CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

September 30, 1989

Ms. Abigail Myers
Arizona Department of Environmental Quality
Water Permits Unit
Central Palm Plaza Building
2005 North Central Avenue
Phoenix, AZ 85004

CERTIFIED MAIL # P 837 047 243

Re: Vulture Mine
Groundwater Quality Protection Permit
G-0090-07

Dear Ms. Myers:

Would you please note a change of address for the above GWQPP G-0090-07 and make the appropriate changes in your files.

The old address for A.F. Budge (Mining) Limited was 7340 E. Shoeman Lane, Suite 111 "B" (E), Scottsdale, AZ 85251.

The new address for A.F. Budge (Mining) Limited is 4301 North 75th Street, Suite 101, Scottsdale, AZ 85251.

Thank you.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Mining & Financial Coordinator

c: M.A. Milczarek

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

December 30, 1989

Mr. Tim L. Levandowsky
Water Pollution Compliance Unit
Room 300
Arizona Department of Environmental Quality
2005 North Central Avenue
Phoenix, AZ 85004

Dear Mr. Levandowsky:

Mike Milczarek requested that we send you a copy of the November 30, 1989 letter prepared by Sergent, Hauskins and Beckwith concerning our heap leach facility at the Vulture Mine which is located approximately 14 miles south of Wickenburg.

A copy of this letter is enclosed.

Very truly yours,

Carole A. O'Brien

Carole A. O'Brien
Coordinator

encl.

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

January 25, 1990

Arizona Department of
Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, Arizona 85004

Fourth Quarter Report
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

During the fourth quarter, no additional tons were added to the heaps.

The Merrill-Crowe Zinc Precipitation Plant operated at 100% of design capacity.

Enclosed are daily report sheets detailing the results of solution sampling for the fourth quarter.

Well totalizer reading on October 1, 1989 was 7,113,900; on January 1, 1990, the reading was 9,872,400. Total water usage for the fourth quarter was 2,758,500 gallons, or 8.5 acre·feet. This equates to approximately 20.8 g.p.m.

The Department of Environmental Quality contines to evaluate the leaks encountered on the pad and steps are being taken to mitigate the situation.

Respectfully submitted,

Dale H. Allen
Production Manager for
A.F. Budge (Mining) Limited

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

March 9, 1990

M. Quamrul Ahsan, Ph.D.
Manager
Applied Technology, Mining
Chemicals Division
Degussa Corporation
4 Pearl Court
Allendale, NJ 07401

Dear Dr. Ahsan:

With respect to recent conversations we have had with John Todd, Degussa's Sales Manager in Sparks, Nevada, we are sending you two (2) five gallon buckets via UPS. The buckets contain a sample of the material on our leach heap, and also samples of the barren solution from our pond, for examination at your facilities.

We indicated to John that we would try to detoxify the heaps by recirculating barren solution through them, thus utilizing the natural degradation of the cyanide. However, if, after a reasonable period of time, the levels of cyanide have not decreased and they exceed the limits established in our permit, we might want to consider using your hydrogen peroxide process to reduce the cyanide content to more acceptable levels.

We will be very interested in the results of your testing our material for suitability for this process.

Very truly yours,

Dale H. Allen
Production Manager

DHA:ca

Arizona Testing Laboratories

810 East Hammond Lane □ Phoenix, Arizona 85034 □ 602/254-6181

For: A.F. Budge Mining
Attn: Mr. Anthony F. Budge
4301 N. 75th Street, Suite 101
Scottsdale, AZ 85251

Date: January 29, 1990

Lab. No.: 069201-08

Sample: Soil

Marked: See Below

Received: 01/09/90

Submitted by: Same

REPORT OF LABORATORY TESTS

SAMPLE MARKED	FREE CYANIDE	TOTAL CYANIDE
Hole #1,0'-3'	< 0.5	0.81 mg/kg
3'-3'8"	< 0.5	2.2
#2,0'-1'	< 0.5	0.86
1'-2'	< 0.5	1.1
2'-3'	< 0.5	0.73
3'-4'	*	4.6
4'-5'	0.55	1.1
5'-5'6"	< 0.5	< 0.5

< = less than the detection limit given

*Note: Unable to analyze due to matrix interference

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Robert J. Drake

IRON KING ASSAY INC.

11-Jan-90

LAB JOB #: AFB04264

Client name: A.F.Budge Mining Ltd.

Billing address: 4301 N. 75th St. #101
Scottsdale, AZ. 85251-3504

Phone number: 945-4630

No. Samples: 4
Date Received: 12-26-89
Submitted by: Dale Allen

INVOICE ATTACHED

ANALYTICAL REPORT

Client ID	Lab ID	AA Au Oz./ton
GC-1	4264- 1	0.003
GC-2	4264- 2	0.004
GC-3	4264- 3	0.008
GC-4	4264- 4	0.004

P.O. Box 56 • Humboldt, Arizona 86329 • Phone (602) 632-7410
4410 S. Grass Valley Road • Winnemucca, Nevada 89445 • Phone (702) 623-1055

TOWN OF WICKENBURG

P.O. Box 1269 Wickenburg, Arizona 85358 (602) 684-5451

April 11, 1988

Mr. Rob B. Larson
Water Permits Unit
Arizona Department of Environmental Quality
Central Palm Plaza Building
2005 North Central Avenue
Phoenix, Arizona 85004

YOUR RE: Vulture Mine
Draft Groundwater Quality Protection Permit No. G-0090-07

Dear Mr. Larson:

This is to acknowledge receipt of a copy of your letter of March 16, 1988 to Mr. Joe Fernandez of A. F. Budge Mining Limited wherein you invited comments relative to a draft permit from your agency for A. F. Budge Mining to operate a facility some 12 miles southwest of Wickenburg. This matter was referred to the Mayor and Common Council of the Town of Wickenburg and appeared on the April 4th agenda.

The Town staff and Council were in agreement that the Town of Wickenburg is lacking in expertise in the area of the proposed operation sufficient to evaluate and comment on the draft permit. Moreover, the Council requested that I communicate with you and the other agencies that received copies of your March 16th letter, requesting that not only your department but also the other agencies and departments receiving a copy of the draft permit, exercise their respective authority and expertise in protecting the groundwater quality, insofar as it affects the general Wickenburg area. In other words, we do not feel that we have the ability to properly evaluate the proposed permit and subsequent operation and, therefore, expect your department and the other agencies to protect our interest.

Finally, by not registering any specific objections to the permit, neither your agency nor any other agency should interpret such failure as a stamp of approval for the operation.

Sincerely,

Harry E. Craig

Harry E. Craig
Town Attorney

HEC:jr
CC: ~~Mr.~~ Joe Fernandez, A. F. Budge Mining Limited
U. S. Environmental Protection Agency, Region 9, Mail Drop W-1-6
Arizona Department of Water Resources, Attn: Clay Cady
Arizona Department of Commerce
Bureau of Land Management
Phoenix Active Management Area
Maricopa County Health Department
Central Arizona Association of Governments
Maricopa County Planning and Zoning Commission
Mr. Lawrence A. Hansen
Wickenburg Common Council

JAMES M. PRUDDEN
CONSULTING GEOLOGIST

4809 Quail Point Road
Salt Lake City, Utah 84124
801-272-4720

To: Budge Mining Co.
From: J.M. Prudden
Subject: Progress Report; Week ending 10 May 1989

Channel sampling for this period was directed towards the western margin of line 20 and fluvial channels in the eastern trench areas. In addition, processing samples from the previous week enabled the regular shipments to the respective assay laboratories. Operation problems prevented complete sampling of target areas prior to removing the plant from the property.

Map drafting has produced a trench location base map and also bed rock contours derived from trench geologic mapping. These contours have outlined discrete channels which will be used to orient and evaluate sampling.

A total of 67 amalgam assays have been received from Dawson's Lab. The attached table summarizes these assays and displays final grades. It should be noted that 22.3% of these grades exceed 76 mg/BCY ($1.00/BCY). These results indicate the following:

- A potential mineable channel is being outlined from 10-H/10-G trough 12-A/12-B and 13-C.
- The average of all samples in this population is 581.07 mg/BCY.

Gold recovered from geological sampling has been submitted for bullion assaying to check the currently used 900 fine estimate. A lower number would obviously reduce the value of individually weighed coarse gold and the resulting final calculated bulk grade.

Calculated head values from amalgam assaying reveal that this process is recovering 96.1% of the total gold in gravity concentrates. The range of recoveries is 85.6% to 99.7%. The highest amalgam tail assay to date is 0.10 OPT gold correlating with 91.1% recovery. It is quite logical that minor gold will be locked in some heavy mineral close to the Vulture outcrop.

Plant tailing assays continue to reveal negligible gold in all three screen fractions. The one notable exception is the +1/2 inch fraction in Trench 20-A 5-10 foot interval. This 0.26 OPT gold and 0.11 OPT silver value correlates with an increased percentage of angular quartz and pegmatite clasts. Correlation with the adjacent quartz veined outcrops immediately to the east is quite logical. It is worth noting that quartz/siderite veins encountered east of this outcrop in Trench 11 East assayed 0.305 OPT gold and 0.10 OPT silver.

1989 VULTURE MINE PLACER ASSAY RESULTS

Samp. No.	Volume cuft.	mg. Gold amalgamation	mg. Gold coarse	mg/BCY
10-A (T-66)				
0-6.5	6.5	5.000	---	20.78
6.5-11.5	5.0	16.783	---	90.63
11.5-16.5	5.0	7.437	---	40.16
16.5-21.5	5.4	0.315	---	1.58
10-B (T-65)				
10-15	5.0	4.897	---	26.44
15-20	5.0	12.239	---	66.09
20-26.5	7.6	1.013	---	3.60
10-C (T-64)				
13.9-18.9	5.0	0.942	---	5.09
18.9-23.9	5.6	9.194	---	44.33
10-D (T-63)				
2-9	7.0	6.704	---	27.86
9-14	5.0	20.082	---	108.44
10-G (T-70)				
0-5	5.0	7.737	---	41.78
5-10	5.0	8.810	---?	47.57
10-15	5.0	2.707	---	14.62
15-20	5.0	24.349	---	132.48
10-H (T-71)				
1-6	5.0	14.979	---	80.89
6-11	5.0	2.729	---	14.74
11-16	5.0	26.444	---	142.80
12-A (T-43)				
0-5	5.0	3.253	---	17.57
5-11	6.0	3.477	47.428	229.07
11-16	5.0	20.143	---	108.77
12-B (T-50)				
1.5-5.6	4.0	1.633	---	11.02
5.6-10.6	5.0	5.363	---	28.96
10.6-15.6	5.0	27.252	6,467.77*	35,073.11
		(includes 6,868.1 mg. nugget X.9)		
12-C (T-49)				
2.5-8.5	6.0	3.394	---	15.27
8.5-13.5	5.0	13.624	---	73.57
12-D (T-48)				
5.3-10.3	5.0	4.543	---	24.53

10.3-15.3	5.0	6.265	---	33.83
15.3-20.3	5.0	2.526	---	13.64
20.3-25.3	5.0	1.594	---	8.61
12-E (T-53)				
8.8-12.8	4.0	1.340	---	9.05
12.8-17.8	5.0	4.392	---	23.72
17.8-22.8	5.0	12.013	---	64.87
22.8-27.8	5.0	2.752	---	14.86
27.8-31.0	3.25	2.215	---	18.40
12-F (T-54)				
9.2-12.2	3.0	0.981	---	8.83
12.2-17.2	5.0	4.826	---	26.06
17.2-22.2	5.0	1.699	---	9.17
22.2-28.5	6.3	2.253	---	9.66
12-G (T-55)				
0.8-5.8	5.0	5.460	---	29.48
5.8-10.8	5.0	68.409	---	369.41
13-B (T-38)				
0-5	5.0	4.592	---	24.80
5-10	5.0	0.406	---	2.19
13-C (T-39)				
0-4	2.55	0.665	---	7.04
4-9	5.0	1.896	---	10.94
9-14	5.0	2.339	---	12.63
14-19	5.0	44.008	---	237.64
20-A (T-5)				
5-10	5.0	91.834	12.096	561.22
21-A (T-8)				
2-5	3.0	1.081	---	9.73
5-10	5.0	4.868	---	26.29
21-B (T-9)				
2-7	10.0	2.192	---	5.92
7-12	10.0	99.664	---	269.09
21-B (T-9) Geological Sample				
10-12	1.0	9.749	---	263.22
22-A				
5-11	6.0	0.949	---	4.27
11-16.5	5.5	3.342	---	16.41
22-B (T-97)				
5-11	6.0	3.319	---	14.94
11-17	6.0	17.521	---	78.84
17-22.5	5.5	36.903	---	181.16
22-C (T-96)				

2-7	5.0	1.336	---	7.21
7-12	5.0	3.125	---	16.88
12-17	5.0	1.643	---	8.87
22-D (T-95)				
5.3-11.3	6.0	0.248	---	1.12
11.3-16.3	5.0	0.518	---	2.80
16.3-21.3	5.0	1.647	---	8.89
22-E				
4.8-7.8	3.0	0.630	---	5.67
7.8-12.8	5.0	1.666	---	9.00
12.8-17.8	5.0	2.576	---	13.91

NOTE: Coarse gold weight calculated at 900 fine

RECORDATION REQUESTED BY
AND RETURN DOCUMENT TO:
A.F. Budge (Mining) Limited
4301 North 75th Street, Suite 101
Scottsdale, AZ 85251-3504

AFFIDAVIT OF PERFORMANCE OF ANNUAL LABOR

STATE OF ARIZONA)
) ss.
County of Maricopa)

DALE H. ALLEN, being duly sworn, upon his oath states as follows:

1. He is a citizen of the United States, more than eighteen (18) years of age, resides at Glendale in Maricopa County, and is personally acquainted with the 460 unpatented lode and placer mining claims situated in the Vulture Mining District, Maricopa County, Arizona, the names of which are indicated on Exhibit A attached hereto (the "Claims"), which exhibit also includes the location of said claims together with the serial number assigned to the Claims by the Arizona State Office of the Bureau of Land Management and/or the Recordation Number recorded in the official records of Maricopa County, Arizona.

2. This Affidavit is made for, on behalf of, and at the direction of A.F. BUDGE (MINING) LIMITED, a Nevada corporation, the Lessee of the Claims from V.M.P., INC., an Arizona corporation, whose address is c/o Larry W. Beal, 1414 E. Purdue, Phoenix, Arizona, 85020, the owner of such claims.

3. The location notices of the Claims are posted within Sections 24, 25, 26, 27, 34, 35 and 36, Township 6 North, Range 6 West; Sections 16, 17, 19, 20, 21, 28, 29, 30, 31 and 32, Township 6 North, Range 5 West; Sections 1, 2 and 12, Township 5 North, Range 5 West, G&SRM, Maricopa County, Arizona, and the Claims form a contiguous block.

4. Between the 1st day of September, 1987, and the 1st day of September, 1988, not less than FIFTY THOUSAND DOLLARS ($50,000.00) worth of work and improvements were done and performed upon or for the benefit of each of the Claims, not including the location work of the Claims.

5. Such work and improvements consisted of the following:

a. Construction of heap leaching facility and supervision thereof including further the fencing of the perimeter of the processing site completed by Maya Construction Company, General Contractors, 860 East Nineteenth Street, Tucson, Arizona 85719.

b. Construction of loading facility, conveyor belt, and silos; continued maintenance of roads providing access to the claims, and the maintenance of a watchman onsite by A.F. Budge (Mining) Limited.

c. Work in preparation for re-processing the old mine tailings on the property on or about July, 1, 1988, and actual processing commencing on or about August 15, 1988, by employees of A.F. Budge (Mining) Limited.

6. All of the above work and improvements were performed by or at the expense of A. F. BUDGE (MINING) LIMITED, the Lessee of the Claims from the owner thereof for the purpose of complying with the laws of the United States pertaining to assessment or annual work.

Dale H. Allen

Dale H. Allen

Subscribed and sworn before me this 5th day of December, 1988, by Dale H. Allen.

Carole A. O'Brien

Notary Public

My Commission expires:

April 14, 1991

Unpatented Lode Mining Claims								
Claim Name	Number	Docket Book	Page	BLM Number	Recordation No. (Amended)	Section	Township	Range
Vulture Group Amended September 23, 24 & 25, 1985; Recorded November 19, 1985								
Vulture	# 1	15828	79-80	AMC160432	85 549372	27/34/35	6N	6W
	# 2	15828	81-82	AMC160433	85 549373	34/35	6N	6W
	# 3	15828	83-84	AMC160434	85 549374	34/35	6N	6W
	# 4	15828	85-86	AMC160435	85 549375	35	6N	6W
	# 5	15828	87-88	AMC160436	85 549376	35	6N	6W
	# 6	15828	89-90	AMC160437	85 549377	35	6N	6W
	# 7	15828	91-92	AMC160438	85 549378	35	6N	6W
	# 8	15828	93-94	AMC160439	85 549379	35	6N	6W
	# 9	15828	95-96	AMC160440	85 549380	35	6N	6W
	# 10	15828	97-98	AMC160441	85 549381	35	6N	6W
	# 11	15828	99-100	AMC160442	85 549382	35	6N	6W
	# 12	15828	101-102	AMC160443	85 549383	35	6N	6W
	# 13	15828	103-104	AMC160444	85 549384	35	6N	6W
	# 14	15828	105-106	AMC160445	85 549385	35	6N	6W
	# 15	15828	107-108	AMC160446	85 549386	35	6N	6W
	# 16	15828	109-110	AMC160447	85 549387	25/26	6N	6W
	# 17	15828	111-112	AMC160448	85 549388	25/26	6N	6W
	# 18	15828	113-114	AMC160449	85 549389	25/26	6N	6W
	# 19	15828	115-116	AMC160450	85 549390	25/26	6N	6W
	# 20	15828	117-118	AMC160451	85 549391	25/26	6N	6W
	# 25	15828	119-120	AMC160452	85 549392	35	6N	6W
	# 26	15828	121-122	AMC160453	85 549393	35	6N	6W
	# 27	15828	123-124	AMC160454	85 549394	35	6N	6W
	# 28	15828	125-126	AMC160455	85 549395	35	6N	6W
	# 29	15828	127-128	AMC160456	85 549396	35	6N	6W
	# 30	15828	129-130	AMC160457	85 549397	35	6N	6W
	# 31	15828	131-132	AMC160458	85 549398	35	6N	6W
	# 32	15828	133-134	AMC160459	85 549399	2/35	5N/6N	6W
	# 33	15828	135-136	AMC160460	85 549400	25	6N	6W
	# 34	15828	137-138	AMC160461	85 549401	25	6N	6W
	# 35	15828	139-140	AMC160462	85 549402	25	6N	6W
	# 36	15828	141-142	AMC160463	85 549403	25	6N	6W
	# 37	15828	143-144	AMC160464	85 549404	25	6N	6W
	# 38	15828	145-146	AMC160465	85 549405	25/26	6N	6W
	# 39	15828	147-148	AMC160466	85 549406	25/26/35	6N	6W
	# 40	15828	149-150	AMC160467	85 549407	25/26/35/36	6N	6W
	# 41	15828	151-152	AMC160468	85 549408	35/36	6N	6W
	# 42	15828	153-154	AMC160469	85 549409	35/36	6N	6W
	# 43	15828	155-156	AMC160470	85 549410	35/36	6N	6W
	# 44	15828	157-158	AMC160471	85 549411	35/36	6N	6W
	# 45	15828	159-160	AMC160472	85 549412	35/36	6N	6W

Exhibit "A"

Claim	Number	Docket	Page	BLM Number	Number	Section	Township	Range
Vulture	# 46	15828	161-162	AMC160473	85 549413	35/36	6N	6W
	# 47	15828	163-164	AMC160474	85 549414	1/2/35/36	5N/6N	6W
	# 48	15828	165-166	AMC160475	85 549415	1/2/35	5N/6N	6W
	# 49	15828	167-168	AMC160476	85 549416	1/2	5N	6W
	# 50	15828	169-170	AMC160477	85 549417	1/2	5N	6W
	# 51	15828	171-172	AMC160478	85 549418	1/2	5N	6W
	# 52	15828	173-174	AMC160479	85 549419	1/2	5N	6W
	# 53	15828	175-176	AMC160480	85 549420	25	6N	6W
	# 54	15828	177-178	AMC160481	85 549421	25	6N	6W
	# 55	15828	179-180	AMC160482	85 549422	25	6N	6W
	# 56	15828	181-182	AMC160483	85 549423	25	6N	6W
	# 57	15828	183-184	AMC160484	85 549424	25	6N	6W
	# 58	15828	185-186	AMC160485	85 549425	25	6N	6W
	# 59	15828	187-188	AMC160486	85 549426	25/36	6N	6W
	# 60	15828	189-190	AMC160487	85 549427	36	6N	6W
	# 61	15828	191-192	AMC160488	85 549428	36	6N	6W
	# 62	15828	193-194	AMC160489	85 549429	36	6N	6W
	# 67	15828	203-204	AMC160494	85 549434	1	5N	6W
	# 68	15828	205-206	AMC160495	85 549435	1	5N	6W
	# 69	15828	207-208	AMC160496	85 549436	1	5N	6W
	# 70	15828	209-210	AMC160497	85 549437	1	5N	6W
	# 71	15828	211-212	AMC160498	85 549438	1	5N	6W
	# 72	15828	213-214	AMC160499	85 549439	25	6N	6W
	# 73	15828	215-216	AMC160500	85 549440	25	6N	6W
	# 74	15828	217-218	AMC160501	85 549441	25	6N	6W
	# 75	15828	219-220	AMC160502	85 549442	25	6N	6W
	# 76	15828	221-222	AMC160503	85 549443	25	6N	6W
	# 77	15828	223-224	AMC160504	85 549444	25	6N	6W
	# 78	15828	225-226	AMC160505	85 549445	25/36	6N	6W
	# 79	15828	227-228	AMC160506	85 549446	36	6N	6W
	# 80	15828	229-230	AMC160507	85 549447	36	6N	6W
	# 84	15828	239-240	AMC160512	85 549452	1	5N	6W
	# 85	15828	241-242	AMC160513	85 549453	1	5N	6W
	# 86	15828	243-244	AMC160514	85 549454	1	5N	6W
	# 87	15828	245-246	AMC160515	85 549455	1	5N	6W
	# 88	15828	247-248	AMC160516	85 549456	1	5N	6W
	# 89	15828	249-250	AMC160517	85 549457	25/30	6N	5W/6W
	# 90A	15828	251-252	AMC160518	85 549458	25/30	6N	5W/6W
	# 91	15828	253-254	AMC160519	85 549459	31/36	6N	5W/6W
	# 92	15828	255-256	AMC160520	85 549460	31/36	6N	5W/6W
	# 93	15828	257-258	AMC160521	85 549461	31/36	6N	5W/6W
	# 94	15828	259-260	AMC160522	85 549462	31/36	6N	5W/6W
	# 95	15828	261-262	AMC160523	85 549463	1/6/31/36	5N/6N	5W/6W
	# 96	15828	263-264	AMC160524	85 549464	1/6	5N	5W/6W
	# 97	15828	265-266	AMC160525	85 549465	1	5N	6W
	# 98	15828	267-268	AMC160526	85 549466	1	5N	6W
	# 99	15828	269-270	AMC160527	85 549467	1	5N	6W
	# 100	15828	271-272	AMC160528	85 549468	1	5N	6W
	# 101	15828	273-274	AMC160529	85 549469	1	5N	6W
	# 102	15828	275-276	AMC160530	85 549470	31	6N	5W
	# 103	15828	277-278	AMC160531	85 549471	31	6N	5W
	# 104	15828	279-280	AMC160532	85 549472	31/36	6N	5W/6W

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Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
Vulture	# 105	15828	281-282	AMC160533	85 549473	31	6N	5W
	re-filed	16130	1044-1045					
	# 106	15828	283-284	AMC160534	85 549474	6/31	5N	5W
	# 107	15828	285-286	AMC160535	85 549475	6	5N	5W
	# 108	15828	287-288	AMC160536	85 549476	6	5N	5W
	# 109	15828	289-290	AMC160537	85 549477	1/6	5N	5W/6W
	# 110	15828	291-292	AMC160538	85 549478	1/6	5N	5W/6W
	# 111	15828	293-294	AMC160539	85 549479	1/6	5N	5W/6W
	# 112	15828	295-296	AMC160540	85 549480	1/6	5N	5W/6W
	# 113	15828	297-298	AMC160541	85 549481	1/6	5N	5W/6W
	# 114	15828	301-302	AMC160542	85 549482	31	6N	5W
	# 115	15828	299-300	AMC160543	85 549483	31	6N	5W
	# 116	15828	303-304	AMC160544	85 549484	31	6N	5W
	# 117	15828	305-306	AMC160545	85 549485	31	6N	5W
	# 118	15828	307-308	AMC160546	85 549486	31	6N	5W
	# 119	15828	309-310	AMC160547	85 549487	31	6N	5W
	# 120	15828	311-312	AMC160548	85 549488	6/31	5N/6N	5W/6W
	# 121	15828	313-314	AMC160549	85 549489	6	5N	5W
	# 122	15828	315-316	AMC160550	85 549490	6	5N	5W
	# 123	15828	317-318	AMC160551	85 549491	6	5N	5W
	# 124	15828	319-320	AMC160552	85 549492	6	5N	5W
	# 125	15828	321-322	AMC160553	85 549493	6	5N	5W
	# 126	15828	323-324	AMC160554	85 549494	6	5N	5W
	# 127	15828	325-326	AMC160555	85 549495	6	5N	5W
	# 128	15828	327-328	AMC160556	85 549496	31	6N	5W
	# 129	15828	329-330	AMC160557	85 549497	31	6N	5W
	# 130	15828	331-332	AMC160558	85 549498	31	6N	5W
	# 131	15828	333-334	AMC160559	85 549499	31	6N	5W
	# 132	15828	335-336	AMC160560	85 549500	31	6N	5W
	# 133	15828	337-338	AMC160561	85 549501	6/31	5N/6N	5W
	# 134	15828	339-340	AMC160562	85 549502	6/31	5N/6N	5W
	# 135	15828	341-342	AMC160563	85 549503	6	5N	5W
	# 136	15828	343-344	AMC160564	85 549504	6	5N	5W
	# 137	15828	345-346	AMC160565	85 549505	6	5N	5W
	# 138	15828	347-348	AMC160566	85 549506	6	5N	5W
	# 139	15828	349-350	AMC160567	85 549507	6	5N	5W
	# 140	15828	351-352	AMC160568	85 549508	6	5N	5W
	# 141	15828	353-354	AMC160569	85 549509	6	5N	5W
	# 142	15828	355-356	AMC160570	85 549510	31/32	6N	5W
	# 143	15828	357-358	AMC160571	85 549511	31/32	6N	5W
	# 144	15828	359-360	AMC160572	85 549512	31/32	6N	5W
	# 145	15828	361-362	AMC160573	85 549513	31/32	6N	5W
	# 146	15828	363-364	AMC160574	85 549514	31/32	6N	5W
	# 147	15828	365-366	AMC160575	85 580568	5/6/31/32	5N/6N	5W
	# 148	15828	367-368	AMC160576	85 549516	5/6	5N	5W
	# 149	15828	369-370	AMC160577	85 549517	5/6	5N	5W
	# 150	15828	371-372	AMC160578	85 549518	5/6	5N	5W
	# 151	15828	373-374	AMC160579	85 549519	5/6	5N	5W
	# 152	15828	375-376	AMC160580	85 549520	5/6	5N	5W
	# 153	15828	377-378	AMC160581	85 549521	5/6	5N	5W
	# 154	15828	379-380	AMC160582	85 549522	5/6	5N	5W
	# 155	15828	381-382	AMC160583	85 549523	5/6	5N	5W

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Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
Vulture	# 156	15828	383-384	AMC160584	85 549524	32	6N	5W
	# 157	15828	385-386	AMC160585	85 549525	32	6N	5W
	# 158	15828	387-388	AMC160586	85 549526	32	6N	5W
	# 159	15828	389-390	AMC160587	85 549527	32	6N	5W
	# 160	15828	391-392	AMC160588	85 549528	32	6N	5W
	# 161	15828	393-394	AMC160589	85 549529	5/32	5N/6N	5W
	# 162	15828	395-396	AMC160590	85 549530	5	5N	5W
	# 163	15828	397-398	AMC160591	85 549531	5	5N	5W
	# 164	15828	399-400	AMC160592	85 549532	5	5N	5W
	# 165	15828	401-402	AMC160593	85 549533	5	5N	5W
	# 166	15828	403-404	AMC160594	85 549534	5	5N	5W
	# 167	15828	405-406	AMC160595	85 549535	5	5N	5W
	# 168	15828	407-408	AMC160596	85 549536	5	5N	5W
	# 169	15828	409-410	AMC160597	85 549537	5	5N	5W
	# 170	15828	411-412	AMC160598	85 549538	32	6N	5W
	# 171	15828	413-414	AMC160599	85 549539	32	6N	5W
	# 172	15828	415-416	AMC160600	85 549540	32	6N	5W
	# 173	15828	417-418	AMC160601	85 549541	32	6N	5W
	# 174	15828	419-420	AMC160602	85 549542	5/32	5N/6N	5W

Desert Group Amended October 2, 3 & 4, 1985; Recorded November 19, 1985

Desert	# 1A	15828	475-476	AMC160603	85 549217	25/30	6N	5W/6W
	# 2	15828	477-478	AMC160604	85 549218	25/30	6N	5W/6W
	# 3	15828	479-480	AMC160605	85 549219	25/30/31/36	6N	5W/6W
	# 4	15828	481-482	AMC160606	85 549220	31/36	6N	5W/6W
	# 5A	15828	483-484	AMC160607	85 549221	24/25	6N	6W
	# 6	15828	485-486	AMC160608	85 549222	25/30	6N	5W/6W
	# 7	15828	487-488	AMC160609	85 549223	25/30	6N	5W/6W
	# 8A	15828	489-490	AMC160610	85 549224	25/30	6N	5W/6W
	# 9A	15828	491-492	AMC160611	85 549225	25/30	6N	5W/6W
	# 10	15828	493-494	AMC160612	85 549226	30	6N	5W
	# 11	15828	495-496	AMC160613	85 549227	30	6N	5W
	# 12	15828	497-498	AMC160614	85 549228	30	6N	5W
	# 13	15828	499-500	AMC160615	85 549229	30	6N	5W
	# 14	15828	501-502	AMC160616	85 549230	30/31	6N	5W
	# 15	15828	503-504	AMC160617	85 549231	30/31	6N	5W
	# 16	15828	505-506	AMC160618	85 549232	19/24/25	6N	5W/6W
	# 17	15828	507-508	AMC160619	85 549233	19/24/25/30	6N	5W/6W
	# 18	15828	509-510	AMC160620	85 549234	19/30	6N	5W
	# 19	15828	511-512	AMC160621	85 549235	30	6N	5W
	# 20	15828	513-514	AMC160622	85 549236	30	6N	5W
	# 21	15828	515-516	AMC160623	85 549237	30	6N	5W
	# 22	15828	517-518	AMC160624	85 549238	30	6N	5W
	# 23	15828	519-520	AMC160625	85 549239	30	6N	5W
	# 24	15828	521-522	AMC160626	85 549240	30	6N	5W
	# 25	15828	523-524	AMC160627	85 549241	30	6N	5W
	# 26	15828	525-526	AMC160628	85 549242	30	6N	5W
	# 27	15828	527-528	AMC160629	85 549243	31/30	6N	5W
	# 28	15828	529-530	AMC160630	85 549244	29/30/31	6N	5W
	# 29	15828	531-532	AMC160631	85 549245	19	6N	5W

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Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
Desert	# 30	15828	533-534	AMC160632	85 549246	19	6N	5W
	# 31	15828	535-536	AMC160633	85 549247	19/30	6N	5W
	# 32	15828	537-538	AMC160634	85 549248	19/30	6N	5W
	# 33	15828	539-540	AMC160635	85 549249	19/30	6N	5W
	# 34	15828	541-542	AMC160636	85 549250	30	6N	5W
	# 35	15828	543-544	AMC160637	85 549251	30	6N	5W
	# 36	15828	545-546	AMC160638	85 549252	30	6N	5W
	# 37	15828	547-548	AMC160639	85 549253	30	6N	5W
	# 38	15828	549-550	AMC160640	85 549254	29/30	6N	5W
	# 39	15828	551-552	AMC160641	85 549255	29/30	6N	5W
	# 40	15828	553-554	AMC160642	85 549256	29/30	6N	5W
	# 41	15828	555-556	AMC160643	85 549257	29/30	6N	5W
	# 42	15828	557-558	AMC160644	85 549258	29/32	6N	5W
	# 43	15828	559-560	AMC160645	85 549259	29/32	6N	5W
	# 44	15828	561-562	AMC160646	85 549260	19	6N	5W
	# 45	15828	563-564	AMC160647	85 549261	19	6N	5W
	# 46	15828	565-566	AMC160648	85 549262	19	6N	5W
	# 47	15828	567-568	AMC160649	85 549263	19	6N	5W
	# 48	15828	569-570	AMC160650	85 549264	19/30	6N	5W
	# 49	15828	571-572	AMC160651	85 549265	19/30	6N	5W
	# 50	15828	573-574	AMC160652	85 549266	30/29	6N	5W
	# 51	15828	575-576	AMC160653	85 549267	29/30	6N	5W
	# 52	15828	577-578	AMC160654	85 549268	29/30	6N	5W
	# 53	15828	579-580	AMC160655	85 549269	29/30	6N	5W
	# 54	15828	581-582	AMC160656	85 549270	29	6N	5W
	# 55	15828	583-584	AMC160657	85 549271	29	6N	5W
	# 56	15828	585-586	AMC160658	85 549272	29	6N	5W
	# 57	15828	587-588	AMC160659	85 549273	29	6N	5W
	# 58	15828	589-590	AMC160660	85 549274	29	6N	5W
	# 59	15828	591-592	AMC160661	85 549275	19	6N	5W
	# 60	15828	593-594	AMC160662	85 549276	19	6N	5W
	# 61	15828	595-596	AMC160663	85 549277	19/20	6N	5W
	# 62	15828	597-598	AMC160664	85 549278	19/20	6N	5W
	# 63	15828	599-600	AMC160665	85 549279	19/20	6N	5W
	# 64	15828	601-602	AMC160666	85 549280	19/20	6N	5W
	# 65	15828	603-604	AMC160667	85 549281	20/29	6N	5W
	# 66	15828	605-606	AMC160668	85 549282	20/29	6N	5W
	# 67	15828	607-608	AMC160669	85 549283	29	6N	5W
	# 68	15828	609-610	AMC160670	85 549284	29	6N	5W
	# 69	15828	611-612	AMC160671	85 549285	29	6N	5W
	# 70	15828	613-614	AMC160672	85 549286	29	6N	5W
	# 71	15828	615-616	AMC160673	85 549287	29	6N	5W
	# 72	15828	617-618	AMC160674	85 549288	29	6N	5W
	# 73	15828	619-620	AMC160675	85 549289	29	6N	5W
	# 74	15828	621-622	AMC160676	85 549290	19/20	6N	5W
	# 75	15828	623-624	AMC160677	85 549291	19/20	6N	5W
	# 76	15828	625-626	AMC160678	85 549292	19/20	6N	5W
	# 77	15828	627-628	AMC160679	85 549293	20	6N	5W
	# 78	15828	629-630	AMC160680	85 549294	20	6N	5W
	# 79	15828	631-632	AMC160681	85 549295	20	6N	5W
	# 80	15828	633-634	AMC160682	85 549296	20	6N	5W
	# 81	15828	635-636	AMC160683	85 549297	20/29	6N	5W

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Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
Desert	# 82	15828	637-638	AMC160684	85 549298	20/29	6N	5W
	# 83	15828	639-640	AMC160685	85 549299	20/29	6N	5W
	# 84	15828	641-642	AMC160686	85 549300	29	6N	5W
	# 85	15828	643-644	AMC160687	85 549301	29	6N	5W
	# 86	15828	645-646	AMC160688	85 549302	29	6N	5W
	# 87	15828	647-648	AMC160689	85 549303	29	6N	5W
	# 88	15828	649-650	AMC160690	85 549304	29	6N	5W
	# 89	15828	651-652	AMC160691	85 549305	20	6N	5W
	# 90	15828	653-654	AMC160692	85 549306	20	6N	5W
	# 91	15828	655-656	AMC160693	85 549307	20	6N	5W
	# 92	15828	657-658	AMC160694	85 549308	20	6N	5W
	# 93	15828	659-660	AMC160695	85 549309	20	6N	5W
	# 94	15828	661-662	AMC160696	85 549310	20	6N	5W
	# 95	15828	663-664	AMC160697	85 549311	20	6N	5W
	# 96	15828	665-666	AMC160698	85 549312	20	6N	5W
	# 97	15828	667-668	AMC160699	85 549313	20	6N	5W
	# 98	15828	669-670	AMC160700	85 549314	20/29	6N	5W
	# 99	15828	671-672	AMC160701	85 549315	20/21/29	6N	5W
	# 100	15828	673-674	AMC160702	85 549316	20/21/28/29	6N	5W
	# 101	15828	675-676	AMC160703	85 549317	28/29	6N	5W
	# 102	15828	677-678	AMC160704	85 549318	28/29	6N	5W
	# 103	15828	679-680	AMC160705	85 549319	28	6N	5W
	# 104	15828	681-682	AMC160706	85 549320	17/20	6N	5W
	# 105	15828	683-684	AMC160707	85 549321	17/20	6N	5W
	# 106	15828	685-686	AMC160708	85 549322	17/20	6N	5W
	# 107	15828	687-688	AMC160709	85 549323	20	6N	5W
	# 108	15828	689-690	AMC160710	85 549324	20	6N	5W
	# 109	15828	691-692	AMC160711	85 549325	20	6N	5W
	# 110	15828	693-694	AMC160712	85 549326	17	6N	5W
	# 111	15828	695-696	AMC160713	85 549327	17	6N	5W
	# 112	15828	697-698	AMC160714	85 549328	17/20	6N	5W
	# 113	15828	699-700	AMC160715	85 549329	16/17/20/21	6N	5W
	# 114	15828	701-702	AMC160716	85 549330	20/21	6N	5W
	# 115	15828	703-704	AMC160717	85 549331	20/21	6N	5W
	# 116	15828	705-706	AMC160718	85 549332	16/17	6N	5W
	# 117	15828	707-708	AMC160719	85 549333	16/17	6N	5W
	# 120	15828	713-714	AMC160722	85 549336	16/21	6N	5W
	# 121	15828	715-716	AMC160723	85 549337	21	6N	5W
	# 123	15828	719-720	AMC160725	85 549339	16	6N	5W
	# 124	15828	721-722	AMC160726	85 549340	16	6N	5W
	# 125	15828	723-724	AMC160727	85 549341	20	6N	5W
	# 126	15828	725-726	AMC160728	85 549342	20	6N	5W
	# 127	15828	727-728	AMC160729	85 549343	21	6N	5W
	# 128	15828	729-730	AMC160730	85 549344	21	6N	5W
	# 129	15828	731-732	AMC160731	85 549345	21	6N	5W
	# 130	15828	733-734	AMC160732	85 549346	21	6N	5W
	# 131	15828	735-736	AMC160733	85 549347	16/21	6N	5W
	# 132	15828	737-738	AMC160734	85 549348	21	6N	5W
	# 133	15828	739-740	AMC160735	85 549349	32	6N	5W
	# 134	15828	741-742	AMC160736	85 549350	32	6N	5W
	# 135	15828	743-744	AMC160737	85 549351	32	6N	5W
	# 136	15828	745-746	AMC160738	85 549352	32	6N	5W

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Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
Desert	# 137	15828	747-748	AMC160739	85 549353	25/30/36	6N	5W
	# 138	15828	749-750	AMC160740	85 549354	25/30/31/36	6N	5W
	# 139	15828	751-752	AMC160741	85 549355	30/31	6N	5W
	# 140	15828	753-754	AMC160742	85 549356	31	6N	5W
	# 141	15828	755-756	AMC160743	85 549357	31	6N	5W
	# 142	15828	757-758	AMC160744	85 549358	31	6N	5W
	# 144	15828	759-760	AMC160745	85 549360	30/31	6N	5W
	# 145	15828	761-762	AMC160746	85 549361	31	6N	5W
	# 146	15828	763-764	AMC160747	85 549362	31	6N	5W
	# 147	15828	765-766	AMC160748	85 549363	31	6N	5W
	# 148	15828	767-768	AMC160749	85 549364	31	6N	5W
	# 149	15828	769-770	AMC160750	85 549365	31	6N	5W
	# 150	15828	771-772	AMC160751	85 549366	31/32	6N	5W
	# 151	15828	773-774	AMC160752	85 549367	31/32	6N	5W
	# 152	15828	775-776	AMC160753	85 549368	31/32	6N	5W
	# 153	15828	777-778	AMC160754	85 549369	32	6N	5W
	# 154	15828	779-780	AMC160755	85 549270	32	6N	5W
	# 155	15828	781-782	AMC160756	85 549271	32	6N	5W
B-lan Group Amended September 25, 1985; Recorded November 19, 1985								
B-lan	1	15952	600-601	AMC167064	85 549194	35	6N	6W
	2	15952	602-603	AMC167065	85 549195	35	6N	6W
	3	15952	604-605	AMC167066	85 549196	34/35	6N	6W
	4	15952	606-607	AMC167067	85 549197	34/35	6N	6W
	5	15952	608-609	AMC167068	85 549198	34/35	6N	6W
	6	15952	610-611	AMC167069	85 549199	34/35	6N	6W
	7	15952	612-613	AMC167070	85 549200	34/35	6N	6W
	8	15952	614-615	AMC167071	85 549201	34	6N	6W
	9	15952	616-617	AMC167072	85 549202	34	6N	6W
	10	15952	618-619	AMC167073	85 549203	34	6N	6W
	11	15952	620-621	AMC167074	85 549204	34	6N	6W
	12	15952	622-623	AMC167075	85 549205	34	6N	6W
	13	15952	624-625	AMC167076	85 549206	27/34	6N	6W
	14	15952	626-627	AMC167077	85 549207	26/35	6N	6W
	15	15952	628-629	AMC167078	85 549208	26	6N	6W
	16	15952	630-631	AMC167079	85 549209	26	6N	6W
	17	15952	632-633	AMC167080	85 549210	26	6N	6W
	18	15952	634-635	AMC167081	85 549211	26/27/34/35	6N	6W
	19	15952	636-637	AMC167082	85 549212	26/27	6N	6W
	20	15952	638-639	AMC167083	85 549213	26/27	6N	6W
	21	15952	640-641	AMC167084	85 549214	26/27	6N	6W
	22	16260	516-517	AMC170741	85 549215	35	6N	6W
	23	16260	514-515	AMC170742	85 549216	2/35	5N/6N	6W
Zen Group Amended October 4 & 7, 1985; Recorded November 19, 1985								
Zen	1	15952	544-545	AMC167085	85 549545	20/21	6N	5W
	2	15952	546-547	AMC167086	85 549546	20/21	6N	5W
	3	15952	548-549	AMC167087	85 549547	20/21	6N	5W
	4	15952	550-551	AMC167088	85 549548	21/28	6N	5W
	5	15952	552-553	AMC167089	85 549549	21/28	6N	5W

Claim	Number	Docket	Page	BLM Number	Number	Section	Township	Range
Zen	6	15952	554-555	AMC167090	85 549550	21/28	6N	5W
	7	15952	556-557	AMC167091	85 549551	28	6N	5W
	8	15952	558-559	AMC167092	85 549552	21	6N	5W
	9	15952	560-561	AMC167093	85 549553	21	6N	5W
	10	15952	562-563	AMC167094	85 549554	21	6N	5W
	11	15952	564-565	AMC167095	85 549555	21	6N	5W
	12	15952	566-567	AMC167096	85 549556	21	6N	5W
	13	15952	568-569	AMC167097	85 549557	21/28	6N	5W
	14	15952	570-571	AMC167098	85 549558	21/28	6N	5W
	15	15952	572-573	AMC167099	85 549559	21	6N	5W
	16	15952	574-575	AMC167100	85 549560	21	6N	5W
	17	15952	576-577	AMC167101	85 549561	21	6N	5W
	18	15952	578-579	AMC167102	85 549562	21	6N	5W
	19	15952	580-581	AMC167103	85 549563	21	6N	5W
	20	15952	582-583	AMC167104	85 549564	21	6N	5W
	21	15952	584-585	AMC167105	85 549565	21	6N	5W
Portions of A-lan Group Amended September 24, 1985; Recorded November 19, 1985								
A-lan	1	15952	451-452	AMC167034	85 549188	1	5N	6W
	2	15952	453	AMC167035		1	5N	6W
	3	15952	455	AMC167036		1	5N	6W
	4	15952	457	AMC167037		1/12	5N	6W
	5	15952	459	AMC167038		1/12	5N	6W
	6	16025	518	AMC170729		1/12	5N	6W
	7	16025	520	AMC170730		1/12	5N	6W
	8	15952	461-462	AMC167039	85 549189	1	5N	6W
	9	15952	463	AMC167040		1	5N	6W
	10	15952	465	AMC167041		1/12	5N	6W
	11	15952	467	AMC167042		1/12	5N	6W
	12	15952	469	AMC167043		12	5N	6W
	13	16025	522	AMC170731		12	5N	6W
	14	16025	524	AMC170732		12	5N	6W
	15	15952	471-472	AMC167044	85 549190	1	5N	6W
	16	15952	473	AMC167045		1	5N	6W
	17	15952	475	AMC167046		1/12	5N	6W
	18	15952	477	AMC167047		12	5N	6W
	19	15952	479	AMC167048		12	5N	6W
	20	16025	526	AMC170733		12	5N	6W
	21	16025	528	AMC170734		12	5N	6W
	22	15952	481-482	AMC167049	85 549191	1/6	5N	5W/6W
	23	15952	483	AMC167050		1/6	5N	5W/6W
	24	15952	485	AMC167051		1/6/7/12	5N	5W/6W
	25	15952	487	AMC167052		7/12	5N	5W/6W
	26	15952	489	AMC167053		7/12	5N	5W/6W
	27	16025	530	AMC170735		7/12	5N	5W/6W
	28	16025	532	AMC170736		7/12	5N	5W/6W
	29	15952	491-492	AMC167054	85 549192	6	5N	5W
	30	15952	493	AMC167055		6/7	5N	5W
	31	15952	495	AMC167056		7	5N	5W
	32	15952	497	AMC167057		7	5N	5W
	33	15952	499	AMC167058		7	5N	5W

Claim	Number	Docket	Page	BLM Number	Recordation Number	Section	Township	Range
A-lan	34	16025	534	AMC170737		7	5N	5W
	35	16025	536	AMC170738		7	5N	5W
	36	15952	501-502	AMC167059	85 549193	6	5N	5W
	37	15952	503	AMC167060		6/7	5N	5W
	38	15952	505	AMC167061		7	5N	5W
	39	15952	507	AMC167062		7	5N	5W
	40	15952	509	AMC167063		7	5N	5W
	41	16025	538	AMC170739		7	5N	5W
	42	16025	540	AMC170740		7	5N	5W

Number of Claims 401

Vulture Annex # 1	Staked: October 18, 1985	85 549543	25/30	6N	5W/6W
Vulture Annex # 2	Staked: October 31, 1985	85 549544	31	6N	5W
Desert # 118	Staked: January 18, 1986	86 046761	16/17	6N	5W
Desert # 119	Staked: January 18, 1986	86 046762	16/17	6N	5W
Desert # 122	Staked: January 18, 1986	86 046763	16	6N	5W
Vulture # 63	Staked: January 18, 1986	86 046764	36	6N	6W
Vulture # 64	Staked: January 18, 1986	86 046765	36	6N	6W
Vulture # 65	Staked: January 18, 1986	86 046766	36	6N	6W
Vulture # 66	Staked: January 18, 1986	86 046767	1/36	5N/6N	6W

Number of new Claims 9

Placer	Mining Claims					
V.M.P.	1	11693	739	AMC77018	26	6N	6W
	2	11693	740	AMC77019	35	6N	6W
	3	11693	741	AMC77020	35	6N	6W
	4	11693	742	AMC77021	35	6N	6W
	5	11693	743	AMC77022	35	6N	6W
	6	11693	744	AMC77023	2	5N	6W
	7	11693	745	AMC77024	2	5N	6W
	8	11693	746	AMC77025	25	6N	6W
	9	11693	747	AMC77026	25	6N	6W
	10	11693	748	AMC77027	25	6N	6W
	11	11693	749	AMC77028	26	6N	6W
	12	11693	750	AMC77029	19	6N	5W
	13	11693	751	AMC77030	19	6N	5W
	18	11693	752	AMC77031	6	6N	5W
	19	11693	753	AMC77032	6	6N	5W
	20	11693	754	AMC77033	6	6N	5W
	21	11693	755	AMC77034	6	6N	5W

Exhibit "A"

Claim	Number	Docket	Page	BLM Number	Section	Township	Range
V.M.P.	22	11693	756	AMC77035	20	6N	5W
	23	11693	757	AMC77036	20	6N	5W
	24	11693	758	AMC77037	20	6N	5W
	25	11693	759	AMC77038	20	6N	5W
	26	11693	760	AMC77039	29	6N	5W
	27	11693	761	AMC77040	29	6N	5W
	28	11693	762	AMC77041	29	6N	5W
	29	11693	763	AMC77042	29	6N	5W
	30	11693	764	AMC77043	32	6N	5W
	31	11693	765	AMC77044	32	6N	5W
	32	11693	766	AMC77045	32	6N	5W
	33	11693	767	AMC77046	32	6N	5W
	34	11693	772	AMC77047	5	5N	5W
	35	11693	773	AMC77048	5	5N	5W
	36	11693	774	AMC77049	21	6N	5W
	37	11693	775	AMC77050	21	6N	5W
	38	11693	776	AMC77051	28	6N	5W
J.S.	1	7685	387	AMC71781	30	6N	5W
	2	7685	388	AMC71782	30	6N	5W
	3	7685	389	AMC71783	30	6N	5W
	4	7685	390	AMC71784	30	6N	5W
	5	7685	391	AMC71785	36	6N	6W
	6	7685	392	AMC71786	36	6N	6W
	7	7685	393	AMC71787	36	6N	6W
	8	7685	394	AMC71788	36	6N	6W
	9	7685	395	AMC71789	1	5N	6W
	10	7685	396	AMC71790	1	5N	6W
	11	7685	397	AMC71791	1	5N	6W
	12	7685	398	AMC71792	1	5N	6W
	13	7685	399	AMC71793	31	6N	5W
	14	7685	400	AMC71794	31	6N	5W
	15	7685	401	AMC71795	31	6N	5W
	16	7685	402	AMC71796	31	6N	5W

Number of Placer Claims 50

Exhibit "A"

THINGS TO DO TODAY

1.
2. On revenues of
3. $1,419,255
4.
5. 6% royalty = $85,155.30
6.
7.
8. Royalties paid
9. $260,000+
10.
11.
12.
13.
14.
15.

To: Michael Yates
A.F. Budge Limited

From: Carole A. O'Brien

Date: May 29, 1991

Vulture Production

First pour: September 29, 1988

Year	Ounces Gold	Ounces Silver	Revenues
1988	269.5	1,016.4	$113,945.56
1989	3,204.2	9,410.8	$1,212,530.17
1990	243.6	757.1	$92,779.36
Total	3,717.3	11,184.3	$1,419,255.09

U.V.X. Production

First (test) shipment: February 4, 1989

Year	Ounces Gold	Ounces Silver	Revenues
1989	8,248	114,257	$3,154,417.54
1990	11,377	65,398	$3,883,250.38
Total	19,625	179,655	$7,037,667.92

		March 1989	April 1989	May 1989
Gross Value of Production		$183,540.29	$109,065.39	$99,084.45
Severence Tax		($3,879.23)	($2,100.34)	($1,945.87)
Processing and Recovery Costs (including reagents)		($43,937.53)	($42,642.82)	($39,087.44)
"Net Return"		$135,723.53	$64,322.23	$58,051.14
Gold Price		$390.30	$384.42	$371.11
Royalty	6.0%	$8,143.41	$3,859.33	$3,483.07
	7.0%			
Advance Royalty paid		$4,500.00	$4,500.00	$4,500.00

		June 1989	July 1989	August 1989
Gross Value of Production		$95,718.81	$90,960.20	$80,877.50
Severence Tax		($1,913.76)	($1,781.58)	($1,376.05)
Processing and Recovery Costs (including reagents)		($39,374.78)	($40,055.19)	($36,108.69)
"Net Return"		$54,430.27	$49,123.43	$43,392.76
Gold Price		$367.57	$375.00	$364.48
Royalty	6.0%	$3,265.82	$2,947.41	$2,603.57
	7.0%			
Advance Royalty paid		$4,500.00	$4,500.00	$4,500.00

Remarks

As defined in the orginal Option and Lease Agreement on the Vulture property, dated July 1, 1984, "Net Returns" shall mean the total dollar value received from the purchaser of Leased Substances, less:

(a) any weighing, sampling, penalty, processing or other charges assessed by the purchaser;

(b) selling charges;

(c) any sales, severance, gross production or similar taxes

(d) the cost of transportation from the Property to the Purchaser

(e) all processing and recovery costs incurred beyond the point at which leaching reagents are applied to the ore being treated (including the cost of reagents)

Advance Minimum Royalty payments made to November 30, 1988

1985	$31,500.00
1986	$46,821.38
1987	$62,500.00
1988	$60,500.00
Totals	$201,321.38

First dore pour: September 29, 1988

		December 1988	January 1989	February 1989
Gross Value of Production		$120,140.22	$79,689.05	$105,482.60
Severence Tax		($2,751.35)	($1,521.71)	($2,281.58)
Processing and Recovery Costs (including reagents)		($36,429.73)	($38,747.55)	($37,245.63)
"Net Return"		$80,959.14	$39,419.79	$65,955.39
Gold Price		$418.15	$404.10	$387.35
Royalty	6.0%			$3,957.32
	7.0%	$5,667.14	$2,759.39	
Advance Royalty paid		$5,000.00	$5,000.00	$5,000.00

		September 1989	October 1989	November 1989
Gross Value of Production		$127,457.72	$114,731.58	$117,445.03
Severence Tax		($2,024.81)	($1,625.82)	($1,581.75)
Processing and Recovery Costs (including reagents)		($40,053.07)	($41,580.09)	($35,827.58)
"Net Return"		$85,379.84	$71,525.67	$80,035.70
Gold Price		$361.75	$367.07	$392.29
Royalty	6.0%	$5,122.79	$4,291.54	$4,802.14
	7.0%			
Advance Royalty paid		$4,500.00	$4,000.00	$4,000.00

		December 1989
Gross Value of Production		$64,970.80
Severence Tax		($1,005.53)
Processing and Recovery Costs (including reagents)		($35,172.19)
"Net Return"		$28,793.08
Gold Price		$409.15
Royalty	6.0%	
	7.0%	$2,015.52
Advance Royalty paid		$4,500.00

Wickenburg Mine

Collection Note #	Settlement Date	Total metal content Ounces Gold	Ounces Silver	Recoverable units Ounces Gold 97.5%	Ounces Silver 96.5%	Gross value of production	"Net" to Budge	Settlement Prices Gold	Silver
540	12-02-88	142.84	469.19	139.2710	452.7684	$61,858.91	$61,524.78	$424.25	$6.13
547	12-02-88	11.81	58.17	11.5187	56.1340	$5,230.61	$4,730.61	$424.25	$6.13
570	12-13-88	8.03	24.21	7.8283	23.3578	$3,434.97	$2,944.16	$420.50	$6.13
571	12-13-88	106.83	464.84	104.1622	448.5725	$46,549.94	$44,746.01	$420.50	$6.13
1988 Totals		269.5	1,016.4	262.8	980.8	$117,074.43	$113,945.56		
597	01-13-89	17.68	63.19	17.2390	60.9784	$7,352.87	$6,872.67	$405.55	$5.93
601	01-13-89	169.78	554.52	165.5384	535.1118	$70,307.32	$67,518.86	$405.55	$5.93
626	02-15-89	174.41	603.43	170.0537	582.3100	$68,173.66	$67,527.32	$381.00	$5.81
627	02-17-89	88.85	289.92	86.6249	279.7728	$34,619.54	$34,052.67	$380.40	$5.96
631	03-08-89	51.58	192.03	50.2895	185.3089	$20,933.86	$20,490.40	$394.60	$5.88
639	03-10-89	87.21	330.59	85.0278	319.0193	$35,362.98	$34,958.64	$393.50	$5.97
645	03-13-89	47.40	180.70	46.2150	174.3755	$19,191.74	$18,743.70	$392.50	$6.04
656	03-17-89	72.33	216.49	70.5198	208.9090	$29,173.28	$28,751.43	$395.50	$6.14
663	03-23-89	62.76	163.83	61.1888	158.0952	$25,112.03	$24,678.60	$394.90	$6.00
670	03-30-89	124.38	318.24	121.2713	307.0968	$48,299.14	$48,725.34	$383.70	$5.76
681	04-06-89	95.99	268.31	93.5946	258.9173	$37,270.49	$36,869.39	$382.25	$5.77
686	04-13-89	56.96	166.48	55.5360	160.6503	$22,375.76	$21,935.93	$386.20	$5.78
696	04-20-89	65.18	196.49	63.5456	189.6157	$25,490.86	$25,059.07	$384.00	$5.75
711	05-02-89	53.38	164.93	52.0436	159.1613	$20,543.90	$20,098.93	$377.45	$5.66
715	05-08-89	37.08	130.10	36.1540	125.5472	$14,380.84	$13,919.17	$378.25	$5.62
732	05-17-89	125.38	395.21	122.2436	381.3728	$47,531.32	$46,958.62	$371.90	$5.43
742	05-26-89	93.32	271.23	90.9890	261.7341	$34,652.63	$34,245.06	$365.80	$5.23
758	06-13-89	80.10	274.50	78.0965	264.8906	$29,390.65	$28,969.62	$358.70	$5.20
762	06-20-89	59.52	164.05	58.0310	158.3044	$22,115.56	$21,674.47	$366.60	$5.32
777	06-29-89	110.48	322.41	107.7151	311.1276	$41,780.03	$41,391.35	$373.00	$5.15
778	07-12-89	49.68	150.19	48.4361	144.9295	$19,159.54	$18,710.67	$379.75	$5.29
795	07-18-89	49.66	155.17	48.4214	149.7352	$18,734.43	$18,284.52	$370.70	$5.24
810	08-08-89	136.73	397.40	133.3118	383.4910	$50,755.67	$49,890.99	$365.90	$5.16
814	08-17-89	85.30	243.75	83.1636	235.2188	$31,575.42	$31,159.60	$364.90	$5.23
838	09-06-89	129.89	357.65	126.6398	345.1284	$47,249.18	$46,874.93	$359.20	$5.10
846	09-11-89	60.24	156.45	58.7321	150.9704	$21,826.73	$21,384.70	$358.60	$5.07
857	09-22-89	114.58	291.36	111.7194	281.1634	$42,526.07	$42,138.99	$367.35	$5.29
867	09-29-89	76.40	190.57	74.4871	183.9039	$28,261.33	$27,836.31	$366.50	$5.23
872	10-05-89	86.29	217.15	84.1289	209.5507	$31,612.72	$31,196.69	$363.00	$5.13
856	10-06-89	25.31	67.72	24.6812	65.3517	$9,288.78	$6,316.91	$362.90	$5.08
882	10-20-89	208.59	526.21	203.3723	507.7965	$76,904.57	$76,608.49	$365.50	$5.07
888	10-26-89	68.07	180.05	66.3634	173.7483	$25,630.48	$25,206.42	$372.60	$5.20
899	11-03-89	50.43	134.58	49.1732	129.8649	$19,352.70	$18,904.10	$379.75	$5.23
905	11-06-89	37.25	99.52	36.3178	96.0397	$14,454.35	$13,992.72	$384.10	$5.26
906	11-14-89	74.63	198.40	72.7643	191.4560	$29,271.18	$28,848.89	$388.25	$5.33
925	11-29-89	79.89	219.72	77.8976	212.0317	$33,010.98	$32,598.79	$408.15	$5.74
934	11-30-89	43.88	122.02	42.7869	117.7474	$18,377.34	$17,926.21	$413.85	$5.69

941	12-13-89	67.14	194.49	65.4625	187.6819	$28,075.76	$27,650.47	$413.00	$5.54
958	01-02-90	61.05	170.54	59.5267	164.5692	$24,366.33	$23,833.31	$395.00	$5.19
969	01-04-90	25.45	71.28	24.8157	68.7833	$10,198.13	$9,725.22	$396.50	$5.22
1989 Totals		3,204.2	9,410.8	3,124.1	9,081.5	$1,234,690.16	$1,212,530.17		
985	01-17-90	34.78	106.01	33.9095	102.2997	$14,449.45	$13,987.89	$410.40	$5.21
1005	02-06-90	14.06	41.88	13.7085	40.4094	$6,026.51	$5,542.82	$423.73	$5.39
1020	02-12-90	42.00	129.26	40.9461	124.7330	$17,781.10	$17,328.43	$418.05	$5.32
1061	03-02-90	37.29	119.68	36.3617	115.4951	$15,252.35	$14,793.01	$403.20	$5.12
1078	03-23-90	32.96	98.76	32.1360	95.3015	$12,369.14	$11,902.08	$370.25	$4.94
1099	04-23-90	19.31	67.85	18.8292	65.4733	$7,428.43	$6,948.35	$376.80	$5.09
1138	05-15-90	25.05	70.44	24.4228	67.9756	$9,372.98	$8,897.90	$369.85	$5.01
1189	06-21-90	16.71	56.44	16.2962	54.4617	$5,962.90	$5,478.87	$349.75	$4.84
1273	09-14-90	21.43	66.79	20.8933	64.4552	$8,377.72	$7,900.01	$386.20	$4.79
1989 Totals		243.6	757.1	237.5	730.6	$97,020.59	$92,779.36	$389.80	$5.08
TOTALS		3,717.3 ounces gold contained	11,184.3 ounces silver	3,624.4 ounces gold recoverable	10,792.9 ounces silver	$1,448,785.17	$1,419,255.09		

IRON KING ASSAY INC.

05-Jun-89

LAB JOB #: AFB03979

Attn D. Allen

Client name: A. F. Budge Mining Ltd.

No. Samples: 36
Date Received: 5-26-89
Submitted by: Allen Dale

Billing address: 4301 N. 75th St. #101
Scottsdale, AZ
85251-3504

Phone number: 945-4630

INVOICE ATTACHED

ANALYTICAL REPORT

Client ID AFB03979	Lab ID	FA/AA Au oz/ton	Fire Assay Ag oz/ton
AFB-1	3979- 1	0.044	0.27
AFB-2	3979- 2	0.042	0.16
AFB-3	3979- 3	0.040	0.20
AFB-4	3979- 4	0.052	0.22
AFB-5	3979- 5	0.050	0.28
AFB-6	3979- 6	0.042	0.31
AFB-7	3979- 7	0.098	0.24
AFB-8	3979- 8	0.068	0.15
AFB-9	3979- 9	0.050	<.10
AFB-10	3979- 10	0.032	0.13
AFB-11	3979- 11	0.024	<.10
AFB-12	3979- 12	0.012	<.10
AFB-13	3979- 13	0.012	0.19
AFB-14	3979- 14	0.028	0.26
AFB-15	3979- 15	0.024	0.20
AFB-16	3979- 16	0.026	0.17
AFB-17	3979- 17	0.032	0.29

IRON KING ASSAY INC

02-Jun-89

Client ID AFB03979	Lab ID	FA/AA Au oz/ton	Fire Assay Ag oz/ton
AFB-18	3979- 18	0.034	0.28
AFB-19	3979- 19	0.034	0.28
AFB-20	3979- 20	0.030	0.29
AFB-21	3979- 21	0.056	0.20
AFB-22	3979- 22	0.026	0.25
AFB-23	3979- 23	0.024	0.25
AFB-24	3979- 24	0.020	0.30
AFB-25	3979- 25	0.020	0.20
AFB-26	3979- 26	0.060	0.36
AFB-27	3979- 27	0.030	0.40
AFB-28	3979- 28	0.022	0.22
AFB-29	3979- 29	0.036	0.26
AFB-30	3979- 30	0.034	0.29
AFB-31	3979- 31	0.024	0.30
AFB-32	3979- 32	0.032	0.28
AFB-33	3979- 33	0.008	<.10
AFB-34	3979- 34	0.010	0.14
AFB-35	3979- 35	0.028	0.24
AFB-36	3979- 36	0.064	0.31

Carde

GEOLOGIC MAP OF THE VULTURE MINE AREA, VULTURE MOUNTAINS, WEST-CENTRAL ARIZONA

Stephen J. Reynolds[1], Jon E. Spencer[1], Ed DeWitt[2],

Don C. White[3], and Michael J. Grubensky[1]

May, 1988

Arizona Geological Survey

Open-File Report 88-10

1 -- Arizona Geological Survey

2 -- U.S. Geological Survey

3 -- Consultant, Prescott, Arizona

INTRODUCTION

The Vulture Mountains, located directly southwest of Wickenburg in central Arizona, contain one of Arizona's premier historic gold deposits, the Vulture Mine. This mine yielded about 340,000 ounces of gold and 260,000 ounces of silver, with average grades of 0.35 oz/ton gold and 0.27 oz/ton silver. In spite of this significant production, the mine has received relatively little geologic study until recently (White, 1988). In order to better characterize the geologic setting of this historically important gold deposit, we mapped the geology of approximately 10 square kilometers centered on the mine. This mapping was partially supported by the U.S. Geological Survey and Arizona Geological Survey Cooperative Geologic Mapping (COGEOMAP) Program.

GEOLOGIC SETTING

The Vulture Mountains are in the Basin and Range Province, a region that underwent crustal extension during Tertiary time. Tertiary crustal extension was severe within the Vulture Mountains region and resulted in a series of steeply tilted fault blocks bounded by low- to moderate-angle normal faults (Rehrig and others, 1980; Grubensky and others, 1987). The oldest rocks exposed within the fault blocks are Lower Proterozoic metamorphic and granitoid rocks. These have been intruded by a large pluton of Cretaceous granodiorite, smaller plutons of Cretaceous granite, and numerous middle Tertiary dikes and sills. The crystalline basement is overlain by a sequence of middle Tertiary volcanic and minor sedimentary rocks that is at least 1 km thick. The Tertiary units generally strike north to north-northwest and dip steeply to the east; they are locally overturned into steep westward dips in the most highly rotated fault blocks. The tilted Tertiary and pre-Tertiary rocks are locally overlain unconformably by mid-Miocene basalt flows and Quaternary to Upper Tertiary surficial deposits.

PRE-TERTIARY ROCKS, STRUCTURE, AND MINERALIZATION

The oldest rocks near the Vulture Mine are Proterozoic metaigneous and metasedimentary rocks that partially host mineral deposits at the Vulture mine and that form low, rounded outcrops to the north, east, and south of the mine. These include the following rock types:

> (1) quartz-feldspar-sericite-chlorite schist and phyllite derived from fine-grained, clastic sedimentary rocks. These include light-gray to tan quartz-sericite schist, greenish chloritic schist, locally with actinolite, medium- to dark-gray sericitic phyllite, and dark-brown, hematite-stained metasandstone and schist. This unit is variably compositionally banded or laminated, with layers ranging from 2 to 20 mm thick. Some units probably include metamorphosed volcaniclastic rocks;
> (2) dark-colored, fine-grained amphibolite derived from mafic igneous rocks; and
> (3) medium- to fine-grained, variably foliated granite and granodiorite.

Lithologic layering is generally parallel to foliation and schistosity, which strike west to northwest and dip moderately to steeply to the north and northeast. This fabric is interpreted to be Proterozoic in age because of its style and orientation, and its absence in the Cretaceous plutons.

Intruding the Proterozoic rocks is a Cretaceous granitic pluton that crops out over 1 square kilometer west of the Vulture Mine and extends as a north-dipping sill-like apophysis eastward into the mine workings (White, 1988). The main pluton is composed of two phases and their sericitically altered equivalents. The oldest phase is a medium-grained biotite granite to granodiorite that is equigranular or rarely porphyritic with feldspar phenocrysts as large as 1 cm. This phase is cut by northeast-striking, steeply dipping dikes and more irregular apophyses of lighter colored granite, which typically contains medium-grained muscovite, in part of secondary origin, and conspicuous quartz eyes as large as 1 cm in diameter. The abundance of muscovite increases with the degree of alteration, and some outcrops of altered granite contain more than 20 percent muscovite. Alteration has resulted in the destruction of plagioclase and mafic minerals, converting them into fine-grained sericite, hematite, and clay minerals. Many dikes of granite are flanked by muscovite-rich alteration selvages. The granite is most highly altered in the sill near the Vulture mine, where it has been converted into a

muscovitic quartz-porphyry due to preferential preservation of the quartz eyes. The granite is interpreted to be Late Cretaceous based on an 85 ± 3 Ma Rb-Sr muscovite-whole-rock age (White, 1988).

Gold mineralization at the Vulture Mine is concentrated within quartz veins and silicified rocks within the granitic sill and its Proterozoic wall rocks. Gold is present as native metal and electrum associated with pyrite, argentiferous galena, and minor chalcopyrite and sphalerite. There is a good correspondence between the abundances of silica, sulfides, and gold (White, 1988).

MIDDLE TERTIARY ROCKS

Middle Tertiary rocks are most widespread east of the mine, where they form a belt of volcanic rocks that strikes north to north-northwest and is vertical to steeply east dipping. The volcanic sequence includes, from bottom to top, (1) mafic flows and associated feldspar-phyric rhyolite, (2) yellowish-weathering tuff and altered rhyolite flows, and (3) phenocryst-poor rhyolite flows. In addition, dikes lithologically equivalent to the mafic flows and feldspar-phyric rhyolite flows intrude the Proterozoic rocks and Cretaceous granite.

The stratigraphically lowest Tertiary unit exposed consists of mafic (basaltic to andesitic) flows that crop out directly to the east of the crystalline block that hosts the Vulture mineralization. Similar mafic flows occur near the base of the Tertiary section throughout the region (Capps and others, 1985, 1986; Grubensky and others, 1987; Stimac and others, 1987). Adjacent to the Vulture Mine, the contact between the mafic flows and the underlying crystalline rocks is not exposed; although it could be a fault, it is probably a slightly faulted(?), steeply dipping depositional contact. Mafic dikes similar in lithology to the flows are present within the Proterozoic and Cretaceous crystalline rocks.

The mafic flows and dikes are locally associated with pinkish-gray rhyolite containing as much as 5 percent phenocrysts of feldspar and minor quartz. The rhyolite consists largely of dikes that occur along the center or margins of the mafic dikes. In some exposures, the rhyolite contains irregularly shaped inclusions of the mafic dike. Assimilation of similar mafic material into the rhyolite has locally produced an intermediate-composition rock (andesite or dacite?). Phenocrysts from the rhyolite are likewise locally incorporated into the mafic dikes. In all, these relations imply that the rhyolitic and mafic magmas were intruded synchronously and interacted while molten. A texturally similar rhyolite with abundant mafic clots occurs as a fault-bounded klippe in the eastern part of the map areas and is probably a flow rather than a dike.

The basaltic to andesitic flows are depositionally overlain by a sequence of yellowish to cream-colored, yellowish-gray-weathering lithic tuff and altered, phenocryst-poor rhyolite and vitrophyre. These rocks are slope forming and probably correlative with the San Domingo rhyolite of the eastern Vulture and Wickenburg Mountains (Grubensky and others, 1987; Grubensky and Reynolds, 1988).

The sequence of yellowish-weathering tuffs and flows is overlain by at least two flow-banded rhyolitic flows, both of which contain less than one percent feldspar phenocrysts. The stratigraphically lowest flow is creamy gray to pinkish gray and somewhat granular in texture, whereas the overlying flow is pinkish-gray to maroonish-brown weathering and contains abundant silica-filled lithophysae. Vitrophyre is commonly preserved along the base of the lower flow.

MIDDLE TERTIARY STRUCTURES AND TILTING: IMPLICATIONS FOR MINERALIZATION

Middle Tertiary normal faulting and tilting has widely affected rocks of the area, including those that host the Vulture mine. The Tertiary volcanic belt has been tilted approximately 90 degrees, so that it now strikes north to north-northwest and is nearly vertical, with the top of the section facing to the east. The volcanic section is cut by several west- to southwest-dipping, low- and high-angle angle normal faults. These faults consistently place stratigraphically higher units westward over lower units. Analogous faults are present within the pre-Tertiary crystalline rocks but are more difficult to follow due to poor exposure and the lack of distinctive marker units. A major, poorly exposed, low-angle(?) normal fault places the

volcanic section down against Proterozoic rocks at the south end of the volcanic belt (along Vulture Mine Road near the northern edge of section 31).

Although the contact between the main volcanic sequence and the pre-Tertiary crystalline rocks that host the Vulture mine is not exposed, it is likely that the crystalline rocks, and the gold-bearing quartz veins, have undergone the same 90 degrees of rotation as the volcanic rocks. If so, then the Vulture granitic sill and vein have been tilted onto their side, and the highest preserved levels of the original mineralized system are at the present east end of the deposit. Restoring the volcanic section to its original subhorizontal attitude would bring the presently north-dipping Late Cretaceous granitic sill and veins into a near-vertical, east-northeast-striking orientation, which is typical for Late Cretaceous intrusions and veins in the region.

ACKNOWLEDGMENTS

We thank Carole A. O'Brien and John Osborne for access to the Vulture Mine area and George Allen and John Proffett for sharing their observations of the area.

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MAP UNITS

Qsy -- sand and gravel in active channels (Holocene)

Qso -- surficial deposits (Pleistocene to Holocene)

Tv -- Volcanic rocks, undifferentiated (Early Miocene?)

Tra -- aphyric rhyolite (Early Miocene?)

Tt -- tuff and altered rhyolite (Early Miocene?)

Trp -- feldspar-phyric rhyolite (Early Miocene?); includes mafic rocks in most dikes

Tbl -- lower basaltic and andesitic flows (early Miocene? or late Oligocene?)

Kg -- granite (Late Cretaceous)

Xm -- metamorphic rocks (Early Proterozoic)

MAP SYMBOLS

contact; dashed where approximately located

fault; dashed where approximately located; dotted where covered


low-angle normal fault; dashed where approximately located; dotted where covered

marker unit

dike; showing dip

bedding


vertical bedding

overturned bedding

foliation with lineation

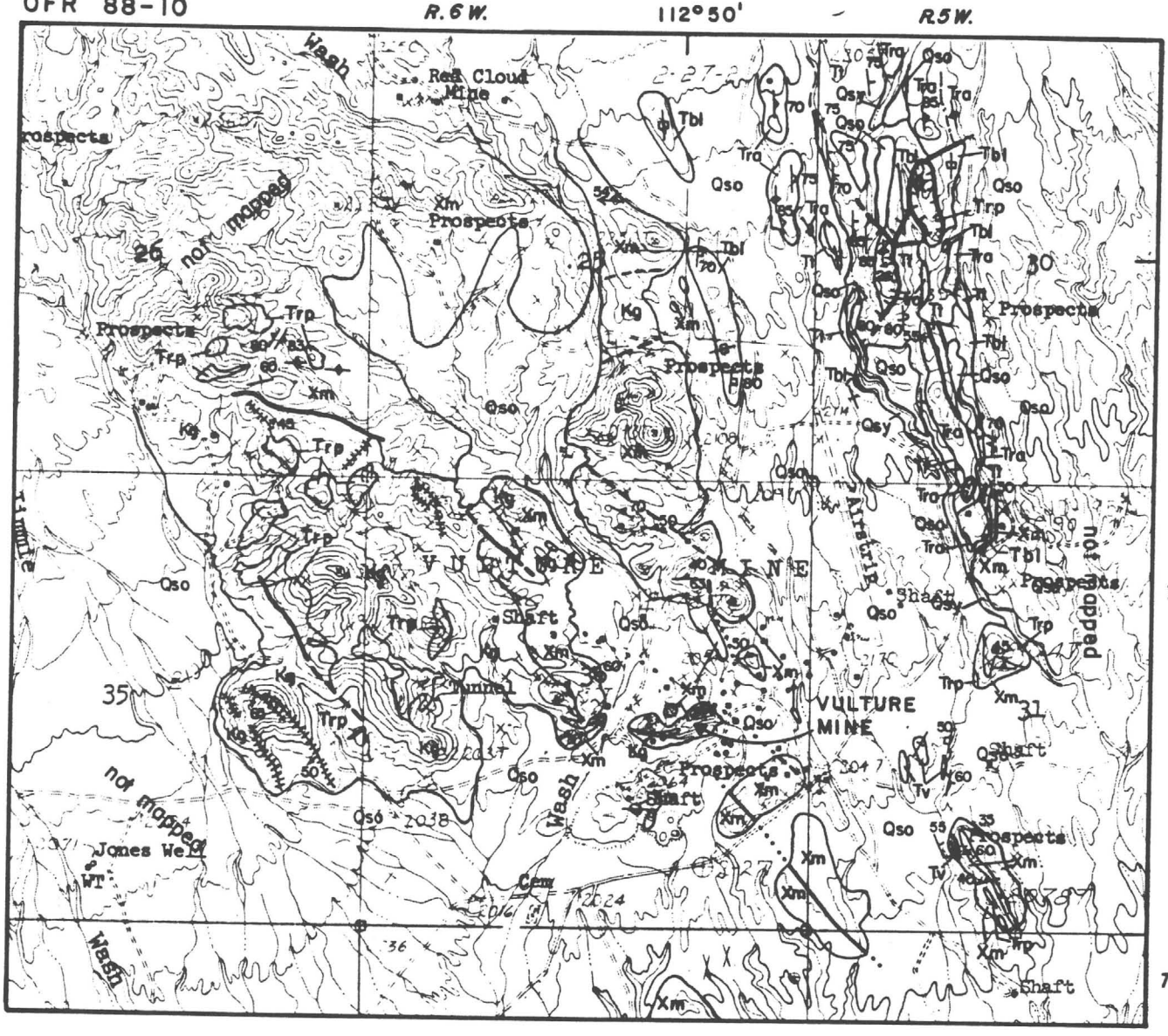

vertical foliation

overturned flow foliation

joints in unit Tbl; probably parallel to flow layering


vertical joints in unit Tbl; probably parallel to flow layering

ARIZONA GEOLOGICAL SURVEY
OFR 88-10



BASE FROM WICKENBURG 2SE., ARIZONA, U.S. GEOLOGICAL SURVEY, 1961

Scale 1:24,000

0 0.5 1.0 mile

0 0.5 1.0 km

CONTOUR INTERVAL 20 FT.
DATUM IS MEAN SEA LEVEL

N

GEOLOGIC MAP OF THE VULTURE MINE AREA, VULTURE MOUNTAINS, WEST-CENTRAL ARIZONA

by

Stephen J. Reynolds, Jon E. Spencer, Ed DeWitt, Don C. White, Michael J. Grubensky

1988

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

EVAN MECHAM, GOVERNOR
GERALD H. TELETZKE, PH.D., DIRECTOR

NOTICE OF INTENT TO (ISSUE) (A) GROUNDWATER QUALITY PROTECTION PERMIT(S)

Pursuant to Arizona Compilation of Rules and Regulations, Title 9, Chapter 20, Article 2, the Director of the Arizona Department of Environmental Quality intends to issue a Groundwater Quality Protection Permit(s) to the following applicant(s), subject to certain special and general conditions.

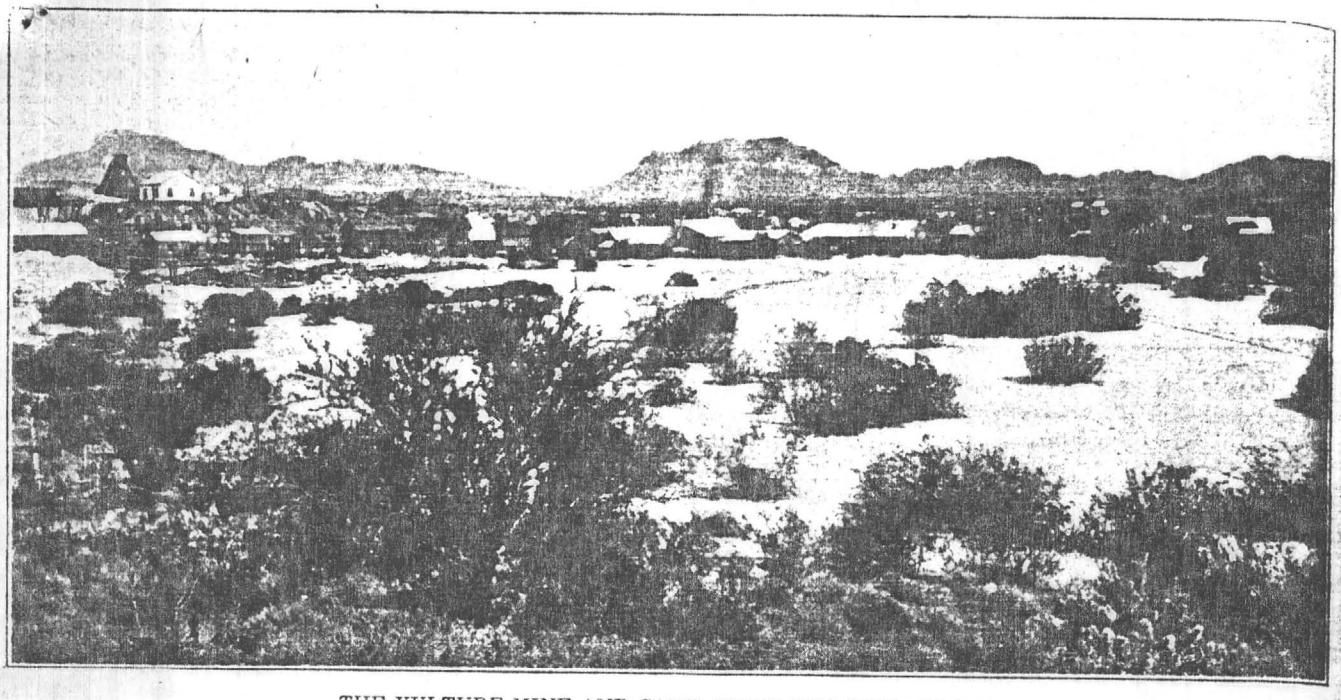
Public Notice No. 13-88AZGW
Vulture Mine
A.F. Budge Mining Ltd.
7340 E. Shoeman Lane, Suite 111 B-E
Scottsdale, Arizona 85251-3335
Groundwater Quality Protection Permit No. G-0090-07

On or about
February 29, 1988

The permittee shall be authorized to operate a nondischarge hydrometallurgical precious metal recovery facility utilizing the cyanide heap leaching method. The facility is located approximately 12 miles southwest of Wickenburg, Arizona (T6N, R6W, Sec 36 SE 1/4) at the existing Vulture Mine site. The Groundwater Quality Protection Permit shall regulate the containment of the cyanide leach solution to be used in the operation of the heap leach facility. The heap pad and ponds (pregnant, barren and overflow) shall be constructed with a flexible membrane liner system over a prepared subgrade to form an impermeable barrier between leach solution and the land surface. The liner system for the heap pad, pregnant and barren ponds, shall have a leak detection/collection system to be monitored for the presence of liner leakage. The facility shall be required to monitor the leach solution daily in the form of a water balance record and monitor the leak detection/collection system weekly for the presence of liner leakage. The facility shall be protected from runoff associated with a 100-year, 24-hour stormwater event and shall fence the processing site to provide only restricted access. Depth to groundwater at the site is in excess of 400 feet from the land surface.

The permit and related material are available for public review Monday through Friday, 8:00 a.m to 5:00 p.m. at Arizona Department of Environmental Quality, Water Permits Unit, 2005 North Central Avenue, Phoenix, Arizona 85004.

Persons may submit comments or request a public hearing on the proposed action, in writing, to ADEQ at the above address within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.



THE VULTURE MINE AND CAMP, FROM THE MILL, IN 1914

The Vulture Mine

An Excellent Example of the Effect of Faulting Upon the Development Of a Southwestern Gold Deposit—Discovered in the Sixties, the Property Had a Good Record of Production Until 1917, When It Was Closed Down

BY W. SPENCER HUTCHINSON
Written for *Engineering and Mining Journal*

THE VULTURE, a gigantic tooth of gold-threaded quartz on the rim of the desert, watched century by century the seasonal migration of the Apaches, who crossed the mountains and the forty miles of desert between the waters of the Hassayampa and the Gila. In the sixteenth century it beckoned the adventurous Spaniard from the beaten trail to reveal its gold and to take his brass-poled and steel-edged axe for a token. It was not until 1862 that any attempt was made thoroughly to explore central Arizona; no one had before essayed more than a hurried passage through the country, although all believed it to be rich in minerals. The Territory of Arizona was organized by act of Congress, Feb. 24, 1863, and about the same time Weber, Walker, Wickenburg, and other veteran pioneers came into the district.

Henry Wickenburg, with several companions, was prospecting upon the Hassayampa in October, 1863, and discovered a butte or small isolated mountain of quartz which they recognized as containing gold, but to which they attached no great value at first, so that all but Wickenburg were reluctant to go to even the small trouble of posting notices, claiming the lode. It was, however, taken up, and the Vulture mine by 1867 became the best-known and most profitable property in central Arizona, if not in the entire territory. The main quartz outcrop, a tooth-like butte, was 500 ft. long, 400 ft. wide, and 100 ft. high.

The Vulture mine is in Maricopa County, fourteen miles south of Wickenburg, a station on the Prescott & Phoenix branch of the Santa Fé Ry. about fifty miles northwest of Phoenix. The mine is reached by automobile road, which surmounts a pass at an altitude of 2,700 ft., just north of Vulture Peak. The mine itself is at an altitude of 2,000 ft. It was not so accessible in the early days before the railways were built, when Ehrenburg, on the Colorado River, was the nearest supply point and whence all the machinery for the first mill was hauled 168 miles across the desert. In 1880 the railroad reached Phoenix and in 1893 it was extended to Wickenburg. The Hassayampa is a "dry" river the greater part of the year, but its sub-channel stream is unfailing, and at Wickenburg abundant water is found by shallow wells. Of these waters, it is alleged, "He who drinks thereof shall never afterward tell the truth, have a dollar, or leave Arizona."

The first mills for working the Vulture ore were built on the Hassayampa, one a short distance above Wickenburg, and sixteen miles from the mine, the other considerably further down the river and ten miles from the mine. Wells were drilled at the mine in 1909, and a watercourse in gravel was found under the lava at 400 ft. depth. Two wells were equipped with pumps, but the water nearly failed in 1912, and one of the wells was deepened to 1,003 ft., where more water was found. This water rises to 450 ft., whence it is pumped with a standard well rig, and for four years, as long as the well was used, the flow showed no diminution, and there was never any lack of water for the mill at the mine or for other needs.

Wickenburg himself seems to have been possessed of initative, for within six months of his discovery he had built arrastras on the Hassayampa River, to which he hauled ore yielding $80 to $100 in gold per ton, and

[illegible]65 built a five-stamp mill, which he worked steadily [illegible]1867, when he sold the mine to an English company. The new owners built a new mill of forty stamps about a mile above the town of Wickenburg. Tailings in excess of 200,000 tons accumulated here from the ores hauled from the Vulture mine. The treatment at this early time was, of course, by amalgamation, and although the accounts refer to some concentration by jumping tables, it appears that the concentrates were not shipped away, but were piled up for future treatment. At any rate, after the cyanide process was

THE VULTURE MINE, SHOWING THE VEIN IN THE WEST END OF THE EASTERLY OPEN CUT

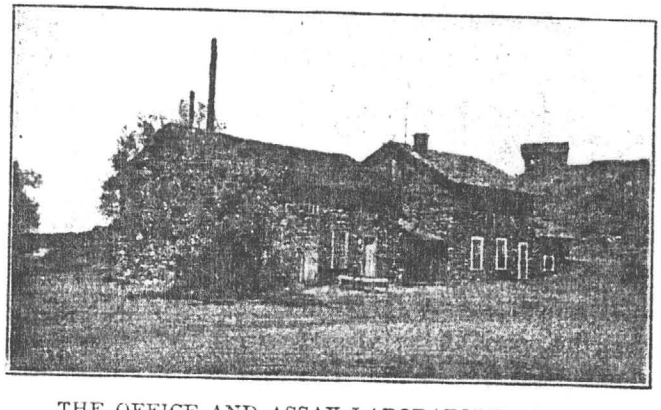
developed and in the early 90's, this tailing pile was worked over by cyanidation with great profit.

The ownership of the mine was divided, and this fact accounts for another mill of twenty stamps built in 1871 at a point on the river known as Smith's mill, ten miles east of the mine and fifteen miles below Wickenburg. There was a third mill at Seymour some time later, about three miles above Smith's mill and about the same distance from the mine and on the old stage road between Vulture and Phoenix. Frequent mention is made of the excessive cost of operation, due to the long wagon haul from the mine to these mills, which made it necessary to sort the ore at the mine and put into stockpiles for later treatment everything that yielded less than $20 per ton. The practicability of building a mill at the mine and also of laying a pipe line from the Hassayampa River was considered early in the progress of the work. This plan, however, waited until 1879 for its realization, when the Arizona Central Mining Co. acquired all of the different claims on the deposit. An eighty-stamp mill was then built at the mine and a six-inch pipe line was laid from Seymour, whence water was pumped from wells sunk in the bed of the river. Power was provided by a steam plant burning wood, and during the operation of the mill, which continued for seven or eight years, all of the scanty growth of desert trees was cut off for twelve miles around the mine.

During the twenty years from 1888 to 1908, the mine was worked only in a small way by lessees. In 1908 it was reopened by the Vulture Mines Co. The mine was pumped out and the shaft sunk deeper. Milling began in 1909 from ore mined in the upper levels and milled in twenty stamps of the old mill repaired for that purpose. The ore was amalgamated in the mortars and on plates in approved California style, with very good results and a metallurgical efficiency of 70 to 80 per cent. The tailings were piled for later treatment by cyanide. Water was developed by the deep wells, and a new mill built in 1910. The latter was of twenty heavy stamps, with supplementary grinding pans, having a capacity of 100 to 120 tons of ore daily, and was driven by a gasoline engine. The mill worked steadily, with the exception of an interruption of a few months, until the end of 1915. All activity ceased in 1917. The mine was allowed to fill with water, and in 1919 the equipment was advertised for sale.

Only the most meager records of the production of the Vulture mine between 1864 and 1908 are to be found, but it is known to be very large. Published reports credit it with as much as $16,000,000, and some claims are made of even larger production. In *Mineral Resources* for 1869 a record is given of 15,474 tons milled at Wickenburg, which yielded $399,743, which is at the rate of $25.83 per ton. Whatever uncertainty there may be regarding early production, there is none concerning that since 1908, which amounted to a total of $1,839,375, of which about 30 per cent came from concentrates shipped to smelters and the remainder was from bullion derived in nearly equal proportion by amalgamation and cyanidation. Complete records of tonnage are not at hand, but there was milled during the years 1912 to 1914, inclusive, 82,091 tons of ore of an average assay of $18.94 per ton, which was treated with a metallurgical efficiency of about 82 per cent.

The mine is in the foothills of the Vulture Mountains at the edge of a broad, gently sloping desert valley. The country rocks are schists, probably pre-Cambrian, with dikes and irregular masses of granite, all antedating the mineralization. Vulture Peak, at an altitude of 3,500 ft. and five miles northeast of the mine, is a volcanic neck with radiating dikes whose prominent outcrops form striking topographic features. This neck and the dikes are assumed to have been the



THE OFFICE AND ASSAY LABORATORY AT THE VULTURE MINE

These buildings date back to the very beginning, and are built of mine boulders, some of which show free gold. This picture was taken in 1908. The buildings are still standing.

source of the lavas which filled an old valley and buried the easterly extension of the Vulture mineral zone.

The vein strikes east and west and dips northerly 42 deg. It presents two characters: next to the foot wall, a vein five to six feet thick of rich mineralized quartz but without admixture of schist, and above this, and separated from it by chloritic schist, a big quartz vein thirty to fifty feet thick. In some parts this vein is of clean, white quartz, which is invariably low-grade and cannot be worked at a profit. In other parts, the body of this vein is made up of fragments of schist with quartz between, and is rich. The hanging wall is of chloritic schist, the foot wall being of sericitic schist. The outcrop was 1,000 ft. long, but it has all disappeared

now, the upper parts of the vein having been quarried in two large open pits. The westerly pit is 300 ft. long and the easterly one 500 ft., with low-grade vein matter, which consists mostly of white quartz too poor to mine, remaining between them.

In the oxidized zone the quartz is stained with iron oxide, and some wulfenite in characteristic tabular crystals with razor-sharp edges is found in openings in the quartz. Vanadinite is reported to have been found, but it must be rare, for none was seen during the recent operations. Below the zone of oxidation the vein minerals, other than quartz, are pyrite, galena, blende, and chalcopyrite. The proportion of these is indicated by the ratio of concentration, which was about 30 to

extensive outcroppings of granite are found, occurring as an intrusive mass in the schist. The vein extends into the granite, but pinches out within a short distance after splitting up into several smaller veins, which have, however, yielded some high-grade ore. Granite of identical character was encountered in the westerly end of the 950 level, in the easterly end of the 1,550 level, and in a diamond-drill hole put down from the latter. These points of exposure of granite in the zone of mineralization indicate a probable easterly pitch of the contact and perhaps also an easterly pitch or rake to the ore zone.

The position of the stoped areas is shown in Fig. 1, representing the longitudinal section. Characteristic

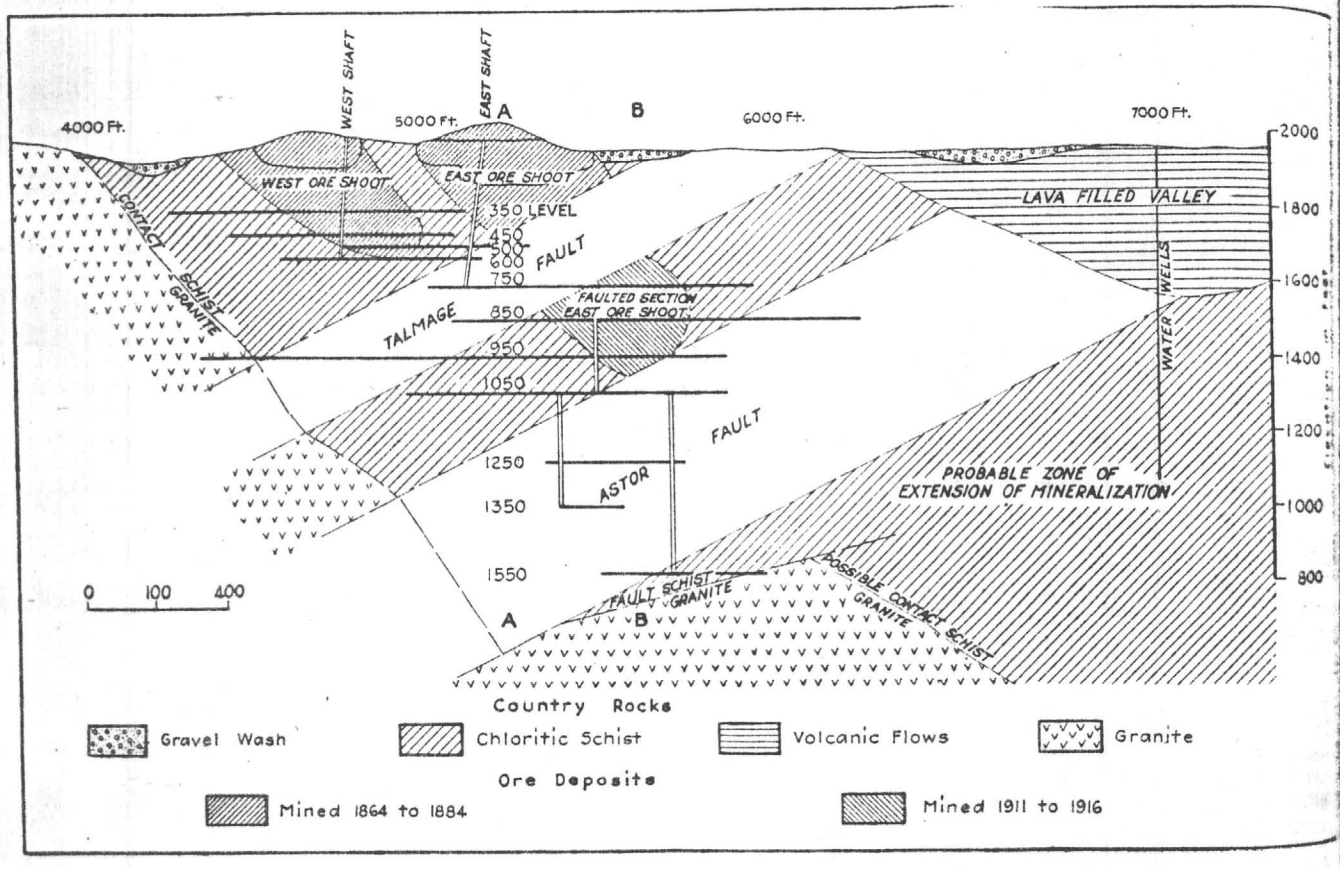


FIG. 1. LONGITUDINAL VERTICAL PROJECTION OF THE VULTURE MINE WORKINGS

1, and the assay of the concentrates, which was 12 to 15 per cent of lead, 8 to 12 per cent of zinc, 1 to 2 per cent copper, and from $120 to $200 in gold. Metallic gold was found in all parts of the mine, and even in the deeper workings, where the ore was not oxidized but was made up of characteristic quartz with associated sulphides, coarse gold was present, and thus some pieces weighing half an ounce or more accumulated in the mortars of the stamp batteries. This gold had a fineness of 760 to 780.

The association of gold with galena is an interesting characteristic. The gold thus associated appeared not to be metallic, and proved, upon experiment, to be peculiarly obstinate to cyanidation, but the galena was usually rich, so that when the average mill concentrates assayed $150 per ton the clean galena concentrate assayed $600. These characteristics of the ore led to the adoption of a rather unusual metallurgical treatment, a combination of amalgamation, concentration, and cyanidation.

Just beyond the ore shoot on its westerly extension

silicification is found throughout, but mineralization, instead of being uniform, is segregated in two well-defined ore shoots. The easterly orebody, which is the one furthest from the granite, was the larger in every dimension, and the position of the two suggests the conception of a succession of ore shoots *en echelon*. Thus, the next one should be further east and deeper, and the faulting would have carried it to some such position as is indicated on the drawing as "probable zone of extension of mineralization." Evidence of easterly extension of the ore zone would naturally be looked for on the surface, but near-by exposures are lacking for the reason that the schists are buried by volcanic tuffs and lavas. The schists emerge again 3,000 ft. to the east, where they show characteristic structures and some mineralization.

The geological feature which has been a controlling factor in the history of the Vulture mine is the extraordinary development of faulting. There are a great number of small faults, with displacement, however, of a few feet only. These have been of little con-

quence and have interfered neither with development nor mining. Besides these, there are two major faults, which are known as the Talmadge and Astor faults. The Talmadge fault cuts the orebody off on the easterly end and on the dip, crossing the vein on its strike at an acute angle. The dip of the fault is 80 deg. to the northeast, which compares with the dip of the vein, 42 deg. to the north. The displacement of the vein is 300 ft. vertically. This fault does not outcrop at the surface, but is buried by gravel wash, a circumstance tending to conceal its true character, which was consequently not recognized until 1911. That this fault was encountered early is shown by the sketch, Fig. 3, and a quotation from a letter[1] written in 1872 by the superintendent of the mine to Rossiter W. Raymond, then U. S. Mining Commissioner:

"At a depth of 232 ft. below the surface of the mesa the fissure is found to change from a dip of 45 deg. north-northeast to an almost vertical position. . . . After sinking 50 ft. behind the foot wall, from the 232-ft. level, the fissure was crosscut and found to be 47 ft. in width, and having on the hanging wall a seam of blue clay some 12 or 15 in. thick. Outside of this was the hanging-wall rock peculiar to the mine above; but the fissure, throughout its width, was found to be filled with a hard black rock full of fine iron pyrites and some galena, and similar in character to the cap or barren filling which is found in many Colorado lodes."

It is interesting to find the correct interpretation of this puzzling geological structure by comparing the sketch, made in 1872, with the cross-section of the orebody as developed in 1918. So far as is known, no work was done deeper than that shown in the old sketch until 1911.

It is not easy to show these faults and their relation to the vein clearly and fully without a series of cross-sections or a model, but the two accompanying sketches, Fig. 2, will give an idea of the disastrous results of the faulting. The fault was encountered during the recent working of the mine on the 500 level near the plane of section *A-A*, and here it was from five to six feet wide between the walls and was filled with gouge and broken fragments of schist and quartz. For a short distance, in some places fifty or sixty feet, below the point where the vein was cut off, the fault contained so much crushed vein matter that the fault was profitably stoped for a considerable distance. The fault is mineralized discontinuously by calcite, which appears

[1]Mineral Resources West of the Rocky Mountains, 1874.

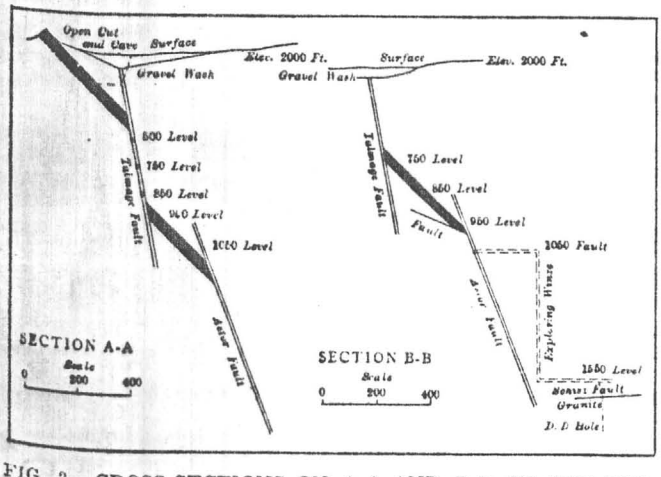


FIG. 2. CROSS-SECTIONS ON *A-A* AND *B-B* OF THE VULTURE MINE, SHOWING THE EFFECT OF FAULTING

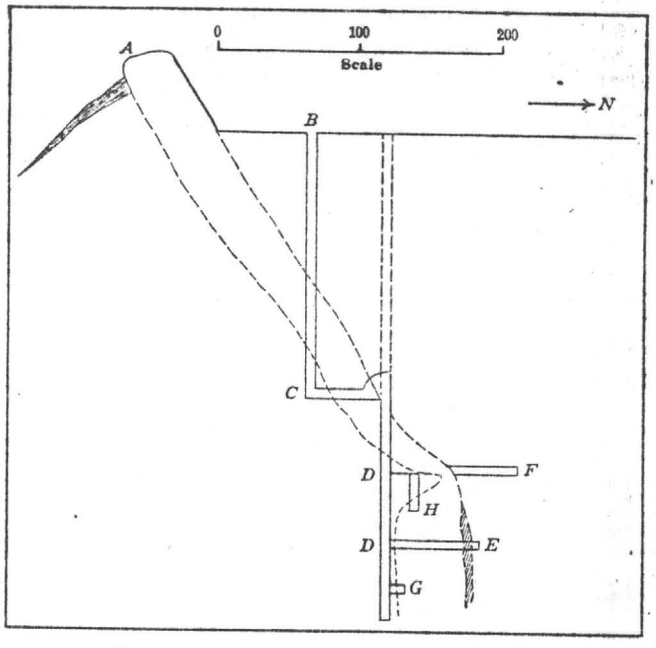


FIG. 3. SECTION OF VULTURE MINE

Drawn by Peter Taylor, superintendent, in 1872, published in report of the U. S. Commissioner of Mining Statistics, 1874, page 348. *A*, outcrop; *B*, mouth of main shaft at surface of mesa; *C*, 182-ft. level; *D-D*, interior shaft; *E*, crosscut at 282-ft. level, showing vein 47 ft. thick, with seam of clay on hanging wall; *F*, north property drift, at 232 ft.; *G*, crosscut (unfinished) at 312-ft. level; *H*, small winze.

in lenses a few feet in length, sometimes a foot in thickness, dark colored, and containing here and there crystals of galena. The calcite is comparatively plentiful near the surface and is not found in the deeper parts.

When the position of the fault was determined by the extension of the underground work, its apex was projected and staked on the surface, and it was found that it cut through an area of old dry-placer workings about 700 ft. southeast of the orebody. A working hypothesis was developed based upon the idea that the old placer marked the position of the faulted outcrop of the vein, and exploration was thereafter directed by a drift on the 750 level southeasterly along the fault and by a vertical winze from the same level on the northeasterly side of the fault. This work resulted in cutting the vein on both the 750 and 850 levels exactly where the hypothesis indicated. The orebody, when rediscovered, was 35 ft. thick, and the best part of the ore shoot 200 ft. long.

At this stage it was thought that nothing could interfere with the realization of the most sanguine expectations entertained for the mine, but before many months had gone by the Astor fault was cut on the 1,050 level, at a place where it was expected to find ore. This new fault is parallel, or nearly parallel, to the Talmadge fault, and the displacement is in the same direction—that is, downward on the northeasterly side. The amount of that displacement is not known, for the reason that neither the vein nor any other correlating features have been found beyond it.

The physical condition of the fault-filling does not suggest displacement greater than that of the Talmadge fault, but the winze 500 ft. vertically below the 1,050 level did not find the vein, although it did find stringers of quartz which yielded good assays, a condition which is characteristic of mineralization in the schists beyond the ends of the ore shoots. It is believed that the drifts might wisely have been carried further east before the work was stopped, but, in any case, if the vein should

...re day be found in the east end, a new shaft from the surface would be necessary for economical working, and any further explorations had probably best be done by diamond drilling.

The purpose of this account is to put on record the facts concerning a remarkable gold mine, with the hope that it may be of service to others who may harken to the call of the Vulture.

Iron-Ore Production in 1920

THE iron ore mined in the United States in 1920, exclusive of that which contained more than 5.5 per cent of manganese, is estimated by the U. S. Geological Survey at 67,773,000 gross tons, an increase of 12 per cent as compared with the output in 1919. The shipments of ore from the mines in 1920 are estimated at 69,558,000 gross tons, an increase of nearly 24 per cent as compared with shipments in 1919. The stocks of iron ore at the mines, mainly in Michigan and Minnesota, apparently decreased from 12,986,000 gross tons in 1919 to 11,145,000 tons in 1920, or 14 per cent.

The production of iron ore in 1920 was less than 2,000,000 tons below that of 1918 and is exceeded only by that of the war years 1916, 1917, and 1918. In 1920 shipments exceeded production by approximately 1,785,000 gross tons, but in 1919 production exceeded shipments by about 4,147,000 tons.

Lake Superior District

About 86 per cent of the iron ore mined and shipped in 1920 came from the Lake Superior district, in which 58,173,000 gross tons was mined and 60,056,000 tons was shipped, increases of about 12 and 24 per cent, respectively, as compared with the quantities mined and shipped in 1919. These totals include the ore mined and shipped from the Mayville and Baraboo mines, in Wisconsin, and ore shipped by rail as well as water from all mines, but exclude manganiferous ores that contained more than 5.5 per cent manganese. The ore is chiefly hematite. The stocks of iron ore in this district apparently decreased from about 11,887,000 gross tons in 1919 to about 10,000.000 tons in 1920, or 16 per cent.

The shipments of iron ore by water from the Lake Superior district in 1920 (including manganiferous iron ore), according to figures compiled by the Lake Superior Iron Ore Association, amounted to 58,527,226 gross tons, an increase of 24 per cent as compared with these shipments in 1919. A total of about 1,529,000 tons is thus indicated to have been shipped by rail.

The mines in Minnesota furnished 67 per cent of the total iron ore shipped from the Lake Superior district in 1920 and 58 per cent of the total of the United States. The mines in Michigan furnished 31 per cent of the Lake shipments and 27 per cent of the grand total.

Southeastern States

The southeastern states, which constitute the second largest iron-ore producing area, including the Birmingham and Chattanooga districts, mined 6,663,000 gross tons of iron ore in 1920, an increase of 16 per cent as compared with 1919. The shipments of ore from these states to blast furnaces in 1920 amounted to 6,575,000 gross tons, an increase of 18 per cent as compared with shipments in the previous year. The ore contains about 78 per cent of hematite, 21 per cent of brown ore, and 1 per cent of magnetite. The production of ore in these states in 1920 apparently slightly exceeded the shipments, so that the moderate stocks at mines and furnace yards were increased.

Northeastern States

The northeastern states, which include New Jersey, New York, and Pennsylvania, in 1920 mined 2,027,000 gross tons of iron ore and shipped 2,070,000 gross tons, an increase of 12 per cent over the quantity mined and of 36 per cent over the quantity shipped in 1919. A slight decrease in ore stocks is thus indicated. Most of this ore is magnetite, and is subjected to concentrative treatment before shipment.

Western States

Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Washington and Wyoming, the iron-ore producing states in the West, are estimated to have mined and shipped 734,000 gross tons of iron ore in 1920, an increase of 8 per cent as compared with the quantity mined and shipped in 1919. No large stocks of iron ore are maintained at western mines. Hematite predominates in the western states, but considerable brown ore and magnetite are mined.

Other States

Other states, including Connecticut, Maryland, Massachusetts, Missouri and Texas, in which there are small iron mines that produce chiefly hematite and brown ore, mined about 176,000 gross tons in 1920, an increase of 63 per cent as compared with the quantity mined in 1919. The shipments from mines in these states in 1920 are estimated at 123,000 gross tons, an increase of 16 per cent over the shipments that were made during the year 1919.

Prehistoric Monsters Overran Nebraska And Wyoming

What geologists term the Oligocene formations contain the fossil bones of a great variety of strange extinct animals. These strata are among the most widespread and most regularly distributed of the Tertiary sedimentary rock formations of the Great Plains, and cover a vast area in Nebraska and Wyoming.

The lower Oligocene beds, which are believed to be over a million years old, are often called *Titanotherium* beds, because they contain great quantities of the bones of extinct mammals of that name. They were clumsy brutes of elephantine size, according to the U. S. Geological Survey, having on the front of the skull a pair of great bony protuberances, which, although hornlike in form, were probably not sheathed in horn.

The animals of Oligocene time were apparently abundant as well as varied in kind. Among those characteristic of this epoch were primitive forms of rhinoceroses, peccaries, ruminants, camels, insectivores, and opossums. The saber-toothed tiger, one of the most formidable enemies of primitive man, first appeared in the Oligocene epoch. The horses whose history began with the diminutive four-toed *Eohippus* continued in the Oligocene. Hoglike animals were rather numerous. One of these was a formidable beast with curious protuberances on its head, the use of which is not known. Rhinoceroses similar to those now found in Africa and India lived in western America, and other rhinoceros-like animals were abundant.

WESTERN TECHNOLOGIES INC.

The Quality People

FINAL REPORT
SOIL REMEDIATION SERVICES
CONDUCTED FOR
A.F. BUDGE (MINING) LIMITED
AT
THE VULTURE MINE
WICKENBURG, ARIZONA

WT JOB NO. 7120K028

WESTERN TECHNOLOGIES INC.
The Quality People

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WESTERN TECHNOLOGIES INC.

P.O. Box 21387 85036
3737 East Broadway Road
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(602) 437-3737 • 470-1341 FAX

September 21, 1990

Mr. Dale Allen
A.F. Budge (Mining) Limited
4301 North 75th Street
Suite 105
Scottsdale, Arizona 85251

RE: SOIL REMEDIATION FOR A.F. BUDGE (MINING) LTD., SITE LOCATED AT VULTURE MINE, WICKENBURG, ARIZONA. WT JOB NO. 7120K028.

Dear Mr. Allen:

Western Technologies Inc. (WT) is pleased to provide this final report on the soil remediation services conducted for A.F. Budge (Mining) Ltd. on soil located at Vulture Mine, Wickenburg, Arizona.

WT began to biologically remediate approximately 125 cubic yards of diesel fuel and waste oil contaminated soil in May 1990 and successfully completed remediation on September 10. The treated soil remains on-site.

Based on the analytical results obtained during the program, the total petroleum hydrocarbon concentrations have been reduced to values below the Arizona Department of Environmental Quality (ADEQ) recommended soil cleanup levels. Per ADEQ request, a copy of this report should be provided to Ms. Betsey Westell of the Solid Waste Unit to initiate site closure.

It is WT's opinion that no further remediation activities are necessary for this soil. This concludes the scope of work outlined in our service contract, WT Reference Number 2179A073, dated April 20, 1990. WT has appreciated the opportunity to be of service to A.F. Budge (Mining) Ltd. If you have any questions regarding this report, please call the undersigned at (602) 437-3737.

Respectfully submitted,

WESTERN TECHNOLOGIES INC.

Glen R. Turney
Glen R. Turney
Senior Remediation Engineer
Environmental Engineering Services

for Robert S. Livermore
Director, UST/Remediation Group
Environmental Engineering Services

/bd

Attachments

Copies to: Addressee (3)

TABLE OF CONTENTS

SOIL REMEDIATION
A.F. BUDGE (MINING) LIMITED
VULTURE MINE SITE
WICKENBURG, ARIZONA

WT JOB NO. 7120K028

1.0 INTRODUCTION

Mr. Dale Allen of A.F. Budge (Mining) Limited (A.F. Budge), who is an authorized representative for the Vulture Mine property in Wickenburg, Arizona, requested soil remediation services from Western Technologies Inc. (WT) in April 1990. A.F. Budge retained WT to reduce petroleum contaminated soils to or below Arizona regulatory agency cleanup goals. This final report presents the results of our soil remediation program.

2.0 PROJECT DESCRIPTION

The soil remediation project consisted of soil staging, soil treatment, soil sampling and decontamination procedures.

2.1 SOIL STAGING

Approximately 125 cubic yards of soil contaminated by diesel fuel and waste oil spillage from a mining operation were excavated near San Manuel, Arizona, transported to the site and placed into a bermed, polyethylene lined treatment cell on April 20, 1990. The cell dimensions were approximately 15 feet by 145 feet in size. The soil was spread over one layer of the 20-mil thick polyethylene lining within the bermed cell as a 16-to 18-inch layer. Pre-installation soil sampling showed total petroleum hydrocarbon (TPHC) levels of 10 and 15 parts per million (ppm) by EPA method 418.1 in the uppermost soil beneath the proposed treatment cell.

Following soil placement, an ammonium phosphate fertilizer was added to provide the necessary nutrients to enhance biological growth. Organic mulch was added to the soil to decrease the high pH (8.7 S.U.) to a range more favorable for biological degradation. Acclimated microorganisms then were hydrated and the solution applied to the contaminated soil. Soil aeration was performed by A.F. Budge with a trencher and rotary tiller. To accelerate the remediation process, the soil was moisturized and aerated three times per week following the initial inoculation. The soil was re-inoculated twice during the program. The aeration and moisturizing continued on the 3 times weekly schedule.

2.2 SOIL SAMPLING

The treated soil was sampled four times during the program. A four-point quadrant grid was utilized during each sampling (see Figure 1, Site Plan and Sample Location Diagram). Each set of soil samples was transferred under chain-of-custody to WT's laboratory in Phoenix. Two verification soil samples were obtained from beneath the treatment cell.

2.3 DECONTAMINATION PROCEDURES

During the program, decontamination procedures were followed and the decontamination rinseate was placed back on the treatment cell.

3.0 SAMPLE ANALYSES

3.1 ANALYTICAL TESTING METHODS

The sample analyses were performed using EPA method 418.1 for TPHC of SW-846, Test Methods for Evaluation of Solid Wastes, Third Edition, U.S. EPA, November, 1986.

3.2 ANALYTICAL TESTING RESULTS AND DISCUSSION

The treatment cell was sampled four times, as noted above. Four soil samples were collected during each sampling round. The analytical results from the May 31 sampling, showed an average TPHC concentration of 2772 ppm. The final average TPHC concentration for the September 4 samples was 68 ppm. The initial concentrations ranged as high as 3200 ppm TPHC. This represents a 97.5 percent reduction in TPHC concentrations over the 16-week project period. Neither verification soil samples had detectable TPHC levels. Chain-of-Custody Records and Laboratory Reports are located in Appendix B and Appendix C, respectively.

4.0 TREATED SOIL DISPOSITION

The remaining TPHC levels of the soils are substantially below the ADEQ suggested soil cleanup goal of 100 ppm. Based on the amount of soil involved and the relatively low TPHC concentrations, WT concludes that the soils are acceptable for reuse as fill material.

5.0 CONCLUSIONS

WT concludes that no further remedial activities are required for the diesel fuel/waste oil-contaminated soil. The contaminated soil that was removed from the excavation has been effectively remediated and will be disposed appropriately.

o O o

TABLE 1

A.F. BUDGE "MINING" LTD.
VULTURE MINE
WICKENBURG, ARIZONA

WT JOB NO. 7120K028

REMEDIATION TREATMENT CELL

TOTAL PETROLEUM HYDROCARBON (TPHC) ANALYTICAL RESULTS

Sample Date	Sample Point #1	Sample Point #2	Sample Point #3	Sample Point #4	Average
May 31 Round One	**3200 ppm**	**3000 ppm**	**2300 ppm**	**2600 ppm**	2772 ppm
June 28 Round Two	80 ppm	90 ppm	**190 ppm**	32 ppm	98 ppm
July 31 Round Three	**160 ppm**	**190 ppm**	50 ppm	**110 ppm**	127 ppm
Sept. 4 Round Four	62 ppm	80 ppm	66 ppm	66 ppm	68 ppm

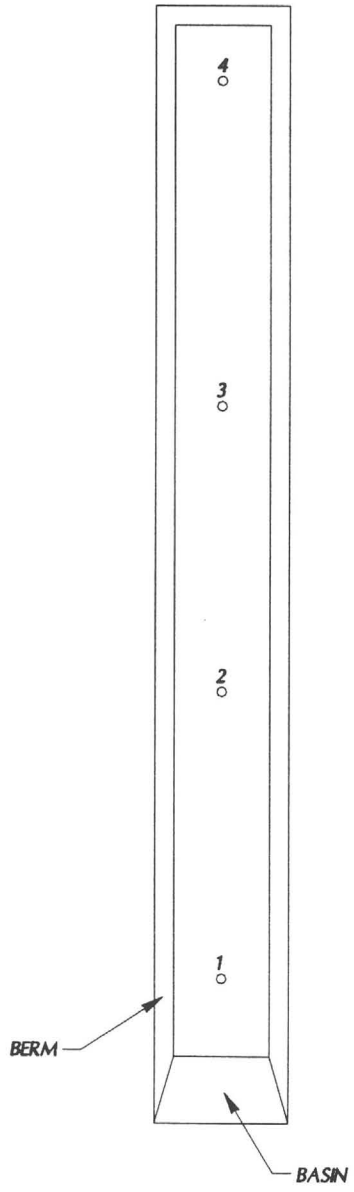
NOTE: **ADEQ Soil Cleanup Goal is 100 ppm.**
ppm = parts per million, expressed as milligrams per kilogram.
Concentrations shown in bold print exceed the ADEQ suggested soil cleanup goal of 100 ppm TPHC.

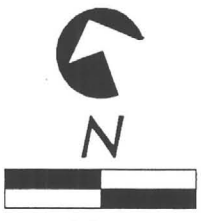
Soil Remediation

A.F. Budge Mining Ltd.

Vulcher Mine Treatment Cell

Soil Sample Location Diagram





SCALE
1"=25'

JOB NO. 7120K028

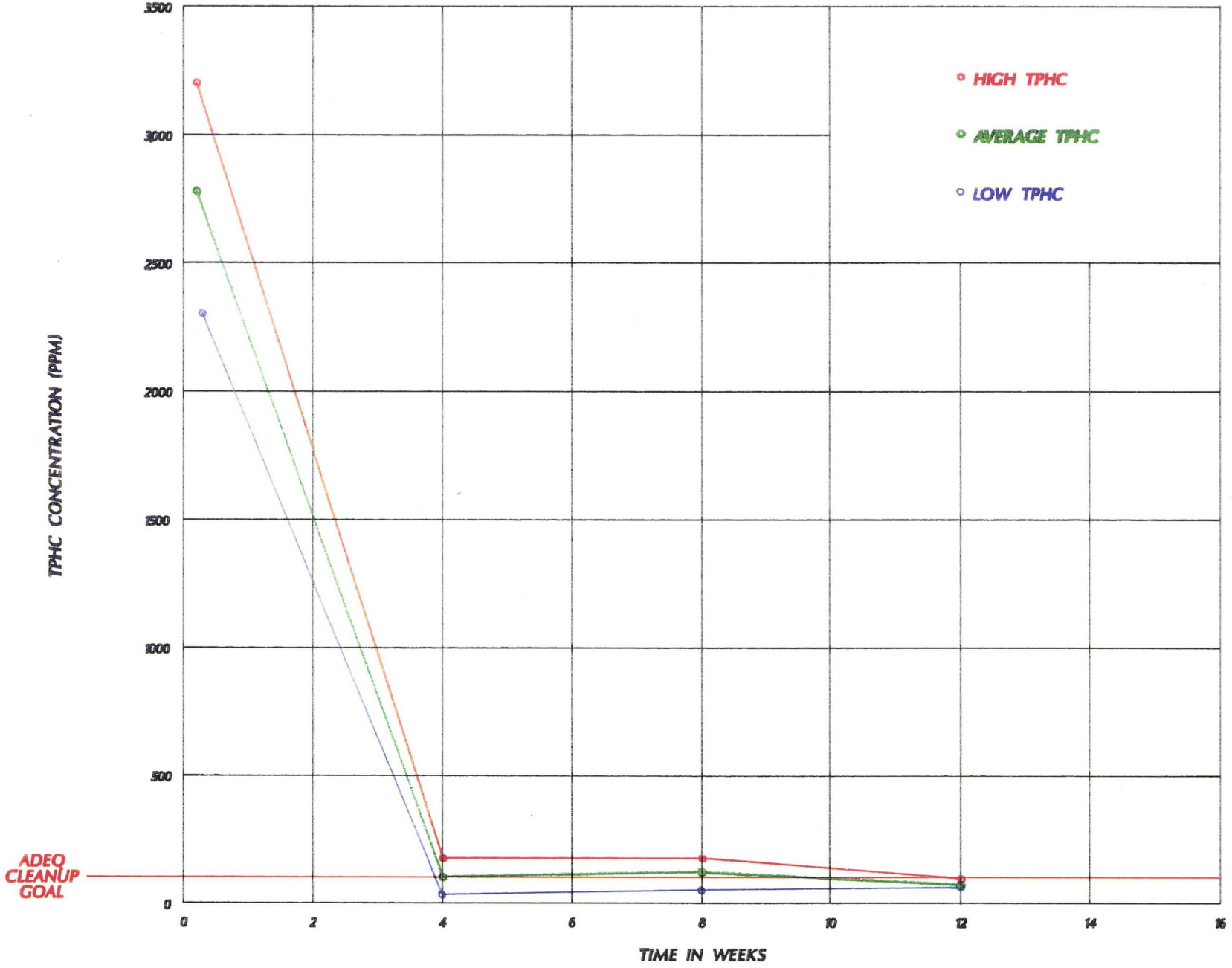
REVIEWED	G. TURNEY
PREPARED	M. ENTERLINE

WESTERN TECHNOLOGIES INC.
The Quality People

Soil Remediation

A.F. Budge Mining Ltd.

JOB NO. 7120K028



APPENDIX A

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

ROSE MOFFORD, GOVERNOR
RANDOLPH WOOD, DIRECTOR

May 18, 1990
REF: SW90-122

Glen Turney, Ch.E.
Project Engineer, Remediation
Environmental Engineering Services
Western Technologies, Inc.
3737 E. Broadway Rd.
Phoenix, AZ 85040

Dear Mr. Turney:

Thank you for submitting an application for registration of the petroleum contaminated soil remediation site designed to treat soil excavated from the:

Vulture Mine in Wickenburg, Arizona
(Job #7120K028)

The Arizona Department of Environmental Quality (the Department) hereby approves your application and considers your site registered. Your continued registration status is dependant upon the submission of the remainder of the required guidelines. These parts pertain to as-built and closure plans, respectively.

If any questions arise during the course of the remediation process, please do not hesitate to call.

Sincerely,

Betsey Westell

Betsey Westell
Environmental Health Specialist
Office of Waste Programs
Solid Waste Unit

BW:lr

APPENDIX B

№ 5091

CHAIN OF CUSTODY RECORD

JOB NO.	PROJECT NAME
7120KO	AF BUDGE

SAMPLER (SIGNATURE): GR Turney

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFB-001-A	4/20/90	1130		✓		1		✓				SOIL	900236
AFB-002-A	4/20/90	1130		✓		1		✓				"	900237

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
GR Turney	4/20/90	1500	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Anne Nichols

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE	TIME
4/20/90	15:00

SHIPPING TEMP. (°F)

MIN.	MAX.

REMARKS

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

CHAIN OF CUSTODY RECORD

№ 902175

JOB NO. 7120K023 (8)

PROJECT NAME: A.F. Budge Mining Ltd.

SAMPLER (SIGNATURE): Leslie J. Schmidt

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFB-001-1	5/31/90	0910		*	South END	1	*					Soil	9003309
AFB-002-1	↓	0913		*	Middle South	1	*					Soil	9003310
AFB-003-1		0916		*	Middle North	1	*					Soil	9003311
AFB-004-1		0919		*	North END	1	*					Soil	9003312

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Leslie J. Schmidt	5/31/90	1420	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Anne Nechits

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE: 5/31/90 TIME: 14:20

SHIPPING TEMP. (°F): MIN. | MAX.

REMARKS

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

CHAIN OF CUSTODY RECORD

JOB NO.: 7120K028

PROJECT NAME: A.F. Budge "Mining" Ltd

SAMPLER (SIGNATURE): Leslie J. Schmidt

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFB-001-2	6/28/90	0940		*	South	1		*				Soil - 2nd set 418.1	9004445
AFB-002-2		0942		*	Middle South	1		*				Soil - 2nd set pH, 418.1	9004446
AFB-003-2		0944		*	Middle North	1		*				Soil - 2nd set 418.1	9004447
AFB-004-2		0946		*	North	1		*				Soil - 2nd set 418.1	9004448

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Leslie J. Schmidt	6/28/90	1450	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE): Anne Nesbitt

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE: 6/28/90 TIME: 14:50

SHIPPING TEMP. (°F): MIN. / MAX.

REMARKS

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

CHAIN OF CUSTODY RECORD

JOB NO. 7120KO28

PROJECT NAME A.f. Budge "Mining" LTD.

SAMPLER (SIGNATURE) Leslie J. Schmidt

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFB-001-3	7/31/90			*		1		*				Moist Soil	9005215
AFB-002-3	"			*		1		*				"	9005216
AFB-003-3	"			*		1		*				"	9005217
AFB-004-3	"			*		1		*				"	9005218

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Leslie J. Schmidt	7/31/90	1255	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Tamara Hull

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE 7/31/90 TIME 12:55

SHIPPING TEMP. (°F) MIN. MAX.

REMARKS

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

№ 5082

CHAIN OF CUSTODY RECORD

JOB NO.	PROJECT NAME
7120K028	A.F. BUDGE

SAMPLER (SIGNATURE): Glen R Turney

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFB-001-4	9/4/90	1315		✓	TREATMENT CELL	1	✓					SOILS	900465
AFB-002-4	↓	↓		✓	↓	1	✓					↓	900466
AFB-003-4				✓		1	✓						900467
AFB-004-4				✓		1	✓						900468

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
GR Turney	9/4/90	1630	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Anne Nichols

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE	TIME
9/4/90	16:30

SHIPPING TEMP. (°F)

MIN.	MAX.

REMARKS

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

CHAIN OF CUSTODY RECORD

JOB NO. 7120K028

PROJECT NAME A.F. BUDGE "MINING" LTD.

SAMPLER (SIGNATURE) Leslie J. Schmidt

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
AFBV-001	9/17/90			*	NORTH	1		1				UNDER Plastic	900697[illegible]
AFBV-002	9/17/90			*	South	1		1				UNDER Plastic	900697[illegible]

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Leslie J. Schmidt	9/17/90	1550	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Anne Nichol

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

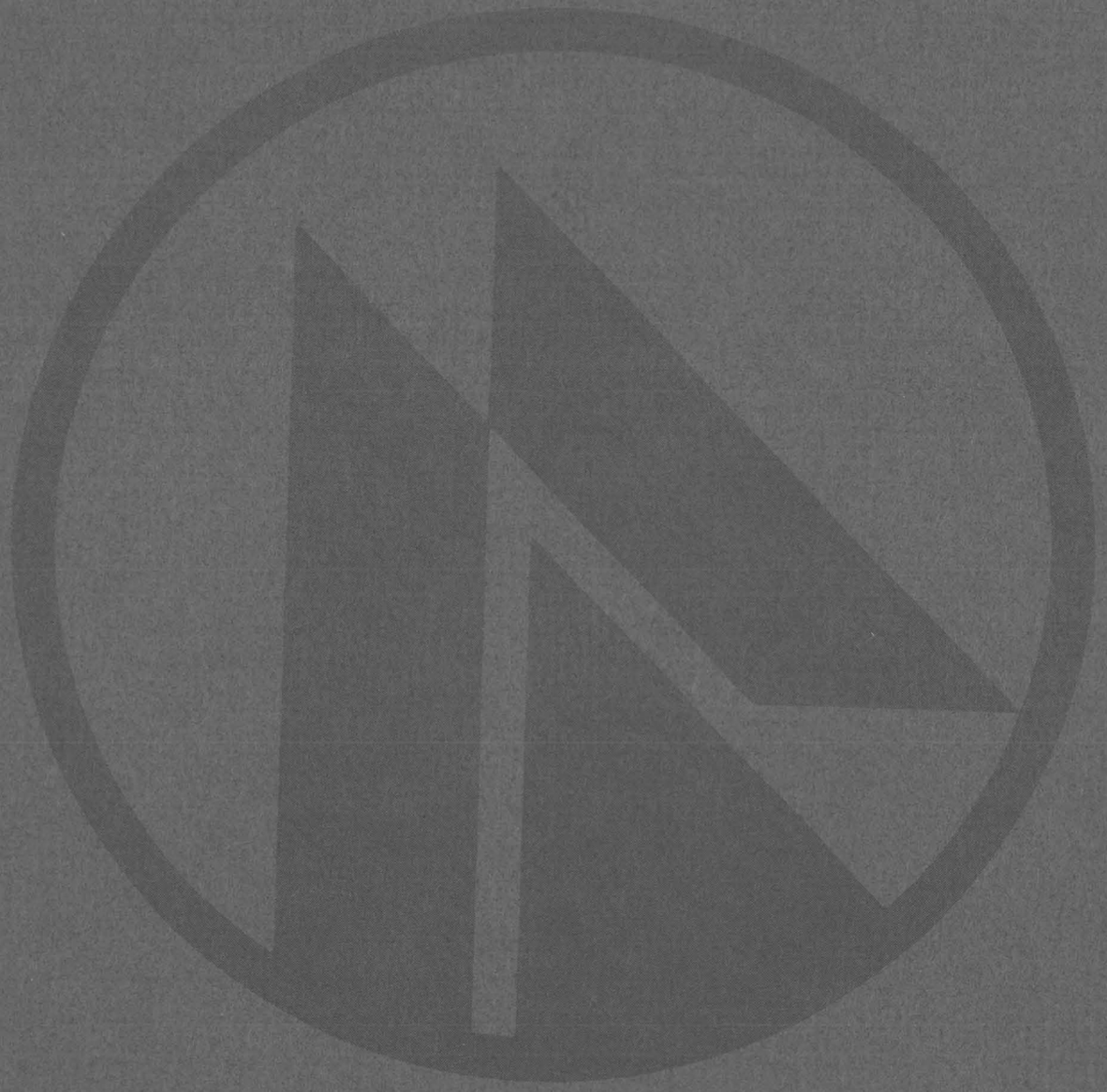
DATE 9/17/90 TIME 15:50

SHIPPING TEMP. (°F) MIN. MAX.

REMARKS 418.1 MOD

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler



APPENDIX C

PRE-INSTALLATION

SAMPLE ROUND

WESTERN TECHNOLOGIES INC.

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED
4301 N. 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9002361
INVOICE NO.: 7120W028
DATE : 04-26-90
REVIEWED BY: M E. Turney
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-001-A
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBML/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 04-20-90
SUBMITTED ON : 04-20-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	10.	mg/Kg	04-23-90

(1) Copy to Client

WESTERN TECHNOLOGIES INC.

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED
4301 N. 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9002362
INVOICE NO.: 7120W028
DATE : 04-26-90
REVIEWED BY: M.E. Turney
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-002-A
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBML/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 04-20-90
SUBMITTED ON : 04-20-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	15.	mg/Kg	04-23-90

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SAMPLE ROUND ONE

WESTERN TECHNOLOGIES INC.

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LABORATORY REPORT

CLIENT A F BUDGE

SAMPLE NO. : 9003309
INVOICE NO.: 7120W028-1
DATE : 06-06-90
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-001-1
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 05-31-90
SUBMITTED ON : 05-31-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	3200.	mg/Kg	06-06-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE

SAMPLE NO. : 9003310
INVOICE NO.: 7120W028-1
DATE : 06-06-90
REVIEWED BY: M. E. [signature]
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-002-1
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 05-31-90
SUBMITTED ON : 05-31-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	3000.	mg/Kg	06-06-90

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE

SAMPLE NO. : 9003311
INVOICE NO.: 7120W028-1
DATE : 06-06-90
REVIEWED BY
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-003-1
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 05-31-90
SUBMITTED ON : 05-31-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons	2300.	mg/Kg	06-06-90

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LABORATORY REPORT

CLIENT A F BUDGE

SAMPLE NO. : 9003312
INVOICE NO.: 7120W028-1
DATE : 06-06-90
REVIEWED BY: M G. M
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-004-1
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/PERSONNEL
CLIENT P.O. : --

SAMPLE DATE .: 05-31-90
SUBMITTED ON : 05-31-90

REMARKS -

TOTAL PETROLEUM HYDROCARBONS BY MODIFIED 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons	2600.	mg/Kg	06-06-90

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SAMPLE ROUND TWO

WESTERN TECHNOLOGIES INC.
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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT AF BUDGE MINING LTD
ATTN DALE ALLEN

SAMPLE NO. : 9004445
INVOICE NO.: 7120W028
DATE : 07-05-90
REVIEWED BY: [signature]
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-001-2
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 06-28-90
SUBMITTED ON : 06-28-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****

* D A T A T A B L E *

****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	80.	mg/Kg	07-03-90

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LABORATORY REPORT

CLIENT AF BUDGE MINING LTD
ATTN DALE ALLEN

SAMPLE NO. : 9004446
INVOICE NO.: 7120W028
DATE : 07-05-90
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-002-2
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 06-28-90
SUBMITTED ON : 06-28-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	90.	mg/Kg	07-03-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT AF BUDGE MINING LTD
ATTN DALE ALLEN

SAMPLE NO. : 9004447
INVOICE NO.: 7120W028
DATE : 07-05-90
REVIEWED BY: EC DAM E.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-003-2
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 06-28-90
SUBMITTED ON : 06-28-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	190.	mg/Kg	07-03-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT AF BUDGE MINING LTD
ATTN DALE ALLEN

SAMPLE NO. : 9004448
INVOICE NO.: 7120W028
DATE : 07-05-90
REVIEWED BY: EC Dan Mc.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-004-2
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 06-28-90
SUBMITTED ON : 06-28-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	32.	mg/Kg	07-03-90

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WESTERN TECHNOLOGIES INC.

P.O. Box 21387 85036
3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-3737

Quality Control Report

Parameter	Method	Analyst	Date of Analysis
Total Petroleum Hydrocarbons	418.1(Modified)	S. Weidinger	7-03-90

Duplicates

Parameter	Result	Duplicate	RPD,%
418.1 Mod.(mg/Kg)			
9004445	80	85	6.1
9004482	148	106	33.1
9004498	<10	<10	0.0

Spikes

Parameter	Spike(Value)	Spike Recovery,%
418.1 Mod.(mg/kg))		
9004445	122(100)	122
9004482	77(100)	77
9004498	118(100)	118

Method Blank

Parameter	Theoretical Value(mg/L)	Calculated Value(mg/L)

NOTE: 1- This quality control data is representative of the 418.1 Mod. run for this date and may not be specific to your sample.
2- Samples in this run: 9004445-9004448

SAMPLE ROUND THREE

WESTERN TECHNOLOGIES INC.

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A.F. BUDGE "MINING" LTD
ATTN DALE ALLEN
4301 N 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9005215
INVOICE NO.: 7120W028-2
DATE : 08-03-90
REVIEWED BY: JE/MG
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-001-3
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFBM/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 07-31-90
SUBMITTED ON : 07-31-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	160.	mg/Kg	08-02-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A.F. BUDGE "MINING" LTD
ATTN DALE ALLEN
4301 N 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9005216
INVOICE NO.: 7120W028-2
DATE : 08-03-90
REVIEWED BY: JCH MM.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-002-3
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFBM/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 07-31-90
SUBMITTED ON : 07-31-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	190.	mg/Kg	08-02-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A.F. BUDGE "MINING" LTD
ATTN DALE ALLEN
4301 N 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9005217
INVOICE NO.: 7120W028-2
DATE : 08-03-90
REVIEWED BY: EC JM MG.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-003-3
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFBM/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 07-31-90
SUBMITTED ON : 07-31-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	50.	mg/Kg	08-02-90

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Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A.F. BUDGE "MINING" LTD
ATTN DALE ALLEN
4301 N 75TH STREET
SCOTTSDALE, AZ 85251

SAMPLE NO. : 9005218
INVOICE NO.: 7120W028-2
DATE : 08-03-90
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-004-3
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFBM/D. ALLEN
CLIENT P.O. : --

SAMPLE DATE .: 07-31-90
SUBMITTED ON : 07-31-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT	TEST DATE
Total Petroleum Hydrocarbons .....:	110.	mg/Kg	08-02-90

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WESTERN TECHNOLOGIES INC.

P.O. Box 21387 85036
3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-3737 • 470-1341 FAX

Quality Control Report

Parameter	Method	Analyst	Date of Analysis
Total Petroleum Hydrocarbons	418.1(Modified)	L. Anthony	8-02-90

Duplicates

Parameter	Result	Duplicate	RPD,%
418.1 Mod.(mg/kg)			
9005177	<10	<10	0.0
9005186	55	80	37.0
9005192	<10	<10	0.0

Spikes

Parameter	Spike(Value)	Spike Recovery,%
418.1 Mod.(mg/kg)		
9005177	107(100)	107
9005186	80(100)	80
9005192	112(100)	112
Method Spike	107(100)	107

Method Blank

Parameter	Theoretical Value(mg/L)	Calculated Value(mg/L)
418.1 Mod.(mg/L)		
Blank	<1	<1

NOTE: 1- This quality control data is representative of the 418.1 Mod. run for this date and may not be specific to your sample.
2- Sample(s) in this run:9005215-9005218

WESTERN TECHNOLOGIES INC.

QUALITY ASSURANCE OFFICER

Dennis K. Neeley

DATE: 8-2-90

SAMPLE ROUND FOUR

WESTERN TECHNOLOGIES INC.

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED

SAMPLE NO. : 9006465
INVOICE NO.: 7120W028-4
DATE : 09-06-90
REVIEWED BY: [signature]
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-001-4
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBL/PERSONNEL
CLIENT P.O. : --
ANALYZED ON .: 09-05-90
SAMPLE DATE .: 09-04-90
SUBMITTED ON : 09-04-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	62.	mg/Kg

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED

SAMPLE NO. : 9006701
INVOICE NO.: 7120W028-5
DATE : 09-13-90
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-002-4
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBL/PERSONNEL
CLIENT P.O. : --
ANALYZED ON .: 09-07-90
SAMPLE DATE .: 09-04-90
SUBMITTED ON : 09-11-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	80.	mg/Kg

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P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED

SAMPLE NO. : 9006467
INVOICE NO.: 7120W028-4
DATE : 09-06-90
REVIEWED BY: JCA/MG.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-003-4
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBL/PERSONNEL
CLIENT P.O. : --
ANALYZED ON .: 09-05-90
SAMPLE DATE .: 09-04-90
SUBMITTED ON : 09-04-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	66.	mg/Kg

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Phoenix, Arizona 85036
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LABORATORY REPORT

CLIENT A F BUDGE (MINING) LIMITED

SAMPLE NO. : 9006468
INVOICE NO.: 7120W028-4
DATE : 09-06-90
REVIEWED BY: M.G.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFB-004-4
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/G. TURNEY
SUBMITTED BY ....: WTI/G. TURNEY

AUTHORIZED BY: AFBL/PERSONNEL
CLIENT P.O. : --
ANALYZED ON .: 09-05-90
SAMPLE DATE .: 09-04-90
SUBMITTED ON : 09-04-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	66.	mg/Kg

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WESTERN TECHNOLOGIES INC.

P.O. Box 21387 85036
3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-3737 • 470-1341 FAX

Quality Control Report

Parameter	Method	Analyst	Date of Analysis
Total Petroleum Hydrocarbons	418.1(Modified)	L. Anthony	9-07-90

Duplicates

Parameter	Result	Duplicate	RPD,%
418.1 Mod.(mg/kg)			
9006701	80	80	0.0

Spikes

Parameter	Spike(Value)	Spike Recovery,%
418.1 Mod.(mg/kg)		
9006701	90(100)	90
Method Spike	110(100)	110

Method Blank

Parameter	Theoretical Value(mg/L)	Calculated Value(mg/L)
418.1 Mod.(mg/L)		
Blank	<1	<1

NOTE: 1- This quality control data is representative of the 418.1 Mod. run for this date and may not be specific to your sample.
2- Sample(s) in this run:9006701
3- NC: Not Calculable because result is <5 times the MDL.

WESTERN TECHNOLOGIES INC.

QUALITY ASSURANCE OFFICER

DATE: 9-14-90

VERIFICATION

SAMPLE ROUND

WESTERN TECHNOLOGIES INC.
3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT AF BUDGE "MINING" LTD
ATTN DALE ALLEN

SAMPLE NO. : 9006978
INVOICE NO.: 7120W028-6
DATE : 09-18-90
REVIEWED BY: M.G.
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFBV-001
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --
ANALYZED ON .: 09-18-90
SAMPLE DATE .: 09-17-90
SUBMITTED ON : 09-17-90

REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

D A T A T A B L E

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	<10.	mg/Kg

(1) Copy to Client

WESTERN TECHNOLOGIES INC.

3737 East Broadway Road
P.O. Box 21387
Phoenix, Arizona 85036
(602) 437-3737

LABORATORY REPORT

CLIENT AF BUDGE "MINING" LTD
ATTN DALE ALLEN

SAMPLE NO. : 9006979
INVOICE NO.: 7120W028-6
DATE : 09-18-90
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : AFBV-002
SAMPLE TYPE .....: SOIL
SAMPLE SOURCE ...: --
SAMPLED BY .....: WTI/L. SCHMIDT
SUBMITTED BY ....: WTI/L. SCHMIDT

AUTHORIZED BY: AFB/D. ALLEN
CLIENT P.O. : --
ANALYZED ON .: 09-18-90
SAMPLE DATE .: 09-17-90
SUBMITTED ON : 09-17-90

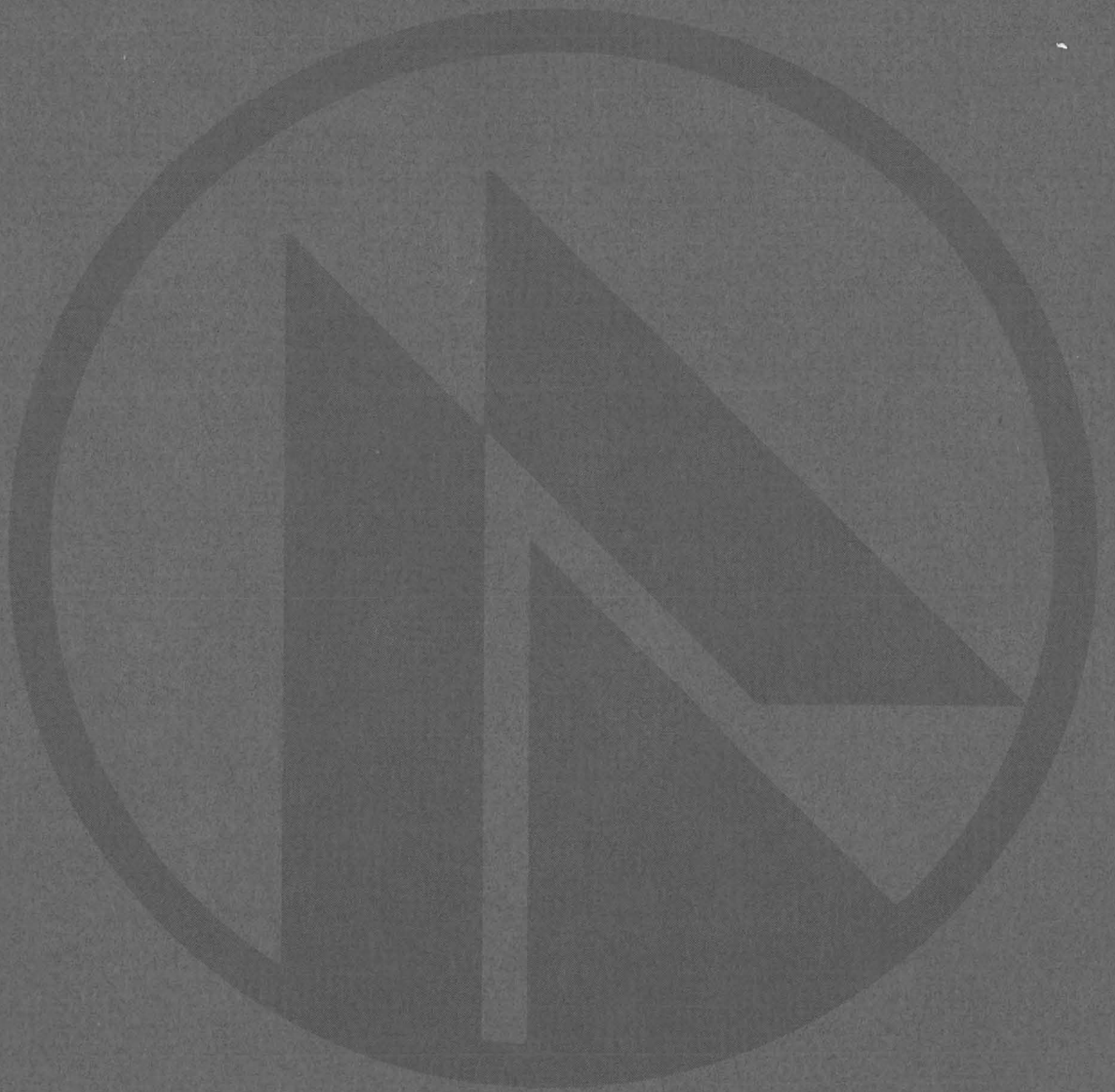
REMARKS -

Total Petroleum Hydrocarbons by Modified 418.1

****
* D A T A T A B L E *
****

PARAMETER	RESULT	UNIT
Total Petroleum Hydrocarbons	<10.	mg/Kg

(1) Copy to Client



APPENDIX D

CHAIN OF CUSTODY RECORD

JOB NO.	PROJECT NAME
SAMPLER (SIGNATURE)	

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE	TIME	REMARKS
SHIPPING TEMP. (°F)		
MIN.	MAX.	

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

QUALITY ASSURANCE PROCEDURES

QUALITY ASSURANCE OBJECTIVES

The overall QA objectives are to develop and implement procedures for collecting and evaluating data in an accurate, precise and complete manner. Data obtained under such procedures will insure that the measurement of data, sampling procedures, and field measurement(s) provide information that is representative of actual site condition(s). The definitions for accuracy, precision, completeness, and representativeness are as follows (quoted from EPA's QAMS0995/80, December 29, 1980):

- o Accuracy - the degree of agreement of a measurement (or an average of measurements of the same thing), x, with an accepted reference or true value, T, usually expressed as the difference between the two values, X-T, or the difference as a percentage of the reference or true value, 100 (X-T)/T. Accuracy is a measure of the bias in a system.

- o Precision - a measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is best expressed in terms of the standard deviation. Various measures of precision exist depending upon the "prescribed similar conditions".

- o Completeness - a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under correct normal conditions.

- o Representativeness- expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

The procedures for gathering accurate, precise, complete and representative data are described in subsequent sections,

The overall QA/QC Program will be administered and directed by a QA/QC Officer who will be directly responsible to the Program Director, who will ensure that all procedures outlined in this document and site-specific plans are followed by the field, laboratory, administrative and data interpretation personnel. If any discrepancies are observed by the QA/QC Officer, the Program Director will be notified and corrective action instituted, The QA/QC Officer will review all site-specific investigation plans to insure that each contains adequate QA/QC Plans and that all work can be inspected or audited for compliance. The QA/QC Officer will review all draft reports to insure that quality assurance plans were observed.

1.0 Document Control and Filing Systems

All documents will be under the control of the Program Director. The documents from each site investigated will be placed into a central file (either manual or computerized). The filing system will be based on a serial-number system. The files will be kept in filing cabinets which are kept locked when not in use. The QA/QC Officer and Program Director will be responsible for ensuring that the document system is available to users while providing adequate control on security and usefulness of files.

All correspondence will be logged in and place in a designated file upon receipt. The central files will be located at Western Technologies Inc., Las Vegas, Nevada. Separate file numbers will be assigned in the central filing system to each site investigated under this contract. This will insure against files being misfiled. The files will contain all field/laboratory documentation (field logs, Chain-of Custody Records, data sheets, etc.), work plans, project management plans, assessments and progress reports.

2.0 Field Activities

All field activities will be conducted according to written protocols. Field personnel will be briefed on the activities to be performed before any work commences. Field personnel unfamiliar with new equipment or procedures will be trained before field activities are performed. Additionally, field personnel will be briefed concerning the Health and Safety Plan of the site before work is commenced at the site.

2.1 Development of Standard Operating Procedures (SOPs) for Sampling

Before any site is investigated in this program, sampling SOPs will be developed. The development of sampling SOPs and adherence to the SOPs during field work is required for a complete quality assurance program. The sampling SOPs will define objectives, design the plan, preparation of containers, maintenance of equipment sample packaging and chain-of-custody protocols. It is important to note that in the design of the sampling plan, it is necessary to insure that the samples being collected are representative of the population (soil, water) being sampled. Therefore, a statistical approach will be used to estimate the minimum number of samples needed to meet an acceptable confidence level. Because environmental samples are usually grossly heterogeneous, a statistical approach can aid in insuring adequate samples are collected to meet the objective of the site investigation or remediation. The sampling plan will be prepared by the Project Manager and reviewed by the QA/QC Officer for adherence to the overall quality assurance program.

2.2 Sampling, Soils, Sludges

The field personnel conducting sampling will coordinate with the laboratories to ensure the correct sampling equipment and containers are employed. Sample containers will be labeled before the sampling activity commences. The sample containers will be checked to ensure they are cleaned and contain the correct preservatives, if necessary. After the sample is collected, the date, time, name of sampler and sampling location will be written on the sample label. The sample will be capped and a sample seal placed on the area between the cap and the container. The sampler will place the sample(s) into a cooler for transport to the laboratory. The sampler will record each sample on a Chain-of-Custody Record. The sampler will be responsible for custody of the samples until the samples have been delivered to the laboratory or a shipping agent. The laboratory or shipping agent will be required to sign the Chain-of-Custody Record before the sampler will relinquish custody of samples.

The field quality control program will include the use of travel blanks and field spikes to evaluate problems which can be encountered in sampling and transport to the laboratory. Travel blanks are containers (e.g., 40-ml VOA bottles) filled with deionized water at the site. The container containing the travel blank is labeled, sample seal applied, placed in the cooler and transported to the laboratory along with the samples collected at the site. The sample is analyzed to ascertain if the samples may have been contaminated during transit. Field spikes are prepared by adding a known concentration of the chemical parameter to a sample or deionized water. The container is labeled, sealed and transported with the samples collected at the site. The spiking solution will contain chemical parameters which are being investigated at the site. Field spikes may indicate losses associated with transport or matrix interferences. Field spikes will not be revealed as such to the laboratory and, therefore, can be used as an independent check on the performance of the laboratory.

The field equipment (split-spoon samplers, spatulas, etc,) will be cleaned before each sample is collected. The equipment will be cleaned with a solution of trisodium phosphate and triple rinsed with distilled water. The water will be collected and taken off site for disposal.

Field logs will be written with waterproof ink in log books. The sampler will place all observations concerning collection of samples such as time, depth, location, geologic materials encountered, soil moisture, etc. The logs will be signed by the field supervisor at the end of each working day. The field logs will become part of the document control system at the end of the field activities.

The QA/QC Officer will visit each site being investigated to insure that procedures listed in this document and the site-specific documents are implemented. The visit will be unannounced and the results of the audit reported to the Program Director and the Project Managers.

2.3 Sampling; Natural Waters

The groundwater sampling will conform to the following guidelines. All measuring and sampling equipment will be decontaminated prior to sample collection from each well. Prior to sampling, a submersible pump and stainless steel bailer will be used to evacuate a minimum of three casing volumes. Temperature, conductivity and pH will be monitored during evacuation to verify purging of static water in each well. The sample will be taken after the well has recovered with 80% of the water level above the bottom of the well prior to purging.

Water samples will be collected with a stainless steel bailer or submersible bladder pump. Samples collected for volatile organics will be placed in 40-mL VOA bottles and filled from the bottom up and capped tightly to avoid formation of bubbles. Samples will be placed in the containers using the preservatives and holding times outlined in Table 1. The sample label, seal and Chain-of-Custody Record will be completed. The sampler will enter the following information in the field notebook:

- Sampler's name
- Sample number
- Location
- Purged volume
- Unusual conditions (i.e., color, odor, solids, etc.)
- pH, temperature, conductivity
- Water level.

The samples and a travel blank will be placed into a cooler containing ice. The cooler(s) will be marked with "FRAGILE" and "THIS END UP" labels on all four sides. The cooler(s) will be delivered to shipper or laboratory and the Chain-of-Custody form signed.

All field instruments (pH, conductivity, temperature) will be calibrated at the beginning of each work day and must not vary by more than 5% of true assessment.

2.4 Lithologic Logging

A complete log of conditions encountered during drilling will be maintained using Unified Soil Classification System by an engineer or geologist. A borehole log form will be used to record observations.

3.0 Laboratory Activities

Upon receipt of the sample, the laboratory will sign the Chain-of-Custody Record and forward a photocopy to the project manager for inclusion in the project files. The sample will be logged in, assigned a laboratory tracking number and stored in the proper location in the laboratory.

Samples requiring organic analyses will be refrigerated. Refrigerators used to store volatile organics will be monitored using refrigerator blanks. Refrigerator blanks are 40-ml VOA bottles containing deionized water. Periodically, the blanks are analyzed to ascertain if the deionized water has been contaminated by the storage of volatile organics. Refrigerator blanks are helpful in ascertaining possible contaminant pathways if a field blank tests positive for volatile organics.

The samples will be analyzed within the time periods listed in Table 1. The time is measured from the time of collection to time of analysis or extraction. The table also lists the type of containers to be used and the required preservatives for aqueous samples.

The chemical laboratory will monitor the following operations which affect the control of quality of chemical analysis. The QA/QC Officer will be responsible for proper monitoring of all operations.

Deionized Water

The deionized water will be monitored to insure that it meets the following specifications for laboratory and field use:

pH	6.7 to 7.3 pH units
Electrical Conductivity	< 1.0 mohs/cm @ 25C°
Particulates	< 0.1 mg/1

Measurements are taken at least monthly and recorded in the log book.

Water for Special Uses

Deionized water is boiled for 24 hours and then packed in 40-mL vials for later use. Organic-free water is prepared on a weekly basis.

Carbon dioxide free water obtained by deionized water is boiled for 15 to 20 minutes, cooled to room temperature and sealed in a glass container.

Ammonia-free water is obtained by passing water through an ion exchange column.

Chemicals and Gases

All chemicals used in preparation of standards, decompositions, and extractions will be analytical grade or better. The use of method blanks will assist in monitoring the quality of chemicals used with sample decomposition and extractions. If at any point. a method blank fails to perform according to the parameters of the method, the chemicals used with the method blank will be replaced. Reagents are logged under an inventory control and disposed of at the date of expiration.

GLASSWARE

In all cases, polyethylene or borosilicate (Pyrex, Kimax) containers will be used for storage of standards and reagents, including tinted glass for photosensitive reagents. Most metal stock solutions are placed in polyethylene bottles, except for elemental solutions known to react with polyethylene (such as antimony).

Volumetric Glassware

Standard solutions are prepared in Class "A" volumetric flasks. For all titrimetric procedures, Class "A" micreburets are employed. All G.C. syringes are calibrated and certified by the distributor(s) (Hamilton, Supelco).

Standards

Commercially prepared and certified calibration and stock standards are purchased for all analyses requiring such standards. Organic standards are purchased from Ultra Scientific, Supelco or Chem Service. Fisher Scientific is the supplier for inorganic and metal standards. Pesticide grade solvents are purchased from Burdick and Jackson. Quality control check samples for organic analyses are provided by EPA. Quality control check samples not obtained from a certified source are prepared in the laboratory using a chemical reagent which differs from the reagent used in preparing the external (calibration) standards. The standard stock solutions (usually 1000 ppm) are prepared on a monthly basis. The diluted stock solutions used for external or internal standards are prepared daily.

3.1 Internal Quality Control Checks

The quality assurance procedures of the environmental laboratory are based on Standard Methods for Examination of Water and Wastewater, 16 edition, Handbook for Analytical Quality Control in Water and Wastewater Laboratories, EPA, June 1972, by the Analytical Control Laboratory, Cincinnati, Ohio and "Establishment of Chemistry Laboratory Quality Assurance Policies", Arizona Department of Health Services, Memorandum; Laboratory Certification and Licensors Section 2551188, December 1, 1982.

The laboratory will perform environmental analyses in accordance with the following documents:

Methods for Organic Analysis of Municipal and Industrial Wastewater,
EPA-600/4-82-057

Methods for Chemical Analyses of Water and Wastes,
EPA-600/4-79/020

Standard Methods for Examination of Water and Wastewater,
15th Edition

Test Methods for Evaluating Solid Waste,
2nd Edition

The quality control procedures mandated in each of the above documents will be observed. Additionally, many of the recommended quality control procedures associated with the above documents will be incorporated into this QA/QC Plan. The quality control checks incorporated into this QA/QC Plan are listed and defined below:

3.1.1. Reagent/Method Blank - a sample of deionized/organic free water that is processed through all procedures, quantities of materials and labware used in sample preparation. Methods requiring the addition of internal standards and/or surrogate spikes, the spikes will be added to Reagent/-Method Blank. The data from the blank assesses whether adequate contaminant control was exercised. If the method blank gives a positive response for the parameter(s) of interest, corrective action will be taken. Actions will include review of method and possible replacement of reagents, water, glassware, etc. A method blank will be analyzed for each batch of samples or once every ten samples.

3.1.2 Check Standard - Certified check samples will be used when available from commercial or government sources. EPA check samples are available for many of the organic analyses. Laboratory prepared check samples will be prepared with an analytical reagent which differs from the one used to prepare the calibration standards. The check standard is not carried through the entire analytical procedure, but is analyzed directly by the analytical instrumentation (e.g., direct

injection of a G. C. column). A check standard result is used to validate an existing concentration calibration curve. If the check standard deviates by more than ± 10% from the calibration curve, corrective action will be taken. A check standard will be analyzed for each batch of samples or once every ten samples.

3.1.3 Surrogate Spike - prepared by adding a known amount of a pure compound to the environmental sample. The compounds selected for surrogate spikes are not expected to be found in the sample, but is similar to the compounds of interest. Surrogate spikes are added to an environmental sample prior to any extraction process and are carried through the total analytical method. In analytical methods requiring surrogate spikes, the spike is added to every environmental sample. Surrogates are used to monitor the operation of the analytical method. The data is used to calculate a percent recovery of the surrogate spike (an estimate of accuracy). The percent recovery of the surrogate spikes must fall within the acceptable range of recovery or corrective action will be taken.

Water Samples-Surrogate Spikes

	Acceptable Range of Recovery (%)
Volatiles	80-120
Base/neutral	30-130
Acids	50-110
Pesticides	70-120
TCDD	20-150

Soil/Waste Samples-Surrogate Spikes

	Acceptable Range of Recovery (%)
Pesticides	25-140
Volatiles	60-130
Base/neutral	25-120
Acids	15-110

The laboratory maintains quality control charts to monitor the continuous (accuracy) performance of the analysis. If the control charts indicate the analysis is "out of control" by the laboratory, even though the acceptable ranges listed above have not been exceeded, the laboratory will take corrective action.

3.1.4 Internal Standard - prepared by adding a known amount of a compound to the environmental sample. The compound selected is not one expected to be found in the sample, but is similar in nature to the compound of interest. Internal standards are added to the environmental sample just prior to analysis. With the purge and trap techniques, the internal standard and surrogate spike are identical. The internal standard is used to monitor the operation and sensitivity of the analytical system and the effectiveness of purging apparatus. In analytical methods requiring internal standards, the standard is added to each environmental sample.

3.1.5 Calibration Standards - prepared by adding a known amount of compound to deionized water. The solution is serially diluted to produce 4 to 5 solutions of different concentrations . The calibration standards are analyzed and used to produce an external calibration curve. The curve must be linear and have correlation coefficient of $\geq$.995 before samples will be analyzed.

3.1.6 Matrix Spike - prepared by adding a known amount of a pure compound to the environmental sample. The compound used for the spike is the same as that being analyzed for in the sample. The matrix spike is added to the environmental sample prior to any extraction or decomposition and is carried through the entire analytical process. A matrix spike will be analyzed for each batch of samples or once every ten samples. The data is used to calculate a percent recovery of the matrix spike. The percent recovery of the matrix spikes must fall within the acceptable range of recovery or corrective action will be taken.

Water Samples - Matrix Spikes

	Acceptable Range of Recovery (%)
Pesticides	40-130
Volatiles	60-145
Base/neutrals	30-120
Acids	10-120

Soil/Waste Samples - Matrix Spikes

	Acceptable Range of Recovery (%)
Pesticides	25-140
Volatiles	60-140
Base/neutral	30-140
Acids	20-120

The laboratory maintains quality control charts to monitor the continuous (accuracy) performance of the analysis. If the control charts indicate the analysis is "out of control" by the laboratory, even though the acceptable ranges listed above have not been exceeded, the laboratory will take corrective action. Matrix spikes for organic parameter is not listed above and inorganics will use acceptance criteria listed by the respective EPA method.

3.1.7 Matrix Duplication - Aliquots are made in the laboratory of the same environmental sample and each aliquot is treated exactly the same throughout the analytical method. If the maximum acceptable percent difference of the duplicates exceeds the criteria listed below, then corrective action will be taken.

	Maximum % Difference
Volatile	15%
Base/neutral	50%
Acid	40%
Pesticide	40%

3.1.8 GC/MS Tuning Sample- The EPA tuning compounds will be used. Set the mass spectrometer to the acceptance criteria listed with the respective EPA method. The GC/MC will be tuned every 24 hours.

3.1.9 Control Charts- The laboratory maintains control charts on both inorganic and organic analyses. The type of chart used consists of a central line and two limit lines spaced above and below the central line. These are termed the inner and outer control limits. The are charts used to assess accuracy (% recovery). The central line represents the mean of the % recovery values. The inner control limits and outer control limits are located two and three standard deviations from the central line,

respectively. If a % recovery is located outside of the outer control limits or two consecutive % recovery values outside of the inner control limits, then the analysis is considered "out of control". The analyst must take corrective action before proceeding.

Additionally, charts are developed to assess precision of the analysis (% difference of duplicates).

3.2 External Quality Control

A laboratory in order to maintain a consistent quality control program must include outside sources of standards. The sources supply control solutions similar in properties to the internal quality control solutions used by the laboratory. The recommended frequency of an external quality control check is once or twice annually.

3.3 Record Keeping

All reports, charts and calculations associated with an analyses are filed according to the name of the client. Records are kept on file for at least seven years. The QC data is maintained in separate logs books. The maintenance of QC log books and control charts are under the control of the laboratory QA/QC Manager. The QA/QC Manager is responsible for checking calculations and the accuracy of QC data.

3.4 Maintenance and Calibration of Instrumentation

The laboratory has prepared an in depth QA/QC Manual (130 pages). The manual incorporates all of the QA/QC procedures used in the laboratory.

Standard Operating Procedure (SOP) manuals have been written for each environmental analyses performed by the laboratory. SOPs are detailed restatements of EPA methods. The SOPs mandate the exact type of standardization (internal or external), chemicals to be used, concentrations of spiking solutions and many other analytical techniques left to the discretion of the individual laboratories by EPA methods. The SOPs are updated each year and must be approved by the laboratory QA/QC Officer and Laboratory Manager.

4.0 Performance and System Audits

An audit is an independent assessment of data quality. The QA/QC Officer will conduct field office and laboratory audits. The function of the field auditor will be to:

- o Observe procedures and techniques of the field sampling crew;
- o Check and verify records of calibration;
- o Assess the effectiveness of and adherence to prescribed QC procedures;
- o Review document control procedures;
- o Identify and correct any weakness in the sampling/analytical approach and techniques and;
- o Assess the overall data quality of the various sampling/analytical systems.

The function of the laboratory auditor will be to review:

- o Calibration documentation of instruments;
- o Completeness of laboratory data forms;
- o Sampling logging procedures;
- o Documentation of quality control data (control charts).

The function of the office auditor will be to review:

- o Field data review and validation procedures;
- o Field data storage and filing procedures;
- o Laboratory data review and filing procedures.

Upon completion of the audit, the QA/QC Officer will discuss any specific weakness with the Project Manager and make recommendations for corrective action. An audit report will subsequently be prepared and distributed to the Project Manager, Program Director and Arizona Department of Environmental Quality. This report will outline the audit approach and present a summary of results and recommendations,

DECONCINI MCDONALD BRAMMER YETWIN & LACY, P. C.

ATTORNEYS AT LAW

240 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1295
(602) 623-3411

4041 NORTH CENTRAL AVENUE, SUITE 640
PHOENIX, ARIZONA 85012-3398
(602) 248-0036

EVO DECONCINI (1901-1986)
JOHN R. McDONALD
RICHARD M. YETWIN
ROBERT M. STRUSE
JOHN C. RICHARDSON
DEBORAH OSERAN
SPENCER A. SMITH
DENISE M. BAINTON
KAREN J. NYGAARD
GARY CLIFFORD KORN
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JOHN C. LACY
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DAVID C. ANSON
JAMES A. JUTRY
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LUIS A. OCHOA

DOUGLAS G. ZIMMERMAN
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KENNETH C. SUNDLOF, JR.
MATTHEW R. BERENS
JAMES E. CARTER
DAWN A. McGUFFIE
SHARON M. HENSLEY
DONNA L. HYLARIDES

December 11, 1986

Please Reply to Tucson

DMEA LTD.
DEC 12 1986
RECEIVED

Ms. Carole A. O'Brien
DMEA Ltd.
7340 East Shoeman Lane
Suite 111 "B"(E)
Scottsdale, Arizona 85251

Re: **VMP Payments**

Dear Carole:

You recently asked me to advise you regarding problems you have been having regarding the unwillingness of VMP, Inc. to provide you with an employer identification number so you can complete an IRS Form 1099. We have determined that there is a $5.00 penalty for failure to provide the employer identification number on the Form 1099. The payor can, however, avoid the penalty if it can be shown that acceptable attempts were made to obtain the information.

This office attempted to get VMP's number from the IRS but they would not give it to us. However, it has been our experience that banks frequently will do so. You might, therefore, want to look at the cancelled checks to see what bank VMP uses to deposit the checks.

Very truly yours,

John C. Lacy

jk

121186250.jcl1.45-01

Office of
Arizona State Mine Inspector
DOUGLAS K. MARTIN
1616 West Adams, Suite 411
Phoenix, Arizona 85007-2627
(602) 542-5971

March 3, 1989

A. F. Budge (Mining) Limited
4301 North 75th Street
Suite 101
Scottsdale, Arizona 85251-3504

SUBJECT: Request for Variance to Rule R11-1-2231B.

You have requested an extension to a previously granted Variance to Rule R11-1-2231B. This extension request is granted subject to all conditions listed below:

1. The pregnant solution pond at no time will be filled in excess of 50% of its' capacity.

2. Install steel posts surrounding each pond; string a ½" steel cable on the posts so that it is at a height of 42" ± 2" above the ground; provide a life preserver at each pond; require that any employee working inside the cable use a safety belt tied to the cable.

Operations may ask for an extension to a Variance prior to the December 31st expiration date and the Arizona State Mine Inspector will address such requests on their individual merits.

If you have any questions, please feel free to call.

Sincerely,

D K Martin

Douglas K. Martin
Arizona State Mine Inspector

DKM/dl

RECEIVED MAR 14 1989

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

March 8, 1990

Larry W. Beal
President
V.M.P., Inc.
1414 E. Purdue
Phoenix, AZ 85020

Dear Mr. Beal:

This letter will inform you of a pending agreement between A.F. Budge (Mining) Limited and Arizona-Ontario Explorations, Inc. per Section 10 of our original agreement.

A.F. Budge (Mining) Limited will assign the lease to Arizona-Ontario Explorations, Inc.

Arizona-Ontario Explorations, Inc. is incorporated and registered to do business in the State of Arizona. The company is a syndicate, consisting of three larger mining companies: Placer Dome U.S., Inc., Prime Resources Corp., and American Barrick Resources Corp. Enclosed for your information are annual reports of the participating companies plus letters acknowledging their participation in the syndicate.

All three companies are very successful; they have the resources and expertise to conduct the type of exploration needed on the Vulture Mine property.

Very truly yours,

Ronald Short

Ronald R. Short
General Manager

RRS:ca

encls.

bc: Arizona Explorations, Inc.
W. Scott Donaldson
J.C. Lacy

STATE MINE INSPECTOR
JAMES H. McCUTCHAN, C.P.M.
1616 WEST ADAMS, SUITE 411
PHOENIX, ARIZONA 85007-2627
(602) 542-5971

December 19, 1988

Carole A. O'Brien
Mining Coordinator
A. F. BUDGE (Mining) Limited
4301 North 75th Street, Ste. 101
Scottsdale, Arizona 85251-3504

Dear Carole:

Your letter of August 11, 1988, requested an extension of the Exception (Variance) to Rule R11-1-2231B, originally granted, October 20, 1988.

Your variance was granted until December 31, 1988 at which time it will expire. To extend your variance it will be necessary for you to make a written request of the variance again by December 31, 1988.

Sincerely,

James H. McCutchan, C.P.M.
State Mine Inspector

James R. Matt, P.E.
Chief Deputy Mine Inspector

JHM/dl

Attachment

STATE MINE INSPECTOR

AUG 12 1988

BUDGE

A.F. Budge (Mining) Limited

P.O. Box 143
Clarkdale, AZ 86324
(602) 634-7712

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

P.O. Box 20878
Wickenberg, AZ 85358
Mobile (602) 376-9056

August 11, 1988

James Matt, P.E.
Chief Deputy Mine Inspector
1616 West Adams, Suite 411
Phoenix, Arizona 85007-2627

Dear Mr. Matt:

Thank you for your call yesterday in reponse to our letter of August 4. You indicated during our conversation that we should request a variance to the provisions contained in R11-1-2231(B) of the Administrative Rules and Regulations which states:

> An overflow safety pond or similar retention area shall be constructed to receive and contain all potential overflow from the leach pad and pregnant solution pond.

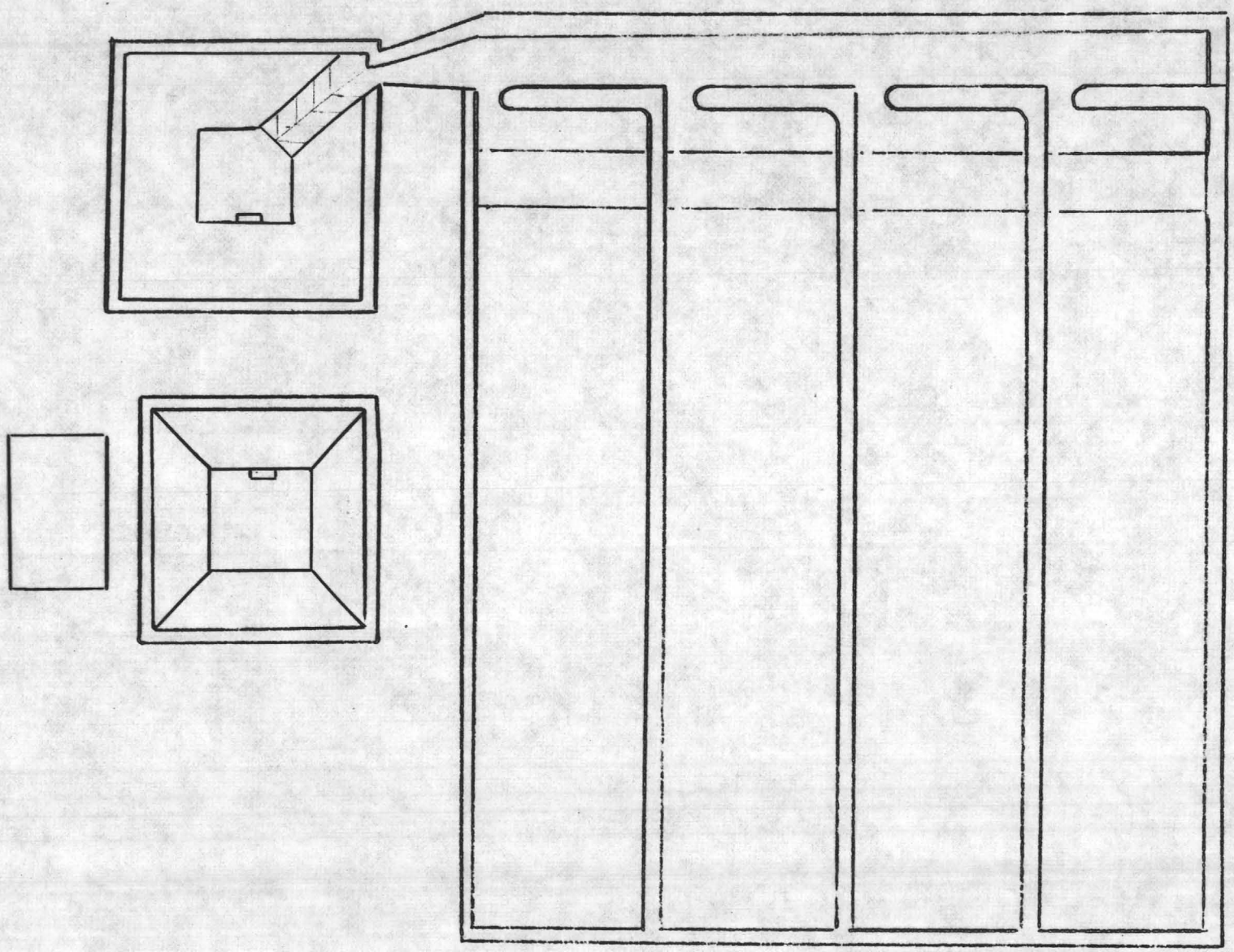
By this letter we request a variance based on the following information: in the case of the Vulture Mine operations, the barren and pregnant ponds were designed and sized to accommodate all potential overflow. The engineering of the pregnant solution pond is such that at no time during normal operations will the pond be filled in excess of 50% of its capacity. The pond is designed to accommodate run-off during a storm event equivalent to half the 6-hour PMP (Probable Maximum Precipitation) which is roughly equal to the 500-year, 24-hour storm event, i.e. about 5 inches of precipitation.

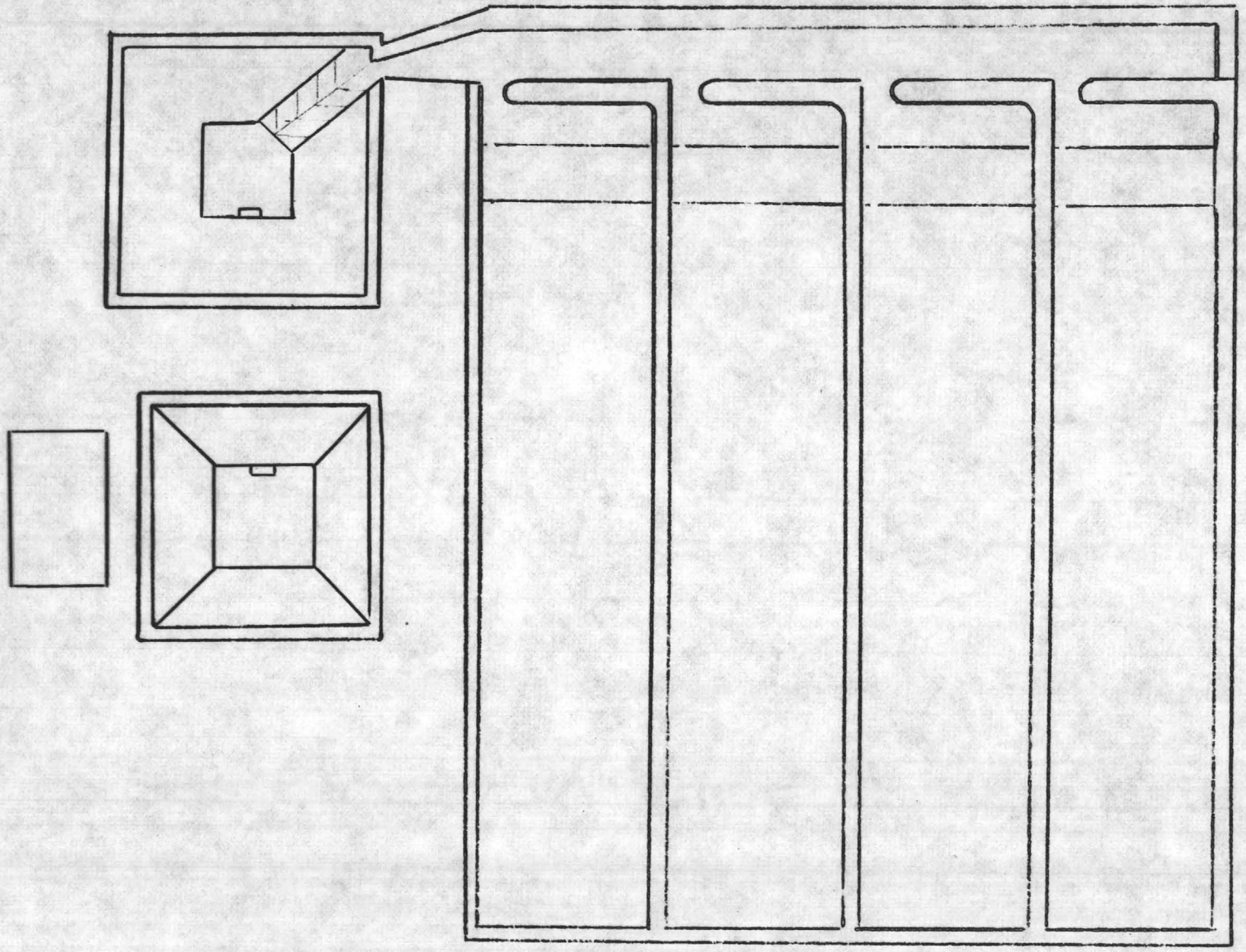
This request for a variance is not an admission that any violation exists. It remains our position that the construction, as engineered, satisfies the regulation.

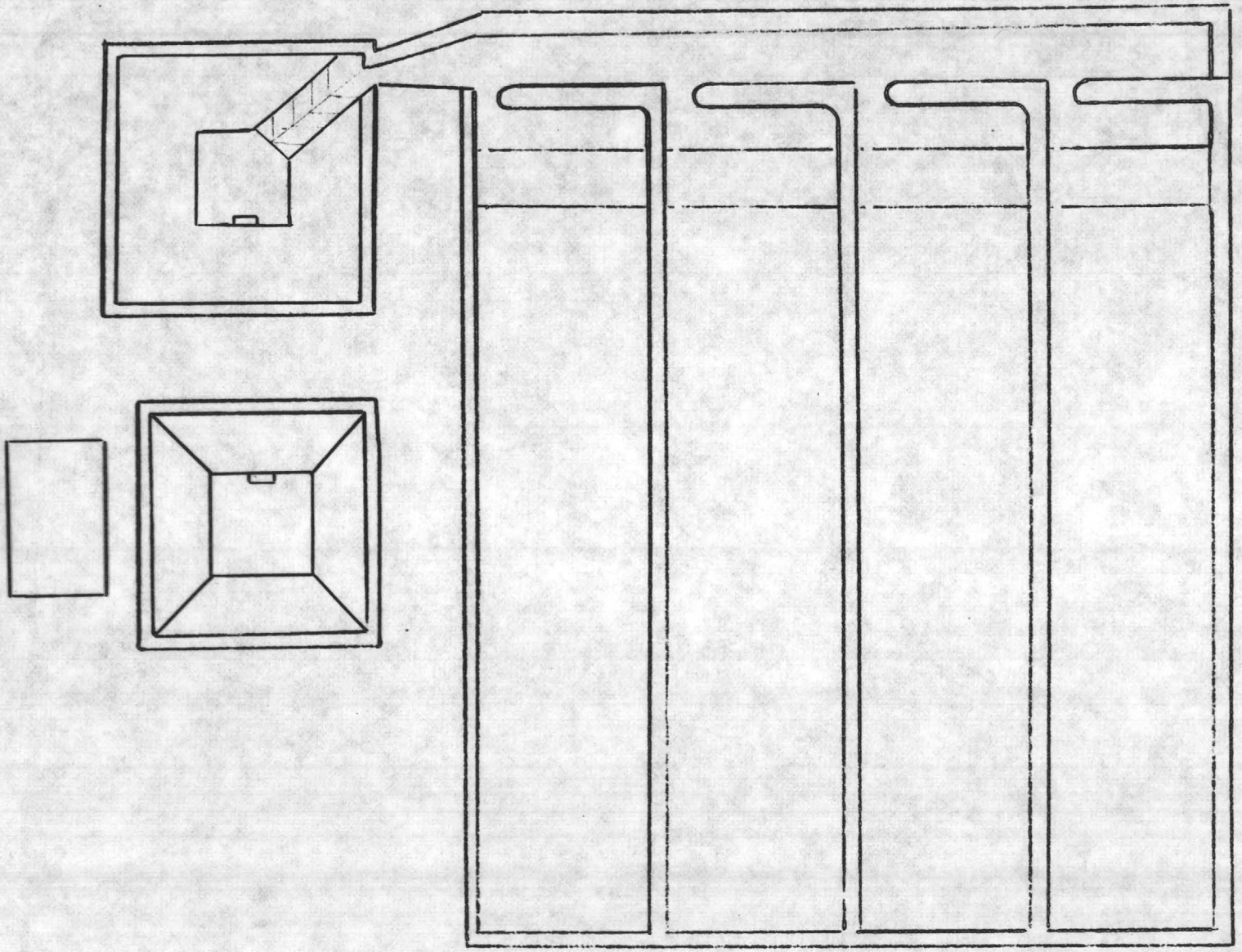
Very truly yours,

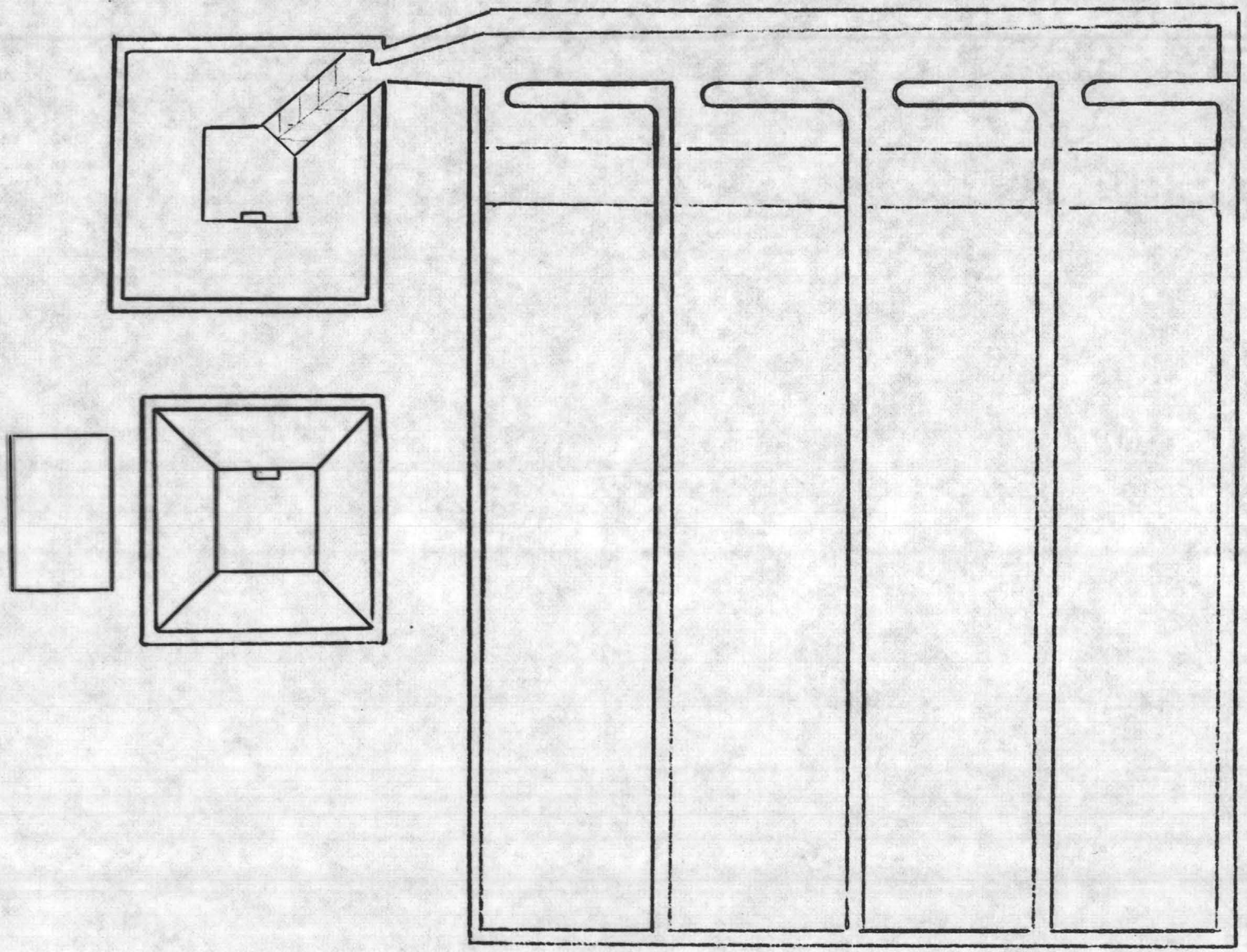
Carole A. O'Brien

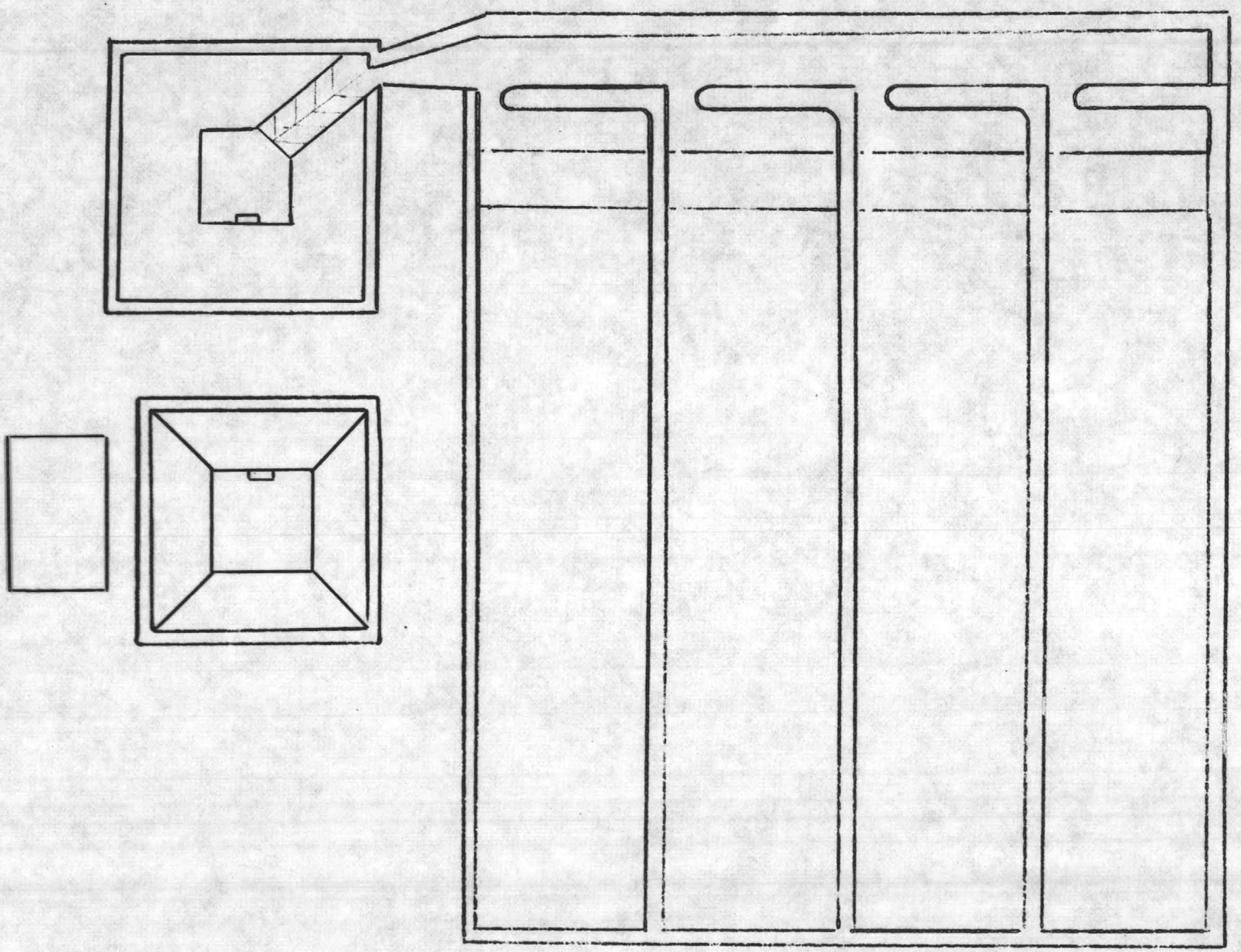
Carole A. O'Brien
Mining Coordinator

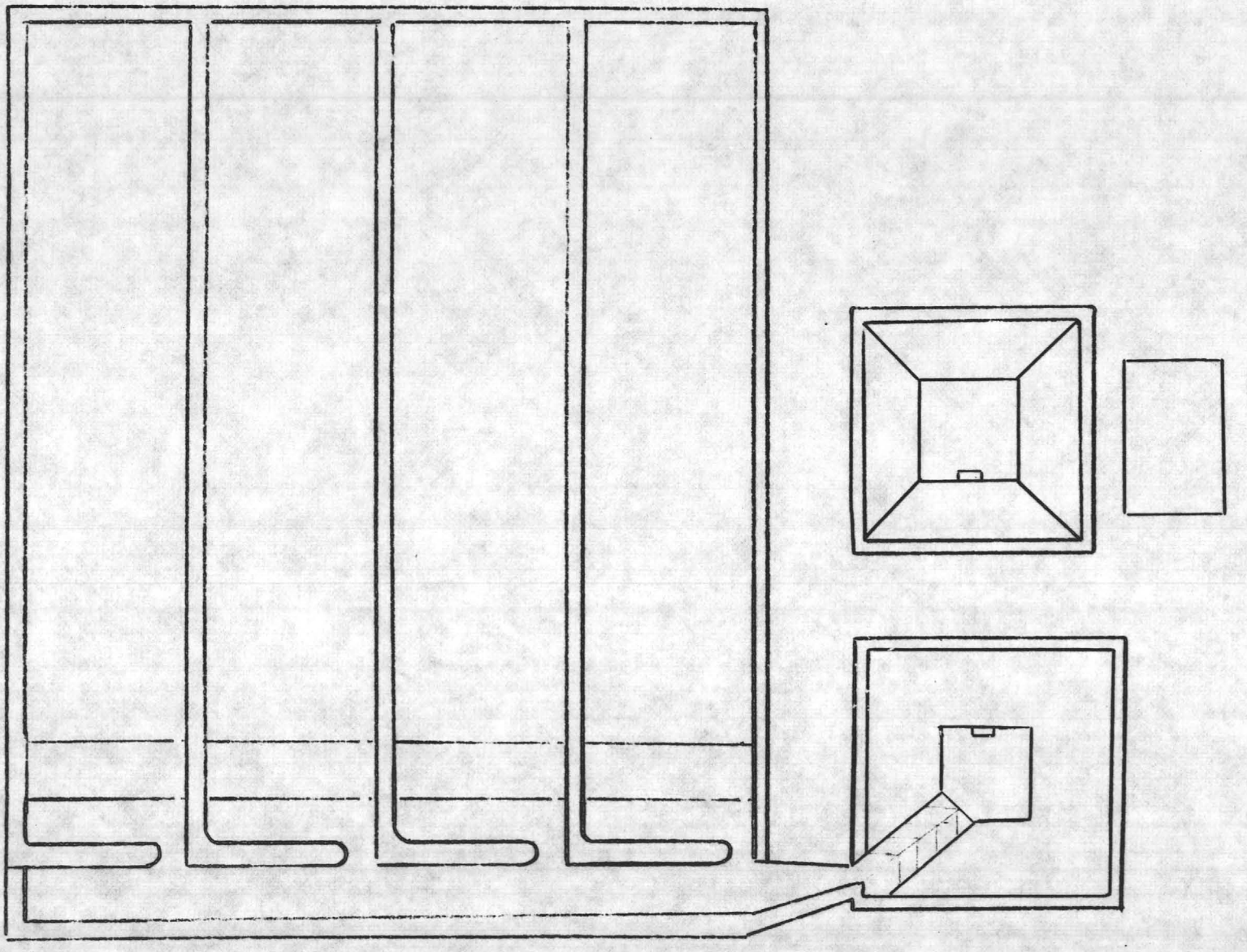


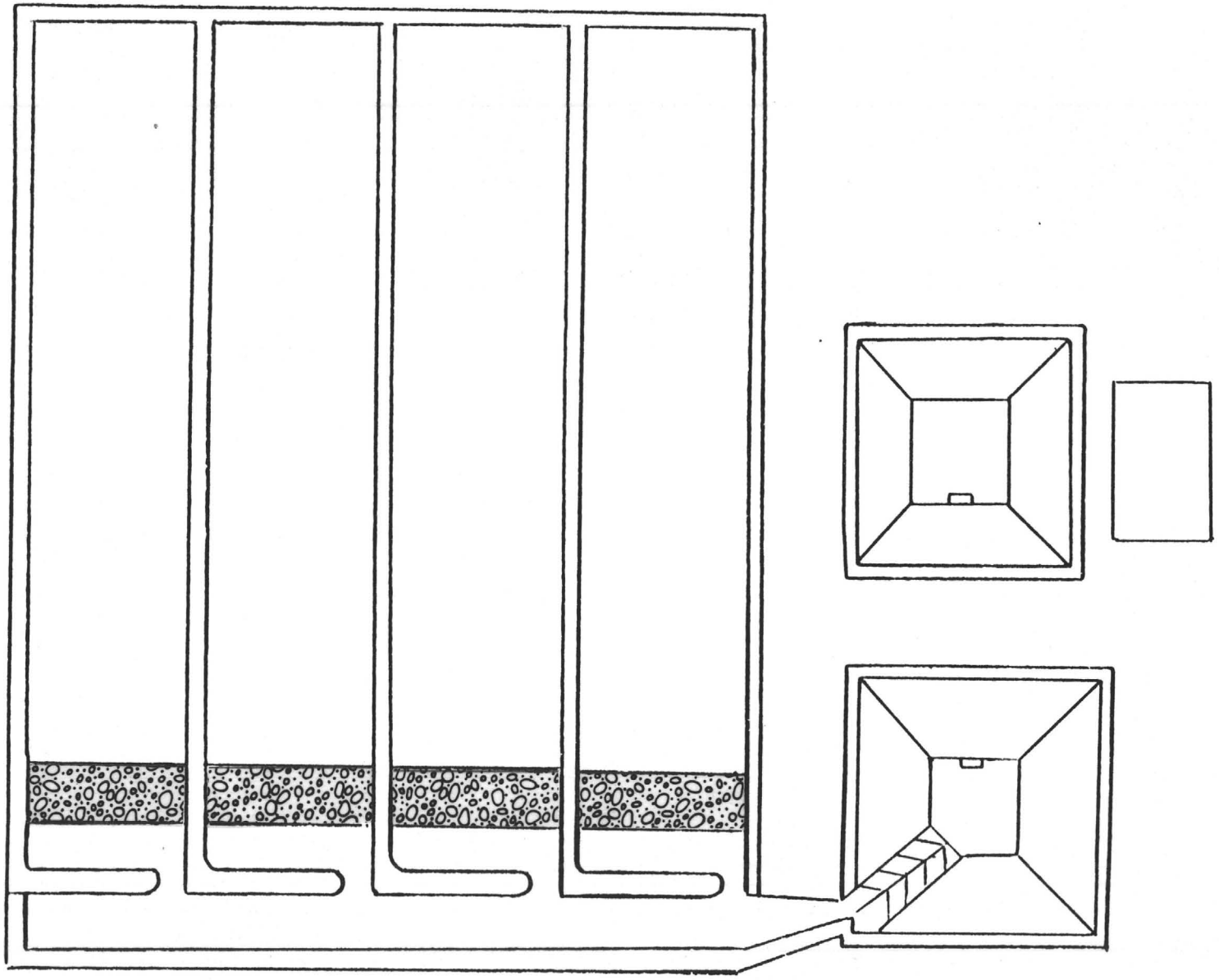


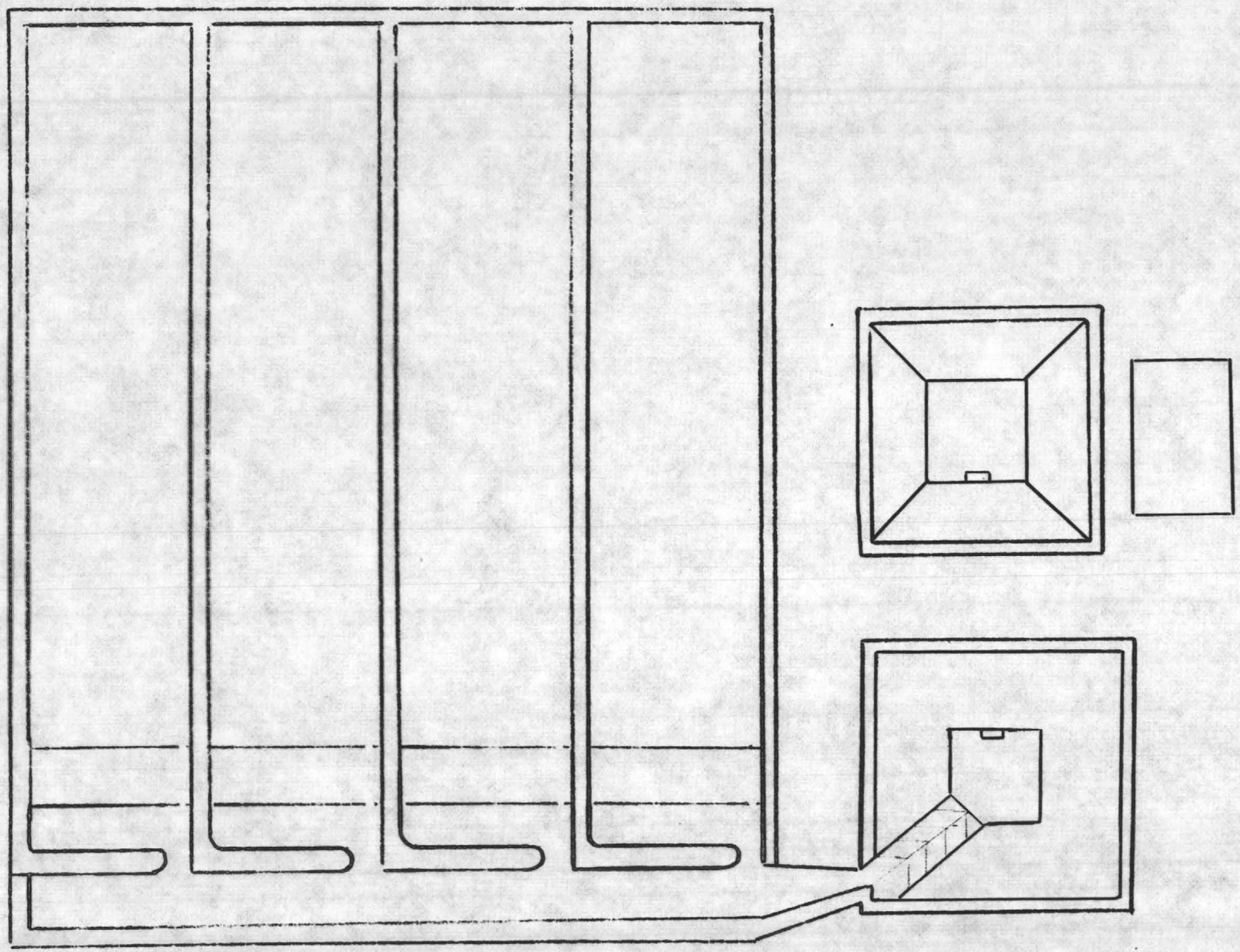


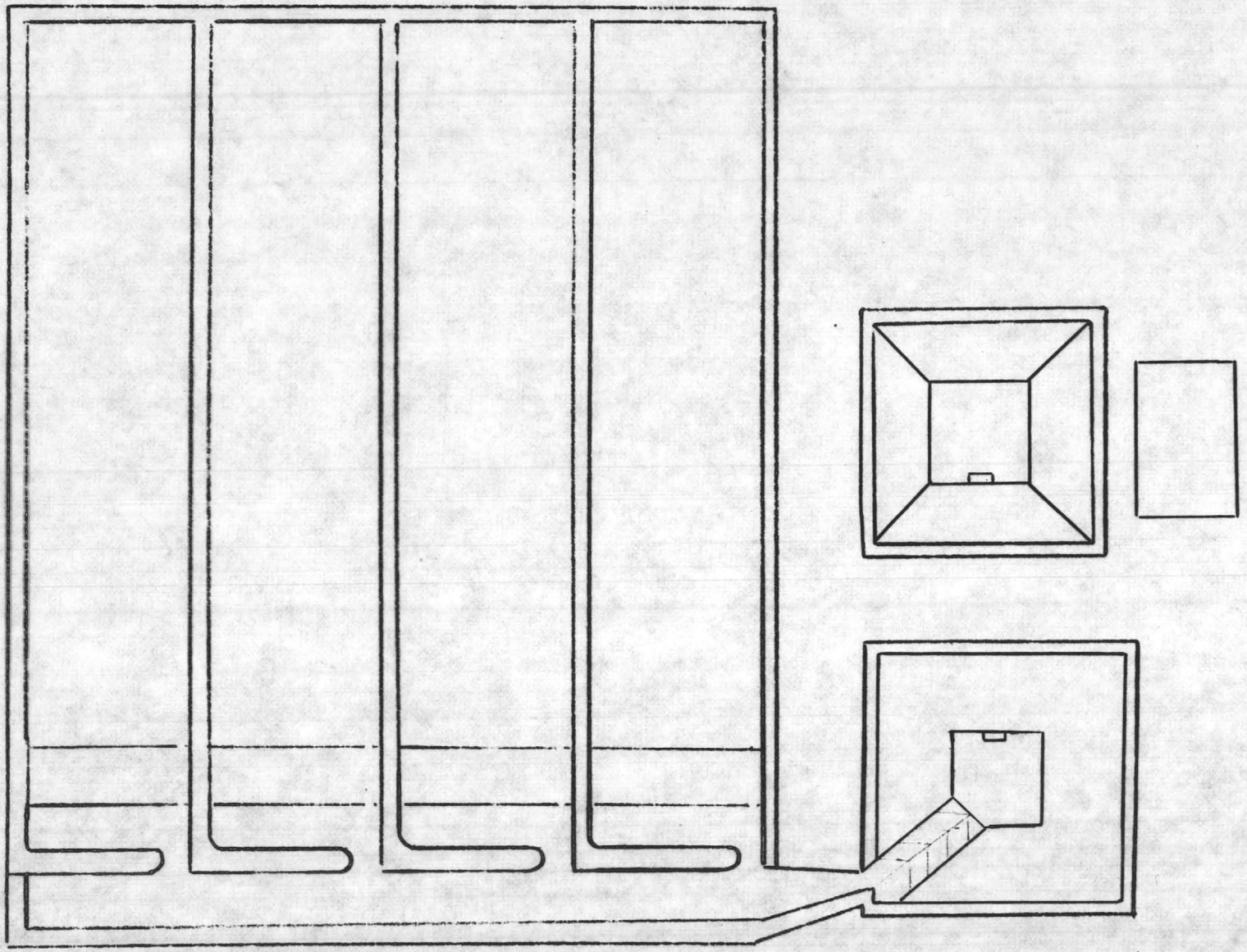












United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
3707 N. 7TH STREET
PHOENIX, ARIZONA 85014

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

A MC 77023-24
A MC 160432
A MC 246152
(921-SR)

January 25, 1989

A. F. Bidge(Mining) Limited
4301 North 75th St., Suite 101
Scottsdale, Arizona 85251

NOTICE TO MINING CLAIMANT(S)

WE CANNOT GIVE YOU ASSESSMENT CREDIT FOR 1988 FOR THE CLAIM(S) LISTED BELOW BECAUSE THEY ARE CLOSED OUT AND ARE THEREFORE INACTIVE. A COPY OF THE DECISION WHICH CLOSED THESE CLAIM(S) IS ENCLOSED FOR YOUR INFORMATION. SHOULD YOU HAVE QUESTIONS CALL OUR MINING CLAIMS SECTION AT (602) 241-5550.

BLM - A MC SERIAL NUMBER(S)	CLAIM NAME(S)
A MC 77023 and A MC 77024	VMP No. 6 and No. 7
A MC 246516 and A MC 246517	Vulture Annex #1 and #2
A MC 160720 and A MC 160721	Desert #118 and #119
A MC 160724	Desert #122
A MC 160490 thru A MC 160493	Vulture #63 thru #66

IN REPLY REFER TO:

A MC 77018
(921) TR

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
3707 N. 7th Street
Phoenix, Arizona 85014

(602) 241-5550

June 3, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

DECISION

L. W. Beal
Jeanette Beal
Larry Beal
1414 E. Purdue
Phoenix, AZ. 85020

V M P #6, V M P #7
Placer Mining Claims
A MC 77023 and A MC 77024

Mining Claim(s) Declared Null and Void
Ab Initio

Pursuant to the requirements of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1744, and the implementing regulations in 43 CFR 3833.1-2, notice(s) of location for the above-named mining claim(s) were filed for recording in the Arizona State Office of the Bureau of Land Management.

Date Located	Date Filed
5/24/1976	10/17/1979

The location notice(s) and accompanying map(s) show the claim(s) to be located on the following land:

Gila and Salt River Meridian, Arizona

T. 5 N., R. 6 W.
Section 2, E½

The subject mining claim(s) are invalid and are hereby declared null and void ab initio. The Bureau of Land Management public records show the lands were not open to location of mining claims at the time of their location.

7-19-88 closed AMC 77023 and 77024

ENTERED IN COMPUTER (cd)

The land has been reconveyed to the United States and the reconveyance reserved the minerals to the grantor; the United States has no mineral ownership. Therefore, the lands are not subject to location under the general mining laws. The surface estate only was reconveyed on 3/25/1950.

"Where land has been reconveyed to the United States and the reconveyance reserves the minerals to the grantor, the United States has no authority to recognize a claim for the minerals under the mining laws, 30 U.S.C. Sec. 22 (1970), because the minerals are not owned by the United States. Such a claim is properly declared null and void." All Glory to God Church, 33 IBLA 61 (1977).

"Mining claims located on lands which are closed to mineral entry are null and void from their inception as a matter of law, and no property rights are created thereby. Therefore, no contest proceeding, notice, or hearing is required preliminary to a decision holding that such claims are invalid." John A. Ross, Maxine Lidke, 73 IBLA 16 (1983).

An appeal from this decision may be taken to the Interior Board of Land Appeals, Office of Hearings and Appeals, in accordance with the regulations in Title 43 Code of Federal Regulations (CFR), Parts 1 and 4, and the enclosed Form 1842-1. If an appeal is taken, the notice of appeal must be filed in the Arizona State Office of the Bureau of Land Management, mailing address, P.O. Box 16563, Phoenix, Arizona 85011, street address 3707 N. 7th Street, Phoenix, Arizona 85014, within 30 days from receipt of this decision. Do not send the appeal directly to the Board. The appeal and case history file will be sent to the Board from this office. Within 30 days after filing the notice of appeal, file a complete statement of the reasons why you are appealing. This must be filed with the U.S. Department of the Interior, Office of the Secretary, Board of Land Appeals, 4015 Wilson Boulevard, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the notice of appeal, no additional statement is necessary. Additionally, within 15 days after each document is filed, the regulations require the appellant to serve copies on the Field Solicitor, U.S. Department of the Interior, 505 North 2nd Street, Suite 150, Phoenix, Arizona 85004. To avoid summary dismissal of the appeal, there must be strict compliance with the regulations.

If no appeal is taken, this decision constitutes final administrative action of this Department as it affects the mining claim(s). No appeal, protest or petition for reconsideration will be entertained from this decision after the appeal period has expired.

John T. Mezes
Chief, Branch of Lands
and Minerals Operations

Enclosures: Regulations
Appeal Procedures
Form 1842-1

2772L

MINING Claim

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery. AMC 77018 (921-TR)
2. ☐ Restricted Delivery. 6-3-88
3. Article Addressed to:
   L. W. Beal, et al
   1414 E. Purdue
   Phoenix. AZ 85020
4. Type of Service:
   ☐ Registered ☐ Insured
   ☒ Certified ☐ COD
   ☐ Express Mail
   Article Number 764337

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
   X
6. Signature – Agent
   X
7. Date of Delivery
   6/7/88
8. Addressee's Address (ONLY if requested and fee paid)
   1414 E Purdue
   Phx, Az 85020

LEAD OWNER

VULTURE MINE PROPS
PO BOX 1853
WICKENBURG AZ 85358

CO-OWNERS
NONE

ARIZONA LEAD FILE NUMBER - 160432

LM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
160490	VULTURE #63	1985	160491	VULTURE #64	1985
160492	VULTURE #65	1985	160493	VULTURE #66	1985
160508	VULTURE #81	1985	160509	VULTURE #81-A	1985
160510	VULTURE #82	1985	160511	VULTURE #83	1985
160720	DESERT #118	1985	160721	DESERT #119	1985
160724	DESERT #122	1985			

160490-160493
160508-160511
160720-160721
160724

closed
unclaimable 7/14/87

ENTERED IN COMPUTER

IN REPLY REFER TO:

United States Department of the Interior

(943)-ljc
A MC 160432

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
3707 N. 7th Street
Phoenix, Arizona 85014
(602) 241-5550

May 12, 1987

CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mining Claimant(s)
as Shown on the
Attached Sheet

Mining Claim(s)
as Shown on the
Attached Sheet

DECISION
MINING CLAIMS DECLARED ABANDONED

The Federal Land Policy and Management Act (FLPMA) of 1976, 43 U.S.C. 1744, and the implementing regulations in 43 CFR 3833.2, require an annual filing for all mining claims recorded with the Bureau of Land Management. The Act provides that failure to file evidence of annual assessment work or a notice of intention to hold by December 30 each year shall be deemed conclusively to constitute an abandonment of the claim and it is void by operation of law. The constitutionality of Section 314 of FLPMA was upheld on April 1, 1985 by the United States Supreme Court in United States v. Locke et al., 471 U.S. 84, 129 (1985).

The Bureau of Land Management records do not show receipt of either an affidavit of annual assessment work performed or a notice of intention to hold for the claim(s) listed on the attached sheet(s) for the 1985-1986 assessment year.

If you did timely file an affidavit or notice of intention to hold with the Bureau of Land Management during 1986, notify this office. Please furnish a copy of the affidavit showing the Bureau of Land Management date and time stamp or other evidence of receipt by our office.

Your proof must show the required document was timely filed with the Bureau of Land Management during 1986, otherwise, it will not be accepted. The evidence must be received in this office no later than 30 days from receipt of this decision. If the proof is not furnished during this 30 day period, the claim(s) will be removed from our records as abandoned and void.

John T. Mezes
Chief, Branch of Lands &
Minerals Operations

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ■ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Vulture Mine Props
PO Box 1853
Wickenburg, AZ 85358

4. Type of Service:
☐ Registered ■ Certified ☐ Express Mail ☐ Insured ☐ COD

Article Number
764738

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

WICKENBURG, AZ
MAY 29 AM 1987

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
37 7th STREET
Claim Check No. ARIZONA 85014
237203 L BUSINESS
☐ Hold PRIVATE USE $300

AN EQUAL OPPORTUNITY EMPLOYER

RETURNED TO

Do Not Remove

Date

1ST Notice

2ND Notice

Return

Detached from PS Form 3849-A, Oct. 1985

MAY 14 1987 1ST Notice
2ND Notice
Return

U.S.MAIL

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 415

Name
1st Notice MAY 14 RECD
2nd Notice MAY 20 RECD
Return MAY 29 1987

CERTIFIED MAIL
NO. 764738
Return Receipt Requested

4

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

Unclaimed ☐ Refused
Attempted-Not Known
Insufficient Address
No such number
No such office in State
Do not remain in this envelope

INT 415

MAY 15 1987
5/25/87
JUN 1 1987

CERTIFIED MAIL
764776
Return Receipt Requested

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested. A MC 246152

1. ■ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.
3. Article Addressed to:

V M P
Box 20202
Wickenburg, AZ 85358

4. Type of Service:
☐ Registered ☐ Insured
■ Certified ☐ COD
☐ Express Mail

Article Number
764776

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X
6. Signature – Agent
X
7. Date of Delivery
8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

WICKENBURG AZ
JUN 1 4 PM 1987
85358

LEAD OWNER

V M P
BOX 20202
WICKENBURG AZ 85358

CO-OWNERS
NONE

ARIZONA LEAD FILE NUMBER - 246152

BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
246152	ZEN #1	0000	246153	ZEN #2	0000
246154	ZEN #3	0000	246155	ZEN #4	0000
246156	ZEN #5	0000	246157	ZEN #6	0000
246158	ZEN #7	0000	246159	ZEN #8	0000
246160	ZEN #9	0000	246161	ZEN #10	0000
246162	ZEN #11	0000	246163	ZEN #12	0000
246164	ZEN #13	0000	246165	ZEN #14	0000
246166	ZEN #15	0000	246167	ZEN #16	0000
246168	ZEN #17	0000	246169	ZEN #18	0000
246170	ZEN #19	0000	246171	ZEN #20	0000
246172	ZEN #21	0000	246173	B-LAN #1	0000
246174	B-LAN #2	0000	246175	B-LAN #3	0000
246176	B-LAN #4	0000	246177	B-LAN #5	0000
246178	B-LAN #6	0000	246179	B-LAN #7	0000
246180	B-LAN #8	0000	246181	B-LAN #9	0000
246182	B-LAN #10	0000	246183	B-LAN #11	0000
246184	B-LAN #12	0000	246185	B-LAN #13	0000
246186	B-LAN #14	0000	246187	B-LAN #15	0000
246188	B-LAN #16	0000	246189	B-LAN #17	0000
246190	B-LAN #18	0000	246191	B-LAN #19	0000
246192	B-LAN #20	0000	246193	B-LAN #21	0000
246194	B-LAN #22	0000	246195	B-LAN #23	0000
246196	DESERT #2	0000	246197	DESERT #3	0000
246198	DESERT #4	0000	246199	DESERT #6	0000
246200	DESERT #7	0000	246201	DESERT #10	0000
246202	DESERT #11	0000	246203	DESERT #12	0000
246204	DESERT #13	0000	246205	DESERT #14	0000
246206	DESERT #15	0000	246207	DESERT #16	0000
246208	DESERT #17	0000	246209	DESERT #18	0000
246210	DESERT #19	0000	246211	DESERT #20	0000
246212	DESERT #21	0000	246213	DESERT #22	0000
246214	DESERT #23	0000	246215	DESERT #24	0000
246216	DESERT #25	0000	246217	DESERT #26	0000
246218	DESERT #27	0000	246219	DESERT #28	0000
246220	DESERT #29	0000	246221	DESERT #30	0000
246222	DESERT #31	0000	246223	DESERT #32	0000

Closed 246152 — 246422,
246426 — 246527,
246529 5-13-87

ENTERED IN COMPUTER
10-14-87 gi

ARIZONA LEAD FILE NUMBER - 246152

BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
246224	DESERT #33	0000	246225	DESERT #34	0000
246226	DESERT #35	0000	246227	DESERT #36	0000
246228	DESERT #37	0000	246229	DESERT #38	0000
246230	DESERT #39	0000	246231	DESERT #40	0000
246232	DESERT #41	0000	246233	DESERT #42	0000
246234	DESERT #43	0000	246235	DESERT #44	0000
246236	DESERT #45	0000	246237	DESERT #46	0000
246238	DESERT #47	0000	246239	DESERT #48	0000
246240	DESERT #49	0000	246241	DESERT #50	0000
246242	DESERT #51	0000	246243	DESERT #52	0000
246244	DESERT #53	0000	246245	DESERT #54	0000
246246	DESERT #55	0000	246247	DESERT #56	0000
246248	DESERT #57	0000	246249	DESERT #58	0000
246250	DESERT #59	0000	246251	DESERT #60	0000
246252	DESERT #61	0000	246253	DESERT #62	0000
246254	DESERT #63	0000	246255	DESERT #64	0000
246256	DESERT #65	0000	246257	DESERT #66	0000
246258	DESERT #67	0000	246259	DESERT #68	0000
246260	DESERT #69	0000	246261	DESERT #70	0000
246262	DESERT #71	0000	246263	DESERT #72	0000
246264	DESERT #73	0000	246265	DESERT #74	0000
246266	DESERT #75	0000	246267	DESERT #76	0000
246268	DESERT #77	0000	246269	DESERT #78	0000
246270	DESERT #79	0000	246271	DESERT #80	0000
246272	DESERT #81	0000	246273	DESERT #82	0000
246274	DESERT #83	0000	246275	DESERT #84	0000
246276	DESERT #85	0000	246277	DESERT #86	0000
246278	DESERT #87	0000	246279	DESERT #88	0000
246280	DESERT #89	0000	246281	DESERT #90	0000
246282	DESERT #91	0000	246283	DESERT #92	0000
246284	DESERT #93	0000	246285	DESERT #94	0000
246286	DESERT #95	0000	246287	DESERT #96	0000
246288	DESERT #97	0000	246289	DESERT #98	0000
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246294	DESERT #103	0000	246295	DESERT #104	0000
246296	DESERT #105	0000	246297	DESERT #106	0000
246298	DESERT #107	0000	246299	DESERT #108	0000
246300	DESERT #109	0000	246301	DESERT #110	0000
246302	DESERT #111	0000	246303	DESERT #112	0000
246304	DESERT #113	0000	246305	DESERT #114	0000
246306	DESERT #115	0000	246307	DESERT #116	0000
246308	DESERT #117	0000	246309	DESERT #118	0000
246310	DESERT #119	0000	246311	DESERT #120	0000
246312	DESERT #121	0000	246313	DESERT #122	0000

ARIZONA LEAD FILE NUMBER - 246152

BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
246314	DESERT #123	0000	246315	DESERT #124	0000
246316	DESERT #125	0000	246317	DESERT #126	0000
246318	DESERT #127	0000	246319	DESERT #128	0000
246320	DESERT #129	0000	246321	DESERT #130	0000
246322	DESERT #131	0000	246323	DESERT #132	0000
246324	DESERT #133	0000	246325	DESERT #134	0000
246326	DESERT #135	0000	246327	DESERT #136	0000
246328	DESERT #137	0000	246329	DESERT #138	0000
246330	DESERT #139	0000	246331	DESERT #140	0000
246332	DESERT #141	0000	246333	DESERT #142	0000
246334	DESERT #143	0000	246335	DESERT #144	0000
246336	DESERT #145	0000	246337	DESERT #146	0000
246338	DESERT #147	0000	246339	DESERT #148	0000
246340	DESERT #149	0000	246341	DESERT #150	0000
246342	DESERT #151	0000	246343	DESERT #152	0000
246344	DESERT #153	0000	246345	DESERT #154	0000
246346	DESERT #155	0000	246347	VULTURE #1	0000
246348	VULTURE #2	0000	246349	VULTURE #3	0000
246350	VULTURE #4	0000	246351	VULTURE #5	0000
246352	VULTURE #6	0000	246353	VULTURE #7	0000
246354	VULTURE #8	0000	246355	VULTURE #9	0000
246356	VULTURE #10	0000	246357	VULTURE #11	0000
246358	VULTURE #12	0000	246359	VULTURE #13	0000
246360	VULTURE #14	0000	246361	VULTURE #15	0000
246362	VULTURE #16	0000	246363	VULTURE #17	0000
246364	VULTURE #18	0000	246365	VULTURE #19	0000
246366	VULTURE #20	0000	246367	VULTURE #25	0000
246368	VULTURE #26	0000	246369	VULTURE #27	0000
246370	VULTURE #28	0000	246371	VULTURE #29	0000
246372	VULTURE #30	0000	246373	VULTURE #31	0000
246374	VULTURE #32	0000	246375	VULTURE #33	0000
246376	VULTURE #34	0000	246377	VULTURE #35	0000
246378	VULTURE #36	0000	246379	VULTURE #37	0000
246380	VULTURE #38	0000	246381	VULTURE #39	0000
246382	VULTURE #40	0000	246383	VULTURE #41	0000
246384	VULTURE #42	0000	246385	VULTURE #43	0000
246386	VULTURE #44	0000	246387	VULTURE #45	0000
246388	VULTURE #46	0000	246389	VULTURE #47	0000
246390	VULTURE #48	0000	246391	VULTURE #49	0000
246392	VULTURE #50	0000	246393	VULTURE #51	0000
246394	VULTURE #52	0000	246395	VULTURE #53	0000
246396	VULTURE #54	0000	246397	VULTURE #55	0000
246398	VULTURE #56	0000	246399	VULTURE #57	0000
246400	VULTURE #58	0000	246401	VULTURE #59	0000
246402	VULTURE #60	0000	246403	VULTURE #61	0000

ARIZONA LEAD FILE NUMBER - 246152

BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
246404	VULTURE #62	0000	246405	VULTURE #63	0000
246406	VULTURE #64	0000	246407	VULTURE #65	0000
246408	VULTURE #66	0000	246409	VULTURE #67	0000
246410	VULTURE #68	0000	246411	VULTURE #69	0000
246412	VULTURE #70	0000	246413	VULTURE #71	0000
246414	VULTURE #72	0000	246415	VULTURE #73	0000
246416	VULTURE #74	0000	246417	VULTURE #75	0000
246418	VULTURE #76	0000	246419	VULTURE #77	0000
246420	VULTURE #78	0000	246421	VULTURE #79	0000
246422	VULTURE #80	0000	246423	VULTURE #81	0000
246424	VULTURE #82	0000	246425	VULTURE #83	0000
246426	VULTURE #84	0000	246427	VULTURE #85	0000
246428	VULTURE #86	0000	246429	VULTURE #87	0000
246430	VULTURE #88	0000	246431	VULTURE #89	0000
246432	VULTURE #91	0000	246433	VULTURE #92	0000
246434	VULTURE #93	0000	246435	VULTURE #94	0000
246436	VULTURE #95	0000	246437	VULTURE #96	0000
246438	VULTURE #97	0000	246439	VULTURE #98	0000
246440	VULTURE #99	0000	246441	VULTURE #100	0000
246442	VULTURE #101	0000	246443	VULTURE #102	0000
246444	VULTURE #103	0000	246445	VULTURE #104	0000
246446	VULTURE #105	0000	246447	VULTURE #106	0000
246448	VULTURE #107	0000	246449	VULTURE #108	0000
246450	VULTURE #109	0000	246451	VULTURE #110	0000
246452	VULTURE #111	0000	246453	VULTURE #112	0000
246454	VULTURE #113	0000	246455	VULTURE #114	0000
246456	VULTURE #115	0000	246457	VULTURE #116	0000
246458	VULTURE #117	0000	246459	VULTURE #118	0000
246460	VULTURE #119	0000	246461	VULTURE #120	0000
246462	VULTURE #121	0000	246463	VULTURE #122	0000
246464	VULTURE #123	0000	246465	VULTURE #124	0000
246466	VULTURE #125	0000	246467	VULTURE #126	0000
246468	VULTURE #127	0000	246469	VULTURE #128	0000
246470	VULTURE #129	0000	246471	VULTURE #130	0000
246472	VULTURE #131	0000	246473	VULTURE #132	0000
246474	VULTURE #133	0000	246475	VULTURE #134	0000
246476	VULTURE #135	0000	246477	VULTURE #136	0000
246478	VULTURE #137	0000	246479	VULTURE #138	0000
246480	VULTURE #139	0000	246481	VULTURE #140	0000
246482	VULTURE #141	0000	246483	VULTURE #142	0000
246484	VULTURE #143	0000	246485	VULTURE #144	0000
246486	VULTURE #145	0000	246487	VULTURE #146	0000
246488	VULTURE #147	0000	246489	VULTURE #148	0000
246490	VULTURE #149	0000	246491	VULTURE #150	0000
246492	VULTURE #151	0000	246493	VULTURE #152	0000

ARIZONA LEAD FILE NUMBER - 246152

BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.	BLM SERIAL NUMBER	CLAIM NAME	LAST ASSMT.
246494	VULTURE #153	0000	246495	VULTURE #154	0000
246496	VULTURE #155	0000	246497	VULTURE #156	0000
246498	VULTURE #157	0000	246499	VULTURE #158	0000
246500	VULTURE #159	0000	246501	VULTURE #160	0000
246502	VULTURE #161	0000	246503	VULTURE #162	0000
246504	VULTURE #163	0000	246505	VULTURE #164	0000
246506	VULTURE #165	0000	246507	VULTURE #166	0000
246508	VULTURE #167	0000	246509	VULTURE #168	0000
246510	VULTURE #169	0000	246511	VULTURE #170	0000
246512	VULTURE #171	0000	246513	VULTURE #172	0000
246514	VULTURE #173	0000	246515	VULTURE #174	0000
246516	VULTURE ANNEX #1	0000	246517	VULTURE ANNEX #2	0000
246518	A LAN #1	0000	246519	A LAN #8	0000
246520	A LAN #15	0000	246521	A LAN #22	0000
246522	A LAN #29	0000	246523	A LAN #36	0000
246524	DESERT #1-A	0000	246525	DESERT #5A	0000
246526	DESERT #8A	0000	246527	DESERT #9A	0000
246528	VULTURE #81A	0000	246529	VULTURE #90A	0000

IN REPLY REFER TO:

United States Department of the Interior

(943)-ljc
A MC 246152

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
3707 N. 7th Street
Phoenix, Arizona 85014
(602) 241-5550

May 13, 1987

CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mining Claimant(s)
as Shown on the
Attached Sheet

Mining Claim(s)
as Shown on the
Attached Sheets 1 thru 5

DECISION
MINING CLAIMS DECLARED ABANDONED

The Federal Land Policy and Management Act (FLPMA) of 1976, 43 U.S.C. 1744, and the implementing regulations in 43 CFR 3833.2, require an annual filing for all mining claims recorded with the Bureau of Land Management. The Act provides that failure to file evidence of annual assessment work or a notice of intention to hold by December 30 each year shall be deemed conclusively to constitute an abandonment of the claim and it is void by operation of law. The constitutionality of Section 314 of FLPMA was upheld on April 1, 1985 by the United States Supreme Court in United States v. Locke et al., 471 U.S. 84, 129 (1985).

The Bureau of Land Management records do not show receipt of either an affidavit of annual assessment work performed or a notice of intention to hold for the claim(s) listed on the attached sheet(s) for the 1985-1986 assessment year.

If you did timely file an affidavit or notice of intention to hold with the Bureau of Land Management during 1986, notify this office. Please furnish a copy of the affidavit showing the Bureau of Land Management date and time stamp or other evidence of receipt by our office.

Your proof must show the required document was timely filed with the Bureau of Land Management during 1986, otherwise, it will not be accepted. The evidence must be received in this office no later than 30 days from receipt of this decision. If the proof is not furnished during this 30 day period, the claim(s) will be removed from our records as abandoned and void.

John T. Mezes
Chief, Branch of Lands &
Minerals Operations

cc: IBLA 86-239

DECONCINI McDONALD BRAMMER YETWIN & LACY

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

EVO DECONCINI (1901-1986)

JOHN R. McDONALD
RICHARD M. YETWIN
DINO DECONCINI
WILLIAM B. HANSON
DAVID C. ANSON
SPENCER A. SMITH
DENISE M. BAINTON
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MICHAEL R. URMAN
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FRANCES J. HAYNES
LUIS A. OCHOA
GARY F. URMAN
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2525 EAST BROADWAY BOULEVARD, SUITE 200
TUCSON, ARIZONA 85716-5303
(602) 322-5000
FAX: (602) 322-5585

2901 NORTH CENTRAL AVENUE, SUITE 1644
PHOENIX, ARIZONA 85012-2736
(602) 241-0100
FAX: (602) 241-0220

PLEASE REPLY TO TUCSON

February 11, 1992

RECEIVED FEB 12 1992

Ms. Carole O'Brien
A.F. BUDGE (MINING) LIMITED
4301 North 75th Street, Suite 105
Scottsdale, Arizona 85251-4630

Re: V.M.P., Inc. v. Clearwater Mining Corp.

Dear Carole:

Enclosed herewith is a copy of the Answer we have filed on behalf of Clearwater Mining Corporation in the above-referenced litigation. We will keep you apprised of further developments in this litigation as they occur.

Very truly yours,

Michael R. Urman

rl
enc

9202111453.mru1.900419

DeCONCINI McDONALD BRAMMER
YETWIN & LACY, P.C.
2525 E. BROADWAY BLVD., #200
TUCSON, ARIZONA 85716-5303
(602) 322-5000

Michael R. Urman, Esq.
State Bar No. 7611
Attorneys for Defendant Clearwater
Mining Corporation

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA

IN AND FOR THE COUNTY OF MARICOPA

V.M.P., INC., an Arizona corporation, Plaintiff, vs. CLEARWATER MINING CORPORATION, an Arizona corporation, as nominee of A.F. BUDGE (MINING) LIMITED, a foreign corporation, Defendants.	NO. CV 91-26975 ANSWER

Defendant Clearwater Mining Corporation, an Arizona corporation ("Clearwater"), answers Plaintiff's Complaint herein as follows:

1. Clearwater admits the allegations contained in paragraph 1 of Plaintiff's Complaint.

2. As to paragraph 2 of Plaintiff's Complaint, Clearwater admits that prior to termination of the Agreement and First Amendment at issue in this litigation, it was the nominee of A.F. Budge Mining Limited ("Budge"), a corporation registered under the

laws of England. Clearwater denies the remaining allegations in this paragraph.

3. Clearwater admits the allegations contained in paragraph 3 of Plaintiff's Complaint.

4. In response to paragraph 4 of Plaintiff's Complaint, Clearwater admits that on or about July 1, 1984, V.M.P. and Budge entered into an Option and Lease Agreement concerning patented and unpatented mining claims in Maricopa County, Arizona (the "Agreement"). Clearwater denies the remaining allegations of this paragraph because Clearwater's copy of the Complaint contained no exhibits.

5. In response to paragraph 5 of Plaintiff's Complaint, Clearwater admits that on or about February 1, 1985, V.M.P. and Budge entered into a First Amendment to the Agreement (the "First Amendment"). Clearwater denies the remaining allegations of this paragraph because Clearwater's copy of the Complaint contained no exhibits.

6. Clearwater denies the allegations contained in paragraph 6 of Plaintiff's Complaint.

7. In response to paragraph 7 of Plaintiff's Complaint, Clearwater admits that Plaintiff by letter dated May 9, 1990 (the "Default Letter"), Plaintiff gave notice of various alleged events of default under the Agreement and/or First Amendment. Clearwater denies the remaining allegations of this paragraph.

8. Clearwater denies the allegations of paragraph 8 of Plaintiff's Complaint.

9. Clearwater denies the allegations of paragraph 9 of Plaintiff's Complaint.

10. In response to paragraph 10 of Plaintiff's Complaint, Clearwater admits that the Agreement and First Amendment were terminated effective as of May 3, 1991.

11. Clearwater admits the allegations contained in paragraph 11 of Plaintiff's Complaint.

12. In response to paragraphs 12, 13 and 14 of Plaintiff's Complaint, Clearwater denies that Plaintiff is entitled to any relief sought in this action.

13. Clearwater denies each and every allegation of Plaintiff's Complaint not specifically admitted herein.

14. Clearwater alleges that Plaintiff's Complaint fails to state any claim for which relief may be granted.

15. As a defense to Plaintiff's allegations herein, Clearwater asserts that Plaintiff is entitled to no relief whatsoever for the reasons expressed in the May 24, 1990 response to Plaintiff's Default Letter attached hereto as Exhibit A, which exhibit is incorporated herein by this reference.

16. As and for affirmative defenses, Clearwater asserts waiver, estoppel, payment, laches, statute of limitations and the statute of frauds. Additional affirmative defenses may be revealed by discovery.

17. Clearwater is entitled to an award of its reasonable attorneys' fees incurred in the defense of this action.

WHEREFORE, Clearwater requests that Plaintiff's Complaint herein be dismissed and that Plaintiff take nothing thereby, and that Clearwater receive an award of its reasonable attorneys' fees and costs incurred in the defense of this matter, along with such other and further relief as the court deems appropriate.

Respectfully submitted this 11th day of February, 1992.

DeCONCINI McDONALD BRAMMER
YETWIN & LACY, P.C.

By _____
Michael R. Urman
2525 East Broadway, Suite #200
Tucson, Arizona 85716-5303
Attorneys for Defendant Clearwater

COPY of the foregoing mailed
this 11th day of February, 1992, to:

W. Scott Donaldson, Esq.
301 West Indian School Road, Suite 102
Phoenix, Arizona 85013-3214
Attorney for Plaintiff

ORIGINAL of the foregoing
delivered this 12th day of
February, 1992, to:

Clerk of the Court
Maricopa County Superior Court
101/201 West Jefferson
Phoenix, Arizona 85003

9202041014.mru1.900419

MRL

DeCONCINI McDONALD BRAMMER YETWIN & LACY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

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2901 NORTH CENTRAL AVENUE, SUITE 1644
PHOENIX, ARIZONA 85012-2736
(602) 241-0100
FAX: (602) 241-0220

May 24, 1990

PLEASE REPLY TO TUCSON

V.M.P., Inc.
c/o Scott Donaldson, Esq.
Attorney at Law
301 W. Indian School Road
Suite 102
Phoenix, AZ 85013-3214

Re: **Vulture Mine Properties, Inc. - A. F. Budge (Mining) Limited; Option and Lease Agreement, Notice of Default dated May 9, 1990**

Gentlemen:

This letter is in response to Mr. Scott Donaldson's letter dated May 9, 1990, which was styled as a Notice of Default on behalf of V.M.P., Inc. under the referenced Agreement (the "Notice"). This letter is in response to the allegations contained in the Notice.

Item Number 1:

By Item No. 1 of the Notice, it is asserted that the actions undertaken by A. F. Budge and Western Technologies in performing a remediation of certain material removed from land outside of the land subject to the Agreement is not "mineral exploration" nor "mining activities" as granted under the terms of the Agreement. All of the actions related to the bio-remediation complained of are being taken on portions of the Vulture City Townsite purchased by A.F. Budge (Mining) Ltd., from the Superior Court of the State of Arizona, which land is the sole property of A.F. Budge and not subject to the terms of the Agreement.

Items Number 2, 3, and 5:

Items Nos. 2, 3, and 5 of the Notice are inter-related and will thus be discussed together.

EXHIBIT A

As to the assertion in Item No. 2, V.M.P. has previously been requested by A. F. Budge to approve an assignment of the Agreement to Arizona Explorations, Inc. and V.M.P. refused to take any action and has also insisted on some sort of money payment for the transfer, which payment is not required by the Agreement. By the Notice, the only basis for this refusal is that requisite federal permits for operations on the Property have not been obtained by Arizona Explorations. It is the position of A. F. Budge that V.M.P. originally withheld approval of the assignment without reasonable cause as evidenced by the fact that only post-assignment operations form the basis for the allegations of the Notice. Further, the deficiency asserted as set forth in Item No. 3 is that "as of May 4, 1990, Arizona Exploration is conducting those activities without having applied for or obtained the requisite federal permits or notices." To date, Arizona Explorations has drilled two holes on the property, both of which have been on patented mining claims and therefore has filed requisite notices with the Arizona Department of Water Resources for the drilling and completion of these drill holes. Because these activities have <u>not</u> taken place on federal land, it is A. F. Budge's position that no additional permitting is required and therefore there has been full compliance with the terms of the Agreement.

These facts also relate to the allegations of Item No. 5, by which it is asserted that certain payments have not been made as required by the Agreement because such payments have been tendered by Arizona Explorations without approval of the assignment. However, since no violation of the terms of the Agreement exists, as discussed above, V.M.P. is in no position to assert that it cannot accept payments from Arizona Explorations.

<u>Item Number 4</u>:

Under the allegations contained in Item No. 4 of the Notice, V.M.P. has asserted that A. F. Budge has failed to properly maintain all of the unpatented mining claims as required by Sections 6.a. and 6.f.(1) of the Agreement. This assertion apparently stems from two letters addressed to V.M.P. from the United States Bureau of Land Management dated May 12 and 13, 1990, wherein it was asserted that certain mining claims were being voided as a result of improper filings of annual assessment work. Subsequent to receipt of these letters, and as a result of actions taken by A. F. Budge, this decision of the Bureau of Land Management was vacated in part by a letter to Mr. Larry Beal on April 10, 1990, which decision reinstated all of the mining

claims subject to the Agreement with the exception of the Vulture ## 81-83, 81A and VMP 6 and 7.

In this regard, I call your attention to the fact that the Vulture #81, #81A, #82 and #83, were declared null and void by a decision of the Arizona State Office of the Bureau of Land Management dated December 5, 1985, for the reason that these mining claims were located within the limits of the Vulture City Townsite and thus were void from their inception. As you will recall, this decision was appealed to the Interior Board of Land Appeals and was affirmed by an Order dated November 3, 1987. The possibility of taking appeal from this decision was then discussed with Mr. Scott Donaldson and the decision was made to not appeal to the United States Federal District Court.

As for the VMP 6 and 7, these claims were originally located on land owed by the State of Arizona (Section 2) and were therefore void from their inception.

Item Number 6:

By Item No. 6, the assertion is made that V.M.P. is owed $75,000.00 as a production bonus payment. Under the terms of subsection g of Section 4 of the Agreement, if A. F. Budge elects to commence mineral production on the Property, V.M.P. was to be paid a one time production bonus of $75,000. The "commencement of production" under the terms of the Agreement occurs when:

> . . . Budge commits to the expenditure of funds for a full-scale development of the Property based on the conclusions of a feasibility study and shall not include a pilot plant, bulk sampling or other large volume metallurgical or mine testing. The production bonus shall be paid on or before 30 days after Budge's announcement to its stockholders that production will commence.

The activities that Budge has undertaken on the Property consists of reprocessing mine tailings from the Pit Gold patented mining claim and from within portions of the Vulture City Townsite which operation was not based on any mine feasibility study. The parties contemplated that actual mining operations would be required as a prerequisite to this payment as evidenced by the contractual provision making the payment contingent upon "a full-scale development of the Property." The reprocessing of

the tailings is not a "mining operation" in the strict sense of the word and the terms of the Agreement for purposes of the production bonus. No claim has ever been asserted that V.M.P. is not entitled to royalties on metal values recovered from the tailings.

Further, other provisions of the Agreement suggest that the tailings reprocessing would not be the "full-scale mining" contemplated by the Agreement because if such processing were considered full-scale mining, such construction would cause considerable problems in the long-range development of the Property because once "production" commences, the term is fixed on the continuation of production. The reprocessing of the tailings is a relatively short-term activity and the intent of the parties was that the full-scale production would constitute a mining operation and not a short-term reprocessing operation of the mine tailings.

Item Number 7:

By Item No. 7 of the Notice, it was stated that A. F. Budge had refused to convey the Vulture City Townsite to V.M.P. in violation of the terms of the Agreement. By the terms of subsection c of Section 7 of the Agreement, if title to any of the Property was defective, A. F. Budge was authorized to "perfect, defend or initiate litigation to protect such title." Further, in the course of such activities, A. F. Budge was permitted to deduct the cost of "perfecting, defending or correcting title (including . . the cost of releasing or satisfying any mortgages, liens and encumbrances) . . ." Thus, the Agreement clearly contemplates that some sort of correction of defects in title would be entailed. As referred to above, in this case, the Bureau of Land Management rejected a number of mining claims that were situated within the limits of what turned out to be the Vulture City Townsite in effect holding that V.M.P. never had any title to the ground in question.

After appealing the Bureau of Land Management decision without success, A. F. Budge took certain actions to acquire title to the unsold portions of the Vulture City Townsite from the Judge of the Arizona Superior Court for Maricopa County (as the successor in interest to the Probate Judge who was granted the original title as trustee for the occupants of Vulture City). Such purchase was not a perfection or defense of V.M.P.'s title to the Property, but was instead the acquisition of new rights from a third party. There are instances under the Agreement

where such new rights are to be included under the Agreement, but it appears that the instances when any such new rights will be included within the terms of the Agreement are limited to the location of mining claims within the "Area of Interest" as specified under Section 12 of the original Agreement.

When application was made to purchase the unsold portions of the Vulture City Townsite by Ben F. Dickerson, then acting as manager for A.F. Budge, because the "Pit Gold" patented mining claim was also within the boundaries of the townsite patent and therefore might be found to be illegally issued, this office prepared the requisite paperwork to permit V.M.P. to purchase that portion of the townsite that was in conflict with the Pit Gold. As a part of this process Mr. Dickerson purchased 109.239 acres and Mr. Beal purchased 20.661 acres. Separate Quitclaim Deeds to Unclaimed Townsite Lots were signed on March 4, 1987, granting the separate parcels to Vulture Mine Properties, Inc., an Arizona corporation and to Ben F. Dickerson, III. This interest was later acquired by A.F. Budge (Mining) Limited from Mr. Dickerson's estate. The total cost of acquisition to A. F. Budge included, without limitation, $12,046.83 in legal fees and other costs associated with the action, an appraisal fee of $1,500, the purchase price of $16,400.00, a survey bill of $5,409.72, and approximately $10,000.00 of time allocated to personnel of A.F. Budge. At the time of the application, Mr. Beal never asserted that the separate acquisition of title was to be for his benefit, as for example, the perfection of the Pit Gold patented claim was, nor has Mr. Beal ever offered to pay the costs associated with such acquisition.

Item Number 8:

By Item No. 8 of the Notice, it has been asserted that A. F. Budge has failed to employ John Osborne. Compensation to be paid to Mr. Osborne by A. F. Budge has, to the knowledge of personnel of A. F. Budge, been referred to in only one document, which document is a 1984 "Memorandum of Understanding" providing for compensation to James and John Osborne for certain work during a preliminary or "option" term of the Agreement, but providing that:

> If Budge exercises its option, the parties shall negotiate in good faith to achieve a reasonable use of services that might be provided by John and James Osbore [sic], provided, however, that the decision to

use or not use such services shall be within the sole discretion of Budge.

This provision thus refers to the option granted under the terms of the Agreement, the application provision of which (Section 3) provides that:

> Unless sooner terminated under the termination provisions herein contained, the term of the option shall be for one year but may be further extended for an additional year by Budge. Thereafter, if the option is exercised, this Agreement shall be for a term of twenty (20) years commencing on the effective date of the exercise of the option and for so long thereafter as Leased Substances are continuously produced from the Property.

By the First Amendment to Option and Lease Agreement effective February 1, 1985, A. F. Budge exercised its option to lease the Property, and after having used Mr. John Osborne's services for an additional period of time, in August, 1988, advised Mr. Osborne that no further assistance was required.

A. F. Budge has fully complied with any obligations to V.M.P. regarding Mr. Osborne, and under the terms of the applicable provisions, has the sole discretion whether or not to use Mr. Osborne's services.

I hope that the foregoing answers the allegations contained in the Notice. However, inasmuch as the Agreement requires the filing of an action in Superior Court if a disagreement exists over any assertion of default, A.F. Budge intends to file such an action concerning all allegations referred to in the Notice dated May 9, 1990, within the next several days unless advised that the allegations are no longer considered deficiencies based on the contents of this letter.

Very truly yours,

John C. Lacy

c: A. F. Budge
Carole A. O'Brien
Stanley W. Holmes
0517900310.jcl2.840127

SILVER VALLEY LABORATORIES, INC.
P.O. Box 929 - One Gov't Gulch
Kellogg, Idaho 83837
(208) 784-1258

KAPPES,CASSIDY, & ASSOC. - R.DIX
1845 GLENDALE AVE.
SPARKS, NV 89431
CC: A.F. BUDGE - CAROLE O'BRIEN
4301 N. 75TH ST. #101 - SCOTTSDALE, AZ 85251

OCTOBER 23, 1989 MISC0201.292

TEST FOR:	Au	Ag
METHOD:	DORE	DORE
USED:	—	—
RESULTS IN:	%	%
11182	13.751	35.96

CHARGES	$75.00
TOTAL CHARGES	$75.00

Wayne Sorensen, Manager

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

February 5, 1990

Larry W. Beal
President
V.M.P., Inc.
1414 E. Purdue
Phoenix, AZ 85020

Dear Larry:

Enclosed is our check, in the amount of $5,000.00, paid on behalf of A.F. Budge (Mining) Limited, representing the advance minimum royalty due on the Vulture Mine property for February.

The average Handy and Harman quoted gold price for December and January was $409.67; payment due per schedule, $5,000.00.

Sincerely,

Carole A. O'Brien
Carole A. O'Brien
Mining & Financial Coordinator

encl (1)

A. F. BUDGE MINING, LTD.
4301 N. 75TH ST., STE. 101
SCOTTSDALE, AZ 85251-3504

5054

91-170/1221

6 February 19 90

PAY TO THE ORDER OF --- V.M.P., Inc. --- $ 5,000.00

--- Five Thousand & 00/100 --- DOLLARS

SECURITY PACIFIC BANK ARIZONA
Lincoln & Scottsdale Office (055)
6501 N. Scottsdale
Scottsdale, Arizona 85253

MEMO Advance Royalty: February

Carole A. O'Brien

⑈005054⑈ ⑆122101706⑆ 055⑈727178⑈

H E I N R I C H K L I N G

METALLURGICAL TECHNOLOGY

611 S. STAUNTON

TUCSON, AZ 85710

(602) 885-7239

July 4 days $ 600
Aug 2400
Sept 21 days 3150
Oct 2700
Nov 17 days 2550
Dec. 3300
$ 14700
516-62-4832

A.F. Budge (Mining) Limited
Attn.: Dale H. Allen
7340 E. Shoeman Lane
Suite III "B" (E)
Scottsdale, AZ 85251

SERVICES RENDERED AT VULTURE MINE, WICKENBURG AZ:

JULY 2, 1988	UNPACKING AND SORTING-OUT OF TECHTRON AA 4 EQUIPMENT	$ 150.00
JULY 3, 1988	SET-UP OF AA 4 UNIT	$ 150.00
JULY 22, 1988	TESTING OF ELECTRICAL AND MECHANICAL PARTS OF AA 4 UNIT.	$ 150.00
JULY 23, 1988	STANDARDISATION OF AA 4 UNIT	$ 150.00

TOTAL MILEAGE ACCUMULATED BETWEEN TUCSON AND VULTURE MINE (WICKENBURG)
810 miles per $ .22½ $ 182.25

$ 782.25

DATED 08/01/88

Heinrich Kling
HEINRICH KLING

RECEIVED AUG 3 1988

H E I N R I C H K L I N G

METALLURGICAL TECHNOLOGY

611 S. Staunton

TUCSON, AZ 85710

(602) 885-7239

A.F. Budge (Mining) Limited
Attn: Dale H. Allen
4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

SERVICES RENDERED TO A.F. BUDGE MINING LIMITED AT THE VULTURE MINE IN WICKENBURG AZ, FROM SEPTEMBER 1, 1988 THROUGH SEPTEMBER 30, 1988.

A TOTAL OF 21 DAYS WAS SPENT AT THE VULTURE PROPERTY.

21 DAYS X $150.00	= $3,150.00
TOTAL MILEAGE ACCUMULATED BETWEEN TUCSON AND VULTURE MINE (WICKENBURG) 1958 MILES PER $.22½	= 440.55
	$3,590.55

DATED 09/02/1988

Heinrich Kling

HEINRICH KLING

H E I N R I C H K L I N G

METALLURGICAL TECHNOLOGY

611 S. Staunton

TUCSON, AZ 85710

(602) 885-7239

A.F. Budge (Mining) Limited
Attn: Dale H. Allen
4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

SERVICES RENDERED TO A.F. BUDGE MINING LIMITED AT THE VULTURE MINE IN WICKENBURG AZ, FROM Nov. 7, 1988 THROUGH Nov. 30, 1988.

A TOTAL OF 17 DAYS WAS SPENT AT THE VULTURE PROPERTY.

17 DAYS X $150.00	=	$2,550.00
TOTAL MILEAGE ACCUMULATED BETWEEN TUCSON AND VULTURE MINE (WICKENBURG) = 1520 MILES PER $.22½		342.00
		$2,892.00

RECEIVED DEC 5 1988

DATED December 1, 1988

Heinrich Kling

HEINRICH KLING

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

January 9, 1987

Sergent, Hauskins & Beckwith
3232 W. Virginia
Phoenix, AZ 85009

Attention: Lawrence A. Hansen, Ph.D., P.E.
Vice President

Re: SHB Proposal No. 86-12-10

Gentlemen:

This letter will serve as authorization for Sergent, Hauskins and Beckwith (SHB) to provide geotechnical and hydrological engineering services to A.F. Budge (Mining) Limited.

These services will be limited to those outlined in SHB Proposal No. 86-12-10 and Addendum No. 1 and shall incorporate such modifications as needed and directed by A.F. Budge (Mining) Limited.

It is understood that work will commence on January 12, 1987 and will be completed, barring any unforeseen circumstances, on or about April 1, 1987.

We look forward to working with SHB on this project.

Very truly yours,

A.J. Fernandez
Senior Mining Engineer

AJF:ca

SERGENT, HAUSKINS & BECKWITH CONSULTING GEOTECHNICAL ENGINEERS

APPLIED SOIL MECHANICS • ENGINEERING GEOLOGY • MATERIALS ENGINEERING • HYDROLOGY

B DWAINE SERGENT, P.E.
LAWRENCE A. HANSEN, PH.D., P.E.
RALPH E. WEEKS, P.G.
DARREL L. BUFFINGTON, P.E.
DONALD VAN BUSKIRK, P.G.
DALE V. BEDENKOP, P.E.
JOHN B. HAUSKINS, P.E.
MICHAEL L. RUCKER, P.E.
ROBERT W. CROSSLEY, P.E.
JONATHAN A. CRYSTAL, P.E.
PAUL V. SMITH, P.G.
NORMAN H. WETZ, P.E.
GEORGE H. BECKWITH, P.E.
ROBERT L. FREW
JAMES H. CLARY, C.P.G.
NICHOLAS T. KORECKI, P.E.
GERALD P. LINDSEY, P.G.
RONALD E. RAGER, P.G.
ROBERT D. BOOTH, P.E.
SUANG CHENG, P.E.
JAMES R. FAHY, P.E.
MICHAEL HULPKE, P.G.
DAVID E. PETERSON, P.G.
ALBERT C. RUCKMAN, P.E.
PAUL KAPLAN, P.E.

August 26, 1987

A. F. Budge (Mining) Limited
7340 East Shoeman Lane
Suite 111 "B" (E)
Scottsdale, Arizona 85251-3335

SHB Proposal No. 87-8-28

Attention: A. J. Fernandez
Senior Mining Engineer

Re: Heap Leach Facility Design
Vulture Mine Project
Near Wickenburg, Arizona

Gentlemen:

In response to the request of A. J. Fernandez, Senior Mining Engineer of A. F. Budge (Mining) Limited (AFB), presented herein is Sergent, Hauskins & Beckwith Geotechnical Engineers, Inc.'s (SHB) proposal for providing engineering services for final design of the heap leach facility for the Vulture Mine project.

These services would include the following:

1. Preparation of final plans and technical specifications for the final arrangement of the facilities, and for the diversion channel.

2. Consultation with AFB concerning monitoring plans, as discussed in the letter to AFB from the Arizona Department of Environmental Quality (ADEQ) dated August 5, 1987, including meetings with ADEQ, as required.

3. Technical assistance to AFB regarding other requirements, comments or questions posed in the ADEQ letter of August 5, 1987, including design of the containment/disposal facilities, contingency plans and closure plans.

4. Development of plans and technical specifications for the leak collection/detection system selected to meet the requirements of the ADEQ.

The scope of work for Item 1 was outlined in SHB's original proposal for the project dated December 4, 1986 (with Addendum No. 1 dated December 16, 1986). It is our understanding the required size of the leach pad has been reduced from that shown in the preliminary plans. It is presently proposed to leach only the existing tailings, though trial leaching of ore from the open pit may also be accomplished. Preparation of final design plans would incorporate these project changes as necessary. Development of final plans for the leach pad, pond and diversion channel areas will require topographic mapping having a maximum contour interval of 2 feet, particularly in the diversion channel area. It is our understanding AFB will provide the required mapping for these areas.

The scope of work for Items 2 and 3 above is general and cannot be completely defined at this time. However, several alternatives for collection/detection systems at the perimeter of the pad and storm water pond can be considered, including collection wells, cased holes for neutron logging of moisture changes and horizontal wick drains beneath the

pad. In addition, discussions of the need for collection/ detection systems for certain facilities will be developed considering the secondary containment provided by geologic conditions, the attenuation of cyanide by site soils, the very short operational life of the leach pad and other factors.

The scope of services for Item 4 will be dependent on the agreements anticipated to be reached between AFB and ADEQ as part of Item 2. However, design and installation details for the monitoring system selected would be developed and included with the final plans and technical specifications.

Development of plans and specifications can begin as soon as this proposal is accepted and a notice-to-proceed is received. It is estimated that between two and three weeks will be required to complete this item of the scope of work. Completion of Items 2, 3 and 4 cannot be predicted with certainty; however, the work can begin at the same time as Item 1.

Our original estimate of charges for providing final design plans and technical specifications was $4,000.00 . Since the overall scope of the facility has not changed significantly, this same amount is still proposed for Item 1. Though detailed costs for Items 2, 3 and 4 cannot be predicted, it is proposed that a budget amount of $2,000.00 be established. SHB will keep AFB appraised of all charges to

the project in a timely manner, and will not exceed the total budgeted amount of $6,000.00 without prior approval.

Should there be any questions concerning this proposal, we would be pleased to discuss them with you.

Respectfully submitted,
Sergent, Hauskins & Beckwith Engineers

By _____
Lawrence A. Hansen, Ph.D., P.E.

Copies: Addressee (2)

MILLSAPS MINERAL SERVICE, INC.

April 26,1988

Ms. Carole O'Brien
A.F. Budge Mining Ltd.
Suite 111 B East
7340 E. Shoeman Lane
Scottsdale, Arizona 85251

Dear Carole:

I am enclosing a proposal from State Inc to furnish personnel for the operation of the Vulture. I really can't see what the benefit to Budge will be by taking this. However, for what it is worth I am sending it on. The principal employee is the same person that Custom had in mind,

I am also enclosing a copy of a prospectus on the divide property in Nevada which Jim Prudden has on the block. Back in the early 1980s Falcon Exploration mined the oxide capping for a heap leach. The heap leach was not too successful as Falcon would not agglomerate the ore. The ore contained about 15% clay material which not only washed out into the process, but also plugged the heap.

I don't know what kind of a deal Jim will make on this, but I suspect he will want some front end money, and maybe a piece of the action. He is not poor right now as he is just finishing the job in Alaska and has signed a 6 months consulting contract with Pegasus.

Also I am enclosing a copy of the letter I am sending to Englehard, Handy and Harman, and to Leach and Garner.

As Ever,

Frank

ROOM 202 - 3865 WASATCH BLVD., SLC, UT 84109...(801)277-7130 OFC./277-0750 HOME

State INCORPORATED

CONSTRUCTION SERVICES
P.O. Box 7762, Salt Lake City, Utah 84107

April 25, 1988

Millsaps Mineral Service Inc.
3865 Wasatch Blvd.
Salt Lake City, Utah

Attention: Mr. Frank Millsap
President

RE: Vulture Project
A.F. Budge (Mining) LTD.
Heap Leach Gold Recovery Plant

Dear Sir:

STATE INCORPORATED proposes to provide personnel required for the operation of the Vulture Project. Remuneration to STATE INCORPORATED for providing the personnel shall be three (3) percent of the operating cost related to the personnel provided plus seven (7) per cent of the project's gross profit.

The personnel provided shall be placed on the projects payroll and shall receive all pertinent benefits that such payroll should provide (i.e. health insurance, pension, vacation, etc.). Also, all payroll taxes and insurance shall be a project expense.

Requirements for operation under MSHA shall be an expense of the project. Any requirements for safety personnel and/or first aid personnel on a dedicated basis shall be additional to the basic personnel provided.

Basic personnel to be provided are:

Classification	Number	Wage Rate
Plant Manger	1	$ 25.00
Operation Foreman	1	$ 15.00
Process Operators	3	$ 13.00
Labor Type	4	$ 8.50
Security Guard	1	$ 8.50

Please inform us of any other requirements that you may have.

Sincerely Yours,
STATE INCORPORATED

Lloyd McEwan
President

LM:ep

MILLSAPS MINERAL SERVICE, INC.

April 26,1988

Leach and Garner
255 John L. Deatch Blvd.
P.O. Box 255
North Attleborough, Ma. 02761

Dear Sir:

We have a client who will be producing about 150 to 200 ounces per week of dore' by the end of June or the first part of July. We would like to know if you are interested in refining this dore' and if so what are your terms of treatment.

Please send details to:
Ms. Carole O'Brien, Manager
A.F. Budge Mining Ltd
Suite 111 B East
7340 East Shoeman Lane
Scottsdale, Arizona 85251

Very truly yours,

Frank W. Millsaps
Millsaps Mineral service, Inc

ROOM 202 - 3865 WASATCH BLVD., SLC, UT 84109...(801)277-7130 OFC./277-0750 HOME

Aranda

January 12, 1988

Mr. L. W. Beal
P. O. Box 20202
Wickenburg, Arizona 85358

Dear Mr. Beal:

The purpose of this letter is to express our interest in purchasing the mining claims which, according to the records of the Bureau of Land Management, you own in Township 5N, Range 5W.

Our interest in acquiring these claims stems from the fact that we own some property that the United States government wishes to acquire by means of exchanging certain lands now managed by the Bureau of Land Management. One of the properties that the Bureau has proposed for exchange purposes are those certain lands lying in Township 5N, Range 5W. There are several requirements that must be met before any Federal Lands can be exchanged, one of which is that the lands be free of any mining claims. Consequently, before we would be able to take any of the proposed exchange lands lying in the above-noted Township and Range, we would need to acquire and terminate the current mining claims.

While it is not mandatory that we take the above-described properties, we do have an interest in these lands, providing we are able to successfully clear the mining claim issues. Therefore, we would appreciate hearing from you in this regard, and would like to have the opportunity to meet with you or discuss with you by telephone the possible acquisition of your mining claims.

Please call me at 991-6610 at your earliest convenience, in order that we can determine whether or not we can proceed with these properties. Your cooperation in this regard would be greatly appreciated.

Thank you for your attention.

Yours truly,

Gary Torhjelm

GT/dmt

ARANDA PROPERTIES, INC.
8300 North Hayden Road — Suite 204 — Scottsdale, Arizona 85258
Phone 602-991-6610

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)

Telephone: (602) 945-4630
Telex: 751739

February 24, 1988

John Osborne
P.O. Box 1869
Wickenburg, AZ 85358

Dear John:

Please be advised that on Monday, February 29, 3 geologists will be visiting the Vulture property with our permission. These gentlemen are Steve Reynolds, Jon Spencer and Ed Dewitt. They will be mapping and taking samples for several days.

Please allow them access to the property.

Thank you.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien

c: Steve Reynolds
Don White

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

February 23, 1988

Robert L. Frew
Vice President
Sergent, Hauskins & Beckwith
Geotechnical Engineers, Inc.
3232 W. Virginia
Phoenix, AZ 85009

Dear Bob:

This letter is a matter of record and follow-up to our telephone conversation this morning during which I indicated our displeasure in what appears to be a lackadaisical approach to our request for assistance in soliciting contractors and obtaining construction management assistance from Sergent, Hauskins and Beckwith.

My initial request to you at the beginning of February elicited a proposal (SHB No. 88-2-6) by Dale S. Parker, Field Services Coordinator, which was hand delivered to our office on February 5. Verbal authorization to proceed with this proposal was given to Mr. Parker on Wednesday, February 10. Mr. Parker indicated that a Mr. Philip T. (Pete) LaHue would be in charge of contacting contractors and assembling the bid documents. On Tuesday, February 16, I spoke with Mr. LaHue concerning potential contractors. During this conversation, Mr. LaHue indicated that the bid package would be put "...together next week."

On Saturday, February 20, I received correspondence from Mr. LaHue concerning SHB Job No. E88-41 and copies of a Professional Services Agreement. Mr. LaHue states, "On the basis of your telephoned authorization, we are proceeding with the preparation of the bid documents."

I called Mr. LaHue yesterday, Monday, February 22 for an update and he indicated that he would not be able to prepare the bid documents until next week, citing his need to confer with Nick La Fronz on some aspects of the project.

In Mr. Parker's original proposal of February 5, an estimate of 80 hours was given for preparation of bid documents, prebid conference, site tour, bid opening, analysis and award contract. Based on this estimate, and allowing a week to organize, we had hoped for a contract to be awarded by the first week in March.

Because Sergent, Hauskins & Beckwith had done the original designs, it seems logical to follow through with construction management, etc. Mr. Budge is concerned with the time lag between the verbal authorization to proceed on the 10th, and intimations that bid documents will not be ready until next week.

We would appreciate any assistance you may be able to provide to bring the first phase, i.e. selection of an appropriate contractor, to fruition.

If any serious delays or conflicts in schedules are anticipated, please advise so that we may pursue an alternate course of action.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Registered & Certified Geologist
Mining Coordinator for
A.F. Budge (Mining) Limited

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

January 29, 1990

Arizona Explorations Inc.
8433 N. Black Canyon Highway
Suite 158
Phoenix, AZ 85021

via FAX: 864-6116

Dear Stan:

I am in dire need of some information in the files on the Vulture which you received from our office.

In March of 1987, we drilled several holes in the vicinity of our leach pads. These were condemnation holes, and numbered C-1, C-2, etc.

Would you please fax the logs of these holes, which were prepared by Peter H. Hahn. I promised the Department of Environmental Quality I would send them the information as soon as possible.

Your assistance in this request would be greatly appreciated.

Sincerely,

Carole.

Carole A. O'Brien

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS

MARICOPA SECTION

January 23, 1990

Security Savings
2390 East Camelback Road
Phoenix, Arizona 85016

Attention: Rhoda

Re: Account 118086131-09
Maricopa Section A.I.M.E.

Please be advised that we have changed officers in our organization. The new Treasurer is Michael J. Moore. Would you please make the following change in your records to show his new mailing address:

Mr. Michael J. Moore, Treasurer
Maricopa Section A.I.M.E.
P.O. Box 5361
Scottsdale, AZ 85261

Mr. Moore's signature, below, should replace my own on this account.

Thank you.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
former Secretary-Treasurer

_____

Michael J. Moore

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

January 16, 1990

Larry W. Beal
President
V.M.P.,Inc.
1414 E. Purdue
Phoenix, AZ 85020

Dear Mr. Beal:

This letter will confirm our telephone conversation this morning in which we scheduled a meeting to be held at 9 a.m. on Monday, January 29, 1990 at our Scottsdale office.

I look forward to discussing with you the future of the Vulture property and other matters.

Please call should the opportunity arise that we can meet earlier than January 29.

Very truly yours,

Ronald R. Short
General Manager

RRS:ca

c: S. Donaldson
J. Lacy

PLACER DOME U.S. INC.
ONE CALIFORNIA STREET, SUITE 2500
SAN FRANCISCO, CALIFORNIA 94111-5472
(415) 986-0740
TELEX 33-0488
TELECOPIER (415) 397-0747

January 30, 1990

Dr. Stanley W. Holmes,
President
Arizona Explorations Inc.
8433 N. Black Canyon, Ste. 158
Phoenix, Arizona 85021

Dear Dr. Holmes:

This letter will confirm that Placer Dome U.S. Inc. is a financing partner of the Arizona Explorations Inc. Syndicate, along with Prime Resources Corp. and American Barrick Resources Corp.

We acknowledge that Arizona Explorations Inc., an Ontario, Canada Corporation (#853332) was formed for the purpose of evaluation, acquisition and exploration of mineral properties in the State of Arizona, U.S.A. We also wish to acknowledge that the Syndicate has been incorporated and registered for business practices in the State of Arizona under the name "Arizona - Ontario Explorations, Inc.".

Sincerely,

E. Gonzalez-Urien
Vice President-Exploration

EGU:ea

PRG ARIZONA EXPLORATIONS PARTNERSHIP

TELEPHONE (604) 687-7463
TELECOPIER (604) 681-2578
TELEX: 04-508542

PRIME CAPITAL PLACE, 11th Fl., Box 10, 808 W. Hastings St., VANCOUVER, B.C., CANADA, V6C 2X4

VIA COURIER

January 22, 1990.

Dr. Stanley W. Holmes,
President,
Arizona Explorations Inc.,
8433 N. Black Canyon, Ste. 158,
Phoenix, Arizona 85021,
U.S.A.

Dear Dr. Holmes:

This letter will confirm that PRG Arizona Explorations Partnership is a financing partner of the Arizona Explorations Inc. Syndicate along with Placer Dome Inc., and American Barrick Resources Corp.

We acknowledge that Arizona Explorations Inc., an Ontario, Canada Corporation (#853332) was formed for the purpose of evaluation, acquisition and exploration of mineral properties in the State of Arizona, U.S.A. We also wish to acknowledge that the Syndicate has been incorporated and registered for business practices in the State of Arizona under the name "Arizona - Ontario Explorations, Inc.".

Yours very truly,

PRG ARIZONA EXPLORATIONS PARTNERSHIP
by PRG Project Development Corp.
its Managing Partner

Per: JOHN IVANY, President

/blf

AMERICAN BARRICK RESOURCES CORPORATION

January 19, 1990

Dr. Stanley W. Holmes
President
Arizona Explorations Inc.
c/o Exodyne Business Park
8433 North Black Canyon
Suite 158
Phoenix, Arizona 85021

Dear Dr. Holmes:

This letter will confirm that Barrick Gold Exploration Inc. is a member of the Arizona Exploration Syndicate pursuant to the terms of the Agreement dated 1 November, 1989 among Placer Dome U.S. Inc., PRG Arizona Explorations Partnership, Stanley W. Holmes and Arizona Explorations Inc.

We acknowledge that Arizona Explorations Inc., an Ontario, Canada Corporation (#853332) was formed for the purpose of evaluation, acquisition and exploration of mineral properties in the State of Arizona, U.S.A. We also wish to acknowledge that the Syndicate has been incorporated and registered for business practices in the State of Arizona under the name "Arizona - Ontario Explorations, Inc."

Sincerely,

BARRICK GOLD EXPLORATION INC.

Paul M. Kavanagh

Paul M. Kavanagh
Vice President

af

24 Hazelton Avenue, Toronto, Ontario, Canada, M5R 2E2 Telephone: (416) 923-9400
Telex: 06-218626 BRC TOR Fax: (416) 923-2457

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

October 5, 1989

Larry W. Beal
President
V.M.P., Inc.
1414 E. Purdue
Phoenix, AZ 85020

Dear Larry:

Enclosed is our check, in the amount of $4,000.00, paid on behald of A.F. Budge (Mining) Limited, representing the Advance Minimum Royalty due on the Vulture for October.

The average Handy and Harman quoted gold price for August and September was $363.12; payment due per the schedule for gold prices $334.00 to $366.99 is $4,000.00.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Coordinator

encl.(1)

A. F. BUDGE MINING, LTD.
4301 N. 75TH ST., STE. 101
SCOTTSDALE, AZ 85251-3504

4505

91-170/1221

5 October 1989

PAY TO THE ORDER OF --- V.M.P., Inc. --- $ 4,000.00

--- Four Thousand & 00/100 --- DOLLARS

SECURITY PACIFIC BANK ARIZONA
Lincoln & Scottsdale Office (055)
6501 N. Scottsdale
Scottsdale, Arizona 85253

MEMO Advance Min. Royalty: October

Carole A. O'Brien

⑈004505⑈ ⑆122101706⑆ 055⑈727178⑈

©CLARKE - KA 1/89

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

December 19, 1989

John C. Lacy
DeConcini McDonald Brammer
Yetwin & Lacy, P.C.
2525 E. Broadway, Suite 200
Tucson, AZ 85716-5303

Dear John:

I am enclosing 2 copies of the letter which we sent to Larry Beal requesting he meet with us to talk about the future out at the Vulture.

I don't know what we can do to entice him over. Perhaps, we should send a copy of the letter to Scott Donaldson. Any suggestions would be helpful.

Also enclosed is a copy of the Letter of Intent we signed with Stan Holmes on the Vulture. If we can't get Beal to re-negotiate, we stand to lose $1,000,000 if Stan finds something. Of course, in a way we hope he doesn't find anything.

We will need a more formal agreement for Stan to sign on the Vulture; guess it would be a sub-lease.

Call if you have any questions.

Best regards,

Carole A. O'Brien

encls.

November 28, 1989

Larry W. Beal
President
V.M.P.,Inc.
1414 E. Purdue
Phoenix, AZ 85020

Dear Mr. Beal:

This letter is intended to address some of the concerns you have relayed to our lawyer, John Lacy, via Scott Donaldson. In regards to the Production Bonus, this matter was addressed in our letter of August 30, 1988, a copy of which is attached. The leak at our present operations, notification of which you received from the Department of Environmental Quality, is being controlled and hopefully, will not effect what little time we have remaining there.

It is anticipated that all leaching activities will be over by March of 1990. At that time our lease with you will expire when we give notice of termination. However, there are still some areas within the Vulture claim block that we feel warrant further investigation and exploration. Unfortunately, we cannot accomplish this work under the existing conditions of the lease. Such high risk exploration will require substantial funding.

When we first decided to start processing the tailings, gold was above $430 and we anticipated recovering almost all of our costs including exploration funds expended 4 years ago. As you know, gold prices fell and only now are climbing above the $400/ounce range. We will be lucky to recover our construction and pre-production costs from the operation. Needless to say, you have received advance royalties totalling over $250,000 on gold which will not be recovered from the old tailings.

If we proceed with further exploration at the Vulture we must negotiate a new lease with reduced payments. Otherwise we will terminate within the next few months and no further payments will be due.

What we would like to propose is monthly payments of $2,000 during the period of continued exploration. If this exploration results in finding an economic deposit, we would propose a buy-out of the Vulture property. We would need you to determine a reasonable buy-out price. If that price was $1.0 million, we would pay this out over a 4-year period, from production, at the rate of $250,000 per year.

We would appreciate it if you would meet with us and discuss this further. I am usually at the company's operations in Jerome, but can arrange to be in Scottsdale on a day's notice. My telephone number at Jerome is 634-9034, or you can call the Scottsdale office and leave a message with Carole O'Brien as to when it would be convenient for us to meet.

Yours very truly,

Ronald R. Short
General Manager

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

October 18, 1989

Accu-Labs Research, Inc.
11485 W. 48th Avenue
Wheat Ridge
Colorado 80033

Re: Water samples for analyses
Vulture Mine Project

Enclosed are 5 samples for analyses. Please send the results at your earliest convenience plus your invoice to my attention at the above address.

Sample 1. Pad#1; taken 10-16-89; White Label for cyanide

would also like to have analysed for arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

Sample 2. Pad #2; taken 10-16-89; White Label for cyanide

would also like to have analysed for same elements listed above, if possible.

Sample 3. Well Water; sample taken 10-16-89; White Label for cyanide only.

Sample 4. Well Water; sample taken 10-16-89; Red Label for metals: - As, Ba, Cd, Ch, Pb, Hg, Se & Ag

Sample 5. Mine, 600 level; sample taken 10-09-89; Red Label for metals: - As, Ba, Cd, Ch, Pb, Hg, SE & Ag

Please call if you have any questions concerning this request.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Mining Coordinator

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

October 10, 1989

TO WHOM IT MAY CONCERN

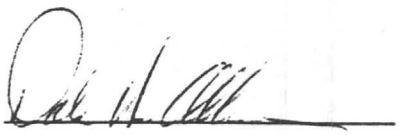
This letter will serve as a recommendation for Marvel Eugene (Gene) Helton.

Gene Helton worked as equipment operator for A.F. Budge (Mining) Limited at the Vulture Mine Project near Wickenburg, Arizona from July of 1988 through August of 1989.

Using his own equipment, which the company rented on an hourly basis, Mr. Helton's main task was to excavate and deliver mine tailings to an ore bin at a rate of 1,000 tons per day. When we didn't have problems with the conveying system, Mr. Helton averaged over 900 tons per day. In addition, he serviced both his own equipment and other equipment at the operation, kept roads scraped and watered, and even instructed other employees in the use of his equipment.

We never had cause to complain about his work or his work habits; his dedication to the job was notable; and he was very well liked and respected by his mostly younger co-workers.

It was only when we had no more tailings to excavate, that we had to lay Mr. Helton off; his services no longer required.

Signed: 

Dale H. Allen
Production Manager

H E I N R I C H K L I N G

METALLURGICAL TECHNOLOGY

611 S. STAUNTON

TUCSON, AZ 85710

(602) 885-7239

A.F. Budge (Mining) Limited
Attn: Dale H. Allen
7340 E. Shoeman Lane
Suite III "B" (E)
Scottsdale, AZ 85251

RECEIVED SEP 7 1988

SERVICES RENDERED TO A.F. BUDGE MINING LIMITED AT THE VULTURE MINE IN WICKENBURG AZ, FROM AUGUST 10, 1988 THROUGH AUGUST 31, 1988.

A TOTAL OF 16 DAYS SPENT AT THE VULTURE PROPERTY CONSISTED OF ASSAY PROCEDURES SET-UP, TRAINING OF PERSONAL, SUPERVISION OF AGLOMERATION AND MATERIALS HANDLING, PREPARATION OF CYANIDE SOLUTIONS AND START-UP OF LEACHING PROCEDURES.

16 DAYS X $150.00	=	$2,400.00
TOTAL MILEAGE ACCUMULATED BETWEEN TUCSON AND VULTURE MINE (WICKENBURG) 1963 MILES PER $ .22½	=	441.68
		$2,841.68

DATED 9/5/88

Heinrich Kling
HEINRICH KLING

Vulture Project, Wickenburg, Arizona
Summary of Expenditures
Inception Date: March, 1984
Date: August 30, 1988

	Inception to Date	Year to Date	1987	1986	1985	1984
Exploration and Pre-development costs:						
Temporary Wages/Contract work:						
Osbornes	$4,699.35		$304.00	$312.00		$4,083.35
Other	$1,577.20		$158.20	$672.00	$747.00	
Equipment Rentals	$3,512.62	$3,512.62				
Postage, freight, UPS	$394.39			$193.92		$200.47
Books, maps, publications	$2,718.76	$61.32	$385.66	$1,710.23	$186.55	$375.00
Permits/filing fees	$220.00		$50.00	$156.00	$14.00	
Repair & Maintenance (Equipment)	$18,983.05	$334.47	$847.10	$9,638.15	$6,763.33	$1,400.00
Fuel (equipment)	$27,488.96	$2,420.71	$3,216.49	$4,283.50	$10,796.45	$6,771.81
Option/lease payments	$58,500.00					$58,500.00
Royalty payments	$136,321.38	$23,000.00	$35,000.00	$46,821.38	$31,500.00	
Title perfection	$110.00					$110.00
Miscellaneous property costs:						
Osbornes per agreement	$48,300.00	$3,600.00	$6,300.00	$10,800.00	$12,600.00	$15,000.00
Townsite appraisal	$1,500.00			$1,500.00		
Townsite purchase	$16,400.00			$16,400.00		
Legal: townsite	$11,532.03		$396.63	$11,135.40		
Contract drilling - tailings	$2,676.25					$2,676.25
Assays & analyses - tailings	$3,111.70	$987.00				$2,124.70
Contract drilling - pits	$124,855.58		$28,280.00	$31,632.33		$64,943.25
Assays & analyses - pits	$24,399.90		$4,920.00	$4,843.50	$960.00	$13,676.40
Water analysis	$388.00		$388.00			
Contract surveying	$23,584.59			$5,934.72	$17,649.87	
Contract geophysics (EDCON)	$24,859.20			$24,859.20		
Other geophysical costs:						
Fees	$1,484.97		$30.00	$1,454.97		
Equipment rentals	$1,380.00		$350.00	$1,030.00		
Access and site preparation	$702.10		$702.10			
Placer evaluation:						
Jim Prudden fees	$8,690.00				$4,690.00	$4,000.00
Prudden expenses	$3,113.40				$3,113.40	
Prudden equipment	$595.00				$595.00	
Other fees & equipment	$8,222.51				$1,200.00	$7,022.51
Assays & analyses	$3,447.00				$3,447.00	
Field supplies and expenses	$743.85		$78.00	$207.00		$458.85
Geological consultants:						
Milt Hood	$35,350.00				$10,850.00	$24,500.00
Wm. Karis	$7,525.00					$7,525.00
Don White	$31,212.50	$4,137.50	$3,543.75	$17,531.25	$1,950.00	$4,050.00
Bob Hodder	$1,500.00			$1,500.00		
Pete Hahn	$4,162.50		$4,162.50			
Curt Wheat	$1,700.00	$300.00	$1,400.00			
Geophysical consultants	$21,253.85			$21,253.85		
Metallurgical consultants	$13,255.00	$4,250.00	$3,900.00	$875.00	$2,900.00	$1,330.00
Dawson Met Labs/other met tests	$19,047.20		$13,088.60			$5,958.60
Legal fees	$9,100.41		$406.17	$2,355.13	$3,134.90	$3,204.21
Sergent, Hauskins & Beckwith	$33,141.88	$9,091.88	$24,050.00			

Consultants' expenses	$18,943.43	$2,056.86	$3,293.90	$6,056.95	$1,054.30	$6,481.42
Tara Minerals,Inc:						
Fees & expenses	$28,622.73					$28,622.73
Milt Hood buy-out of interest	$15,000.00				$15,000.00	
Equipment purchase:						
Generators	$9,300.00				$5,300.00	$4,000.00
Water meter	$455.43		$455.43			
Credit: Sale of generator	($2,250.00)				($2,250.00)	
Credit: Sale of small generator	($250.00)	($250.00)				
	$811,581.72	$53,502.36	$135,706.53	$223,156.48	$132,201.80	$267,014.55

Development Costs since May, 1988

Payroll	$49,754.72	$49,754.72
Temporary Wages/Contract work:	$2,394.00	$2,394.00
Group Insurance	$1,733.00	$1,733.00
State Compensation Fund	$1,143.45	$1,143.45
Safety Training	$200.00	$200.00
Cash advances/expense reimbursements	$852.55	$852.55
Equipment Rentals	$3,645.29	$3,645.29
Crane Rentals	$1,807.30	$1,807.30
Miscellaneous rentals	$465.10	$465.10
Utilities (Mobile phones)	$995.26	$995.26
Office supplies	$0.00	
Postage, freight, UPS	$0.00	
Books, maps, publications	$0.00	
Permits/filing fees	$50.00	$50.00
Repair & Maintenance (Vehicles)	$0.00	
Repair & Maintenance (Equipment)	$0.00	
Fuel (vehicles)	$50.13	$50.13
Fuel (equipment)	$4,334.17	$4,334.17
Supplies:		
Analytical lab supplies	$3,663.95	$3,663.95
Cable, belts, etc.	$2,470.07	$2,470.07
Cement/concrete	$565.00	$565.00
Driscopipe & fittings	$5,735.94	$5,735.94
Electrical	$4,069.87	$4,069.87
Filter Paper/cloth	$810.30	$810.30
First aid supplies	$627.66	$627.66
Lubricants	$998.56	$998.56
Misc. hand tools (shovels, drills)	$38.12	$38.12
Pipe and fittings	$2,210.97	$2,210.97
Safety supplies	$840.59	$840.59
Steel, angle iron, etc.	$3,154.76	$3,154.76
Timber/plywood	$3,231.67	$3,231.67
Welding supplies	$163.25	$163.25
Miscellaneous	$293.49	$293.49
Pre-employment physicals	$0.00	
Freight, express, UPS	$6,886.39	$6,886.39
Chemicals/reagents:		
Cement	$2,287.00	$2,287.00
Cyanide	$27,603.64	$27,603.64
Fluxes	$0.00	

Lime	$1,995.04	$1,995.04
Millsperse	$1,135.70	$1,135.70
Pre-coat	$0.00	
Zinc/lead nitrate	$0.00	
Royalty payments	$16,500.00	$16,500.00
Miscellaneous property costs:		
J.Osborne per agreement	$2,700.00	$2,700.00
Consultants:		
Millsaps Mineral Service	$7,650.00	$7,650.00
Howard G. King	$1,750.00	$1,750.00
Heinrich Kling	$600.00	$600.00
Legal fees	$570.34	$570.34
Other consultants	$0.00	
Sergent, Hauskins & Beckwith	$13,197.29	$13,197.29
Consultants' expenses	$3,415.89	$3,415.89
Contract Welding: Graber	$5,600.00	$5,600.00
Contract: Backhoe/loader	$3,418.50	$3,418.50
Helton Equipment Rental	$6,765.44	$6,765.44
Construction Maya	$266,198.50	$266,198.50
Conveyors plus add-on axles/wheels	$94,588.00	$94,588.00
Filter Press	$17,000.00	$17,000.00
Clarifying Filter	$10,000.00	$10,000.00
AA Unit	$4,000.00	$4,000.00
Pumps	$24,477.00	$24,477.00
Silos plus ladders, etc.	$15,581.60	$15,581.60
Merrill-Crowe Plant	$54,840.00	$54,840.00
Plant Building	$17,568.00	$17,568.00
Expense advance: D. Allen	$5,000.00	$5,000.00
Other equipment	$5,940.00	$5,940.00
Truck for D. Allen	$8,871.98	$8,871.98
Agglomerator	$12,000.00	$12,000.00
Motors	$318.50	$318.50
Magnetic feeder	$6,000.00	$6,000.00
Sample splitter	$225.00	$225.00
New water pump	$4,998.53	$4,998.53
	$745,981.51	$745,981.51

Vulture Heap Leach Facility
Equipment List - Capital Cost Estimate

Purchased items as of 7-21-88

1	Merrill Crowe System	$44,750
2	Furnace & Crucible	$10,090
3	Feed Hopper	$6,000
4	Reagent Feeders	$2,750
5	Agglomerator	$12,000
6	Feed belts, stacker & conveyors	$82,470
7	Axles & Wheels on conveyors	$2,718
8	Additional conveyor & motors	$9,719
9	Pumps	$2,477
10	Clarifier Filter	$17,000
11	Filter Press, Plates & Frame	$10,000
12	Silos for cement & lime	$14,400
13	Plant Building	$17,658
14	Process piping	$4,737
15	Cyanide Mix Tank	$3,200
16	AA Unit	$4,000
	Sub-total Equipment	$243,969

Equipment not yet purchased or paid for:

1	Slag pots & cart	$2,975
2	Electrical	$6,000
3	Dripper System	$8,000
	Sub-total Additional Equipment	$16,975

Other expenses:

1	Freight Charges	$8,636
2	Misc. supplies	$6,097
3	Welding & misc. services	$3,936
	Sub-total Miscellaneous Expenses	$18,669

Construction:

1	Pad, ponds construction and liner installation	$252,000
2	Installation of fencing	$11,000
	Total Construction	$263,000
	Amount paid as of 7-21-88	$199,105
	Balance Owing on Construction	$63,895

VULTURE OPERATING COSTS
Based on 1,000 tpd

LABOR

Title	No.	Rate	Fringe	Hours /day	Days /week	Cost /week	Cost /ton
Manager	1	$55,000	30%	10	5.5	$1,375	$0.28
Eq.Operator Maintenance & Watchman	1	$100.00		10	5	$5,000	$1.00
Agg.Operator	1	$13.00	30%	10	5	$845	$0.17
Rec.Operator	1	$13.00	30%	10	5	$845	$0.17
Utility	2	$10.00	30%	8	5	$1,300	$0.26
Mechanic	1	$12.00	30%	8	5	$780	$0.16
				Totals		$10,145	$2.03

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.54
Cyanide	$0.75
Lime	$0.15
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.78

EQUIPMENT RENTALS

Generators at $680 and $1400 per month $0.10

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.28

REFINING CHARGES

136.5 ounces per week
Based on minimum treatment charge of $250 $0.05

TOTAL OPERATING COSTS $4.24

Heap Leach Facility Design
Vulture Mine Project
Near Wickengburg, Arizona
SHB Job No. E87-11

Note; These costs were developed to handle 225,000 tons of tailings plus 100,000 tons of ore.

BUDGE MINING LTD. VULTURE MINE PROJECT
CONSTRUCTION COST ESTIMATE

Item	Description	Unit	Number of Units	Unit Cost	Total Cost
A.	GENERAL GRADING OF PAD & PERIMETER CHANNELS				
1.	Clear & Grub	Acre	7	$300.00	$ 2,100.00
2.	Prewetting, Surface Compaction & Preparation of Foundation Surfaces	S.Y.	33,600	$ 0.40	$ 13,440.00
3.	Pad Excavation & Fill Placement	C.Y.	37,800	$ 1.20	$ 45,360.00
4.	Fill Placement: Rock Fall Containment, & Perimeter Berms & Channel Area	C.Y.	1,880	$ 2.50	$ 4,700.00
5.	Herbicide	Acre	7	$550.00	$ 3,850.00
				Subtotal	$ 69,450.00
B.	LINER, & COLLECTION PIPES FOR PAD, CHANNEL & BERMS				
1.	Furnish & Place 30-mil PVC on Pad	S.F.	245,650	$ .30	$ 73,695.00
2.	Furnish & Place 36-mil Hypalon at Toe of Pad	S.F.	7,725	$ .60	$ 4,635.00
3.	Furnish & Place 36-mil Hypalon in Perimeter Channel & Berm Areas	S.F.	27,300	$ .60	$ 16,380.00

Heap Leach Facility Design
Vulture Mine Project
Near Wickengburg, Arizona
SHB Job No. E87-11

BUDGE MINING LTD. VULTURE MINE PROJECT
CONSTRUCTION COST ESTIMATE (CONT'D.)

Item	Description	Unit	Number of Units	Unit Cost	Total Cost
B.	LINER, & COLLECTION PIPES FOR PAD, CHANNEL & BERMS (CONT'D.)				
4.	Furnish & Place 3-inch Perforated Drain Pipes on Pad	L.F.	11,700	$ .60	$ 7,020.00
				Subtotal	$101,730.00
C.	PREGNANT, BARREN & SURGE PONDS				
1.	Clear & Grub	Acre	1.5	$300.00	$ 450.00
2.	Excavation & Fill for Ponds & Pond Embankments	C.Y.	8,100	$ 2.00	$ 16,200.00
3.	Place & Compact 6 inches of Tails in Ponds	C.Y.	700	$ 3.00	$ 2,100.00
4.	Place 20-mil PVC as Secondary Liner in Ponds	S.F.	38,200	$ .25	$ 9,550.00
5.	Furnish & Place 16-ounce Geotextile in Pregnant & Barren Ponds	S.Y.	2,700	$ 1.90	$ 5,130.00
6.	Furnish & Place 36-mil Hypalon as Primary Liner in Pregnant & Barren Ponds	S.F.	23,900	$ .60	$ 14,340.00

Heap Leach Facility Design
Vulture Mine Project
Near Wickengburg, Arizona
SHB Job No. E87-11

C. PREGNANT, BARREN & SURGE PONDS (CONT'D.)

7.	Furnish & Place Sand in Seepage Detection Sump	C.Y.	65	$ 4.00	$ 260.00
8.	Furnish & Place 4-inch Diameter PVC Pipe in Ponds	L.F.	100	$ 4.00	$ 400.00
9.	Furnish Materials & Construct Shotcrete Spillway & Splash Pad in Pregnant Pond	S.Y.	2,900	$ 1.75	$ 5,080.00
10.	Place 36-mil Hypalon in Spillway for Surge Pond	S.F.	4,100	$ .60	$ 2,460.00
				Subtotal	$ 55,970.00

D. MISCELLANEOUS ITEMS

1.	Mobilization & Demobilization				$ 15,000.00
2.	Surveying				$ 4,000.00
3.	Quality Control of Earthwork & Liner Installation				$ 25,000.00
				Subtotal	$ 44,000.00
				Total	$271,150.00

		Contractors					
m	Description	Sundt	Maya	Hensler	Royden	Tiffany	Cimetta
1	Construct Mill Wash Diversion Channel, Complete	$17,870	$17,675	$19,722	$25,000	$33,772	$32,532
2	Earthwork, Heap Leach Facility, Complete	$208,970	$125,523	$159,122	$161,515	$260,891	$233,687
3	Install & Test PVC & Hypalon Geomembrane Liners, Complete	$131,100	$188,486	$199,961	$214,540	$228,263	$229,401
4	Place and Install Shotcrete Spillway Protection and Geotextile Underliner, Complete	$8,300	$2,602	$3,249	$10,000	$35,014	$72,180
	Original Bid	$366,240	$334,286	$382,054	$411,055	$557,940	$567,800
	Credit for substitution of HDPE for PVC/Hypalon	($25,000)					($48,000)
	Ruberized Asphalt for PVC/Hyp			($33,021)			
	Alternate Bid	$341,240	$334,286	$349,033			$519,800

Expenditures at Vulture since April 15, 1988
and through September 20, 1988

Equipment (Capital expense)		
AA Unit & Parts		$5,252.08
Agglomerator		$12,000.00
Air conditioner & tax		$699.19
Axles & wheels		$2,718.00
Bin vibrators		$2,396.12
Bullion mold		$176.00
Conveyors		$95,425.00
Driscopipe & fittings		$6,129.85
Fencing		$4,366.40
Filters		$10,000.00
Lab equipment		$3,207.25
Magnetic feeder		$6,000.00
Merrill-Crowe plant		$54,840.00
Miscellaneous		$5,940.00
Motors		$579.50
OreMax emitters		$2,220.00
Plant building		$17,658.00
Pumps		$2,477.00
Sample Splitter		$225.00
Shop tools		$457.88
Silos & ladders		$15,581.60
Utility truck		$2,000.00
Sub-total	$250,348.87	
Other Capital		
Truck		$8,871.98
New pump (installed)		$4,998.53
Maya Construction Costs		$266,198.50
Start-up Supplies & Expenses		
Cable, etc.		$2,934.79
Concrete		$565.00
Crane rental		$1,807.30
Electrical Contractors		$3,939.77
Electrical supplies		$9,064.20
First Aid/Safety		$2,892.98
Freight		$11,767.72
Liner repairs		$573.00
Loader/backhoe		$3,418.50
Lubricants		$998.56
Lumber & misc.		$8,292.69
Misc. expenses		$260.35
Misc. rentals		$466.48
Misc. repairs		$163.88
Misc. supplies		$1,245.83
Misc. Consultants		$3,648.93
Permits		$50.00

Pipe & fittings		$1,064.36
Propane tank set-up		$491.75
Rental: Fusion unit		$900.00
Rental: Small dozer (B&D)		$1,200.00
Rental: Small generator (B&D)		$620.34
Safety Training		$200.00
Sergent, Hauskins & Beckwith		$22,289.20
Steel, angle iron & misc.		$2,883.29
Water system modifications		$3,507.22
Welding service & supplies		$9,858.52
Sub-total	$95,104.66	

(1) On-going Rentals:

Generator (1) since May 1, 1988	$3,361.05
Generator (2) since July 11, 1988	$5,041.59
Portable toilet	$65.00
Propane tanks	$116.06

(2) Operating Expenses:

Regular Payroll From May 16, 1988	$54,556.68
Payroll taxes	$5,661.69
State Fund since July 1 (prorated)	$980.10
Travelers since June 1	$1,386.40
Misc. payroll & wages	$5,618.90
Expense advance/reimbursements	$852.55
Fuel (diesel)	$7,270.93
Propane	$258.31
Helton Equipment Rentals	$17,504.64

(3) Operating Supplies:

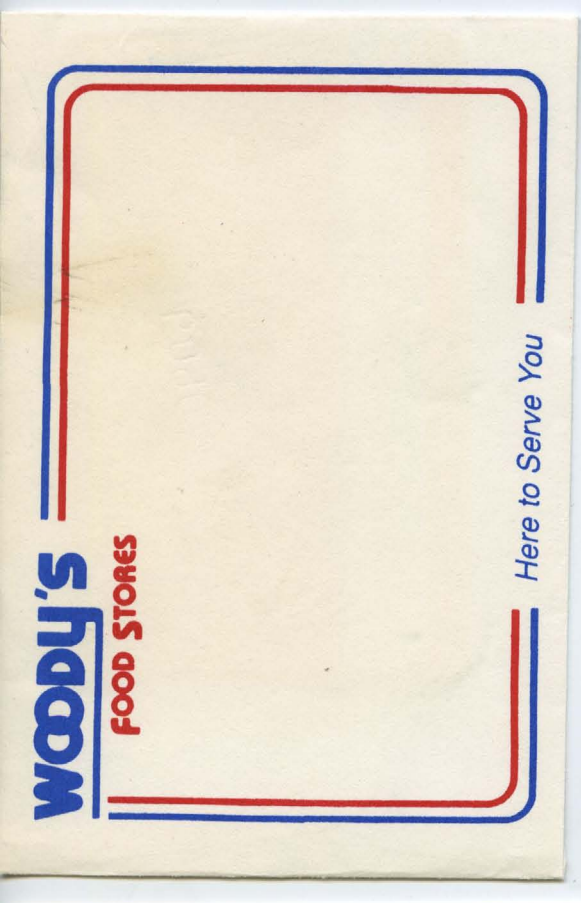
Cyanide	$27,603.64
Cement	$9,039.37
Lime	$3,870.21
Millsperse	$1,135.70
Filter cloth/paper	$810.30
Water chemicals (floc)	$296.80
Zinc dust	$672.00
Lead nitrate	$209.44

Totals (1), (2) & (3) $146,311.36

Approximately 20,000 tons stacked to date

Cost per ton $7.32

Week ending	Equipment Hours Blade	Scraper	Total	Number of loads	Loads per hour
7-23-88			14		
7-30-88			39		
8-05-88			27		
8-12-88			26	54	2.1
8-19-88			39	113	2.9
8-26-88	8	30	38	115	3.8
9-02-88	5	23	28	132	5.7
9-09-88	14	33	47	244	7.4
9-16-88	17	38	55	317	8.3
9-23-88	13	37	50	325	8.8
Totals loads to 9-23-88				1300	


WOODY'S
FOOD STORES
Here to Serve You


WOODY'S
FOOD STORES
AUTOMATED FUELING
00610
HERE TO SERVE YOU

This card is not transferable, and the registered holder assumes full responsibility for payment of all charges obtained through presentation of this card.

Loss or theft of this card must be repoted immediately in writing.

The right is reserved to withdraw credit privileges at any time, and the card must be surrendered upon demand. Credit privileges will be revoked if payment is not received within 15 days of receipt of statement.

PAYMENT DUE UPON RECEIPT OF STATEMENT

WOODY'S
FOOD STORES

	Regular	Unleaded	Premium Unleaded	Diesel
Tonopah, AZ. 4127 North 411 Ave.	x	x	x	x
Aguila, AZ. 310 Frontier *	x	x		x
Camp Verde, AZ Main Street	x	x	x	
Wickenburg, AZ 1200 North Tegner	x	x	x	
Wickenburg, AZ 1051 West Whipple *	x	x		x
Parker, AZ 212 Riverside Dr.	x	x	x	
Cottonwood, AZ 875 South Main	x	x	x	
Ajo, AZ. 1752 North Ajo-Gila Bend *	x	x	x	
Prescott, AZ. 501 Copper Basin	x	x		
Payson, AZ 400 South Beeline	x	x	x	
Kingman, AZ. 3401 Stockton Hill	x	x	x	
Prescott Valley, AZ	x	x	x	x
Prescott, AZ 924 East Gurley	x	x	x	x
Showlow, AZ 304 E. Deuce of Clubs	x	x	x	x
Holbrook, AZ 950 Navajo Blvd.	x	x	x	x
Gallup, NM 2207 W. Hwy 66	x	x	x	

* Not open 24 hours

Charge Cards Accepted At All Locations.

Here to Serve You

Your Comments are Welcome! 1-800-224-1112

WOODY'S PETROLEUM
P.O. BOX 2090 – 580 SAVAGE ST.
WICKENBURG, ARIZONA 85358

602-684-7868

June 8, 1989

A.F. BUDGE MINING CO.
4301 N. 75th ST. #101
SCOTTSDALE , AZ 85251

Dear Customer:

Woody's Food Stores is pleased to have you as a charge account customer. We have a strong commitment to our customers satisfaction and we value your business.

Enclosed you will find your Woody's Automated Fueling Card (s). Your pin number, which allows you to use our Automated Fueling System, along with our credit terms will be mailed shortly.

"Here To Serve You"

Robert Daniel

Robert Daniel
Vice President

WOODY'S PETROLEUM
P.O. BOX 2090 – 580 SAVAGE ST.
WICKENBURG, ARIZONA 85358

602-684-7868

June 8, 1989

A.F. Budge Mining Company
4301 N. 75th St. #101
Scottsdale, Arizona 85251

Dear Customer:

Listed below you will find your pin numbers, with in conjunction with your Automated Fueling Card, allows you to purchase fuel through our Automated Fueling System.

Presently, not all our stores have the Automated Fueling System. At those locations which do not, please present your card to the attendant on duty, who will handle the rest for you. If you have not received your cards, please contact our office at 1-800-224-1112.

Our charge terms require your payment to be received within 15 days of billing.

If you have any questions regarding Woody's Automated Fueling System or our credit terms, please do not hesitate to call.

"Here To Serve You"

Stephen E. Cole
Controller

Card	607	Ron Short	Pin	4202
Card	608	Dale Allen	Pin	2510
Card	609	Eric Allen	Pin	1385
Card	610		Pin	7110

MEMO

To: A.F. Budge

From: A.J. Fernandez

Date: March 24, 1987

Subject: Tailings on Vulture Townsite

I estimate the recoverable gold contained in tailings on the Vulture City Townsite (excluding the Pit Gold claim) to be 1868 ounces. Since A. F. Budge (Mining) Limited owns these tails, no royalty to V.M.P. would be due. Based on estimates of operating costs, that royalty could be a minimum of $22,000. It must be emphasized that this is only an estimate. The actual royalty cannot be computed until the tails are processed.

I recommend that an agreement with V.M.P. be reached before production commences on a formula to account for these ounces. Such an agreement should head off any dispute in the royalty computations and eliminate the need to sort Budge tails from V.M.P. tails. The operational advantages of not sorting tails are my main concern.

John Lacey and I have discussed this situation and agree that some agreement should be reached prior to production. John predicts Mr. Beal's position to be that he is due royalties by claims of adverse possession and that he did cooperate with our efforts to obtain title to the Vulture City Townsite. John feels this to be a weak argument, but that some compromise can be reached.

One possible basis for an agreement, suggested by John, would be to renegotiate the royalty rate on the tails only. This would allow processing without discriminating the tails.

Another possibility would be to agree on a fixed number tons exempt from royalty. Actual grade, recovery, costs and price could then be applied by the current royalty formula during the calender quarter that our tails are processed.

We should have John Lacy draft a proposal soon to begin these negotiations. Possibly at your next visit we can firm our position.

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739
FAX: (602) 949-1737

April 19, 1988

Mr. Joe Uzelac, Jr.
MEC of Arizona, Inc.
5312 North 12th St., Suite 301
P.O. Box 47577
Phoenix, AZ 85068

Dear Mr. Uzelac:

Based on information provided to me by Mr. Frank W. Millsaps, I am enclosing our check in the amount of Twenty Four Thousand Dollars ($24,000), as a deposit on conveyors which Mr. Millsaps ordered on behalf of A.F. Budge (Mining) Limited.

Final billing for the conveyors should be sent to my attention at the above address.

Please do not hesitate to call me if you have any questions that I can answer concerning the order.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Mining Coordinator

A. F. BUDGE MINING, LTD.
602-945-4630
7340 E. SHOEMAN LN., STE. 111 "B" (E)
SCOTTSDALE, AZ 85251

2375

91-170
1221

19 April 1988

PAY TO THE ORDER OF ---- MEC of Arizona, Inc. ---- $ 24,000.00

---- Twenty Four Thousand & 00/100 ---- DOLLARS

THE Arizona BANK A Security Pacific Company
LINCOLN - SCOTTSDALE ROAD OFFICE (055)
6501 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85253

MEMO Deposit on conveyors per letter

Carole A. O'Brien

⑈002375⑈ ⑆122101706⑆ 055⑈727178⑈

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