September 7, 1956

The development of irrigated acreage has depended on the return flow of the water diverted but not consumed.

Water rights in Idaho are accordingly granted in allowable diversion rates.

Actually, the project may improve downstream diversion rights as such projects normally do, but return flow reaching the river becomes a part of the river and cannot be claimed as an existing right on account of being the result of the use of an existing water right.

We will prepare the notice for advertising the applications.

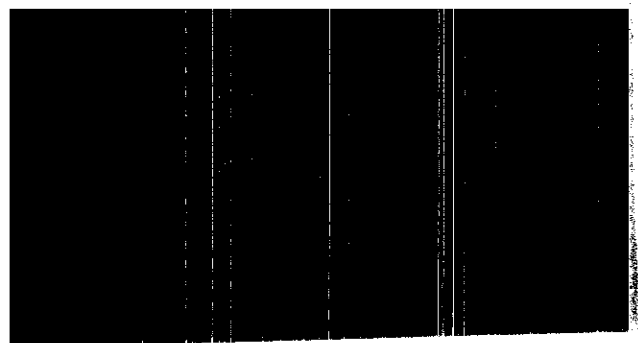
We return the executed vouchers.

Very truly yours,

MARK R. KULP
State Reclamation Engineer

K:hl1
Enc.

26602



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

MICHAUD FLATS PROJECT, IDAHO

DETAILED LAND CLASSIFICATION REPORT

Boise, Idaho
September 1955

26602

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S U M M A R Y

The Michaud Flats Project consists of a long, narrow area about 18 miles long and several miles wide which lies along the southeastern edge of the Snake River Valley adjacent to American Falls Reservoir.

The project is in the vast Snake River Plain at an elevation of from about 4250 to 4470. This is in an area of loessal, mellow, silty light-colored soils that have developed under sagebrush and sparse bunch grasses and arid climatic conditions. These soils are low in organic matter but high in mineral elements of fertility.

The average annual precipitation is about 13 inches and the average frost-free growing season about 120 days. Under these growing conditions the farm delivery irrigation water requirement has been calculated to be 3.2 acre-feet per acre for both gravity and sprinkler irrigated lands. Of the project irrigable acreage of 11,240 acres, storage water from American Falls Reservoir will serve about 6,610 acres and about 4,630 acres will be served from ground water by pumping from wells. About 8,100 acres will be gravity irrigated and about 3,140 acres will be sprinkler irrigated. The 3,140 acres to be sprinkled includes about 2,760 acres with sprinkler classification and about 380 acres with gravity classification closely associated with those sprinkler lands.

Primarily because of topographic conditions the irrigable lands were classified into those suitable for gravity irrigation and those suited only to sprinkler irrigation. The topography of the 8,480 acres classified for gravity is favorable for gravity irrigation though it varies from smooth, gently sloping to undulating and rolling with local areas of steeper relief along drainageways and terrace fronts. The topography of the 2,760 acres with sprinkler classification is more strongly undulating to rolling with numerous knobs and depressions and occasional high areas rising well above the general terrace levels. The land classified as sprinkler land occurs in a more or less continuous body in the northeast part of the project.

Topographic conditions, except where local closed basins occur, such as in the sprinkler area, are favorable for good surface drainage. The soils absorb water readily and the subsoils and upper substrata permit ready downward percolation of water. This will assure adequate internal drainage and leaching of salts which occur in the subsoil in some parts of the project, principally in the northeast part.

The detailed land classification survey made in the fall of 1954 covered an area of about 18,600 acres. Within the selected project area are 15,300 acres, of which 11,240 acres are irrigable. Of the 8,480 acres classified as suitable for gravity irrigation, 1,670

Summary

acres are class 1, 3,775 acres class 2, 2,185 acres class 3, and 850 acres class 4P. In the area of 2,760 acres limited to sprinkler irrigation because of topographic limitations, 360 acres are class 4S(1), 1,640 acres class 4S(2), 575 acres class 4S(3), and 185 acres 4S(4P), a classification made primarily on soil quality and drainage.

INTRODUCTION

This report deals with the land inventory and detailed land classification of the Michaud Flats Project, Idaho, conducted during the period September through December 1954. The material contained herein served as a basis for determining the potential irrigable acreage to be irrigated under the plan of the Definite Plan Report of June 1955 and as subsequently revised. This basic material, together with Economic and Lands Appendixes and other supporting data supplied information essential in certifying the project lands previous to construction as required by the Interior Department Appropriation Act for the fiscal year ending June 30, 1954 (Public Law 470, 83rd Congress, 1st Session).

Supporting maps and data basic to the information analyzed and summarized in this report and to the preparation of the general land classification map, are on file in Snake River Development Office, Boise, Idaho, and in the Michaud Flats Project Office, American Falls, Idaho. These include the originals or duplicates of the detailed land classification maps and of the land class acreage tabulations by forties from which the pay class acreages in the report were derived. These detailed land classification maps are on a scale of 1 inch equals 400 feet, each map covering a section of land. In addition to the land class and subclass delineations, water and cultural features are also shown, as are detailed soil profile descriptions of soils in representative land areas including field laboratory analyses.

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PROJECT LANDS

Michaud Flats Project consists of a long narrow area which lies along the south side of the Snake River and extends southwest about 9 miles from American Falls Dam and northeast 9 miles along the reservoir. The project consists of an area of about 15,300 acres, of which about 11,240 are irrigable. The project lands were selected from an area of 18,600 acres investigated. Land conditions, largely irregular relief and soils with a concentrated subsoil lime zone which makes land leveling undesirable, make it necessary to use sprinkler methods to irrigate a large area of 2,760 acres in the northeast part of the project. Within the area of about 3,140 acres to be served by a pressure sprinkler system are also lesser areas of smoother lands and areas with sandy soils. Sprinkler irrigation has proven successful within the project during the past 5 years. Some 9 percent of the lands scattered throughout the project are limited in productivity or adaptability, but the land-use value of these lands is enhanced by close association with better lands within individual farm units. Therefore, their inclusion as irrigable land is desirable. Although some problems in irrigation are created by the unevenness of the topography of the project lands, their crop adaptability and productiveness should compare favorably with the better lands now under cultivation in the Upper Snake River Basin.

PHYSICAL LAND FEATURES

The undulating plain of the Michaud Flats Project embraces lake-laid sediments, stream-laid deposits, and occasional interbedded lava flows of local extent. Along the southern boundary of the project are rolling foothill slopes of the Deep Creek Mountains, which merge with the plain.

All the drainage in the area is to the Snake River through Blind Springs, Sunbeam, Ferry Hollow, Warm and Little Creeks, and lesser drainageways. The major streams are intermittent at their mouths and upward across the plain, but their headwaters are perennial and have cut deep canyons in the Deep Creek Mountains where they arise.

During Pleistocene time, spreading lava flows spilled into the ancient stream course of the Snake River below Massacre Rocks, damming the channel and forming a broad lake which backed upstream nearly to Blackfoot. Basaltic flows from the north filled the ancient valley of the Snake River, forcing the stream into a new course at the southern extremity of the valley. Here it eroded a new channel in lacustrine deposits and outwash fans at the edge of the foothills. These materials have eroded into rounded hills and broad,

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gently-rolling plains. Subsequent deposition by the Snake River and its tributaries has further modified the original topography established in the lake sediments.

The most recent deposition of region-wide extent has been a veneer of windborne loess. This mantle, together with some local coarser aeolian deposits have contributed most extensively to the upper soil materials from which the soils of the project have developed. The loessal material has later been modified by erosion and at present ranges in depth from a few inches to more than 20 feet in thickness.

Soils

The soils of the area are quite uniform in texture. They are largely loams and silt loams, but to a very minor extent, loamy sands. The soils are free of highly compact or cemented root-restricting zones. However, they generally have a highly calcareous subsoil horizon. They are high in mineral nutrients, but low in organic matter content. A typical profile of the dominant soil consists of 6 inches to 20 inches of noncalcareous silt loam underlain by up to 2 feet of slightly compact, highly calcareous loam. Generally, this is underlain by a horizon of unconsolidated parent material of very fine sandy loam. This profile is also typical of all of the loessal soils found in the Snake River Basin. A few in-extensive sandy areas have surface soils of windblown sand which present problems of erosion control, higher water requirement, and fertility. Locally similar soils have been shown to be valuable for forage production.

There are only occasional surface indications of salt, but especially in the eastern part, slight to moderate concentrations may occur in the subsoil and substratum. The concentrations are variable and usually not continuous over any considerable area.

Vegetative Cover

The principal native plants of the area are sagebrush and bunch grasses which have largely been eliminated to make way for dry-farm operations and to a limited extent, irrigation. These, together with cheat grass, are presently found along drainageways and on other non-tillable land. In some instances there are scattering growths of scrub juniper.

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Topography

Topography of the lands on this project is of major significance in the delineation of the various land classes. Much of the lower quality land is steep or irregular in surface relief.

The topography of the irrigable benchlands varies from smooth, gently sloping to undulating and rolling. The adjacent foothill slopes are more rolling and the gradient steeper. The general relief of a large area in the northeast portion to be irrigated by sprinkling is strongly undulating to rolling with numerous depressions and occasional high areas rising well above the general terrace levels. There are several of these poorly defined terrace levels bordered on the south by the foothills of the Deep Creek Mountains.

The elevation of the project area ranges from 4250 feet near the river at the southwest extremity to 4470 feet in Sunbeam Creek near the southeast end.

Along the north and west margin of the project the lands break abruptly into the American Falls Reservoir. The surface drops vertically from 25 to 40 feet. Although the break along the river below American Falls Dam is less abrupt, the canyon in one place approaches 150 feet in depth.

Five major drainageways and several minor ones have modified the topography. With few exceptions, they are entrenched in the terrace, giving rise to rough, broken side slopes. However, some of them, notably Sunbeam and Blind Springs Creeks, have rather broad smooth bottoms.

Salinity and Alkalinity

Though the surface soils throughout the project are generally free of salt there are numerous areas in which saline salts and alkali are concentrated to toxic concentrations in the subsoil and substratum. These toxic concentrations are more common in the area northeast of Blind Springs Creek than elsewhere.

The profile characteristics of the soils favor ready leaching of the salty soils as does demonstrated experience on soils of the project now irrigated, as well as on similar soils over lake sediments on the Aberdeen-Springfield Irrigation District northwestward across American Falls Reservoir.

According to laboratory analyses and field studies the soils have adequate permeability for the leaching of salts and alkali.

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Throughout the project deep borings to a depth up to 14 feet indicate, that with few exceptions, the understrata have a permeability to this depth that will permit free downward or lateral movement of water.

With careful irrigation practices, including adequate provision for surface and subsurface drainage such as contemplated, the salty areas will reclaim under normal irrigation practices. Early spring and late fall irrigations would tend to shorten the period required for leaching. This could be done during the development period when full use may not be made of the irrigation facilities. Analyses of waters from gravity and well sources that will supply water for irrigation indicate that these are of good quality.

Drainage

Surface drainage of most of the project lands is good. There will be protection for lands adjoining existing drainageways by construction of adequate channels for conveyance of stormflows from adjacent mountainous areas. Construction of drains, both farm and project, in the northeast area to prevent development of a perched water table may also be necessary. Project plans include funds for this eventuality.

Project drainage works required in the area northeast of American Falls include channelizing and deepening intermittent streams crossing this area and construction of open drains through a relatively flat area underlain at 8 to 12-foot depths by lacustrine deposits. Deep borings indicate that the lacustrine deposits are overlain by materials sufficiently permeable to provide for lateral movement of ground water.

Drainage of the 3,200 acres of project lands southwest of American Falls will require essentially no project-constructed works. Drainage construction will involve largely small surface drainage or waste ditches leading to the stream channels which cross that area. These latter drains would be built by the farmers.

Project drainage proposed and the costs involved in such construction, are detailed in the Plans and Estimates chapter.

LAND CLASSIFICATION

The selection of the project area was made following the detailed land classification survey. The "arability" classification was accomplished by field study of the physical factors, correlated

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with factors of economic productive capacity. The "irrigability" determination was made by correlating additional economic factors, taking into account engineering considerations.

Objectives

The major objective of the classification was to separate, according to suitability, lands satisfactory for irrigation development which are termed "arable" or "irrigable" from inferior, non-arable or nonirrigable lands. The term "arable land" as used here is defined as land which, in adequate units and when properly provided with the essential improvements of leveling, drainage, buildings, irrigation facilities and the like, will have a productive capacity, under sustained irrigation agriculture, sufficient to meet all production expenses, including a reasonable return on investment; repay reasonable irrigation and improvement costs; and provide a satisfactory level of living for the farm family. "Irrigable land" is defined as arable land for which a water supply is available and which is provided with or planned to be provided with irrigation, drainage, flood protection, and other facilities as necessary for sustained irrigation utilization.

Correlation Areas

As an aid to establishing suitable land classification standards and specifications, and to coordinate the land classification and economic investigations, areas in the neighboring agricultural communities having similar lands, climate, and types of farming as anticipated on the project were studied. The area immediately east of Twin Falls, Idaho, compares favorably with the soils of the project and with the topography of the class 1 lands. The area east of Hazelton, Idaho, compares very favorably with the class 2 and 3 lands of the Michaud Flats Project. An area in the vicinity of the "underpass" within the project boundary has been under sprinkler irrigation for the past five years and correlates directly with the "sprinkler" lands on the project.

Although the climatic conditions are somewhat different between the Twin Falls-Hazelton areas and the project, allowances were made to adjust for the differences.

Classification Specifications

Minimum specifications for soil, topography, drainage, and alkalinity and salinity were established, based upon Bureau of Reclamation records of operating projects and studies of the correlation areas.

Table 1. Minimum land classification specifications

Michaud Flats Project, Idaho

Land Characteristics	Soil				Class 4S (Arable Land Class)
	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable	
Texture	Sandy loam to friable clay loam.	Loamy sand to very permeable clay.	Gravelly loamy sand to clay.	Loamy sand to permeable clay.	The symbol for class 4S will be followed, in parenthesis, by the appropriate arable land class based upon soil and drainage consideration. The same minimum specifications apply to the "S" class as to the gravity, except those of topography.
Depth to: Sand, gravel or cobble 1/	36"	24"	18"	14"	
Penetrable lime zone	14"	10"	6"	0"	
Basalt bedrock	54"	42"	36"	16"	
Thin limey caliche-like layer	42"	30"			
Total saline salts 2/	Not to exceed 0.2 percent.	Not to exceed 0.5 percent.	Not to exceed 0.5% or 1.0% if permeable at a lower depth.	Not to exceed 0.5% or 1.0% if permeable at a lower depth.	
Alkalinity	pH of paste up to 8.8.	pH of paste up to 8.8 in surface 30", may be up to 9.4 below.	pH of paste up to 8.8 in surface 18" and up to 9.6 below.	pH of paste up to 8.8 in surface 18" and up to 9.6 below.	

(Continued)

Table 1.--(Continued)

Topography 3/					
Land Characteristics	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable	Class 4S (Arable Land Class)
Slope	: :Smooth slopes : :up to 3% in : :general gradi- : :ent in reason- : :ably large : :bodies sloping : :in the same : :general plane. : 				

(Continued)

Table 1.--(Continued)

Topography (Continued)				
Land Characteristics	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable
Size and Shape:				
Field layout	:400' minimum :runs	:300' minimum :runs	:150' minimum :runs	
Minimum size	:8 acres	:6 acres	:2 acres	
			Drainage	
Farm drainage characteristics	No farm drain- age problems anticipated.	Topographic conditions such that some farm drainage may be required, if so reclamation by artificial means can be accomplished at reasonable costs.	Soil and topo- graphic condi- tions such that that land is limited to pasture.	Drainage con- ditions such that land is limited to pasture.

Class 6 - Nonarable

Includes lands which do not meet the minimum requirements of the next higher class, and small areas of arable land lying within larger bodies of nonarable land.

1/ At minimum depth soil must be sandy loam or heavier. 2/ May be higher if soil, topography and water conditions are such as to permit leaching. If mixed, salt soil must be judged on basis of pH of leached sample. 3/ Lands unfavorable for gravity but favorable for sprinkler irrigation are mapped 4S.

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In the field land classification survey, the areas regarded as arable were separated from those considered nonarable; and, in turn, the arable lands were separated into classes and subclasses, consideration being given to whether the lands should be gravity irrigated or sprinkled.

Description of Land Classes

Classification of the lands under the specifications for either gravity or sprinkler irrigation established land classes with characteristics as follows.

Gravity Irrigation Lands

Class 1

Lands of class 1 quality make up 15 percent of the project's irrigable area. They occupy broad, smooth, gently sloping areas of benchland, and to a minor extent, bottom lands, along the major drainageways. Slopes are less than 3 percent, and most are not more than 2 percent. Soils are 36 to 40 inches deep over sand or gravel and 54 inches or more over basalt. They have no harmful salt accumulations and no drainage problems. Surface layers are friable, permeable, very fine sandy loams to silt loams, 14 inches or more in depth over slightly compact calcareous subsoils. Class 1 lands are high in quality, are well adapted to all crops climatically suited to the locality, and are capable of sustained yields under common agricultural practices. They can be prepared for irrigation at relatively small cost.

Class 2

Class 2 lands make up 34 percent of the irrigable area. They are somewhat lower in quality than class 1 because of deficiencies in soils, topography or drainage. Irregular topography and shallow depths (10 to 14 inches) over the lime accumulation zone are the dominant factors causing these lands to be so classed. In some areas, the soils contain salines and alkali, principally in the subsoil which may occasionally temporarily decrease yielding capacities until sufficient water has been applied to ameliorate this condition. Leaching would increase with early spring and late fall irrigation but normal irrigation practices will correct the condition in a reasonable period of time. Where irregular topography alone is the prime reason for down-grading to class 2, the land preparation costs will be higher. Where shallow soils over lime is the cause, heavier and more frequent fertilization will be required to maintain a high level of production. Where both factors are present (usually the case) more labor will be required to handle a more complicated irrigation system, as grading

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is not recommended on these soils. Class 2 lands with drainage deficiencies are very limited in areal extent and usually can be corrected readily by the farmer.

Class 3

Lands of this class make up 19 percent of the irrigable project acreage. Like the class 2 lands, they have deficiencies in soils, topography or drainage, but these deficiencies are greater, in that there are steeper slopes, rougher relief or shallower soils, or greater salinity and alkalinity in the class 3 lands. Because of this, the crop adaptability is more restricted and yields lower, especially where deficiencies are not correctable, which applies to a high percentage of these lands. They will produce good yields of forage crops under these conditions but they will be more costly to keep in production for the same reasons as described above under class 2, such as more frequent fertilization and higher labor cost of irrigation. Though salinity and alkalinity may be greater than in class 2, the soils are expected to reclaim in the same manner.

Class 4P

These lands make up 7 percent of the irrigable acreage. Generally they occupy short steep slopes on breaks between terraces. They are specifically adapted to pasture production and will be a valuable asset to the farm unit when developed as an adjunct to better lands. Owing to their steepness, a grass cover should be kept on these lands to avoid excessive erosion.

Class 6

The class 6 lands are those which do not meet qualifications for any of the above classes, and include lands with shallow soils, unfavorable topography, rock outcrops, excessively hilly terrain, gully areas, and enclosed drainage basins which are too small in extent to justify drainage work.

Sprinkler Irrigation Lands

Topographically a large almost continuous area in the northeast part of the project between the Union Pacific Railroad and American Falls Reservoir is not suited to gravity irrigation because of the irregular micro-relief of lands which should not be leveled due to high lime subsoils or because of the strongly undulating to rolling general relief which makes the construction of laterals and farm ditches inadvisable. Lands with either of these topographic deficiencies singly or in combination are delineated as sprinkler lands. They would be nonirrigable class 6 if classified for gravity irrigation.

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The land classification within this area includes additional evaluation of land in relation to sprinkler irrigation which involves eliminating largely consideration of land preparation costs in relation to topography but also land use and farm operation costs. The characteristics of these sprinkler subclasses are described in the following paragraphs.

Class 4S(1)

These lands which make up 7 percent of the irrigable land, meet all of the requirements for normal class 1 land as to soils and drainage as already described, but not topography. Correlation studies show these lands to have similar use and to be equal to other class 1 lands in productive capacity.

Class 4S(2)

These lands meet all of the requirements of other class 2 lands in regard to soils and drainage. Where subsoil salt is concentrated, leaching will be accomplished in the same manner as in those class 2 lands. When sprinkler irrigated, and if not leveled any more than by floating, these lands can be used for similar crops and are capable of production comparable to other class 2 lands on the project. This has been demonstrated on similar lands on the project already sprinkled. This class includes about 15 percent of the irrigable project lands.

Class 4S(3)

These lands meet all of the requirements of other class 3 lands in regard to soil and drainage. Topographic limitations, though more pronounced, should not affect land use and productivity inasmuch as it is anticipated that, like the class 3 lands, they will be used largely for forage crops. There is an area of coarser textured class 3 land immediately east of Seagull Bay which lies within the sprinkler area. Though in general the topography of this area is more favorable it is so classed because of light blow sand on the surface or because of shallow soils over subsoils of clean sand. While these lands will be somewhat troublesome to keep in production until the surface sand has been stabilized by organic matter and careful practices, they should produce good yields of forage crops to which they are specifically adapted. The lands of this class make up about 5 percent of the irrigable area.

Class 4S(4P)

These lands were so classed largely because of their steepness. They generally occupy rather short slopes between terraces or are on steep slopes where the sprinkler lands break off into the drainageways.

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Correlation studies have proven that these lands are valuable for pasture use in livestock enterprises when sprinkler irrigated. The slopes on these lands are in some instances steeper than those included in the other class 4P lands. While some lands are placed in this class for reasons other than steep slopes, such as low-lying position or high concentration of soluble salts, steepness is the primary reason. These lands make up only about 2 percent of the irrigable area.

Land Classes and Pay Classes

Table 2 gives the land classification acreage summary of the 1954 detailed classification. This summary is from the complete land classification tabulation by forties or lots on file in the Michaud Flats Project Office, American Falls, Idaho, and the Snake River Development Office, Boise, Idaho. This tabulation was compiled after the project lands had been delineated according to the detailed specifications. The irrigable area for each forty or lot was obtained by determining the acreage of arable land remaining after high or isolated parts and the acreage in rights-of-way had been deducted. However, the exact irrigable area is subject to final determination when the project works are completed.

As classified by these detailed standards 74 percent of the project lands are irrigable and 26 percent nonirrigable. The non-irrigable lands consist of 18 percent class 6 and 8 percent in rights-of-way. The lands suitable for gravity irrigation occupy 75 percent of the irrigable area and those suited only to sprinkler irrigation 25 percent.

Based upon the repayment potentials of the various classes of gravity irrigation land and sprinkler irrigation land, economic studies indicated that for an equitable distribution of construction and water charges, four pay classes would be necessary. The land classes that are included in each of the pay classes are as follows:

<u>Pay Class</u>	<u>Land Class</u>
1	1
2	2 and 4S(1)
3	3, 4P and 4S(2)
4	4S(3) and 4S(4P)

In table 3 the acreage of irrigable land in each of the pay classes is shown, as is the acreage of each of the individual irrigable land classes included in each pay class. This summary table shows that a high percentage of the land is in pay classes 2 and 3.

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Table 2.--Land class summary -
detailed land classification, 1954

Michaud Flats Project, Idaho

Land Class	Acres	Percent of Irrigable Land	Percent of Project Area
<u>Gravity</u>			
1	1,670	15	
2	3,775	34	
3	2,185	19	
4P	850	7	
Total Gravity	8,480	75	
<u>Sprinkler</u>			
4S(1)	360	3	
4S(2)	1,640	15	
4S(3)	575	5	
4S(4P)	185	2	
Total Sprinkler	2,760	25	
Total Irrigable	11,240	100	74
Class 6	2,780		18
R.O.W.	1,280		8
Total Nonirrigable	4,060		26
Project Total	15,300		100

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Table 3.--Classification of land for repayment

Michaud Flats Project, Idaho

Contract Acreage		Irrigable Land Class Acreage							
Pay Class	Total	Gravity Land Class				Sprinkler Land Class			
		1	2	3	4P	4S(1)	4S(2)	4S(3)	4S(4P)
1	1,670	1,670							
2	4,135		3,775			360			
3	4,675			2,185	850	1,640			
4	760							575	185
Project									
Total	11,240 ^{1/}								

^{1/} The exact irrigable pay class acreage is subject to final determination when the project works are completed.

In the more inclusive acreage tabulations following page 17, the irrigable acreage by pay classes is shown for each forty or lot within the project.

The total project pay class acreage as summarized includes an estimate of 354 acres for future rights-of-way; and 205 acres along Warm Springs Creek in Sections 11, 12, 13 and 14, T. 8 S., R. 30 E., which because of other water rights, are not in the project. The exact pay class acreage is subject to change pending final irrigable determination after completion of the project works.

IRRIGABLE ACREAGE TABULATION

BY LAND PAY CLASSES

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Irrigable Acreage Tabulation by Land Pay Classes
Michaud Flats Project, Idaho

Sheet 1 of 11

Sec.	T.	R.	Tract	Pay Classes				
				1	2	3	4	Total
35	6 S.	31 E.	NESE			0.1		0.1
			SESE		0.7	25.1	0.1	25.9
36	6 S.	31 E.	SWNE		18.7	5.2	10.7	34.6
			SENE		3.6	21.8	9.6	35.0
			SWNW		2.5			2.5
			SENW		42.2			42.2
			NESW		15.4	17.9	8.3	41.6
			NWSW		8.5	18.2	0.2	26.9
			SWSW		5.1	22.2	10.9	38.2
			SESW		1.0	37.9	2.4	41.3
			NESE			33.7	1.5	35.2
			NWSE		0.8	37.0	3.5	41.3
			SWSE			40.9	0.1	41.0
			SESE			26.6	7.9	34.5
29	6 S.	32 E.	Lot 2			18.2		18.2
			SENW			6.4		6.4
			NESW			27.6		27.6
			SWSW			35.1		35.1
			SESW			40.7		40.7
			Lot 3			32.8	3.1	35.9
			Lot 4			35.8		35.8
30	6 S.	32 E.	NESE			0.2		0.2
			SWSE			7.2	2.3	9.5
			SESE			37.8		37.8
31	6 S.	32 E.	NENE			34.0	4.3	38.3
			NWNE			29.0	7.6	36.6
			SWNE			38.5	1.5	40.0
			SENE			39.3		39.3
			NENW			2.9		2.9
			Lot 2			13.2	10.3	23.5
			SENW			33.0		33.0
			NESW			38.2	1.8	40.0
			Lot 3			35.1	4.3	39.4
			Lot 4			40.0	0.4	40.4
			SESW			38.8	0.8	39.6
			NESE			36.5	4.0	40.5
			NWSE			36.5	4.3	40.8
			SWSE			38.8		38.8
			SESE			23.5		23.5
32	6 S.	32 E.	Lot 1			35.5		35.5
			Lot 2			35.4		35.4

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Sec.	T.	R.	Tract	Pay Classes				Total
				1	2	3	4	
32 (cont.)	6 S.	32 E.	NENW			40.8		40.8
			NWNW			39.4		39.4
			SWNW			39.4		39.4
			SENW			40.5		40.5
			NESW			26.0		26.0
			NWSW			39.1		39.1
			SWSW			11.9		11.9
			SESW		12.5	14.8		27.3
			Lot 3		0.6	10.3		10.9
			Lot 4		32.7	2.1		34.8
1	7 S.	31 E.	Lot 1			27.8	7.3	35.1
			Lot 2			39.4	0.9	40.3
			SWNE			10.9	29.2	40.1
			SENE			2.9	33.9	36.8
			Lot 3			39.9		39.9
			Lot 4		0.1	31.2	7.2	38.5
			SWNW			36.1	3.4	39.5
			SENW			23.2	16.9	40.1
			NESW		6.9		31.1	38.0
			NWSW			18.2	19.4	37.6
			SWSW		24.8	7.2	7.8	39.8
			SESW		33.5		7.2	40.7
			NESE		12.1	22.5	0.5	35.1
			NWSE		29.9	0.7	8.4	39.0
			SWSE		14.5	0.3	24.5	39.3
			SESE			1.8	16.5	18.3
2	7 S.	31 E.	Lot 1			26.1	3.4	29.5
			SWNE			8.5	0.2	8.7
			SENE		5.3	29.4	4.4	39.1
			SESW		25.3		0.1	25.4
			NESE		21.6	16.4		38.0
			NWSE		17.8	0.4	0.3	18.5
			SWSE		18.6	2.0	7.8	28.4
			SESE		11.1	19.1	4.1	34.3
10	7 S.	31 E.	SESW		1.2			1.2
			NESE		0.9		1.9	2.8
			SWSE		18.1	8.3		26.4
			SESE		6.4	18.1		24.5
11	7 S.	31 E.	NENE		30.9	7.2	4.6	42.7
			NWNE		24.6	15.5		40.1
			SWNE		17.3	7.2	13.3	37.8
			SENE		2.4		39.8	42.2
			NENW		14.5	18.2		32.7
			NWNW			6.4		6.4
			SWNW		0.5	28.0	1.6	30.1

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
11	7 S.	31 E.	SENW		15.4	23.1		38.5	
(cont.)			NESW		9.8		9.4	19.2	
			NWSW		17.7		15.5	33.2	
			SWSW			2.9	14.8	17.7	
			SESW				22.9	22.9	
			NESE				30.1	30.1	
			NWSE				22.5	22.5	
			SWSE				24.7	24.7	
			SESE		1.5	5.9	4.5	11.9	
12	7 S.	31 E.	NENE		1.2			1.2	
			NWNE				16.0	16.0	
			SWNE		7.5	9.9		17.4	
			SENE			6.4		6.4	
			NENW		3.3		37.0	40.3	
			NWNW		26.3		13.6	39.9	
			SWNW			0.5	40.4	40.9	
			SENW			11.5	8.5	20.0	
			NESW			33.1		33.1	
			NWSW			12.7	10.8	23.5	
			SWSW		5.7	2.6		8.3	
			SESW			4.1		4.1	
			NESE			26.9		26.9	
			NWSE			26.2		26.2	
			SWSE			24.4		24.4	
			SESE		7.6	14.6		22.2	
13	7 S.	31 E.	NENE		24.0			24.0	
			NWNE		20.6	3.5		24.1	
			SWNE	0.3	21.0	8.2	1.7	31.2	
			SENE			31.4	3.9	35.3	
			NENW	1.6	17.5			19.1	
			NWNW	10.4	11.4			21.8	
			SWNW	30.1	0.3	7.5		37.9	
			SENW	29.5	0.8	5.5	0.1	35.9	
			NESW	7.5	23.5		7.1	38.1	
			NWSW	27.2	6.8	3.6	2.0	39.6	
			SWSW	11.4	21.0		3.3	35.7	
			SESW	21.3	16.8			38.1	
			NESE	2.7	24.9		5.7	33.3	
			NWSE	5.3	32.4		0.1	37.8	
			SWSE	39.3				39.3	
			SESE	20.1	2.0		4.3	26.4	
14	7 S.	31 E.	NENE		2.4	28.9	2.4	33.7	
			NWNE	1.3		15.0	16.6	32.9	
			SWNE	2.5	0.3	26.6		29.4	
			SENE	0.9	9.9	13.7		24.5	
			NENW		9.9	29.6		39.5	
			NWNW		18.5	4.3	17.0	39.8	

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
14 (cont.)	7 S.	31 E.	SWNW	10.0	18.2	4.0		32.2	
			SENW	19.4	3.1	9.7		32.2	
			NESW	18.1	14.6			32.7	
			NWSW	26.4	0.6	11.4		38.4	
			SWSW	5.2	14.5	12.3		32.0	
			SESW	22.7	5.5	0.7		28.9	
			NESE	17.2	1.6	8.6		27.4	
			NWSE	3.2	8.1	11.4		22.7	
			SWSE	19.6	3.2	6.2	0.4	29.4	
			SESE	15.0	11.4	2.2	6.6	35.2	
15	7 S.	31 E.	NENE		9.1	32.0		41.1	
			NWNE			41.0		41.0	
			SWNE		4.6	36.0		40.6	
			SENE		16.8	14.9		31.7	
			NENW		2.0	26.5	1.3	29.8	
			NWNW			1.5		1.5	
			SWNW			21.0	4.7	25.7	
			SENW			29.8	1.0	30.8	
			NESW		1.1	15.2		16.3	
			SWSW		1.5	6.2		7.7	
			SESW		5.8	20.2	0.4	26.4	
			NESE			36.3		36.3	
			NWSE		9.5	21.0	0.2	30.7	
			SWSE		4.9	33.6		38.5	
			SESE		18.0	20.2		38.2	
16	7 S.	31 E.	SWSE			1.9		1.9	
			SESE			6.5		6.5	
20	7 S.	31 E.	NENE			2.9		2.9	
			SWNE			0.4		0.4	
			SENE		21.0	11.4		32.4	
			NESW			0.2		0.2	
			SESW		6.5	8.9		15.4	
			NESE	6.8	19.0	6.5		32.3	
			NWSE		8.3	11.4		19.7	
			SWSE		23.5	4.2		27.7	
			SESE	6.2				6.2	
21	7 S.	31 E.	NENE		26.3	4.5		30.8	
			NWNE		1.7	20.8		22.5	
			SWNE		21.2	16.3		37.5	
			SENE		41.4			41.4	
			NENW			2.7		2.7	
			NWNW			2.3		2.3	
			SWNW		8.0	0.4		8.4	
			SENW			7.9		7.9	

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Sec.	T.	R.	Tract	Pay Classes				Total
				1	2	3	4	
21 (cont.)	7 S.	31 E.	NESW		14.7	14.3		29.0
			NWSW	0.5	7.4	6.5		14.4
			SWSW	10.7	14.9	3.4		29.0
			SESW	8.1	8.0	21.3		37.4
			NESE		36.9	3.0		39.9
			NWSE		17.7	20.9		38.6
			SWSE		3.4	32.2		35.6
			SESE		15.5	11.8		27.3
22	7 S.	31 E.	NENE		24.2			24.2
			NWNE		19.5	4.3		23.8
			SWNE		8.7	7.2		15.9
			SENE	2.1	7.6	14.9		24.6
			NENW		31.2	1.7		32.9
			NWNW		25.1	5.4		30.5
			SWNW		39.7			39.7
			SENW		29.6			29.6
			NESW		27.1	0.2		27.3
			NWSW		24.9			24.9
			SWSW		16.3			16.3
			SESW		2.0	7.2		9.2
			NESE	4.6	6.0	4.6		15.2
			NWSE		26.8	8.8		35.6
			SWSE		1.2	3.1		4.3
			SESE			0.6		0.6
23	7 S.	31 E.	NENE	23.2	6.3	4.7		34.2
			NWNE	1.7	14.4	0.6		16.7
			SWNE	28.7	1.2			29.9
			SENE	20.0	4.3			24.3
			NENW	0.6	22.4	3.9		26.9
			NWNW		23.3	6.8		30.1
			SWNW		24.5	10.5		35.0
			SENW	3.3	10.2	15.7		29.2
			NWSW		8.5			8.5
24	7 S.	31 E.	NWNE	14.6		3.4		18.0
			NENW	33.0		4.5		37.5
			NWNW	38.5				38.5
			SWNW	8.5	0.7	0.9		10.1
			SENW			0.6		0.6
28	7 S.	31 E.	NENE		2.4	3.4		5.8
			NWNE	7.4		5.3		12.7
			NENW	35.5	1.3	1.2		38.0
			SENW	13.5	10.5			24.0
29	7 S.	31 E.	NWNE		11.9			11.9
			NENW		13.5	0.6		14.1

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Sec.	T.	R.	Tract	Pay Classes				
				1	2	3	4	Total
31	7 S.	31 E.	Lot 2		11.1	5.2		16.3
			Lot 4		1.7			1.7
			NESE		15.1	22.1		37.2
			Lot 3		10.3	6.2		16.5
			SWSE		8.1	18.8		26.9
			SESE		21.7	14.1		35.8
32	7 S.	31 E.	SWNE		25.8	0.6		26.4
			SWNW		24.4	8.1		32.5
			SENE		24.0	12.7		36.7
			NESW		18.2	15.5		33.7
			NWSW		34.8	0.5		35.3
			SWSW		34.6	0.3		34.9
			SESW		7.7	17.7		25.4
			NWSE		9.1	11.4		20.5
			SWSE			0.5		0.5
5	7 S.	32 E.	Lot 4		15.9	16.3		32.2
			Lot 3		5.5	29.9		35.4
			Lot 5		11.4	22.7		34.1
			Lot 6		1.2	27.4		28.6
			SWNW	9.2	7.3	18.5		35.0
			SENE		5.3	31.9		37.2
			NESW		30.8	9.3		40.1
			NWSW		16.6	19.0		35.6
			SWSW		18.1	19.5		37.6
			SESW		18.1	15.7		33.8
			Lot 2		9.9	13.9		23.8
			Lot 1		20.5	6.0		26.5
6	7 S.	32 E.	Lot 1	1.6	2.1	13.7		17.4
			Lot 2	1.7		11.0	5.0	17.7
			SWNE	3.8		15.2	1.4	20.4
			SENE	12.2	4.6	6.1		22.9
			Lot 3			21.7	13.5	35.2
			Lot 4			30.6	7.9	38.5
			Lot 5				22.9	22.9
			SENE		0.6	2.5	15.6	18.7
			NESW		29.9	4.9		34.8
			Lot 6		6.8		13.8	20.6
			Lot 7		0.6	16.6		17.2
			SESW		15.9	23.0		38.9
			NESE	1.3	35.2	2.3		38.8
			NWSE		23.0	11.5		34.5
			SWSE		37.5			37.5
			SESE		28.4	10.0		38.4
7	7 S.	32 E.	NENE		32.1	7.1		39.2
			NWNE	4.0	36.9	0.1		41.0

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Sec.	T.	R.	Tract	Pay Classes							
				1	2	3	4	Total			
7 (cont.)	7 S.	32 E.	SWNE	2.7	14.4	19.6		36.7			
			SENE	3.6	19.0	2.1		24.7			
			NENW	14.6	19.1	11.1		44.8			
			Lot 1	1.7		30.8		32.5			
			Lot 2			35.3		35.3			
			SENW	6.3	1.1	32.9		40.3			
			NESW	12.9	2.2	9.2		24.3			
			Lot 3	2.7		26.2		28.9			
			Lot 4	14.9	7.6	3.4		25.9			
			SESW	17.5		11.7		29.2			
			NESE	34.4		1.1		35.5			
			NWSE	17.9	1.3	6.5		25.7			
			SWSE	21.9	1.3	10.7		33.9			
			SESE	5.2	8.7	18.5		32.4			
8	7 S.	32 E.	Lot 1		7.1	21.1		28.2			
			Lot 2	8.7	5.3			14.0			
			NENW		17.4	21.9		39.3			
			NWNW		24.4	15.7		40.1			
			SWNW	15.2	1.5	16.2		32.9			
			SENW	11.6	5.8	3.8		21.2			
			NESW	22.8	0.9	4.0		27.7			
			NWSW	38.4	2.2			40.6			
			SWSW	35.7	1.2	3.7		40.6			
			SESW	3.2	3.2	24.9		31.3			
			Lot 3	12.2	9.1	13.9		35.2			
			Lot 4		3.9	4.1		8.0			
			17	7 S.	32 E.	NENW	0.7	9.0	2.6		12.3
						NWNW	23.8	1.2	5.4		30.4
SWNW	11.3	1.9				6.5		19.7			
NWSW		18.3				2.7		21.0			
SWSW		14.4						14.4			
18	7 S.	32 E.	NENE	0.2	24.4	5.6		30.2			
			NWNE		7.2	22.8		30.0			
			SWNE		16.1			16.1			
			SENE	6.5	6.7			13.2			
			NENW		25.1	15.1		40.2			
			Lot 1		34.7	0.4		35.1			
			Lot 2		22.9	12.5		35.4			
			SENW		16.9	5.8		22.7			
			Lot 3		12.3	1.9		14.2			
			Lot 4	21.3	0.3	4.6		26.2			
			SESW	18.0	0.2			18.2			
			SESE		3.5			3.5			
			5	8 S.	31 E.	Lot 3			17.8		17.8
						Lot 4		7.6	20.2		27.8
SWNW		1.6				35.5		37.1			

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
5	8 S.	31 E.	SENW			6.3		6.3	
(cont.)			NESW			12.7		12.7	
			NWSW			12.2		12.2	
			SWSW			11.0		11.0	
6	8 S.	31 E.	Lot 1		31.6	0.2		31.8	
			Lot 2		21.4	4.9		26.3	
			SWNE		14.0	0.4		14.4	
			SENW		20.5	1.6		22.1	
			Lot 3		10.4			10.4	
			Lot 4		12.3			12.3	
			Lot 5		16.6	2.2		18.8	
			SENW		25.9	6.9		32.8	
			NESW	10.3	14.3	3.7		28.3	
			Lot 6	0.2	18.5			18.7	
			Lot 7	0.2	3.2	1.6		5.0	
			SESW	14.6	11.1			25.7	
			NESE		4.8	9.8		14.6	
			NWSE		22.4	1.6		24.0	
			SWSE		6.7	20.7		27.4	
			SESE			23.3		23.3	
7	8 S.	31 E.	NWNE		20.7	7.0		27.7	
			SWNE		4.0			4.0	
			NENW		28.5	2.1		30.6	
			Lot 1		10.1	1.9		12.0	
			Lot 2		16.2			16.2	
			SENW		37.1			37.1	
			NESW		17.6	13.1		30.7	
			Lot 3	6.8	6.9	3.1		16.8	
			Lot 4	19.1		0.4		19.5	
			SESW	6.4	19.2	2.9		28.5	
			NWSE		0.2	8.9		9.1	
18	8 S.	31 E.	NENW	8.6	8.2	1.3		18.1	
			Lot 1	14.2	2.0	1.2		17.4	
			Lot 2		0.5			0.5	
			SENW		8.4			8.4	
1	8 S.	30 E.	Lot 1		18.4	0.9		19.3	
			NESE		34.6			34.6	
			Lot 3		13.3	1.0		14.3	
			SESE		29.5			29.5	
11	8 S.	30 E.	Lot 1	30.8	11.1	1.7		43.6	
			Lot 2	15.2	21.0	16.4		52.6	
			Lot 3			1.1		1.1	
			SWSE		2.1			2.1	
			SESE	23.1	10.2			33.3	

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Sec.	T.	R.	Tract	Pay classes				Total
				1	2	3	4	
12	8 S.	30 E.	NENE		18.4	9.9		28.3
			NWNE		0.9	25.4		26.3
			SWNE		14.2	8.1		22.3
			SENE		23.4			23.4
			Lot 1			3.8		3.8
			SENW			5.1		5.1
			NESW	2.5		13.6		16.1
			NWSW	10.6	13.6	6.5		30.7
			SWSW	34.3	2.2	1.8		38.3
			SESW	13.1	8.3	9.5		30.9
			NESE	1.0	14.8	8.2		24.0
			NWSE	3.7	3.6	1.5		8.8
			SWSE	9.2	6.8	9.8		25.8
			SESE	21.1	9.0	0.7		30.8
13	8 S.	30 E.	NENE	27.0	11.1			38.1
			NWNE	37.3	1.3			38.6
			SWNE	25.4	7.2			32.6
			SENE		5.2	17.8		23.0
			NENW	15.8	2.0	10.3		28.1
			NWNW	8.7	12.1	5.8		26.6
			SWNW	22.5	3.3	1.4		27.2
			SENW	13.9	15.6	6.8		36.3
			NESW	20.7	7.9	6.5		35.1
			NWSW	8.3	16.2	13.6		38.1
			SWSW		18.4	18.7		37.1
			SESW		5.3	5.6		10.9
			NESE			0.7		0.7
			NWSE		11.5	8.7		20.2
14	8 S.	30 E.	NENE		12.5			12.5
			NWNE		8.3			8.3
			SWNE					
			SENE		5.1	0.9		6.0
			NENW		38.5			38.5
			NWNW		42.5			42.5
			SWNW	9.7	13.5	4.0		27.2
			SENW		32.9	2.0		34.9
			NESW					
			NWSW					
			SWSW	3.5	3.4	28.5		35.4
			SESW			12.3		12.3
			NESE	7.1	7.8	5.6		20.5
			NWSE		0.6	9.0		9.6
15	8 S.	30 E.	SWSE	5.9		22.1		28.0
			SESE	28.9	0.6	5.0		34.5
15	8 S.	30 E.	Lot 1		8.1	33.2		41.3
			Lot 2		13.9	2.0		15.9

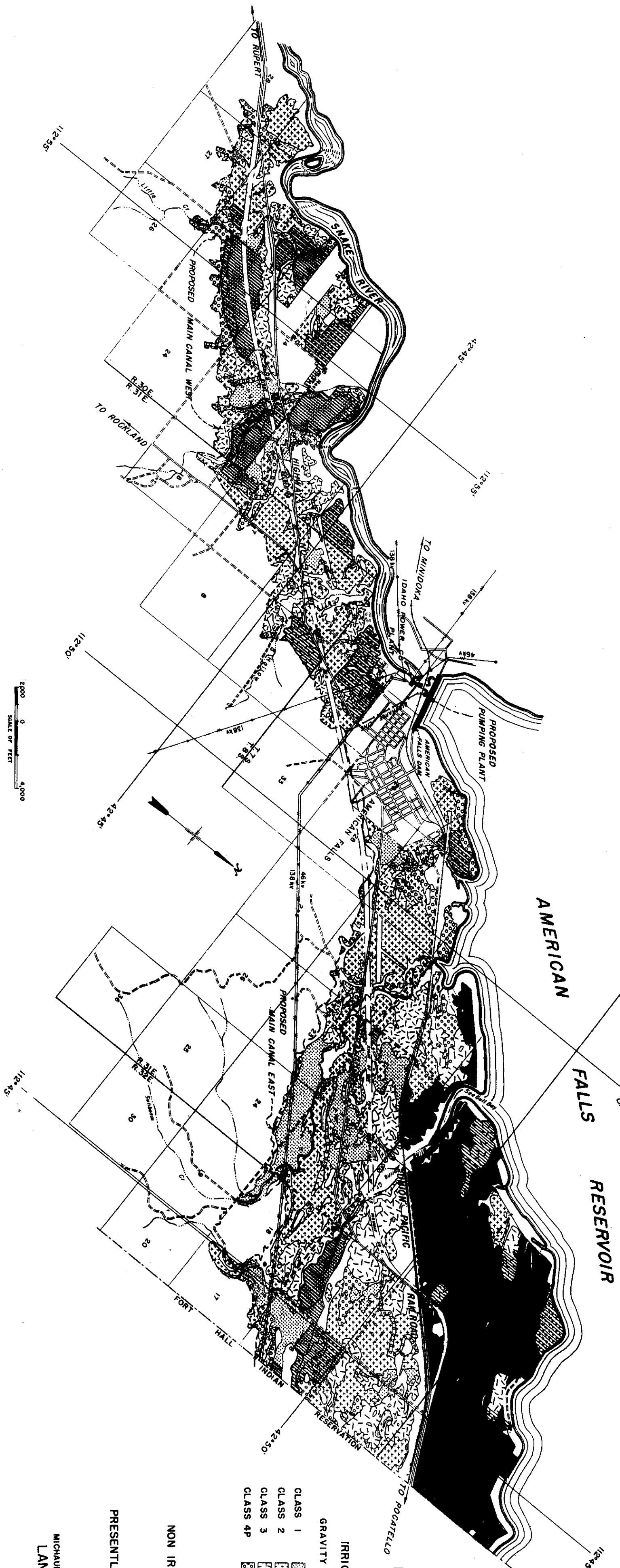
Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
15	8 S.	30 E.	SENE	9.6	21.5	7.3		38.4	
(cont.)			Lot 4		1.1	14.3		15.4	
			NESE						
			NWSE						
			SWSE	20.9	16.1	0.8		37.8	
			SESE	28.4		11.9		40.3	
21	8 S.	30 E.	Lot 1		30.6	15.2		45.8	
			Lot 2		30.8			30.8	
22	8 S.	30 E.	NENE	0.7	25.6	6.4		32.7	
			NWNE	0.3	33.7	3.2		37.2	
			SWNE		23.6	3.7		27.3	
			SENE	8.2	15.0	6.6		29.8	
			Lot 1		3.7	9.8		13.5	
			Lot 2		10.7	5.0		15.7	
			Lot 3		8.0	3.9		11.9	
			Lot 4		21.5			21.5	
			SESW		15.4			15.4	
			NESE	7.2	19.3			26.5	
			NWSE		19.7	3.8		23.5	
			SWSE		26.8	1.4		28.2	
			SESE		27.3	12.4		39.7	
23	8 S.	30 E.	NENE	3.8	10.9	17.7		32.4	
			NWNE	31.3	4.8	0.2		36.3	
			SWNE	14.4	8.4	9.0		31.8	
			SENE			5.2		5.2	
			NENW	19.4		10.2		29.6	
			NWNW	7.8	2.8	16.0		26.6	
			SWNW	26.7		2.8		29.5	
			SENW	33.3	1.5			34.8	
			NESW	5.0	8.0	9.5		22.5	
			NWSW	23.9	7.3	2.8		34.0	
			SWSW		0.6	19.4		20.0	
24	8 S.	30 E.	NWNW		1.8	11.6		13.4	
26	8 S.	30 E.	NWNW		1.0	13.6		14.6	
27	8 S.	30 E.	NENE		7.0	1.0		8.0	
			NWNE	8.0	12.6	9.0		29.6	
			NENW		17.6	7.4		25.0	
			NWNW		20.1	2.1		22.2	
			SWNW	3.2	3.3	9.2		15.7	
			SENW	1.3	0.2	12.3		13.8	
28	8 S.	30 E.	NENE		16.6	15.4		32.0	
			NWNE		36.0	0.8		36.8	

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Sec.	T.	R.	Tract	Pay Classes				
				1	2	3	4	Total
28	8 S.	30 E.	SWNE		1.3	8.1		9.4
			SENE		12.9	18.1		31.0
			Lot 1		11.8			11.8
			NESW			21.8		21.8
			Lot 4			4.1		4.1
			SESW			8.0		8.0
			NESE		3.8	7.6		11.4
			NWSE		7.2	17.2		24.4
			SWSE		1.5	1.2		2.7
			SESE			0.7		0.7
PROJECT TOTAL				1,788.5	4,333.5	4,855.6	821.3	11,798.9 1/2

^{1/} Includes an estimated 354 acres for future rights-of-way and 205 acres in secs. 11, 12, 13 and 14 of T. 8 S., R. 30 E. not in project because of other water rights. Net pay class acreage in project is, therefore, about 11,240 acres. The exact irrigable area is subject to final determination when project works are completed.

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PROJECT LANDS LEGEND

IRRIGABLE LAND CLASSES

GRAVITY	SPRINKLER
CLASS 1	CLASS 4S(1)
CLASS 2	CLASS 4S(2)
CLASS 3	CLASS 4S(3)
CLASS 4P	CLASS 4S(4P)

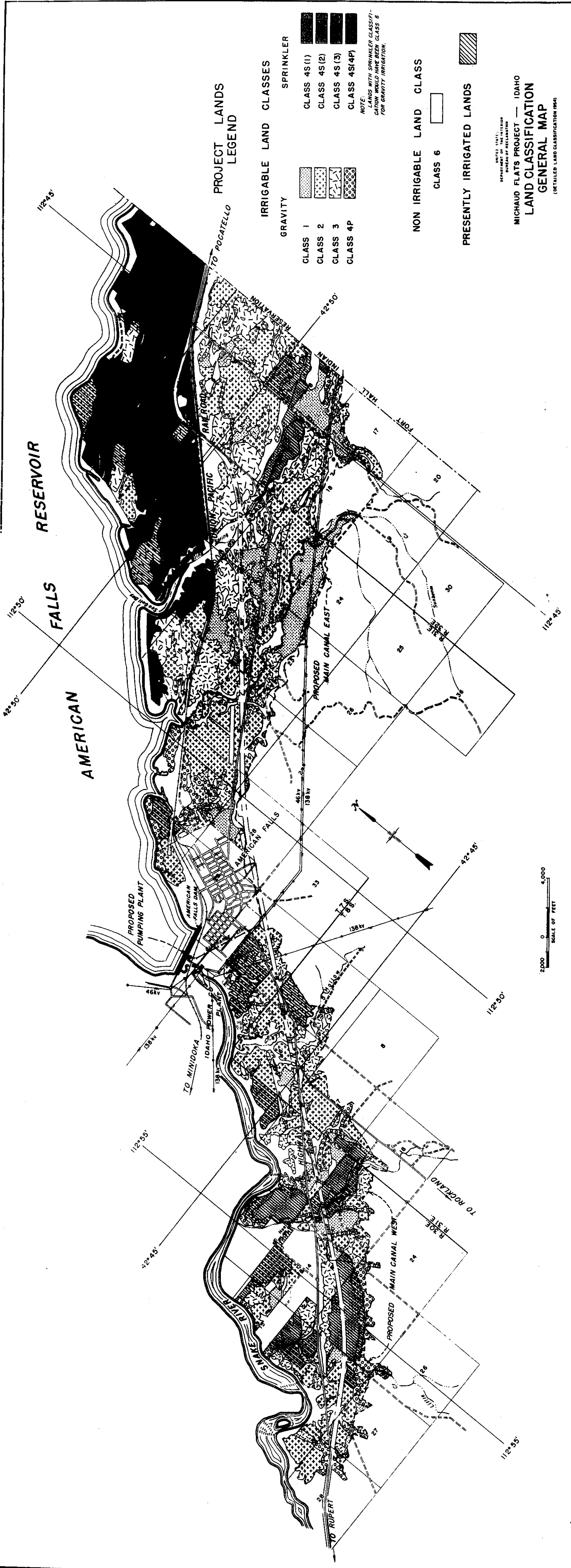
NOTE:
LANDS WITH SPRINKLER CLASSIFICATION WOULD HAVE BEEN CLASS 6 FOR GRAVITY IRRIGATION.

NON IRRIGABLE LAND CLASS

CLASS 6

PRESENTLY IRRIGATED LANDS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT — IDAHO
LAND CLASSIFICATION
GENERAL MAP
(DETAILED LAND CLASSIFICATION 1954)



PROJECT LANDS
LEGEND

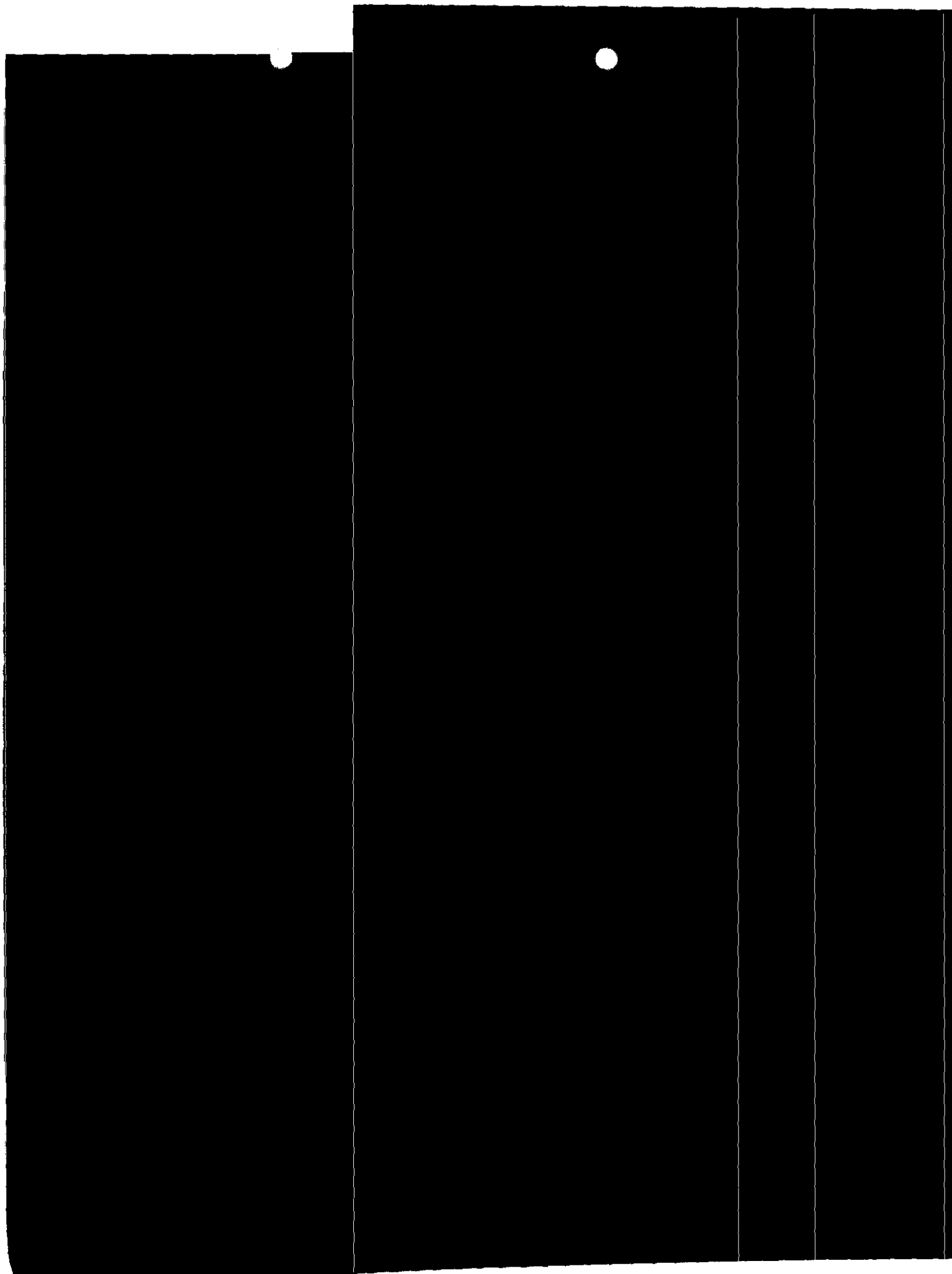
- IRRIGABLE LAND CLASSES
- | | |
|----------|--------------|
| GRAVITY | SPRINKLER |
| CLASS 1 | CLASS 4S(1) |
| CLASS 2 | CLASS 4S(2) |
| CLASS 3 | CLASS 4S(3) |
| CLASS 4P | CLASS 4S(4P) |
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UNITED STATES
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MICHAUD FLATS PROJECT — IDAHO
LAND CLASSIFICATION
GENERAL MAP
(DETAILED LAND CLASSIFICATION 1954)



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 1

MICHAUD FLATS PROJECT, IDAHO

DETAILED LAND CLASSIFICATION REPORT

Boise, Idaho
September 1955

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S U M M A R Y

The Michaud Flats Project consists of a long, narrow area about 18 miles long and several miles wide which lies along the southeastern edge of the Snake River Valley adjacent to American Falls Reservoir.

The project is in the vast Snake River Plain at an elevation of from about 4250 to 4470. This is in an area of loessal, mellow, silty light-colored soils that have developed under sagebrush and sparse bunch grasses and arid climatic conditions. These soils are low in organic matter but high in mineral elements of fertility.

The average annual precipitation is about 13 inches and the average frost-free growing season about 120 days. Under these growing conditions the farm delivery irrigation water requirement has been calculated to be 3.2 acre-feet per acre for both gravity and sprinkler irrigated lands. Of the project irrigable acreage of 11,240 acres, storage water from American Falls Reservoir will serve about 6,610 acres and about 4,630 acres will be served from ground water by pumping from wells. About 8,100 acres will be gravity irrigated and about 3,140 acres will be sprinkler irrigated. The 3,140 acres to be sprinkled includes about 2,760 acres with sprinkler classification and about 380 acres with gravity classification closely associated with those sprinkler lands.

Primarily because of topographic conditions the irrigable lands were classified into those suitable for gravity irrigation and those suited only to sprinkler irrigation. The topography of the 8,480 acres classified for gravity is favorable for gravity irrigation though it varies from smooth, gently sloping to undulating and rolling with local areas of steeper relief along drainageways and terrace fronts. The topography of the 2,760 acres with sprinkler classification is more strongly undulating to rolling with numerous knobs and depressions and occasional high areas rising well above the general terrace levels. The land classified as sprinkler land occurs in a more or less continuous body in the northeast part of the project.

Topographic conditions, except where local closed basins occur, such as in the sprinkler area, are favorable for good surface drainage. The soils absorb water readily and the subsoils and upper substrata permit ready downward percolation of water. This will assure adequate internal drainage and leaching of salts which occur in the subsoil in some parts of the project, principally in the northeast part.

The detailed land classification survey made in the fall of 1954 covered an area of about 18,600 acres. Within the selected project area are 15,300 acres, of which 11,240 acres are irrigable. Of the 8,480 acres classified as suitable for gravity irrigation, 1,670

Summary

acres are class 1, 3,775 acres class 2, 2,185 acres class 3, and 850 acres class 4P. In the area of 2,760 acres limited to sprinkler irrigation because of topographic limitations, 360 acres are class 4S(1), 1,640 acres class 4S(2), 575 acres class 4S(3), and 185 acres 4S(4P), a classification made primarily on soil quality and drainage.

INTRODUCTION

This report deals with the land inventory and detailed land classification of the Michaud Flats Project, Idaho, conducted during the period September through December 1954. The material contained herein served as a basis for determining the potential irrigable acreage to be irrigated under the plan of the Definite Plan Report of June 1955 and as subsequently revised. This basic material, together with Economic and Lands Appendixes and other supporting data supplied information essential in certifying the project lands previous to construction as required by the Interior Department Appropriation Act for the fiscal year ending June 30, 1954 (Public Law 470, 83rd Congress, 1st Session).

Supporting maps and data basic to the information analyzed and summarized in this report and to the preparation of the general land classification map, are on file in Snake River Development Office, Boise, Idaho, and in the Michaud Flats Project Office, American Falls, Idaho. These include the originals or duplicates of the detailed land classification maps and of the land class acreage tabulations by forties from which the pay class acreages in the report were derived. These detailed land classification maps are on a scale of 1 inch equals 400 feet, each map covering a section of land. In addition to the land class and subclass delineations, water and cultural features are also shown, as are detailed soil profile descriptions of soils in representative land areas including field laboratory analyses.

PROJECT LANDS

Michaud Flats Project consists of a long narrow area which lies along the south side of the Snake River and extends southwest about 9 miles from American Falls Dam and northeast 9 miles along the reservoir. The project consists of an area of about 15,300 acres, of which about 11,240 are irrigable. The project lands were selected from an area of 18,600 acres investigated. Land conditions, largely irregular relief and soils with a concentrated subsoil lime zone which makes land leveling undesirable, make it necessary to use sprinkler methods to irrigate a large area of 2,760 acres in the northeast part of the project. Within the area of about 3,140 acres to be served by a pressure sprinkler system are also lesser areas of smoother lands and areas with sandy soils. Sprinkler irrigation has proven successful within the project during the past 5 years. Some 9 percent of the lands scattered throughout the project are limited in productivity or adaptability, but the land-use value of these lands is enhanced by close association with better lands within individual farm units. Therefore, their inclusion as irrigable land is desirable. Although some problems in irrigation are created by the unevenness of the topography of the project lands, their crop adaptability and productiveness should compare favorably with the better lands now under cultivation in the Upper Snake River Basin.

PHYSICAL LAND FEATURES

The undulating plain of the Michaud Flats Project embraces lake-laid sediments, stream-laid deposits, and occasional interbedded lava flows of local extent. Along the southern boundary of the project are rolling foothill slopes of the Deep Creek Mountains, which merge with the plain.

All the drainage in the area is to the Snake River through Blind Springs, Sunbeam, Ferry Hollow, Warm and Little Creeks, and lesser drainageways. The major streams are intermittent at their mouths and upward across the plain, but their headwaters are perennial and have cut deep canyons in the Deep Creek Mountains where they arise.

During Pleistocene time, spreading lava flows spilled into the ancient stream course of the Snake River below Massacre Rocks, damming the channel and forming a broad lake which backed upstream nearly to Blackfoot. Basaltic flows from the north filled the ancient valley of the Snake River, forcing the stream into a new course at the southern extremity of the valley. Here it eroded a new channel in lacustrine deposits and outwash fans at the edge of the foothills. These materials have eroded into rounded hills and broad,

Project Lands

gently-rolling plains. Subsequent deposition by the Snake River and its tributaries has further modified the original topography established in the lake sediments.

The most recent deposition of region-wide extent has been a veneer of windborne loess. This mantle, together with some local coarser aeolian deposits have contributed most extensively to the upper soil materials from which the soils of the project have developed. The loessal material has later been modified by erosion and at present ranges in depth from a few inches to more than 20 feet in thickness.

Soils

The soils of the area are quite uniform in texture. They are largely loams and silt loams, but to a very minor extent, loamy sands. The soils are free of highly compact or cemented root-restricting zones. However, they generally have a highly calcareous subsoil horizon. They are high in mineral nutrients, but low in organic matter content. A typical profile of the dominant soil consists of 6 inches to 20 inches of noncalcareous silt loam underlain by up to 2 feet of slightly compact, highly calcareous loam. Generally, this is underlain by a horizon of unconsolidated parent material of very fine sandy loam. This profile is also typical of all of the loessal soils found in the Snake River Basin. A few in-extensive sandy areas have surface soils of windblown sand which present problems of erosion control, higher water requirement, and fertility. Locally similar soils have been shown to be valuable for forage production.

There are only occasional surface indications of salt, but especially in the eastern part, slight to moderate concentrations may occur in the subsoil and substratum. The concentrations are variable and usually not continuous over any considerable area.

Vegetative Cover

The principal native plants of the area are sagebrush and bunch grasses which have largely been eliminated to make way for dry-farm operations and to a limited extent, irrigation. These, together with cheat grass, are presently found along drainageways and on other non-tillable land. In some instances there are scattering growths of scrub juniper.

Project Lands

Topography

Topography of the lands on this project is of major significance in the delineation of the various land classes. Much of the lower quality land is steep or irregular in surface relief.

The topography of the irrigable benchlands varies from smooth, gently sloping to undulating and rolling. The adjacent foothill slopes are more rolling and the gradient steeper. The general relief of a large area in the northeast portion to be irrigated by sprinkling is strongly undulating to rolling with numerous depressions and occasional high areas rising well above the general terrace levels. There are several of these poorly defined terrace levels bordered on the south by the foothills of the Deep Creek Mountains.

The elevation of the project area ranges from 4250 feet near the river at the southwest extremity to 4470 feet in Sunbeam Creek near the southeast end.

Along the north and west margin of the project the lands break abruptly into the American Falls Reservoir. The surface drops vertically from 25 to 40 feet. Although the break along the river below American Falls Dam is less abrupt, the canyon in one place approaches 150 feet in depth.

Five major drainageways and several minor ones have modified the topography. With few exceptions, they are entrenched in the terrace, giving rise to rough, broken side slopes. However, some of them, notably Sunbeam and Blind Springs Creeks, have rather broad smooth bottoms.

Salinity and Alkalinity

Though the surface soils throughout the project are generally free of salt there are numerous areas in which saline salts and alkali are concentrated to toxic concentrations in the subsoil and substratum. These toxic concentrations are more common in the area northeast of Blind Springs Creek than elsewhere.

The profile characteristics of the soils favor ready leaching of the salty soils as does demonstrated experience on soils of the project now irrigated, as well as on similar soils over lake sediments on the Aberdeen-Springfield Irrigation District northwestward across American Falls Reservoir.

According to laboratory analyses and field studies the soils have adequate permeability for the leaching of salts and alkali.

Project Lands

Throughout the project deep borings to a depth up to 14 feet indicate, that with few exceptions, the understrata have a permeability to this depth that will permit free downward or lateral movement of water.

With careful irrigation practices, including adequate provision for surface and subsurface drainage such as contemplated, the salty areas will reclaim under normal irrigation practices. Early spring and late fall irrigations would tend to shorten the period required for leaching. This could be done during the development period when full use may not be made of the irrigation facilities. Analyses of waters from gravity and well sources that will supply water for irrigation indicate that these are of good quality.

Drainage

Surface drainage of most of the project lands is good. There will be protection for lands adjoining existing drainageways by construction of adequate channels for conveyance of stormflows from adjacent mountainous areas. Construction of drains, both farm and project, in the northeast area to prevent development of a perched water table may also be necessary. Project plans include funds for this eventuality.

Project drainage works required in the area northeast of American Falls include channelizing and deepening intermittent streams crossing this area and construction of open drains through a relatively flat area underlain at 8 to 12-foot depths by lacustrine deposits. Deep borings indicate that the lacustrine deposits are overlain by materials sufficiently permeable to provide for lateral movement of ground water.

Drainage of the 3,200 acres of project lands southwest of American Falls will require essentially no project-constructed works. Drainage construction will involve largely small surface drainage or waste ditches leading to the stream channels which cross that area. These latter drains would be built by the farmers.

Project drainage proposed and the costs involved in such construction, are detailed in the Plans and Estimates chapter.

LAND CLASSIFICATION

The selection of the project area was made following the detailed land classification survey. The "arability" classification was accomplished by field study of the physical factors, correlated

Project Lands

with factors of economic productive capacity. The "irrigability" determination was made by correlating additional economic factors, taking into account engineering considerations.

Objectives

The major objective of the classification was to separate, according to suitability, lands satisfactory for irrigation development which are termed "arable" or "irrigable" from inferior, non-arable or nonirrigable lands. The term "arable land" as used here is defined as land which, in adequate units and when properly provided with the essential improvements of leveling, drainage, buildings, irrigation facilities and the like, will have a productive capacity, under sustained irrigation agriculture, sufficient to meet all production expenses, including a reasonable return on investment; repay reasonable irrigation and improvement costs; and provide a satisfactory level of living for the farm family. "Irrigable land" is defined as arable land for which a water supply is available and which is provided with or planned to be provided with irrigation, drainage, flood protection, and other facilities as necessary for sustained irrigation utilization.

Correlation Areas

As an aid to establishing suitable land classification standards and specifications, and to coordinate the land classification and economic investigations, areas in the neighboring agricultural communities having similar lands, climate, and types of farming as anticipated on the project were studied. The area immediately east of Twin Falls, Idaho, compares favorably with the soils of the project and with the topography of the class 1 lands. The area east of Hazelton, Idaho, compares very favorably with the class 2 and 3 lands of the Michaud Flats Project. An area in the vicinity of the "underpass" within the project boundary has been under sprinkler irrigation for the past five years and correlates directly with the "sprinkler" lands on the project.

Although the climatic conditions are somewhat different between the Twin Falls-Hazelton areas and the project, allowances were made to adjust for the differences.

Classification Specifications

Minimum specifications for soil, topography, drainage, and alkalinity and salinity were established, based upon Bureau of Reclamation records of operating projects and studies of the correlation areas.

Table 1.--Minimum land classification specifications

Michaud Flats Project, Idaho

Land Characteristics	Soil				Class 4S (Arable Land Class)
	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable	
Texture	:Sandy loam to :Loamy sand to :Gravelly loamy :Loamy sand to :The symbol for class				
	:friable clay :very permeable :sand to clay. :permeable clay:4S will be followed,				
	:loam. :clay. :				:in parenthesis, by
Depth to:	:	:	:	:	:the appropriate arable
Sand, gravel or	:	:	:	:	:land class based upon
cobble 1/	:36" :24" :	:18" :	:14" :	:14" :	:soil and drainage con-
	:	:	:	:	:sideration. The same
Penetrable lime zone:	:14" :10" :	:6" :	:0" :	:0" :	:minimum specifications
	:54" :42" :	:36" :	:16" :	:16" :	:apply to the "S" class
Basalt bedrock	:	:	:	:	:as to the gravity, ex-
	:	:	:	:	:cept those of topog-
Thin limey caliche-	:42" :30" :	:	:	:	:raphy.
like layer	:	:	:	:	:
Total saline salts	:Not to exceed :Not to exceed :Not to exceed :Not to exceed :				
2/	:0.2 percent. :0.5 percent. :0.5% or 1.0% if:0.5% or 1.0% :				
	:	:	:permeable at a :if permeable :		
	:	:	:lower depth. :at a lower :		
	:	:	:	:depth. :	
	:	:	:	:	
Alkalinity	:pH of paste :pH of paste up :pH of paste up :pH of paste up :				
	:up to 8.8. :to 8.8 in sur- :to 8.8 in sur- :to 8.8 in sur- :				
	:	:face 30", may :face 18" and up:face 18" and :			
	:	:be up to 9.4 :to 9.6 below. :up to 9.6 be- :			
	:	:below. :	:low. :		
	:	:	:	:	

(Continued)

Table 1.---(Continued)

Topography 3/					
Land Characteristics	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable	Class 4S (Arable Land Class)
Slope	: :Smooth slopes : :up to 3% in : :general gradi- : :ent in reason- : :ably large : :bodies sloping : :in the same : :general plane. : 				

(Continued)

Table 1.--(Continued)

Topography (Continued)					
Land Characteristics	Class 1 Arable	Class 2 Arable	Class 3 Arable	Class 4P Limited Arable	Class 4S (Arable Land Class)
Size and Shape:					
Field layout	:400' minimum :runs	:300' minimum :runs	:150' minimum :runs		
Minimum size	:8 acres	:6 acres	:2 acres		
			Drainage		
Farm drainage characteristics	:No farm drain- :age problems :anticipated.	:Topographic :conditions such :that some farm :drainage may be :required, if so :reclamation by :artificial :means can be :accomplished :at reasonable :costs.	:Soil and topo- :graphic condi- :tions such that :that land is :limited to :pasture.	:Drainage con- :ditions such :that land is :limited to :pasture.	

Class 6 - Nonarable

Includes lands which do not meet the minimum requirements of the next higher class, and small areas of arable land lying within larger bodies of nonarable land.

1/ At minimum depth soil must be sandy loam or heavier. 2/ May be higher if soil, topography and water conditions are such as to permit leaching. If mixed, salt soil must be judged on basis of pH of leached sample. 3/ Lands unfavorable for gravity but favorable for sprinkler irrigation are mapped 4S.

Project Lands

In the field land classification survey, the areas regarded as arable were separated from those considered nonarable; and, in turn, the arable lands were separated into classes and subclasses, consideration being given to whether the lands should be gravity irrigated or sprinkled.

Description of Land Classes

Classification of the lands under the specifications for either gravity or sprinkler irrigation established land classes with characteristics as follows.

Gravity Irrigation Lands

Class 1

Lands of class 1 quality make up 15 percent of the project's irrigable area. They occupy broad, smooth, gently sloping areas of benchland, and to a minor extent, bottom lands, along the major drainageways. Slopes are less than 3 percent, and most are not more than 2 percent. Soils are 36 to 40 inches deep over sand or gravel and 54 inches or more over basalt. They have no harmful salt accumulations and no drainage problems. Surface layers are friable, permeable, very fine sandy loams to silt loams, 14 inches or more in depth over slightly compact calcareous subsoils. Class 1 lands are high in quality, are well adapted to all crops climatically suited to the locality, and are capable of sustained yields under common agricultural practices. They can be prepared for irrigation at relatively small cost.

Class 2

Class 2 lands make up 34 percent of the irrigable area. They are somewhat lower in quality than class 1 because of deficiencies in soils, topography or drainage. Irregular topography and shallow depths (10 to 14 inches) over the lime accumulation zone are the dominant factors causing these lands to be so classed. In some areas, the soils contain salines and alkali, principally in the subsoil which may occasionally temporarily decrease yielding capacities until sufficient water has been applied to ameliorate this condition. Leaching would increase with early spring and late fall irrigation but normal irrigation practices will correct the condition in a reasonable period of time. Where irregular topography alone is the prime reason for down-grading to class 2, the land preparation costs will be higher. Where shallow soils over lime is the cause, heavier and more frequent fertilization will be required to maintain a high level of production. Where both factors are present (usually the case) more labor will be required to handle a more complicated irrigation system, as grading

Project Lands

is not recommended on these soils. Class 2 lands with drainage deficiencies are very limited in areal extent and usually can be corrected readily by the farmer.

Class 3

Lands of this class make up 19 percent of the irrigable project acreage. Like the class 2 lands, they have deficiencies in soils, topography or drainage, but these deficiencies are greater, in that there are steeper slopes, rougher relief or shallower soils, or greater salinity and alkalinity in the class 3 lands. Because of this, the crop adaptability is more restricted and yields lower, especially where deficiencies are not correctable, which applies to a high percentage of these lands. They will produce good yields of forage crops under these conditions but they will be more costly to keep in production for the same reasons as described above under class 2, such as more frequent fertilization and higher labor cost of irrigation. Though salinity and alkalinity may be greater than in class 2, the soils are expected to reclaim in the same manner.

Class 4P

These lands make up 7 percent of the irrigable acreage. Generally they occupy short steep slopes on breaks between terraces. They are specifically adapted to pasture production and will be a valuable asset to the farm unit when developed as an adjunct to better lands. Owing to their steepness, a grass cover should be kept on these lands to avoid excessive erosion.

Class 6

The class 6 lands are those which do not meet qualifications for any of the above classes, and include lands with shallow soils, unfavorable topography, rock outcrops, excessively hilly terrain, gully areas, and enclosed drainage basins which are too small in extent to justify drainage work.

Sprinkler Irrigation Lands

Topographically a large almost continuous area in the northeast part of the project between the Union Pacific Railroad and American Falls Reservoir is not suited to gravity irrigation because of the irregular micro-relief of lands which should not be leveled due to high lime subsoils or because of the strongly undulating to rolling general relief which makes the construction of laterals and farm ditches inadvisable. Lands with either of these topographic deficiencies singly or in combination are delineated as sprinkler lands. They would be nonirrigable class 6 if classified for gravity irrigation.

Project Lands

The land classification within this area includes additional evaluation of land in relation to sprinkler irrigation which involves eliminating largely consideration of land preparation costs in relation to topography but also land use and farm operation costs. The characteristics of these sprinkler subclasses are described in the following paragraphs.

Class 4S(1)

These lands which make up 7 percent of the irrigable land, meet all of the requirements for normal class 1 land as to soils and drainage as already described, but not topography. Correlation studies show these lands to have similar use and to be equal to other class 1 lands in productive capacity.

Class 4S(2)

These lands meet all of the requirements of other class 2 lands in regard to soils and drainage. Where subsoil salt is concentrated, leaching will be accomplished in the same manner as in those class 2 lands. When sprinkler irrigated, and if not leveled any more than by floating, these lands can be used for similar crops and are capable of production comparable to other class 2 lands on the project. This has been demonstrated on similar lands on the project already sprinkled. This class includes about 15 percent of the irrigable project lands.

Class 4S(3)

These lands meet all of the requirements of other class 3 lands in regard to soil and drainage. Topographic limitations, though more pronounced, should not affect land use and productivity inasmuch as it is anticipated that, like the class 3 lands, they will be used largely for forage crops. There is an area of coarser textured class 3 land immediately east of Seagull Bay which lies within the sprinkler area. Though in general the topography of this area is more favorable it is so classed because of light blow sand on the surface or because of shallow soils over subsoils of clean sand. While these lands will be somewhat troublesome to keep in production until the surface sand has been stabilized by organic matter and careful practices, they should produce good yields of forage crops to which they are specifically adapted. The lands of this class make up about 5 percent of the irrigable area.

Class 4S(4P)

These lands were so classed largely because of their steepness. They generally occupy rather short slopes between terraces or are on steep slopes where the sprinkler lands break off into the drainageways.

Project Lands

Correlation studies have proven that these lands are valuable for pasture use in livestock enterprises when sprinkler irrigated. The slopes on these lands are in some instances steeper than those included in the other class 4P lands. While some lands are placed in this class for reasons other than steep slopes, such as low-lying position or high concentration of soluble salts, steepness is the primary reason. These lands make up only about 2 percent of the irrigable area.

Land Classes and Pay Classes

Table 2 gives the land classification acreage summary of the 1954 detailed classification. This summary is from the complete land classification tabulation by forties or lots on file in the Michaud Flats Project Office, American Falls, Idaho, and the Snake River Development Office, Boise, Idaho. This tabulation was compiled after the project lands had been delineated according to the detailed specifications. The irrigable area for each forty or lot was obtained by determining the acreage of arable land remaining after high or isolated parts and the acreage in rights-of-way had been deducted. However, the exact irrigable area is subject to final determination when the project works are completed.

As classified by these detailed standards 74 percent of the project lands are irrigable and 26 percent nonirrigable. The non-irrigable lands consist of 18 percent class 6 and 8 percent in rights-of-way. The lands suitable for gravity irrigation occupy 75 percent of the irrigable area and those suited only to sprinkler irrigation 25 percent.

Based upon the repayment potentials of the various classes of gravity irrigation land and sprinkler irrigation land, economic studies indicated that for an equitable distribution of construction and water charges, four pay classes would be necessary. The land classes that are included in each of the pay classes are as follows:

<u>Pay Class</u>	<u>Land Class</u>
1	1
2	2 and 4S(1)
3	3, 4P and 4S(2)
4	4S(3) and 4S(4P)

In table 3 the acreage of irrigable land in each of the pay classes is shown, as is the acreage of each of the individual irrigable land classes included in each pay class. This summary table shows that a high percentage of the land is in pay classes 2 and 3.

Project Lands

Table 2.--Land class summary -
detailed land classification, 1954

Michaud Flats Project, Idaho

Land Class	Acres	Percent of Irrigable Land	Percent of Project Area
<u>Gravity</u>			
1	1,670	15	
2	3,775	34	
3	2,185	19	
4P	850	7	
Total Gravity	8,480	75	
<u>Sprinkler</u>			
4S(1)	360	3	
4S(2)	1,640	15	
4S(3)	575	5	
4S(4P)	185	2	
Total Sprinkler	2,760	25	
Total Irrigable	11,240	100	74
Class 6	2,780		18
R.O.W.	1,280		8
Total Nonirrigable	4,060		26
Project Total	15,300		100

Project Lands

Table 3.--Classification of land for repayment

Michaud Flats Project, Idaho

Contract Acreage		Irrigable Land Class Acreage							
Pay Class	Total	Gravity Land Class				Sprinkler Land Class			
		1	2	3	4P	4S(1)	4S(2)	4S(3)	4S(4P)
1	1,670	1,670							
2	4,135		3,775			360			
3	4,675			2,185	850	1,640			
4	760						575	185	
Project									
Total	11,240 ^{1/}								

^{1/} The exact irrigable pay class acreage is subject to final determination when the project works are completed.

In the more inclusive acreage tabulations following page 17, the irrigable acreage by pay classes is shown for each forty or lot within the project.

The total project pay class acreage as summarized includes an estimate of 354 acres for future rights-of-way; and 205 acres along Warm Springs Creek in Sections 11, 12, 13 and 14, T. 8 S., R. 30 E., which because of other water rights, are not in the project. The exact pay class acreage is subject to change pending final irrigable determination after completion of the project works.

IRRIGABLE ACREAGE TABULATION

BY LAND PAY CLASSES

Irrigable Acreage Tabulation by Land Pay Classes
Michaud Flats Project, Idaho

Sheet 1 of 11

Sec.	T.	R.	Tract	Pay Classes				
				1	2	3	4	Total
35	6 S.	31 E.	NESE			0.1		0.1
			SESE		0.7	25.1	0.1	25.9
36	6 S.	31 E.	SWNE		18.7	5.2	10.7	34.6
			SENE		3.6	21.8	9.6	35.0
			SWNW		2.5			2.5
			SENW		42.2			42.2
			NESW		15.4	17.9	8.3	41.6
			NWSW		8.5	18.2	0.2	26.9
			SWSW		5.1	22.2	10.9	38.2
			SESW		1.0	37.9	2.4	41.3
			NESE			33.7	1.5	35.2
			NWSE		0.8	37.0	3.5	41.3
			SWSE			40.9	0.1	41.0
			SESE			26.6	7.9	34.5
29	6 S.	32 E.	Lot 2			18.2		18.2
			SENW			6.4		6.4
			NESW			27.6		27.6
			SWSW			35.1		35.1
			SESW			40.7		40.7
			Lot 3			32.8	3.1	35.9
			Lot 4			35.8		35.8
30	6 S.	32 E.	NESE			0.2		0.2
			SWSE			7.2	2.3	9.5
			SESE			37.8		37.8
31	6 S.	32 E.	NENE			34.0	4.3	38.3
			NWNE			29.0	7.6	36.6
			SWNE			38.5	1.5	40.0
			SENE			39.3		39.3
			NENW			2.9		2.9
			Lot 2			13.2	10.3	23.5
			SENW			33.0		33.0
			NESW			38.2	1.8	40.0
			Lot 3			35.1	4.3	39.4
			Lot 4			40.0	0.4	40.4
			SESW			38.8	0.8	39.6
			NESE			36.5	4.0	40.5
			NWSE			36.5	4.3	40.8
			SWSE			38.8		38.8
			SESE			23.5		23.5
32	6 S.	32 E.	Lot 1			35.5		35.5
			Lot 2			35.4		35.4

Sec.	T.	R.	Tract	Pay Classes				Total
				1	2	3	4	
32 (cont.)	6 S.	32 E.	NENW			40.8		40.8
			NWNW			39.4		39.4
			SWNW			39.4		39.4
			SENW			40.5		40.5
			NESW			26.0		26.0
			NWSW			39.1		39.1
			SWSW			11.9		11.9
			SESW		12.5	14.8		27.3
			Lot 3		0.6	10.3		10.9
			Lot 4		32.7	2.1		34.8
1	7 S.	31 E.	Lot 1			27.8	7.3	35.1
			Lot 2			39.4	0.9	40.3
			SWNE			10.9	29.2	40.1
			SENE			2.9	33.9	36.8
			Lot 3			39.9		39.9
			Lot 4		0.1	31.2	7.2	38.5
			SWNW			36.1	3.4	39.5
			SENW			23.2	16.9	40.1
			NESW		6.9		31.1	38.0
			NWSW			18.2	19.4	37.6
			SWSW		24.8	7.2	7.8	39.8
			SESW		33.5		7.2	40.7
			NESE		12.1	22.5	0.5	35.1
			NWSE		29.9	0.7	8.4	39.0
			SWSE		14.5	0.3	24.5	39.3
			SESE			1.8	16.5	18.3
2	7 S.	31 E.	Lot 1			26.1	3.4	29.5
			SWNE			8.5	0.2	8.7
			SENE		5.3	29.4	4.4	39.1
			SESW		25.3		0.1	25.4
			NESE		21.6	16.4		38.0
			NWSE		17.8	0.4	0.3	18.5
			SWSE		18.6	2.0	7.8	28.4
			SESE		11.1	19.1	4.1	34.3
10	7 S.	31 E.	SESW		1.2			1.2
			NESE		0.9		1.9	2.8
			SWSE		18.1	8.3		26.4
			SESE		6.4	18.1		24.5
11	7 S.	31 E.	NENE		30.9	7.2	4.6	42.7
			NWNE		24.6	15.5		40.1
			SWNE		17.3	7.2	13.3	37.8
			SENE		2.4		39.8	42.2
			NENW		14.5	18.2		32.7
			NWNW			6.4		6.4
			SWNW		0.5	28.0	1.6	30.1

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
11	7 S.	31 E.	SENW		15.4	23.1		38.5	
(cont.)			NESW		9.8		9.4	19.2	
			NWSW		17.7		15.5	33.2	
			SWSW			2.9	14.8	17.7	
			SESW				22.9	22.9	
			NESE				30.1	30.1	
			NWSE				22.5	22.5	
			SWSE				24.7	24.7	
			SESE		1.5	5.9	4.5	11.9	
12	7 S.	31 E.	NENE		1.2			1.2	
			NWNE				16.0	16.0	
			SWNE		7.5	9.9		17.4	
			SENE			6.4		6.4	
			NENW		3.3		37.0	40.3	
			NWNW		26.3		13.6	39.9	
			SWNW			0.5	40.4	40.9	
			SENW			11.5	8.5	20.0	
			NESW			33.1		33.1	
			NWSW			12.7	10.8	23.5	
			SWSW		5.7	2.6		8.3	
			SESW			4.1		4.1	
			NESE			26.9		26.9	
			NWSE			26.2		26.2	
			SWSE			24.4		24.4	
			SESE		7.6	14.6		22.2	
13	7 S	31 E.	NENE		24.0			24.0	
			NWNE		20.6	3.5		24.1	
			SWNE	0.3	21.0	8.2	1.7	31.2	
			SENE			31.4	3.9	35.3	
			NENW	1.6	17.5			19.1	
			NWNW	10.4	11.4			21.8	
			SWNW	30.1	0.3	7.5		37.9	
			SENW	29.5	0.8	5.5	0.1	35.9	
			NESW	7.5	23.5		7.1	38.1	
			NWSW	27.2	6.8	3.6	2.0	39.6	
			SWSW	11.4	21.0		3.3	35.7	
			SESW	21.3	16.8			38.1	
			NESE	2.7	24.9		5.7	33.3	
			NWSE	5.3	32.4		0.1	37.8	
			SWSE	39.3				39.3	
			SESE	20.1	2.0		4.3	26.4	
14	7 S.	31 E.	NENE		2.4	28.9	2.4	33.7	
			NWNE	1.3		15.0	16.6	32.9	
			SWNE	2.5	0.3	26.6		29.4	
			SENE	0.9	9.9	13.7		24.5	
			NENW		9.9	29.6		39.5	
			NWNW		18.5	4.3	17.0	39.8	

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
14 (cont.)	7 S.	31 E.	SWNW	10.0	18.2	4.0			32.2
			SENW	19.4	3.1	9.7			32.2
			NESW	18.1	14.6				32.7
			NWSW	26.4	0.6	11.4			38.4
			SWSW	5.2	14.5	12.3			32.0
			SESW	22.7	5.5	0.7			28.9
			NESE	17.2	1.6	8.6			27.4
			NWSE	3.2	8.1	11.4			22.7
			SWSE	19.6	3.2	6.2	0.4		29.4
			SESE	15.0	11.4	2.2	6.6		35.2
15	7 S.	31 E.	NENE		9.1	32.0			41.1
			NWNE			41.0			41.0
			SWNE		4.6	36.0			40.6
			SENE		16.8	14.9			31.7
			NENW		2.0	26.5	1.3		29.8
			NWNW			1.5			1.5
			SWNW			21.0	4.7		25.7
			SENW			29.8	1.0		30.8
			NESW		1.1	15.2			16.3
			SWSW		1.5	6.2			7.7
			SESW		5.8	20.2	0.4		26.4
			NESE			36.3			36.3
			NWSE		9.5	21.0	0.2		30.7
			SWSE		4.9	33.6			38.5
			SESE		18.0	20.2			38.2
16	7 S.	31 E.	SWSE			1.9			1.9
			SESE			6.5			6.5
20	7 S.	31 E.	NENE			2.9			2.9
			SWNE			0.4			0.4
			SENE		21.0	11.4			32.4
			NESW			0.2			0.2
			SESW		6.5	8.9			15.4
			NESE	6.8	19.0	6.5			32.3
			NWSE		8.3	11.4			19.7
			SWSE		23.5	4.2			27.7
			SESE	6.2					6.2
21	7 S.	31 E.	NENE		26.3	4.5			30.8
			NWNE		1.7	20.8			22.5
			SWNE		21.2	16.3			37.5
			SENE		41.4				41.4
			NENW			2.7			2.7
			NWNW			2.3			2.3
			SWNW		8.0	0.4			8.4
			SENW			7.9			7.9

Sec.	T.	R.	Tract	Pay Classes				Total
				1	2	3	4	
21 (cont.)	7 S.	31 E.	NESW		14.7	14.3		29.0
			NWSW	0.5	7.4	6.5		14.4
			SWSW	10.7	14.9	3.4		29.0
			SESW	8.1	8.0	21.3		37.4
			NESE		36.9	3.0		39.9
			NWSE		17.7	20.9		38.6
			SWSE		3.4	32.2		35.6
			SESE		15.5	11.8		27.3
22	7 S.	31 E.	NENE		24.2			24.2
			NWNE		19.5	4.3		23.8
			SWNE		8.7	7.2		15.9
			SENE	2.1	7.6	14.9		24.6
			NENW		31.2	1.7		32.9
			NWNW		25.1	5.4		30.5
			SWNW		39.7			39.7
			SENW		29.6			29.6
			NESW		27.1	0.2		27.3
			NWSW		24.9			24.9
			SWSW		16.3			16.3
			SESW		2.0	7.2		9.2
			NESE	4.6	6.0	4.6		15.2
			NWSE		26.8	8.8		35.6
			SWSE		1.2	3.1		4.3
			SESE			0.6		0.6
23	7 S.	31 E.	NENE	23.2	6.3	4.7		34.2
			NWNE	1.7	14.4	0.6		16.7
			SWNE	28.7	1.2			29.9
			SENE	20.0	4.3			24.3
			NENW	0.6	22.4	3.9		26.9
			NWNW		23.3	6.8		30.1
			SWNW		24.5	10.5		35.0
			SENW	3.3	10.2	15.7		29.2
24	7 S.	31 E.	NWSW		8.5			8.5
			NWNE	14.6		3.4		18.0
			NENW	33.0		4.5		37.5
			NWNW	38.5				38.5
			SWNW	8.5	0.7	0.9		10.1
28	7 S.	31 E.	SENW			0.6		0.6
			NENE		2.4	3.4		5.8
			NWNE	7.4		5.3		12.7
			NENW	35.5	1.3	1.2		38.0
29	7 S.	31 E.	SENW	13.5	10.5			24.0
			NWNE		11.9			11.9
			NENW		13.5	0.6		14.1

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
31	7 S.	31 E.	Lot 2		11.1	5.2		16.3	
			Lot 4		1.7			1.7	
			NESE		15.1	22.1		37.2	
			Lot 3		10.3	6.2		16.5	
			SWSE		8.1	18.8		26.9	
			SESE		21.7	14.1		35.8	
32	7 S.	31 E.	SWNE		25.8	0.6		26.4	
			SWNW		24.4	8.1		32.5	
			SENW		24.0	12.7		36.7	
			NESW		18.2	15.5		33.7	
			NWSW		34.8	0.5		35.3	
			SWSW		34.6	0.3		34.9	
			SESW		7.7	17.7		25.4	
			NWSE		9.1	11.4		20.5	
			SWSE			0.5		0.5	
5	7 S.	32 E.	Lot 4		15.9	16.3		32.2	
			Lot 3		5.5	29.9		35.4	
			Lot 5		11.4	22.7		34.1	
			Lot 6		1.2	27.4		28.6	
			SWNW	9.2	7.3	18.5		35.0	
			SENW		5.3	31.9		37.2	
			NESW		30.8	9.3		40.1	
			NWSW		16.6	19.0		35.6	
			SWSW		18.1	19.5		37.6	
			SESW		18.1	15.7		33.8	
			Lot 2		9.9	13.9		23.8	
			Lot 1		20.5	6.0		26.5	
6	7 S.	32 E.	Lot 1	1.6	2.1	13.7		17.4	
			Lot 2	1.7		11.0	5.0	17.7	
			SWNE	3.8		15.2	1.4	20.4	
			SENE	12.2	4.6	6.1		22.9	
			Lot 3			21.7	13.5	35.2	
			Lot 4			30.6	7.9	38.5	
			Lot 5				22.9	22.9	
			SENW		0.6	2.5	15.6	18.7	
			NESW		29.9	4.9		34.8	
			Lot 6		6.8		13.8	20.6	
			Lot 7		0.6	16.6		17.2	
			SESW		15.9	23.0		38.9	
			NESE	1.3	35.2	2.3		38.8	
			NWSE		23.0	11.5		34.5	
			SWSE		37.5			37.5	
			SESE		28.4	10.0		38.4	
7	7 S.	32 E.	NENE		32.1	7.1		39.2	
			NWNE	4.0	36.9	0.1		41.0	

Sec.	T.	R.	Tract	Pay Classes				Total
				1	2	3	4	
7 (cont.)	7 S.	32 E.	SWNE	2.7	14.4	19.6		36.7
			SENE	3.6	19.0	2.1		24.7
			NENW	14.6	19.1	11.1		44.8
			Lot 1	1.7		30.8		32.5
			Lot 2			35.3		35.3
			SENW	6.3	1.1	32.9		40.3
			NESW	12.9	2.2	9.2		24.3
			Lot 3	2.7		26.2		28.9
			Lot 4	14.9	7.6	3.4		25.9
			SESW	17.5		11.7		29.2
			NESE	34.4		1.1		35.5
			NWSE	17.9	1.3	6.5		25.7
			SWSE	21.9	1.3	10.7		33.9
			SESE	5.2	8.7	18.5		32.4
8	7 S.	32 E.	Lot 1		7.1	21.1		28.2
			Lot 2	8.7	5.3			14.0
			NENW		17.4	21.9		39.3
			NWNW		24.4	15.7		40.1
			SWNW	15.2	1.5	16.2		32.9
			SENW	11.6	5.8	3.8		21.2
			NESW	22.8	0.9	4.0		27.7
			NWSW	38.4	2.2			40.6
			SWSW	35.7	1.2	3.7		40.6
			SESW	3.2	3.2	24.9		31.3
			Lot 3	12.2	9.1	13.9		35.2
			Lot 4		3.9	4.1		8.0
17	7 S.	32 E.	NENW	0.7	9.0	2.6		12.3
			NWNW	23.8	1.2	5.4		30.4
			SWNW	11.3	1.9	6.5		19.7
			NWSW		18.3	2.7		21.0
			SWSW		14.4			14.4
18	7 S.	32 E.	NENE	0.2	24.4	5.6		30.2
			NWNE		7.2	22.8		30.0
			SWNE		16.1			16.1
			SENE	6.5	6.7			13.2
			NENW		25.1	15.1		40.2
			Lot 1		34.7	0.4		35.1
			Lot 2		22.9	12.5		35.4
			SENW		16.9	5.8		22.7
			Lot 3		12.3	1.9		14.2
			Lot 4	21.3	0.3	4.6		26.2
			SESW	18.0	0.2			18.2
			SESE		3.5			3.5
5	8 S.	31 E.	Lot 3			17.8		17.8
			Lot 4		7.6	20.2		27.8
			SWNW		1.6	35.5		37.1

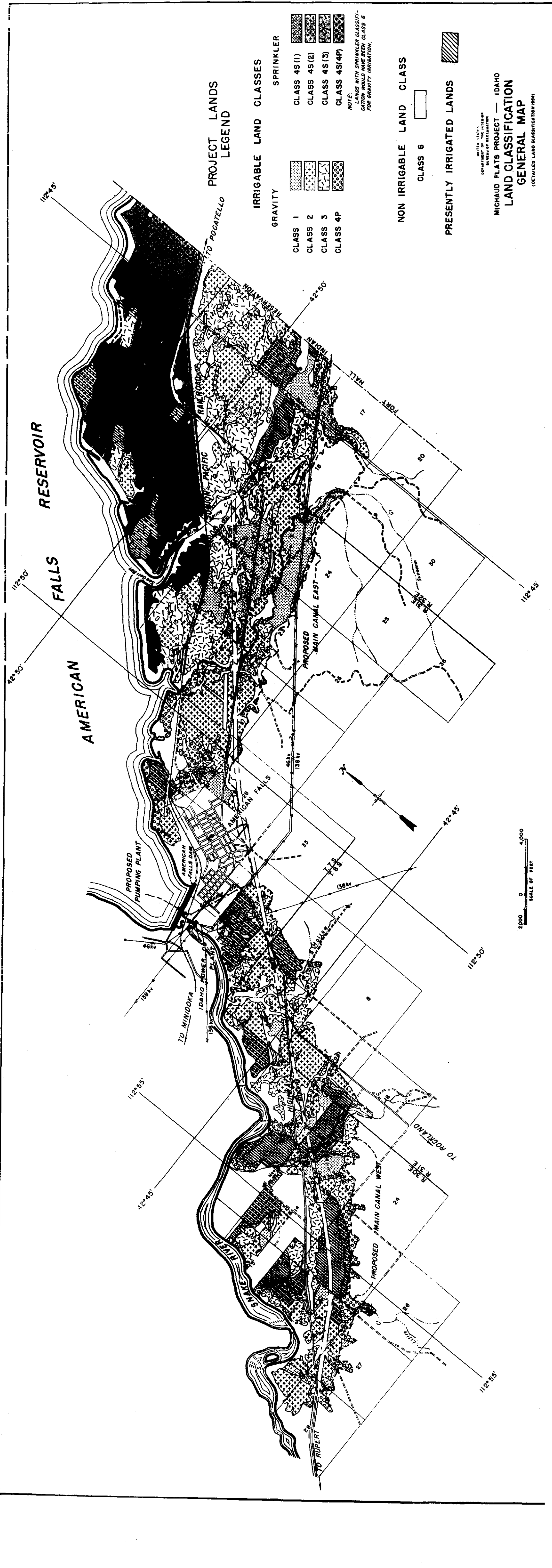
Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
5	8 S.	31 E.	SENW			6.3		6.3	
(cont.)			NESW			12.7		12.7	
			NWSW			12.2		12.2	
			SWSW			11.0		11.0	
6	8 S.	31 E.	Lot 1		31.6	0.2		31.8	
			Lot 2		21.4	4.9		26.3	
			SWNE		14.0	0.4		14.4	
			SENW		20.5	1.6		22.1	
			Lot 3		10.4			10.4	
			Lot 4		12.3			12.3	
			Lot 5		16.6	2.2		18.8	
			SENW		25.9	6.9		32.8	
			NESW	10.3	14.3	3.7		28.3	
			Lot 6	0.2	18.5			18.7	
			Lot 7	0.2	3.2	1.6		5.0	
			SESW	14.6	11.1			25.7	
			NESE		4.8	9.8		14.6	
			NWSE		22.4	1.6		24.0	
			SWSE		6.7	20.7		27.4	
			SESE			23.3		23.3	
7	8 S.	31 E.	NWNE		20.7	7.0		27.7	
			SWNE		4.0			4.0	
			NENW		28.5	2.1		30.6	
			Lot 1		10.1	1.9		12.0	
			Lot 2		16.2			16.2	
			SENW		37.1			37.1	
			NESW		17.6	13.1		30.7	
			Lot 3	6.8	6.9	3.1		16.8	
			Lot 4	19.1		0.4		19.5	
			SESW	6.4	19.2	2.9		28.5	
			NWSE		0.2	8.9		9.1	
18	8 S.	31 E.	NENW	8.6	8.2	1.3		18.1	
			Lot 1	14.2	2.0	1.2		17.4	
			Lot 2		0.5			0.5	
			SENW		8.4			8.4	
1	8 S.	30 E.	Lot 1		18.4	0.9		19.3	
			NESE		34.6			34.6	
			Lot 3		13.3	1.0		14.3	
			SESE		29.5			29.5	
11	8 S.	30 E.	Lot 1	30.8	11.1	1.7		43.6	
			Lot 2	15.2	21.0	16.4		52.6	
			Lot 3			1.1		1.1	
			SWSE		2.1			2.1	
			SESE	23.1	10.2			33.3	

Sec.	T.	R.	Tract	Pay classes					Total
				1	2	3	4		
12	8 S.	30 E.	NENE		18.4	9.9		28.3	
			NWNE		0.9	25.4		26.3	
			SWNE		14.2	8.1		22.3	
			SENE		23.4			23.4	
			Lot 1			3.8		3.8	
			SENW			5.1		5.1	
			NESW	2.5		13.6		16.1	
			NWSW	10.6	13.6	6.5		30.7	
			SWSW	34.3	2.2	1.8		38.3	
			SESW	13.1	8.3	9.5		30.9	
			NESE	1.0	14.8	8.2		24.0	
			NWSE	3.7	3.6	1.5		8.8	
			SWSE	9.2	6.8	9.8		25.8	
			SESE	21.1	9.0	0.7		30.8	
13	8 S.	30 E.	NENE	27.0	11.1			38.1	
			NWNE	37.3	1.3			38.6	
			SWNE	25.4	7.2			32.6	
			SENE		5.2	17.8		23.0	
			NENW	15.8	2.0	10.3		28.1	
			NWNW	8.7	12.1	5.8		26.6	
			SWNW	22.5	3.3	1.4		27.2	
			SENW	13.9	15.6	6.8		36.3	
			NESW	20.7	7.9	6.5		35.1	
			NWSW	8.3	16.2	13.6		38.1	
			SWSW		18.4	18.7		37.1	
			SESW		5.3	5.6		10.9	
			NESE			0.7		0.7	
			NWSE		11.5	8.7		20.2	
14	8 S.	30 E.	NENE		12.5			12.5	
			NWNE		8.3			8.3	
			SWNE						
			SENE		5.1	0.9		6.0	
			NENW		38.5			38.5	
			NWNW		42.5			42.5	
			SWNW	9.7	13.5	4.0		27.2	
			SENW		32.9	2.0		34.9	
			NESW						
			NWSW						
			SWSW	3.5	3.4	28.5		35.4	
			SESW			12.3		12.3	
			NESE	7.1	7.8	5.6		20.5	
			NWSE		0.6	9.0		9.6	
15	8 S.	30 E.	SWSE	5.9		22.1		28.0	
			SESE	28.9	0.6	5.0		34.5	
			Lot 1		8.1	33.2		41.3	
			Lot 2		13.9	2.0		15.9	

Sec.	T.	R.	Tract	Pay Classes					Total
				1	2	3	4		
15	8 S.	30 E.	SENE	9.6	21.5	7.3		38.4	
(cont.)			Lot 4		1.1	14.3		15.4	
			NESE						
			NWSE						
			SWSE	20.9	16.1	0.8		37.8	
			SESE	28.4		11.9		40.3	
21	8 S.	30 E.	Lot 1		30.6	15.2		45.8	
			Lot 2		30.8			30.8	
22	8 S.	30 E.	NENE	0.7	25.6	6.4		32.7	
			NWNE	0.3	33.7	3.2		37.2	
			SWNE		23.6	3.7		27.3	
			SENE	8.2	15.0	6.6		29.8	
			Lot 1		3.7	9.8		13.5	
			Lot 2		10.7	5.0		15.7	
			Lot 3		8.0	3.9		11.9	
			Lot 4		21.5			21.5	
			SESW		15.4			15.4	
			NESE	7.2	19.3			26.5	
			NWSE		19.7	3.8		23.5	
			SWSE		26.8	1.4		28.2	
			SESE		27.3	12.4		39.7	
23	8 S.	30 E.	NENE	3.8	10.9	17.7		32.4	
			NWNE	31.3	4.8	0.2		36.3	
			SWNE	14.4	8.4	9.0		31.8	
			SENE			5.2		5.2	
			NENW	19.4		10.2		29.6	
			NWNW	7.8	2.8	16.0		26.6	
			SWNW	26.7		2.8		29.5	
			SENW	33.3	1.5			34.8	
			NESW	5.0	8.0	9.5		22.5	
			NWSW	23.9	7.3	2.8		34.0	
			SWSW		0.6	19.4		20.0	
24	8 S.	30 E.	NWNW		1.8	11.6		13.4	
26	8 S.	30 E.	NWNW		1.0	13.6		14.6	
27	8 S.	30 E.	NENE		7.0	1.0		8.0	
			NWNE	8.0	12.6	9.0		29.6	
			NENW		17.6	7.4		25.0	
			NWNW		20.1	2.1		22.2	
			SWNW	3.2	3.3	9.2		15.7	
			SENW	1.3	0.2	12.3		13.8	
28	8 S.	30 E.	NENE		16.6	15.4		32.0	
			NWNE		36.0	0.8		36.8	

Sec.	T.	R.	Tract	Pay Classes				
				1	2	3	4	Total
28	8 S.	30 E.	SWNE		1.3	8.1		9.4
			SENE		12.9	18.1		31.0
			Lot 1		11.8			11.8
			NESW			21.8		21.8
			Lot 4			4.1		4.1
			SESW			8.0		8.0
			NESE		3.8	7.6		11.4
			NWSE		7.2	17.2		24.4
			SWSE		1.5	1.2		2.7
			SESE			0.7		0.7
PROJECT TOTAL				1,788.5	4,333.5	4,855.6	821.3	11,798.9 ^{1/}

^{1/} Includes an estimated 354 acres for future rights-of-way and 205 acres in secs. 11, 12, 13 and 14 of T. 8 S., R. 30 E. not in project because of other water rights. Net pay class acreage in project is, therefore, about 11,240 acres. The exact irrigable area is subject to final determination when project works are completed.



PROJECT LANDS
LEGEND

IRRIGABLE LAND CLASSES

GRAVITY

- CLASS 1
- CLASS 2
- CLASS 3
- CLASS 4P

SPRINKLER

- CLASS 4S(1)
- CLASS 4S(2)
- CLASS 4S(3)
- CLASS 4S(4P)

NOTE:
LANDS WITH SPRINKLER CLASSIFI-
CATION WOULD HAVE BEEN CLASS 6
FOR GRAVITY IRRIGATION.

NON IRRIGABLE LAND CLASS

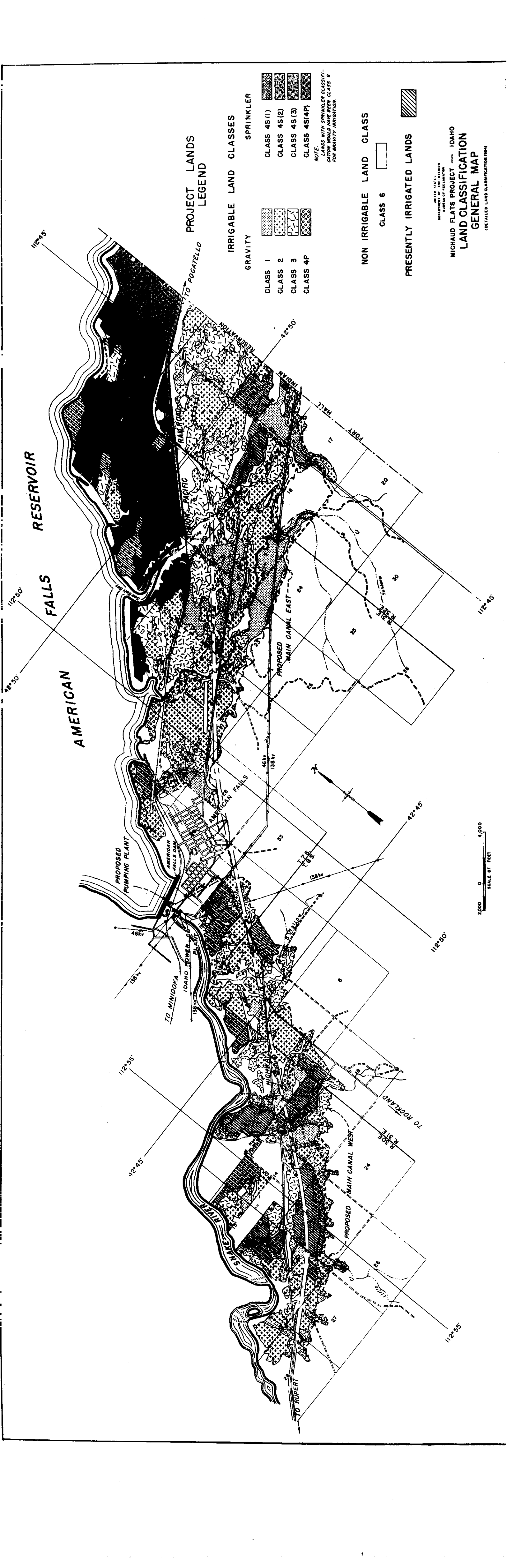
- CLASS 6

PRESENTLY IRRIGATED LANDS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MICHAUD FLATS PROJECT — IDAHO
LAND CLASSIFICATION
GENERAL MAP
(DETAILED LAND CLASSIFICATION 1964)





PROJECT LANDS
LEGEND

IRRIGABLE LAND CLASSES

GRAVITY

- CLASS 1
- CLASS 2
- CLASS 3
- CLASS 4P

SPRINKLER

- CLASS 4S(1)
- CLASS 4S(2)
- CLASS 4S(3)
- CLASS 4S(4P)

NOTE:
LANDS WITH SPRINKLER CLASSIFI-
CATION WOULD HAVE BEEN CLASS 6
FOR GRAVITY IRRIGATION.

NON IRRIGABLE LAND CLASS

- CLASS 6

PRESENTLY IRRIGATED LANDS

UNITED STATES
DEPARTMENT OF AGRICULTURE
BUREAU OF RECLAMATION
MICHAUD FLATS PROJECT — IDAHO
LAND CLASSIFICATION
GENERAL MAP
(DETAILED LAND CLASSIFICATION 1954)

Legal Notices

Published in the Power
County Press, Nov. 24, Dec. 1,
8 and 15, 1960.

FOR COMPLETION OF WORK

Notice is hereby given that
at 10 A.M., on the 20th day of
December, 1960, at Boise,
County of Ada, State of Idaho,
proof will be submitted of
the completion of works for
the diversion of 160 cubic feet
per second of the waters of
Snake River in accordance
with the terms and conditions
of a certain permit heretofore
issued by the Department of
Reclamation of the State of
Idaho.

1. The name of the person or
corporation holding said permit
is The United States of
America, acting through the
Bureau of Reclamation of the
Department of the Interior.

2. The postoffice address of
such person or principal place
of business of such corporation
is P.O. Box 937, Boise,
County of Ada, State of Idaho.

3. The number of such permit
is 26602, and the date set
for the completion of such
work is November 13, 1961.

4. Said water is to be used
for irrigation and domestic
purposes.

5. Said works of diversion
will be fully completed on the
date set for such completion,
and the amount of water
which said works are capable
of conducting to the place of
intended use, in accordance
with the plans accompanying
the application for such permit,
is 160 cubic feet per second.

6. The amount of lands for
which water is available is 11,
798.9 acres, located in the
Michaud Flats Project, Power
County, described as follows:

T. 6S., R. 31 E., secs. 35, 36

T. 6S., R. 32 E., secs. 29, 30,
31, 32

T. 7S., R. 31 E., secs. 1, 2, 10,
11, 12, 13, 14, 15, 16, 20,
21, 22, 23, 24, 28, 29, 31, 32

T. 7S., R. 32 E., secs. 6, 7, 8,
17, 18

T. 8S., R. 31 E., secs. 5, 6, 7, 18

T. 8S., R. 30 E., secs. 1, 11, 12,
13, 14, 15, 21, 22, 23, 24,
26, 27, 28

GEO. N. CARTER
State Reclamation
Engineer



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION I
BOX 937, BOISE, IDAHO

Mr. Mark R. Kulp
State Reclamation Engineer
Boise, Idaho

RECEIVED
JUN 1 1956

Dear Mr. Kulp:

Department of Reclamation

In connection with the Michaud Flats Federal Reclamation Project, there is enclosed for filing an application for permit for the diversion of waters at American Falls Dam from the Snake River, together with an application for ground water diversion. Also enclosed are vouchers covering the statutory fees, one for the diversion permit and one for the ground water permit. Please execute these vouchers and return them to this office. The usual treasury checks will be made available to your office promptly.

Particular emphasis is made of the explanatory material appearing under the heading "Remarks" on both of the applications for permits. The Michaud Flats Project, which was authorized by the Congress under the act of August 31, 1954 (68 Stat. 1062) contemplated a rather unusual water supply situation. The project will rely almost wholly on stored water, and accordingly I am enclosing a copy of the project repayment contract with the Falls Irrigation District. This contract sets up the contractual provisions made by the United States with the irrigation district to provide stored water for the project and these provisions are consistent with, and in many cases identical to, corollary provisions made with the other water users in the Snake River Valley relating to the use of American Falls and Palisades space for irrigation water supply. In addition to these storage water provisions, however, the project contemplates the coordinated operation of pumping from wells, some of which are now drilled and some of which will be drilled in connection with the development of the project. The project operation, however, will be such that the return flow from the project supplied storage water will offset any depletion water tributary to the Snake River that might be diverted by the project wells. Thus, the project will provide by means of return flow water from purchased stored water a source of water to make up for any depletion that ground water pumping might have on water tributary to the Snake River. Thus, the project will provide a balanced water supply operation not in conflict with prior water rights.

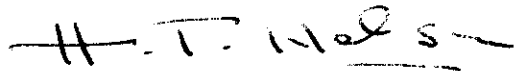
Because of the foregoing complex interrelated nature of the project water supply, we are anxious to have the two filings handled together and given a common priority date. We fully recognize that these filings for

26602

diversion of water from the Snake River will be subject to all existing prior rights, both natural flow and storage, including prior rights based on usage under the constitutional provisions of the State of Idaho.

If you desire any further information in connection with these applications, it will be provided promptly.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "H. T. Nelson", with a horizontal line extending to the right.

Regional Director

Enclosures

26602