60000134 (0760)

TO : Idaho Mining Corporation
FROM : John H. Volgamore
SUBJECT : Inventory List - Walker River Indian Reservation

To the best of my knowledge, the attached 14 page list represents a complete and accurate inventory of the data received from Robert L. Redmond, last month.

No attempt was made at the present time to re-file the data by project or subject matter. except for the bound reports. All the data will be re-filed at a later date.

DISTRIBUTION

Original : file
copies : W.L. Wilson
A.K. Wilson
[redacted]
File

Respectfully Submitted,

John H. Volgamore

John H. Volgamore
Geologist

April 9, 1974

MAPS- Roll 1

No. & type	Size/ft.	Scale	Description	
1 print	1x2	1"=6 mi.	Aerial Mag flight lines- Res. & surrounding areas	
1 print	1x1½	1"=6 mi.	Reservation advance sheets - Index	
1 mylar	1x1½	1"=6 mi.	Walker Master Unit - Index	
1 tracing	1x1½	1"=1 mi.	Aerial Mag overlay - Reservation	(Elliot)
1 tracing	1x1½	1"=1 mi.	Aerial Mag overlay - Calico	(Elliot)
1 print	2x2	1"=1 mi.	Aerial Mag & I.P. - N.E. Reservation	(Lockwood-Kessler-Bartle
1 mylar	1x1½	1"=2000'	Mag overlay - Calico	
1 mylar	2x2	1"=1000'	Ground Mag lines - Black Eagle —	(Elliot)
1 mylar	2x2	1"=1000'	Ground Mag profiles- Black Eagle —	(Elliot)
2 prints	2x3	2"= 1 mi.	Aerial Mag contour - 15 sheet set Reservation	
1 print	2x4	½"= 1 mi.	Walker Master Unit - Index to 15 sheet set Air-Mag	
1 mylar	2x4	1"=1000'	Gravity Survey - Calico	
1 mylar	3x4	1"= 1 mi.	Aerial Mag overlay - Res. & surrounding areas	(Elliot)

MAPS- Roll 2

1 tracing	4x6	1"=1000' ?	Isometric X-section - Calico	(Chester)
1 tracing	2x3	1"= 400'	X-section CA-1,3,4 - Calico	
1 tracing	2x4	1"= 400'	Plan map from CA-3 to CA-4 - Calico Ore body	
1 tracing	2x4	1"= 400'	X-section CA-3 to CA-4 - ore values	
1 tracing	3x3	1"= 200'	Overlay 1A,1B,2,3,4 - Calico mineralization-zoning?	(Chester)
1 mylar	2x3	1"=1000'	Ground Mag profiles - Little calico	(Elliot)
1 mylar	2x2	1"=1000'	I.P.Resistivity overlay - Afterthought	(Elliot)
1 mylar	3x3	1"=1000'	Air Mag-I.P. overlay - Calico,Little Calico	(Elliot)
1 mylar	2x2	1"=1000'	Air Mag - Calico,Little Calico	(Elliot)
1 mylar	3x3	1"=1000'	Air Mag-I.P. Interpretation - Calico	(Elliot)
1 print	3x3	½"= 1 mi.	Air Mag - Reservation	(Lockwood,Kessler,Bartlet
1 mylar	3x3	1"=1000'	Ground Mag-I.P. - Calico	(Elliot)

MAPS- Roll 3

1 sepia	1½x1½	1"=1000'	Geologic contour - Wild Horse Canyon	
1 print	2½x4	1"= 200'	Uncolored Geologic - Hottentot	(Lawrence)
1 print	2x4	1"= 100'	Uncolored Geologic - South & S.E. Hottentot	(Lawrence)
1 print	2x3	1"=1000'	Colored Geologic - E-8,D-6,D-7	(Lawrence)
2 print	2x3	1"=1000'	Uncolored Geologic - C-6	(Lawrence)
1 print	2x3	1"=1000'	Uncolored Geologic - E-9, D-5	(Lawrence)
1 print	2x3	1"=1000'	Colored Geologic - F-8,F-9,H-9,G-9	(Holt)
4 print	2x3	1"=1000'	Uncolored Geologic- G-10 W W W W	(Holt)
1 print	2x3	1"=1000'	Uncolored Geologic- F-4,F-5,F-6,F-9,G-5,G-8,H-7,H-10	(Holt)
2 print	2x3	1"=1000'	Uncolored Geologic- E-4,E-5 (WASSUK RANGE) = W G-6 W	(Holt)

No 111

MAPS - Roll 4

No. & type	Size/ft.	Scale	Description	
1 tracing	2x8	1"=1000'	Master copy - Mag profiles - 9250NW to 27500NW West Calico	
1 acetate	2½x4	1"= 300'	Block Diagram-Alteration -Calico - 9 sheet set	(JHV-EFL)

MAPS - Roll 5

1 sepia	2x3	1"= 2 mi.	AeroMag Dwn Reg. Component - W.Central Nev	(Oxy)
2 sepia	2x3	1"=1000'	I.P.-Mag overlay - Calico	(Oxy)
3 sepia set	1x2	1"= 300'	I.P. x-sections - Calico- Lines 0,10W,Little Calico	(McPhar)
1 acetate	2x3	1"=1000'	Areo Mag - Calico	(Oxy)
1 acetate	2x3	1"=1000'	I.P. location map - Calico	(Oxy)
1 tracing	3x4	1"=1000'	X-sec Geologic,Mag,I.P. - Calico-1500,3000,4400 NW	(W.Martel)
1 sepia ea.	3x3	1"=1000'	X-sec Mag.,I.P. Elev. - Little Calico line 0,10E	(W.Martel)
1 sepia	2x4	1"=1000'	I.P.lines loc. map - Calico, Little Calico	(McPhar) #3184
1 tr. 2 pr.	2x3	1"= 100'	Geo-chem, I.P. - Afterthought	(Wilson)
1 tracing	2x3	1"= 200'	X-sec,I.P.,Mag,Afmag- Afterthought - lines 0 (2 copy)	(W.Martel)
1 sepia ea.	2x3	1"= 500'	I.P. 3W,6W,9W,15W,18W,21W,27W,33W,skarn,3E,6E,9E,15E, 21E,27E	(McPhar)
1 tr. 1 pr.	1x2	1"= 200'	X-sec.all geophysics- Afterthought -line 0 N-S	(W.Martel)
1 tracing	2x3	?	Work sheet ground magnetics - Afterthought	(Idaho?)
1 sepia	3x4	1"= 400'	I.P.lines location map - Afterthought	(McPhar)
1 print	2x3	1"=1000'	Geologic - contour - Afterthought C-6	(Lawrence)
1 print ea.	1½x2	?	Seismic Profile- Calico traverse 1 plate 6 & 7 W.Calico traverse plate 8	(Cooksley)
1 sepia ea.		?	Seismic profile - AFE traverse 2 & 3 plates 2,3,6,7 2 sepias of #3	(Cooksley)
1 tracing	2½x3	1"= 200'	Mag lines & contours - Afterthought	(Idaho) Apr.63
1 acetate	3x3	1"=1000'	I.P.-Mag overlay - ~~Black Eagle~~	(Elliot)
tracings	2x5	1"= 100'	Ground Mag profiles - Coyote -all lines 100'x25'sta.	(W.Martel)

MAPS - Roll 6

1 pr.lacetate	1x2	1"=1000'	I.P.-claims location map - Cu. Hill	(W.Martel)
1 tracing	1½x2	1"= 200'	Alpers Claims map - Cu. Hill	(JHV-AKW)
1 pr.lacetate	1½x2	1"= 200'	Alpers Claims map - Cu. Hill	(WLW 1966)
1 sepia	1x2	1"= 500'	I.P. lines profiles - Cu. Hill 15 sheet set	(McPhar)
2 pr.lacetate	1x2	1"= 600'	I.P. overlay for aerial photos? - Cu. Hill	(Holt)
1 acetate	1x2	1"= 500'	I.P. Lines - Cu. Hill	(WLW 1966)
1 print	1½x1½	1"=1000'	Colored geologic - Wild Horse	(Holt)
1 acetate	1½x1½	1"= 600'	I.P. Lines overlay - Wild Horse	(Holt)
1 sepia	1½x2	1"= 500'	I.P. & claim map - Wild Horse	(McPhar 66)
1 sepia	1½x2½	1"= 100'	I.P. profiles - Wild Horse	(McPhar 66)
1 print	2x3	1"= 30 ch.	BLM Plat- Land status - 1874 to 1966 T 11 N R 30 E 2 sheet set	

MAPS - Roll 6 (cont.)

No.	& type	Size/ft	scale	Description	
1	print	2x4	1"= 100'	Ground mag profile line "0" NW-SE - South Hottentot	(W. Martel)
1	print	2x4	1"= 100'	Ground mag profile line "0" E-W _ SE Hottentot	(W. Martel)
1	acetate	1x1½	1"= 1 mi.	I.P. Resistivity - Black Eagle	(Can. Aero)
1	acetate	1x1½	1"= 1000'?	I.P. Resistivity -Black Eagle-BES 1,3,4,5,6,7,8,9,10	(Can. Aero)
1	print	2x4	1"= 100'	Uncolored geologic contour - South Hottentot	(Lawrence)
1	sepia	2x4	1"= 2 mi.	Residual Mag Component-Fig 7 Reservation 20 gamma	(Huntec)
1	sepia	2x4	1"= 2 mi.	Regional Mag Component-Fig 4 & 5 Reservation 50 gamma	(Huntec)
1	acetate	2x4	1"= 100'	Ground Mag contours - Coyote	(W.Martel)
3	acetate	1x1½	1"= 200'	Magnetic countour)	
2	acetate	1x1½	1"= 200'	Geologic) South Hott - Part of JHV 1969 rpt.	
1	acetate	1x1½	1"= 200'	Drill location map)	
1	acetate	1x1	1"= 100'	Ground mag contour - South Hottentot	(W.Martel64)
1	tracing	1x1½	1"= 50'	X-section DxD' - Terry claims Black Mt.	(Forbes) 1968
1	tracing	1½x1½	1"= 100'	Geologic - Terry claims Black Mt.	(Forbes)
1	tracing	1½x2½	1"= 50'	Sub-level geologic - Terry claims Black Mt.	(Forbes)
1	tracing	1½x2½	1"= 50'	Adit #2 geologic - Terry claims Black Mt.	(Forbes)
1	tracing	1½x2½	1"= 50'	Adit #1 geologic - Terry claims Black Mt.	(Forbes)
1	tracing	1½x3	1"= 50'	X-section CxC' - Terry claims Black Mt.	(Forbes)
1	tracing	1x1	1"= 1000'	X-section AxA' - Terry claims Black Mt.	(Forbes)
1	acetate	1½x2½	1"= 1000'	Cu.Claims - drill loc. - Cu.Mt. (Bounder)	(WLW)
1	tracing	2x4	1"= 1000'	Ground mag 1967 assessment - Cu. Mt. (Bounder) 2 sheet	(JHV)
1	sepia	2x3	1"= 1000'	Photo-Geology I.P.lines - Cu. Mt. (Bounder)	(WLW) 1966
1	sepia	2½x3½	1"= 500'	I.P. & geology - Cu. Hill	(McPhar)
1	acetate	2½x4½	1"= 600'	Cold Cu. ppm stream sediments - Cu. Hill	(WLW)

MAPS - Roll 7

1	acetate	4x6	1"= 1000'	Contour Advance sheets - Reservation 6 sheet set	(W.Martel)
1	acetate	3x4	1"= 1000'	Contour Advance sheets - Gillis Range	(W.Martel)
1	acetate	1x1½	1"= ½ mi.	I.P. resistivity line WB-1 - Weber Reservoir	(Can.Aero-Oxy)
1	acetate	3x3	1"= 1 mi.	I.P. overlay - Hottentot	(Elliot)
1	acetate	2x3	1"= 1000'	Ground Mag profiles -Black Eagle lines BES- 1,2,3	(Elliot)

MAPS - Roll 8

1	print	2x4	1"=31680	Air Mag - flight line-contour - Reservation 4 sheets	(AKW)
1	tracing	3x5	1"=31680	Air Mag - flight lines - Reservation 4 sheets	(AKW)
1	tracing	3x4	1"=31680?	Air Mag - flight lines - NW Reservation	(Elliot)
1	acetate	3x4	1"=31680?	Air Mag - flight lines - E Reservation	(Elliot)
1	acetate	3x4	1"= ½ mi.	Air Mag - flight lines - 118°30' to 118°50'	(Elliot)
1	acetate	3x4	1"= ½ mi.	Air Mag - flight lines - 118°45' to 118°55' Schurz	(Elliot)
1	acetate	3x4	1"= ½ mi.	Air Mag - flight lines - Weber Reservoir Quad.	(Elliot)
1	acetate	3x4	1"=31680	Air Mag - flight lines & contours -Reservation 8 sheet	(Elliot)

No Type

MAPS - Roll 9

No. & type	Size/ft.	Scale	Description	
1 acetate	3x3	1"=1000'	Base map contour - F-8,9 G-5,6,9,10 H-9,10	(Holt)
1 acetate	3x3½	1"=1000'	Base map contour - E-8,9	(Lawrence)
1 mylar	3x3	1"=1000'	Base map contour - E-4,5 F-4,5,6	(Holt)
1 mylar	3x3½	½"= 1 mi.	Walker Master Unit - Reservation	(Holt)
1 sepia	3x3½	½"= 1 mi.	Walker Master Unit - Reservation	(Holt)
2 prints	3x3½	½"= 1 mi.	Walker Master Unit - Reservation Holt&Lawrence progress	
1 sepia	2½x4	1"=1000'	Calico geology	(Lawrence)

MAPS - Roll 10

1 tracing	2½x3	1"=1000'	Ground Mag contour - Bounder (west)	(AKW-WLW)
2 prints	2x3	1"= 100'	Mine workings - Bounder	(Lawrence)
1pr.1 acetate	2x3	1"=1000'	Ground Mag contour - Bounder 15-27 W	(AKW)
1pr.1 sepia	2x4	1"= 100'	contour - Bounder	(W.Martel)
1pr.1 acetate	2x4	1"= 100'	Colored geology - Bounder	(Lawrence)
1 sepia	3x3	1"= 200'	Geology - Afterthought	(Lawrence)
1 tracing	2½x3	1"= 50'	Mag contour - BOO BOO	(W.Martel)
1 tracing	2x3	1"=1000'	Claims Cu. - through #204	(W.Martel)
1 sepia	2½x4	1"= 500'	Claims Cu. - through #204	(W.Martel)
1 tracing	4x4	1"= 500'	I.P.lines & anomaly- Bounder	(McPhar)
1 sepia	2x3	1"=1000'	Photo-geology claims- Bounder	(WLW)
1 print	2x3	1"=1000'	Photo-geology claims- colored - Bounder - also land status	(WLW-JHV)
1 sepia	1x3	1"= 600'	I.P. profiles - Bounder 14 sheet set 1963-64	(McPhar)
1 sepia	1x3	1"= 500'	I.P. profiles - Bounder 39 sheet set 1964-66	(McPhar)
2 prints	2x3	1"=1000'	Geology - Calico	(Lawrence)
1 acetate	1½x1½	1"=1000'	Aero Mag contour - Calico	(W.Martel)
1 print	1½x1½	1"=1000'	Geology - Calico	(Lawrence)
4pr 1 acetate	1x2	1"=1000'	Geologic pre-mineral surface - Calico	(Adams-JHV)
1 acetate	2x2	1"= 1 mi.	Aero Mag contour - NW Reservation	(Lockwood,Kessler,Bartlet)
1 acetate	2x2½	2"= 1 mi.	Aero Mag contour - 15 sheet set Reservation	(AKW)
1 tracing	2x2½	1"= 200'	Geology - Aspiring	(York)
1 tracing	1½x1½	1"= 300'	Patented claim survey- Bounder	(W.Martel)
1 acetate	1x1½	2"= 1mi.	Aero Mag contours - Calico	(W.Martel)
1 sepia	1x1½	2"= 1mi.	Aeromag con. I.P. - Little Calico	(McPhar)
1 sepia	1x2	1"=1000'	I.P. profiles - Little Calico,Calico,West Calico 11sheet	(McPhar 66)
1 acetate	2x2½	1"= 100'	Ground Mag contours - Badger	(W.Martel)
1 sepia	1x2	1"= 200'	I.P. profiles - Badger	(W.Martel)
1 acetate	3x3	1"= 100'	Ground Mag contours - Aspiring	(W.Martel)
1 acetate	3x4½	1"= 100'	Mine map lower level - Terry Claims Black Mt.	(Forbes)
1 acetate	3x4½	1"= 100'	Mine map upper level - Terry Claims Black Mt.	(Forbes)

MAPS - Roll 11

No. & type	Size/ft	Scale	Description	
1 acetate	1x1½	1"= 1 mi.	Plan I.P. lines - Calico,Little Calico,	(Can.Aero)
1 acetate	1x1½	1"= 1 mi.	Plan I.P. lines - Afterthought, Weber Reservoir	(Can.Aero)
1 acetate	1x1½	Dipole 1000'	Profile I.P.Lines - AFE,Weber Res,Calico,Little Calico	(Can.Aero)

MAPS - Roll 12

1 mylar	1x1½	4"= 1 mi.	Hole location - Calico	(W.Martel)
1 tracing	1x3	1"=1000'	I.P. x-section - Calico line 1500 Sep.68,Dec.68	(Huntec)
1 mylar	2x3	1"=1000'	Plan aerial mag - Calico	(W.Martel)?
1 print	2x4	1"= 200'	X-section geologic colored - Calico CA3 - CA7	(Oxy)
1 tracing	2x4	1"= 200'	X-section geologic uncolored - Calico CA3 - CA7	(Oxy)
1 print	2x4	1"=1000'	Ground mag closure-geologic colored - Calico	(W.Martel)
1 tracing	3x3	1"=1000'	Aerial mag & ground mag profile - Calico line 1500	(Oxy)

MAPS - Roll 13

1 print	4x6		X-Sections-Isometric perspective - Calico	(Chester)?
1 print	2x3	1"=1000'	Profile-topo-geologic-I.P.- W.Calico line 13250W	(W.Martel)
1 print ea.	2x3	4"= 1 mi.	Advance topo - uncolored - E-6,F-7,H-8,G-8	(W.Martel)
1 print	2x3	1"=1000'	Drill location map - Calico	(W.Martel)
1 print ea.	2x3	1"=1000'	Topo uncolored & geologic uncolored- Calico	(W.Martel)
1 print	2x3	½"= 1 mi.	Walker Master Unit - Index to advance sheets A to H	(W.Martel)
1 print	4x6	1"= 1 mi.	Geologic colored - 3 county map -Ludwig to Dbl.Springs	(W.Martel)
1 print ea.	3x5	1"=1000'	Geologic colored - E-4,5	(Holt)
1 print ea.	3x3	1"=1000'	Geologic colored - F-4,5,6,8,9 G-5,9,10 H-10	(Holt)
1 print	4x4	1 -2400	Geologic colored - Afterthought	(Lawrence)
1 print	2x3	1"= 200'	Geologic colored - North and South Hottentot	(Lawrence)
1 print	3x3	4"= 1 mi.	Geologic colored - Wild Horse Canyon	(Holt) ?
1 print ea.	2x3	1"=1000'	Geologic colored - D-7,8	(Lawrence)
1 print ea.	3x4	1"=1000'	Geologic colored - C-6, D-6, E-8,9	(Lawrence)

MAPS - Roll 14

1 tracing ea.	1x3	1"= 400'?	X-sec-Alteration histograms- Calico CA-1 thru CA-7	(EFL-JHV)
1 tracing ea.	1x3	1"= 200'	Ground Mag profiles - N.Hottentot 56 sheet set	(W.Martel)

BOUND REPORTS

No. Volumes Orig.	Print	File	Title	Author	Date
			Reservation General (File 1-1)		
1			Exploration Proposal for Non-Iron minerals	Haxby	67
	1		Roberts & Associates - Property Evaluation	Garcia	63
	1		Aerial Mag. - Possible Mineralized areas	W. Martel	63
	1		Walker Reservation - Geology	Lawrence	67
	1		Walker Reservation - Ore Reserves	Sargis	66
	1		Walker Reservation - Pub. and Unpub. Reports	W. Martel	66
	4		W. Reservation - Analysis of Geophysical Data	Sumner	66 Nov.
1			W. Reservation - Air Magnetics Interpretation	Elliot	69
	1		West Central Nev.-Air Mag. Interpretation	Huntec	69 Feb.
	2		Project Data, letters	W.Martel	63-66
			Multi-Project Data (1-1 File)		
3	3		Supp. I.P. Rpt. - Bounder, Cu.Hill	McPhar	66 July
	2	2	Project Data - AFE, Bounder, Cu.Hill, Wild Horse	W. Martel	64-66
2	4		I.P. Resistivity - Cu.Hill, Wild Horse	McPhar	66 Feb.
	1		I.P. Resistivity - Calico, Hottentot	McPhar	63 Oct.
2	3		I.P. Resistivity - Aspiring, W.Calico, Badger	McPhar	66 Feb.
5	2	1	I.P. Resistivity - Aspiring, AFE, Calico, Hottentot	McPhar	64 Aug.
	1		I.P. Resistivity - Calico, AFE, Weber Reservoir	Min-Geo Survey	70
1			I.P. Resistivity - Calico, Cu. Hill	Huntec	69
			AFE-Afterthought (1-1 File)		
1	3		I.P. Resistivity	McPhar	66 Feb.
	1		I.P. Resistivity	W.Martel	64-66
			Cu. Mt. (Bounder) (3-4 File)		
		1	Project data	W.Martel	64-66
1	1		I.P. Resistivity	McPhar	64 Mar.
	2	1	I.P. Resistivity	W.Martel	64-66
			Badger (3-4 File)		
	1	2	I.P. Resistivity	W.Martel	66 Feb.
			Aspiring (3-4 File)		
	2	1	I.P. Resistivity	W.Martel	64-66
			Cu.Hill-Wild Horse (3-4 File)		
	2	1	I.P. Resistivity - Cu. Hill	McPhar	66
	2	1	I.P. Resistivity - Wild Horse	W.Martel	66 Feb.
			Black Eagle (3-4 File)		
	1		Ground Magnetic Survey	Elliot	70
	1		I.P. Resistivity-Ground Mag. Interpretation	Elliot	70

BOUND REPORTS

No. Volumes Orig.	Print	File	Title	Author	Date
			Gillis-Wassuk Range (3-4 File)		
	1		Unpublished reports	Holt	66 Feb.
	1	2	Reconnaissance Geology	Holt	67 Jan.
		1	Title Search Report	Haxby	67 ?
			Calico-W.Calico-Little Calico (3-4 File)		
	1		Calico Iron Pellet Study	Akright	70
	2		Inferred Iron Ore Reserves	Haxby	66 Dec.
	2		I.P. Resistivity - Calico, Little Calico	McPhar	66 July
2	3		Supp. I.P. Report- Calico, Little Calico	McPhar	66 July
	2		Beneficiation Report - DDH-1 core	Col.Sch.Mines	66 Apr.
	1		Calico Reserves Data - Deepen CA-4,CA-5 Haxby copy	W. Martel	67 Mar.
	3		Project Data - Calico, Little Calico	W. Martel	64-68 ?
1			PHD Report	Lawrence	69 June
	1		Air-Borne Magnetics Interpretation	Elliot	70
	1		Review - All geophysical data	Elliot	70
	1	1	I.P. Resistivity - Little Calico	McPhar	64-66
	1		Seismic Feasibility	Cooksley	66 Sept.
			Hottentot (3-4 File)		
	1		Exploration Report Nevada Bur.Mines Bull.#13	EFL-WLW	66 May
	1		Iron Ore Reserves - South & S.E. Hottentot	Volgamore	69 Apr.
2	4		I.P. Resistivity	McPhar	64 Mar.
	4		Project Data - Drill logs,assays,reports	W. Martel	66 ?
	1		I.P. Reports	W. Martel	63-64
			DRILL LOGS (3-4 file)		
	1		Visual logs - CA-1,2,3,4,5,6, WC- 1,3 plus alteration log of CA-1	Lawrence	63-68
	1		Visual logs - H-6B,C,D,E,F AF-6 - Delta 4 plus alteration log of AF-6	Lawrence	63-68
	2		Visual logs - AF-5	Lawrence	63-68
	3		Visual logs - H-1,1A,1B- H-3,&3Athru3H -H-6,6A 26-2,27-1,41-1 - BooBoo-1 -C-1 - AF-1,2,3,4 - Delta 1,2,3	Lawrence	63-68
	4		Visual logs - Rho-1	Lawrence	63-68

NOTE - H-3,3A & 3B are page size - all others legal size.
In addition there are 3 copies each,page size,of 27-1 & 41-1
WC-2 is missing but may be in file folders

AERIAL - PHOTOS (3-3 file)

		Index Photo
12-18-47	4-52,67,68,92,93, 109 thru 112	Fallon #3
6-11-48	6-89,90,92, 106 thru 110	Fallon #4
9-'5-54	2-4 thru 10, 2-32,33,35	Wabuska #4
6-22-57	I-17 thru 20,I-36 thru 42, 2-17 thru 22	Walker L. 1&2
8- 7-62	1-1 thru 12, 1-81 thru 83, 1-32,33, 1-38 thru 56, 1-69 thru 74	Walker L. #2
10-29-62	All have a 2 prefix- 1-14,18-19,21-34,38-40,42,48-53,63-67 73-75,77-80,87-92,87,90-94,98,106-109 110-116,114-116,111-117,123,132-133, 130-138,140-141,159-160,162-163,179-180, 205,218-219	Walker L. 1&2 NE,SE,NW,SW
6-13-66	Cartwright # 1823-1 15 thru 64 (2 copies ea. 18,24,43), 75-77 81-84,88-102,112-131 (2 copies ea. of 114, 115,118-131)	

Map of Bounder flight lines
1 box of 16 MM film strips - aerial magnetics

Walker Reservation Shift Reports (3-3 File)

Daily - CA-1,2,6,7,8 WC-1, BE-1, 41-1,27-1,26-2, C-1, R-1, Delta 1,2,3,4, H-1A,1B,H-2, H-3,3A thru H , H-6,A thru F

Weekly -CA-1 thru 8, WC-1 thru 3, AF-6, BE-1 plus geologic log

Missing shift reports - H-1, AF-1,2,3,4,5

INDIVIDUAL FILE FOLDERS

1. AFTERTHOUGHT PROJECT -GEOLOGIC GEOPHYSICS - - - - - - - - File 2-2

1 pr..	3x5	1"= 200'	Colored geologic	EFL -- 66
1 pr..	3x3	1"= 200'	Mag contour	WLW-- 63
1 pr..	2½x2½	1"= 50'	Mag contour - BooBoo	WLW -- 63

2. BOUNDER PROJECT - PROJECT MAPS, DRILL HOLE LOGS - - - - File 2-2

1 pr.	2x2½	1"=1000'	Claims, I.P. North side	RLR
1 pr.	2½x2½	1"= 100'	Contour -mine area	EFL
1 pr.	3x4	1"= 100'	Geologic colored-south side	EFL
1 pr.	2½x2½	1"= 100'	Ground mag contour-S. side	WLW
1 pr.	4x4	1"= 500'	I.P. loc. map	McPhar
1 pr.	2½x3	1"=1000'	Photo-geology colored	WLW
1 pr.	2x2½	1"=1000'	Claim map	WLW
1 pr.	2x2	1"= 300'	Survey data-SW bounder	WLW
1 pr.	page		Drill logs 26-2,27-1,41-1	EFL

spell out Names

3. CU. HILL PROJECT -MAPS, DRILL HOLE LOGS - - - - - - - - -- File 2-2

1 pr.	2x2½	1"=1000'	Claims, I.P. lines	WLW
1 pr.	2x2½	1"= 200'	Hayward,Calcite claims	WLW
1 or.?	2x2	1"= 200'	Alpers Claims survey	AKW-JHV
1 pr.	2½x3	1"= 500'	Geology-I.P. lines	McPhar
1 pr.	2x2½	1"= 500'	I.P. lines	WLW
1 pr.	page		MEMO -Holes tagged with markers	JHV
1 pr.	page		Drill logs -Delta 1,2,3	EFL

4. WILDHORSE CANYON PROJECT - Maps, - - - - - - - - - - - - - File 2-2

1 pr.	2x2	1"= 500'	I.P. lines	McPhar
1 pr.	2x2	1"=1000'	Geology	Lawrence
1 or.	1½x2	1"= 600'	I.P. lines overlay	Holt

5. ASPIRING PROJECT - Maps - - - - - - - - - - - - - - - - - -File 2-2

1 pr.	2x2½	1"= 200'	Geology	York
1 pr.	3x4	1"= 100'	Ground mag contour	JHV

6. BADGER PROJECT - Maps - - - - - - - - - - - - - - - - - - File 2-2

1 pr.	1x2	1"= 200'	I,P. Profile	McPhar
1 pr.	1x2	1"= 100'	Ground Mag contour	JHV

7. COYOTE PROJECT - Maps, drill log- - - - - - - - - - - - - File 2-2

1 pr.	4x4	1"= 100'	Ground mag contour	JHV
1	page		Drill log C-1	

8. TERRY CLAIMS - BLACK MT. - Maps - - - - - - - - - - - - - -File 2-2

1 pr.	page		Geologic report	Forbes
1 pr.	2x3	1"= 100'	Geology,surface workings	Forbes
1 pr.	1x2	1"= 50'	Section D-D'	Forbes
1 pr.ea.	1½x3	1"= 50'	Sections A-A',.B-B'	Forbes
1 pr.	2x3	1"= 50'	Adit 2 geology	Forbes
1 pr.	2x3	1"= 50'	Adit 1 geology	Forbes
1 pr.	2x3	1"= 50'	Sub-level geology	Forbes

9. CALICO PROJECT - Maps - - - - - - - - - - - - - - - - - - -- File 2-2

1 pr.	2½x3½	1"=1000'	Ground mag - I.P. lines	McPhar
1 pr.	1½x1½	1"=1000'	Air mag anomaly	W.Martel
1 pr.	1x2	2"= 1 mi.	Loc. Map I.P. lines	McPhar
1 pr.ea.	1x3	1"=1000'	I.P.profiles - LC-"0",WC-"0" Calico-"0", NS,72.5,92.5,112.5,132.5	McPhar
1 pr.ea.	1x3	1"= 500'	I.P.profiles - 152.5,172.5,132.5, 10 NE, 10W, 10E	
1 pr.	2x3	1"=1000'	Aerial mag contours Lockwood?	Oxy

10. WALKER RIVER RESERVATION - File 2-2
Regional map uncolored 3x6' 1"=1Mi. Ludwig to D.H.Wells

11. CALICO - File 2-2
Assays, drill logs CA-1-7,WC1-3
Partial listing of rejects at Schurz
2 pr. 1x2 1"=1000' Plan map Akright 1970
1 or. 1x1 1"= 1 mi. Acetate over Quad-line 4400
1 pr. page 1"= 1 mi. Calico mag anomaly 500' elev.

12. RESERVATION GENERAL - File 2-2
Aero mag report by Elliot

13. CALICO - File 2-2
1 pr. 3x5 1"= 400' Aero mag contour by W.Martel

14. BLACK EAGLE - File 2-2
Physical properties of BE-1 core - by Elliot

15. INDEX - File 2-2
Reports - page size
Negatives - page size - Gillis Canyon,Schurz,Part of Allen Springs
Prospecting permit - 1962-63

16. CORRESPONDENCE - File 2-2
W.Martel - Paul Bailly

File folders listed below are all in File 2-2

17. Mic. assays - Oxy
18. Lockwood,Kessler,Bartlett - misc. corresponcence
19. Metallurgy - Calico
20. Excavation-trenching - Calico- Eckert
21. Aerial photo - Calico
22. CA-1 geologic log
23. CA-1'assays, geologic log
24. CA-2 geologic log
25. CA-2 assays
26. CA-3 geologic log
27. CA-3 assays
28. CA-4 geologic log , offset CA-4 letter from WLW
29. Tabulation of Calico drilling
30. Consultant reports - Calico
31. CA-4 assays
32. CA-5 geologic log
33. CA-5 assays
34. CA-6 geologic log
35. CA-6 assays
36. CA-7 geologic log
37. CA-7 assays
38. CA-8 geologic log
39. CA-8 assays - blank
40. WC-1 geologic log
41. WC-1 assays
42. WC-2 geologic log
43. WC-3 geologic log
44. WC-3 assays
45. Calico survey data

46. WEST CALICO GEOPHYSICS - - - - - - - - - - - - - - - - - - - File 2-2
2 pr. 1"= 400' Air mag anomaly
1 pr. 1"= 400' mag line plan map
1 pr. Claim 10-11 ground mag contours JHV
1 pr. Claim 10-11 geology JHV

46. Cont. WEST CALICO GEOPHYSICS
Marking of claim posts for aerial photo work AKW
1 or. ea. Ground mag profiles
Letters to Sumner

47. LITTLE CALICO GEOPHYSICS - File 2-2
I.P. McPhar 66, Ground mag notes (original), Loc. map ,
original and acetate profiles

48. CALICO ORE RESERVES - File 2-2
OXY computor readouts

49. ALLEN SPRINGS -WEBER RESERVOIR - topo sheets - - - - - - - - File 2-2

50. NEVADA THIN SECTIONS - File 2-2

51. REAL PROPERTY TRANSFER TAXES - - - - - - - - - - - - - - - - File 2-2

52. CALICO - Color aerial photos by Sergio Pastor - - - - - - - File 2-2

53. CALICO MAPS - File 2-2
1"= 1000' Fault pattern
1"= 300' Block Alteration Diagram - all prints OXY
drill logs, Copper, Pyrite, Pyrrhotite, Chloritization,
Sulfide sulfur, Iron, Carbonate, Silicification
1"= 100' Drill loc. -topo print
Line 1500 profiles (original)

54. CALICO - GEOLOGY, REPORTS, MAPS - - - - - - - - - - - - - - - - File 2-2
1 or. Section B-B' , colored geologic EFL
1 or. Ore cut-off chart H. Winters
1 pr. 1"= 400' colored geologic EFL plus 2 uncolored
1 pr 1"=1000' colored geologic profiles 11 profiles
1 pr. 1"= 400' U.S. Steel claims
1 pr. 1"=1000' colored geologic EFL
Partial list of rejects stored at Schurz
Co-oordinates for drill holes
Marking of holes memo JHV
Letters & Memos- Patterson to Adams, JHV to Oxy
Misc. geology - Holt report
Lawrence report
JHV drill recommendations

55. CALICO GEOPHYSICAL - File 2-2
I.P. profiles - Mineral Survey - LC-2, C-4, 72.5NW
I.P. profiles - "H", 10W,& 2 copies 1500NW - Huntec
I.P. loc. map -composite - McPhar, Huntec-Oxy OXY
Colored geologic - print EFL
Loc. map I.P. plus interpretation HUNTEC
Orig. tracing work sheet -11250NW profile ?
Orig. tracing work sheet - 3750NW profile, memo's W.Martel ?
Orig. work sheets - ground magnetics - with orig. tabulation sheets
Still & Still report

56. LITTLE CALICO - Bound report I.P. McPhar - listed under Bound Rpts.

W.HORSE - File 2-2

57. 2 copies Bound Report - note* listed under Bound reports
AFE, BOUNDER, CU.HILL, WILD HORSE

58. GEOPHYSICS -
orig. tracings - Mag profiles,
acetate 1"=1000' I.P lines & claims
acetate 1"= 500' claim data
acetate 1"= 500' I.P. loc map plus 1 print
acetate 1"= 500' S.P. lines by WLW
acetate aerial photo overlay - Mag profile locations
print 1"= 600' geologic overlay - HOLT
print 1"= 600' geologic overlay - I.P. lines
tracing work sheet Mag profiles
core study - McPhar

59. 1 Bound report - I.P. McPhar - listed under bound rpts.

cont. W. HORSE

60. GEO-CHEMICAL
    1 pr. 1"= 600' colored geologic - HOLT
    1 ac. 1"= 600' sample loc. map
    Tabulation of results

61. PRELIMINARY GEOLOGY - Chester,Wilson,etc. with acetate map by Wilson -proposed exploration

62. RHO CLAIMS
    acetate 1"= 500' Rho 1 to 10
    acetate 1"= 500' Rho 1 & 2, 105 to 111
    Assessment affidavits, etc.

AFTERTHOUGHT - BOO BOO - - - - - - - - - - - - - - - - - - - File 2-2

63. Geology - Chester, Lawrence
64. Profiles - I.P., Mag, plus some original work sheets
    acetate overlay 2"= 1 mi. Aerial mag - plus prints
    Survey data - original
65. Geochemistry - lines and results WLW
66. Assay - general - geo-chem lines
67-72 AF-1, 2,3,4,5,6 Geologic logs and assays
73. Boo Boo - geophysics- acetate I.P. resistivity profile
    original work sheets ground mag, print 1"=50' mag con.
    tracing baseline profile,tracing mag con. colored
    Geochem notes
74. Boo Boo - BB-1 geology and assays

ASPIRING - File 2-2

75. Aerial photo
76. Report - EFL ? one page
77. Ground mag - profiles & plan Original- I.P Rpt.Bound
78. Camp Terril - claim data, letter

BADGER - File 2-2

79. Geophysics - 1 or. 1 pr. Bound I.P. rpt., orig mag profiles
    orig. plan map, pr. of profiles - tr.1"=100'
    mag contours

COYOTE - File 2-2

80. Drill log - C-1
81. Geophysics- Orig. ground mag work sheets
    1"=1000' acetate overlay aerial mag
    Line 1100 E. Eltran Res. Orig and print
    Mag contours - print
    Mag profiles - orig. & prints
    Ground Mag - orig. field nots, tracings,X-sec. all lines
82. Map - 1"=100' print ground mag contours

WASSUK RANGE STUDY - File 2-2

83. Pile or Powell lead Mine - WLW-JHV 1 or. & 2 copies of report
84. Geochemical - assays of stream & rock samples
85. Harry Winters - letter 1966
86. Random Mag Profile - tracing -Black Mt.
87. Geo-chem Sec. 7 - Cu. near Schurz WLW-AKW
88. Gillis - Holt report - bound - 2 copies - see bound rpt. file
89. Color pictures - Kennicott drilling - Black Mt.
90. Wassuk Range Title - Schurz quad map, Haxby rpt.(bound)
    BLM data, various letters,claim maps (pr.)
91. Terry Claims - 1967-68assessment data , patented plats
    pr. of Parker claims,terry claims,(Haxby copy)
    Forbes rpt. , letter to Indians from OXY
92. Wassuk Mineralized areas- aero mag
93. Wassuk Range Recreation Title- Chichester, various letters

BLACK EAGLE - File 2-2

94. Core Study - BE-1 physical properties ELLIOT

COPPER HILL - File 2-2

95. I.P. Loc. with interpretation - 1"=1000' HUNTEC
96. Alpers claims title - 2 volumes misc. data
97. I.P. lines - Bound rpt. McPhar 1966
98. Recon. Geology - 1 tr. & 2 pr. colored geology 1"=600' HOLT
3 pr. fault pattern
1 ac. Pre-mineral surface Calico to Bounder 3 sheets
2 ac. 2 pr. - G-10,G-9 Geology & min. WLW
1 each Chester rpt. & Holt rpt.
99. Mine mapping - Acetate 3 sheet set 1"= 20'
100. Geochem - notes, acetate maps, assays
101. Geophysics - Orig. mag notes, loose I.P. sheets, Gillis Canyon topo with I.P. acetate overlay , Holt print geology, McPhar print I.P. lines & geology 1"= 500', WLW print I.P. lines 1"= 500', 1"= 600' &1"=1000', survey data Delta #4
102. Boundary Survey-Claims - Sprout, JHV-AKW orig.tracings, claim notices, Acetate overlay WLW 66 1"= 500' Delta 46-53 & 146-152 misc. correspondence
103. Drilling - Delta 1,2,3 logs, Hole marking memo,WLW memo, on I.P. lines

CU.MT.- BOUNDER - File 3-3

104. I.P. - Bound rpt. listed under bound reports
105. Project data - Bound rpt. listed under bound reports GROUP
106. Location certificates - CU 77,79,81,83 N
107. " " - CU 75,76,78,80,82,84,97,99,101,103 M
108. " " - CU 74,95,95A,96,96A,98,100,102,104.106 L
109. " " - CU 72,92,93,94,108,110,201,202,203,204 K
110. " " - CU 65,66,68,70,89,90,91,105,107,109 J
111. " " - CU 56,58,59,60,62,64,85,86,87,88 I
112. " " - CU 4,5,6,49,50,51,52,53,54,73 H
113. " " - CU 7,8,9,10,11,12,13,38,55,57 G
114. " " - CU 20,22,24,67,69,71,152,154,155,156 F
115. " " - CU 14,15,16,17,18,19,21,23,61,63 E
116. " " - CU 47,48,111,112,113,114,115,116,151,153 D
117. Geologic maps -

1 pr.	1"= 200'	contour mine surface area
1 pr.		mine workings plan
3 pr.	1"= 200'	geology of mine area - one map is colored
1 pr.	1"=1000'	photo-geology
1 pr.		ground mag SW and contours SW
1 pr.	1"= 500'	Mcphar I.P. plan
1 pr.	1"= 100'	mineralized sketch map WLW
1 each		acetate & colored print - N. Intrusive WLW
1 tr.	1"= 600'	Cu. Mt. area
		memos by Chester, Wilson plus various sketch maps of North Intrusive

118. Claim data - Certificates, acetate page size maps,sketch maps
119. Claim data - Staking, maps showing blocks of claims -5copies with various scales, photogeology, I.P.lines 1"= 500'
120. TOPO MAP - contours by JHV-EFL 1"= 500'?
121. Geo-chem Info- 1 print 1"=1000' map plus assays
122. Allied Metals-Martel lease - Oster's claims
123. Survey notes - 1 print March 1968 EFL

CU.MT. - BOUNDER cont.

124. Drill logs - 1 print each graphic & narr. 26-2, 27-1, 41-1
125. Geophysics & magnetics-
1 pr. 1"=1000' I.P. lines, pie plate markers
3 pr. 1"= 500' I.P. lines
1 tr. 1"= 500' page size of mag contours N-1,N-2,N-3 plus resistivity contours - also various work sheets
1 tr. original ground mag work sheets
126. WLW report - N. intrusive - colored 2 acetate & 1 pr. page size
127. Project data - 2 bound volumes AFE,BOUNDER,CU,HILL,WILD HORSE listed under bound volumes

WALKER LAKE RESERVATION - - - - - - - - - - - - - File 3-3

128. Regional geology - 4'x8' 1"= 1 mi. print, uncolored
129. Res.Gen. geology - 4'x8' 1"= 1 mi. print, colored + page size pr.
130. Geophysics - S. Hott lines 1&2 Heinrichs , pr. + various copies of old I.P. data except Hott 15 E, AFE
131. Res. Master Maps -
3 pr. 1 mylar - page size - Walker Master Unit
2 pr. - ½"= 1 mi. - Walker Master Unit - fav. areas 1964
Index to Master Units-Nevada and to Advance sheets
EFL mapping progress on Walker Master Unit
4'x4' map showing non-permit land - letter to Haxby 1967
tracing - page size - Title page for all I.P. reports
132. Black Eagle - I.P. prints by aero survey, orig. geologic log, orig. mag work sheets, acetate of I.P. locations, Allen Springs topo
133. Color Code - Topo-Geology R 23 to 33 E,T 10 to 15 N, orig. + pr. orig. rpt. WLW on VAMT 2-123 with acetate page size maps, JHV acetate work sheets used tc make regional map, - memo EFL to RLR mylar map inventory of Holt's work
134. Geochem - Recon by WLW Sec. 6, T 10N, R 31 E
135. Agreement - 1965 copy
136. Agreement - 1969 copy
137. Res-Gen Drill Contractors - Drilling agreements 1969
138. INVENTORY LIST - original 1966?
139. Res-Gen Geo-chem - Summary - costs - compilation assay data, original & prints of some data
140. Res-Gen I.P. Data - Letter to Halloff - prints of I.P. lines for interpretation

EXPLORATION LEASE APPLICATIONS 60000 0134 (0760)
(Denied by BIA)

Idaho Mining Corporation

OFFICE: 591 - 25 ROAD
MAIL: P.O. BOX 2183
GRAND JUNCTION, COLORADO 81501
PHONE: 303 - 243-7806

February 10, 1978

Walker River Paiute Tribe
Schurz, Nevada 89427

Att'n: Chairman

Re: Mineral Prospecting Permit Contract
Number 14-20-H53-313

Gentlemen:

Pursuant to paragraph 2 of the above-referenced prospecting permit covering Tribal lands, please be advised that Idaho Mining Corporation hereby gives notice that it wishes to apply for leases on the following described lands:

1. Township 14 North, Range 29 East:

		Acres:
Section 31	SE¼	160
Section 32	All	640

Township 13 North, Range 29 East:

Section 5	All	640
Section 6	E½	320
Section 7	NE¼	160
Section 8	All	640
	Total Acres:	2,560

2. Township 14 North, Range 29 East:

Section 33.	S½	320

Township 13 North, Range 29 East:

Section 3	S½	320
Section 4	All	640
Section 9	All	640
Section 10	All	640
	Total Acres:	2,560

3. Township 12 North, Range 30 East:

		Acres:
Section 1	All, except that portion in present lease	627
Section 2	All, except that portion in present lease	627
Section 12	N½, except that portion in present lease	320

Township 12 North, Range 31 East:

Section 6	All	623
Section 7	N½	318.5
	Total Acreage:	2,515.5
	Less 240 acres in existing lease, Net Acreage Approx.	2,275.5

The existing Hottentot Lease, Contract # 14-20-0450-5727, encompasses approximately 180 acres in Section 2, 30 acres in Section 1, and 30 acres in Section 12. As you may be aware, the lands selected are in portions of Townships which are unsurveyed insofar as the public land surveys go, and therefore, according to terms of the permit, the actual description of the lands to be leased will be by metes and bounds, and it will be Idaho's responsibility to have the lands surveyed and substantial monuments posted at the corners thereof. The acreages noted above for unsurveyed sections 1, 2, 6, 7 and 12 are as shown on the Bureau of Land Management's Protraction Diagram for the townships in question, and it is our desire that when the lands are surveyed and posted, that we follow the protraction diagram, so that when the lands are finally surveyed by the cadastral engineers, the lease description will conform to the section line boundaries which will be established by such survey.

Maps are attached showing the areas encompassed by the proposed leases. Having notified you of the desire to take these leases under terms of the prospecting permit, we will await word from the Bureau of Indian Affairs as to how to proceed to effectuate the actual leasing.

Yours Very Truly,

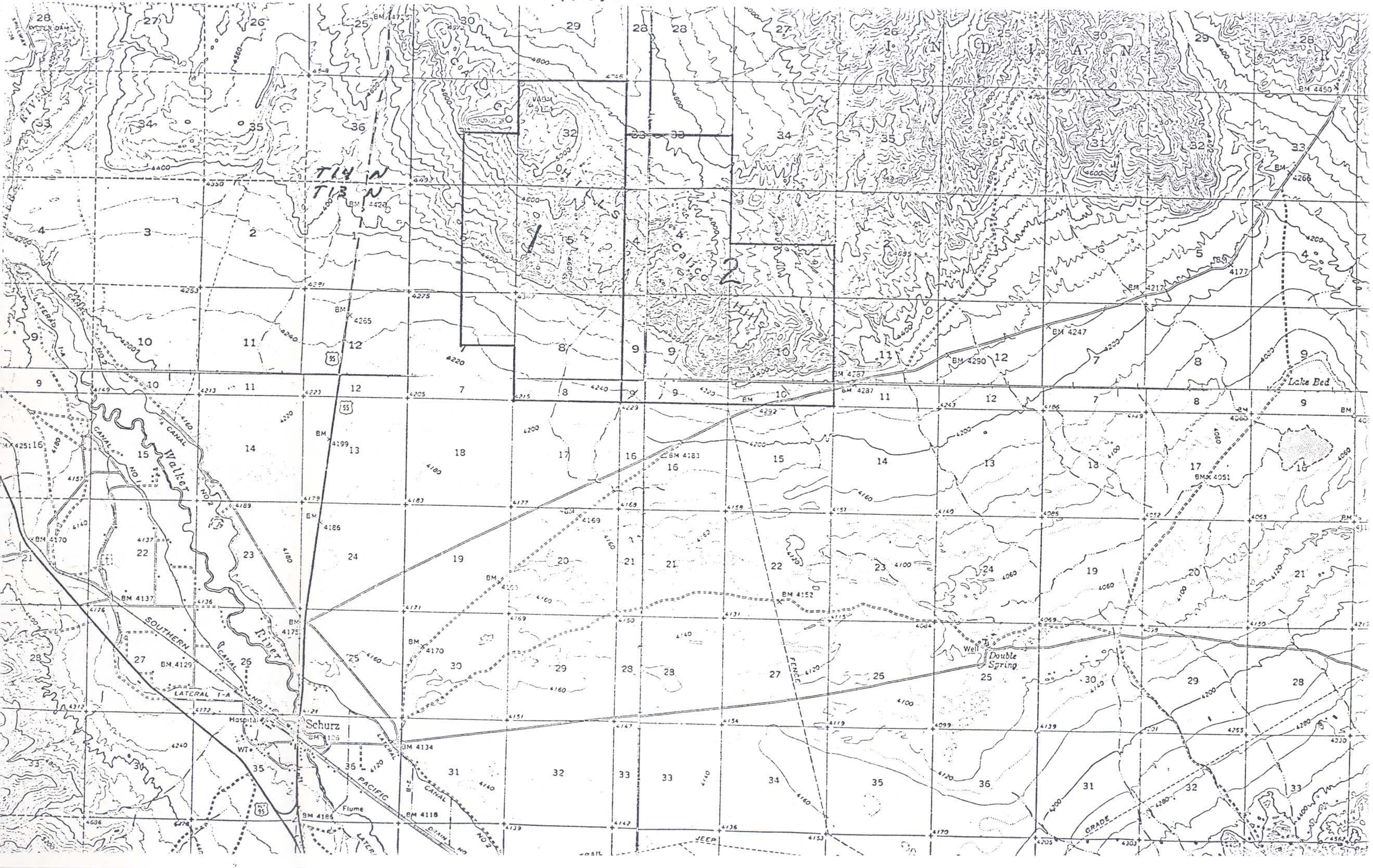
IDAHO MINING CORPORATION

By W. L. Wilson
W. L. Wilson

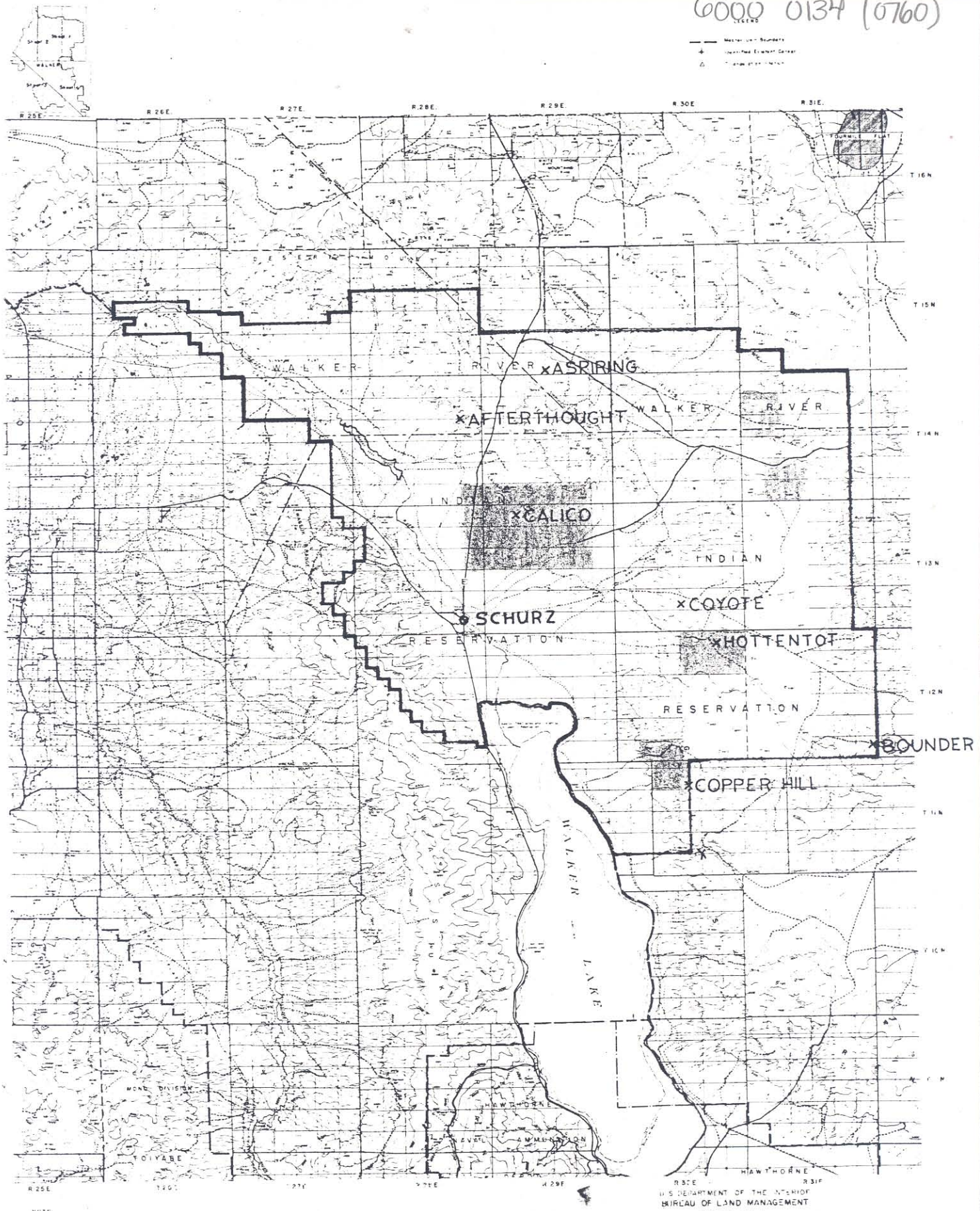
WLW/jb
cc: Superintendent,
Nevada Indian Agency
Stewart, Nevada
and A. K. Wilson, Jr.
Reno, Nevada

TO SCHURZ 4.5 MI.
Double Spring
Well
Pilot Cone Well
Granite Mine
Creosote Spring
PRESENT LEASE
JEEP TRAIL
FENCE
RAILROAD
GRADE
OLD
PACIFIC
DITCH
T. 13 N.
T. 12 N.
R 30 E
R 31 E
1 540 000 FEET
DEADHORSE WELLS 7.7 MI.
55'

R29E


T14N
T13N
Calico Hills
Walker River
Canal No 1
Canal No 2
Lateral 1-A
Southern Pacific
Schurz
Hospital
Flume
Well
Double Spring
Lake Bed
Fence
Jeep Trail
Grade
1
2

6000 0134 (0760)



NOTE STATUS AS OF JANUARY 1962

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SHEET NO. 1

WALKER MASTER UNIT

1962

6000 0134 (0760)

ENVIRONMENTAL ASSESSMENT
PROPOSED EXPLORATION PROGRAM
WALKER RIVER PAIUTE RESERVATION

FOR IDAHO MINING CORPORATION

9959-001-14

July 18, 1973

Idaho Mining Corporation
Post Office Box 2183
Grand Junction, Colorado 81501

Gentlemen:

With this letter, we are transmitting ten copies of our report, "Environmental Assessment, Proposed Exploration Program, Walker River Paiute Reservation, For Idaho Mining Corporation."

The report includes an assessment of the baseline environmental conditions on the reservation and our evaluation of the environmental impacts that will result from the proposed exploration program. We have concluded that no serious adverse impacts will result from the proposed actions.

It has been a pleasure to perform this study for you. We look forward to assisting you on future projects. If you should have any questions concerning the report, please do not hesitate to contact us.

Very truly yours,

DAMES & MOORE

Richard L. Brittain

Richard L. Brittain
Associate

RLB/dls

TABLE OF CONTENTS

ENVIRONMENTAL ASSESSMENT

PROPOSED EXPLORATION PROGRAM

WALKER RIVER PAIUTE RESERVATION

FOR IDAHO MINING CORPORATION

INTRODUCTION

The Idaho Mining Corporation has applied to the Walker River Paiute Tribe for a permit to conduct a mineral prospecting program within the Walker River Paiute Reservation; Lyon, Mineral, and Churchill Counties, Nevada. The tribe has executed the permit, but approval of the Bureau of Indian Affairs is necessary before the permit becomes effective. The proposed program will consist of a total of 26 drill holes, ranging in depth from 200 to 4,000 feet. The drill holes will be located in six different areas of the reservation. Most of the proposed drill holes are near or adjacent to previous drill holes, prospecting pits, or other evidence of exploration activity.

The Idaho Mining Corporation proposes to begin the exploration program immediately upon issuance of the permit.

The regional location of the reservation and the locations of the six exploration areas within the reservation are shown on Plate 1. Detailed topographic maps of the individual exploration areas are presented in Plates 2 through 7.

The purpose of this report is to assess the impact of the proposed exploration project on the environment. This report includes

a detailed description of the proposed project, a description and evaluation of the existing environment, and an assessment of the potential changes that will result from the proposed project. A summary of project features is presented as Table 1.

Table 1, Summary of Project Features

Site	Number of Holes	Depth (ft)	Road Extensions
Aspiring	3	200	2,000
Afterthought	6	200-500	200
Badger	1	1,200	500
Calico	13	200-4,000	8,000
Hottentot	1	1,000	- - -
Coper Hill	2	500	1,200
Totals	26		11,900

DESCRIPTION OF PROJECT

The proposed exploration project will consist of a total of 26 drill holes located in six areas of the Walker River Paiute Reservation. The drill holes will vary in depth from 200 to 4,000 feet, and will be either 5 and 1/4 or 5 and 3/4-inch in diameter. The drilling will be done with a Failing 1500 or similar type drill rig using air-rotary drilling tools. Tri-cone bits will be used in most cases; however, some very hard, siliceous formations may require the use of down-the-hole tools. The drilling media will be air in most cases, although difficulties in maintaining circulation may require the use of water or drilling mud.

Site access will be gained by existing roads whenever possible, but several sites will require some minor extension of existing roads. The existing roads to the drill sites are narrow, graded, or unimproved dirt roads. The access road extensions will be constructed with a crawler tractor.

The following paragraphs present a description of the individual exploration areas.

ASPIRING PROSPECT

The Aspiring prospect is located in the Terrill Mountains within Sections 33 and 34, Township 15 N, Range 29 E, MDB&M, Churchill

County, Nevada. The existing access road will require an approximate 2,000-foot extension in order to reach the drill sites. A 7,000-foot alternate access route is shown on Plate 2. Two or three holes will be drilled on this site to depths of approximately 200 feet. Activity at this site is scheduled for the summer of 1973.

AFTERTHOUGHT PROSPECT

The Afterthought prospect is located within Sections 11, 12, 13, and 14, Township 14 N, Range 28 E, MDB&M, Lyon County, Nevada. The six drill holes proposed at this site will vary from 200 to 500 feet in depth. Existing access roads will be used almost exclusively at this site, although 100 to 200 feet of extension may be required to one site. Activity at this site is scheduled for the summer of 1973.

BADGER PROSPECT

The Badger prospect is projected to lie within Section 12 of the unsurveyed eastern half of Township 12 N, Range 30 E, MDB&M, Mineral County, Nevada. Activity at this site is scheduled for late summer and early fall 1973. An access road extension of approximately 500 feet will be required. A single hole drilled to a depth of approximately 200 feet is proposed for this site.

CALICO AREA

The Calico area includes three exploration sites:

- West Calico -- Sections 30, 31, and 32; Township 14 N; Range 29 E; and Sections 5 and 6; Township 13N; Range 29 E; MDB&M; Mineral County, Nevada.
- Little Calico -- Sections 4, 8, 9, and 10; Township 13 N; Range 19 E; MDB&M; Mineral County, Nevada.
- Little Calico East -- Sections 11 and 14; Township 13 N; Range 29 E; MDB&M: Mineral County, Nevada.

Six access road extensions totaling approximately 1.6 miles will be required at these sites. The 13 holes proposed for these sites will be drilled to depths of 200 to 4,000 feet, with most holes being in the 1,000-foot range. Activity at these sites is scheduled to commence in the summer of 1973 and to continue through 1974.

HOTTENTOT AREA

The Hottentot area is projected to lie within Section 2 of the unsurveyed eastern portion of Township 12 N, Range 30 E, MDB&M, Mineral County, Nevada. No road extension would be necessary at this site. One drill hole, 1,000 feet in depth, is proposed for this site. Activity on this site will commence in either the fall of 1973 or the spring of 1974.

COPPER HILL PROSPECT

The Copper Hill prospect is located in Section 8, Township 11 N, Range 30 E, MDB&M, Mineral County, Nevada, in the Gillis Range. Approximately 1,200 feet of access road extension is necessary at this site. The two proposed drill holes would be approximately 500 feet in depth. Site activity would commence in 1974

ENVIRONMENT OF WALKER RIVER INDIAN RESERVATION

PHYSICAL

Regional Setting

The Walker River Indian Reservation occupies an area of 500 square miles in the west-central part of the Basin and Range province. This area consists of a series of north-south trending ranges, separated by broad, arid valleys, many of which contain saline lakes and swamps. It is bounded on the west by the Sierra Nevada and on the east by the Colorado Plateau and Rocky Mountain provinces, and on the north by the Columbia Plateau.

The most extensive geologic units are volcanic lavas and interbedded sediments of Tertiary age, and unconsolidated lacustrine and alluvial deposits of Quaternary age. Rocks of Paleozoic and Mesozoic age occur in the steeper and higher parts of the mountain ranges.

The climate of the province is mainly arid to semi-arid, due to the rain-shadow effect of the Sierra Nevada to the west.

Geology

Topography. The Walker River Indian Reservation is an area of moderate relief. To the west, it includes a 25-mile stretch of the broad plains of the Walker River valley, and small portions of the north end of the Wassuk Range which rise abruptly at the west side of the Walker River valley. The central part of the reservation area comprises several sharp, rocky ridges, including the Terrell Mountains and the Calico Hills. These ranges are separated by broad alluviated valleys. The east portion of the reservation is an area of low relief, characterized by dry lakes and some sand dune areas (Plate 1).

Elevations on the reservation range from 4024 to 8136 feet above sea level, with the major part of the area between 4100 and 4500 feet. The central mountain ridges average 5500 feet and extend to 6161 feet above sea level.

The western half of the reservation is drained by the Walker River which flows into Walker Lake, which has no outlet. The eastern half of the reservation is drained by numerous small intermittent streams which terminate in small basins of internal drainage such as the Rawhide Flats (Plate 1).

Stratigraphy. The Walker River Indian Reservation area contains a wide variety of geologic formations, ranging in age from Cambrian to Quaternary. A brief outline of the stratigraphic succession is shown in Table 2. The proposed exploration areas are mainly located in areas underlain by Triassic sediments adjacent to the Jurassic granitic intrusive rocks. Tertiary and Quaternary volcanics are also present in the vicinity of most of the areas.

Structure. The geological structure of the pre-Tertiary rock formations is extremely complicated due to an extensive history of folding and faulting. The structural situation is imperfectly understood due to the fact that most of the older formations are obscured by Tertiary and Quaternary deposits. Mapping carried out by Ferguson and Muller (1949) indicates that the Jurassic and Triassic formations have been tightly folded and displaced by many normal and thrust faults during the Jurassic period.

Major basin range faulting occurred during the Tertiary and Quaternary periods. These faults trend north to northwest, and are particularly prominent along the east side of the Wassuk Range. This area is a seismically-active zone at the present time.

Table 2, Walker River Indian Reservation
Stratigraphic Succession

Age	Symbol	Formation	Description
Quaternary	Qal		Alluvium, outwash. Lahontan lake deposits. Basalts.
Tertiary	T_v		Terrestrial sediments, rhyolitic lavas, tuffs, etc. Lavas of varied composition with interbedded sediments.
Jurassic	Ji		Granitic intrusions (granodiorite, aplite, etc.)
	Jd	Dunlap	Sandstone, minor dolomites.
Triassic	℟ j	Gabbs and Sunrise	Shale and thin-bedded limestone.
	℟ l	Luning	Dolomite and limestone with some slate and conglomerate.
	℟ e	Excelsior	Altered volcanics (felsite and greenstone) and tuffs, minor limestones.
	℟ c	Candelaria	Shale, sandstone, and conglomerate.
Permian	P_v, P_q		Greenstone, felsite, quartzite, slate, etc.
Devonian	D_l		Limestone
Ordovician	O_s		Slate, limestone, and churt.
Cambrian	€q		Quartzite, slate, and limestone.

(Table summarized from Ferguson and Muller, 1949)

Soils. The variety of soils that occur throughout the Walker River Indian Reservation reflects the wide range of geological formations and terrain features that led to their development. The soils belong to the gray desert zone (4). They are characteristically gravelly or stony in texture and often calcareous throughout the profile.

On the ridges and hills are residual soils, mainly less than 2 feet thick, consisting of loamy sand and sandy loam with numerous rock fragments. Outwash soils are common on the flanks of the hills and adjacent fan slopes. These are similar to the ridge soils, except that they are usually thicker. Both residual and outwash soils are generally very well-drained. However, natural erosion is moderate in places due to the steep slopes and the nature of the precipitation. In places, the outwash soils are overlain by a thin veneer of aeolian sand.

The outwash soils grade to alluvial and partly aeolian soils in the valleys which occur between the ridges. The alluvial soils consist of sandy loams and gravelly, loamy sands. These soils include a topsoil layer approximately 12 inches in thickness and a sub-soil exceeding 60 inches in thickness.

Other types of alluvial soils, including poorly-drained silty and clayey soils, occur in the Walker River flood plain and in drainage basins in the western portion of the reservation.

In the proposed exploration areas, the soils are coarse to very coarse grained. Erosion in these areas is generally restricted to the major water courses, as the soil permeability is too high for sheet erosion to occur.

Hydrology

Surface Water. The western part of the Walker River Indian Reservation is drained by the Walker River, which terminates at Walker Lake just south of the reservation. Tributaries of the Walker River in this area are intermittent, with flow occurring only for short periods following heavy summer thunderstorms.

During the period from 1913 to 1933, the average discharge of the Walker River at Schurz was 152 cubic feet per second; the maximum discharge observed was 2530 cubic feet per second; and zero discharge occurred at times during most years (USGS, 1960). The average gradient of Walker River through the reservation is 9 feet per mile.

The eastern part of the reservation is drained by numerous intermittent streams which terminate in a series of small basins of internal drainage; some of which are within the reservation, and some of which occur to the north and east. Water in these drainage basins is quickly evaporated.

The surface waters in this area are characteristically saline and alkaline. Walker Lake water is saline, but not to the extent that fish life is prohibited. During the brief periods that it occurs, surface water in the internal drainage basins in the western portion of the reservation is highly saline and alkaline.

Groundwater. Little is known of groundwater conditions on the Walker River Indian Reservation. Published records (USGS, 1957) mention only two observation wells in the vicinity, one in Gabbs Valley, and one in Soda Springs Valley. These records indicate water levels at 185 feet and 137 feet below ground surface, respectively. The proposed exploration areas are located on the flanks of mountain ridges; and hence, water would probably occur at much greater depths.

The main aquifers in the area are probably the alluvial deposits in the main valleys. Much of the groundwater evidently occurs under artesian pressure. Numerous springs occur on the reservation. Water from these springs is saline; but in some instances, is suitable for livestock consumption.

Climatology

The climate of the reservation is typical of the southwestern United States, and is in the region of the driest area of the continent. It is characterized by low annual average rainfalls, large diurnal and annual temperature ranges, with a high incidence of sunshine.

The lack of cloudiness produces high daytime and cool nighttime temperatures. One would expect good daytime mixing in the vertical, but poor mixing at night due to surface radiation inversions.

Local winds should be abundant in the area due to rugged terrain features and strong surface heating and cooling influences. Any extensive emission of effluents from permanent stationary sources would require expert knowledge of the local drainage winds in the area.

Precipitation. The precipitation regime is influenced by the winter cyclones (i.e., low pressure systems) from the Pacific and the summertime penetration of moisture from the coast of Lower California. This summertime tongue of moist air aloft extends northeastward into the region and touches off showers and thunderstorms which deliver variable amounts of rain. The air at low levels is so dry that much of the rain evaporates before reaching the surface, giving a variation of amounts depending on altitude of the terrain. Some of the higher elevations may receive as much as twice the amount of lower elevations.

The total annual precipitation (rainfall plus snowfall converted to rainfall) recorded at Schurz, Nevada, between 1920 and 1939, ranged from 2.1 to 10.4 inches and averaged 5.7 inches. Average monthly precipitation in this period was between 0.45 and 0.65 inches in the months December through June, and was between 0.35 and 0.45 inches in the months July through November. Most of the precipitation occurs as thunderstorms of high intensity but short duration. The maximum recorded monthly rainfall was 3.57 inches in September 1923.

Only a small proportion of the total precipitation occurred as snow.

Temperature. Temperatures recorded at Schurz between 1931 and 1939 ranged from -24°F to +109°F. The annual mean temperature for the period of record was 52.3°F.

Wind. The prevailing wind is from the west. However, the maximum intensity winds are generally from the southwest. Average wind speeds at Fallon range from 3.5 to 5.9 miles per hour, with the highest incidence of strong winds occurring during March, April, and May. These records should be fairly representative of the Walker River Indian Reservation.

Evaporation. Average evaporation rates at Fallon and Lahontan are 59.82 and 57.92 inches, respectively. Maximum evaporation occurs in the months of June, July, and August.

BIOLOGICAL

General Ecology of Region

The Walker River Indian Reservation lies within the upper Sonoran life zone of the Artemisian biotic province of North America (Dice, 1943) and is characterized by sagebrush-covered plains, above which rise more or less isolated mountains which are partially forested. The Artemisian province covers southeastern Oregon, southern Idaho, the northeastern corner of California, most of the western half of Utah, and all but the southern tip of Nevada. Thus, it occupies essentially the physiographic region known as the Great Basin. The majority of this area consists of numerous, isolated, interior basins; and only a small portion of it drains to the sea. The bottoms of many of the seepage basins have a heavy accumulation of alkaline salts, and these exert a strong influence on the species composition of biotic communities. The controlling effect of salts also results in zonal patterns around playa lakes. Much of the Artemisian province consists of a cold desert vegetative formation, but five life belts do occur within it.

Lower elevations of the Artemisian province are dominated by big sagebrush (Artemisia tridentata). Other important shrubs in the sagebrush life belt are shadscale (Atriplex confertifolia), four-wing saltbrush (Atriplex canescens), greenplume rabbit brush (Chrysothamnus nauseosus), spiny hop-sage (Grayia spinosa), cotton-thorn horsebrush (Tetradymia spinosa), iodine bush or pickleweed (Allenrolfea occidentalis), and greasewood (Sarcobatus vermiculatus). All of these shrubs exhibit varying degrees of tolerance to alkali.

Where flooding around playa lakes is periodic and salt content excessive, vegetation is absent or dominated by iodine bush, salt grass (Distichlis spicata), or the herbaceous samphire (Salicornia spp.). With somewhat less salt, shadscale and greasewood or gray molly (Kochia americana) become dominant. Sagebrush is typically the major shrub away from playas on soils with a minimum of salts (Oosting, 1956). Although sagebrush is now the characteristic shrub in the Artemisian province, there is evidence that it may not represent the climax vegetation, but rather a disclimax produced by overgrazing. In plots protected from grazing, particularly if the sagebrush is removed by fire, grasses of a palouse (bunch grass) or mixed grass prairie type gradually become dominant (Clements and Clements, 1939; Stoddart, 1941; Oosting, 1956).

A pinon-juniper life belt generally occupies the lower slopes of mountains in the Artemisian province. On many of the low ranges of the Great Basin, it represents the only life belt present. The dominant tree in this belt is the singleleaf pinon (Pinus monophylla) which, unlike the other pinons, not infrequently forms extensive pure, open forests. Mixed with singleleaf pinon or forming pure, open stands, is Utah juniper (Juniperus utahensis). This sabinal belt is often disjunct because of the discontinuous distribution of mountains. However, it occurs almost without exception on every westernmost range and mountain of the Great Basin (Oosting, 1956).

Immediately above the pinon-juniper life belt is a montane belt in which yellow pine (Pinus ponderosa) is dominant on the lower and more exposed slopes, and Douglas-fir (Pseudotsuga menziesii) is

dominant on higher and more sheltered sites. Yellow pine tends to occur as widely-spaced trees and a ground cover of grasses is generally present. On the other hand, Douglas-fir typically grows in such dense stands that there is little understory vegetation.

The sub-alpine life belt is characterized by Engelmann spruce (Picea engelmannii) and Alpine fir (Abies lasiocarpa), both of which grow in dense stands. Lodgepole pine (Pinus contorta), aspen (Populus tremuloides), or Douglas-fir commonly occur as subclimax stands following fire in lower elevations of this life belt. Near timberline, revegetation of burned areas is directly by the spruce-fir complex.

The alpine life belt, consisting of treeless areas above timberline, is not common in the Artemisian province, since only a few mountains rise high enough to support it.

Vegetation of Walker River Indian Reservation and Mineral Exploration Sites

The native vegetation of the Walker River Indian Reservation is in general representative of the sagebrush life belt as modified by varying concentrations of alkaline salts. Approximately 3/4 of the reservation is covered by greasewood (Sarcobatus vermiculatus), saltbush (Atriplex spp.), or desert shrubs such as horsebrush (Tetradymia spp.), and rabbitbrush (Chrysothamnus spp.) (4). Combinations of these shrubs, particularly greasewood and shadscale

(Atriplex confertifolia), are predominant at all mineral exploration sites under consideration in this report. Rabbitbrush occurs in greater abundance at the Afterthought site, and there is relatively little greasewood there.

As is typical of desert vegetation everywhere, the shrubs mentioned above tend to be widely spaced at all of the exploration sites and the ground between them is only sparsely covered by an assortment of grasses and forbs. Indian rice grass (Oryzopsis hymenoides), which grows abundantly on sandy soils and is an important species for livestock grazing, is present in varying densities at all exploration sites. Cheatgrass brome (Bromus tectorum), a weed of waste places and disburbed soils, is abundant at the Afterthought site. Desert-trumpet (Eriogonum inflatum) is very abundant at the same site. Desert-plume (Stanleya elata), which usually grows on seleniferous soils and is potentially poisonous to livestock, is abundant in the wash at the Badger site.

Fauna of Shadscale-Greasewood Association

The fauna of the shadscale-greasewood association is more impoverished but representative of that occurring where big sagebrush is dominant. The most prominent vertebrate animals are small herbivorous rodents and carnivorous reptiles; ants are the most conspicuous of the invertebrates.

Mammals. The following is a list of the noteworthy mammalian species that occur in the shadscale-greasewood association, and are indicated by Hall (1946) as being present on the Walker River Indian Reservation.

ORDER LAGOMORPHA: HARES, RABBITS, AND PIKAS

FAMILY LEPORIDAE: HARES AND RABBITS

Lepus californicus deserticola	Black-tailed jack rabbit
Sylvilagus nuttallii nuttallii	Nuttall cottontail

ORDER RODENTIA: RODENTS

FAMILY SCIURIDAE: SQUIRRELS AND MARMOTS

Spermophilus townsendii mollis	Piute ground squirrel
Ammospermophilus leucurus leucurus	Antelope ground squirrel

FAMILY GEOMYIDAE: POCKET GOPHERS

Thomomys bottae cinereus	Botta pocket gopher

FAMILY HETEROMYIDAE: POCKET MICE AND KANGAROO MICE AND RATS

Perognathus formosus mohavensis	Long-tailed pocket mouse
Perognathus longimembris panamintinus	Little pocket mouse
Perognathus parvus olivaceus	Great Basin pocket mouse
Dipodomys deserti deserti	Desert kangaroo rat
Dipodomys merriami merriami	Merriam kangaroo rat
Dipodomys microps occidentalis	Chisel-toothed kangaroo rat
Dipodomys ordii monoensis	Ord kangaroo rat

Microdipodops pallidus pallidus	Pallid kangaroo mouse

FAMILY CRICETIDAE: NEW WORLD RATS AND MICE

Reithrodontomys megalotis megalotis	Western harvest mouse
Peromyscus crinitus crinitus	Canyon mouse
Peromyscus maniculatus sonoriensis	Deer mouse
Onychomys leucogaster brevicaudus	Northern grasshopper mouse
Onychomys torridus longicaudus	Southern grasshopper mouse
Neotoma lepida lepida	Desert wood rat
Lagurus curtatus intermedius	Sagebrush vole

ORDER CARNIVORA: TERRESTRIAL CARNIVORES

FAMILY CANIDAE: DOGS, COYOTES, WOLVES, FOXES

Canis latrans lestes	Coyote
Vulpes macrotis nevadensis	Kit fox

FAMILY MUSTELIDAE: WEASELS, SKUNKS, AND ALLIES

Taxidea taxus taxus	Badger
Mephitis mephitis major	Striped skunk

FAMILY FELIDAE: CATS

Lynx rufus baileyi	Bobcat

Although the abundance of the above species can only be surmised in this report, densities probably approximate those observed by Fautin (1946) in a comparable habitat in western Utah. Fautin found that rodents, exclusive of ground squirrels and pocket gophers, average

approximately 40 per hectare (16 per acre), with deer mice and kangaroo rats most numerous. Ground squirrels are widespread and numerous in this kind of habitat, but are sometimes locally restricted. Black-tailed jack rabbits are important members of the shadscale-greasewood community and average numbers reported from various places range from less than 0.1 to 0.5 per hectare.

None of the mammals listed above is generally considered to be an endangered or rare species. Mountain sheep (Ovis canadensis nelsoni) have been reported from the middle fork of Cat Creek in Mineral County (elevation 8900 feet), but their occurrence in the shadscale-greasewood association is very unlikely because of their preference for mountain tops, rough and precipitous canyons, and generally dissected terrain. Even when forced to travel in lowlands, the sheep seek ridgelines and high spots that offer opportunities for them to better observe the surrounding country. Pronghorn antelope (Antilo capra americana americana) were probably originally distributed over all parts of the state of Nevada in and below the transition life zone but are now restricted to several separate areas remote to the Walker River Indian Reservation. The spotted bat (Euderma maculatum) is listed by the Office of Endangered Species and International Activities of the U.S. Bureau of Sport Fisheries and Wildlife (1973) as a "threatened" species. This rare bat is known from the vicinity of Reno, and may occur on the Walker River Indian Reservation. However, it appears to bear and rear its young in forested areas and to only wander into lower life belts after the breeding season (Findley and Jones, 1965).

Thus, while spotted bats may occasionally fly over the exploration sites, they are not heavily dependent upon the shadscale-greasewood type of habitat and are more likely to be found around water where a greater abundance of insects (upon which they feed) occurs. No other rare or endangered mammal is expected to occur on the Walker River Indian Reservation.

Birds. Relatively few species of birds occur in the sagebrush life belt of the Artemisian province and populations tend to have low densities. The number of bird pairs per 40 hectares (100 acres) may reach 108 in washes or near water where there is a diversity of vegetation, but can be 0-37 in open desert areas (Miller, 1951; Hensley, 1954; Dixon 1959). The principal avian species in this life belt are listed below (compiled from Fautin 1946 and Miller 1951). In addition, chukar partridge, Alectoris graeca, were introduced into the basin range province in the 1940's and 1950's and a few have been observed on the Walker River Reservation.

ORDER FALCONIFORMES: DIURNAL BIRDS OF PREY

FAMILY ACCIPITRIDAE: HAWKS, KITES, HARRIERS, EAGLES

Aquila chrysaetos	Golden eagle
Buteo jamaicensis	Red-tailed hawk
Buteo swainsonsi	Swainson's hawk

FAMILY FALCONIDAE: CARACARAS, FALCONS

Falco mexicanus	Prairie falcon

ORDER GALLIFORMES: GALLINACEOUS BIRDS

FAMILY TETRAONIDAE: GROUSE, PTARMIGANS

Centrocercus urophasianus	Sage grouse

ORDER COLUMBIFORMES: PIGEONS AND DOVES

FAMILY COLUMBIDAE: PIGEONS AND DOVES

Zenaidura macroura	Mourning dove

ORDER STRIGIFORMES: NOCTURNAL BIRDS OF PREY

FAMILY STRIGIDAE: TYPICAL OWLS

Bubo virginianus	Great horned owl
Speotyto cunicularia	Burrowing owl

ORDER CAPRIMULGIFORMES: GOATSUCKERS, OIL BIRDS, FROGMOUTHS, POTOOS

FAMILY CAPRIMULGIDAE: GOATSUCKERS

Phalaenoptilus nuttallii	Poor-will

ORDER PASSERIFORMES: PERCHING BIRDS

FAMILY ALAUDIDAE: LARKS

Eremophila alpestris	Horned lark

FAMILY MIMIDAE: MOCKINGBIRDS, THRASHERS

Oreoscoptes montanus	Sage thrasher

FAMILY LANIIDAE: SHRIKES

Lanius ludovicianus	Loggerhead shrike

FAMILY FRINGILLIDAE: GROSSBEAKS, FINCHES, SPARROWS, BUNTINGS

Amphispiza bilineata	Black-throated sparrow
Spizella breweri	Brewer's sparrow

None of the birds listed above is rare or endangered, but the prairie falcon is listed as a "threatened" species and the burrowing owl is of "undetermined" status. Prairie falcons nest on bare cliffs and would presumably utilize the shadscale-greasewood association only as a hunting ground. Burrowing owls, which utilize mammal burrows for nesting sites, are undoubtedly present on the Walker River Indian Reservation. Fautin (1946) found this owl to be most abundant in shadscale areas of western Utah where vegetation was sparse, and noted that it nearly always occupied old badger burrows. No badger burrows were observed when the mineral exploration sites were visited for this study, but the habitats are certainly conducive for the presence of burrowing owls.

Reptiles. Lizards are numerous and conspicuous in the sagebrush life belt of the Artemisian province. Counts based on visual sightings alone gave an average for the summer season of 6.5 per hectare (2.6 per acre) in western Utah (Fautin, 1946). Snakes, which tend to be nocturnal in this type of habitat, may be locally abundant where favorable cover and shelter exists. The following is a list of reptiles which are generally associated with the sagebrush belt of the Great Basin.

ORDER SQUAMATA: LIZARDS AND SNAKES

SUBORDER LACERTILIA: LIZARDS

FAMILY IGUANIDAE: IGUANID LIZARDS

Callisaurus draconoides	Zebra-tailed lizard
Crotaphytus collaris	Collared lizard
Crotaphytus wislizenii	Leopard lizard
Sceloporus magister	Desert spiny lizard
Sceloporus graciosus	Sagebrush lizard
Uta stansburiana	Side-blotched lizard
Eumeces skiltonianus	Western skink

FAMILY TEIIDAE: SHIPTAILS AND ALLIES

Cnemidophorus tigris tigris	Great Basin whiptail

SUBORDER OPHIDIA: SNAKES

FAMILY COLUBRIDAE: COLUBRID SNAKES

Masticophis flagellum	Coachwhip
Masticophis taeniatus	Striped whipsnake
Salvadora hexalepis	Western patch-nosed snake
Pituophis melanoleucus deserticola	Great Basin gopher snake
Lampropeltis getulus californiae	California king snake
Rhinocheilus lecontei lecontei	Western long-nosed snake
Thamnophis elegans vagrans	Wandering garter snake
Hypsiglena torquata deserticola	Desert night snake

FAMILY VIPERIDAE: VIPERS AND PIT-VIPERS

Crotalus viridis lutosus	Great Basin rattlesnake

None of the species listed above is considered to be rare or endangered.

Invertebrates. The invertebrate fauna of the shadscale-greasewood association is limited principally by the fact that only two strata occur in the community, the shrubs and the ground, since the herbaceous vegetation is sparse and scattered most of the year. Arachnids (scorpions, harvestmen, spiders, mites), cicadellids (leafhoppers), fulgorids (lantern-flies), coccids (scale-insects), chrysomelids (leaf-beetles), and mirids (leaf bugs) are most abundant in the shrub layer. Arachnids, tenebrionid (darkling) beetles, and ants are the most conspicuous ground dwellers. Seasonal fluctuations are very pronounced with the greatest densities of invertebrates tending to occur in the spring when the vegetation is most lush. After this, population densities decline as temperatures rise and vegetation dies or looses its leaves.

Harvester ants (Pogonomyrmex spp.) and honey ants (Myrmecocystus spp.) are very important herbivores. Both of these kinds of

ants build conspicuous mounds and can be locally very abundant. Fautin (1946) found an average of over 15 harvester ant mounds per hectare (6.2 per acre) in the sagebrush communities of western Utah. The number of these and other kinds of invertebrates will generally be less in the shadscale-greasewood association than in sagebrush. However, invertebrate populations remain more constant and are generally higher in greasewood than in shadscale, since the former retain their leaves and remain green throughout the summer.

OVERVIEW OF THE SOCIAL AND ECONOMIC ENVIRONMENT

The Walker River Indian Reservation is located on approximately 500 square miles of arid range lands in west-central Nevada, 45 miles east-southeast of Reno. The reservation is located primarily in Mineral County, adjacent to the northern boundary of Walker Lake. U.S. Highway 95 transverses the reservation in a north-south direction, and passes through the town of Schurz, which is the only community on the reservation.

Walker River is the only significant stream on the reservation. It generally trends from the northwest reservation area, south to Walker Lake. It is the primary source of water for irrigation and a local agriculturally-based economy.

The Walker River Reservation was officially established by executive order in March 1874. The land is held in trust by the Department of the Interior for members of the Walker River Paiute Tribe. Individual land allotments, consisting of 20-acre tracts adjacent to the Walker River, were granted to the Paiute families for irrigation and agricultural development. The land allotment program was discontinued in 1930. The allotted lands are not included in the exploration permit under consideration.

Irrigated agriculture has remained the principal livelihood for the 452 Paiutes living on the reservation. Several improvements have been made on the irrigation system, including the construction of Weber Dam in 1934. Most of the remaining reservation land is unsuitable for agriculture because of the lack of rainfall and a topographically rough landscape. Livestock grazing is minimal because of the general lack of vegetation available for foraging animals.

The 452 Paiutes living on Walker River Reservation all live in the community of Shurz, Nevada. The age distribution of the Paiutes living in Shurz falls into two catagories: the young and the old. A majority of the Paiutes between the ages of 18 and 35 leave the reservation for boarding schools, colleges, and job opportunities. This trend is found on numerous other reservations across the country.

Employment opportunities on the reservation are minimal. The unemployment rate was 13 percent in the fall of 1972, and the total labor force was comprised of 183 men and women. The annual average per-capita income was approximately $1200, and the average annual family income was $5,000. These income figures are generally higher

than other comparably populated reservations, but it still remains below national average incomes.

The agriculturally-based economy provides little opportunity for economic advancement. The local post office, gas stations, cafe, and motel also provide few opportunities. Several Paiutes do work in the nearby Anaconda Copper Mine or the Naval Ammunition Depot. However, it is likely that a majority of working-age Paiutes will continue to leave the reservation until the overall economic picture improves.

HISTORICAL AND ARCHAEOLOGICAL VALUES

Apart from the Walker River valley, the Walker River Indian Reservation does not appear to have a high potential for the occurrence of archaeological sites. The absence of surface water and trees on the remainder of the reservation indicate that this area has never been extensively inhabited. Discovery of archaeological artifacts is a rare occurrence in this area. Near the north end of the reservation, adjacent to U.S. Highway 95, is a site which contains several petroglyphs of undetermined age and origin. It is possible that other similar sites are present in the area. No archaeological or historical sites of any type are known to occur in the immediate vicinity of any of the proposed exploration sites. If any archaeological sites or

relics are encountered during exploration activities, they should be left in an undisturbed state and their locations should be reported immediately to the Tribal Council and to the BIA.

IMPACTS OF PROPOSED EXPLORATION PROGRAM

PHYSICAL

The lengths of new road and number of drill holes at each exploration location are given in Table 1. The access roads will be approximately 12 feet in width. Each drill site will occupy an area of approximately 250 square yards. Using these figures, it is estimated that the total area affected by the exploration activities will be approximately 7 acres.

Erosion

Due to the generally permeable nature of the surface soils, natural erosion in the proposed exploration areas is not severe, except on some of the steeper slopes. Significant increases in natural erosion would be expected only if access roads were to be constructed

directly upslope. However, the exploration plans are to construct the roads at a relatively uniform grade, which is much less than the slope of the natural surface. It is suggested that roads be sloped outwards so as to avoid the development of water courses along roadways. Roads constructed in this manner should not lead to any appreciable increase in erosion. The drilling sites should be seeded with native grasses. Even though the amount of vegetation produced will undoubtedly be minor, the reseeding may produce guidelines for future projects.

Water Quality

With no appreciable increase in erosion, there will be only a minor affect on the quality of surface water as a result of the exploration activities.

There is no evidence of toxic chemical substances which could be exposed as a result of exploration activities. No deleterious chemical substances are used in the drilling operations. Therefore, it appears highly unlikely that exploration activties will have any affect on the quality of surface water or groundwater.

Air Quality

Minor amounts of dust and diesel fumes will be produced as a result of vehicular traffic and drilling operations. In view of the lack of inhabitants in the proposed exploration area, the effects of these emissions are expected to be insignificant.

Waste Disposal

A minor quantity of waste will be produced by the exploration activities. This waste, consisting of such things as fuel containers and worn-out drilling machine parts, will be disposed of at the tribal dump.

Drill Holes

We recommend that all drill holes be sealed at the surface in order to prevent accidental injury to humans or animals. In the event that drilling mud is used to maintain circulation, the mud pits should be filled and the pit area should be graded to coincide with adjoining contours.

IMPACTS OF PROPOSED MINERAL EXPLORATION ON BIOLOGICAL ENVIRONMENT

There should be no significant impact of the mineral exploration activities on the biological environment of the Walker River Indian Reservation. The wide-spacing of vegetation and animals associated with it indicates that even road construction and site preparation will adversely affect a relatively small number of individual organisms. There are no unique biological features at any of the proposed exploration sites, and all are characterized by biota that is representative of that occurring over very large areas of the Great Basin.

SOCIAL AND ECONOMIC IMPACTS CREATED BY MINERAL EXPLORATION

The Idaho Mining Company's planned mineral exploration on the Walker River Indian Reservation will consist of numerous test boring and the construction of approximately 12,000 feet of roadway. The test borings will create no impacts on the social and economic environment. It is unlikely that the location of these borings will be noticeable approximately one month after they are drilled.

The construction of 12,000 feet of access roads will create a low-magnitude beneficial impact on the socio-economic environment. These roads will open more land area on the reservation to a transportation network and will consequently increase accessibility to new

areas. The reservation's Tribal Council welcomes these additional roads for the increased accessibility.

In addition to providing the tribe with new access roads, Idaho Mining Company is paying approximately $5,000 for the mineral exploration rights. It is unlikely that this lump sum payment will create a significant impact on any individual, but proper investment of this cash could create a low-magnitude beneficial impact on the tribe as a whole.

The possible discovery of a valuable mineral deposit beneath the surface could provide the impetus for the establishment of a mine within the reservation boundary. A working mine would provide many employment opportunities for tribal members.

BENEFICIAL IMPACTS

The proposed exploration activities will contribute to the knowledge of the mineral resources of the Walker River Indian Reservation.

The roads to be constructed to provide access to drilling sites will improve the access to some of the more inaccessible grazing lands of the reservation. This is recognized by the Paiute Indian Tribe as a benefit.

The bonus paid to the tribe represents additional income which will be of benefit to the inhabitants of the reservation.

The discovery of a valuable mineral deposit leading to the development of a mine would provide a substantial employment opportunity.

UNAVOIDABLE ADVERSE IMPACTS

The 7 acres of disturbed land and the small quantities of dust and diesel fumes represent unavoidable adverse impacts which will result from the exploration activities. The magnitude of these impacts is very minor.

Similarly, there will be a small unavoidable mortality of plants and animals residing on proposed roadways and drilling sites. The magnitude of these impacts is also minor.

ALTERNATIVES TO THE PROPOSED ACTIONS

The alternatives to the proposed actions include no action, alternate method of exploration, alternate methods of access, and alternate drilling methods.

No Action

This alternative would result in continued ignorance of the resources of the Walker River Indian Reservation, and would maintain the unavailability of any such resources which could contribute to the productivity of the area.

Exploration Methods

Other appropriate methods of exploration (such as geologic mapping and geophysical prospecting) have already been carried out on the reservation, and have defined the anomalies which are the targets of the proposed action. Drilling is the only practical and feasible method by which the nature and significance of the anomalies can be assessed.

Alternative Access

Helicopters are occasionally used to provide access to drill sites in remote areas. However, the costs of using helicopters are such that this method is only used in extreme circumstances; e.g., extremely rugged terrain, primitive areas, etc. Some drill site preparation would still be required.

No alternative access routes appear to offer any environmental advantages compared to the selected ones.

Drilling Methods

There are no appropriate drilling methods which would offer any appreciable environmental advantages over the proposed methods.

RELATIONSHIP OF SHORT-TERM USE TO LONG-TERM PRODUCTIVITY

The proposed actions will not result in any appreciable long-term effect on the productivity of the land. The actions will not interfere with any present or foreseeable future use of the land.

IRREVERSIBLE AND IRRETRIEVABLE EFFECTS

The proposed actions will not result in any irreversible or irretrievable commitment of resources.

* * *

The following are attached and complete this report.

Plate 1, Vicinity Map
Plate 2, Aspiring Prospect
Plate 3, Afterthought Prospect
Plate 4, Badger Prospect
Plate 5, Calico Prospect
Plate 6, Hottentot Prospect
Plate 7, Copper Hill Prospect
References
Biology Literature Cited

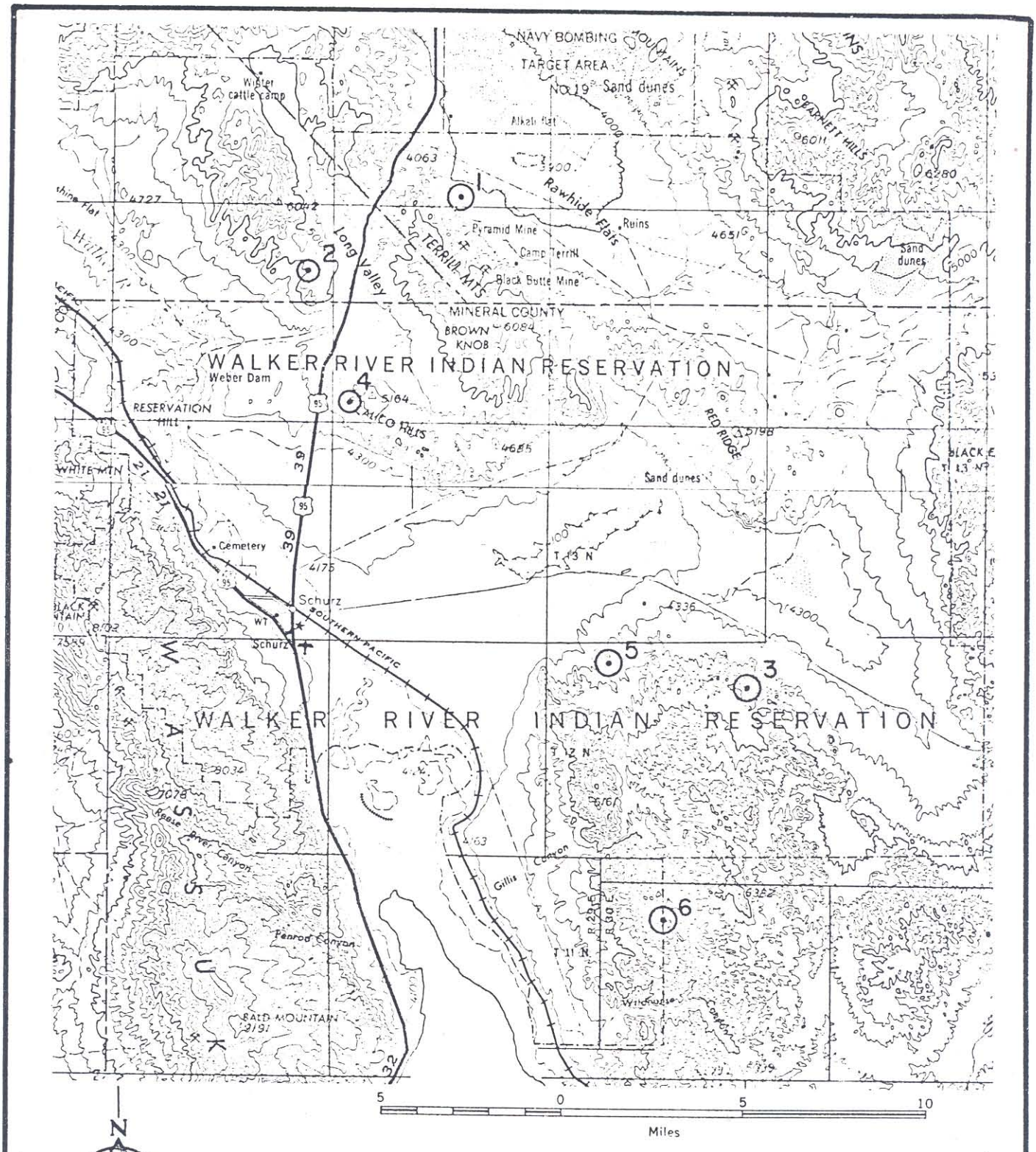
Respectfully submitted,

DAMES & MOORE

Richard L. Brittain

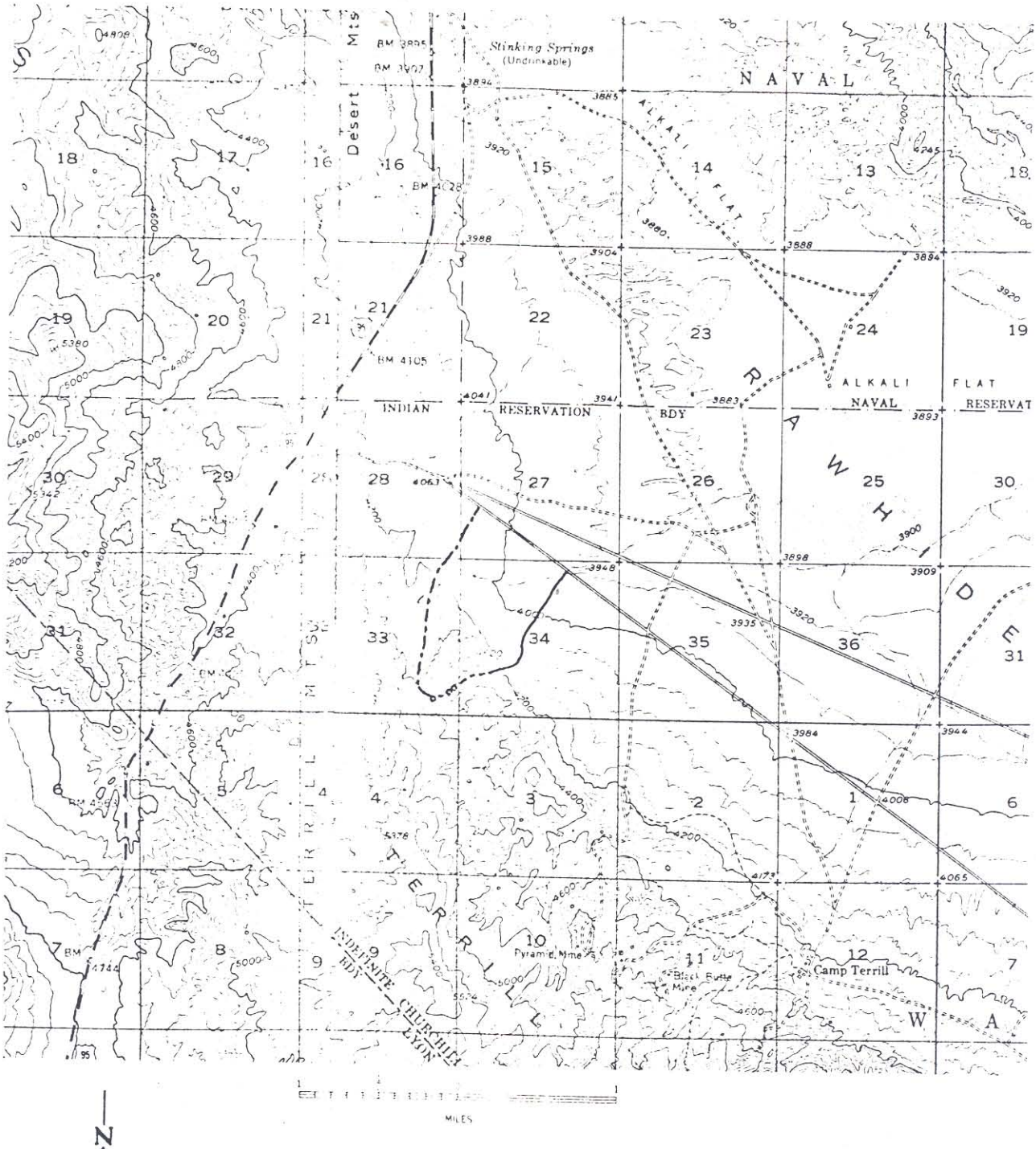
Richard L. Brittain
Associate

RLB/TCP/dls



VICINITY MAP

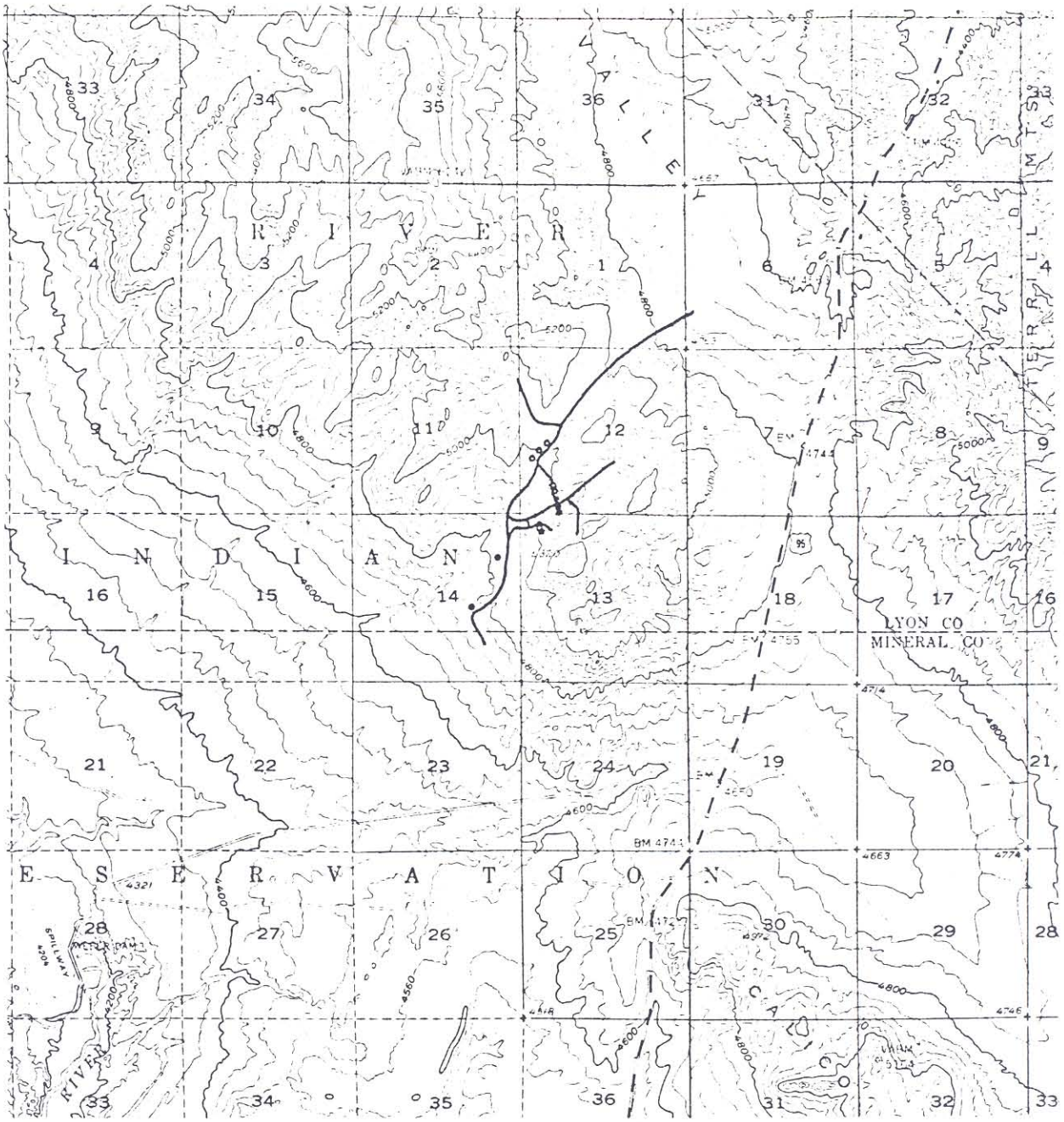
DAMES & MOORE



- PROPOSED DRILL HOLE
- EXISTING ROAD
- PROPOSED ROAD
- ALTERNATE ROAD

ASPIRING PROSPECT

DAMES & MOORE



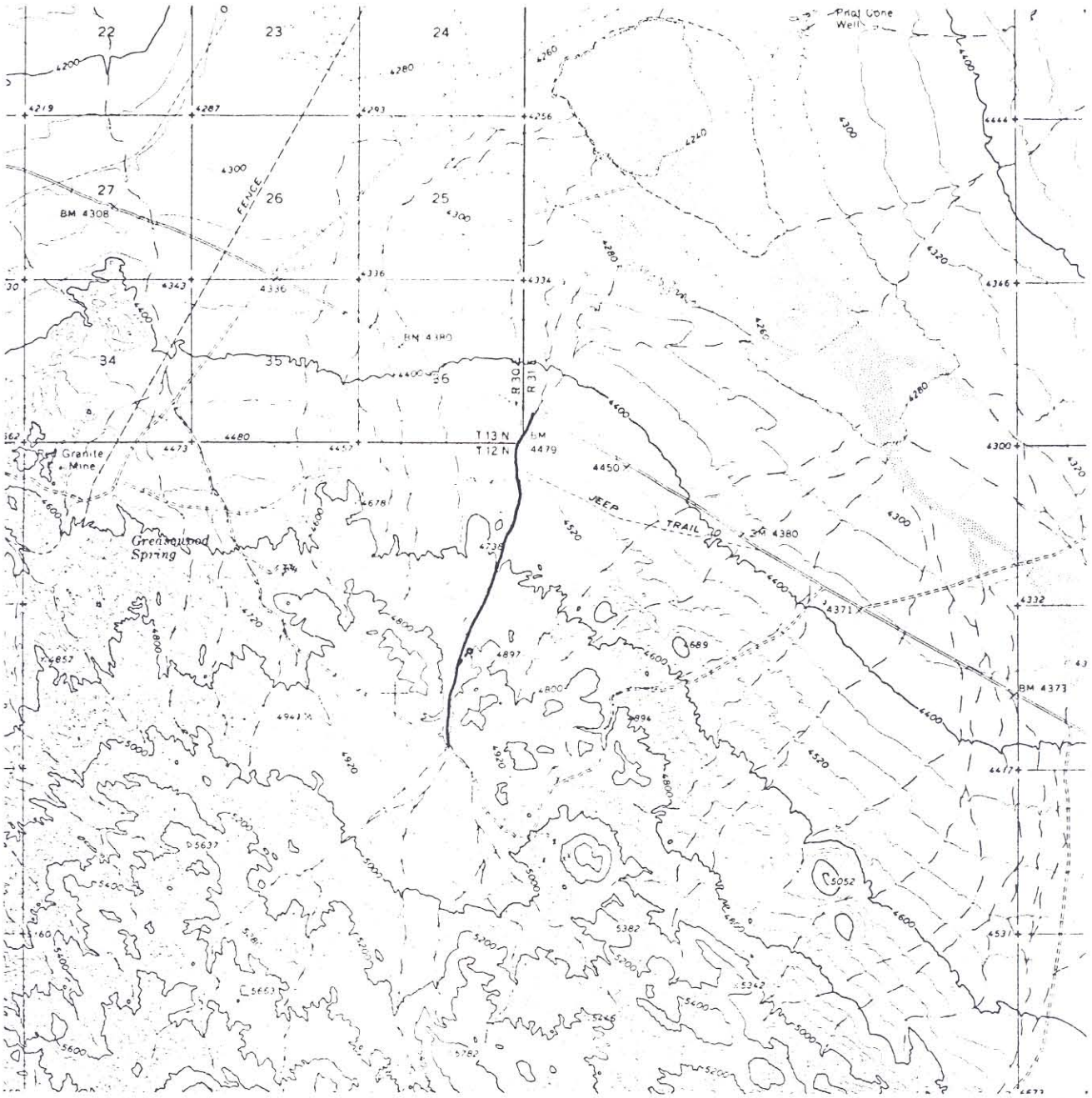
• EXISTING DRILL HOLE

• PROPOSED DRILL HOLE

EXISTING ROADS

AFTERTHOUGHT PROSPECT

DAMES & MOORE



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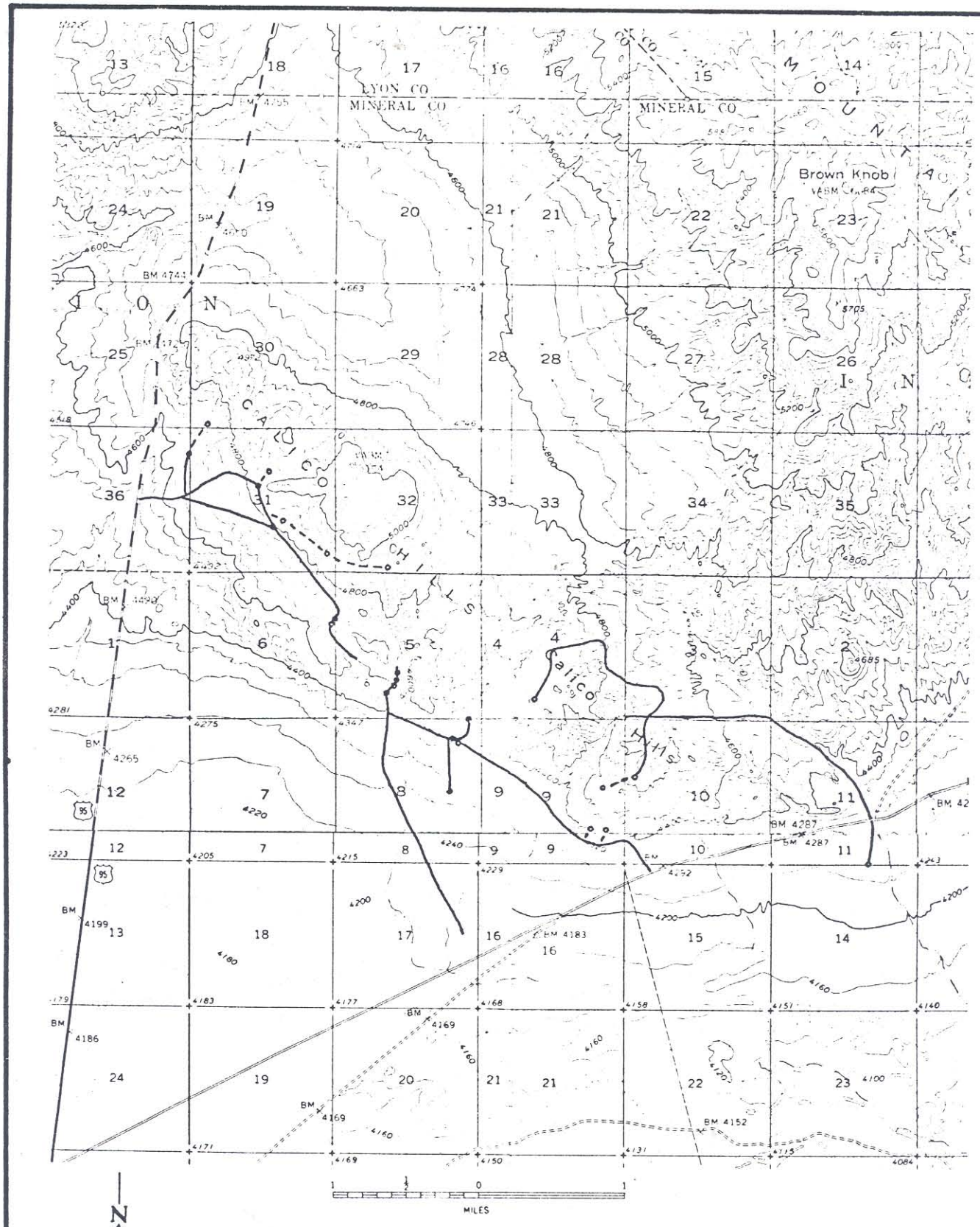
MILES

N

- PROPOSED DRILL HOLE
- EXISTING ROAD
- PROPOSED ROAD

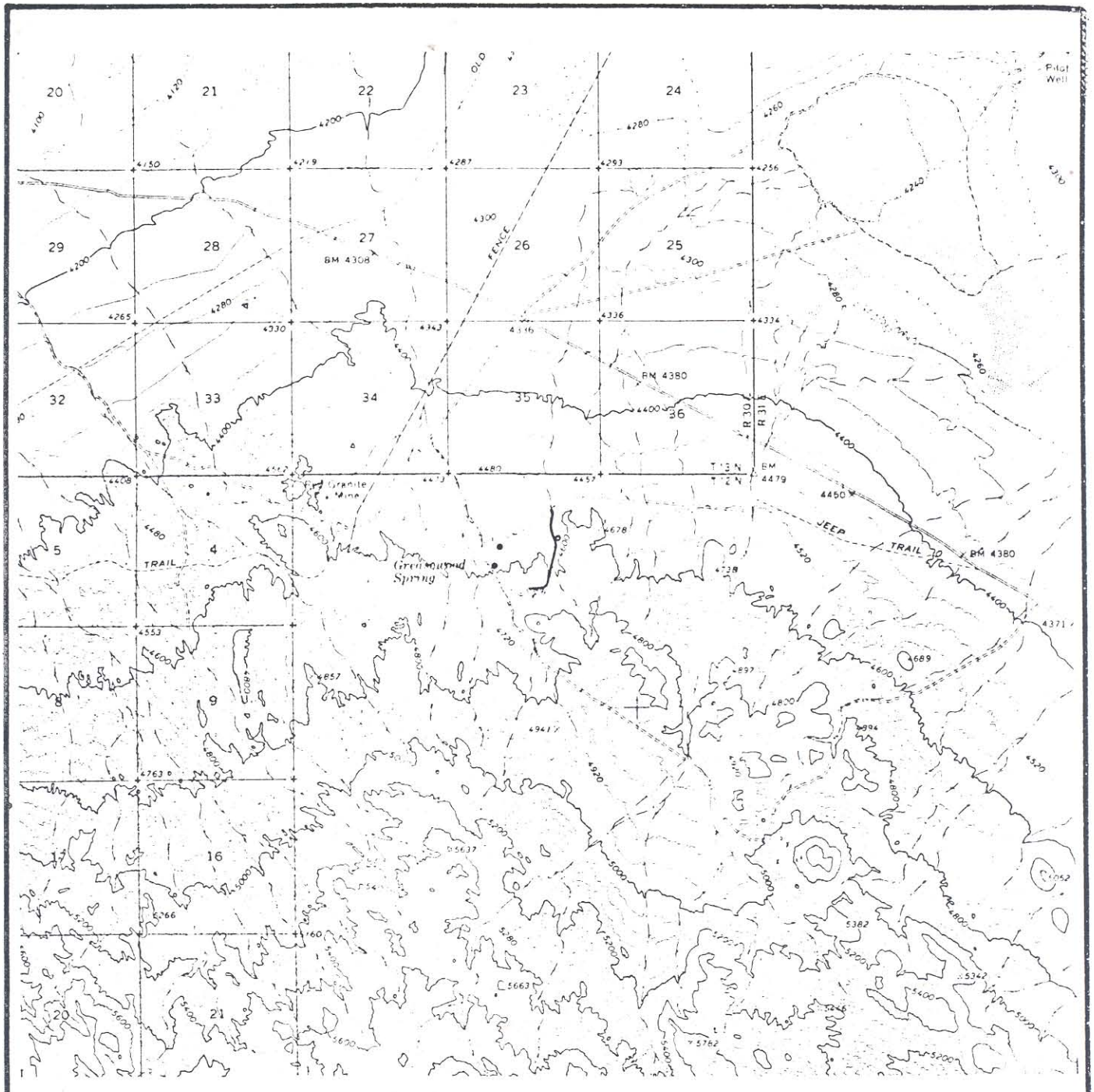
BADGER PROSPECT

DAMES & MOORE



CALICO PROSPECT

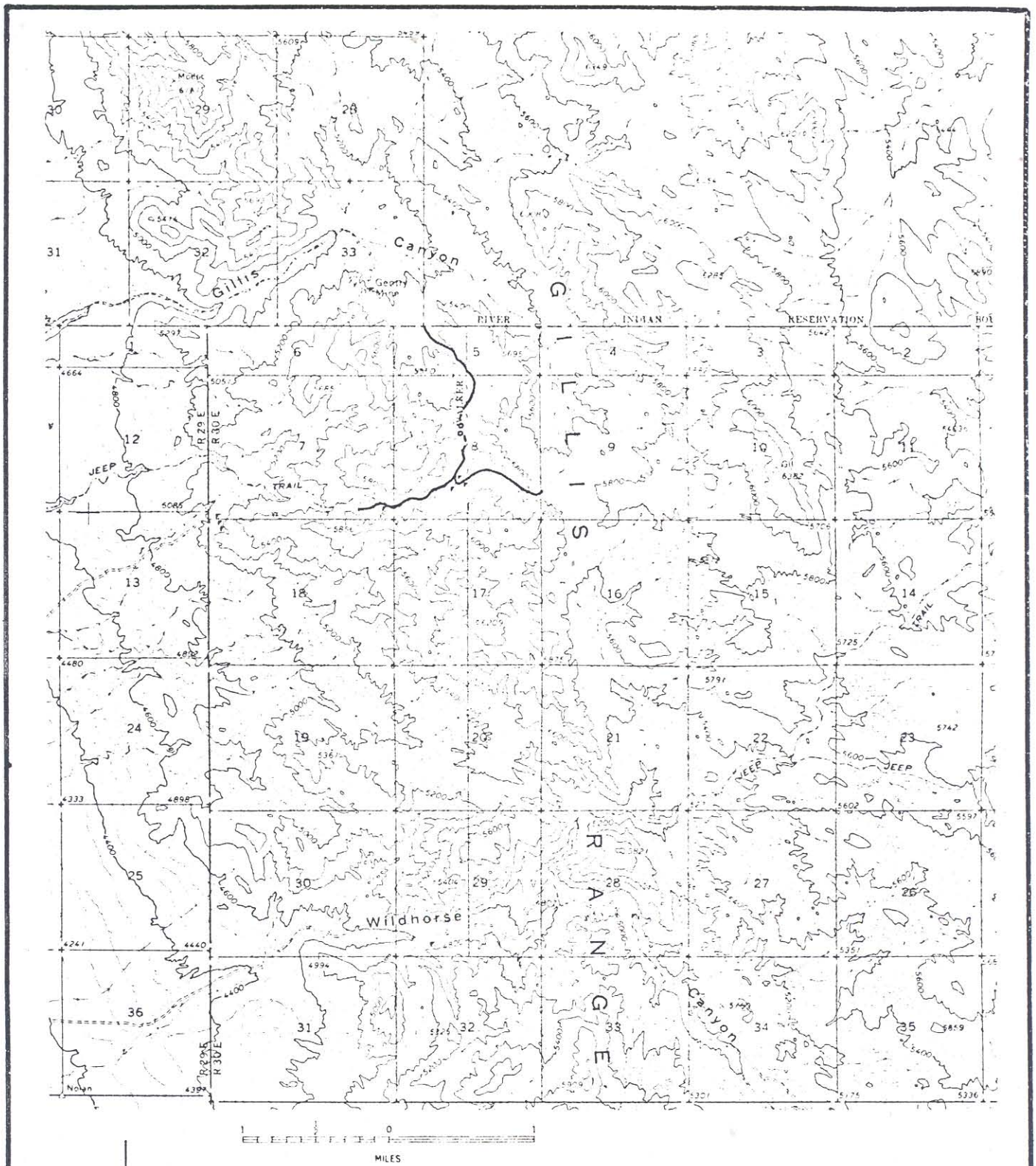
DAMES & MOORE



- EXISTING DRILL HOLE
- PROPOSED DRILL HOLE
- EXISTING ROAD

HOTTENTOT PROSPECT

DAMES & MOORE



COPPER HILL PROSPECT

DAMES & MOORE

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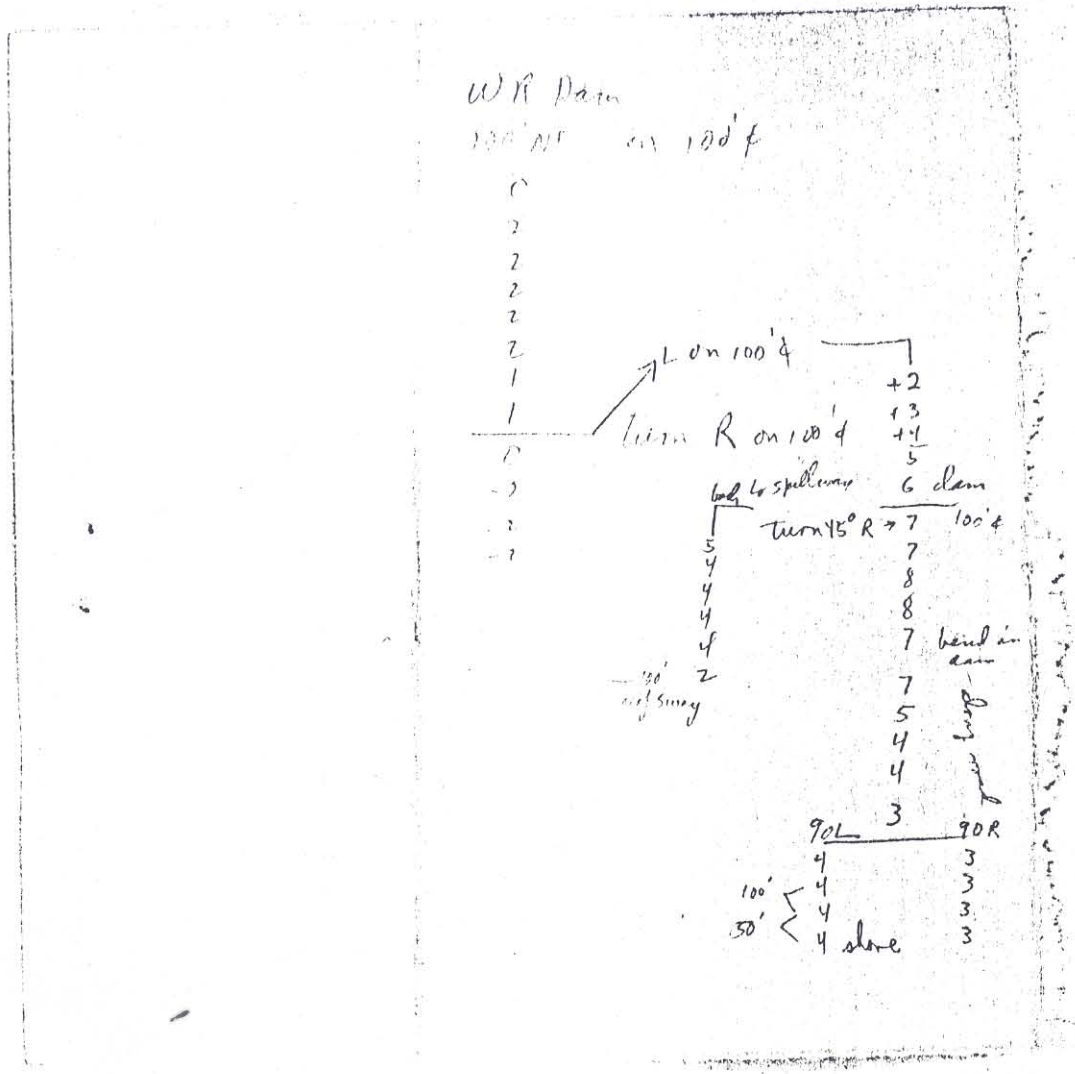
Misc.

6000 0134 (0760)



Weber Reservoir 4-23-63

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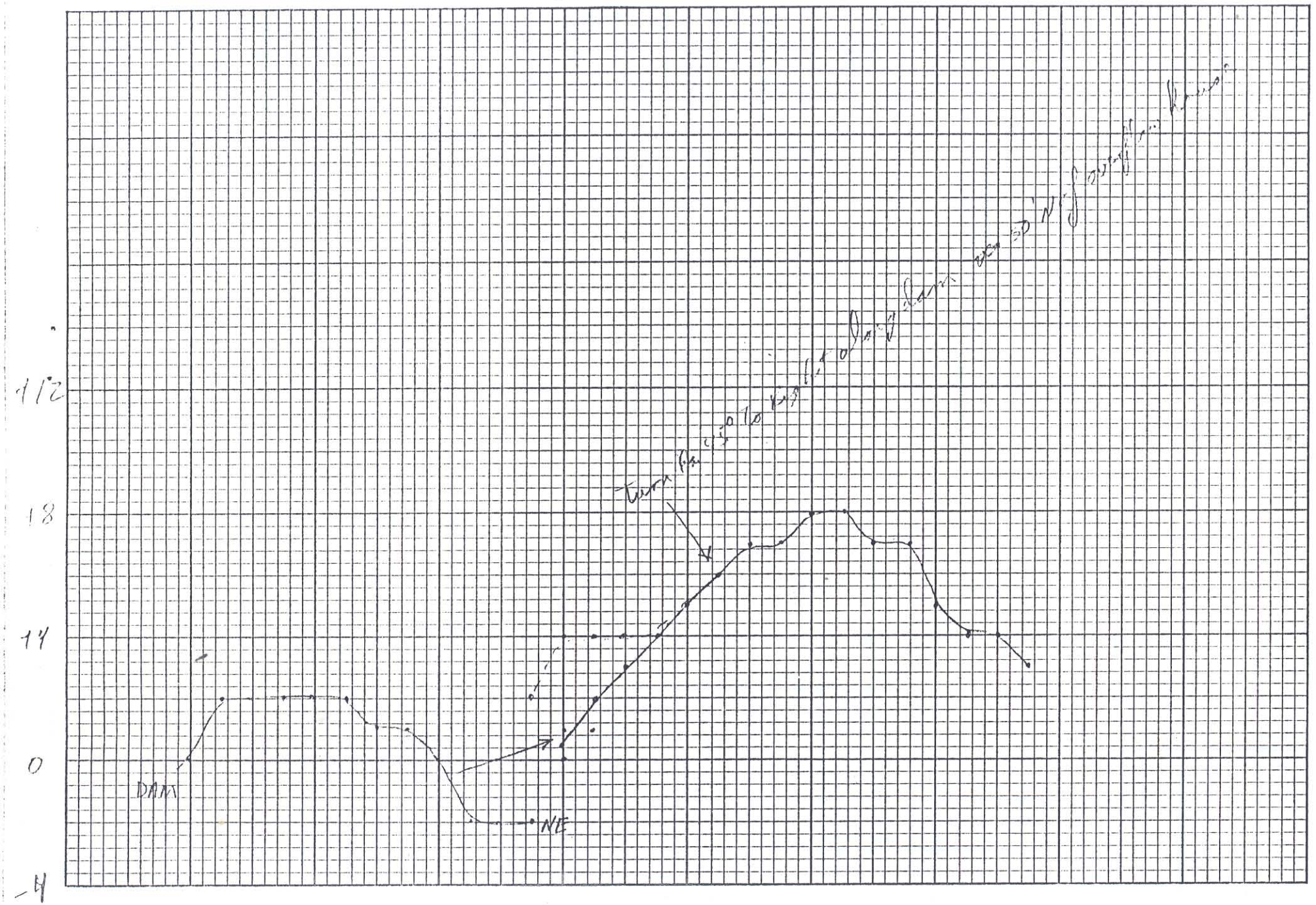


1" = 100'

6000 0134 (0760)

RENO OFFICE

ROCKY MOUNTAIN GEOCHEMICAL CORP.

840 GREG STREET · SPARKS, NEVADA 89431 · PHONE: (702) 359-6311

Certificate of Analysis

RMGC Numbers:

Local Job No.: 74-39-39R

Foreign Job No.:

Invoice No.: 9821

Date: Janaury 2, 1975

Client: Idaho Mining Corporation
P. O. Box 293
Grand Junction, Colorado

Client Order No.: None

Report On: 3 soil samples

Submitted by: W. L. Wilson

Date Received: December 16, 1974

Analysis: Copper, Molybdenum, Gold and Silver

Analytical Methods: Analysis is determined by atomic absorption

Remarks: None

cc: Enclosed
Idaho Mining, Reno, Nevada
Idaho Mining, Eureka, Nevada
RMGC
File

GMF:er ----------

Sample No.	ppm Copper	ppm Molybdenum	ppm Gold	ppm Silver
12-10-74-1	45	-1	-0.1	-1
12-10-74-2	50	-1	-0.1	-1
12-10-74-3	25	-1	-0.1	-1

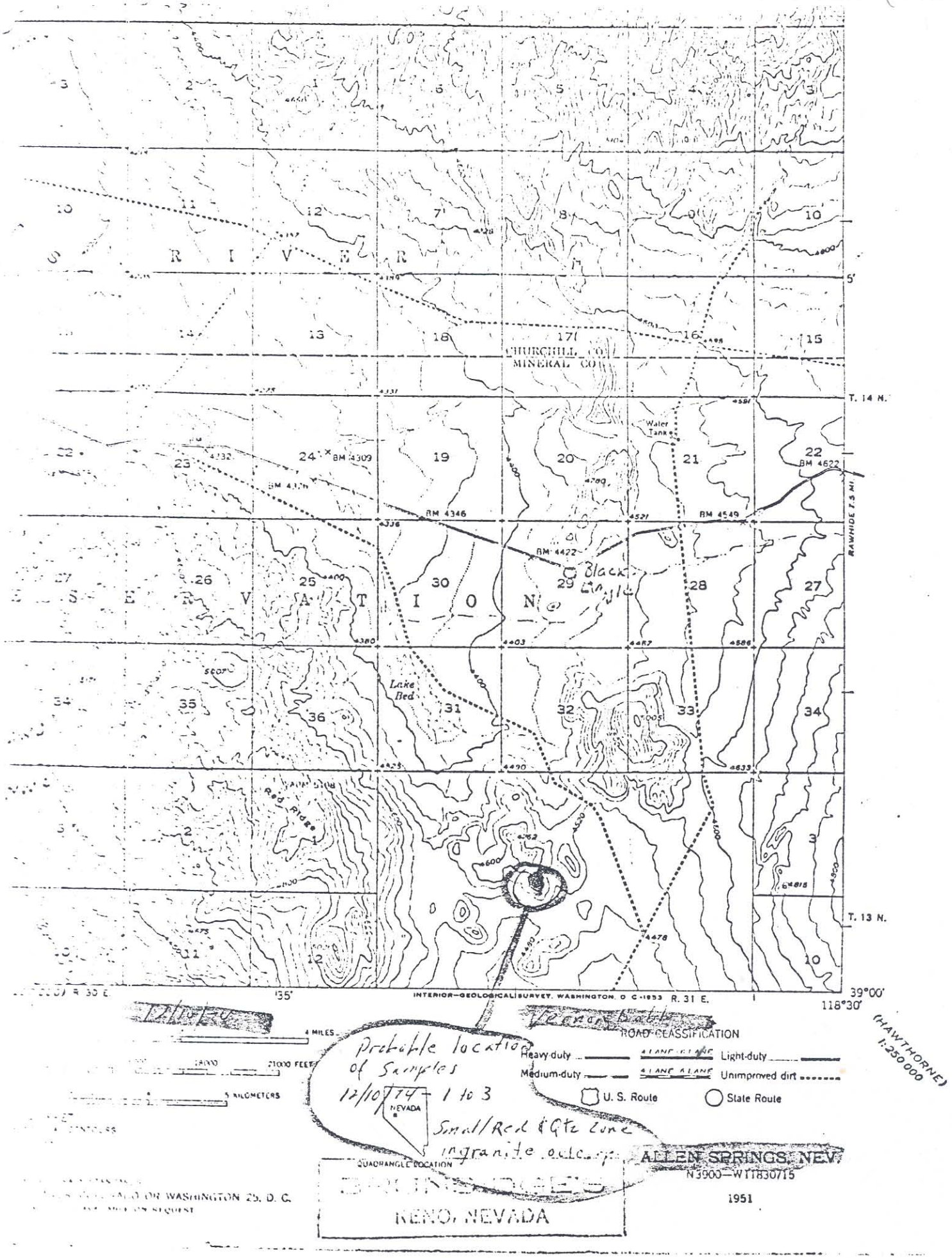
By Gary M Fechko

Gary M. Fechko
Rocky Mountain Geochemical Corporation
Sparks, Nevada Janaury 2, 1975

All values are reported in parts per million unless specified otherwise. A minus sign (—) is to be read "less than" and a plus sign (+) "greater than." Values in parenthesis are estimates. This analytical report is the confidential property of the above mentioned client and for the protection of this client and ourselves we reserve the right to forbid publication or reproduction of this report or any part thereof without written permission.

ND = None Detected 1 ppm = 0.0001% 1 Troy oz./ton = 34.286 ppm 1 ppm = 0.0292 Troy oz./ton

6000 0134 (0760)

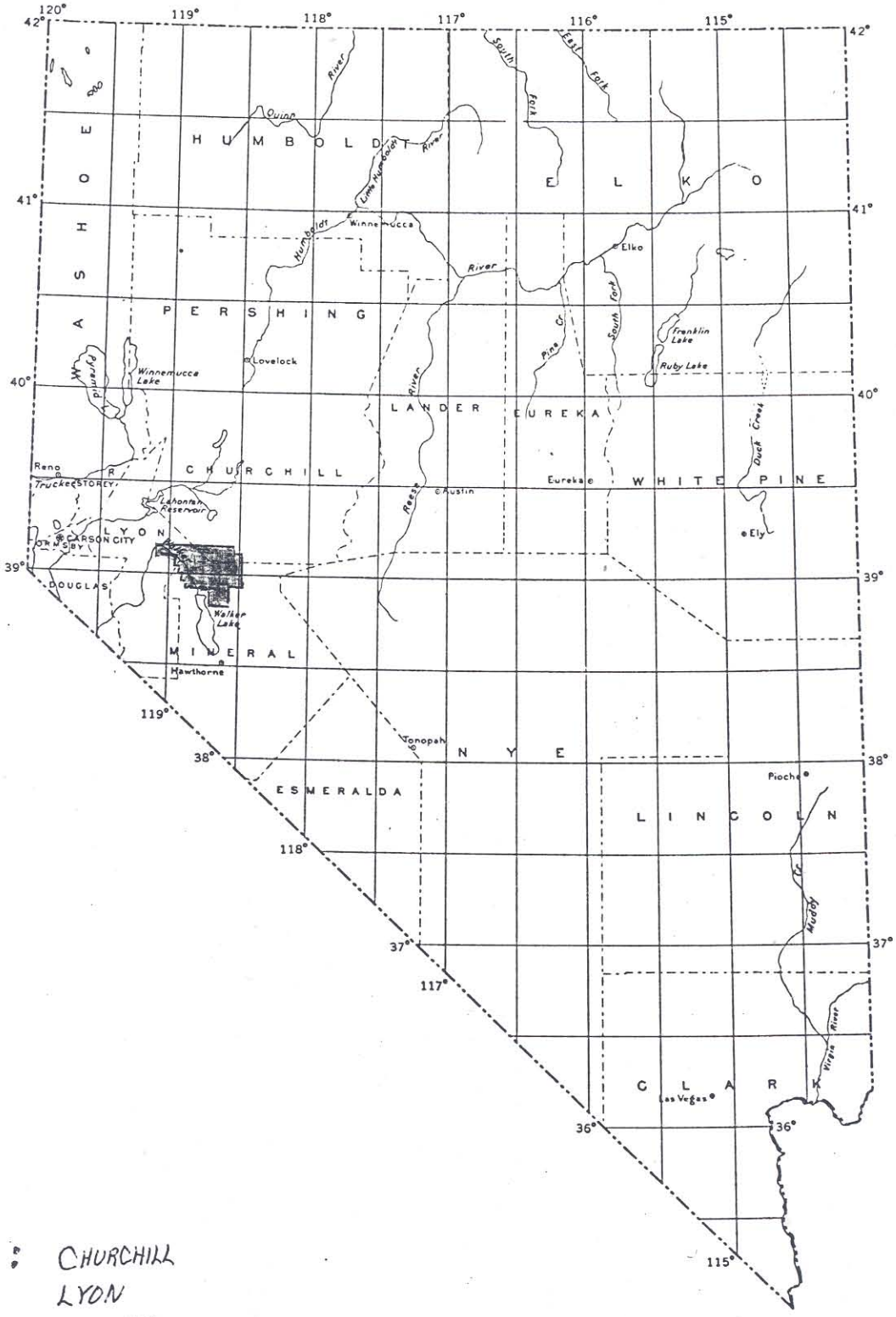


WALKER RIVER INDIAN RESERVATION 6000 0134 (0760)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEVADA

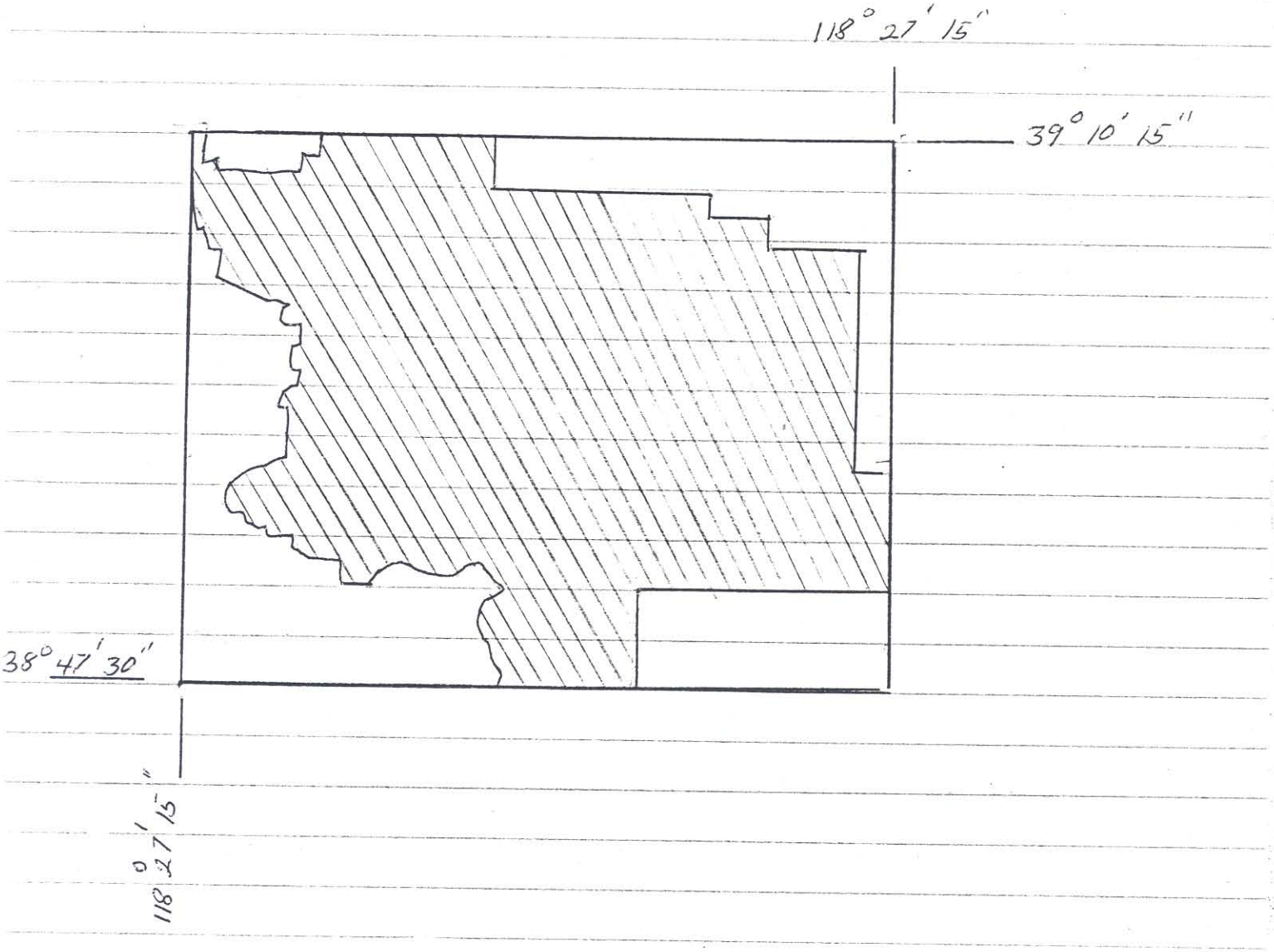
TOPOGRAPHIC DIVISION
PACIFIC AREA
MENLO PARK, CALIFORNIA



COUNTIES : CHURCHILL
LYON
MINERAL

6000 0134 (0760)

WALKER RIVER INDIAN RESERVATION.



6000 0134 (0760)

SPEED MESSAGE

TO: W. C. Milsen [illegible]

FROM: R. L. Redmond

SUBJECT: Map Colors

DATE: 8/25 1966

Attached is an outline as to map colors and # 1 colored pencil to be used so that all maps will be on the same bases

SIGNED: RLR

6000 0134 (0760)

EXPLANATION

735½ -	LB		Lake beds	~~XXXXXXXXXXXXX~~ Lemon yellow
735	S	916	Alluvium with sand	Canary yellow
735	Q_{Al}	916	Alluvium	" "
736	QS	942	Lacustrine deposits	Yellow ochre
739	V37	910	Basaltic flows and intrusives	Green
739½	V26	M 333 / 912	Andesitic to intermediate flows	Olive green
738	$V21_f$	909	Andesitic flows	Grass green
738	V21	909	Andesitic intrusive	" "
738½	V1	912	Tuffs, including crystal tuffs, lapilli tuffs, vitric tuffs welded tuffs, agglomerates.	Light green
745	P	924	Pegmatite, Quartz	Carmine red
759	G	M 864	Granitic and aplitic intrusives, highly siliceous	magenta
743	FGI	M 846	Fine grained intrusive, probably granodiorite, quartz monzonite, and/or granite	Pink
737	QM	918	Quartz Monzonite, medium to coarse grained	Orange
742	GD	M 854 / 931	~~Lavender~~ Fuscia Granodiorite, fine to medium grained	Violet
742½	Di	934	Diorite and gabbro, medium to coarse grained	Lavender
746½	M	937	Metamorphics, including: cs - calc-silicates; sk - skarn; sch - schist; ls - limestone, usually recrystallized; qzte - quartzite; sl - slate	Tuscan red
740½		903 blue	Limestone	Limestone
750, 744		924	Rhyolitic flows and intrusives	Vermillion abd scarlet red

Shaft

Prospect

Contacts

Faults

Fractures

Copper mineralization on surface

EAGLE VERITHIN

([illegible])

THIS IS THE GENERAL COLOR SCHEME, AND IS HELD AS LONG AS POSSIBLE, however, as required these colors are varied on local quads, but an attempt is made to maintain lavender for the diorite-quartz-diorite-monzonite complex that the principal mineralization has been found in at the Hottentot and Calico, light green is reserved for the acidic tuffaceous rocks, green for the the more basic flows and intrusives, grass green and olive green for the intermediate flows and intrusives (also terra cotta if needed on detailed maps), magenta for granite and aplites, vermillion and scarlet red for acidic (rhyolitic) intrusives and flows.

Misc

which property?

SKYLINE LABS, INC.
SPECIALISTS IN GEOCHEMICAL EXPLORATION
12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. M-939
May 12, 1971

Idaho Mining Corporation
P.O. Box 2183
Grand Junction, Colorado 81501

25 Drill Cutting Samples

Item	Sample No.	Au (ppm)	Ag (ppm)	As (ppm)	Hg (ppm)
1.	B-201	<.02	<.2	30	.02
2.	202	<.02	<.2	20	.025
3.	203	<.02	<.2	10	.025
4.	204	<.02	<.2	10	.025
5.	205	<.02	<.2	10	.045
6.	206	<.02	<.2	20	.07
7.	207	<.02	<.2	30	.065
8.	208	<.02	<.2	30	.05
9.	209	<.02	<.2	30	.075
10.	210	<.02	<.2	30	.06
11.	211	<.02	<.2	20	.05
12.	212	<.02	<.2	10	.06
13.	213	<.02	<.2	10	.04
14.	214	<.02	<.2	10	.03
15.	215	<.02	<.2	<10	.025
16.	216	<.02	<.2	10	.045
17.	217	<.02	<.2	10	.04
18.	218	<.02	<.2	20	.055
19.	219	<.02	.6	20	.13
20.	220	<.02	.4	60	1.0
21.	221	<.02	.4	80	1.5
22.	222	<.02	.2	120	1.5
23.	223	<.02	.6	60	.84
24.	224	<.02	.2	30	.74
25.	B-225	<.02	.2	10	.09

Charles E. Thompson
Chief Chemist

cc: Idaho Mining Corporation
Reno, Nevada

SKYLINE LABS, INC.
SPECIALISTS IN GEOCHEMICAL EXPLORATION
12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. M-939-A
May 18, 1971

Idaho Mining Corporation
P.O. Box 2183
Grand Junction, Colorado 81501

Attention: W. L. Wilson

25 Pulp Samples

Item	Sample No.	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)
1.	B-201	45	15	85	2
2.	202	15	20	80	2
3.	203	15	15	80	2
4.	204	15	20	85	2
5.	205	15	20	85	2
6.	206	20	15	80	2
7.	207	25	20	75	2
8.	208	20	15	80	2
9.	209	20	15	80	2
10.	210	15	10	100	2
11.	211	15	10	85	2
12.	212	20	15	100	2
13.	213	20	15	90	2
14.	214	20	10	85	2
15.	215	20	10	95	2
16.	216	20	15	95	2
17.	217	25	20	85	2
18.	218	25	35	200	4
19.	219	40	50	275	8
20.	220	45	70	270	4
21.	221	20	60	190	4
22.	222	15	50	220	2
23.	223	15	45	280	2
24.	224	15	45	230	2
25.	B-225	15	65	210	12

Charles E. Thompson
Chief Chemist

cc: Idaho Mining Corporation
Reno, Nevada 89502

Form 5–155
(October 1957)

6000 0134 (0760)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

Contract No. .....

..... Agency

.....

MINERAL PROSPECTING PERMIT
(Nonexclusive and Nonoptional)

THIS AGREEMENT, made and entered into this ..... day of ....., 19....., by and between the .....,
party of the first part, hereinafter called Permitter, whose address is .....
....., and .....,
whose address is ....., party of the second part, hereinafter called Permittee.

In consideration of the sum of ..... dollars ($.....), paid to ....., the receipt of which is hereby acknowledged, and the covenants, stipulations, and conditions hereinafter contained, it is agreed:

1. Permitter hereby grants the Permittee, subject to limitations hereinafter stated, a nonexclusive right for a term beginning with the date of approval of this permit and ending .....
....., for the sole purpose of prospecting for minerals other than oil and gas upon the following described lands of Permitter, subject to valid existing rights, consisting of ..... acres, more or less, to wit:

.....

.....

.....

.....

2. This permit is granted upon the following express terms, covenants, and conditions:

(a) PREFERENCE.—This permit does not grant an exclusive right to prospect or give any preference right to a lease.

(b) REMOVAL OF ORES.—No ores may be removed from the premises except samples for examination and experimental purposes and the removal of such samples shall be subject to the approval of the Superintendent.

16—74293-1

(c) DISPOSITION OF MINERALS AND SURFACE.—The Permitter expressly reserves the right to use, lease, sell, or otherwise dispose of the minerals and the surface of the lands embraced within this permit under existing laws or laws hereafter enacted. Upon such disposition or use, the Permitter reserves the right to withdraw the lands from the permit area.

(d) DAMAGES.—The Permittee shall conduct all operations authorized in this permit with due regard to preventing unnecessary damages to vegetation, timber, soil, roads, bridges, cattle-guards, fences, and other improvements, including construction, operation, or maintenance of any of the facilities on or connected with this permit which causes damage to the watershed or pollution of the water resources. On termination of operations under this permit, the Permittee shall make provisions for the conservation, repair and protection of the property and leave all of the areas on which the Permittee has worked in a condition that will not be hazardous to life or limb, and will be to the satisfaction of the Superintendent.

(e) LIABILITY FOR DAMAGE.—The Permittee is liable for any and all damages resulting from its operations under this permit; including injury to the Permitter, the tenants, licensees and surface owners, and for any and all damage to, or destruction of, all property, caused by the Permittee's operations hereunder. The Permittee agrees to save and hold the Permitter and the United States, licensees, and the surface owner or their tenants harmless from all suits for injury or claims for damages to persons and property resulting from the Permittee's operations under this permit.

(f) FOREST PROTECTION.—The Permittee agrees:

(1) Not to cut, destroy, or damage timber without prior authority of the Commissioner of Indian Affairs, or his authorized representative, such authorization to be made only where required in the pursuance of necessary mining operations.

(2) To pay for all such timber cut, destroyed, or damaged at rates prescribed by the Commissioner of Indian Affairs or his authorized representative, such rates to be determined on the basis of sales of similar timber in the vicinity.

(3) Not to interfere with the sale or removal of timber from the land covered by this permit by contractors operating under an approved timber sales contract now in effect or which may be entered into during the period of this permit.

(4) To do all in its power to prevent and suppress forest, brush, or grass fires on the permitted land and in its vicinity, and to require its employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. To place its employees, its contractors, subcontractors, and the employees of such contractors or subcontractors employed on the permitted land at the disposal of any authorized officer of the Indian Service for the purpose of suppressing forest, brush, or grass fires with the understanding that the payment for such services shall be made at rates to be determined by the Commissioner of Indian Affairs or his authorized representative, which rates shall not be less than the rates of pay prevailing in the vicinity for services of similar character: *Provided,* That no payment shall be made for services rendered in the suppression of fires for which the Permittee, its employees, contractors, or subcontractors or the employees of such contractors or subcontractors are responsible.

(5) To pay for the loss of all timber ten (10) inches or more in diameter occasioned by fires for which the permittee, or any of its employees, contractors or subcontractors, or the employees of such contractors or subcontractors are responsible for the start or spread, the assessment of the value of such damages to be determined by the Commissioner of Indian Affairs or his authorized representative on the basis of the value of such timber on sales of similar timber in the vicinity. Also to pay liquidated

damages of ..... dollars ($.....) per acre for all young timber less than ten (10) inches in diameter destroyed by such fires unless a lesser rate of damages shall be approved by the Commissioner of Indian Affairs, and to pay all costs for the suppression of fires for which it, or any of its employees, contractors, or subcontractors, or the employees of such contractors or subcontractors are responsible.

16—74293-1

(6) Not to burn rubbish, trash, or other flammable materials except with the consent of the authorized representative of the Commissioner of Indian Affairs, and not to use explosives in such manner as to scatter flammable materials on the surface of the land during the fire season, except as authorized to do so by such representative.

(g) LIQUOR.—The Permittee agrees not to use or permit to be used any part of the premises for any unlawful purpose; that it will not use or permit to be used any part of the premises for the manufacture, sale, gift, transportation, drinking, or storage of intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the Permittee or with its knowledge, renders this permit voidable at the option of the Superintendent.

(h) ASSIGNMENT.—The Permittee agrees not to assign this permit or any interest therein by an operating agreement, an agreement to pay overriding royalty or otherwise, nor to sublet any portion of the permitted premises, except with the approval of the Secretary of the Interior or his authorized representative.

(i) SURRENDER AND TERMINATION.—The Permittee may, in writing, surrender this permit at any time upon the performance of all the Permittee's obligations hereunder, upon the payment of $1 and upon a showing satisfactory to the Secretary of the Interior or his authorized representative, that full provision has been made for the conservation and protection of the property. If this permit has been recorded, Permittee shall file a recorded release with its application for surrender.

(j) REPORTS.—The Permittee shall within 30 days after the termination of this permit furnish the Superintendent detailed and complete written reports of the prospecting done and all information concerning the nature and value of the minerals.

(k) REGULATIONS.—This permit is granted pursuant to the act of _____ _____ and regulation 25 CFR _____, and must comply with all the laws and regulations applicable to prospecting on Indian lands.

(l) BOND.—Before this permit becomes effective, Permittee shall furnish to the Superintendent of the _____ Agency, _____, _____, an acceptable surety bond in the amount of _____ dollars ($_____).

(m) CANCELLATION AND FORFEITURE.—When in the opinion of the Secretary of the Interior or his authorized representative, there has been a violation of any of the terms and conditions of this permit, or the applicable regulations, the Secretary or his authorized representative may at any time after thirty days' notice to the Permittee, specifying the violations, declare this permit void.

16—74293-1

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

Two witnesses to execution
by Permitter;

.....

.....

P.O. .....

.....

P.O. .....

Two witnesses to execution
by Permittee:

.....

.....

P.O. .....

.....

P.O. .....

The within permit is approved. ....., 19.....

.....

Superintendent, ... Agency

U.S. GOVERNMENT PRINTING OFFICE 1[illegible]--74293-1

6000 0134 (0760)

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
PHOENIX AREA OFFICE
P.O. Box 7007
Phoenix, Arizona 85011

WESTERN NEVADA AGENCY CARSON CITY NEVADA 89701

APR 4 1 15 PM '83

RECEIVED

IN REPLY REFER TO:
332 - Walker River, WNA
General
(602) 241-2275

March 31, 1983

RECEIVED
Date APR 14 1983
Walker River Paiute Tribe

Through: Superintendent, Western Nevada Agency

Elvin Willie, Jr.

Chairman, Walker River Paiute Tribal Council

Dear Mr. Willie:

We have reviewed the proposed mining lease which was prepared by Roland Lee, George Ponton, and Douglas Quintero, and hand-carried to this office by Roger Williams on March 30, 1983. Our review is in accordance with regulations contained in 25 CFR 211 and 216, even though some changes to those regulations will take place within the next three months due to the requirements of the Indian Mineral Development Act of 1982.

The first part of the proposed lease specifies a term of ten (10) years, and Article 9 deals with successive renewals for like terms. The 1938 Mineral Leasing Act, and our regulations, require a term of not to exceed ten years from the date of approval by the Secretary of the Interior, and as long thereafter as the minerals specified in the lease are produced in paying quantities. The primary term can be less than ten years, and the Tribe can place a limit on the total term, but the term must reflect the fact that the lease will expire at the end of the primary term if the specified minerals are not being produced in paying quantities at that time.

The identification of the lease parcel in this first part of the lease should include township and range as well as section. Section 17, incidentally is not within the parcels nominated for leases by Idaho Mining Corporation.

The first part of the proposed lease mentions "rental" but none is specified in the body of the lease. A rental charge will be necessary. It also refers to the "Golden Dream" mining claim, which is probably invalid and therefore non-existent.

Article 1 is not necessary since the Tribe has the power to lease the lands, and the Secretary will assure himself the property is free of encumbrances before he approves the lease.

Article 2(a) is incorrect in that the Lessee cannot begin operations until the lease is approved by the Secretary and a mining plan is approved by the Bureau of Land Management.

Article 2(c) specifies that the Lessee ". . . shall comply with all State . . . laws, rules and regulations . . . ", which is appropriate as long as it is understood that the reservation is not subject to State jurisdiction. The amounts of insurance mentioned in this article should be stipulated. The crediting of certain taxes paid against the royalty obligations is a negotiable item. The mention of claims locations in this lease is not appropriate. The compliance necessary is with the terms of the lease, and, of course, Tribal and Federal laws and regulations, not with the 1872 General Mining Laws.

Current regulations at 25 CFR 211.15 stipulate a royalty for gold and silver of ten percent of the value of bullion as shown by mint returns after deducting forwarding charges to the point of sale. The royalty rates in Article 3 are considerably less and will need to be negotiated. We also question the adequacy of the prepaid or advance royalty provision. The most that could be paid is $1200 a year if no operations are conducted, which amounts to $1.88 per acre per year for Section 17.

Article 8 is not appropriate. We are not dealing with claims in this lease, and additional lands cannot be automatically added to this lease.

The assignment clause, Article 10, should also require the approval of the Secretary.

The proposed lease does not contain environmental protection and reclamation measures, and other required provisions such as a surety bond. For that reason we have enclosed sample prospecting permit and lease forms which contain acceptable provisions and, with certain modifications, could be used in lieu of the proposed lease. We included the prospecting permit form because it is usually more appropriate to issue a short term prospecting permit first rather than to go directly into a lease. Because of the very stringent Federal requirements that precede lease issuance, a definite indication of an ore deposit should be a prerequisite.

get

Please contact this office if you need additional information or clarification of any of the items listed herein.

Sincerely,

Walter R Mills

Acting Asst. Area Director

Enclosures

LEGAL DESCRIPTION OF CALICO HILLS:

Sections [redacted] 17, [redacted]
T. 13 N., R. 29 E., MDB&M
MINERAL COUNTY, NEVADA

MINING LEASE

THIS AGREEMENT , made and entered into as of the _____ day of _____, 1983 , by and between _____ _____ _____(LESSOR) and _____ _____(LESSEE).

WITNESSETH :

Lessor hereby leases to the lessee , and the Lessee hires and takes from the Lessor , for a term of ten (10) years subject , to renewal as provided herein , for the purpose and upon the rental and royalties hereinafter specified , all that certain real property ('Properties') consisting of mining claims , and or mineral rights situated on Walker River Indian Reservation , section 17 Schurz - Quadrangle , State of Nevada and called : The Golden Dream ; and listed upon Exhibit A , which exhibit is attached hereto and made a part hereof .

1. Lessors Warranty

Lessor represents and warrants to Lessee :

(a) That to the best of its knowledge and belief , the titles to the Properties are valid .

(b) The Properties , and all property therein or thereon , are free and clear of any and all liens and encumbrances , except property taxes for the current year , and Lessors know of no claim of ownership by any third party to any of the Properties or the minerals contained therein ; Lessor represents and warrants that it has the right and power to enter into this lease .

2. Work on Properties

(a) Immediately upon excution of this lease , Lessee shall hace the exclusive rights and privilege during the term hereof , to enter into and upon the Properties to explore for , extract , remove , mine , treat , ship and sell ores , minerals , metals , or such other materials found in or upon said Properties which Lessee may deem profitable , including material which is valuable solely because of its geographical location , and the full right , privilege and authority to construct , erect , operate , use and maintain on or in the Properties any and all buildings , structures, machinery , excavations , shafts , openings , ditches , water pipes , roads and other improvements , property and fixtures , stockpiles of ore , and tailings disposal systems , which in Lessee's judgement , may be reasonably necessary , convenient or suitable formining , removing , concentrating , beneficiating , shipping andselling any of such ores , minerals , metals or products thereof as may be taken from the Properties , or for any activities incidental thereto , including the full right to dump earth , rock , [redacted] , ores and tailings from the Properties upon any part of parts of the Properties . Lessee shall have the right to make decisions as to buyers , times of sales , prices , whether to sell ore or concentrates or refined metals , or a combination of the same , and whether to stockpile ore for any length of time without selling the same .

Nothing in this lease shall be construed or interpreted to require Lessee to develop a seprate shaft or shafts on the Properties or any of them , or to prevent Lessee from developing mines or other operations on the Properties .

(b) Lessee shall conduct all operations on the Properties in the manner necessary to good miner-like , economical mining ,

in accordance with good industry practice .

(c) Lessee , in its operations , shall comply with all State and Federal laws , rules and regulations applicable thereto : shall carry Workmen's Compensation Insurance for all employees engaged in such operations : shall promptly pay all bills and claims for labor , materials and equipment incurred by Lessee in its operations, and shall hold the Lessors and its property at all times harmless against claims of lien for any such labor , materials or equipment: shall carry adequate fire insurance on all structures erected thereupon and adequate public liability insurance protecting the Lessor against any claims or loss from damage to persons or property resulting from Lessee's operations ; shall pay promptly all taxes levied upon the properties prior to the delinquent date , and all bullion taxes or severance taxes which may be levied against the production from the Properties provided , that in making their royalty settlements , Lessee shall be entitled to charge against Lessor its respective proportions of the royalty precentage of bullion or severance taxes . Lessee shall maintain unpatented locations embraced within the demised premises in good standings , that Lessee files assessment work by August 15 , of assessment year , by performance of annual labor thereon at Lessee's expense and recording the affidavit of Proof of Labor (or during such period as the same may be lawfully substituted for annual labor , shall record notices of intention to hold the same for Lessor's benefit) ; and shall post and keep posted on the demised premises such notices as to Lessor's nonresponsibility for liens as Lessor may furnish to Lessee for such purposes .

3. Production Royalties

If and when the Lessee commences production of metal and

minerals from the properties , the Lessee shall pay the Lessor a monthly production royalty in accordance with the scale in Exhibit "B" on the net mint or smelter returns upon all metals , ores , minerals and mineral substances (or concentrates produced therefrom by Lessee) produces , sold and shipped from the Properties . Lessee agrees to commence operations no later than March 15, 1984 or in lieu of operations agrees to pay prepaid royalties in the amount of ($100) one-hundred dollars for every (10) ten shifts less than (120) one-hundred twenty per year .

EXHIBIT "B"

2½%	0 - $ 50	per ton
5%	$ 50 - $100	per ton
10%	$100 - up	per ton

(a) The term " net mint or smelter returns " shall mean the amount actually received from the mint , smelter , and as shown on the regular returns and in addition , if ore is not milled or treated on the demised premises , there shall also be deducted the cost of hauling and transportation from the Properties to the mill, smelter and/or refinery where shiped . In the event that such metals, ores , minerals and mineral substances (or concentrates produced therefrom by Lessee) shall be treated or smelted by or for Lessee, such term shall mean the amount which would have been received by Lessee from a bonfide purchaser or such metals , ores , minerals and mineral substances (or concentrates produced therefrom by Lessee) without further treatment or smelting , less penalties, assaying , sampling and smelting charges and less transportation charges , shipping insurance , container or other costs incident to hauling and shipping from the properties to the purchaser in amounts nogreater than those charged by custom mills or smelters for comparable services .

(b) Payment of the production royalty to the Lessor shall be made by Lessee on or before the 15th day of each calendar month following the month in which mint or smelter returns are received by the Lessee, and shall be accompanied by a copy of the mint or smelter returns pertaining to such shipment and a certified statement showing the number of dry short tons of ore or concentrates produced and shipped from which the returns were received .

4. Personal Property

All tools, equipment , apparatus, buildings, structures and property of every nature and description placed upon the subject properties by Lessee, whether or not affixed to the soil, are and shall remain the personal property of Lessee, Lessee has the right during the term of this agreement, and fora period of one hundred eighty (180) days after the termination of this agreement , to remove such property from the subject properties .

5. Termination

(a) Lessee may terminate this lease and its rights hereunder at anytime, upon giving Lessor thirty (30) days previous written notice of such intended termination and keeping mine workings unwatered and available for inspection during the thirty days period . All machinery and equipment belonging to Lessee's must be removed from premises within 180 days of termination of Lessees. Lessee relinquishes all rights, titles and interest in property on termination of lease with the exception of above paragraph as stated.

6. Records and Inspection

Lessee agrees to keep accurate and full records of its operations under this lease . If Lessee shall terminate the lease, it shall turn over to the Lessor all data, mapes, and other

information resulting from its exploration and development of the Properties prior to that date . Lessee will keep copies of maps and production records, and Lessor shall have the right to inspect the same and take copies thereof at all reasonable times . Lessor shall also have the right, at Lessor's risk of injury, to inspect the premises and the operations being carried on by Lessee, and to take and retain samples of ore for assay purposed .

7. Force Majeure

If, after exercising its option to continue under the lease, Lessee shall be prevented by war, the public enemy, insurrection, strikes, riots, labor disturbances, acts of God, unusually inclement weather, fires or governmental orders, laws, or regulations, or other circumstances beyond Lessee's control from continuing operations under this lease, then Lessee shall be excused during the period in which it is actually prevented by such causes from continuing operations hereunder, from paying minimum royalties which may by due for said period . As soon as the emergency necessitating the termination of operations shall cease, however, Lessee's obligations hereunder shall resume .

8. Additional Locations

If Lessor or Lessee locate any claims that are within one mile of said properties covered by this lease, it is understood that any such claims located shall be located in the name of Lessor and shall be included with the group of claims covered by this lease and shall be included with the group of claims covered by this lease and shall be subject to the terms and conditions hereof .

9. Renewal

If the lease is in good standing at the expiration of the term hereof, Lessee shall have a continuing right and option to renew

it upon the same terms and conditions, successively for additional like period of years upon giving Lessor prior written notice of such intentions, not less than sixty(60) days prior to the expiration of the original or extended term of the lease .

10. Assignment

This agreement is and shall be binding upon and inure to the benefit of the Lessor and Lessee and their respective heirs, executors, administrators, personal representatives, successors and assigns . Lessee may, with the consent of Lessor, sell, assign, or sublease all or any portion of its right in, to and arising, under the terms of this agreement, or an amended agreement of which terms the Lessee and Lessor shall such agree .

11. Addresses and Notices

The address of the parties, for the payment of royalties and delivery of notices hereunder, shall be as follows :

Lessor : ① Douglas D. Quintero, PO Box 119, Schurz, NV

Lessee: ② George Ponton, PO Box 132, Schurz, NV

③ Roland B. Lee, Box 431, Clatskanie, Oreg. 97016

Notices from either party to the other will be considered as delivered forty-eight (48) hours after the same shall have been deposited in the United States mail, with certified postage theron duly prepaid, addressed to the party to whom the notice is being given at the above addresses .

Any party shall have the right , upon two (2) days previous written notice to the other party to change its address for notices and royalty payments .

12. Non - Responsibility

Lessee shall post and maintain, for the term hereof, such notices of non-liability for labor and material furnished to

Lessee as the Lessor shall direct .

IN WITNESS WHEREOF, the Parties have duly excuted this lease as the day and year first above written.

Lessor _____

_____

_____

Lessee _____

_____

_____

EXHIBIT "A"

Properties initially covered by lease between_____

_____

_____

and_____

_____

_____

Claims located in Section 17 Schurz Quadrangle - Walker River Indian Reservation (and possibly overlapping into adjacent sections all situated in Mineral County, Nevada .

State Of _____

County Of _____

On this _____ day of _____, 19_____, personally appeared before me, a Notary Public in and for said County and State, _____

_____

who acknowledged that they executed the above instrument freely and voluntarily and for the use and purposes therein mentioned .

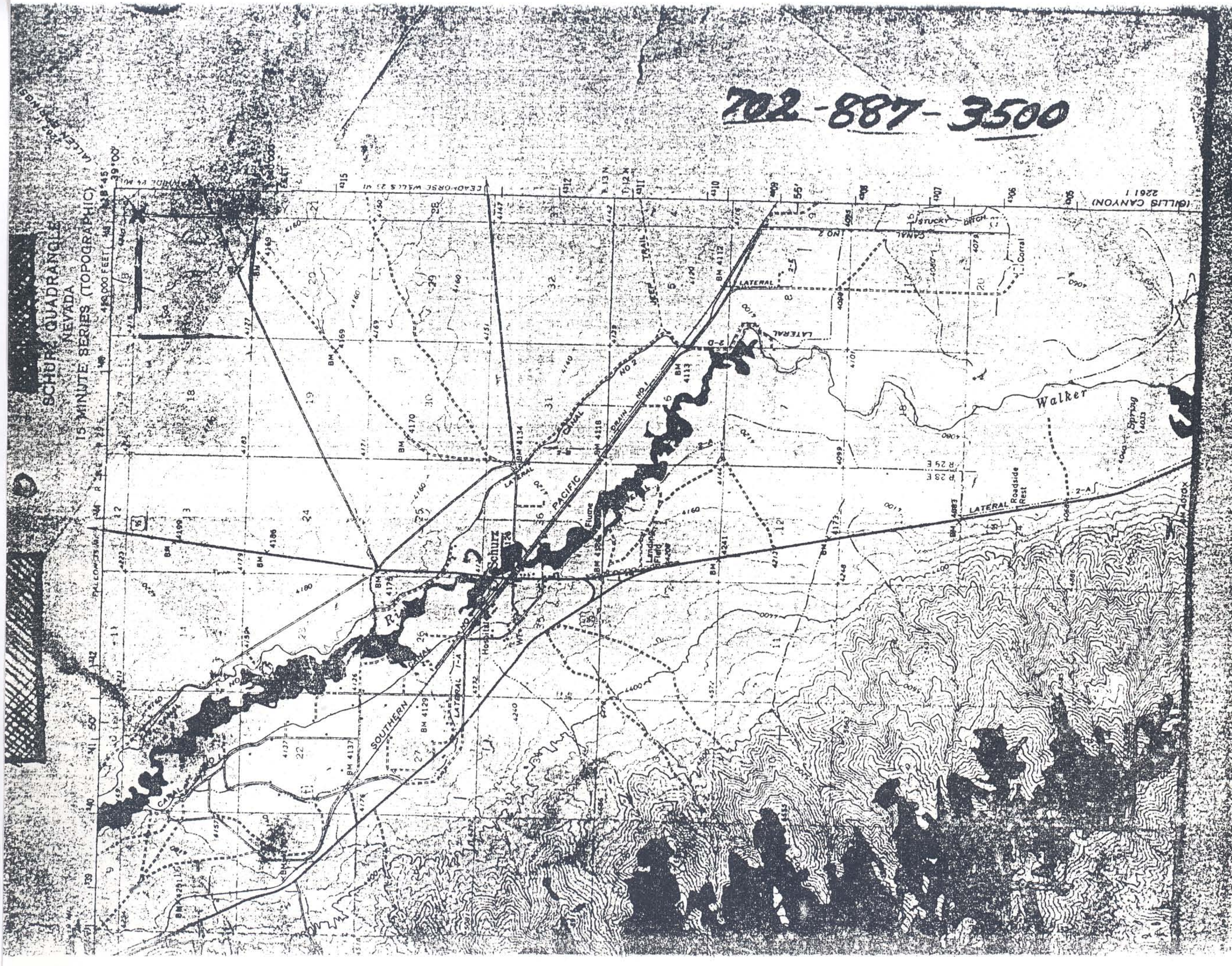
_____

Notary Public in and for said County and State

My Commission Expires :

_____

702-887-3500



SCHURZ QUADRANGLE
NEVADA
15 MINUTE SERIES (TOPOGRAPHIC)
Walker
Schurz
SOUTHERN
PACIFIC
CANAL
DRAIN NO 1
LATERAL
STUCKY DITCH
Corral
Roadside Rest
Spring
Flume
Hospital

P. O. Box 119
Schurz, Nevada 89427

2 March 1983

Elvin Willie, Jr., Chairman
Walker River Paiute Tribe
P. O. Box 220
Schurz, NV 89427

re: Mining Permit (D. Quintero, George Ponton, Roland Lee)

Dear Mr. Willie:

I, Douglas Quintero, partners wish to obtain a (Mineral Prospecting Permit) (Exclusive with Options to Lease) on the Walker River Indian Reservation.

The No. and the description is: Sect. 7-8-9 16-17 and 18 of Township 13N Range 29E M.D.M.

More details will be provided after consulting with our attorney.

Respectfully submitted,

Douglas Quintero

I can get financing if they find something
- looking at 10% - 12% of gross
— 4% — 6% of net

6000 0134 (0760)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
WESTERN NEVADA AGENCY
CARSON CITY, NEVADA 89701

Permit No._____

WALKER RIVER INDIAN RESERVATION
Mineral Prospecting Permit

THIS AGREEMENT is made and entered into this _____day of _____, 19____, by and between THE WALKER RIVER PAIUTE TRIBE, hereinafter called the PERMITTER, whose address is P.O. Box 220, Schurz, Nevada 89427, and EXTOTAL RESOURCES, INC., whose address is Suite 2020, Royal Bank Office Tower, 1055 West Georgia Street, Vancouver, British Columbia V6E 3P3, Canada, hereinafter called the PERMITTEE.

In consideration of the sum of $2.50 (TWO DOLLARS and FIFTY CENTS) per acre for the first year of the permit, paid to the Superintendent for the use and benefit of the Tribe, Western Nevada Agency, Carson City, Nevada 89701, hereinafter referred to as the Superintendent, the receipt of which is hereby acknowledged, and the covenants, stipulations and conditions hereafter contained, it is agreed. Annual rental payments are Payable to Superintendent, for the use and benefit of the Tribe, on each anniversary date based on the following schedule:

1st Anniversary	: $	5.00 per acre
2nd Anniversary	: $	10.00 per acre
3rd Anniversary	: $	15.00 per acre
4th Anniversary	: $	20.00 per acre

1. Permitter grants to the Permittee, subject to limitations hereinafter stated, a right for a period of five (5) years from the date of approval of this permit by the Secretary of the Interior or his authorized representative, hereinafter referred to as the Secretary, for the purpose of prospecting and and exploring for all minerals, except oil, gas and other hydrocarbons, sand, gravel, and building stone, upon the following described lands of the PERMITTEE, subject to prior, valid existing claims, rights, title and interests, consisting of _____acres, more or less, to wit:

Sections:

The term "all minerals" as used in this permit does not include geothermal resources. The Permittee may, within 90 days of the expiration of the initial term of this permit, apply to the Permitter and the Secretary for an extension of the term of this permit for one additional two-year term for a consideration in an amount not less than the bonus paid for the 4th Anniversary annual rental fee per acre.

2. This permit is granted upon the following express terms, covenants, and conditions:

a. Diligence and Development: The land described herein shall not be held by the Permittee for speculative purposes, but in good faith for prospecting and exploring for minerals. The Permittee shall expend during the term of the permit on the permitted area in prospecting and exploration work a sum which shall amount to not less than TWENTY-FIVE DOLLARS ($25.00) per acre per year while the permit is in force.

The Permittee shall file with the Superintendent an itemized statement, in duplicate, at the end of each six-month period of this permit, of the amount and character of said expenditure during such six-month period, the statement to be certified under oath by the Permittee or its agent having personal knowledge of the facts containing therein. Failure by the Permittee in the diligent development and continued prospecting and exploration work, except when operations may be interrupted by strikes, the elements, or casualties not

attributable to the Permittee, shall be a want of compliance with the terms of this permit and shall render it subject to cancellation.

b. Approval of Exploration Plan: Before commencing any surface disturbing operations to explore, test or prospect for minerals, the Permittee shall file with the Superintendent, the Permitter, and the District Mining Supervisor, U.S. Geological Survey, Room 208, 522 North Central Avenue, Phoenix, Arizona 85004, hereinafter referred to as the Supervisor, a plan for the proposed exploration operations. Depending upon the size and nature of the operations and the requirements which may be established pursuant to Subarticle g, of this Section 2., the plan shall include but not necessarily be limited to the following:

(1) The anticipated dates of the prospecting operations.

(2) The description of the area within which exploration is to be conducted.

(3) Two copies of a suitable map or aerial photograph showing topographic, cultural and drainage features of the immediate area.

(4) A statement of proposed exploration methods (i.e., drilling, trenching, etc.), the type of equipment to be used in said operations, and the location of primary support roads and facilities.

(5) A description of the measures to be taken to prevent or control fire, soil erosion, pollution of surface and ground water, damage to fish and wildlife or other natural resources and hazards to public health and safety both during and upon abandoment of exploration activities.

The exploration plan will be reviewed by the Permitter, the Superintendent, and the Supervisor within thirty (30) days from the receipt thereof and they shall submit to the Permittee within such thirty (30) days period any changes, additions or amendments necessary to meet the requirements formulated under Subarticle f. of this Section 2., the provisions of this Subarticle b. and the other terms of this permit. Upon the approval of the exploration plan by the Permitter, the Superintendent and the Supervisor, said plan will be attached to and by this reference made a part of this permit. The Permittee agrees to abide by and be bound by the terms and conditions of the exploration plan, unless changed or amended as provided for herein.

c. AMENDMENT OR MODIFICATION OF EXPLORATION PLAN - An exploration plan as provided for in Subarticle b. of this Section 2. may be changed by mutual consent of the Permitter, the Superintendent, the Mining Supervisor, and the Permitter at any time to adjust to changed conditions or to correct any oversight. To obtain approval of a changed or supplemental plan, the Permittee shall submit a written statement of the proposed changes or supplement, and the justification for the changes proposed. The Permitter, the Superintendent, and the Mining Supervisor shall promptly notify the Permittee that they consent to the proposed changes or supplement, or in the event that they do not consent, they shall specify the modification thereto under which the proposed changes or supplement would be acceptable. After mutual acceptance of a change of plan, the Permittee shall not depart therefrom without further approval.

If circumstances warrant or if development of an exploration plan for the entire operation is dependent upon unknown factors which cannot or will not be determined except during the progress of the operations, a partial plan may be approved and supplemented from time to time. The Permittee shall not, however, perform any operation except under an approved plan.

d. REMOVAL OF ORES - No ores may be removed except samples for examination and experimental purposes and the removal of such samples is subject to the approval of the Superintendent.

e. DISPOSITION OF MINERALS AND SURFACE - The Permitter reserves the right to use, lease, sell or otherwise dispose of the minerals not covered by this permit and the surface of the lands embraced within this permit under existing law or laws hereafter enacted. Such disposition and use shall be subject at all times to the prior right of the Permittee herein to use as much of said surface as is necessary in its prospecting and exploration work and to acquire leases under this permit.

f. GENERAL REQUIREMENTS FOR THE PROTECTION OF NONMINERAL RESOURCES - The permittee shall conduct all operations authorized in this permit with due regard to preventing unnecessary damages to vegetation, timber, soil, roads, bridges, cattleguards, fences, and other improvements, including construction, operation or maintenance of any of the facilities on or connected with this permit which causes damage to the watershed or pollution of the water resources. On termination of operations under this permit, the Permittee shall make provisions for the conservation, repair and protection of the property and leave all the areas on which the Permittee has worked in a condition that will not be hazardous to life or limb and will be to the satisfaction of the Superintendent and the Permitter.

In addition to the foregoing provisions and in order to fully protect range improvements and soil and watershed conditions of the area, the Permittee agrees that:

(1) This permit is subject to any reasonable requirement of the Superintendent, the Permitter and the Supervisor, for the purpose of minimizing surface damage, avoiding the pollution of surface and subsurface waters, preventing air pollution and rock slides. Such requirements may specify location and manner of construction of any roads that may be necessary for access by the Permittee and any erosion control measures needed as a result of the Permittee's operation, the sole cost of which will be borne by Permittee.

(2) Gates and cattleguards will be constructed in fences through which an access road passes. Gates must be kept closed at all times, except when actually passing through the gated opening.

(3) Any valuable subsurface water encountered in exploration or prospecting will be kept open and the right to use the water is reserved to the Permitter. This reservation of the right to use the water is subject, however, to the right of the Permittee to use such well and water therefrom to the degree necessary in prospecting pursuant to this permit.

(4) Permittee shall not take any action within the bed of the Walker River or its tributaries located on the permit property that will in any way tend to change, block, or otherwise alter their present channel locations or conditions.

(5) Permittee shall not by its actions nor the actions of its contractors, subcontractors or employees allow pollutants of any kind to be introduced into the Walker River bed or any of its tributaries located on the permit property.

g. LIABILITY FOR DAMAGES - The Permittee is liable for any and all damages resulting from its operations under this permit, including injury to the Permitter, the tenants, licensees and surface owners, and for any and all damage to, or destruction of all property, caused by the Permittee's operations hereunder. The Permittee agrees to save and hold the Permitter and the United States, licensees, and the surface owner, or their tenants, harmless from all suits for injury or claims for damages to persons and property resulting from the Permittee's operations under this permit.

Permit No. _____

h. PROTECTION OF TREES AND OTHER VEGETATION - The Permittee hereby agrees:

(1) Not to cut, destroy or damage trees or other vegetation without prior authority of the Secretary, such authorization to be made only where required by the pursuance of necessary mining operations.

(2) To pay for all such trees or vegetation cut, destroyed or damaged at rates to be determined on the basis of sales of similar trees or vegetation in the vicinity.

(3) To do all in its power to prevent and suppress forest, brush, or grass fires on the land and in its vicinity, and to require its employees, contractors, subcontractors, and the employees of such contractors or subcontractors employed on the land at the disposal of any authorized officer of the Indian Bureau for the purpose of suppressing forest, brush or grass fires with the understanding that the payment of such service shall be made at rates to be determined by the Secretary, which rates shall not be less than the rates of pay prevailing in the vicinity for services of similar character; provided that no payment shall be made for services rendered in the suppression of fires for which the Permittee, its employees contractors or subcontractors or the employees of such contractors or subcontractors are responsible.

(4) Not to burn rubbish, trash, or other inflammable materials except with the consent of the Secretary, and not to use explosives in such a manner as to scatter inflammable materials on the surface of the land, nor to damage improvements in the area, except as authorized to do so by such representative

i. LIQUOR - Permittee agrees that it will not use or permit to be used any part of the premises for any unlawful conduct or purpose whatsoever; that it will not use or permit to be used any part of the premises for the manufacture, sale, gift, transportation, drinking or storage of intoxicating liquors or beverages in violation of existing laws relating thereto, and that any violation of this clause by the Permittee or with its knowledge, renders this permit voidable at the option of the Superintendent.

j. INSPECTION, NTOCIE OF NONCOMPLIANCE, REVOCATION - The Permittee agrees that:

(1) The Permitter, the Mining Supervisor, and the Superintendent shall have the right to enter upon the lands under this permit, at any reasonable time, for the purpose of inspection or investigation to determine whether the terms and conditions of the permit and the requirements of the exploration plan have been complied with.

(2) If the Superintendent or the Mining Supervisor determine that the Permittee has failed to comply with the terms and conditions of the permit, or with the requirements of the exploration plan, or with the provisions of applicable regulations, the Superintendent shall serve a notice of noncompliance upon the Permittee by delivery in person to him or his agent or by certified or registered mail addressed to the Permittee at his last known address.

(3) A notice of noncompliance shall specify in what respect the Permittee has failed to comply with the terms and conditions of the permit or the requirements of the exploration plan, or the provisions of applicable regulations, and shall specify the action which must be taken to correct the noncompliance and the time limits within which such action must be taken.

(4) Failure of the Permittee to take action in accordance with the notice of noncompliance shall be grounds for suspension by the Superintendent or the Mining Supervisor of operations or for the initiation of action for the cancellation of the permit and forfeiture of the surety bond required under Subarticle q. of this Section 2.

k. ROADS - The Permittee may use existing roads, if any, on the land and may construct, and maintain, at its own expense, any additional roads across Permitte's land that are necessary in carrying on the prospecting and exploration work after the location of these roads has been approved in writing by the Superintendent. The public obtains no rights to these roads, and upon termination of this permit, or if at any time it becomes unnecessary for Permittee to use the roads for conducting the operations authorized under this permit, the right to use the roads shall thereupon cease and all the rights shall revest in Permitter in accordance with law. The Permittee shall hold the Permitter and the United States harmless and indemnify them against any loss or damage that might result from the negligent construction or maintenance by Permittee of the roads.

In addition to the agreements set forth hereinbefore, the Permitter shall have the right to use or cross all roads so constructed or improved and maintained by Permittee and may grant licenses to third parties for the use of such roads providing third parties first compensate the Permittee for the prorata share of the cost of construction and maintenance of such roads. If the Permittee and the third party licensee are unable to agree on the amount of construction and maintenance costs to be paid or compensated for by the licensee, the Secretary shall determine such amounts upon the request of either Permittee or licensee.

l. WATER WELLS - The Permittee may, at its own expense, drill and equip water wells on the land and agrees at the termination of this permit, by expiration of its term or otherwise, that all wells shall be left intact and properly cased. Permittee may remove all mechanical pumping equipment installed by Permittee at any wells. If any wells are developed by Permittee which disrupt any existing water well on the reservation, Permittee shall take whatever action is necessary to eliminate such disruption.

m. INDIAN LABOR - The Permittee shall employ Indians, giving priority to members of the Walker River Paiute Tribe in all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. The Permittee shall do everything practicable to employ qualified Indians, giving priority to members of the Walker River Indian Tribe, and its equipment in all hauling of materials under this permit, insofar as Permittee does not use its own equipment for that purpose. Permittee agrees to make special efforts to work Indians, giving priority to the members of the Walker River Indian Tribe, into skilled technical, and other higher jobs in connection with the Permittee's operations under this permit.

n. SURRENDER AND TERMINATION - The Permittee may in writing surrender this permit at any time upon the performance of all the Permittee's obligations hereunder upon the payment of TWENTY DOLLARS ($20.00) and upon a showing satisfactory to the Permitter and the Secretary that full provision has been made for the conservation and protection of the property. If this permit has been recorded, Permittee shall file a recorded release with its application for surrender.

o. REPORTS - Within thirty (30) days after the end of each quarter, or if operations cease before the end of a calendar year, within thirty (30) days after the cessation of operations, the Permittee shall submit to the Superintendent, the Permitter and the Supervisor, a report containing the following information:

(1) An identification of the permit and the location of the operation.

(2) A description of the operations performed during the period of time for which the report is filed.

(3) An identification of the area of land affected by the operations and a description of the manner in which the land has been affected.

(4) A statement as to the number of acres disturbed by the operations and the number of acres which were reclaimed during the period of time.

(5) A description of the method utilized for reclamation and the results thereof.

(6) A statement and description of reclamation work remaining to be done.

Upon completion of such grading and backfilling as may be required by the approved exploration plan the Permittee shall make a report thereon to the Permitter, the Superintendent, and the Supervisor and request inspection for approval. Whenever it is determined by such inspection that backfilling and grading have been carried out in accordance with the established requirements and the approved exploration plan, the Superintendent shall issue a release of an appropriate amount of the performance bond for the area graded and backfilled. Appropriate amount of the bond shall be retained to assure that satisfactory planting, if required, is carried out.

Whenever planting is required by the approved exploration plan the Permittee shall file a report with the Permitter and the Superintendent as such planting is completed. The report shall --

(i) Identify the permit;

(ii) Show the type of planting or seeding, including mixtures and amounts;

(iii) Show the date of planting or seeding;

(iv) Identify or describe the areas of the lands which have been planted;

(v) Contain such other information as may be relevant.

The Superintendent and the Permitter, as soon as possible after the completion of the first full growing season, shall make an inspection and evaluation of the vegetative cover and planting to determine if a satisfactory growth has been established.

If it is determined that a satisfactory vegetative cover has been established and is likely to continue to grow, any remaining portion of the surety bond may be released if all requirements have been met by the Permittee.

Not less than thirty (30) days prior to cessation or abandonment of of operations, the Permittee shall report to the Supervisor its intention to cease or abandon operations, together with a statement of the exact number of acres of land affected by its operations,... the extent of reclamation accomplished and other relevant information.

Upon receipt of such report an inspection shall be made to determine whether operations have been carried out in accordance with the approved exploration plan.

In addition to the reports hereinabove required, the Permittee shall within thirty (30) days after the termination of the permit furnish the Superintendent, the Permitter, and the Supervisor detailed and complete written reports of the prospecting done and all information concerning the nature and value of the minerals, including, but not limited to, aerial photographs, geological and geophysical maps, drill cores, logs, assays, charts, or sections prepared on which the detailed and complete written reports are based.

p. REGULATIONS - The Permittee agrees to comply with all the laws and regulations applicable to minerals on Indian lands, applicable to minerals on Indian lands, including regulations 25 CFR 171, 30 CFR 231, and 25 CFR 177 and any Tribal Mining codes related thereto.

q. BOND - Before this permit becomes effective, Permittee shall furnish to the Superintendent and Permitter an acceptable bond in the amount of FIFTEEN THOUSAND DOLLARS ($15,000), which shall be for the purpose of guaranteeing the prospecting and exploration work to be performed on the premises under the terms and conditions of the permit.

In addition to said bond, Permittee shall submit a corporate surety bond in an appropriate amount to be determined by the Secretary, but in no event less than TWO THOUSAND DOLLARS ($2,000), separate and apart from the said Fifteen Thousand Dollar bond, pursuant to 25 CFR 177.8.

r. CANCELLATION AND FORFEITURE - When, in the opinion of the Secretary, there has been a violation of any of the terms or conditions of this permit, the Secretary has the right at any time after thirty (30) days' notice to the Permittee specifying the terms and conditions violated, and after a hearing, if the Permittee shall so request, within thirty (30) days of receipt of notice, to declare this permit void, and the Permitter may then take immediate possession of the lands; provided, Permittee does not cure its default within said thirty (30) days or, if Permittee requests a hearing and does not cure its default within twenty (20) days after the final decision resulting from said hearing. The remedies specified hereunder are in additions to the remedies specifically provided in 25 CFR 171.22 and 171.24.

s. APPEALS - If the Permittee is aggrieved by a decision or order of the Supervisor or the Superintendent, it may appeal such decision or order. An appeal from a decision or order of the Superintendent shall be made pursuant to 25 CFR Part 2. An appeal from a decision or order of the Supervisor shall be made pursuant to 30 CFR Parts 211 and 231.

t. ASSIGNMENT OF PERMIT - The Permittee agrees not to assign this permit or any interest therein by an operating agreement or otherwise, nor to sublet any portion of the permitted premises except with the approval of the Secretary and the Permitter.

3. If no commercial mineral deposits have been delineated by the end of the seventh year of exploration, the agreement between the Permittee and Permitter shall terminate.

4. However, if commercial mineral deposit(s) are delineated, the form of the agreement shall revert to an association contract, upon approval of both parties, whereby the Permitter will control 100% of the project equity while the Permittee will participate in the project as a service contractor.

The Permittee shall have the privilege during the term of this permit to apply to the Permitter for a service constrct arrangement on any of the land embraced in this permit.

This privilege, if exercised, shall be by written application from Permittee, addressed to the Permitter with a copy to the Superintendent, describing the particular land desired. Any service contract granted shall be in the form as prescribed by the Permitter, subject to such modifications, additions, or deletions that may be necessitated by environmental considerations.

Approval by the Secretary of any service contract granted by the Permitter pursuant to such an application shall be contingent upon compliance with the requirements of the National Environmental Policy Act of 1969 and applicable Tribal, Interior Department, Bureau of Indian Affairs, and U.S. Geological Survey rules, regulations and procedures. In the event that the environmental impact shown by Environmental Assessments, Analyses, and/or Impact Statements is so great that it outweighs all other considerations, the Secretary shall have the absolute right to refuse to approve the proposed service contract, in which event the service contract shall never be of any force or effect.

If the Secretary refuses to approve a proposed service contract as provided above, he shall not subsequently for a period of ten (10) years approve a service contract to any other person or entity for mining on any of the land covered by the service contract application unless a lease or leases containing the identical terms and conditions as those to be given to any other person or entity is first offered to and rejected by the Permittee.

If, during the permit period, the Permittee should experience a delay in excess of thirty (30) days in carrying out his exploration activities, and the delay is due to environmental compliance requirements of the Federal Government not occasioned by failure of Permittee to provide information necessary for that compliance, the term of this permit shall be extended for a length of time equal to the amount of time of such delay.

5. The development period shall be three years with a one year extension if necessary.

6. The mineral exploitation period shall be twenty (20) years or as long as provided for in the approved mining plan. Other conditions and terms of the service contract shall be negotiated at the end of the permit period and shall take effect upon the approval of the Secretary or his authorized representative. General terms of the service contract are outlined below:

a. All mining and reclamation plans shall be subject to approval of the Tribe and Secretary of the Interior.

b. A RECLAMATION BOND shall be established and adjusted periodically to allow for cost escalation.

c. EXTOTAL RESOURCES, INC. shall receive 90% of the profits before taxes to recover initial costs, excluding rental paid to the Tribe, as specified in this permit.

d. After initial costs have been recovered, the project interest will revert to 25% Tribal, and 75% EXTOTAL RESOURCES, INC., based upon profits before taxes.

e. The Tribe's 25% interest shall be considered a minimum interest and shall escalate according to increases in metal prices. The formula for escalation shall be negotiated at the end of this Permit period.

f. Walker River Tribal members shall be given preferential treatment for all employment opportunities; EXTOTAL RESOURCES, INC. shall provide training to qualify Tribal members for employment.

g. A standard and accepted method of accounting shall be agreed to by both parties and remain in effect throughout the term of the agreement.

h. An overhead factor will be approved by the Tribe each year and overhead charges to the project cannot exceed that amount. Overhead charges shall be audited on an annual basis.

i. EXTOTAL RESOURCES, INC., shall reimburse the Tribe for expenses to monitor all exploration and production activities during the term of this permit and any future service contract agreement.

j. EXTOTAL RESOURCES, INC., shall conduct all activities according to applicable regulations (e.g., bonding, reclamation, environmental protection, etc.).

k. At the end of the Permit period, the above general provisions shall be specified in detail in the written service contract; all provisions of the service contract shall be subject to the approval of the U.S. Department of the Interior.

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

ATTEST: PERMITTER: WALKER RIVER PAIUTE TRIBE

_____ _____

Secretary, Walker River Paiute Tribal Council By: Elvin Willie, Jr., Tribal Chairman

ATTEST: PERMITTEE: _____
EXTOTAL RESOURCES, INC.

_____ _____

Secretary By:

APPROVED this _____ day of _____, 19_____, BY:

_____

Superintendent, Western Nevada Agency, Bureau of Indian Affairs, pursuant to authority delegated by the Secretary of the Interior in 230 DM 1 (39 F.R. 32166) and redelegated by the Commissioner of Indian Affairs in 10 BIAM 3; and Phoenix Area Redelegation Order 3 (34 F.R. 11108).

ACKNOWLEDGEMENT OF APPROVING OFFICER

STATE OF _____)
) ss:
COUNTY OF _____)

BEFORE ME, a Notary Public, in and for said County and State, on this _____day of _____, 19_____, personally appeared _____whose name is subscribed to the foregoing Permit dated _____, 19_____, as _____ Superintendent, Western Nevada Agency, Bureau of Indian Affairs, now is and was at the time of signing the same _____Superintendent of the Western Nevada Agency, Bureau of Indian Affairs; and he personally acknowledged to me that he executed the said instrument in his official capacity for the uses and purposes set forth therein.

_____
Notary Public in and for County and State aforesaid.

My Commission Expires:_____

ACKNOWLEDGEMENT OF PERMITTEE

STATE OF _____)
) ss:
COUNTY OF _____)

ON THIS _____day of _____, 19_____, before me appeared _____, to me personally known, who being by me duly sworn did say that he is the_____ of _____(and that the seal affixed to said instrument is the corporate seal of said corporation), and that the said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said _____acknowledges said instrument to be the free act and deed of said corporation.

WITNESS my hand and seal the day and year first above written.

_____
Notary Public in and for County and State aforesaid.

My commission Expires: _____

ACKNOWLEDGEMENT OF PERMITTER

STATE OF _____)
COUNTY OF _____) ss:

ON THIS _____day of _____, 19____, before me, the undersigned, a Notary Public in and for the said County and State, personally appeared _____and_____ to me known to be the Tribal Chairman and Secretary respectfully of the Walker River Paiute Tribe; and they acknowledged to me that they executed the foregoing Permit as their free and voluntary act and deed, and as the free and voluntary act and deed of such Tribe for the uses and purposes set forth therein.

_____ _____
My Commission Expires: Notary Public in and for County and State aforesaid

6000 0134 (0760)

EXTOTAL RESOURCES INC.

Suite 2020 - Royal Bank Office Tower, 1055 West Georgia Street
Vancouver, British Columbia V6E 3P3 Telephone (604) 688-4561

September 22nd, 1983.

Walker River Paiute Tribe,
Walker River Indian Reservation,
Schurz, Nevada.

Attention: Mr. Elvin Willie, Jr.,
Tribal Chairman

Dear Sirs:-

RE: PROPOSED EXPLORATION LEASE PROVISIONS

This proposal to enter into an Exploration Lease Agreement made and entered into as of _____, _____, 1983 by and between the WALKER RIVER PAIUTE TRIBE, parties of the First Part (hereinafter called the "Tribe") and EXTOTAL RESOURCES INC., a British Columbia Corporation, party of the Second Part (hereinafter called "Extotal").

Whereas the Tribe represents that in the counties of Churchill, Lyon and Mineral, State of Nevada, they occupy certain lands represented in Exhibit "A" hereto, which is incorporated herein and made a part hereof; said lands together with any water rights, extralateral rights, easements, and all other rights appurtenant to said lands the Tribe may possess are hereinafter called the "Tibal Lands", and

Whereas Extotal desires to obtain an Exploration Lease or service contract and whereby the Tribe is willing to grant Extotal the right to evaluate the Tribal Lands upon the terms and conditions hereinafter provided.

For and in consideration of the sum of One Thousand Dollars ($1,000.00 U.S.) paid by Extotal to the Tribe, the receipt of which is hereby acknowledged, the parties hereto proposes as follows:

1.0 The Tribe and Extotal agree to enter into an Exploration Lease for the purpose of conducting mineral exploration subject to the final approval of the U.S. Department of the Interior, the Directors of Extotal Resources Inc., and the regulatory bodies of the Vancouver Stock Exchange and British Columbia Securities Commission.

2.0 Upon signature of the aforegoing proposal to enter into an Exploration Lease Agreement by authorized representatives of both parties, Extotal shall have the right for 180 days, (hereinafter called the "Examination Period") from this date to examine and evaluate existing mineral data covering Tribal Lands in the possession of the Tribe or other agencies engaged by the Tribe. During this period, upon giving notice to the Tribe, Extotal shall be allowed to make preliminary examination in the field of mineral occurrences in order to select specific Tribal Lands for detailed exploration.

3.0 Upon the anniversary date of the Examination Period, Extotal shall provide the Tribe, in writing,a detailed account of selected acres Extotal wishes to explore (hereinafter called "Exploration Acres") and pay a rental fee to the Tribe based on the total area in acres for the rights to explore for all minerals excluding uranium according to the following schedule:

First 12 months	$ 2.50 per acre
Second anniversary	5.00 per acre
Third anniversary	10.00 per acre
Fourth anniversary	15.00 per acre
Fifth anniversary	20.00 per acre

Thirty days prior to each anniversary, Extotal will give notice to the Tribe as to the Exploration Acres Extotal wish to retain for the next twelve months. The rental payment will be based on the retained acres.

4.0 The Exploration Period shall be for five years. At the end of the fifth year of exploration, a two year extension can be requested by Extotal and shall be granted by the Tribe. The extension period will be subject to the fifth anniversary annual rentals per acre.

5.0 Within 30 days following each quarter Extotal will provide the Tribe a progress report containing the results of all exploration activities and expenditures. Thirty days prior to the anniversary date, Extotal will provide the Tribe with a detailed account of activities and expenditures for the previous year.

6.0 The Tribe reserves the right to approve any assignments if Extotal requests an assignment of the Tribal Lands for exploration activities. The assignment request will be acknowledged within 30 days of receipt of notice of such document.

7.0 A detailed exploration plan outlining exploration activities and estimated expenditures will be filed with the Tribe 30 days prior to the anniversary date of each year. The Tribe will have 30 days to reply to the notice of exploration activities. Any modifications will also be filed with the Tribe for approval.

8.0 Extotal shall take due care to minimize damage to surface areas. In the case where the surface area has been disturbed, Extotal will rehabilitate the disturbed area at its own cost in such a manner as to meet with accepted State mining practices and Tribe approval.

9.0 If a mineral deposit (s) of no commercial value based on a detailed feasibility study has not been delineated by the anniversary date of the seventh year of exploration, Extotal and the Tribe agree to terminate the Exploration Lease.

10.0 If a mineral deposit (s) of commercial value based on a detailed feasibility study has been delineated within or prior to the seventh anniversary date of exploration, the Exploration Lease will convert to an Association Contract on that specific deposit. Extotal's rights will remain in force and Extotal will participate in the Commercial Enterprise as a Service Contractor. The Tribe under the Association Contract will control 100% of the project equity in the Commercial Enterprise relating to that specific deposit.

11.0 Extotal under the Association Contract shall have three years to develop the specific deposit (s) for commercial production. The Tribe will grant a one year extension to the development period if requested by Extotal by giving Extotal notice within 30 days of receipt of such request.

12.0 Extotal shall have the right as Service Contractor to exploit the specific deposit(s) for a period of 20 years after commercial production is commenced or as long as provided for in the approved mining plan relative to the deposit(s).

13.0 All mining and reclaimation plans will be submitted by Extotal to the Tribe for approval. The Tribe agrees to acknowledge receipt of such notice within 30 days.

14.0 Extotal will post a reclaimation bond in trust with their legal counsel and give notice to the Tribe. The bond will be adjusted periodically to allow for cost escalation.

15.0 Extotal acting as Service Contractor under the Association Contract is to receive 90% of the net proceeds of production from the specific deposit to recover all exploration costs, capital costs and interest cost including rental fees paid during this Exploration Lease.

> "Net Proceeds" - is basically cash flow concept, calculated by deducting from Net Smelter Returns all cash operating costs, including interest on debt, replacement of equipment exploration costs, expansion costs, and all royalties or taxes other than income taxes, and specifically excluding such non-cash costs as depreciation and depletion.

16.0 After initial costs have been recovered from the specific deposit, the project interest will revert to 25% Tribe and 75% Extotal based upon net proceeds before taxes from the commercial operation.

17.0 The Tribe's 25% interest is considered to be a minimum interest and will escalate according to increases in metals prices. The escalation formula will be arranged by mutual agreement whereby the Tribe's interest can increase to 50% in a specific deposit. Posted metals prices such as those published by the London Metal Exchange will be the reference used for escalating the Tribe's interest. This formula will be designed upon the approved mining plan. An example of such a formula is as follows:

$300./ton	Tribe gets 15%
$400./ton	Tribe gets 20%
$500./ton	Tribe gets 25%
$600./ton	Tribe gets 30%
$700./ton	Tribe gets 35%
$800./ton	Tribe gets 40%
$900./ton	Tribe gets 45%
$1000./ton	Tribe gets 50%

18.0 Walker River Tribal members will be given preferential treatment for all employment opportunites.

19.0 Extotal will provide training to qualify tribal members for employment.

20.0 Extotal agrees to carry on business during the Exploration Lease and Association Contract under professional standards and account for its activities using generally accepted accounting principles.

21.0 An overhead factor will be approved by the Tribe each year and overhead charges to the project cannot exceed that amount. Overhead charges will be audited on an annual basis.

22.0 Extotal will reimburse the Tribe for expenses incurred outside Tribal Lands to monitor all exploration activities during the Exploration Lease.

23.0 Extotal will conduct all activities according to applicable regulations. (Bonding, reclaimation, environment protection, etc.).

24.0 Extotal will provide the Tribe a financial statement of its company, prior to the signing of any agreement.

25.0 Extotal and the Tribe acknowledge that the management and operation of the Exploration Lease and Service Contract will be conducted for Extotal by E & B Exploration Inc., 1440 - 800 West Pender Street, Vancouver, B.C. V6P 5M9. E & B Exploration Inc., is a management firm engaged in mineral exploration, development and production throughout North America.

If the foregoing accurately reflects your understanding of the proposed Exploration Lease Provisions between us, please indicate the same by signing on the space provided and returning the two enclosed copies of this letter. We will then have counsel prepare a formal Exploration Lease agreement.

Yours very truly,

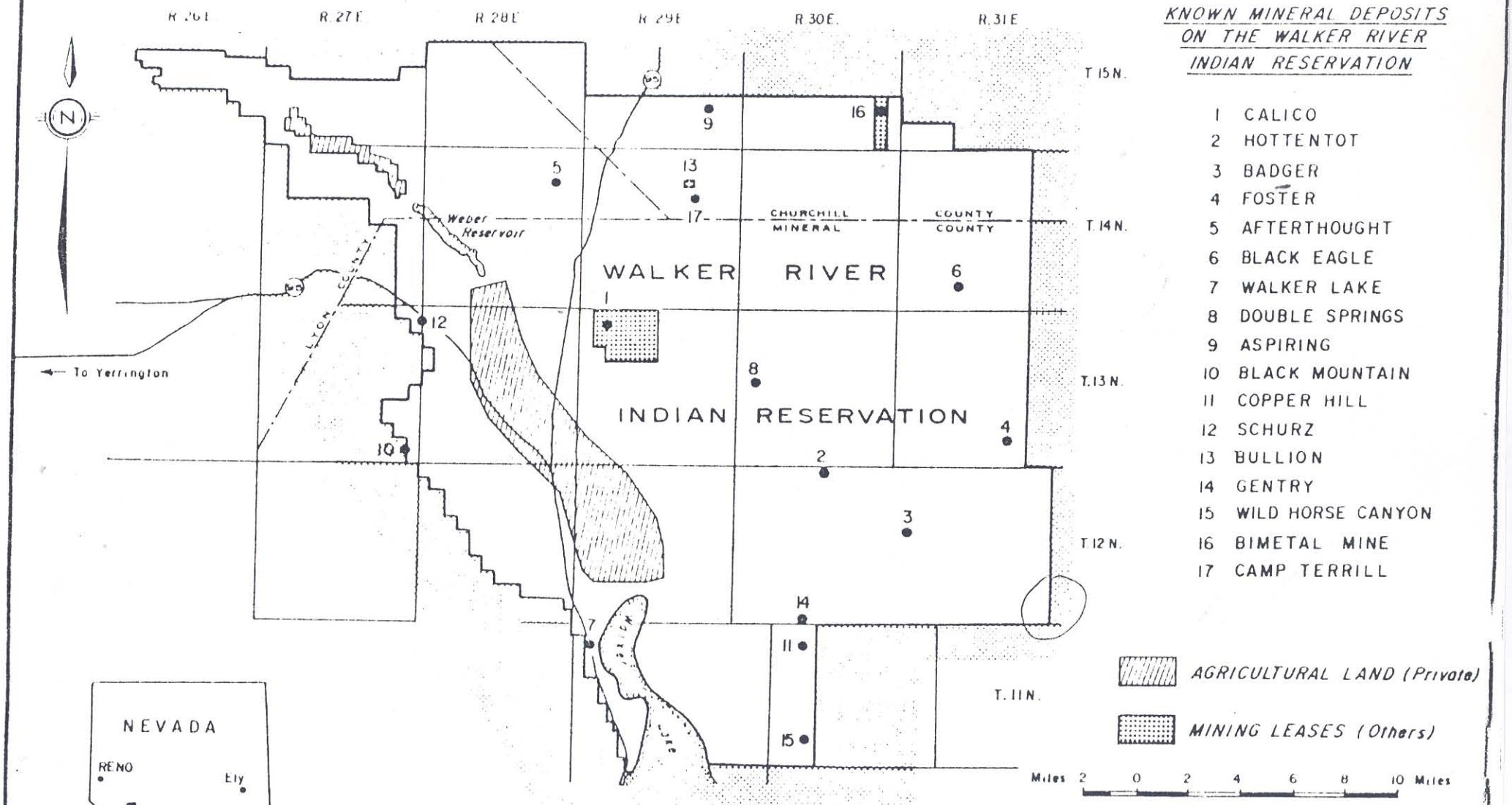
G. B Mann
~~L. W. Saleken~~
Director President

ACCEPTED AND AGREED TO

Per: _____

WALKER RIVER PAIUTE TRIBE

EXHIBIT "A"

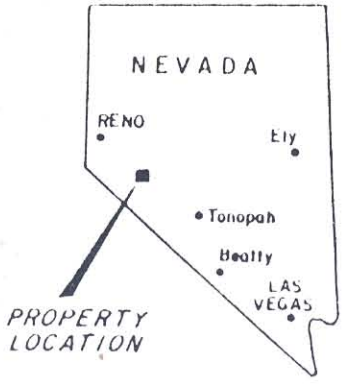


KNOWN MINERAL DEPOSITS ON THE WALKER RIVER INDIAN RESERVATION

1 CALICO
2 HOTTENTOT
3 BADGER
4 FOSTER
5 AFTERTHOUGHT
6 BLACK EAGLE
7 WALKER LAKE
8 DOUBLE SPRINGS
9 ASPIRING
10 BLACK MOUNTAIN
11 COPPER HILL
12 SCHURZ
13 BULLION
14 GENTRY
15 WILD HORSE CANYON
16 BIMETAL MINE
17 CAMP TERRILL

AGRICULTURAL LAND (Private)

MINING LEASES (Others)



EXTOTAL RESOURCES INC.

MAP SHOWING LOCATION OF
WALKER RIVER
INDIAN RESERVATION
WESTERN NEVADA, U.S.A.

DATE	OFFICE	DEPARTMENT	MAP INDEX NO	SCALE	DRAWING NO.
SEPT./1983				As Shown	

6000 0134 (0760)

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
WESTERN NEVADA AGENCY
5533 Mark Twain Avenue
Carson City, NV 89701
(702) 887-3567

IN REPLY REFER TO:
Real Prop. Mgmt.
335 General Corres.-Minerals

JAN 27 1983

RECEIVED
Date JAN 31 1983
Walker River Paiute Tribe

Mr. Elvin Willie, Chairman
Walker River Tribal Council
P. O. Box 220
Schurz, NV 89427

Dear Mr. Willie:

Enclosed for your information and action is a copy of a memorandum dated January 12, 1983, from the Assistant Area Director, Phoenix Area Office, subject: "Indian Mineral Development Act of 1982," Public Law 97-382.

If you have any questions, please call the Branch of Realty at (702) 887-3569.

Sincerely,

Bob Hunter

Superintendent

Enclosure

UNITED STATES GOVERNMENT

memorandum

DATE: January 12, 1983

REPLY TO ATTN OF: ASSISTANT Area Director, Phoenix

SUBJECT: "Indian Mineral Development Act of 1982," Public Law 97-382, December 22, 1982

TO: All Superintendents and Officers in Charge, Phoenix Area

RECEIVED
Date JAN 3 1 1983
Walker River Paiute Tribe

Copies of subject Act and a December 27 explanatory memorandum from the Washington Office are enclosed for your information.

The Indian Mineral Development Act of 1982 authorizes Tribes to enter into various types of mineral exploration, development, and sale agreements. This authority is in addition to the 1938 Mineral Leasing Act which authorizes only leases and permits.

Section 5(a) of P.L. 97-382 requires a review, prior to March 22, 1983, of any existing minerals agreements that are not leases or permits. As far as we are aware, no such agreements have been approved within the Phoenix Area. Please confirm that fact, or provide copies of any agreements which are an exception, by January 28.

Section 8 of the Act requires that, within 180 days of enactment, the Secretary of the Interior promulgate rules and regulations to facilitate its implementation. It also provides that to the extent practicable Tribes will be given an opportunity to provide input into the development of regulations.

You are requested to furnish copies of the enclosures to the Tribe or Tribes within your jurisdiction. We will notify you immediately when further information about proposed regulations is received from Washington.

Please advise this office promptly of any agreements now pending in your office or which may be under negotiation by Tribes in your jurisdiction, which come within the purview of subject act.

Enclosure

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
WASHINGTON, D.C. 20245

IN REPLY REFER TO:

December 27, 1982

Memorandum

To: Director, Office of Trust Responsibilities
All Area Directors

From: Acting Director, Congressional and Legislative Affairs Staff

Subject: Public Law 97-382, "Indian Minerals Development Act of 1982."

Attached, for your information and appropriate action, is a copy of the enrolled bill, S. 1894, which was approved by the President on December 22, 1982. It is now Public Law 97-382.

Section 3(a) of the Act allows any Indian tribe to enter into any joint venture agreement, operating agreement, production sharing agreement, service agreement, managerial agreement, lease agreement or other agreement approved by the Secretary of the Interior (1) for the exploration for, or extraction, processing or other development of oil and gas, geothermal, coal and other energy or non-energy mineral resources in which the tribe holds an interest or (2) for the sale of such tribal minerals. Section 3(b) allows individual Indians owning trust or restricted minerals within the boundaries of a reservation to join with the tribe in an agreement described in section 3(a), subject to the approval of the Secretary.

Section 4 provides that unless the Secretary finds that an agreement is not in the best interest of the tribe, he must approve the agreement within 180 days of its submission to him or within 60 days of compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4332) or any other requirement of law, whichever is later. His findings must be in writing and be made available to the affected tribe no later than 30 days before his final decision. Those findings and any other information possessed by the Department regarding the agreement will be held by the Department as privileged proprietary information of the affected Indian or Indian tribe.

Section 5 of the Act requires the Secretary to review within 90 days of enactment any existing agreement, which does not purport to be a lease, entered into by any Indian tribe and approved by the Secretary after January 1, 1975, but prior to enactment of the Act to determine whether the agreement complies with the purposes of the Act. The Secretary is required to notify the affected tribe and other parties to the agreement of any modifications necessary to bring the agreement into compliance with the Act. The tribe and other parties then have 90 days in which to make such modifications.

Section 7 of the Act requires the Secretary to ensure that, upon the request of an Indian tribe or individual Indian and to the extent of his available resources, such tribe or Indian shall have available advice, assistance, and information during the negotiation of an agreement under this Act.

Finally, section 8 requires the Secretary to promulgate rules and regulations to facilitate implementation of the Act within 180 days of enactment. The Secretary would be required, to the extent practicable, to consult with national and regional Indian organizations and tribes with expertise in mineral development during the process.

Frank Keel

S. 1894

Ninety-seventh Congress of the United States of Ame

AT THE SECOND SESSION

Begun and held at the City of Washington on Monday, the twenty-fifth day of January, one thousand nine hundred and eighty-two

An Act

To permit Indian tribes to enter into certain agreements for the disposition of tribal mineral resources, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Indian Mineral Development Act of 1982".

SEC. 2. For the purposes of this Act, the term—

(1) "Indian" means any individual Indian or Alaska Native who owns land or interests in land the title to which is held in trust by the United States or is subject to a restriction against alienation imposed by the United States;

(2) "Indian tribe" means any Indian tribe, band, nation, pueblo, community, rancheria, colony, or other group which owns land or interests in land title to which is held in trust by the United States or is subject to a restriction against alienation imposed by the United States; and

(3) "Secretary" means the Secretary of the Interior.

SEC. 3. (a) Any Indian tribe, subject to the approval of the Secretary and any limitation or provision contained in its constitution or charter, may enter into any joint venture, operating, production sharing, service, managerial, lease or other agreement, or any amendment, supplement or other modification of such agreement (hereinafter referred to as a "Minerals Agreement") providing for the exploration for, or extraction, processing, or other development of, oil, gas, uranium, coal, geothermal, or other energy or nonenergy mineral resources (hereinafter referred to as "mineral resources") in which such Indian tribe owns a beneficial or restricted interest, or providing for the sale or other disposition of the production or products of such mineral resources.

(b) Any Indian owning a beneficial or restricted interest in mineral resources may include such resources in a tribal Minerals Agreement subject to the concurrence of the parties and a finding by the Secretary that such participation is in the best interest of the Indian.

SEC. 4. (a) The Secretary shall approve or disapprove any Minerals Agreement submitted to him for approval within (1) one hundred and eighty days after submission or (2) sixty days after compliance, if required, with section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) or any other requirement of Federal law, whichever is later. Any party to such an agreement may enforce the provisions of this subsection pursuant to section 1361 of title 28, United States Code.

(b) In approving or disapproving a Minerals Agreement, the Secretary shall determine if it is in the best interest of the Indian tribe or of any individual Indian who may be party to such agreement and shall consider, among other things, the potential economic return to the tribe; the potential environmental, social, and cultural effects on the tribe; and provisions for resolving disputes that may arise

between the parties to the agreement: *Provided*, That the Secretary shall not be required to prepare any study regarding environmental, socioeconomic, or cultural effects of the implementation of a Minerals Agreement apart from that which may be required under section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)).

(c) Not later than thirty days prior to formal approval or disapproval of any Minerals Agreement, the Secretary shall provide written findings forming the basis of his intent to approve or disapprove such agreement to the affected Indian tribe. Notwithstanding any other law, such findings and all projections, studies, data or other information possessed by the Department of the Interior regarding the terms and conditions of the Minerals Agreement, the financial return to the Indian parties thereto, or the extent, nature, value or disposition of the Indian mineral resources, or the production, products or proceeds thereof, shall be held by the Department of the Interior as privileged proprietary information of the affected Indian or Indian tribe.

(d) The authority to disapprove agreements under this section may only be delegated to the Assistant Secretary of the Interior for Indian Affairs. The decision of the Secretary or, where authority is delegated, of the Assistant Secretary of the Interior for Indian Affairs, to disapprove a Minerals Agreement shall be deemed a final agency action. The district courts of the United States shall have jurisdiction to review the Secretary's disapproval action and shall determine the matter de novo. The burden is on the Secretary to sustain his action.

(e) Where the Secretary has approved a Minerals Agreement in compliance with the provisions of this Act and any other applicable provision of law, the United States shall not be liable for losses sustained by a tribe or individual Indian under such agreement: *Provided*, That the Secretary shall continue to have a trust obligation to ensure that the rights of a tribe or individual Indian are protected in the event of a violation of the terms of any Minerals Agreement by any other party to such agreement: *Provided further*, That nothing in this Act shall absolve the United States from any responsibility to Indians, including those which derive from the trust relationship and from any treaties, Executive orders, or agreement between the United States and any Indian tribe.

SEC. 5. (a) the Secretary shall review, within ninety days of enactment of this Act, any existing Minerals Agreement, which does not purport to be a lease, entered into by any Indian tribe and approved by the Secretary after January 1, 1975, but prior to enactment of this Act, to determine if such agreement complies with the purposes of this Act. Such review shall be limited to the terms of the agreement and shall not address questions of the parties' compliance therewith. The Secretary shall notify the affected tribe and other parties to the agreement of any modifications necessary to bring an agreement into compliance with the purposes of this Act. The tribe and other parties to such agreement shall within ninety days after notice make such modifications. If such modifications are not made within ninety days, the provisions of this Act may not be used as a defense in any proceeding challenging the validity of the agreement.

(b) The review required by subsection (a) of this section may be performed prior to the promulgation of regulations required under section 8 of this Act and shall not be considered a Federal action

within the meaning of that term in section 102(2)(C) of the National Environmental Protection Act of 1969 (42 U.S.C. 4332(2)(C)).

SEC. 6. Nothing in this Act shall affect, nor shall any Minerals Agreement approved pursuant to this Act be subject to or limited by, the Act of May 11, 1938 (52 Stat. 347; 25 U.S.C. 396a et seq.), as amended, or any other law authorizing the development or disposition of the mineral resources of an Indian or Indian tribe.

SEC. 7. In carrying out the obligations of the United States, the Secretary shall ensure that upon the request of an Indian tribe or individual Indian and to the extent of his available resources, such tribe or individual Indian shall have available advice, assistance, and information during the negotiation of a Minerals Agreement. The Secretary may fulfill this responsibility either directly through the use of Federal officials and resources or indirectly by providing financial assistance to the Indian tribe or individual Indian to secure independent assistance.

SEC. 8. Within one hundred and eighty days of the date of enactment of this Act, the Secretary of the Interior shall promulgate rules and regulations to facilitate implementation of this Act. The Secretary shall, to the extent practicable, consult with national and regional Indian organizations and tribes with expertise in mineral development both in the initial formulation of rules and regulations and any future revision or amendment of such rules and regulations. Where there is pending before the Secretary for his approval a Minerals Agreement of the type authorized by section 3 of this Act which was submitted prior to the enactment of this Act, the Secretary shall evaluate and approve or disapprove such agreement based upon section 4 of this Act, but shall not withhold or delay such approval or disapproval on the grounds that the rules and regulations implementing this Act have not been promulgated.

SEC. 9. Nothing in this Act shall impair any right of an Indian tribe organized under section 16 or 17 of the Act of June 18, 1934 (48 Stat. 987), as amended, to develop their mineral resources as may be provided in any constitution or charter adopted by such tribe pursuant to that Act.

Speaker of the House of Representatives.

Vice President of the United States and
President of the Senate.

WALKER RIVER RESERVATION
Churchill, Lyon, and Mineral Counties
NEVADA
Paiute Tribe

Federal Reservation

Population 1969 375
1970 ____

Tribal Headquarters: Schurz, Nevada

Land Status

Tribally-Owned Land:	310,757 acres
Allotted Land:	8,789.62 acres
Government Land:	964.23 acres

Total Area: 320,510.85 acres

History On November 25, 1859, Agent Dodge recommended the establishment of a reservation for the Indians in the vicinity of Walker River. Subsequently, by Executive order of March 19, 1871, land was set aside for Paiute Indians. Various resolutions following the original Executive order, changed the land status of Walker River to its present area.

Culture The distinctly Indian culture has all but disappeared from the everyday lives of the members of this tribe. They all speak English and very few of the older members cannot read or write. Few among the younger generation speak their Indian language.

Government The tribe drew up a constitution according to the Indian Reorganization Act of 1934. Both constitution and bylaws were approved in March 1937. The Constitution established the Walker River Paiute Tribal Council as the governing body for the tribe.

Population Profile

Tribal Enrollment	1969	1,000 est.	Unemployment	1969	43 persons
	1970	____		1970	____
Indian Resident	1969	375	Underemployment	1969	40 persons
	1970	____		1970	____

Children attend the public school at Schurz. There is one college graduate in the tribe.

Tribal Economy The tribe has an income of approximately $30,000 per year. Tribal members have formed a Cattlemen's Association. The tribe owns "Clines," a bar, service station, and motel combination. There are large iron ore deposits on the reservation which are not currently being mined.

Climate Walker River lies in the western part of Nevada. Rainfall averages 5.68 inches annually and temperatures reach a high of 100° and a low of -24°.

Transportation The reservation lies along the major north-south highway, U. S. No. 95. Reno, 100 miles from the reservation, is served by commercial train- and airline companies. The nearest bus- and trucklines stop in Schurz.

Community Facilities The tribe operates a water and sewer system which serves most of the reservation. Those individuals not served by the tribe provide their own facilities.

The Walker River Public Health Service extends medical care to tribal members at the hospital in Schurz.

The gym and tribal building is the focus of tribal business and recreational activities.

6000 0134 (0760)

GREAT BASIN REGION COMPREHENSIVE FRAMEWORK STUDY (WESTERN SUBREGIONS)

LOCALITIES, OUTCROPS, AND AREAS OF SIGNIFICANT KNOWN MINERAL RESOURCES

1970

EXPLANATION

Outline of Barite-bearing area

Outline of diatomite-bearing area

TYPES OF DEPOSITS

Oilfield

Disseminated

Replacement

Vein

Bedded

Bedded or replacement

Subsurface brine

CONSTITUENTS

Ag Silver
Au Gold
Ba-Barite
Be-Beryllium
B F Bentonite, montmorillonite or fullers' earth
Cu Copper
D Diatomite
Fe Iron
Gyp Gypsum
Hg-Mercury
K Potassium
K H Kaolinite or halloysite
Li Lithium
Mo-Molybdenum
Mag Magnesite
Pb Lead
T Talc
W-Tungsten
Zn Zinc

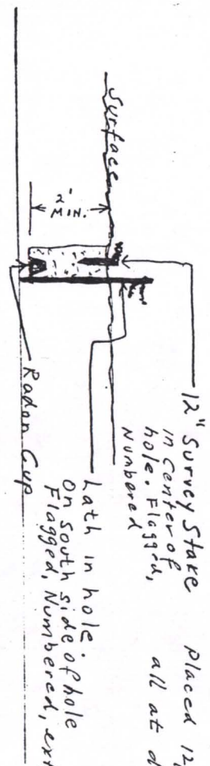
Hydrologic Subregion boundary between Eastern and Western Subregions

Economic boundaries

0 25 50 75 MILES

32 MILES TO THE INCH APPROXIMATELY

60000 0134 (0760)



Radon Cup Traverse
placed 12/5/47
all at depth of 2'