Power of Attorney

BE IT BE KNOWN THAT I, Rouene E. Hanlon of Billings Montana do hereby make, constitute and appoint Wm.M.Hanlon of Billings Montana my true agentand Attorney in fact for me and in my name place and stead to operate and control all of my interests in the Avalanche Placer Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as I might do or could do if personally present.

IN WITNESS WHEREOF, I hereto set my hands this II March 1968.

Rouene E. Hanlon

Rouene E. Hanlon

STATE of MONTANA
County of Yellowstone
On this IIth day of March, nineteen hundred and sixty eight be fore me

the undersigned a notary public for the State of Montana, personally appeared Rouene E. Hanlon known to me personally, to be the person whose is subscribed to the within instrument, and acknow--ledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year above written.

Margaret A. Hardy

Notary Public for the State of Montana.

Residing at Billings Mont. My commision expires June 22, 1970

Power of Attorney

BE IT BE KNOWN THAT WE, Reynold G. Ziesman and Dorothy Ziesman of Mosby Montana do herby make, constitute and appoint Wm.M.Hanlon of Billings Montana our true and lawful agent and Attorney in fact for us and in our name, place and stead to operate and control all of our interests in the Mel No. 2 Placer Mining Claim and the Avalanche Placer Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present .

IN WITNESS WHEREOF, the parties hereto set their hands this day of February 1968.

R. G. Ziesman
Reynold G. Ziesman

Dorothy Ziesman
Dorothy Ziesman

State of MONTANA
County of Petroleum
On this 23 day of February, nineteen hundred and sixty eight before me

Ruth E Hseburg a notary public for the State of Montana, personally appeared Reynold G.Ziesman and Dorothy Ziesman known to me personally, to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

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

Ruth E Hseburg
Notary Public for the State of Montana

Residing at Winnett Montana My commision expires August 4 1969.

Power of Attorney

BE IT BE KNOWN THAT WE, Melvyn Leroy Hanlon and Melinda Hanlon of Oakland California do hereby make, constitute and appoint Wm.M.Hanlon of Billings Montana our true and lawful agent and Attorney in fact for us and in our name, place and stead to operate and control all of our interests in the Avalanche Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present.

IN WITNESS WHEREOF, the parites hereto set their hands this ~~18th~~ 31st Day of ~~October~~ January 1968.

Melvyn Leroy Hanlon

Melvyn Leroy Hanlon

Melinda Hanlon

Melinda Hanlon

STATE OF CALIFORNIA

County of Alameda) S S:

On this day, ~~October 18th 1967~~ Jan 31 1968, before the undersigned, a notary public for the State of California, personally appeared Melvyn Leroy Hanlon and Melinda Hanlon, known to me to be the persons whose names are subscribed to the foregoing instrument and who acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notary seal the day and year above written.

E. J. COUSTIER
NOTARY PUBLIC
ALAMEDA COUNTY, CALIF.

My Commission Expires Jan. 8th, 1971

E. J. Coustier

Notary Public

POWER OF ATTORNEY

BE IT KNOWN THAT WE, JOHN D. ANDERSON AND MARLENE M. ANDERSON OF LOS ANGELES, CALIFORNIA do hereby make, constitute and appoint WM. M. HANLON OF BILLINGS, MONTANA our true and lawful agent and attorney in fact for us and in our name, place and stead to operate and control all of our interest in the Avalanche Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present.

IN WITNESS WHEREOF, the parties hereto set their hands this 18th day of October, 1966.

John D. Anderson

Marlene M. Anderson

STATE OF CALIFORNIA)
)SS:
County of Los Angeles)

On this 18th day of October, 1966, before the undersigned, a notary public for the State of California, personally appeared JOHN D. ANDERSON AND MARLENE M. ANDERSON, known to me to be the persons whose names are subscribed to the foregoing instrument and who acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notary seal the day and year first above written.

WILLIAM K. LUNDEBERG
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY

William K. Lundeberg
Notary Public

WILLIAM K. LUNDEBERG, Notary Public in and for the County of Los Angeles, State of California
My Commission Expires November 29, 1968

MME Form 52
Jan. 1959•

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090–
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims, Golden AgeNoI, No2, No3, and Blank Number

Tracy Lee NoI, No2, No3, and Blank Number , Mel NoI, MelNo 2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

_____ 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

NONE

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page ____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 1ST day of MARCH, 1968.

Lawrence E. Hanlon	(Seal)	1831 Poly Drive Billings Montana	(Street) (City &) (State)
Jim M. Hanlon Agent	(Seal)	1831. Poly Dr. Billings Mont	(Street) (City &) (State)
Glenn Griffeth	(Seal)	Foston mont	(Street) (City &) (State)
Mary Sue Griffeth	(Seal)	Foston, Mont	(Street) (City &) (State)
P. G. Ziesman	(Seal)	Mosby Mont	(Street) (City &) (State)
Dorothy Ziesman	(Seal)	Mosby, Montana	(Street) (City &) (State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims,Golden AgeNoI,No2,No3, and ~~Blank Number~~

Tracy Lee NoI,No2,No3, and Blank Number , Mel NoI,MelNo 2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

_____ 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

NONE

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 1ST day of MARCH, 1968.

Lorene E. Hanlon	(Seal)	1831 Poly Drive Billings, Montana	(Street) (City & State)
Wm. M. Hanlon, Agent	(Seal)	1831 Poly Dr. Billings Mont.	(Street) (City & State)
Glenn Griffeth	(Seal)	Joston mont	(Street) (City & State)
Mary Sue Griffeth	(Seal)	Joston, Mont.	(Street) (City & State)
R. G. Ziesman	(Seal)	Mosby Mont	(Street) (City & State)
Dorothy Ziesman	(Seal)	Mosby, Montana	(Street) (City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 52
Jan. 1959.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims, Golden Age No1, No2, No3, and Blank Number

Tracy Lee No1, No2, No3, and Blank Number , Pal No1, PalNo 2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

NONE

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated_____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 1ST day of MARCH, 1968.

Lorene E. Hanlon	(Seal)	1831 Poly Drive Billings, Montana	(Street) (City &) (State)
Jim W. Hanlon Agent	(Seal)	1831 POLY DR. BILLINGS MONT	(Street) (City &) (State)
Glenn Griffeth	(Seal)	Joston mont	(Street) (City &) (State)
Mary Sue Griffeth	(Seal)	Joston, Mont	(Street) (City &) (State)
R. G. Zieman	(Seal)	Mosby Mont	(Street) (City &) (State)
Dorothy Zieman	(Seal)	Mosby, Mont.	(Street) (City &) (State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 52
Jan. 1959.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090–
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana, described as follows: 2/ Placer Mining Claims, Golden Age No1, No2, No3, and Blank Number Tracy Lee No1, No2, No3, and Blank Number, Mel No1, Mel No 2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

_____ 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

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2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book _____, Page ____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

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4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 1ST day of MARCH, 1968.

Lorene E. Hanlon	(Seal)	1831 Poly Drive Billings, Montana	(Street) (City &) (State)
Jim M. Hanlon Agent	(Seal)	1831 Poly Dr. Billings Mont	(Street) (City &) (State)
Glenn Griffeth	(Seal)	Foston mont	(Street) (City &) (State)
Mary Sue Griffeth	(Seal)	Foston, Mont	(Street) (City &) (State)
R. L. Zieman	(Seal)	Moore Mont	(Street) (City &) (State)
Dorothy Zieman	(Seal)	Moore, Montana	(Street) (City &) (State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims, Golden Age No1, No2, No3 and Blank Number Tracy Lee No1, No2, No3, and Tracy Lee Blank No. Mel No1 and Mel No2 All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

_____ 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

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NONE

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 1ST day of MARCH, 1968.

Lenene E. Hardon	(Seal)	1831 Poly Drive Billings, Montana	(Street) (City & State)
Jim M. Hardon Agent	(Seal)	1831 POLY DR. BILLINGS MONT.	(Street) (City & State)
Glenn Griffeth	(Seal)	Toston Mont	(Street) (City & State)
Mary Lee Griffeth	(Seal)	Toston, Mont	(Street) (City & State)
R.E. Zieman	(Seal)	Moore Mont	(Street) (City & State)
Dorothy Zieman	(Seal)	Moore, Mont.	(Street) (City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Claims, Golden Age NoI, No2,No3,Blank Number Tracy Lee NoI,No2,No3,and Tracy Lee Blank number, Mel NoI,and Mel No2 All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

The Avalanche Placer Mining Group of Billings Montana 3/
hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

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2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book _____, Page ____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 5th day of March, 19 68.

Geo. M. Hanlon	(Seal)	1831 Poly Drive	(Street)
		Billings Montana	(City & State)
John D Anderson	(Seal)	133-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Marlene M. Anderson	(Seal)	133-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Melinda D. Hanlon	(Seal)	1204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
Melvyn F Hanlon	(Seal)	1204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
	(Seal)		(Street)
			(City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090–
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims, Golden Age NoI, No2, No3 and Blank Number

Tracy Lee NoI, No2, No3, and Tracy Lee Blank No. Mel NoI and Mel No2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

NONE

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated_____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 5th day of March, 1968.

Jim M. Hanlon	(Seal)	I83I I836 Poly Drive	(Street)
		Billings Montana	(City & State)
John W Anderson	(Seal)	I33-So. Mariposa Ave	(Street)
		Los Angeles Calif.	(City & State)
Marlene M. Anderson	(Seal)	I33-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Melinda D. Hanlon	(Seal)	I204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
Melvyn F Hanlon	(Seal)	I204 West Wedgewood Ave.	(Street)
		I204 West Wedgewood Ave	(City & State)
		Spokane Washington	(Street)
_____	(Seal)	_____	(City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

INT.-DUP. SEC., WASH., D.C. 21103

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Mining Claims, Golden Age NoI, No2, No3 and Blank Number Tracy Lee NoI, No2, No3, and Tracy Lee Blank No. Mel NoI and Mel No2

All Claims have been filed in Broadwater County

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3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

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3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

NONE

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book _____, Page ____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this Ist day of March, 1968.

Jim M. Hanlon (Seal)	1831 ~~1836~~ Poly Drive (Street) Billings Montana (City & State)	
John W. Anderson (Seal)	133-So. Mariposa Ave. (Street) Los Angeles Calif. (City & State)	
Marlene R. Anderson (Seal)	133-So. Mariposa Ave. (Street) Los Angeles Calif. (City & State)	
Melinda D. Hanlon (Seal)	1204 West Wedgewood Ave. (Street) Spokane Washington (City & State)	
Melvyn L. Hanlon (Seal)	1204 West Wedgewood Ave (Street) Spokane Washington (City & State)	
_____ (Seal)	_____ (Street) _____ (City & State)	

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ (Corporate Seal)

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UNITED STATES
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Docket No. OME –
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Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Claims, Golden Age NoI, No2,No3,Blank Number Tracy Lee NoI,No2,No3,and Tracy Lee Blank number, Mel NoI,and Mel No2

All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

The Avalanche Placer Mining Group of Billings Montana 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 16TH day of FEB, 1968.

Geo. M. Harlow	(Seal)	~~1831~~ Poly Drive	(Street)
		Billings Montana	(City & State)
John D Anderson	(Seal)	I33-So. Mariposa Ave	(Street)
		Los Angeles Calif.	(City & State)
Marlene M. Anderson	(Seal)	I33-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Melinda D. Harlow	(Seal)	I204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
Melvyn L Harlow	(Seal)	I204 West Wedgewood Ave	(Street)
		Spokane Washington	(City & State)
	(Seal)		(Street)
			(City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

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MME Form 52
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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Montana,

described as follows: 2/ Placer Claims, Golden Age NoI, No2,No3,Blank Number Tracy Lee NoI,No2,No3,and Tracy Lee Blank number, Mel NoI,and Mel No2 All Claims have been filed in Broadwater County

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government", and

The Avalanche Placer Mining Group of Billings Montana 3/
hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions _____ (State "None" or "See Annex No. ____".)

Dated this 5th day of March, 19 68.

Jm. M. Hanlon	(Seal)	1831 Poly Dr.	(Street)
		Billings Montana	(City & State)
John Anderson	(Seal)	133-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Marlene M. Anderson	(Seal)	133-So. Mariposa Ave.	(Street)
		Los Angeles Calif.	(City & State)
Melinda D. Hanlan	(Seal)	1204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
Melvyn J. Hanlon	(Seal)	1204 West Wedgewood Ave.	(Street)
		Spokane Washington	(City & State)
	(Seal)		(Street)
			(City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

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(Corporate Seal)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS 1/

To the United States of America:

That certain land in the County of Broadwater, State of Mont.,

described as follows: 2/ Placer Mining Claims as Follows, Golden Age Blank No. Golden Age No.I, Golden AgeNo. 3, Mel No.I, Mel No.2, Tracy Lee Blank No., Tracy Lee NoI,Tracy Lee No.2,Tracy Lee No.3 all being in Township II North Range 2 East all Recorded in County Clerk and recorders Office

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

Avalanche Placer Mining Group 3/

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

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Wm. M. Hanlon Agent
Wm.M.Hanlon Agent

None

~~We have~~ not ~~received Book and Page~~ as Filings are held in County Clerks Office

~~Avalanche~~Avalanche Group

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 24th day of January, 1968.

	1831 Poly Dr. Billings Mont.	(Street)
		(City &)
Jm. M. Hanlon Agent (Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)
		(Street)
		(City &)
(Seal)		(State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

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UNITED STATES
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FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Broadwater, State of Mont.,

described as follows:[2] ~~Placer Mining Claims as Follows, Golden Age Blank No. Golden Age No.I, Golden AgeNo. 3, Mel No.I, Mel No.2, Tracy Lee Blank No., Tracy Lee NoI,Tracy Lee No.2,Tracy Lee No.3 all being in Township II North Range 2 East all Recorded in County Clerk and recorders Office~~

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Avalanche Placer Mining Group [3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

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Wm. M. Hanlon Agent

Wm.M.Hanlon Agent

None

~~We have received Book and Page~~ not as Filings are held in County Clerks Office

~~Avalanche~~ Avalanche Group

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5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 24th day of January, 19 68.

		1831 Poly Dr. Billings Mont. (Street) (City & State)
Jim M. Hanlon Agent (Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

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(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same. 4/

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

Wm. M. Hanlon Agent

Wm.M.Hanlon Agent

None

~~We have received Book and Page~~ not as Filings are held in County Clerks Office

~~Avalanche Group~~

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated _____, and recorded in Book _____, Page ___, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 24th day of January, 19 68.

Jim. M. Hanlon Agent (Seal)	1831 Poly Dr. Billings Mont.	(Street) (City & State)
(Seal)		(Street) (City & State)
(Seal)		(Street) (City & State)
(Seal)		(Street) (City & State)
(Seal)		(Street) (City & State)
(Seal)		(Street) (City & State)

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____ (Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090 –
Contract Date

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of Broadwater, State of Mont.,

described as follows:[2] Placer Mining Claims as follows, Golden Age Blank No. Golden Age No. 1, Golden Age No. 2, Col No. 1, Col No. 2, Tracy Lee Blank No., Tracy Lee Col, Group Lee No. 2, Tracy Lee No. 3 all being in Township 11 North Range 2 East [illegible] hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

Avalanche Placer Mining Group [3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

Wm. M. Hanlon Agent

W. M. Hanlon Agent

None

~~We have received Book and Page~~ not as Filings are held in County Clerks Office

~~Avalanche Group~~

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease /or contract, deed, or other document/ dated_____, and recorded in Book_____, Page____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions None (State "None" or "See Annex No. ____".)

Dated this 24th day of January, 19 68.

		I83I Poly Dr. Billings Mont. (Street)
		~~I83I~~ (City & State)
Jm. M. Hamlow Agent	(Seal)	
		(Street)
		(City & State)
	(Seal)	
		(Street)
		(City & State)
	(Seal)	
		(Street)
		(City & State)
	(Seal)	
		(Street)
		(City & State)
	(Seal)	
		(Street)
		(City & State)
	(Seal)	

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 52
Jan. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

FOR GOVERNMENT USE ONLY
Operator
Docket No. OME –
Contract No. 14-23-090–
Contract Date

LIEN AND SUBORDINATION AGREEMENTS[1]

To the United States of America:

That certain land in the County of [illegible], State of [illegible],

described as follows:[2] [illegible]

hereinafter called the "land", is the subject of a proposed exploration contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government" and

[illegible] [3]

hereinafter called the "Operator". In consideration for and as an inducement to the Government executing the Contract, the undersigned:

1. (a) Being the owner of an interest in the land, hereby grants to the Government a lien upon all of his right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of the royalty on production provided for by the Contract, and agrees if the Operator's interest should be surrendered or terminated at any time prior to the expiration of the rights of the United States under said Contract to pay royalty to the Government according to the terms of said Contract; or

(b) Being the holder of a claim, lien, or encumbrance against the land, hereby subordinates his claim, lien, or encumbrance in or against the land and in any production therefrom to the rights of the Government under the Contract with respect to royalty on production and liens to secure same.[4]

2. Undertakes and agrees that property in which the Government may acquire an interest or equity under the Contract may be dismantled, severed from the land, and removed as may be provided in the Contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned.

3. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none". Do not leave blank.)

Jno. M. Hanlon Agent

Jno. M. Hanlon Agent

Name

[illegible] so filings are held in County Clerks Office

[illegible]

1/ Production from the land is not required, and in the absence of production there is no obligation to pay royalty to the Government.

2/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in Book _____, Page ____, official records of said county". If (b) is used, the book and page of recordation must be inserted above. If the space provided is insufficient, use an Annex and refer to the Annex in the space.

3/ Insert name exactly as it appears in the Application MME Form 40.

4/ Subparagraph 1(a) does not apply to the holder of a claim, lien, or encumbrance.

4. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land or any production therefrom, furnishing the Government with two true copies of such notice; and

5. Consents to all amendments (including an agreement of termination) and assignments of the Contract without notice thereof, and undertakes and agrees that this agreement shall extend and apply thereto.

6. Added provisions ____ None ____ (State "None" or "See Annex No. ____".)

Dated this 24th day of January, 19 68.

	I83I Poly Dr. Billings Mont.	(Street) (City & State)
Jm. M. Hanlon Agent (Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		
		(Street) (City & State)
(Seal)		

I, _____ (Name), certify that I am the _____ (Title—Secretary, etc.) of the corporation named herein; that _____ (Name), who signed this agreement was then _____ (Title—Pres., Vice-Pres., etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____
(Corporate Seal)

MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE Contract No. _____ Docket No. 6695

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [x] Owner's Consent to Lien and Subordination Agreement
- [x] Application and Attachments

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab) 6/20/68
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. _____: Reports

- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

Folders No. _____: Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

72195-65

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

February 5, 1968

RECEIVED
FEB 7 1968

INITIALS	CODE

MEMORANDUM

TO: Chief, OME

FROM: Field Officer, OME Region I

SUBJECT: Forwarding new application (gold)
Wm. M. Hanlon, agent for partners
Avalanche Group
Broadwater County, Montana

There are several points relative to the enclosed application which require clarification before processing can start.

1. The name of the applicant is Wm. M. Hanlon; the list of partners does not include Wm. M. Hanlon; and the application is signed by Wm. M. Hanlon, Agent. There is no document signed by the listed partners authorizing Wm. M. Hanlon to act as agent for them. ?

A Power of Attorney authorizing Wm. M. Hanlon to act as their agent is signed by John D. Anderson and Marlene M. Anderson who apparently have an interest in the Avalanche Mining Group, but there is no document whereby Wm. M. Hanlon has assigned the Andersons' interest to the Partnership for which he apparently is Agent. J&S

A Quit Claim Deed, executed by Glenn Griffeth and Mary Sue Griffeth, whereby they turn over their interest in 8 placer claims to The Avalanche Placer Mining Group, but there is no document assigning The Avalanche Mining Group interest to the partners, nor one whereby the Griffeths and/or The Avalanche Group appoint Wm. M. Hanlon an agent. J&S

Thus we have 5 individuals who are partners not identified with The Avalanche Placer Mining Group or The Avalanche Group, with one or both controlling the claims. We also have a named applicant, not included in the list of 5 partners and not authorized to act as their agent, but who signs the application as Agent.

In view of this, the value of the Lien and Subordination Agreement, also signed by Wm. M. Hanlon as Agent, is doubtful. Incidentally, the Agreement includes the Mel No. 2 claim which is not included in the Quit Claim Deed.

2. The claim map shows an area "H.E.S 569", apparently the Rankin Homestead mentioned in the narrative item 2(c), and an area between claims Tracy Lee No. 3 and Golden Age No. 3, neither of which are controlled by anyone connected with the application. Hanlon thinks these two areas may

be acquired "if the values are there". See items 3(c) and 3(a).

3. Of three bids submitted for drilling and testing, one is from Hanlon Drilling Company, signed by R. E. Hanlon, presumably Rouene E. Hanlon who is one of the partners.

4. The applicant's proposed exploration is rather cloudy. In the narrative item 5(a) states only "Map will show". Under item 7 bids for drilling and testing are offered followed by a statement to the effect that Hanlon will submit bids for dredging across the Gulch, which he believe would be more deisrable than drilling. In any case neither the location and depths of drill holes nor the locations, width, and depth of dredging (trenching) are indicated.

Donald R. MacLaren

WM. M. HANLON
INDEPENDENT OIL OPERATOR
BILLINGS, MONTANA

OPERATING IN
CAT CREEK AND CUT BANK FIELDS MONTANA
LAMB AND TORCHLIGHT FIELDS WYOMING

TELEPHONE 9 5188
P. O. BOX 794

[illegible]

[illegible] request from [illegible] engineer Mr. [illegible] Johnson [illegible] letter from Mr. Roy Marquis of [illegible] [illegible] these properties over and [illegible] Mr. [illegible] [illegible] to the drilling and testing, these I shall [illegible] [illegible] same.

[illegible] we acquired the Claims, some we [illegible] Assignments and Quit Claim Deeds [illegible] in the [illegible] and [illegible] [illegible].

[illegible] my [illegible] [illegible] work done by [illegible] [illegible] have stated they [illegible] me [illegible] [illegible].

[illegible] [illegible] ever [illegible].

Very sincerely,

Wm. M. Hanlon Agent

Enclosures
Engineers Report, Bank Letters and Reply, Quick Claim Deed, Power of Attorney, Map, 3 Bids for Drilling and testing. Forms WMH AO, WMH 5

MME Form 40
Jan. 65

RECEIVED
JUL 31 1967

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R1508
Approval expires Dec. 31, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
FEB 7 1968
INITIALS CODE

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85–701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

Wm.M.Hanlon Box I724 Billings Mont. 59I03

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER 6695

DATE RECEIVED 2/7/68

REGION

DIVISION CODE I

BUSINESS ORGANIZATION *(Check one)*

INDIVIDUAL
CORPORATION
PARTNERSHIP X
OTHER *(Specify)*

STATE IN WHICH FIRM IS ORGANIZED

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Melvyn Hanlon	807I Greenridge Dr. Oakland Calif.	Partner
Melinda Hanlon	same	same
Jack D.Anderson	I33 So. Mariposa Ave.Los Angeles Calif.	same
Marlene Anderson	same	same
Rouene E. Hanlon	I83I Poly Dr. Billings Mont.	same

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE

~~Placer Gold on Avalanche Gulch~~

ESTIMATED COST OF PROJECT

$ ~~$20,000~~ 25000.00

PROPERTY — NAME: Avalanche Group

LOCATION — COUNTY: Broadwater STATE: Mont.

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior,* ~~Washington 25, D. C., or with the nearest OME Field Office.~~ Washington, D. C., 20242, or with the nearest OME Field Office.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

July 28,I967
DATED

Wm. M. Hanlon Agent
BY *(Signature)*

Agent
TITLE

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

(a) Describe fully the proposed exploration work giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of equipment or other property used in the work).]

INT.-DUP. SEC., WASH., D.C

HANLON DRILLING CO.

ROTARY AND CABLE TOOLS

BILLINGS, MONTANA

TELEPHONE [illegible]
P. O. BOX [illegible]

[illegible]
[illegible]
[illegible]

Dear [illegible]:

In regard to your request for a Bid to drill and [illegible] Gulch for Placer [illegible] that we [illegible] at $ 3.0[illegible] per foot, to our own moving in, and [illegible] Bull Dozer in case we need it.

We would appreciate getting an Contract to do this work for you.

Your truly,

R. E. Hanlon

Type [illegible] may [illegible] have your [illegible]

January 21, 1968

Mr. William M. Hanlon
P.O. Box [illegible]
Billings, Montana [illegible]

Dear Mr. Hanlon:

I wish to submit a bid on the drilling at Avalanche Gulch in Broadwater county, Montana.

I would drill the holes and do the testing that is necessary for $9.50 per foot. Moving of rig in and out would be at the expense.

Hoping this meets with your approval.

Sincerely yours,

L. G. Amick, Drilling Contractor
P.O. Box 347
Billings, Montana 59103

Information required with application

No.I.Enclosing Copies of letters to Banks regarding getting a Loan and letters of reply from the Banks turning down the Loan.
B-None
C-Hanlon Drilling Co.will drill test holes at the lowest figure bid and will furnish their Cat to assist in all operations.And I have some friends who are willing to join meif successful in getting a O.M.E. Boan.
No.2.Have Assignments and quick claim deeds from Locators to the Avalanche Placer Mining Group,these carry a 5% Royalty.I am enclosing copies of same also Power of Attorney to operate .
There are no encumbrances against the properties.
B.The eight claims are located in sections 29,20,2I,I6,9,8,all being in T.II North Range 2 East Broadwater County Montana and all are unpatented claims recorded in the County Clerk and Recorders Office in Townsend Montana and the assesment work i is also recorded there.
C Rankin Homestead agrees to give us a lease if the values are there we have a letter giving us permission to drill and test it,their lands are in Sections 29 and 20.
No.3.Showing on Map we are enclosing work being done at this time which is drifting in the Shale Banks at three different locations. We may be able to acquire these claims after we find out our values,as the prices they are asking is out of line .
B. We have no interest in the operations above mentioned.
C. None.But do know they must be getting some pay as they have been doing this for two years that I know of.I am enclosing Montana Bureau of Mines Memoir No.26 Plate 6.
D. The enclosed Map shows some work being done. I talked to Mr.Roy Merrill a Geologist from Helena Montana he claims he Panned some two dollar Pans. We did some testing on each claim ,the results of which were encourageing although we never did get to bed rock.
E. Maps shows Gulch which has a Gravel bed above Shale bed rock.
F. It is common knowledge in the area that there is gold in the Gulch and I was told many times that the reason it had never been Dredged was that the Rankins would not allow it. We tested by opening up holes on each claim although we were not on or close to bed rock we did get some nice colors.And the evidence is there which is the amount of work done by Chinamans Holes,and in checking with a Mining Engineer ,who we had go over the properties his believe being that the old china--man holes did not get twenty-five per cent of the Gold. In talking to the old Miners in the area they all spoke very highly of the possibilities of the Gulch.
G.Enclosing Engineers Report and a Geologist Report.
No.4 There is a good road up the Gulch which should be open around March Ist.
B. This property is located 30 miles east and north of Townsend and about 50 miles from Helena .
A call to me at 248-6I23 Billings in a day or so in advance I will gladly show them the properties.
No.5 Map will show
B. None needed

Jno. M. Hanlon Agent.

No.5 Work will start as soon as Loan is granted and weather permits.
No 6 My experience has been in the Drilling business most of my life but for the last three years I have been in the Mining business. But o on this job I shall have an experienced placer man on the job.Also will keep in touch with the Engineer and Geologist. Who?
No.7 Enclosing two bids for the drilling and testing. I shall furnish bids for the Dredgeing accross the Gulch,which method seems to me to be a better test than drilling all holes.When these bids are in I shall forward them.
B Costs for a Supervisor $700.00 per month. Engineer and Geologist $100.00 per day,but we don't feel they will have to be on the job all the time,I would estimate this amount to be around $ 1500.00 per month. I do feel that we should have an experienced man on the job all the time to check and test.
C One Panning Machine at a cost of $450.00
D.Panning Machine
E. none
F. none
G Book keeping and Management not to exceed $ 1000.00 per Month.

Wm. M. Hanlon Agent

Wm.M.Hanlon Agent

59103 243-6123

Oct.20,1967

Union Bank & Trust Co.
Att.J.H.Dion
Helena Montana 59601

Dear Mr. Dion:

We as a group known as Avalanche Placer Mining Group, are planning on Drilling Test Holes on the eight Claims owned by us all being located in Avalanche Gulch Broadwater County Montana,with the result that we would like to make an application for a Loan in the amount of Twenty Five Thousand Dollars,we are willing to put up our Interests plus any and all Equipment that is purchased as coll--ateral.

I would appreciate hearing from you if you might be interested in a loan of this type.

Very truly

Jm.W.Hanlon Agent.

UNION
BANK AND TRUST COMPANY
AREA CODE 406
442-5050
HELENA, MONTANA 59601

October 24, 1967

Mr. Wm. M. Hanlon, Agent
Hanlon Drilling Co.
Box 1724
Billings, Montana 59103

Dear Mr. Hanlon:

Your letter of October 20 directed to Mr. Dion in our bank has been referred to me as Jim is out of town for this week.

We have considered your request for a loan of $25,000 for development of mining properties in Avalanche Gulch and must advise you that our bank is not interested in your proposal at this time and consequently would be unable to accommodate you with this loan.

We appreciate your inquiry and assure you of our continued interest in your progress.

Sincerely yours,

W. B. Andrews
President

WBA:ekr

DEER LODGE BANK AND TRUST COMPANY

MEMBER FEDERAL RESERVE SYSTEM

DEER LODGE, MONTANA

October 19, 1967

Wm. M. Hanlon
P. O. Box 1724
Billings, Montana

Dear Mr. Hanlon:

Your request for loan of $25,000.00 for your group known as the Avalanche Placer Mining Group has been received and duly checked over.

We would not be able to extend this loan at this time, as we are rather heavily loaned and our board has not been agreeable as to making loans on exploration of mining claims even though they are to be secured by mining equipment. The board does not feel this type of security is readily saleable in case it has to be repossessed.

I am sorry that we are not able to be of help to you at this time.

Yours very truly,

B. W. Gilmore

B. W. Gilmore
Exec. Vice Pres.

248-6123

59103

Billings Mont.

Oct.16,1967

Mr. Gilmore Mgr.
Deer Lodge Bank & Trust Co.
Deer Lodge Montana

Dear Mr. Gilmore:

We as a group known as Avalanche Placer Mining Group,are planning on Drilling Test Holes on the eight Claims owned by us all being located in Avalanche Gulch Broadwater County Montana,with the result that we would like to make an application for a Loan in the amount of Twenty Five Thousand Dollars,we are willing to put up all our Interests plus any Equipment purchased as Collateral.

I would appreciate hearing from you if might be interested in a loan of this type.

Very truly,

Wm.M.Vanlon

COPY

POWER OF ATTORNEY

BE IT KNOWN THAT WE, JOHN D. ANDERSON AND MARLENE M. ANDERSON OF LOS ANGELES, CALIFORNIA do hereby make, constitute and appoint WM. M. HANLON OF BILLINGS, MONTANA our true and lawful agent and attorney in fact for us and in our name, place and stead to operate and control all of our interest in the Avalanche Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present.

IN WITNESS WHEREOF, the parties hereto set their hands this 21 day of October, 1966.

John D. Anderson

Marlene M. Anderson

STATE OF CALIFORNIA)
)SS:
County of)

On this 21 day of October, 1966, before the undersigned, a notary public for the State of California, personally appeared JOHN D. ANDERSONA AND MARLENE M. ANDERSON, ~~known to me to be the persons whose names are subscribed~~ to the foregoing instrument and who acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notary seal the day and year first above written.

WILLIAM K. LUNDEBERG
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY

Notary Public

WILLIAM K. LUNDEBERG, Notary Public in and for the County of Los Angeles, State of California
My Commission Expires November 29, 1968

NO. 14-C — QUIT CLAIM DEED

STATE PUBLISHING CO., HELENA, MONT.

This Indenture, *Made the* 12th *day of* January *in the year of our Lord one thousand nine hundred and* sixty eight *between*

Glen Griffith and Mary Sue Griffith of Toston Montana

the part ies *of the first part*

and The Avalanche Placer Mining Group of Billings Montana

the part ies *of the SECOND PART,*

WITNESSETH: That the said part ies *of the FIRST PART for and in consideration of the sum of* One *Dollars,* ($ I.00) *to* them Parties of first part *in hand paid by the said part* ies *of the SECOND PART, the receipt of which is hereby acknowledged; do* es *hereby remise, release and quitclaim unto the said part* ies *of the second part, and to* their *heirs, and assigns, all of the right title, interest, claim and demand, of the part* ies *of the first part in and to the following described real property, situated in the County of* Broadwater *and State of Montana, to-wit:*

All interest of every kind and nature, excepting a Five Per Cent Royalty to be retained by Parties of the First Part on the following Placer Claims Tracy Lee No I, Tracy Lee Blank No., Tracy Lee No 2, Tracy Lee No. 3

Mel No. I, Golden Age Blank No., Golden Age No 3, and Golden Age NoI

together with all and singular the tenements, hereditaments, and appurtenances thereto belonging, or in anywise appertaining, and the rents, issues and profits thereof, if any but reserving a Five Per Cent Royalty to Parties of First Part and their Associates

IN WITNESS WHEREOF, the said part ies *of the first part h* ave *hereunto set* their *hand and seal the day and year first above written.*

Signed, Sealed and Delivered in the Presence of

Glenn Griffith (SEAL)

Mary Sue Griffith (SEAL)

STATE OF MONTANA,
County of ..... } ss.

On this ..... *day of* ..... *nineteen hundred and* .....
before me ..... *a Notary Public for the*
State of Montana, personally appeared .....
.....
known to me .....
.....

(or proved to me on oath of ..... *)*
to be the person ..... *whose name* ..... *subscribed to the within instrument, and acknowledged to me that* ..... *he* ..... *executed the same.*

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

.....
Notary Public for the State of Montana.

Residing at ..... *My Commission expires* ....., *19* .....

QUIT CLAIM DEED

.....

TO

.....

STATE OF MONTANA } ss.
County of .....

Filed for Record this ..... *day of*
..... *A. D. 19* .....
at ..... *o'clock* ..... *M., and*
Recorded in Book ..... *of Deeds*
Page ..... *of the Records of*
..... *County,*
State of .....

.....
County Recorder.

By .....
Deputy.

Fees $ .....

QM - QQ - WU

PRELIMINARY ENGINEERING REPORT OF THE

AVALANCH GULCH GOLD PLACER PROSPECT

November 1, 1966

The property is located about 20 miles north of Townsend, Montana in Townships 10 & 11N. and Ranges 1 & 2 E., Broadwater County, Montana. There are 11 claims: Baker No 1, Tracy Lee No 1, Rankin Homestead, Tracy Lee Blank No, Tracy Lee No 2, Tracy Lee No 3, R. C. Jordon, C.V.B., Golden Age No 3, Golden Age No 1, Golden Age Blank No.. All claims are under option except R. C. Jordon and C. V. B. and these should be taken before any more work is done.

I have inspected this property with Mr. Hanlon to see if it was a worthwhile project. Future Gold requirements of our Treasury indicate that within a short period of time (3 or 4 years) we will have to re-evaluate the price of Gold.

The property has been worked by the Chinese miners sometime ago. This was done by digging shaft's to the paydirt and recovering the Gold. A prospect shaft of 4 by 4 feet to a depth of 35 feet would contain about 20 yards of material and would take two men 10 days to dig. Therefore, the recovery must of been enough to pay these men their wages. At the time the Chinese was here wages were from 50¢ to a $1.00 a day. At 50¢ per day the recovery would figure 50¢ per yard from the paydirt including the surface overburden. We have only a guess as to what the Chinese actually recovered, because they stayed alive by being silent about their profits.

Being that there have been several dozen of these shaft's dug in the upper portion of the Avalanch gulch would indicate to me that the property is worthwhile to evaluate. The Chinese did not dig any shaft's in the lower portion of the gulch because it probably was to deep.

My suggestion on evaluation of this Placer is as follows: Make one dragline cut to paydirt near the lower end of the Chinese diggings and three churn drill test holes of spacings of 200 feet to the north and also to the south of the cut. This would cost about $5,000.00 by the time sampling and anaylsis is completed. A Licensed Engineer should survey the property before any work commences. Cost of this should not exceed $1,000.00 and the total cost for the project would be $6,000.00.

It would be reasonable to assume that the property would be commercial today or may be considered a good future investment.

Respectfully Yours,

J. W. Johnson

J. W. Johnson, Mining Engineer
Lic. # 2115 N.M., # 1960 Nevada

About ten years ago ground that lies along Peoples Creek, on the Fort Belknap Indian Reservation, was tested as a possible site for a connected-bucket dredge. (See Plate 20 accompanying discussion of Phillips County placers.) Some of this ground was controlled by the St. Paul Mission and the rest by the Indian Council. Flowery stories of gravel that would average 70 cents per cubic yard prompted this testing. In all, nine test holes were drilled, some as deep as fifty feet, all to an "adobe bedrock"; five holes showed not even a color and the other four only a few fine colors. One interesting fact concerning this gravel is that unaltered grains of pyrite (iron sulphide) were panned from the gravel taken from some of these holes and the sulphides are reported to carry gold.*

BROADWATER COUNTY

During the years 1904 through 1945 the various placer properties in Broadwater County have yielded almost 28,600 fine ounces of gold. Of the total production during this period about 22,600 fine ounces were produced and sold at $35.00 per fine ounce, the remainder being produced prior to 1934 and sold at $20.67 per fine ounce. The value of the gold produced during these four decades is $91[illegible],15[illegible], only a fraction of the value of the gold produced from Confederate Gulch alone during an equal length of time following the discovery of gold in its gravels in 1866 (1).

[illegible] (No. 1, Pl. 6)

By far the greatest producer of placer gold in Broadwater County, or one of the greatest in the state, was Confederate Gulch, through which flows a tributary of the Missouri River that empties into it about eleven miles north of Townsend. Confederate Gulch as discussed in this paper includes the headwater tributaries [illegible] Gulch, Montana Gulch, [illegible] Boulder Creek.

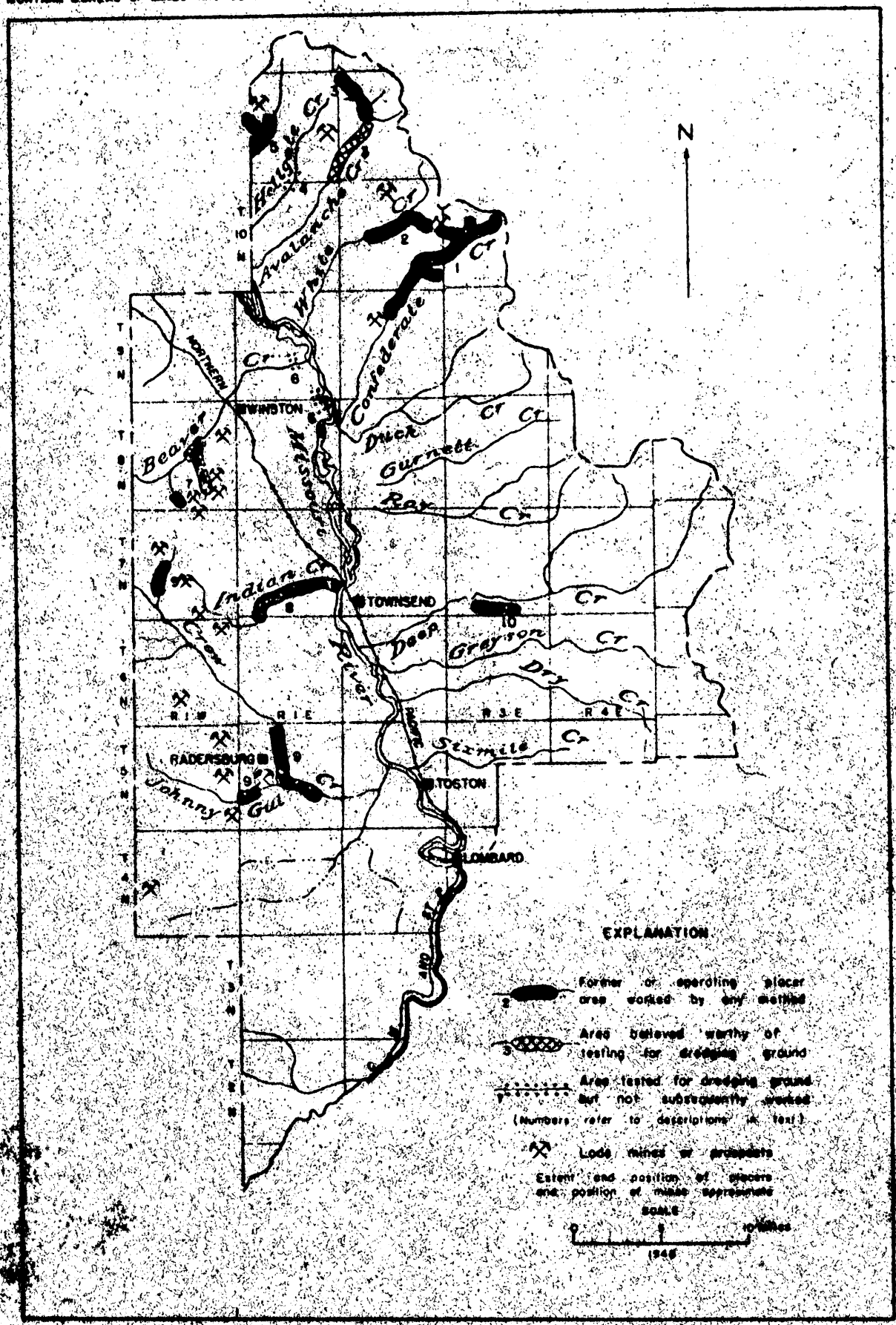
Paragraph [illegible] the production of the district and the [illegible]

Estimated Placer Gold Production of Confederate Gulch to 1933

	Minimum	Maximum
Montana Bar	$1,000,000	$1,500,000
Diamond Bar & neighboring terraces	1,000,000	1,500,000
Boulder Bars	100,000	500,000
Cement Gulch	800,000	4,000,000
Montana Gulch	600,000	3,000,000
Confederate Gulch proper	2,500,000	7,500,000
Average = $12,000,000 Total	$6,000,000	$18,000,000

"Montana Bar is a terrace just below Montana Gulch, discovered in 1866. It has been reported that one pan of gravel from this bar yielded $1,400 and it was not uncommon to wash $1,000 from a pan of gravel. According to Browne the deposit was shallow, the gold coarse, and the best claims, 200 feet long, paid $180,000..... On Diamond and neighboring bars an aggregate area four times that of Montana Bar was mined. These deposits are known to have been very profitable, though not as rich as Montana Bar, and they are assumed to have produced in the aggregate at least as much as that favored area.

* Birch, Fred, Personal communication.



MAP OF BROADWATER COUNTY PLACERS

"In Cement Gulch near its mouth two claims aggregating 400 feet in length are reported to have yielded $400,000. At another place drift mining produced gold at the rate of $100 to a running foot. The gulch has been mined for a distance of 8,000 feet or more. At the smaller rate its yield would be $800,000. At an average of the two it would be more than $4,000,000. Montana Gulch was

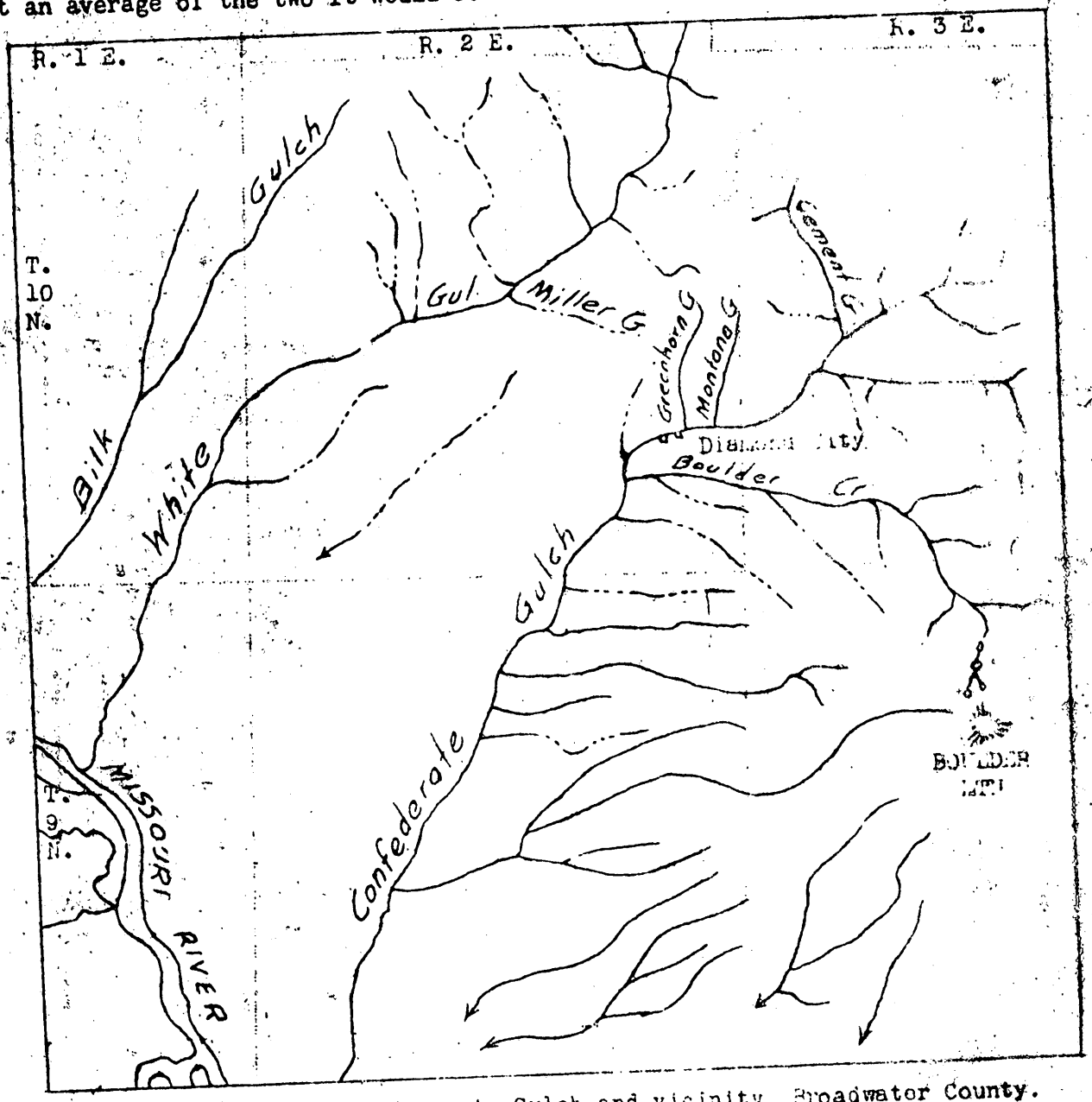


Figure 1.--Map of Confederate Gulch and vicinity, Broadwater County.

of similar richness and for a distance of 6,000 feet is estimated to have produced at least $600,000 and possibly as much as $3,000,000. For Confederate Gulch proper even less definite data are available. About five miles of the gulch has been mined, and pans of gravel containing as much as $180 are said to have been obtained from it. The minimum average yield is rather arbitrarily placed at $100 a running foot. The true average may be as much as $300. The

total yield therefore is estimated to range from $2,500,000 to $7,500,000. Terraces on the south-east side of Confederate Gulch known as the Boulder Bars have been mined in places. They are understood not to have been very profitable, and their total output probably ranges between $100,000 and $500,000."

Since Pardee wrote his report on the district there has been considerable activity with various types of power shovels and washing plants. In 1938 one company was working Boulder Bar with a power shovel and stationary washing plant while another was testing part of Confederate Gulch proper with a dry-land dredge. These two units recovered 676 fine ounces of gold during that year. During the 1939 season a dry-land dredge working on Boulder Bar washed 100,000 cubic yards of gravel and a dragline dredge working in Confederate Gulch proper washed 600,000 cubic yards. The total production of these two units was 2,357 fine ounces of gold. In 1940 the dragline dredge in Confederate Gulch treated only 170,000 cubic yards of gravel while the dry-land dredge on Boulder Bar and two new dry-land dredges in Confederate Gulch treated a total of 156,000 cubic yards of gravel. The amount of gold recovered by these four operations was not ascertained. During 1941 a dry-land dredge on Boulder Bar handled about 90,000 cubic yards of gravel that averaged about 23¢ per cubic yard, recoverable gold. At the same time two dry-land dredges worked in Confederate Gulch proper and recovered a total of about 259 fine ounces of gold. In 1942 only one dry-land dredge remained in the district and it recovered less than 50 fine ounces of gold. No dredging has been done since 1942 (1).

All the dredging that has been mentioned up to here has been done well up in Confederate Gulch. When the stream leaves the mountains it flows for some distance over the valley floor of the Missouri River. That there should be buried stream channels in these river gravels has seemed to many to be a logical supposition. Some time prior to 1916 (probably about 1908) one company went so far as to erect a Risdon dredge to work this area but it is reported that after about three months operations it was shut down because of there "being no values in the gravel" (35:32). In 1946 the author heard a rumor that an eastern corporation was going to test this area for dredging ground.

If one is to accept literally the statement in the preceding paragraph that the gravel worked by the Risdon dredge carried no gold he is immediately faced with an enigma of major proportions. That gravel transported from the headwaters of this gulch would not carry with it some particles of gold is virtually impossible to imagine, all factors taken into consideration. One possible answer is that this dredge, whose size is not known to the author, did not have a digging ladder long enough to dig below the accumulated tailings from previous sluicing and hydraulic operations into the gravel near bedrock where the gold should be concentrated.

The placer gold was derived from the quartz lodes on Miller Mountain at the head of Montana Gulch and from quartz lodes associated with a diorite dike that is crossed by Confederate Gulch near the mouth of Boulder Creek (2:175).

White Creek (No. 2, Pl. 6)

White Creek is a southwestward flowing tributary of Missouri River, emptying into about five miles downstream from the mouth of Confederate Gulch.

The presence of gold in the gravels of the creek was first discovered in 1865, and according to Pardee (49:179) the upper part of White Creek valley and Johnny Gulch, a minor tributary, were actively mined for about twenty years following discovery. He goes on to say: "A terrace on the north side (of White Gulch) has been mined for a mile or more. The gravel deposit ranges from 50 to 200 feet in width, and the aggregate area worked is about 50,000 square

yards. Considering the amount of dirt that was moved, it is thought that to have made the mining profitable the minimum yield must have been $10 a square yard or $500,000 in all. A tributary valley, Johnny Gulch, heads in the area of quartz gold lodes on Miller Mountain that also supplied the gold of Confederate Gulch. Johnny Gulch has been mined for a mile or more, and below its mouth there is evidence of drift mining for a mile or more in the main gulch... ...The total for White Gulch and its tributary being $1,000,000 to $1,500,000."

Since the turn of the century production of placer gold has been small and intermittent. In fact, since 1904 only one year, 1921, was there sufficient activity to warrant individual mention in Mineral Resources, and the production that year was not great enough to be separately listed (1).

The placer gold was undoubtedly derived from the gold quartz lodes on Miller Mountain at the head of Johnny Gulch, for placer gold has only been found in this tributary and in White Gulch below the mouth of the tributary.

In 1946 the author was told that there had been some activity on White Creek during that year but Minerals Yearbook makes no mention of it. The only placer gold recovered that year was seven ounces from Confederate Gulch. It was reported to the author that a dry-land dredge was active on the creek during 1948. The pay streak was reported to be concentrated within about two feet of bedrock, and it was covered with about 40 feet of virtually barren overburden. The realtively high gold content in the pay streak allowed the operator to show a profit but the necessity of removing so much overburden allowed the washing of only a small quantity of gold-bearing gravel each day.

Avalanche Creek (No. 3, Pl. 6)

Avalanche Creek is a southwestward flowing tributary of Missouri River running about paralled to White Creek, four miles northwest of that creek.

The only placer mining that has been done along this creek was on a bench on the west side of the creek about thirteen miles above its mouth. These old workings extend up and down Avalanche Gulch for a distance of about one mile each way from the mouth of Thompson Gulch. Pardee estimated the production of these operations to be at least $100,000 (49:179 and Pl. 15). No production has been recorded from claims on this creek since 1904 (1).

As Pardee says: "The gold-bearing part of the gulch is suggestively associated with a diorite dike of the Golden Messenger group that is accompanied by more or less vein quartz." (49:179). There have been no actively producing lode mines on the part of the creek where the placer gravels have been mined, although on a claim a short distance above the mouth of Cave Gulch, on the west bank of Avalanche Creek, a tunnel was driven along a decomposed dike that carried much iron oxide and was cut by quartz veinlets. For a distance of a mile or more above the mouth of CayuseGulch the mantle is reported to carry float vein rock of calcite and quartz (49:169,170).

If any dredging ground is to be found along Avalanche Creek it will probably be in the alluvium filled portion of the valley that extends from a point about eight miles above the mouth of the creek upstream a mile above the dike. That part of the valley immediately below the old bench placers would appear to hold the most promise for a dry-land dredge.

Hell Gate Creek (No. 4, Pl. 6)

Hell Gate Creek is the next major creek north of Avalanche Creek. It is an intermittent stream below the point where it flows out onto the alluvium of Missouri River valley but generally carries a small flow of water above this point.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/23/68	Peterson	120
8/23/68	Shikama	120
"	Johnson	110
8/27	D Peterson	
8/28	Shelda	
		110
		220
		XXXM

AIRMAIL

Mr. William M. Hanlon
P. O. Box 1724
Billings, Montana 59103

Re: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

Dear Mr. Hanlon:

A careful study of your application for financial assistance to explore the subject property and of other information available to us indicates that the probability of disclosing significant ore reserves on the property is not sufficiently promising to justify Government participation in the proposed exploration. Accordingly, we regret to inform you that your application for assistance is denied.

We wish to thank you for your interest in the minerals exploration program and for bringing your property to our attention.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Region I
Mr. Peterson

ECPeterson/bsl 8/23/68

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/23/68	Kirkham	120
		120
8/23	Johnson	110
		220
		120M

MMEMORANDUM

To: The File

AUG 29 1968

From: Edward C. Peterson

Subject: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

Justification for Denial of Application

The OME field examiner found no geologic evidence on the property to indicate that exploration was warranted, and he concluded there was only a fair chance of discovering any significant gold reserves with the proposed work.

No information is known regarding past production from the property, and the limited geologic data available suggests that any reserves that may exist are limited to small scattered gold-bearing streaks with little economic potential.

I concur with the Field Officer and recommend that the application for assistance be denied.

Edward C. Peterson

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Peterson

ECPeterson/bsl 8/23/68

ME FORM 6 REFERENCE SLIP
V. 2-59 OFFICE OF MINERALS EXPLORATION

		DATE	INITIALS
	Chief, OME	8/19/68	
	Re: OME-6695 (Gold)		
2.	Wm. M. Hanlon		
	Avalanche Group		
3.	Broadwater County, Montana		
4.			
5.	D. R. MacLaren		
FROM:	Fld. Officer, Reg. I		

FOR: Check items for action desired

X	Action		Reply for signature of		
	Approval		Investigate		Surname
	Comment		Recommendations		Signature
	Conference		Rewrite		File
	Instructions		Your information		

REMARKS:
Transmittal of appln. exam. report on above-cited docket.

UP. SEC., WASH., D.C. M56300-62

OME

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY

U. S. Court House, Rm. 656
W. 920 Riverside Avenue
Spokane, Washington 99201
August 19, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
AUG 21 1968
INITIALS CODE
gla 130
bal 120
ED 120-P

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Application Examination Report
OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

INTRODUCTION

The claims of the Avalanche Group were visited June 20, 1968, in the company of William M. Hanlon, Agent. About 3 hours were spent traversing Avalanche Gulch from the vicinity of Goon Gulch to a short way beyond Thompson Gulch. At places the Gulch is not more than about 150 feet wide; at other places, it widens out to 500 or more feet.

The Gulch is in a well-established recreation area, and most of the claims are within the Lewis and Clark National Forest. An old road, narrow in places, extends up the Gulch through and beyond the applicant's claims. This will create a problem if drag line trenches are excavated across the Gulch. To find out what the Forest Service reaction would be I talked with Bob Manchester, Chief Geologist at the Forest Service District Office in Missoula, Montana. He checked with the people responsible for the area and outlined the following situation:

1. The road was built many years ago by other than Forest Service people. While they may have no proprietary rights, they have used it for so long that they could and would insist it be kept open.

2. The Forest Service would not object to the road being moved providing the District Ranger were consulted, and his specifications followed.

3. The area has not been withdrawn from mineral entry and therefore should exploration indicate sufficient potential to justify dredging or dragline mining, the Forest Service would probably not object but certainly would insist that the road be moved so that it would not be closed by these operations.

Onsite Exam Report

These are problems that the applicant would have to work out with the Forest Service and have no bearing on the merits of the claims or the chance of making a significant discovery.

It is concluded that the chance of making a significant discovery is only fair at best, and it is recommended that the application be denied.

PROPERTY, LOCATION, AND ACCESSIBILITY

The property consists of eight placer claims along Avalanche Gulch and one claim on Nary Time Gulch, in secs. 8, 9, 16, 20, 21, and 29, T. 11 N., R. 2 E., Broadwater County, Montana. (See accompanying sketch.) There are two gaps in the line of claims. One is the Rankin Homestead (H.E.S. 569) which Hanlon has been given to believe will be leased to the partners if gold is found within the homestead boundaries. The other gap starts about 0.5 mile below Tick Gulch and extends to a point about 0.1 mile above Tick Gulch; Hanlon is hopeful of securing this ground if enough gold can be found to warrant paying the high price now being asked by the owners.

To reach the claims from Townsend, Montana, proceed about 1-3/4 miles easterly on U. S. Highway 12. Here turn left and follow State Highway 284 northerly about 23½ miles to Avalanche Gulch which is at the present end of the pavement. Turn right and proceed up the Gulch for about 9 miles to the claims.

GEOLOGY

Rocks in the area are Newland limestone, Greyson shale, Spokane shale, Empire shale, and Helena limestone, all of the Precambrian Belt series. Overlying these rocks are 11 Paleozoic formations, 6 of Cambrian age, 2 of Devonian age, 2 of Carboniferous age, and 1 of Permian age. Only the Belt series are found on the Avalanche claims. These rocks comprise the southwest slope of the Big Belt Mountains (Mertie, et al., 1951).

The Precambrian sedimentary rocks have been folded and faulted resulting, in the vicinity of the claims, in a broad asymetrical anticline. They have been intruded by Pre-Tertiary dikes and sills of diorite, gabbro, and andesite. Most of the gold lodes in the area occur in or close to these intrusives, and they probably represent the source of the gold found in the placers.

In Avalanche Gulch some prospecting may have been done below Goon Gulch for about 2 miles, but, other than an occasional small pile of tailings, there is no evidence of any placer mining. Just below Goon Gulch a tunnel has been driven into the overburden on the east side of Avalanche Gulch, but no work was going on at the time of the inspection. No data are available as to how much, if any, gold was found.

From Shannon Gulch for some distance upstream considerable drift mining was reportedly done about 1900. About the same time the valley floor was reported drift-mined almost continuously from Needham Gulch (shown on the sketch that accompanied the application but not on the one attached hereto) to the mouth of Thompson Gulch, a distance of about 3.25 miles (Mertie, et al., 1951). From the number of closely spaced piles of tailings throughout this distance, there must have been a considerable amount of work done. Apparently, much of the overburden is 20 or more feet thick. The only side Gulch that showed evidence of having been worked is Nary Time Gulch which has been worked for a few hundred yards upstream.

For a distance of about 2 miles starting near Tucker Gulch a low terrace about 50 feet wide on the west side of Avalanche Gulch has been worked at a number of closely spaced sites. The terrace is about 50 feet above creek level. North of Thompson Gulch there was no evidence that the stream channel had been worked.

Pardee (1933, p. 179) estimates that gold worth $100,000 was produced from the terrace workings and makes no mention of drift mining on the valley floor farther down stream. There are simply no available data from which to estimate how much gold has been taken out or how much may remain. Pardee says on page 179: "Gold doubtless occurs in the gravel beneath the stream channel, but it is assumed from the lack of mining operations that, owing to the low stream gradient and other conditions, the deposit proved to be unprofitable." Mertie, et al. (1951, p. 70) say: "Drift mining of such ground required underground bedrock drains of considerable length. To pay for the amount necessary dead work, these gravels must have had a fair tenor in gold. * * * The pay streak is narrow, but it is possible nevertheless that some time this gravel may be reworked." It is obvious that Mertie, et al., talked with many people in the course of their investigation which was undertaken for the Bureau of Reclamation prior to building a new dam at Canyon Ferry. The Bureau wished to obtain all available information regarding geology and mineral resources in the vicinity. This may account for the cautious statement regarding the possibility of reworking the gravel.

CONCLUSIONS AND RECOMMENDATIONS

Whether Pardee's conclusion that "the deposit proved to be unprofitable" or Mertie's statement that "the pay streak is narrow" is more correct, it is concluded that the chance of making a significant discovery of a gold placer in Avalanche Gulch is at best only fair. It is therefore recommended that the application be denied.

D. R. MacLaren

D. R. MacLaren

Enclosure
Distribution:
OME
USGS(SRO)
Docket
MacLaren

BIBLIOGRAPHY

Pardee, J. T., and Schrader, F. C., 1933, Metalliferous deposits of the Greater Helena mining region, Montana: U. S. Geol. Survey Bull. 842, p. 171-180.

Mertie, John B., Jr., Fischer, Richard P., and Hobbs, S. Warren, 1957, Geology of the Canyon Ferry quadrangle, Montana: U. S. Geol. Survey Bull. 972, p. 97.

MME FORM 6 REFERENCE SLIP

REV. 2-5 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Chief, OME	8/12/68	
2. Re: OME-6695 (Gold) William Hanlon, et al.		
3. Avalanche Group Broadwater County, Montana		
4. DRMacLaren		
5. D. R. MacLaren		
FROM: Fld. Officer, Reg. I		

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions X Your information

REMARKS:

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gla	110
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HK	120

INT.-DUP. SEC., WASH., D.C. M56300-62

WM. M. HANLON
INDEPENDENT OIL OPERATOR
BILLINGS, MONTANA 59103

OPERATING IN:
CAT CREEK AND CUT BANK FIELDS, MONTANA
LAMB AND TORCHLIGHT FIELDS, WYOMING

248-6123
TELEPHONE 9-3193
P. O. BOX 1724

July,9,1968

Mr. D.R. MacLaren:
U.S.G.S.
U.S. Court House Room 656 West 920 Riverside Ave.
Spokane Washington 99201

Dear Mr. MacLaren:

I finally received a Bid from Mr Norman Rogers and one from Mr Rudio the Geologist and I am enclosing the in duplicate.

Since the Dra g line work is so expensive what are your thoughts asto Drilling a few Holes first with the thought in mind to get the Drag Line Equipment in after we have a better idea asto just how to proceed with further testing.

I certainly enjoyed the trip with you and hope to have the priviledge again some day.

Sincerily,

Wm. M. Hanlon

Wm.M.Hanlon

RECEIVED
JUL 10 1968

N. ROGERS GOLD MINING CO.

N. ROGERS, OWNER
P. O. BOX 1719
HELENA, MONTANA

July 5, 1968

Mr. Bob Rudio
Foundation & Materials Consultants Inc.
910 Helena Avenue
Helena, Montana 59601

Dear Bob:

We have examined the Confederate Gulch Placer.

Our proposal is to strip five cuts down to pay gravel, and to sluice off the pay gravel for $6.25 per c. yd.,- a minimum of two thousand c. yards, or a total of $12,500.00 .

Yours truly

Norman Rogers

Norman Rogers

NR/c

RECEIVED
JUL 10 1968
O.M.E.
SPOKANE, WASH.

Foundation & Materials Consultants, Inc.
910 Helena Avenue, Helena, Montana 59601
Phone 406/442-0880
Edward A. Nurse, P. E., President

June 28, 1968

Mr. William Hanlon
1831 Poly Drive
Billings, Montana

Re: Avalanche Gulch
Placer Gulch

Dear Sir:

Regarding our phone conversation of June 27, 1968 our qualifications for supervising this project are as follows:

Foundaiton & Materials Consultants, Inc.

Staff Personnel:
(1) Robert M. Rudio, B.S. 1960
Geologist - Supervisor

(2) Robert Scruton, B.S. M.S.
Mining Engineer - Supervisor

(3) Truman Ames - Drilling Supervisor

(4) Robert Smith, B.S.
Civil Engineer - Supervisor

Foundation and Materials Consultants, Inc. is a consulting engineering firm which specializes in physical and chemical laboratory testing. The staff includes civil engineers, soils engineers, geologists and chemists, along with qualified laboratory technicians.

The services offered by our firm include drilling and sampling, geochemical trace analysis, foundation investigation and design, soils testing, research, inspection, groundwater, mining geology, construction control and materials testing.

Our firm maintains professional integrity in handling test results and is a member of many professional organizations: Consulting Engineers Council, American Society of Civil Engineers, Highway Research Board, American Society for Testing and Materials, Montana Geological Society, American Council of Independent Testing Laboratories and others. Our firm has had several hundred clients, completed several thousand

projects and has been a consultant in various capacities on projects involving about 250 million dollars in the past 9 years.

We will supervise the exploration of this project at the following rate:

(1) Supervision, including vehicle rental

Est. 80 Hrs @ $9.25/hr. Est$740.00

(2) Services to date -

(a) Preliminary Geology study and Report $200.00

I am enclosing the bid for the earthwork from Norman Rogers as we discussed.

Very turly yours,

FOUNDATION & MATERIALS CONSULTANTS, INC.

Robert M. Rudio, Geologist

RMR/kr

RECEIVED
JUL 10 1982

MME FORM 6 REFERENCE SLIP

REV. 2-5 OFFICE OF MINERALS EXPLORATION

	DATE	INITIALS
TO: Chief, OME	7/22/68	
1. Re: OME-6695 (Gold)		
2. William M. Hanlon		
3. Avalanche Group Broadwater County, Montana		
4. D. R. MacLaren MLS		
5. D. R. MacLaren		
FROM: Fld. Officer, OME, Reg. I		

FOR: Check items for action desired

____ Action ____ Reply for signature of ____

____ Approval ____ Investigate ____ Surname

____ Comment ____ Recommendations ____ Signature

____ Conference ____ Rewrite ____ File

____ Instructions X Your information

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REMARKS:

INT.-DUP. SEC., WASH., D.C.

M56300-62

OPERATING IN
CAT CREEK AND CUT BANK FIELDS MONTANA
LAMB AND TORCHLIGHT FIELDS WYOMING

WM. M. HANLON
INDEPENDENT OIL OPERATOR
BILLINGS, MONTANA 59103

248-6123
TELEPHONE 9 3188
P. O. BOX 7724

July, 18, 1968

Mr.D.R. Maclaren
U.S.G.S.
U.S. Court House Room 656 West 920 Riverside Ave.
Spokane Washington 99201

Dear Mr. Mac Laren:

I am enclosing a Bid on the Drag line and Trennel work from Mr L.J. Eich and I am enclosing two copies.

Since it won't be long until I must have the assessment work finished for this year I am wondering if there is any chance that the Loan might be approved in the near future, I realize that you perhaps don't know but knowing you have handled so many of these Loans, I thought you might have some idea asto what we might expect.

Sincerely,

/s/ Wm M Hanlon

Wm.M.Hanlon

REC
JUL

July 15, 1968

Wm. M. Hanlon
Independent Oil Operator
Billings, Montana

Dear Mr. Hanlon:

In examining the Avalanche Gulch Placer, we would need $5,000 to move into the Gulch, this would be the construction of roads, and moving water flumes.

To wash a minimum of 2,000 cubic yards, at $4.00 per yard, another $8,000 making a total of $13,000.

Sincerely,

L. J. Eich
Box 365
Elliston, Montana 59728

RECEIVED
JUL 22 1968
O. M. E.
SPOKANE, WASH.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/27/68	Peterson	120
		120
	(on leave)	110
		220
		120M

AIRMAIL

Mr. William M. Hanlon
P. O. Box 1724
Billings, Montana 59103

MAR 27 1968

Re: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

Dear Mr. Hanlon:

Thank you for your letter of March 21 enclosing additional information in support of the subject application for financial assistance.

We are now referring the application for further consideration to Mr. D. R. MacLaren, Field Officer, U. S. Geological Survey, U. S. Courthouse, Room 656, West 920 Riverside Avenue, Spokane, Washington 99201.

Mr. MacLaren will notify you if additional information concerning the application is needed, and possibly to make arrangements for a field examination.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo, Assistant Chief
Office of Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Peterson
Region I

ECPeterson/bsl 3/27/68

MME Form 7
(2/63)

OFFICIAL FILE COPY

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	(on leave	110
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Memorandum

MAR 27 1968

To: Field Officer, Region I

From: Assistant Chief
Office of Minerals Exploration

Subject: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

We are referring the subject application to you for further consideration, a field examination if warranted, and recommendations.

The Applicant has furnished us with most of the additional information requested of him, except the geologic evidence to support his view that significant ore reserves would be discovered by the proposed work. Also lacking is a detailed cost estimate and the necessary bids to support the costs for the dredging.

From the application and subsequent letters submitted it is difficult to ascertain just what the Applicant's plans are. The work as briefly outlined, unless a more specific target can be determined, appears to be prospecting and may not be eligible for OME assistance.

We have received the Lien and Subordination Agreements, properly executed, and the documents authorizing Wm. M. Hanlon to act for the partnership in matters concerning the application.

For your records, we are enclosing a thermofax copy of the most recent material submitted by the Applicant.

Harold Kirkemo

Harold Kirkemo

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Peterson
130

ECPeterson/bsl 3/27/68

WM. M. HANLON
INDEPENDENT OIL OPERATOR
BILLINGS, MONTANA 59103

OPERATING IN:
CAT CREEK AND CUT BANK FIELDS, MONTANA
LAMB AND TORCHLIGHT FIELDS, WYOMING

TELEPHONE 248-6123 9-3193
P. O. BOX 754
I724

March 2I,I968

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United States Dept. of the Interior
Geological Survey
Office of Mr. Frank E.Johnson
Chief of Minerals Division
Washington D.C. 20242

Dear Mr. Johnson:

I am enclosing new Bids for the Drilling of the test holes One from Walter J. Riddock of Helena Montana, Amick Drilling Company of Billings Montana and from Lindsay Water Well Drilling Clancy Montana.

I have been unable to get a Bid for the Dredging since they first want to go over the ground,which is impossible at this time,but I am sure it will run around 35 to 40 cents per yard,this information is based on other jobs I have been able to check on.

I also am enclosing a Report by Mr.Robert M. Rudio a Geologist of Helena Montana.

I did not get a Bid for the Surveying since we are not sure of the amount needed until we are in operation and can see what is needed,but we are sure that it will not run over $ I000.00 if all claims were to be Surveyed.

I believe that with the exception of the Dredging Bids this covers all requests , If not I shall do my best to get any information to you.

Yours truly,

Wm. M. Hanlon

Wm.M.Hanlon Agent Box I724 Billings Mont.

Foundation & Materials Consultants, Inc.
910 Helena Avenue, Helena, Montana 59601
Phone 406/442-0880
Edward A. Nurse, P. E., President

March 19, 1968

Mr. William Hanlon
1831 Poly Drive
Billings, Montana

Re: Avalanche Gulch
Placer Prospect

PRELIMINARY GEOLOGY REPORT

A one-day field trip was made to examine the prospects of Placer Mining in the vicinity of Avalanche Gulch, located approximately nine miles Northwest of Canyon Ferry Reservoir in the Big Belt Mountains.

Avalanche Gulch is one of several drainages along the West Flank of the Big Belt Range. It has cut rather steeply through Precambrian and Paleozoic sediments for a length of about 15 miles. The area under consideration extends from Cow Gulch northerly to Cooney Gulch, all in T11N, R2E, Broadwater County.

The geology of the area has been described by Mertie, 1951.

The area is underlain by sedimentary rocks ranging in age from Precambrian to Recent, however the Mesozoic sequence is missing. The Belt Range within the confines of Avalanche Gulch shows structural features which resulted from upheaval of base rocks in an anticlinal pattern. Numerous sediments exhibit sharp contrast in dip and strike from faulting and thrusting, however the anticlinal pattern is rather obvious. The oldest Belt formation, the Newland limestone is exposed at the crest of the anticline near Cooney Gulch and the Palezoic formations from Cambrian through Permian are exposed along the foot of the western slope of the range.

Igneous rocks are related to the Canyon Ferry quartz-monzonite-granite stock in the Spokane Hills. Associated Intrusives within the Belt Mountains are dioritic and gabbroic dikes and sills, andesitic dikes and quartz porphyries. The dikes are visible along the Avalanche Gulch road as blow- outs of diorite and quartz diorite.

The lode values are carried in the dikes and dike system prevalent from Brown's Gulch to the northwest to Confederate Gulch to the southeast. This dike system carries primarily gold in a stockwork of quartz stringers and veins in the dikes. The veins range from an edge to 30 feet in width within the dikes. The Golden Messenger dike is typical where the oxidized ore carries $6.00 to $7.00 a ton in gold. Pyrite is the main sulphide, but some galena, sphalerite, and chalcocite also is present.

In the entire Belt Mountain area, records show that 95% of the total production has been in placers accounting for nearly $19,000,000. Records are scarce for placer production in Avalanche Gulch although numerous diggings are evident throughout the Gulch.

Discussions with old-timers in the area indicate that some drilling had been done in the 1930's below the mouth of Avalanche canyon and proved unproductive. Further there were rumors of $2.00 a ton placer being taken out of the gulch; however most felt 65 cents a ton was considered average. These discussions are difficult to substantiate and are probably unreliable.

It would seem from a preliminary standpoint that drilling and sampling in the area is necessary to establish some values which will be consistent. The area from Cow Gulch to Shannon Gulch is in Precambrian Belt sediments and unlikely to show the dike system exposed. Detail field work is required. The area from Shannon Gulch to Cooney Gulch, although still in Belt sediments shows tremendous faulting and general mixing of sediments along with some evidence of recent metamorphism. Again the criteria of the dike system requires detail field work.

It should be noted here that the known gold-bearing dike system is not the only criteria for placer potential, ie., placers have been good in erosional sediments of the Spokane Shale near York, Montana. However, it is felt that without the dike system being exposed in the drainage, the chances of a good placer deposit are slim.

Geochemical methods are not recommended in examining this area, however atomic absorption test results are used in placer testing as an economical tool, once assays of samples are coordinated to P.P.M. ie., many more tests can be run over a larger area making better use of drill holes.

30 drill holes are recommended and must be located in the field. Bedrock should be within 30' of the surface. The wider areas along the narrow gulch should be examined first. Trenches can be dug across the gulch and used effectively for sampling and processing.

Due to the difficult access problems for larger equipment it might be wise to construct a small sluicing operation while sampling with the drill rig and then work up to the dragline, provided the placer shows good return.

We are continuing to gather data about the area and feel that further field examination is necessary, particularly in regard to the dike system. At this time the local Paleozoic and Pre-cambrian sediments can be precisely located and named if desired, however this particular expertise is considered academic and the emphasis should be placed on a skilled drilling and testing program.

Very truly yours,

FOUNDATION & MATERIALS CONSULTANTS, INC.

Robert M. Rudio, Geologist

RMR/kr

March 18-68

Mr. Hanlon
Billings Montana

Drill & Sample placer at
avalanche gulch.

all equipment furnished
all Labor for drilling
& sampling.

Total Cost $10.00
per foot

Wesley Lindsay

This price does not include
any drill site, leveling or clearing

CALL
Lindsay Water Well Drilling
Pumps & Service
CLANCY, MONTANA
Phone 933-5511
FOR EXPERT SERVICE

Mr. Hanlon
Billings Montana

March 18, 1968

Drill 6" test holes at avalanche Gulch.

Measure and log all samples.

Equipment to be used.

1- Hilman placer drill - (Cable tool) truck mounted
1- 3 H.P. water pump.
1- all pans (sold) and cubic foot measuring buckets
1- dump box
1- all logs
1- sample bottles
1- 3 men
6" casing & drive shoe.

CALL
Lindsay Water Well Drilling
Pumps & Service
CLANCY, MONTANA
Phone 933-5511
EXPERT SERVICE

Robert Rudio.
Clancy Montana

Bob.

Quotation on drilling & sampling places. (average ground)

Moving in & out - $150.00
Drilling & sampling (3 men) - $10.00 per foot
Standby time - $12.00 per hr.

Wesley Lindsay

P.S. Would like to see the site before accepting job.

L. G. Amick Drilling Contractor
Box 347
Billings, Montana

L. G. Amick Drilling Contractor
Box 347
Billings, Montana

L. G. Amick Drilling Contractor
Box 347
Billings, Montana

March 16, 1968

Mr. Wm. M. Hanlon
P. O. Box 1724
Billings, Montana 59103

Dear Mr. Hanlon:

I should like to submit the following bid to drill and test your Avalanche Gulch Claims:

$10.00 per foot for first 100 feet.
9.00 per foot for each foot over the first 100 feet.
Move in and out at our own expense.
Clean each location.
Test every foot that is drilled.
Make log of each foot to bottom of each hole.
Waiting time shall be at the rate of $12.00 per hour.
If any Cat work is to be done, I have a D4 Cat I could use at $15.00 per hour, when in use, with a $100.00 minimum moving in charge.

I shall furnish the following equipment:

22 Bucyrous Erie Spudder.
6¼" Casing in short lengths.
1 Drive Head.
All necessary tools including gasoline driven 2" Water Pump and hose.
1 Panning Machine.
Sluice Boxes.
Sample sacks with labels attached.
I shall have the following men on the job at all times, driller, helper, and one man to pan and take care of all samples.

We would certainly appreciate getting this job and are ready to start any time you feel you are ready.

Very truly,

L. G. Amick

L. G. Amick

LGA:r

William Hanlon Helena. Mont.
Billings. Mont. March 18, 1968

Dear Sir:

Following are my figures for drilling & testing ground in Avalanche Gulch.

Drilling - 5 7/8 I. D. - 29# Casing
Cutting shoe 7 1/2" inches.
1 Star drill No. 71
1 Pick up, pump & hose
1 Panner.
1 driller
1 Helper
With a guarantee of 150 ft.
$12.00 per ft. over 150 ft.
10.00 per ft.

Yours truly
Walter J. Riddock
606 N. Warren.
Helena, Mont.

Phone 442-5548

WM. M. HANLON
INDEPENDENT OIL OPERATOR
BILLINGS, MONTANA 59103

OPERATING IN:
CAT CREEK AND CUT BANK FIELDS, MONTANA
LAMB AND TORCHLIGHT FIELDS, WYOMING

248-6123
TELEPHONE 9-3193
P. O. BOX 1724

6695

March 13,1968

OFFICIAL COPY
O. M. E.
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United States
Department of the Interior
Geological Survey
Washington D.C. 20242
Attn Mr.Frank E.Johnson Chief of Minerals Exploration

Dear Mr. Johnson:

I have been waiting for bids asto both the test holes and the Dredging,they are being delayed because the Contractors have been unable to get over the properties,due to the snow and ice,but I word that they will make every effort to do so this week.Up on my receiving the bids I shall forward same to you,together will complete out line of the work to be done,such as number of holes, number of cuts with Dredge and Trommel,a flat price for the Surveying of the Claims and a Geological Report.

I am enclosing the Liens and Subordination Agreements together with Power of Attorney from all parties interested in the Avalanche Placer Mining Group. And enclosing Power of Attorney from Rouene Hanlon , Dorothy and Reynold Ziesman .

I want to assure you that I shall do all in my power to get the balance of the information you have requested to you as soon as possible.

Yours truly,

Wm. M. Hanlon

Wm.M.Hanlon Agent

Copy of letter to OME Region I 3/18/67 w/out enclosures

Geological Survey
656 U. S. Court House
W. 920 Riverside Ave.
Spokane, Wash. 99201

February 16, 1968

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Mr. William M. Hanlon
P. O. Box 1724
Billings, Montana 59103

Re: OME-6695 (Gold)
Wm. M. Hanlon, Agent
Avalanche Group
Broadwater County, Montana

Dear Mr. Hanlon:

Thank you for your letter of February 11, 1968. By now you should have received a letter dated February 13, 1968, from Mr. Frank E. Johnson, Chief, Office of Minerals Exploration.

At the present time I can only suggest that you send to our office in Washington, D. C., the additional data and clarification as to the correct designation of the Applicant.

Although I would be happy to talk with you and Mr. Merrill at any time, I do not believe that a visit to Spokane would be of sufficient benefit to warrant the cost to you. Until the points raised in Mr. Johnson's letter have been clarified and the requested data have been received, there is not much that I can tell you.

Sincerely yours,

D. R. MacLaren
Field Officer, OME
Region I

cc: OME w/cy incoming

ROTARY AND CABLE TOOLS

HANLON DRILLING CO.

BILLINGS, MONTANA 59103

TELEPHONE 5-9155
P. O. BOX 1734

Feb.11,1968.

Mr. D.R.Maclaren
Field Officer [illegible]
United States Department of the Interior
Office of Minerals Exploration
Geological Survey
30.157 Howard Street
Spokane Washington 99204

Dear Mr. MacLaren

Some time ago I sent in an application for a OME Loan and since I haven't heard from same.I am wonder--ing if I am holding it up in any way. I mentioned that I was trying to get a Bid for the Drag Line or rather Dredgeing and testing. I have made several contacts but have not been able to get a Bid,but I shall stay with it.

I called Mr. Roy Merrill in Helena a Geologist for a report and he stated he would rather go over to Spokane with me,as he thought he could do me more good and since I see no reason to go to Spokane at this time,I shall wait from word from you asto which you would prefer to have me do.

Since I am very unfamiliar with the various requirements asked for I just wonder in how many I erred in.

If there is more information that is needed I assure you I shall do my best to obtain same and to forward to you.

Sincerily,

Wm.M.Hanlon Agent

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
2/28/68	Peterson	120
	(on leave)	120
		110
4/28	cal	220
		120M

AIRMAIL

2 8 1968

Mr. William M. Hanlon
P. O. Box 1724
Billings, Montana 59103

Re: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

Dear Mr. Hanlon:

This will acknowledge receipt of your letter dated February 23, 1968, enclosing additional information in support of the subject application for financial assistance.

We regret that we still cannot give full consideration to your proposal because of insufficient information. Regulations governing administration of the OME program require that each application fully describes the proposed work and includes all of the detailed data called for by the application form. Without this information, it is impossible to evaluate all of the factors involved and to decide whether the Government should enter into an exploration contract with the Applicant. It was for these reasons that we asked for additional information in our letter of February 13. We suggest that you review the letter wherein we cite specific requirements relating to supporting geological data, a definite work plan, bids for the work to be performed, recording data for the Mel No. 2 Claim, etc. We are also lacking the Power of Attorney document signed by Rouene E. Hanlon, one of the partners listed on the application form.

Field examinations are made only after the information requested on the back of the application form has been received and reviewed, and the data presented indicate that the proposal merits further consideration.

We shall continue to hold the further processing of your application until the requested data are received. Nothing in this letter should be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
*Region I Mr. Peterson *Cy of ltr dtd 2/23/68 & one map
ECPeterson/bsl 2/28/68

Copy to R-I

HANLON DRILLING CO.

ROTARY AND CABLE TOOLS

BILLINGS, MONTANA 59103

TELEPHONE 9-3193
P. O. BOX 1724

Feb.23,1968.

O. & E.
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Mr Frank E. Johnson
Chief of Minera ls Exploration
U.S. Dept of the Interior
Washington D.C. 20242

Re: OME-6695

Dear Mr. Johnson:

I shall do my best to reply to yours of the 13th of February . All of the Claims belong to the Avalanche Placer Mining Group which is a partnership,with myself having Power of Attorney to do all things necessary in the operation of the Claims.I am enclosing documents which gives me this authority. The following is the names of all who are interested in the Avalanche Placer Mining Group, Marlene Anderson,Jack Anderson,of Los Angeles Calif. Melinda Hanlon, Mel Hanlon, Spokane Wash. Glen Griffith ,Mary Sue Griffith, Toston Mont. Reynold G.Ziesman, Dorothy Ziesman Mosby Mont. Rouene Hanlon and myself of Billings Mont.

The Mel No.2 Claim was staked by me in the name of the Avalanche Placer Mining Group,which required an additional name in the group.

I am not sure that the owners of H.E.S. 569 are willing to sign the Lien and Subordination Agreement .I have a letter giving me permission to Drill test holes,with the understanding that if the Values are there,they then would give a lease. Any drilling and testing on their lands can and will be at our expense and not from any funds in the prop--osed Loan. The big reason that this Gulch has never been Dredged is due to the fact that the owners would scare any one and not cooperate in any way at all.But they now are anxious to see what values they have. ?

Regarding Geologic data I am enclosing Report by the Montana School of Mines,Butte Montana in which they state that this area is worth Dredging.I am trying to get a more detailed report from them,but I am not sure such is possible. Our testing was only to satisfy us that one could expect good returns when he is on Bed Rock,which is too deep for our Type of Equipment ,the depth over most of the Gulch will be between 20 to 30 feet.This is the reason that we would like to get an Exploratory Loan with which we will Dredge several Cuts in the Gulch testing all from top to a point in the bed Rock,Drill holes and test every foot drilled.The exact location of these cuts and holes will be determined,by the results we are getting as we proceed with the operation.

In Mr. Johnsons report asto testing his belief being that a couple three holes would perhaps tell the story,but in order to get this Type of Equipment to move in to do the job requires more work than he out--lined.And as I understand the regulations are that we send in a invoice for the work from time to time.Under these regulations that while we have a loan of $25,000,it is possible that a small part of it may get the job completed,so far as testing is concerned.By having the Dredge and Trommel on the ground we are in a position to abandone the testing and go to producing . ?

Since this is Placer,we have no Assays.

HANLON DRILLING CO.

ROTARY AND CABLE TOOLS

BILLINGS, MONTANA

TELEPHONE 9-3193
P. O. BOX 1724

In regard to width of the channel,thickness of pay steak, and depth to bed rock these are conditions we are not sure of,and is the reason for our applying for an O.M.E. loan. I talked to Mr Merrill who is on a job near Butte Montana and he thought that rather than a report he would gladly go to Spokane with me stating he thought he could do more good for us than a report.

Asto where we planned on starting the work it has been decided that a couple holes on Tracy Lee No.I would give us an idea to plan our program so asto test the area as cheaply as possible,these holes should be done with a Dredge and Trommel as it would allow us to locate the pay streak and stay on it . It will also show us where to plan the next test which is some thing that must be positive rather than just guessing as no one really knows just where the pay streak is exactly at this time.)?

I am enclosing a sketch showing the locations of the claims, the location of present mining operations,and showing the workings did many years ago and called Chinaman holes,which is also shown on the enclosed report by the School of Mines. There has been considerable work on Patented claim 372 all hand work,and due to the amount of work that was done it certainly shows they where getting pay dirt. All of the people I have talked to including Miners, Geologists, Engineers maintain that this type of mining did not recover over 25 % of the Gold.

We plan on having Mr. S.W. Johnson a Mining Engineer who has had considerable placer experience over a period of I2 years to supervise the operation.

We sincerily believe that if one of your Engineers or Geologists would inspect our properties and the area,it would mean a great deal more to you than ,any report I get.

You will notice in the School of Mines report that White Gulch 3 to 4 miles east of Avalanche produced considerable Gold and that Confederate Gulch 3 to 4 miles east of it produced considerable Gold.

Since I have not received any of the new bids we have requested or all of the Lien and Subordination Agrement,and are anxious to get the above to you .I shall forward to you the balance of the information you requested.

Yours truly,

Wm. M. Hanlon

Wm.M.Hanlon

Enclosures:

Map showing Claim Locations,work being done and old work.
Report by the Montana School of Mines – Same as submitted with application
A Forest Service Map
Copy Quick Claim Deed
Power Attorney

Copy to R-I

Please Return to Wm.M.Hanlon

NO. 14-C — QUIT CLAIM DEED

STATE PUBLISHING CO., HELENA, MONT.

This Indenture, *Made the* ~~12th~~ *day of* January *in the year of our Lord one thousand nine hundred and* sixty eight *between*

~~Glen Griffith and Mary Sue Griffith of Toston Montana~~

the part~~y~~ies *of the first part*

and The Avalanche Placer Mining Group of Billings Montana

the part~~y~~ies *of the SECOND PART,*

WITNESSETH: That the said part~~y~~ies *of the FIRST PART for and in consideration of the sum of* One *Dollars,* ($ 1.00) *to* them Parties of first part *in hand paid by the said* part~~y~~ies *of the SECOND PART, the receipt of which is hereby acknowledged; do*~~es~~ *hereby remise, release and quitclaim unto the said* part~~y~~ies *of the second part, and to* their *heirs, and assigns, all of the right title, interest, claim and demand, of the* part~~y~~ies *of the first part in and to the following described real property, situated in the County of* Broadwater *and State of Montana, to-wit:*

~~All interest of every kind and nature,~~ excepting a Five Per Cent Royalty to be retained by Parties of the First Part on the following Placer Claims Tracy Lee No I, Tracy Lee Blank No.,Tracy Lee No 2, Tracy Lee No.3 Mel No.I, Golden Age Blank No., Golden Age No 3, and Golden Age NoI

together with all and singular the tenements, hereditaments, and appurtenances thereto belonging, or in anywise appertaining, and the rents, issues and profits thereof, if any ~~but reserving a Five Per~~ Cent Royalty to Parties of First Part and their Assoiates

IN WITNESS WHEREOF, the said part~~y~~ies *of the first part* h~~as~~ave *hereunto set* their *hand and seal the day and year first above written.*

~~Signed, Sealed and Delivered in the Presence of~~

Glenn Griffith

Mary Sue Griffith

Witnessed by:

Toston (SEAL)

(SEAL)

STATE OF MONTANA,
County of Broadwater } ss.

On this 30th day of January, nineteen hundred and Sixty-Eight before me Larry O. Foss a Notary Public for the State of Montana, personally appeared Glen Griffith and Mary Sue Griffith

known to me personally

(or proved to me on oath of .....)

to be the person s whose name s are subscribed to the within instrument, and acknowledged to me that they executed the same.

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

Larry O Foss
Notary Public for the State of Montana.

Residing at Townsend, Montana My Commission expires January 28, 19 70.

NOTARIAL SEAL STATE OF MONTANA

75150

QUIT CLAIM DEED

Glen Griffith and Mary Sue Griffith

TO

Charlotte Chase

Montana Gazette Building

STATE OF MONTANA
County of Broadwater } ss.

Filed for Record this 30th day of January A.D. 1968 at 10:38 o'clock a. M., and Recorded in Book 55 of Deeds Page 59 of the Records of Broadwater County, State of Montana

Maureen Hassfeld
County Recorder.

By ..... Deputy.

Fees $ 6.00

QM-QQ-WU

Return Larry Foss

RECORDED ✓
INDEXED ✓
COMPARED

Power of Attorney

BE IT BE KNOWN THAT WE, Melvyn Leroy Hanlon and Melinda Hanlon of Oakland California do hereby make, constitute and appoint Wm.M.Hanlon of Billings Montana our true and lawful agent and Attorney in fact for us and in our name, place and stead to operate and control all of our interests in the Avalanche Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present.

IN WITNESS WHEREOF, the parites hereto set their hands this ~~15th~~ 31 Day of ~~October~~ January 1967.

Melvyn Leroy Hanlon
Melvyn Leroy Hanlon

Melinda Hanlon
Melinda Hanlon

STATE OF CALIFORNIA
County of Alameda) S S:

On this day, ~~October 18th~~ January 31 1967 before the undersigned, a notary public for the State of California, personally appeared Melvyn Leroy Hanlon and Melinda Hanlon, known to me to be the persons whose names are subscribed to the foregoing instrument and who acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notary seal the day and year above written.

E. J. COUSTIER
NOTARY PUBLIC
ALAMEDA COUNTY, CALIF.

E. J. Coustier
Notary Public

My Commission Expires Jan. 8th, 1971

POWER OF ATTORNEY

BE IT KNOWN THAT WE, JOHN D. ANDERSON AND MARLENE M. ANDERSON OF LOS ANGELES, CALIFORNIA do hereby make, constitute and appoint WM. M. HANLON OF BILLINGS, MONTANA our true and lawful agent and attorney in fact for us and in our name, place and stead to operate and control all of our interest in the Avalanche Mining Group and to do and perform all acts necessary or incident to authority herein granted, in the same manner as we might or could do if personally present.

IN WITNESS WHEREOF, the parties hereto set their hands this 21 dey of October, 1966.

John D. Anderson

Marlene M. Anderson

STATE OF CALIFORNIA)
)SS:
County of)

On this 21 day of October, 1966, before the undersigned, a notary public for the State of California, personally appeared JOHN D. ANDERSONA AND MARLENE M. ANDERSON, ~~known to me to be the persons whose names are subscribed~~ to the foregoing instrument and who acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notary seal the day and year first above written.

Notary Public

WILLIAM K. LUNSFORD, Notary Public in and for the County of Los Angeles State of California
My Commission Expires November 27, 1966

About ten years ago ground that lies along Peoples Creek, on the Fort Belknap Indian Reservation, was tested as a possible site for a connected-bucket dredge. (See Plate 20 accompanying discussion of Phillips County placers.) Some of this ground was controlled by the St. Paul Mission and the rest by the Indian Council. Flowery stories of gravel that would average 70 cents per cubic yard prompted this testing. In all, nine test holes were drilled, some as deep as fifty feet, all to an "adobe bedrock"; five holes showed not even a color and the other four only a few fine colors. One interesting fact concerning this gravel is that unaltered grains of pyrite (iron sulphide) were panned from the gravel taken from some of these holes and the sulphides are reported to carry gold.*

BROADWATER COUNTY

During the years 1904 through 1945 the various placer properties in Broadwater County have yielded almost 28,600 fine ounces of gold. Of the total production during this period about 22,600 fine ounces were produced and sold at $35.00 per fine ounce, the remainder being produced prior to 1934 and sold at $20.67 per fine ounce. The value of the gold produced during these four decades is $915,182, only a fraction of the value of the gold produced from Confederate Gulch alone during an equal length of time following the discovery of gold in its gravels in 1866 (1).

Confederate Gulch (No. 1, Pl. 6)

By far the greatest producer of placer gold in Broadwater County, and one of the greatest in the state, was Confederate Gulch, through which flows a tributary of the Missouri River that empties into it about eleven miles north of Townsend. Confederate Gulch as discussed in this paper includes the head of tributaries Cement Gulch, Montana Gulch and Boulder Creek.

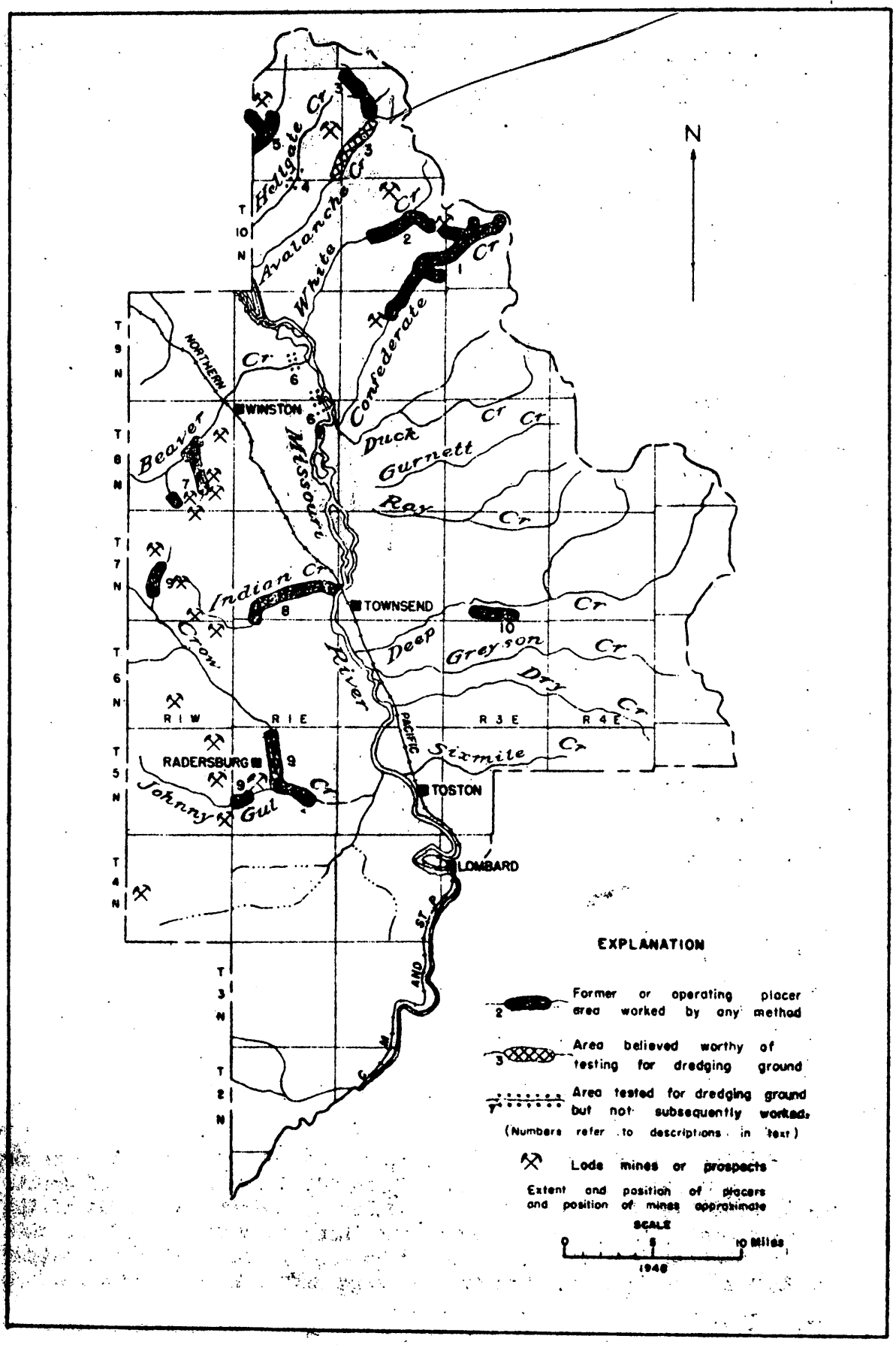
Pardee (49:172-173) has estimated the production of the district and discussed it as follows:

Estimated Placer Gold Production of Confederate Gulch to 1933

		Minimum	Maximum
Montana Bar		$1,000,000	$1,500,000
Diamond Bar & neighboring terraces		1,000,000	1,500,000
Boulder Bars		100,000	500,000
Cement Gulch		800,000	4,000,000
Montana Gulch		600,000	3,000,000
Confederate Gulch proper		2,500,000	7,500,000
Average = $12,000,000	Total	$6,000,000	$18,000,000

"Montana Bar is a terrace just below Montana Gulch, discovered in 1866. It has been reported that one pan of gravel from this bar yielded $1,400 and it was not uncommon to wash $1,000 from a pan of gravel. According to Browne the deposit was shallow, the gold coarse, and the best claims, 200 feet long, paid $180,000..... On Diamond and neighboring bars an aggregate area four times that of Montana Bar was mined. These deposits are known to have been very profitable, though not as rich as Montana Bar, and they are assumed to have produced in the aggregate at least as much as that favored area.

* Birch, Fred, Personal communication.



MAP OF BROADWATER COUNTY PLACERS

"In Cement Gulch near its mouth two claims aggregating 400 feet in length are reported to have yielded $400,000. At another place drift mining produced gold at the rate of $100 to a running foot. The gulch has been mined for a distance of 8,000 feet or more. At the smaller rate its yield would be $800,000. At an average of the two it would be more than $4,000,000. Montana Gulch was

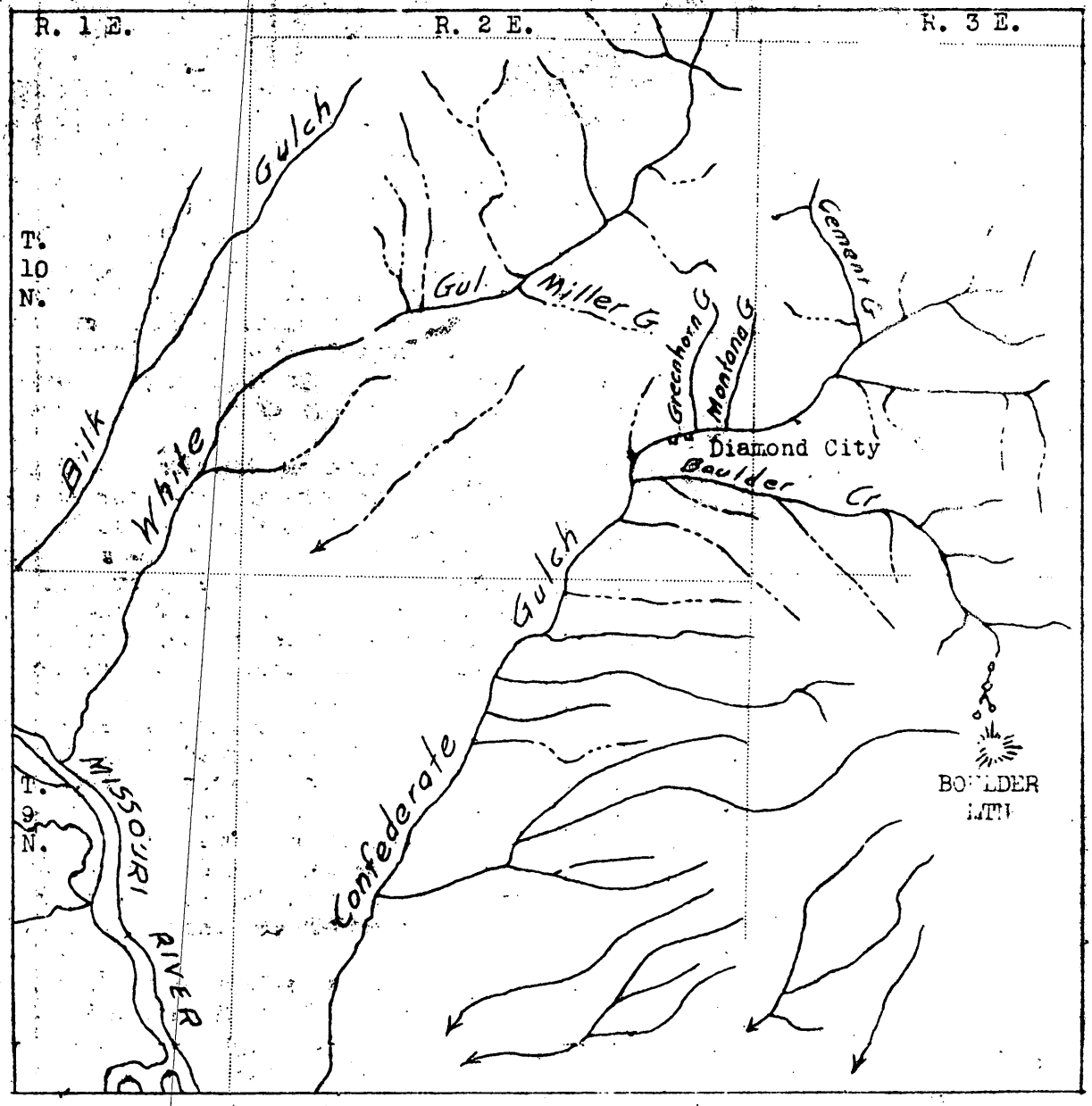


Figure 1.--Map of Confederate Gulch and vicinity, Broadwater County.

of similar richness and for a distance of 6,000 feet is estimated to have produced at least $600,000 and possibly as much as $3,000,000. For Confederate Gulch proper even less definite data are available. About five miles of the gulch has been mined, and pans of gravel containing as much as $180 are said to have been obtained from it. The minimum average yield is rather arbitrarily placed at $100 a running foot. The true average may be as much as $300. The

total yield therefore is estimated to range from $2,500,000 to $7,500,000. Terraces on the south-east side of Confederate Gulch known as the Boulder Bars have been mined in places. They are understood not to have been very profitable, and their total output probably ranges between $100,000 and $500,000."

Since Pardee wrote his report on the district there has been considerable activity with various types of power shovels and washing plants. In 1938 one company was working Boulder Bar with a power shovel and stationary washing plant while another was testing part of Confederate Gulch proper with a dry-land dredge. These two units recovered 676 fine ounces of gold during that year. During the 1939 season a dry-land dredge working on Boulder Bar washed 100,000 cubic yards of gravel and a dragline dredge working in Confederate Gulch proper washed 600,000 cubic yards. The total production of these two units was 2,357 fine ounces of gold. In 1940 the dragline dredge in Confederate Gulch treated only 170,000 cubic yards of gravel while the dry-land dredge on Boulder Bar and two new dry-land dredges in Confederate Gulch treated a total of 156,000 cubic yards of gravel. The amount of gold recovered by these four operations was not ascertained. During 1941 a dry-land dredge on Boulder Bar handled about 90,000 cubic yards of gravel that averaged about 23¢ per cubic yard, recoverable gold. At the same time two dry-land dredges worked in Confederate Gulch proper and recovered a total of about 259 fine ounces of gold. In 1942 only one dry-land dredge remained in the district and it recovered less than 50 fine ounces of gold. No dredging has been done since 1942 (1).

All the dredging that has been mentioned up to here has been done well up in Confederate Gulch. When the stream leaves the mountains it flows for some distance over the valley floor of the Missouri River. That there should be buried stream channels in these river gravels has seemed to many to be a logical supposition. Some time prior to 1916 (probably about 1908) one company went so far as to erect a Risdon dredge to work this area but it is reported that after about three months operations it was shut down because of there "being no values in the gravel" (35:32). In 1946 the author heard a rumor that an eastern corporation was going to test this area for dredging ground.

If one is to accept literally the statement in the preceding paragraph that the gravel worked by the Risdon dredge carried no gold he is immediately faced with an enigma of major proportions. That gravel transported from the headwaters of this gulch would not carry with it some particles of gold is virtually impossible to imagine, all factors taken into consideration. One possible answer is that this dredge, whose size is not known to the author, did not have a digging ladder long enough to dig below the accumulated tailings from previous sluicing and hydraulic operations into the gravel near bedrock where the gold should be concentrated.

The placer gold was derived from the quartz lodes on Miller Mountain at the head of Montana Gulch and from quartz lodes associated with a diorite dike that is crossed by Confederate Gulch near the mouth of Boulder Creek (2:175).

White Creek (No. 2, Pl. 6)

White Creek is a southwestward flowing tributary of Missouri River, emptying into about five miles downstream from the mouth of Confederate Gulch.

The presence of gold in the gravels of the creek was first discovered in 1865, and according to Pardee (49:179) the upper part of White Creek valley and Johnny Gulch, a minor tributary, were actively mined for about twenty years following discovery. He goes on to say: "A terrace on the north side (of White Gulch) has been mined for a mile or more. The gravel deposit ranges from 50 to 200 feet in width, and the aggregate area worked is about 50,000 square

yards. Considering the amount of dirt that was moved, it is thought that to have made the mining profitable the minimum yield must have been $10 a square yard or $500,000 in all. A tributary valley, Johnny Gulch, heads in the area of quartz gold lodes on Miller Mountain that also supplied the gold of Confederate Gulch. Johnny Gulch has been mined for a mile or more, and below its mouth there is evidence of drift mining for a mile or more in the main gulch... ...The total for White Gulch and its tributary being $1,000,000 to $1,500,000."

Since the turn of the century production of placer gold has been small and intermittent. In fact, since 1904 only one year, 1921, was there sufficient activity to warrant individual mention in Mineral Resources, and the production that year was not great enough to be separately listed (1).

The placer gold was undoubtedly derived from the gold quartz lodes on Miller Mountain at the head of Johnny Gulch, for placer gold has only been found in this tributary and in White Gulch below the mouth of the tributary.

In 1946 the author was told that there had been some activity on White Creek during that year but Minerals Yearbook makes no mention of it. The only placer gold recovered that year was seven ounces from Confederate Gulch. It was reported to the author that a dry-land dredge was active on the creek during 1948. The pay streak was reported to be concentrated within about two feet of bedrock, and it was covered with about 40 feet of virtually barren overburden. The realtively high gold content in the pay streak allowed the operator to show a profit but the necessity of removing so much overburden allowed the washing of only a small quantity of gold-bearing gravel each day.

Avalanche Creek (No. 3, Pl. 6)

Avalanche Creek is a southwestward flowing tributary of Missouri River running about paralled to White Creek, four miles northwest of that creek.

The only placer mining that has been done along this creek was on a bench on the west side of the creek about thirteen miles above its mouth. These old workings extend up and down Avalanche Gulch for a distance of about one mile each way from the mouth of Thompson Gulch. Pardee estimated the production of these operations to be at least $100,000 (49:179 and Pl. 15). No production has been recorded from claims on this creek since 1904 (1).

As Pardee says: "The gold-bearing part of the gulch is suggestively associated with a diorite dike of the Golden Messenger group that is accompanied by more or less vein quartz." (49:179). There have been no actively producing lode mines on the part of the creek where the placer gravels have been mined, although on a claim a short distance above the mouth of Cave Gulch, on the west bank of Avalanche Creek, a tunnel was driven along a decomposed dike that carried much iron oxide and was cut by quartz veinlets. For a distance of a mile or more above the mouth of CayuseGulch the mantle is reported to carry float vein rock of calcite and quartz (49:169,170).

If any dredging ground is to be found along Avalanche Creek it will probably be in the alluvium filled portion of the valley that extends from a point about eight miles above the mouth of the creek upstream a mile above the dike. That part of the valley immediately below the old bench placers would appear to hold the most promise for a dry-land dredge.

Hell Gate Creek (No. 4, Pl. 6)

Hell Gate Creek is the next major creek north of Avalanche Creek. It is an intermittent stream below the point where it flows out onto the alluvium of Missouri River valley but generally carries a small flow of water above this point.

MME Form 7
(2/63)

OFFICIAL FILE COPY

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2/13/68	Peterson	120
	Kirkemo	120
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FEB 13 1968		220
		120M

AIRMAIL

Mr. William M. Hanlon
P. O. Box 1724
Billings, Montana 59103

Re: OME-6695 (Gold)
Wm. M. Hanlon
Avalanche Group
Broadwater County, Montana

Dear Mr. Hanlon:

Our review of your application for financial assistance indicates that additional information and clarification of several items are required before we can continue its processing.

Please clarify whether the Avalanche Placer Mining Group, which appears to be a partnership consisting of the five individuals listed, or Wm. M. Hanlon, an individual, is the Applicant. If the former, and Hanlon is to represent the partnership in all matters pertaining to the OME application, a copy of the document signed by all partners giving him this authorization is required.

The Applicant should furnish five copies of Lien and Subordination Agreements signed by all individuals who retain an interest in the property mentioned in the Quit Claim Deed. The Agreements signed by Wm. M. Hanlon submitted with the application are not sufficient for our records.

State how the Applicant controls the Mal No. 2 claim. If not owned, Lien and Subordination Agreements signed by the owners are required. We note that this property was not included in the Quit Claim Deed.

In addition, Lien and Subordination Agreements signed by the owners of the "H.E.S 569" property are required if work is to be performed here. Lien and Subordination Agreements (12 copies MME Form 52) are enclosed for your possible use.

The application lacks much of the geologic data required for us to properly evaluate the proposed program. The results of the past exploration work mentioned in the application should be furnished. The location of samples taken, how sampled, sample widths, and copies of the assay certificates should be forwarded for our consideration.

Information as to the width of the channel, thickness of pay streak, and depth to bedrock are data needed to evaluate the proposal. As yet, we have not received the geologic report by Roy Merrill mentioned in the application.

Also required is a sketch or map showing present workings and proposed exploration in relation to the claim boundaries. The work should be described fully, indicating the specific targets you wish to explore, how you propose to explore them, and give individual locations and footages for each item of the work.

New bids for the proposed drilling are required. The bids submitted by the contractors should include such information as to the type of equipment to be used, size of drill hole, and means for sample collection. To date, the bids for the proposed dredging have not been received.

State the operating experience and background of the person who is to supervise the proposed work.

This request for additional information should not be construed as a commitment by the Government to grant an exploration contract. We shall hold the further processing of the application until this data are received.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosures

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Peterson
Region I

ECPeterson/bsl 2/13/68

February 7, 1968

Mr. William M. Hanlon
Box 1724
Billings, Montana 59103

Subject: OME-6695

Dear Mr. Hanlon:

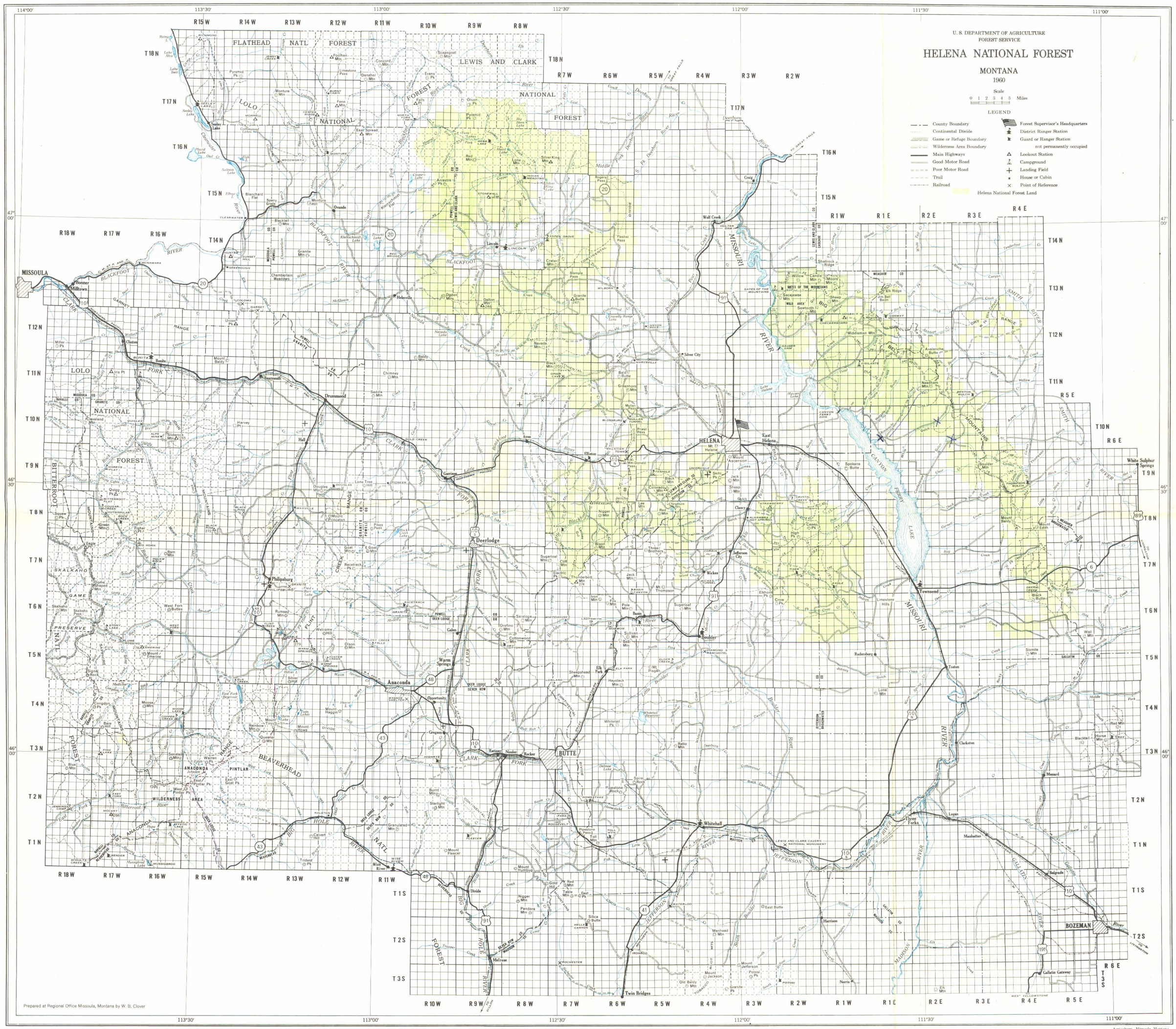
Your application for exploration assistance, dated July 28, 1967, submitted to our office at Spokane, Washington, has been assigned Docket No. OME-6695.

Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region I



Agriculture Missoula, Montana

HISTORICAL

The Helena Forest Reserve was set aside by President Theodore Roosevelt in April 1906, and the following year an Act of Congress changed the name to Helena National Forest. Located in central Montana, it is one of sixteen national forests comprising the Northern Region.

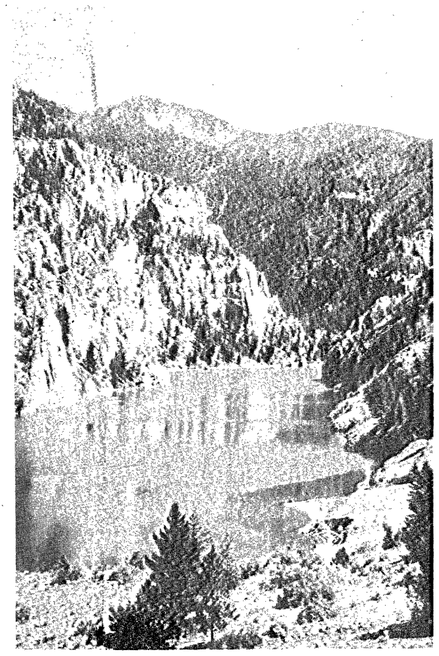
The area is rich in history. On their historic journey to the Pacific Coast, Lewis and Clark traveled this way in July 1805, and Meriwether Lewis camped along the Missouri River at the present site of the Meriwether Forest Campground, 22 miles north of Helena. His amazement on encountering the magnificent cliffs of the Missouri River is recorded in his diary. He designated them "Gates of the Rocky Mountains."

Many of the first great gold discoveries made during and immediately following the Civil War occurred in the vicinity of the Helena National Forest. In 1864, gold was discovered in Last Chance Gulch, now the main street of the Treasure State's capital, Helena. The pronunciation of Helena is unique, the accent on the first syllable being preferred by natives of the city and state.

At old Fort Logan near the Smith River, the last remaining block house in Montana is still well preserved. It was first built in November 1869, on another site - Fort Baker. A short time later the fort was moved to its present site and in 1878 was named Fort Logan. Troops were stationed there until the post was abandoned on October 26, 1880.

MANAGEMENT

Like other national forests, the Helena was created to protect natural resources within its boundaries and to provide for their sustained use. The primary objectives in administration of national forests are to conserve and protect the timber and vegetative cover which regulate streamflow; provide a perpetual supply of timber and forage; provide for and conserve wildlife; and furnish opportunity for outdoor recreation. This type of management is usually referred to as multiple use.



GATES OF THE MOUNTAINS

WATER

Straddling the Continental Divide, the Helena National Forest is an important source of water for the Missouri and Columbia Rivers. Management of the forest is directed toward producing clean water in as nearly uniform flow as possible. The City of Helena obtains most of its water supply from the Ten Mile Creek drainage on the forest. East Helena obtains its water from McClellan Creek. Most of the streams flowing from the forest are used for irrigation of ranches in the drier valleys.

RECREATION

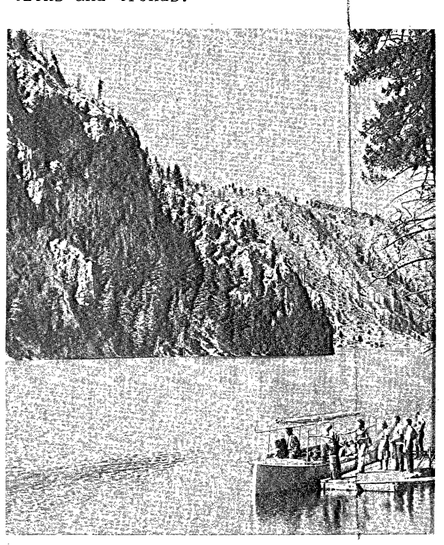
Many scenic and historical drives may be made from Helena. The most spectacular is the Figure Eight drive east of the Missouri River, through Trout and Beaver Canyons, where one may see fantastic Madison limestone formations. From the Hilger boat landing, a scenic boat trip down the Missouri River passes through the famous Gates of the Mountains. The Gates of the Mountains Wild Area was established in 1948. No motorized traffic or buildings are permitted within its boundaries. A labyrinth of enchanting canyons and gulches gash the area.

There are eight developed campgrounds on the forest. In addition to these developed campgrounds, there are hundreds of suitable undeveloped places for camping. Camping permits are not required. The existing campgrounds have been recently rebuilt under the Forest Service expanded recreation program called "Operation Outdoors." Several new campgrounds are to be constructed during the period from 1960 to 1965. There were 200,000 recreation visits to the forest in 1959. Desirable camping and picnicking areas are being set aside to provide for the expected 550,000 recreation visits in 1975.

RANGE

During the past grazing season, 9,893 cattle and 30,269 sheep were permitted to graze on the Helena National Forest. This livestock comes from 188 local ranches whose operations depend in part upon grazing in the national forest. These ranchers pay an annual grazing fee for this privilege.

The objective of range management on the forest is to correlate grazing with watershed, wildlife, timber, and recreation, as well as to stabilize the local ranching economy. Permitted numbers of livestock are adjusted to prevent damage to watershed and other forest uses. Intensive range studies are conducted on grazing areas to determine range conditions and trends.



BOAT LANDING, MERIWETHER CAMPGROUND

WILDLIFE

Hunting and fishing continue to grow rapidly as a part of recreation use on the forest. Excellent deer hunting is found throughout the area, good elk hunting in many localities, and high quality fishing on many of the clear streams and lakes within the forest.

Wildlife management is carried out in close cooperation with the Montana Fish & Game Department which establishes hunting seasons and bag limits. The objective of this coordinated program is management of wildlife habitat so that all species of wildlife will be maintained in optimum numbers for recreational enjoyment on a continuing basis. It is estimated there were 18,900 deer, 2,700 elk, 300 black bear, 350 antelope, 170 mountain goats, 45 moose, and 25 bighorn sheep on the forest in 1959.

TIMBER

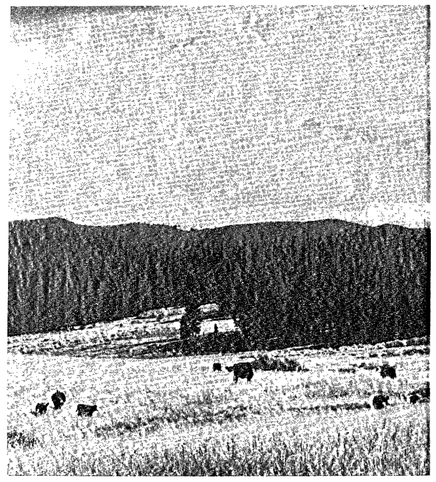
Commercial timber stands on the Helena National Forest are estimated to contain 1 billion 900 million board feet. The forest has a sustained yield allowable cut of 35.7 million board feet of sawlogs, in addition to 93,800 cords of smaller material each year. This annual cut was developed after intensive mapping and sampling of commercial timber stands for volume and growth. This amount of timber is offered for sale each year to local logging and lumbering enterprises. It is estimated that about 200 men were engaged in logging and lumbering on the forest during 1959. Timber is marked for cutting under methods designed to secure prompt establishment of a new timber crop.

Douglas-fir is the predominant species, accounting for 63 percent of the stands, lodgepole pine next, with 34 percent, and ponderosa pine, alpine fir, spruce, and white bark pine composing the rest.

PROTECTION

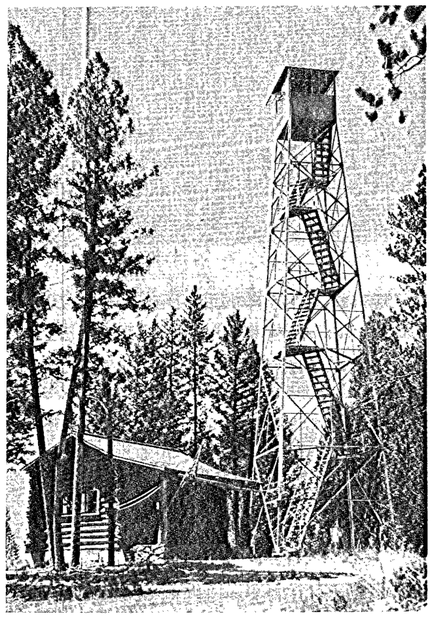
Forest lands must be protected from fire, insects, and disease. Fires are detected by a combination of fixed lookouts, local cooperators, and aerial patrols with telephone and radio communication. Six lookout stations are manned during the fire season. Smokejumpers are called from the Aerial Fire Depot at Missoula when fires occur at inaccessible locations. An average of 48 fires occur annually, of which 33 are lightning-caused and 15 man-caused. Unfortunately, the man-caused fires are usually the largest and most costly to extinguish.

An infestation of spruce budworm, a defoliator which attacks Douglas-fir trees in this area, has necessitated an aerial spray program in which state and Federal agencies cooperate. Lack of funds has hampered the program and infestation continues to spread.



RECEIPTS

Twenty-five percent of the earnings from timber sales, grazing fees, and other commercial uses, is returned to the state for distribution to the counties in which national forests are located to help maintain public schools and roads. An additional ten percent is used locally for construction and maintenance of roads and trails. The remaining sixty-five percent is deposited in the U.S. Treasury and may be disbursed only by congressional appropriation.

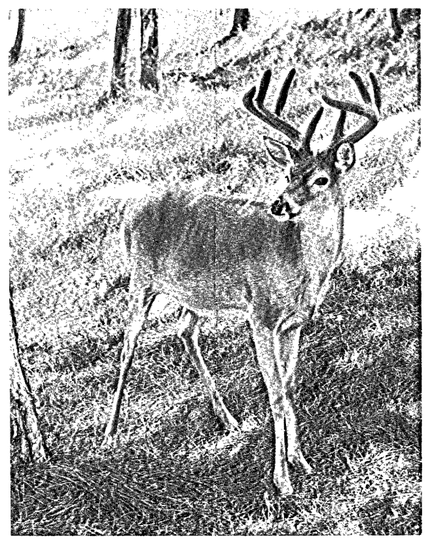


STRAWBERRY MOUNTAIN LOOKOUT TOWER

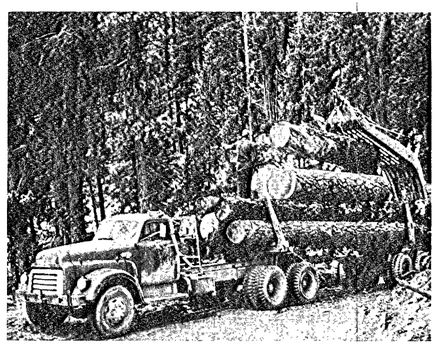
For the fiscal year 1959, the following amounts were received by counties within the boundaries of the Helena National Forest, as their share of the 25 percent fund disbursement:

Broadwater	$3,101.34
Jefferson	6,602.30
Lewis & Clark	24,386.62
Meagher	7,113.41
Powell	35,633.05
Total	$76,836.72

Supervisor's Office	Helena
Ranger Districts	
Canyon Ferry	Helena
Helena	Helena
Townsend	Townsend
Lincoln	Lincoln



REMEMBER ONLY YOU CAN PREVENT FOREST FIRES!



Conservation Pledge

I GIVE MY PLEDGE AS AN AMERICAN TO SAVE AND FAITHFULLY TO DEFEND FROM WASTE THE NATURAL RESOURCES OF MY COUNTRY — ITS SOIL AND MINERALS, ITS FORESTS, WATERS, AND WILDLIFE

Helena

NATIONAL FOREST

NORTHERN REGION

FOREST SUPERVISOR
Helena, Montana

RED = Area Mined before the turn of the century, by the hand Method. I am informed by competent Operators, Engineers, and Geologists who feel that under the hand Method they did not recover over 25% of the values. This opinion is based on operations they have been connected with.

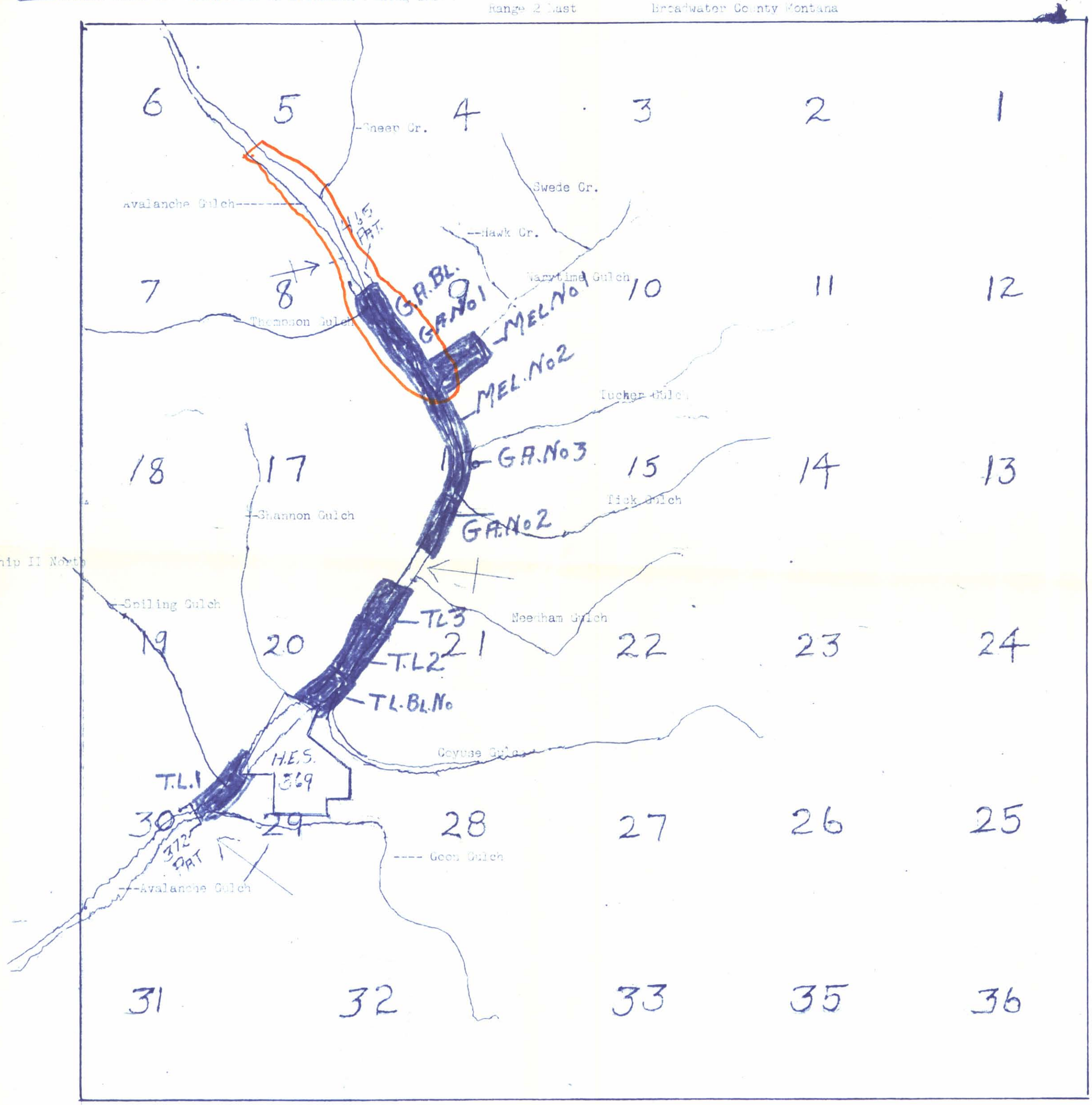
Miners Working about 6 months in Season

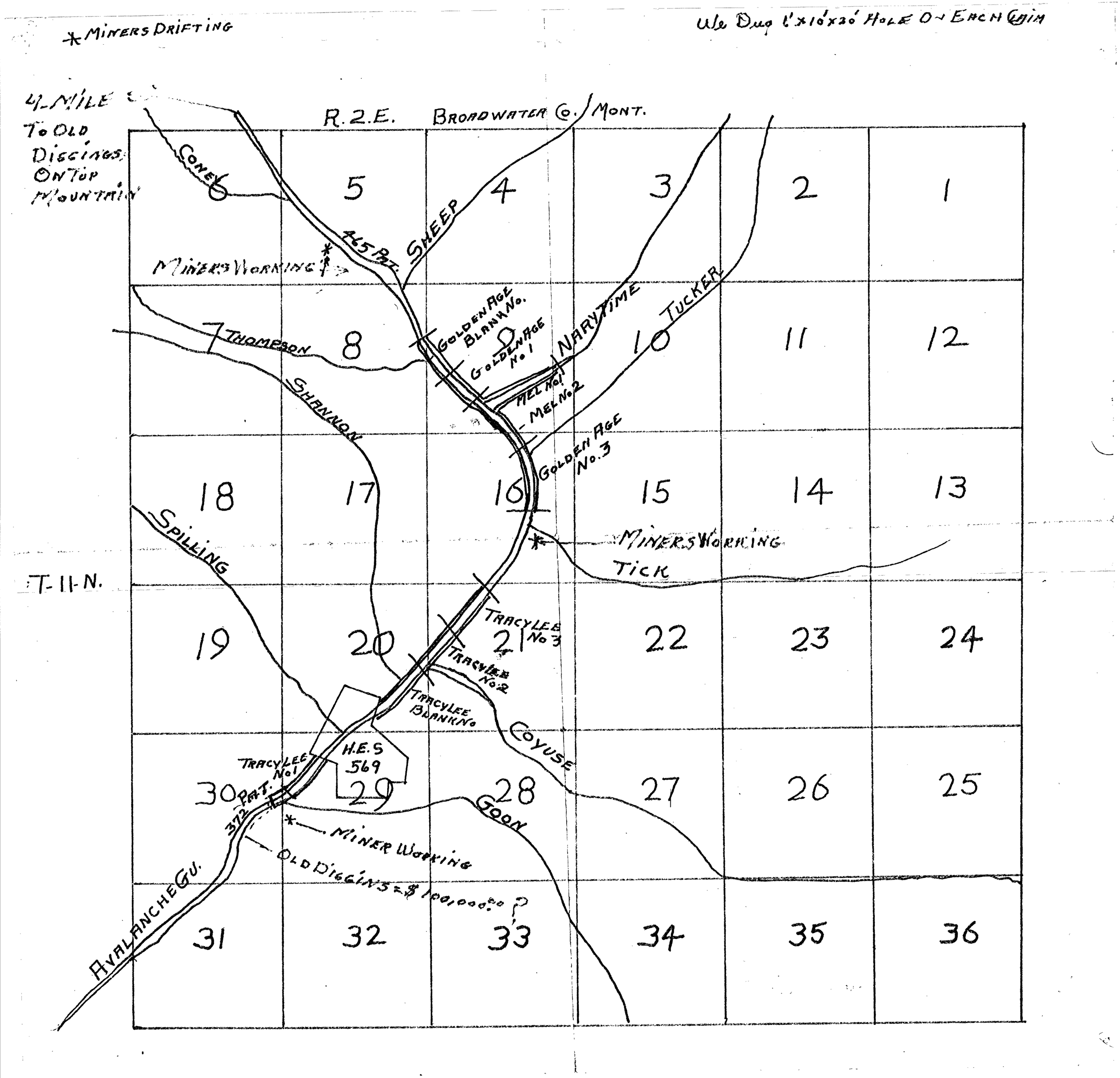
Ga.- Golden Age
Ga.Bl.- Golden Age Blank No.
Tl.- Tracy Lee
Tl.Bl.-Tracy Lee Blank No.

Holes were Dug and Samples taken on each Claim but we were unable to get to Bed Rock due to depth of over 14 ft.

Claims owned and Controlled by Avalanche Mining Group

Range 2 East Broadwater County Montana




* MINERS DRIFTING
We Dug 1'x10'x20' HOLE ON EACH CLAIM
4 MILE TO OLD DIGGINGS ON TOP MOUNTAIN
R. 2. E.
BROADWATER CO. MONT.
T-11-N.
CONEY
SHEEP
445 PAT.
MINERS WORKING
THOMPSON
SHANNON
GOLDEN AGE BLANK No.
GOLDEN AGE No 1
MEL No 1
MEL No 2
NARYTIME
TUCKER
GOLDEN AGE No. 3
SPILLING
MINERS WORKING
TICK
TRACYLEE No 3
TRACYLEE No 2
TRACYLEE BLANK No
COYUSE
H.E.S 569
TRACYLEE No 1
PAT. 372
GOON
MINER WORKING
OLD DIGGINS = $100,000.00 ?
AVALANCHE GU.
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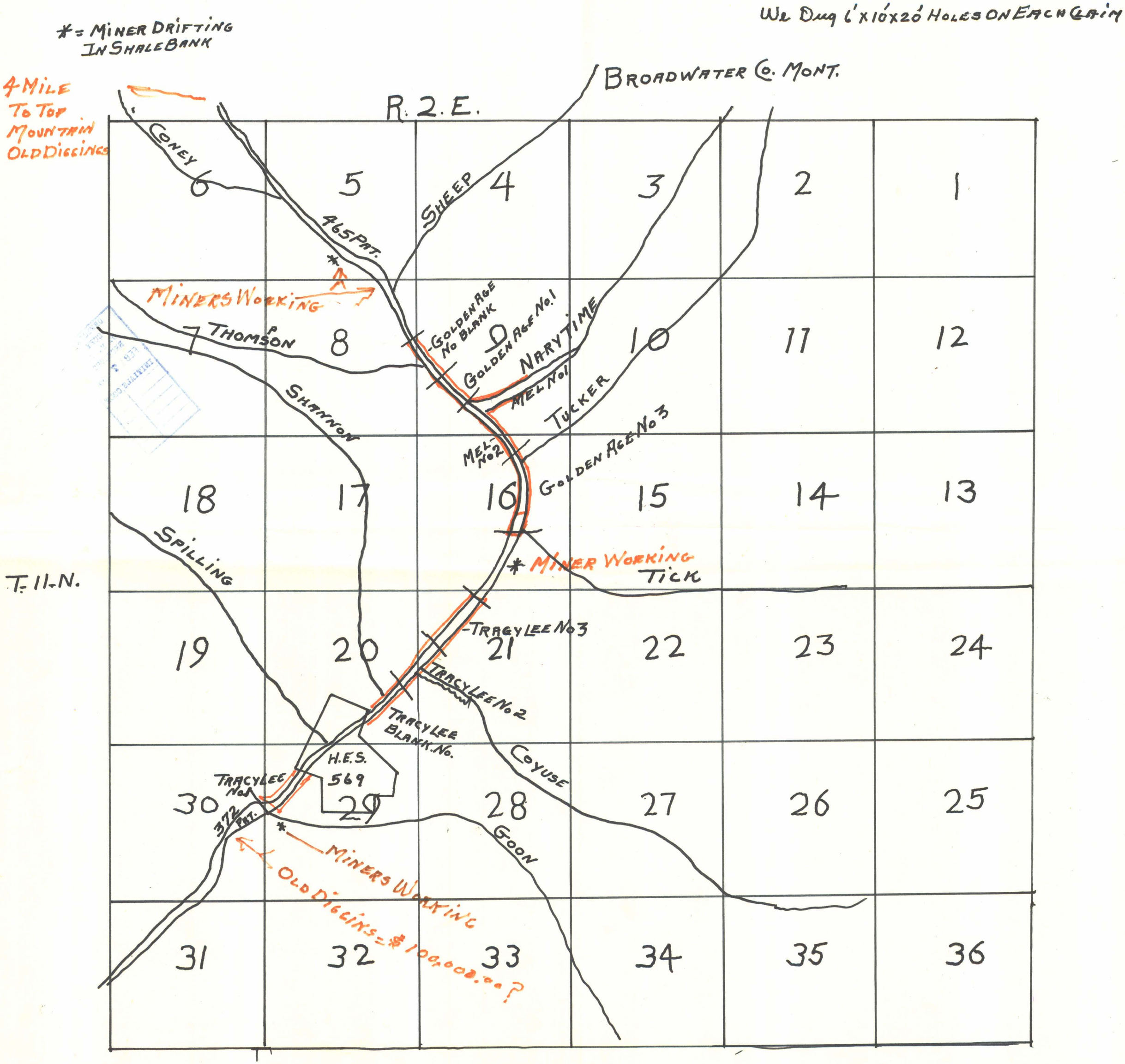
*= MINER DRIFTING IN SHALE BANK
WE DUG 6'X10'X20' HOLES ON EACH CLAIM
BROADWATER CO. MONT.
R. 2. E.
T. 11. N.
4 MILE TO TOP MOUNTAIN OLD DIGGINGS
CONEY
465 PAT.
SHEEP
MINERS WORKING
THOMSON
GOLDEN AGE NO BLANK
GOLDEN AGE No 1
NARYTIME
MEL No 1
TUCKER
SHANNON
MEL No 2
GOLDEN AGE No 3
SPILLING
MINER WORKING
TICK
TRACY LEE No 3
TRACY LEE No 2
TRACY LEE BLANK No.
H.E.S. 569
TRACY LEE No 1
372 PAT.
COYUSE
GOON
MINERS WORKING
OLD DIGGINS = $100,000.00 ?
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