CONTACT INFORMATION
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416 W. Congress St., Suite 100
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602-771-1601
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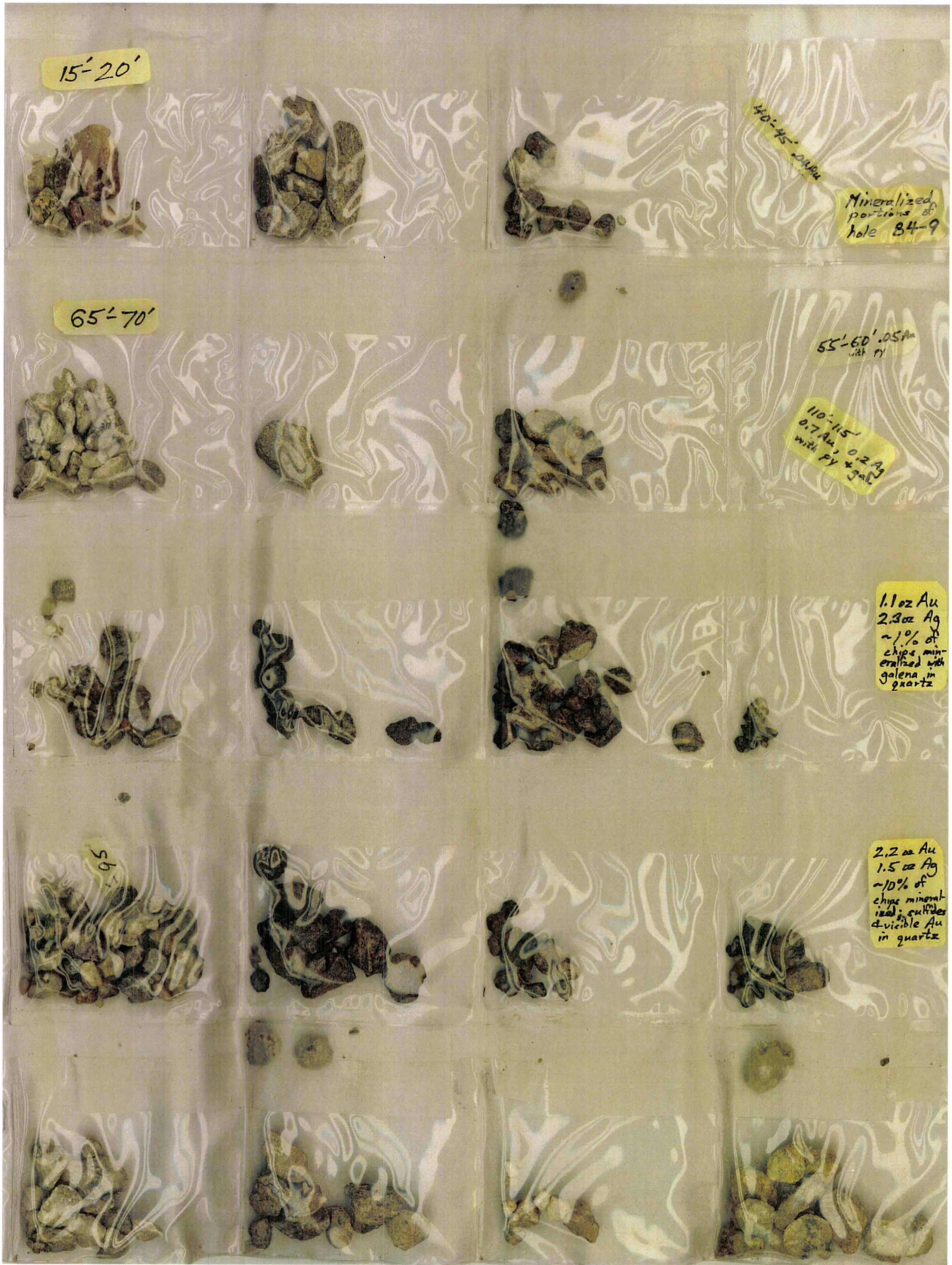
Mineralized portions of H-12
35'-40' .03 Au w/gal
115'-120' 1.1 Au, 0.3 Ag with py, gal, native gold.


Mineralized portions of 84-13
90'-95'
0.8 Au 1.2 Ag
with py, cpy, gal. in qtz
95'-100'
1.0 Au 0.9 Ag
100'-105' missing
(old workings)
84-17
20'-25
0.1 Au 0.8 Ag
25'-30'
0.04 Au 0.1 Ag



15'-20'
40'-45' .04 Au
Mineralized portions of hole 84-9
65'-70'
55'-60' .05 Au with py
110'-115' 0.7 Au, 0.2 Ag with py + gal
1.1 oz Au 2.3 oz Ag ~1% of chips mineralized with galena in quartz
95
2.2 oz Au 1.5 oz Ag ~10% of chips mineralized: sulfides & visible Au in quartz

Preliminary Reserve Estimate

N-S Section	Ore Tons Total	Average Grade	Waste Tons	Waste/Ore Ratio
20350	0	0.000	21500	21500.0
20400	2354	0.060	13510	5.7
20450	3865	0.040	14500	3.8
20500	4615	0.046	17990	3.9
20550	5179	0.041	22365	4.3
20600	6146	0.068	14729	2.4
20650	13590	0.065	13104	1.0
20700	4117	0.125	15619	3.8
20750	12073	0.092	20396	1.7
20800	20776	0.045	36440	1.8
20850	24573	0.059	46167	1.9
20900	10396	0.089	80417	7.7
20950	0	0.000	80833	80833.3
21000	4604	0.037	69354	15.1
21050	37917	0.058	41625	1.1
21100	13210	0.044	65125	4.9
21150	16077	0.047	68233	4.2
21200	55896	0.064	53375	1.0
21250	38625	0.050	50365	1.3
21300	21813	0.050	78906	3.6
21350	0	0.000	82100	82099.6
21400	25000	0.060	80313	3.2
21450	30104	0.067	88260	2.9
21500	38045	0.067	78882	2.1
21550	38810	0.093	69502	1.8
21600	24696	0.064	58127	2.4
Totals	452480	0.063	1281735	2.83

Recovery 70% — 19986 ounces Au

0.025 cutoff
10' mining cutoff
60° pit slope

Vulture Core for Metallurgical Tests.

		From	To	Interval (ft)	Iron King Assay oz/t	Skyline	Assay Lab Inc.	Assay Lab Inc. 2nd run	#
Sample of Qpi	M-1	43	46	3	0.073	0.061		.073	
	M-1	48	50	2	0.028			.036	
	M-1	52	54	2	0.053			.030	
	M-1	75	80	5	0.042			.027	
	M-1	80	84	4	0.050	.058		.021	
Sample of hanging wall	M-2	11	16	5	2.190	2.4	2.266	2.179	
	M-2	27	32	5	0.015		.005	.005 ✓	
	M-2	40	45	5	0.026		.020	.022	
	M-2	50	54	4	0.080		.027	.030	
	M-1	39	43	4	0.049		.008	.010	
Sample of footwall	M-1	65	70	5	0.013		.064	.068	163 ✓
	M-1	61	62	1	0.096		.044	.050	33
	M-1	84	85	1	0.099	.088	.015	.016	33
	M-3	24	27	3	0.030	.038	.015	.013	33
	M-3	14	19	5	0.011		.015	.012	

Duplicate @ Assay Lab Inc.

Recheck @ Union Assay

prepared for bottle test now.

Someone wants to buy mills at Pima.

18/Nov –

duplicates tomorrow – on Qpi

sent checks to Union on all

8 projects at one time –

Assay problems –

Union Assay on Thurs

M E M O

TO: Ben F. Dickerson, III, and Carole A. O'Brien

FROM: Don White

DATE: March 14, 1986

SUBJECT: Hunt, Ware & Proffett work SW of Vulture Mine

In the course of my reconnaissance of outlying areas of the Vulture property this week, I came across a drill rig in the NW corner of section 11. There I met John Proffett of Hunt, Ware, and Proffett, exploration consultants. His address is:

John M. Proffett
PROFFETT EXPLORATION, INC.
P.O. Box 111253
Anchorage, Alaska 99511
(907-345-5480)

With him was Bill Mounts of Tucson, a consultant who apparently specializes in drilling matters and is retained by Proffett to ascertain that drilling goes smoothly.

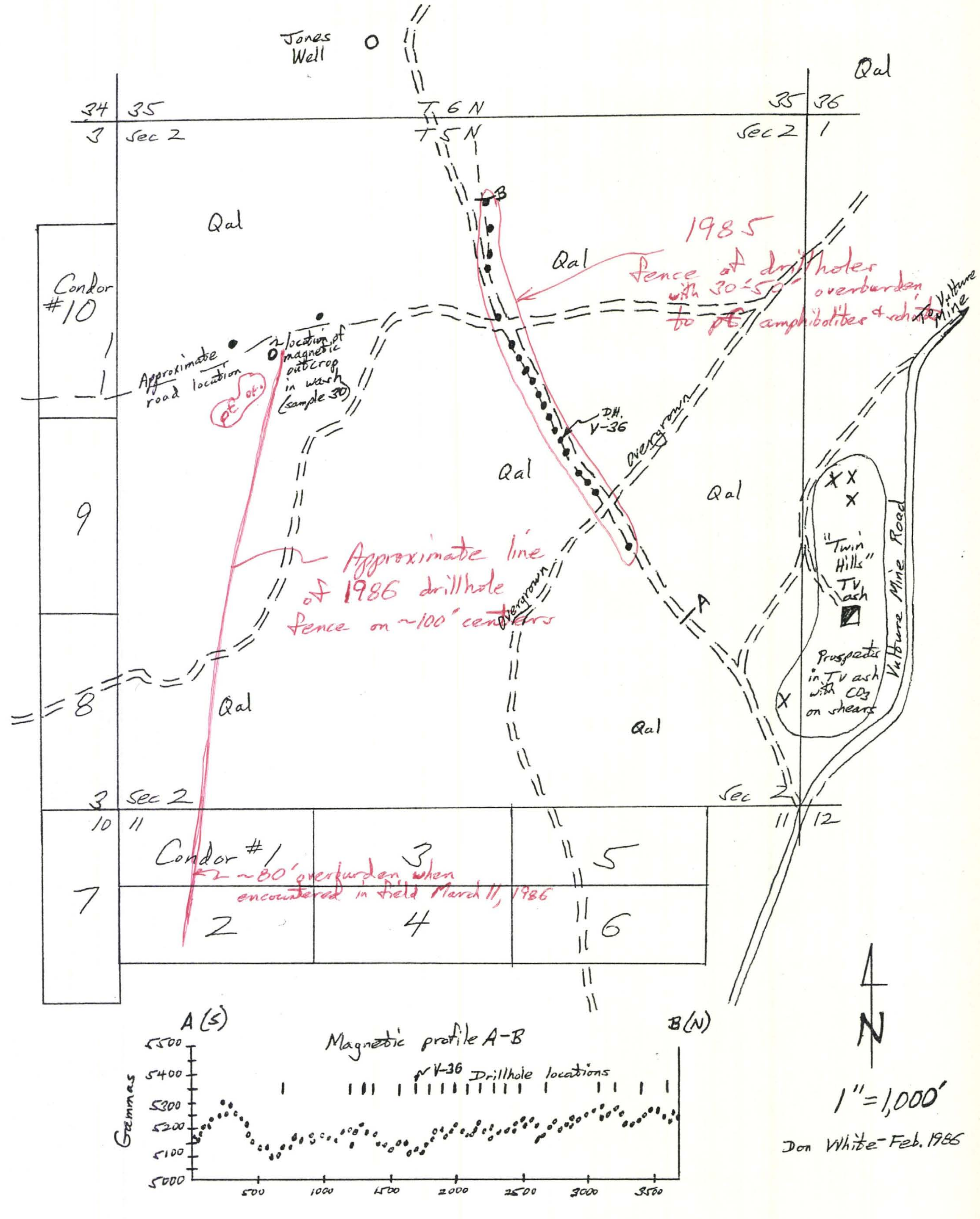
The truck-mounted rig they had was owned and operated by Universal, of Yarnell. It is principally a water-well rotary rig but the crew has some exploration drilling experience, they use a down-the-hole-hammer, and have a cyclone separator and sample splitter. They contracted at $5./foot and are performing well according to John.

Driving on thru sections 11 and 2, I was able to ascertain that their drilling comprised at least 20 or 30 new holes on about 100-foot centers as shown on the attached map. John was washing rock chips for lithologic samples and they were collecting about 2-pound samples for analytical work.

I had dinner with John in Wickenburg and he was fairly open regarding the nature of his work around the Vulture. He is now here for his third year, spending 1-3 weeks each year. They have taken one week to complete the current drilling. These holes, and those drilled last year in the E half of section 2, are all stratigraphic holes to learn what the Precambrian bedrock lithologies are. They also fulfill work committments for the section 2 prospecting permit and sections 3 and 11 federal claims.

Holes are drilled on about 100-foot centers with later fill-in holes on the 50-foot intermediates where justified by interesting rock types or geochemical findings. Holes are vertical and penetrate about 30 to 50 feet of overburden in the E half section 2, Ø to 30 feet in the NW quarter of section 2 and, 30 to 80 feet in the SW quarter of section 2 and into section 11. The overburden is desert alluvium, varying from unconsolidated sands to well-cemented gravel caliche.

Precambrian bedrock is variously hornblende amphibolite and muscovite schist. White bull quartz is ubiquitous and magnetite is common in the more siliceous and/or amphibolitic units. The drillhole spacing and depths



Sketch map of section 2, T5N R6W Maricopa Co, Arizona

showing roads, 1985 rotary drill holes and path of magnetic traverse A-B
Minerals are state of Arizona controlled in section 2 (excepting, perhaps N½NW¼)
and are under prospecting permit to Hunt, Ware, + Proffett of La Jolla, CA.
Hunt, et. al. also have federal lode claims of the Condor #1-10 group, located 8-31-85.

(usually 100 to 200 foot depths, all drilled vertical) are such that each fence gives a complete stratigraphic section of the bedrock which dips 40°-60° NNW.

I querried John about their use of geophysics. He says only VLF and magnetics have been tried and made no reference to any old work by Anaconda or others. Their own use of VLF was not useful he said. That concurs with my own finding reported previously (memo on VLF in section 2, March 4, 1986). John says magnetics are quite good at seeing through the alluvium and mapping stratigraphy of the Precambrian what with all its magnetic variability. This too concurs with what we have found in the Vulture area and in our own magnetic traverse of section 2 (memo of February 3, 1986).

There was no hint by John of any further work intended for this year. It is apparent only that they intend to keep their prospecting permit and lode claims active. John expects to be in Arizona another week or so to attend the AGS symposium in Tucson, possibly the trip to the UVX, and may be back for the GSA meeting in Flagstaff in late April.

I shared nothing of our thoughts on the genesis of the Vulture mineralization nor on our plans for aeromagnetic work.

cc: Chuck Elliot

MEMO

TO: Carole A. O'Brien, Joe Fernandez

FROM: Don White

DATE: February 18, 1987

SUBJECT: Water observations at Vulture Mine

For the record I offer the following observations related to water in and about the Vulture Mine:

1) Underground water levels - I have been down the west incline to water level twice (Dec. 29, 1986 and Feb. 11, 1987). Both times the water level was the same at about 1710' elevation. That is about 100 feet down the incline from the sill of the 600-level (elev. about 1750') the deepest accessible level.

   The water in the incline is very clear and odorless. It does accumulate a crust of perhaps 1 mm thickness which is white to translucent, forms over the entire water surface, sinks when broken in pieces, and effervesces with HCl. I believe it is calcium carbonate.

   My guess is that water level normally fluctuates in the 1700' to 1720' elevation range. This is backed up by old notes underground from 1933 through 1966 (in carbide smoke, paint, and magic marker) regarding water levels. There is clear evidence, however, that water has, on occassion, flooded the 600-level and even the 550-level. The 600-level (sill elev. 1750') has a prominent water line near its back and flakes of carbonate crust all over the ribs. Silt, rotting of wood, corrosion of iron and other evidence corroborate the flooding of the 600-level. The 550-level (sill elev. 1783') exhibits no carbonate crusts and not much silt but water lines are evident on the ribs.

2) The sources of U.G. water are probably several. The flooding levels as high as the 550-level of the mine result from collection of runoff in the pits 1 and 2 areas and other caved stopes. Runoff there goes straight down dip into stopes that are caved for human purposes but quite open to water passage. Caved chutes on the 150-level display plumes of mud from surficial runoff conveyed through the upper stopes. The floor of the west incline is eroded in places by scour action of water running down the incline.

3) Rock chemistry impact on water quality, even in the event of future pit flooding and ground water recharge, should be insignificant. The Proterozoic wall rock and Laramide (?) sill rock are both quite non-reactive. Furthermore, both rock types are widely exposed in the watershed of Mill Wash.

The sulfide content is the only likely natural polluter. It rarely exceeds 1% unoxidized sulfides and that is mainly in the auriferous zones which we shall not be leaving in the pit. The sulfide content of other Proterozoic rocks at the surface, such as the Red Cloud mine area, upstream, is considerably higher.

4) Bedrock permeability has been mentioned by Joe now that geotechnical studies are underway. I might point out that detailed study of the permeability of undisturbed bedrock is rather academic, given that water moves almost exclusively through faults in that bedrock. In other words, bedrock structure rather than lithology controls water flow.

The most significant structures to bedrock hydrology are the post-Laramide (?) normal faults. They are the high-angle NNW-trending faults of which the Talmadge, Astor, Schoolhouse, East and other faults are members. Smaller unnamed normal faults of the same family cut between pits 1 and 2, 2 and 4, and across the Laramide (?) quartz monzonite (qpi) stock.

5) Storm runoff for two years has not been sufficient to cover all evidence of late 1984 drilling in Mill Wash (H-18 thru 21). There has been some transient water flow there to shift some sand but not enough to fill the caved collar of H-19 in particular, even though that collar is right down in the bottom of the broad sandy wash.

Any attempt to capture storm runoff for water sampling will require very quick action. Flow usually lasts only an hour or so at most. If samples are desired, John Osborne ought to be equipped with bottles already prepared with the proper reagents to stabilize the constitutents of interest.

6) Water wells in the area are very few. The well now in use at the Vulture is one. Another well head is capped just NE of the large water tank, SW of our presently operating well. That too is an old well, recorded on 1930 maps. The only other one in the proximity is the Jones Well (SE SW Sec 35, T6N R6W). Jones Well is private, I believe, owned and operated for livestock and domestic use by Bill and Nancy Shiew and their family who live at the well site. Jones Well is about 1¼ mile WSW of Vulture Mine, on the opposite side of the quartz monzonite stock.

There is now a considerable resident population in sections 7, 8, 9, 10 and further eastward in T5N R5W, in excess of 1½ miles SE of Vulture Mine. To my knowledge, however, none of them have wells; all depend upon hauled water from Wickenburg.

7) Monitor wells or piezometers that might be needed around the leach pad area could be put in while Stevens and Harris' rig is on site in March. One would need to have sites selected and accessible and depths in mind with respect to stratigraphy at least (e.g., in alluvium, to bedrock interface, into bedrock to predetermined elevation, to water level, below water level). Slotted casing sufficient to reach bedrock would be necessary to keep the holes from caving.

DW:sk

Don White
Nov. 1984
Vulture Mine

Drilling Summary - November 1984

Hole No.	Old "Site No."	Date Drilled	South ∡	T.D.	Number Assay Samples	Remarks
H-1	Old H-1	11-5-84	Vert	300'	29	Reentered old H-1 to 130' + continued to 300' ∴ 170' new drilling; 181-202, old workings - hanging wall mineralized
H-15	5-2	11-5	Vert	200'	40	"Nothing special"
H-16	5-4	11-6	60°	160'	30	63-74, old workings - hanging wall mineralized
H-17	5-5	11-6	60°	160'	30	50-55, old workings 125-130 qtz w/sulfides
H-18	5-9	11-6	60°	160	31	60-65, 135-140, pyritic
H-19	5-8	11-7	60°	140'	24	90-115, barren(?) qtz
H-20	5-6	11-7	60°	160'	30	110-130, much pyrite
H-21	5-7	11-7	60°	160'	30	145-160, trace py
H-22	5-10	11-8	60°	160'	31	50-60, barren(?) qtz; 65-70, trace py
H-23	5-21	11-8	60°	100'	20	Entire hole in white qtz-porphy.
H-12	Old H-12	11-8	Vert.	250'	26	Reentered old H-12 to 120' + continued to 250' ∴ 130' new drilling; Specks of Fe stain 120'-150'; ~2% py 195-200'
H-24	5-13	11-8	Vert.	200'	40	Much Fe-stain 1-5', ~1% py 140'-150'.
H-25	5-12	11-9	60°	140'	26	80-90, ~1% py
H-26	5-18	11-9	60°	150'	30	120-145, Fe-staining + FeO filled fractures
H-27	5-19	11-9	Vert	180'	36	50-70, much Fe-staining in qtz-ppky; 120-135, ~3% py 160-170, trace py
H-28	5-14	11-9	60°	120'	24	95-110, 1-2% py
H-29	60' N15E from 84-16	11-10	60°	55'	11	Qtz-vein intersected within 35-40', no visible sulfides, some Fe-stain
H-30	150' S65W from 84-4	11-10	60°	140	28	70-75, ~5% qtz; minor Fe stain throughout 35'-140'
H-31	25' SE from P-8	11-10	Vert	340'	68	Top 20' gravels sent for assay on BFD's suggestion. Much Fe stained schist throughout; 295-300, ~2% py 300'-340', trace py

E

Vulture Drilling 1984

Hole No.	Incl'n	From	To	Interval		Grade	T. Width
H-12	vert.	110	120	10	0.938		6.4
H-15	vert.	40	65	25		0.046	16.1
		90	100	10		0.092	6.4
H-16	incl.	30	68	38		0.046	35.7
		80	100	20		0.078	18.8
H-17	incl.	5	15	10		0.046	9.4
H-18	incl.	20	45	25		0.054	23.5
H-19	incl.	60	100	40		0.061	37.6
H-20	incl.	20	40	20		0.048	18.8
		110	125	15		0.057	14.1
H-21	incl.	20	35	15		0.035	14.1
H-22	incl.	5	30	25		0.08	23.5
		50	65	15		0.038	14.1
H-24	vert.	125	150	25		0.092	16.1
H-25	incl.	105	140	35		0.043	32.9
H-26	incl.	35	45	10		0.039	9.4
		95	115	20		0.055	18.8
H-27	vert.	60	85	25		0.045	16.1
H-32	incl.	65	90	25		0.074	23.5
H-35	incl.	40	50	10		0.07	9.4
H-3	vert.	65	80	15		0.06	9.6
H-5	vert.	75	90	15		0.058	9.6
		105	120	15		0.092	9.6
H-6	vert.	35	50	15		0.04	9.6
H-10	vert.	30	45	15		0.125	9.6
H-14	vert.	0	15	15		0.05	9.6
		35	50	15		0.045	9.6
84-2	incl.	30	50	20		0.06	18.8
84-3	incl.	80	90	10		0.053	9.4
84-4	incl.	115	140	25		0.055	23.5
84-7	incl.	55	65	10		0.055	9.4
		105	130	25		0.042	23.5
84-9	incl.	10	25	15		0.048	14.1
		85	105	20	0.855		18.8
84-10	incl.	0	35	35		0.031	32.9
84-12	incl.	110	120	10		0.055	9.4
84-13	incl.	85	110	25	0.383		23.5
84-14	incl.	130	140	10		0.058	9.4
84-15	incl.	125	140	15		0.155	14.1
84-17	incl.	15	30	15		0.067	14.1
						0.0562	16.32

MEMORANDUM 19 March 1987

To: Carole A. O'Brien/A. F. Budge xc: Don White

From: Peter H. Hahn

Re: Vulture drill program

A program of angle and vertical reverse circulation drilling was completed at the Vulture mine during the period 2-26-87 to 3-07-87. Performance of the contractor, Harris Drilling and Associates, was excellent; the total footage, 4525 feet in 21 holes, was completed in 78½ hours, or nearly 60 feet per hour including moves between holes. Harris' drillers showed their usual fine cooperation in sampling, and sample recovery was excellent.

Four areas were drilled:

A. VS 1-10, on the ground magnetic grid laid out largely in Sec. 1, T5N, R6W, ½ to 1½ miles south of the Vulture pits. The target was postulated apophyses or sills of quartz porphyry extending eastward into the north-dipping Precambrian stratigraphy from the "Kqpi" pluton just west of the Vulture. A sill of "qpi" at the old Vulture workings contains the best gold grades and also controls mineralization in the enclosing quartz-sericite-chlorite schist. A linear magnetic low occurs parallel with and 600-700 feet north of the Vulture deposit outcrop, and three similar lows were interpreted from airborne and ground magnetic surveys to the south. Previous drilling had shown bedrock in this area less than 75 feet deep.

Nine holes were laid out to test magnetic targets A, B, and C, with -60° angle holes which would cut the down-dip extensions of the features to which the lows were attributed, analogous to the known geology at the Vulture. A tenth hole (VS 9) was added during the program, to test geologically anomalous rocks updip from hole VS 6. Drilling in the VS area totalled 2850 feet.

None of the VS holes cut more than a few very thin (-1 ft.) qpi bodies, and no strong silica flooding or obvious hydrothermal mineralization like that at Vulture was seen. Alluvium varied from 30 to 65 feet thick, and the rocks below are Precambrian quartz-sericite (± chlorite) schist which grades to non-foliated amphibolite or quartz-chlorite hornfels. VS 6, at 400S on Magnetic Target "A", encountered the most mineralized appearing rock, at about 300 feet; silicification and sugary quartz veinlets with a little pyrite and crpsscutting fine limonite veinlets, and strong hematite-jarosite stain. The rock, hard hornfels, was barren by 340 feet, and the hole was stopped. An extra hole, VS 9, was drilled 300 feet south of VS 6, but aside from several zones which contain hematitic clay seams (most of which washes away in the samples saved for detailed logging), no mineralization was seen. No notably magnetic rock was seen in any of the VS holes.

No consistent hard caliche layers were evident in any of the alluvium cut by the VS holes.

Some gold assays have been reported, but the best values in VS 3, 4, and 5 are 0.005 oz/T, and grades in that range do not apparently correlate with anything logged in the washed cuttings during drilling. Logs of the VS holes are attached to this memo.

B. H 59-63, Vulture pit area. H 59 (150') and H 60 (160') are -60°S angle holes drilled just north of Pit #1, and H 61, 62, and 63 are 120 foot vertical holes within the pit. These holes are designed to test and expand if possible the east limit of the proposed new pit.

Don White will log and document these holes. Assays are disappointing, with only two +0.100 oz/T samples. One interval in H 59, 65-70 ft., ran 0.157 oz/T, in quartz rubble, probably in the bottom of a stope or drift, as the drill hit a void from 55 to 67 ft. In H 60, the 120-125 foot interval ran 0.124 oz/T, in heavily ozidized chlorite schist containing 75% quartz. The best gold in H 61, 62, and 63 is near the collar of the holes, in pit fill and rubble, and possibly in stope fill in H 61.

C. C 1-3, condemnation holes in the proposed leach pad area west of the old cyanide mill. C 1 (TD 320) found the pluton, beneath (silicified?) schist and hornfels, at 300 feet. C 2 (TD 300) hit the pluton at 288 feet, and C 3 (TD 300) bottomed in Precambrian rock, with possible contact metamorphism suggesting proximity to the intrusive contact. None of these holes contain economic mineralization. Logs are attached.

D. C 4-6, condemnation holes in the proposed waste dump area, a mile west of the Vulture townsite. These are "peepholes" 55 to 75 feet deep, to test depth of alluvium and identify sub-alluvial rock type. C 4 and 5 bottomed in plutonic rock, and C 6 in schist. Logs are attached.

CMS INC.

CHEMICAL & MINERALOGICAL SERVICES • 445 WEST 2700 SOUTH • SALT LAKE CITY, UTAH 84115

OUR 10TH ANNIVERSARY

RETURN TO

APR 1 - 1977

ANALYTICAL REPORT FOR:

Cyprus Exploration Co. E. A. Schmidt

555 So. Flower - 37th Floor

Los Angeles, CA 90071

OUR NUMBER 7926

DATE March 29, 1977

CUSTOMER'S ORDER NO.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 1	.09	.009	1040
2	.06	.021	630
3	.04	.017	520
4	.01	.007	210
5	.07	.008	75
6	.05	.005	60
7	.03	.011	310
8	.02	.008	90
9	.30	.680*	240
10	.03	.037	85
11	.01	.015	140
12	.04	.017	280
13	.30	.072	350
14	.06	.017	95
15	.03	.011	45
16	.07	.010	45
17	.02	.015	85
18	.05	.004	25
19	.03	.003	40
20	.02	.005	40

* Analysis has been rechecked.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 21	.02	.003	55
22	.02	.003	35
23	.02	.007	70
24	.03	.011	140
25	.10	.045	480
26	.38	.360*	250
27	.36	.200*	380
28	.13	.111	670
29	.05	.080	210
30	.03	.026	55
31	.02	.011	170
32	.11	.012	130
33	.12	.035	180
34	.11	.069	340
35	.05	.017	160
36	.05	.030	210
37	.14	.018	300
38	.01	.008	60
39	.06	.021	300
40	.12	.076	320
41	.22	.042	260
42	.03	.007	55
43	.02	.006	55
44	.02	.007	45
45	.01	.004	30

* Analyses have been rechecked.

CMS

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 46	.01	.002	25
47	.01	.002	25
48	.02	.004	35
49	.03	.002	25
50	.04	.003	55
51	.08	.020	70
52	.24	.456	70
53	.03	.008	60
54	.03	.007	90
55	.05	.007	260
56	.10	.043	45
57	.12	.016	100
58	.22	.008	350
59	.12	.054	1450
60	.16	.045	315
61	.09	.056	280
62	.10	.007	200
63	.29	.195	75
64	.25	.036	25
65	.05	.059	40
66	.10	.012	75
67	.16	.046	120
68	.05	.017	60
69	.08	.041	40
70	.11	.047	35

CMSI

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 71	.10	.023	18
72	.06	.015	55
73	.03	.015	30
74	.08	.023	25
75	.29	.026	95
76	.07	.033	85
77	.12	.048	35
78	2.10	.020	30
79	.04	.003	40
80	.05	.002	30
81	.06	< .001	25
82	.07	.020	30
83	.04	.009	35
84	.03	.005	25
85	.07	.007	95
86	.04	.004	65
87	.04	.004	18
88	.04	.003	35
89	.02	.002	75
90	.03	.001	65
91	.05	.002	85
92	.05	.001	130
93	.07	.003	45
94	.03	.004	45
95	.03	.008	65

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 96	.04	.015	70
97	.06	.014	110
98	.06	.014	90
99	.11	.036	270
100	.08	.010	110
101	.03	.010	110
102	.40	.038	580
103	.19	.026	610
104	.64	.080	880
105	.11	.057	500
106	.16	.069	330
107	.05	.069	130
108	.05	.023	55
109	.05	.029	85
110	.06	.045	110
111	.08	.015	40
112	.10	.072	75
113	.05	.026	40
114	.05	.014	160
115	.07	.021	100
116	.02	.007	50
117	.02	.020	60
118	.02	.007	55
119	.05	.006	410
120	.03	.018	470

CMS

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 121	.01	.026	85
122	.01	.009	100
123	.01	.018	80
124	.01	.018	150
125	.03	.004	200
126	.07	.006	420
127	.05	.012	340
128	.06	.009	90
129	.06	.009	160
130	.05	.015	60
131	.06	.007	110
132	.06	.030	130
133	.07	.017	80
134	.19	.051	330
135	.06	.036	190
136	.03	.035	120
137	.28	.107	200
138	.07	.007	100
139	.06	.014	65
140	.04	.039	75
141	.04	.050	160
142	.21	.017	115
143	.04	.017	200
144	.05	.020	160
145	.05	.026	85

CMSI

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 146	.07	.054	95
147	.04	.051	90
148	.03	.004	35
149	.05	.026	200
150	.04	.014	190
151	.02	.004	105
152	.03	.005	85
153	.02	.014	40
154	.03	.011	60
155	.05	.011	60
156	.03	.004	19
157	.02	.004	40
158	.02	.007	20
159	.05	.020	50
160	.05	.014	85
161	.01	.005	40
162	.02	.004	40
163	.02	.010	30
164	.05	.004	25
165	.06	.029	35
166	.05	.045	40
167	.08	.041	70
168	.07	.020	160
169	.16	.042	95
170	.11	.023	100
171	.07	.046	65

CMSI

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 172	.05	.020	170
173	.03	.004	60
174	.04	.011	85
175	.03	.007	65
176	.04	.016	45
177	.05	.007	45
178	.05	.032	70
179	.05	.054	55
180	.10	.030	50
181	.05	.015	85
182	.10	.029	240
183	.22	.300	280
184	.15	.060	70
185	.13	.086	60
186	.03	.020	30
187	.07	.090	90
188	.14	.110	180
189	.12	.105	560
190	.05	.054	340
191	.06	.020	60
192	.04	.008	45
193	.01	.003	40
194	.02	.003	40
195	.03	.004	30
196	.05	.020	55
197	.04	.002	55

CMSI

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 198	.06	.002	45
199	.06	.003	14
200	.04	.007	35
201	.05	.052	20
202	.05	.060	70
203	.06	.090	280
204	.05	.036	380
205	.12	.044	50
206	.05	.009	30
207	.03	.011	55
208	.04	.011	50
209	.04	.057	35
210	.18	.390	240
211	.04	.005	40
212	.04	.012	65
213	.03	.004	45
214	.11	.255	160
215	.04	.033	130
216	.01	.005	50
217	.04	.093	80
218	.03	.004	50
219	.02	.007	70
220	.09	.061	25
221	.03	.005	50
222	.02	.077	12

Ray Broadhead (BB)

MSI INC.
…ICAL & MINERALOGICAL SERVICES · 445 WEST 2700 SOUTH · SALT LAKE CITY, UTAH 84115 · (801) 485-0711

…LYTICAL REPORT FOR:

…prus Exploration Co. Hardy Schmidt
…5 So. Flower - 37th Floor
…s Angeles, CA 90071

OUR NUMBER 7942
DATE April 7, 1977
CUSTOMER'S ORDER NO.

…mple #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
…RE - 223	.14	.138	25	430	675
224	.07	.096	20	410	175
225	.07	.315	20	140	220
226	.04	.041	20	90	300
227	.04	.008	16	40	100
228	.06	.073	20	40	95
229	.06	.120	25	180	190
230	.03	.004	25	60	120
231	.05	.012	30	35	150
232	.05	.010	30	30	190
233	.06	.048	60	180	220
234	.06	.015	40	120	600
235	.04	.023	50	410	775
236	.06	.029	65	450	950
237	.04	.009	50	190	440
238	.03	.007	50	160	250
239	.07	.069	55	235	400
240	.04	.001	19	30	105
241	.03	.001	20	20	60
242	.03	< .001	20	20	95

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 243	.05	< .001	20	20	100
244	.05	.001	25	15	130
245	.04	< .001	25	25	110
246	.04	.110	25	15	140
247	.05	.001	30	25	160
248	.05	.001	30	20	190
249	.06	< .001	30	175	480
250	.05	.004	40	40	190
251	.13	.056	460	1200	1250*
252	.14	.017	500	575	2700
253	.16	.087	380	1700	1250
254	.06	.007	45	370	1300
255	.10	.066	50	470	880
256	.13	.075	115	1250	225
257	.04	.018	160	170	3500
258	.06	.007	520	1600	1280
259	.08	.051	140	1000	350
260	.04	.007	50	315	250
261	.04	< .001	45	125	340
262	.06	.022	90	800	650
263	.03	.043	75	310	400
264	.06	.042	55	325	420
265	.11	.033	75	330	230
266	.05	.004	55	125	425
267	.07	.047	90	340	550

* All analyses over 1000 ppm have been assayed.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 268	.05	.023	100	325	575
269	.07	.011	200	1000	460
270	.11	.004	160	425	310
271	.08	< .001	80	240	360
272	.08	.057	75	650	270
273	.04	.008	35	210	310
274	.05	.004	150	1000	550
275	.04	.020	30	100	40
276	.05	.023	200	100	255
277	.04	.003	70	100	230
278	.04	.004	25	70	195
279	.02	.007	50	250	300
280	.09	.016	95	840	850
281	.08	.008	55	100	185
282	.05	.008	200	130	290
283	.04	.007	95	185	275
284	.07	.007	420	475	830
285	.11	.030	380	1600	1425
286	.07	.007	240	600	800
287	.15	.054	1040	1700	2400
288	.17	.020	450	1000	2050
289	.13	.048	200	1500	525
290	.19	.096	180	3750	675
291	.09	.033	400	1250	2250
292	.22	.264	280	1750	1100

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 293	.07	.036	85	440	650
294	.06	.020	140	480	975
295	.06	.023	190	750	775
296	.08	.029	160	650	750
297	.06	.026	160	210	420
298	.05	.007	60	120	225
299	.06	.022	75	300	700
300	.05	.012	80	915	1225
301	.07	.014	180	850	1350
302	.07	.026	150	650	2200
303	.17	.045	330	1850	3450
304	.10	.093	150	1200	1950
305	.06	.017	75	[illegible]	1500
306	.52	.189	55	200	700
307	.04	.008	85	275	680
308	.09	.023	660	150	2300
309	.25	.053	630	2750	2250
310	.19	.026	310	850	2650
311	.06	.010	170	400	1000
312	.21	.077	380	3500	725
313	.19	.174	890	2100	650
314	.07	.012	170	160	5100
315	.05	.012	85	290	550
316	.08	.020	180	1350	1800
317	.17	.011	650	240	3800

ample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
7-RE - 318	.09	.039	190	800	2950
319	.04	.005	210	775	2700

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April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 1	.014							
2	.034							
3	.016							
4	.010							
5	.016							
6	.010							
7	.016							
8	.010							
9	.830							
10	.046							
11	.014							
12	.012							
13	.126							
14	.022							
15	.028							
16	.016							
17	.046							
18	.010							
19	<.01							
20	<.01							
21	<.01							
22	<.01							
23	<.01							
24	.012							
25	.010							
26	.424							
27	<.01							

Phoney!
all even numbers

Some Free Gold Present

[signature]
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CYPRUS ASSAY CERTIFICATE April 22 1977

77-0126

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn		
77RE 28	.126						
29	.100						
30	.070						
31	<.01						
32	<.01						
33	.040						
34	.100						
35	.010						
36	.020						
37	.036						
38	.010						
39	.020						
40	.086						
41	.042						
42	<.01						
43	<.01						
44	<.01						
45	<.01						
46	<.01						
47	<.01						
48	<.01						
49	<.01						
50	<.01						
51	<.01						
52	.488						
53	.010						
54	<.01						

[signature]
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CYPRUS ASSAY CERTIFICATE April 22 1977

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0106
77RE 55	<.01							
56	<.01							
57	.026							
58	.018							
59	.034							
60	.074							
61	.034							
62	.014							
63	.304	.412	.240	.238				
64	.124							
65	.066							
66	.044							
67	.038							
68	.022							
69	.062							
70	.016							
71	.022							
72	.022							
73	.022							
74	.022							
75	.044							
76	048							
77	.104							
78	<.01							
79	<.01							
80	<.01							
81	<.01							

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CYPRUS ASSAY CERTIFICATE April 22 1977

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0106
?RE 82	.020							
83	.010							
84	<.01							
85	<.01							
86	<.01							
87	<.01							
88	<.01							
89	<.01							
90	<.01							
91	<.01							
92	<.01							
93	<.01							
94	<.01							
95	.022							
96	.026							
97	.026							
98	.020							
99	.056							
100	.022							
101	<.01							
102	.050							
103	.032							
104	.088							
105	.082							
106	.090							
107	.062							
108	.020							

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p. 5

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April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
RE 109	<.01							
110	.040							
111	.022							
112	.100							
113	.026							
114	.010							
115	.030							
116	.010							
117	.030							
118	.010							
119	.010							
120	.026							
121	.030							
122	.010							
123	.022							
124	.018							
125	.010							
126	.014							
127	<.01							
128	.014							
129	.032							
130	.032							
131	.012							
132	.048							
133	.030							

[signature]

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April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 134	.158							
135	.088							
136	.044							
137	.224							
138	<.01							
139	.028							
140	.028							
141	.100							
142	<.01							
143	.024							
144	<.01							
145	.036							
146	.120							
147	.084							
148	<.01							
149	.024							
150	.016							
151	<.01							
152	<.01							
153	<.01							
154	<.01							
155	<.01							
156	<.01							
157	<.01							
158	<.01							
159	<.01							
160	<.01							

[signature]

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CYPRUS ASSAY CERTIFICATE April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 160	<.01							
161	<.01							
162	<.01							
163	<.01							
164	<.01							
165	.036							
166	<.01							
167	.036							
168	.028							
169	.068							
170	.040							
171	.024							
172	.024							
173	<.01							
174	<.01							
175	<.01							
176	.052							
177	.024							
178	.020							
179	.064							
180	.044							
181	.020							
182	.048							
183	.308							
184	.100							
185	.136							
186	.020							

[signature]

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Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0099
RE 187	.104							
188	.068							
189	.160							
190	.052							
191	.030							
192	.014							
193	.010							
194	<.01							
195	<.01							
196	.014							
197	<.01							
198	.010							
199	.010							
200	<.01							
201	.166							
202	.086							
203	.142							
204	.060							
205	.038							
206	.012							
207	<.01							
208	<.01							
209	.100							
210	.598							
211	<.01							
212	.018							
213	.012							

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April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 214	.467							
215	.046							
216	.010							
217	.178							
218	<.01							
219	.010							
220	.078							
221	<.01							
222	.110							

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April 21 1977

77-0116

Sample No	Oz Au	oz Au (Repeats)	oz Au		% Zn			
77RE 223	.202							
224	.192							
225	.314	.336	.304					
226	.050							
227	.012							
228	.078							
229	.180	.114	.122					
230	.010							
231	.022							
232	022							
233	.048							
234	.026							
235	.024							
236	.022							
237	.018							
238	.014							
239	.046							
240	.024							
241	.010							
242	<.01	<.01						
243	<.01							
244	<.01							
245	<.01							
246	.050							
247	<.01							
248	.010							
249	<.01							

Some "Free" Gold appeares to be present.

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CYPRUS

ASSAY CERTIFICATE

April 21 1977

77-0116

Sample No	Oz Au	Oz Au (Repeats)	oz Au	% Pb	% Zn			
7RE 250	.010							
251	.022	.010						
252	<.01							
253	.102							
254	<.01							
255	.102							
256	.102							
257	<.01	.010						
258	.012							
259	.070							
260	.016	.012						
261	.010							
262	.036							
263	.054							
264	.038							
265	.038							
266	<.01							
267	.078							
268	.046							
269	.022							
270	<.01							
271	<.01							
272	.074							
273	<.01							
274	.016	.010						
275	<.01							
276	.020							

[signature]

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April 21 1977

77-0116

Sample No	Oz Au	Oz Au (Repeats)	oz Au	% Pb	% Zn			
77RE 277	<.01							
278	<.01							
279	.010							
280	.020							
281	.020							
282	.010							
283	.010							
284	.010							
285	.024							
286	<.01							
287	.062							
288	.018							
289	.030							
290	.102	.104	.114					
291	.028							
292	.202	.234						
293	.042							
294	.066							
295	.050							
296	.028							
297	.024							
298	<.01							
299	.020							
300	.020							
301	<.01							
302	.030							
303	.074							

[signature]

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April 21 1977

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0116
77RE 304	.102							
305	.016							
306	<.01							
307	<.01							
308	.018							
309	.040							
310	.036							
311	<.01							
312	.200							
313	<.01							
314	<.01							
315	<.01							
316	.020							
317	<.01							
318	.048							
319	<.01							

[signature]

ASSAYER

George D. Hennessey
Geological Consultant

UNDERGROUND MAPPING AND SAMPLING

VULTURE MINE

VULTURE MINING DISTRICT

MARICOPA COUNTY, ARIZONA

July 1982

505 Northtown Office Building • Spokane, WA 99207 • (509) 483-4653
P.O. Box 1904 • Wickenburg, AZ 85358 • (602) 684-7586

July 1982

CONTENTS

ACCESS:

The underground workings of the Vulture Mine are reached through the East and West Incline Shafts. In the West Incline, the 150, 200, 350, 450, 550 and 600-foot levels are, for the most part, accessible through horizontal drifts normal to the shaft. The static groundwater level is 638' down the incline (330-foot vertical or 1,638-foot elevation).

PAST MINING PRACTICES:

As viewed from the working levels, development was conducted by drifting along mineralized structures with occasional crosscutting to intersect projections of known production trends. In some instances, e.g. the 350 level-west, laterals were driven in waste to by-pass previously worked areas where extensive mining created heavy ground conditions. Stoping was executed up-dip (35^{o}-45^{o}) off of the drifts allowing the broken material to gravity flow or be slushed to draw pockets or fall directly onto the track-haulage levels. The higher grade blocks were stoped between levels often breaking through to succeeding haulageways. Many of the stopes are inaccessible as gob fences were installed along the up-dip ribs and sub-marginal grade muck was backfilled into the open stopes from upper levels. Some under-hand stoping was observed in areas where sub-level drifting had not been developed

STRATIGRAPHY AND ALTERATION

The lithological events of the underground stratigraphy consists of a repetitious sequence of green mudstones, sericitic phyllites, greenish-gray argillites, blue-gray quartzites, hornblende schists, chloritic phyllites and amphibolite sills, all of Precambrian age. The mudstones display low-temperature, disseminated pyrite throughout their respective cycles and, for the most part, contain interbedded, thinly laminated argillacous units. Over a distance of several tens of feet this particular episode will grade from a dense mudstone to a friable siltstone into the thinly laminated argillite and then repeat the progression. The blue-gray quartzite beds are highly siliceous, dense, medium grained units of varying thickness (2'-12'). The chloritic and sericitic phyllites contain varying degrees of interbedded, siliceous siltstones. As observed in the north crosscut on the 450-level the phyllitic rocks occur in a cyclical nature along with hornblende schists. The schists often contain interbedded calc-silicate features measured in inches.

The entire stratigraphic column is suggestive of a shallow-water, relatively calm, deltaic environment. Most of the detailed sedimentological features have been masked or obliterated by subsequent metamorphic and diagenetic events. All bedding strikes from N83W to N66W and dips from 35° to 47° NE.

The only intrusive rocks observed are dikes of quartz porphyry in the 350-level (west) drift and in the face of the 450-level (west) drift. These dikes are most likely an apophysis related to the similar rock-type intrusive mass to the west.

Alteration features are mainly confined to the rocks in proximity to mineralized zones and are mostly, excepting the clays, oxidation products of primary sulfides, i.e. limonite after pyrite; copper oxides from chalcopyrite; zinc and lead carbonates and oxides. Hematitic alteration was observed in every rock type, along bedding planes, fractures, faults and jointing planes. The pervasive nature of this element is reminiscent of a hot spring setting and possibly is primary in nature. This possibility is suggested based on observance of hematite occurrences in un-oxidized rocks believed to have been extracted from lower (below the 600'-level) working levels.

STRUCTURE

Structural features of major consequences are:

1. A northwest trending normal fault of unknown displacement (possibly 100'-200' vertical) - dipping 70°-80° N. E. - Talmadge Fault.
2. A series of subparallel shear zones - sympathetic to the Talmadge Fault in both the footwall and hangingwall. These features have lesser normal displacements measured in tens of feet and similarly NE dipping 65°-80°.
3. A series of relatively shallow southwest dipping (10°-45°) NW to WNW trending faults with 10 to 60-foot displacements.
4. East-west to NW striking, high-angle faults (75°-90° north dipping) with from 5 to 20 foot displacements.
5. Bedding-slip.

These dislocations are in order of magnitude of off-sets relative to the mineralized deposits.

Striations observed along the Talmadge Fault trace on the 550-level suggest some strike-slip movement with the hangingwall moving easterly relative to the footwall. Although the stopes and drifts are caved in the proximity of this major structure most of the sympathetic shearing appears to be "horsetailing" and ultimately converge and again diverge from the master trend.

Although fault intersections are intimately associated with the stoping blocks and thus inaccessible for observation, fracture cleavage and attendant shearing indicate the shallow south-southwest dipping faults to be the oldest structures (pre-uplift and tilting of beds) most likely Proterozoic in age. These structures were subsequently off-set by succeeding high-angle, north dipping faults which were probably contemporaneous with the regional uplift and/ or intrusions. The nature of the bedding slips suggest the rocks were thoroughly indurated, created little mylonite, and only very minor parallel footwall disturbance, therefore most likely were associated with the uplift and tilting as opposed to lateral influences.

In some instances, the opposing displacements of the older south dipping faults and the younger north dipping structures have tended to restore or negate any significant off-set. In other circumstances when contrary faults are compounded by bedding slip, a "stacking" effect of lithologic units is created. The stoping block off the West Incline Shaft, on the 450'-Level West is a good example of this phenomenon. Multiple periods of bedding slip movement has further compounded the reconstruction of a complex structural picture by off-setting the subsequent normal faulting patterns. This situation is partly responsible for the difficulties encountered in the previous underground exploration efforts, where drifting and crosscutting were the major means utilized in developing ore blocks.

STRUCTURE (continued)

Minor structural features of consequence include preferential jointing trends in quartzitic units of N36E and N57W strikes with 46° SE and 52° SW dips respectively. Fracture trends noted were N78W and N13W with 48° S and 34° W dips, respectively.

MINERALIZATION:

Without exception, all observable underground stoping blocks of any significance were oriented along bedding. There appears to be three major auriferous-bearing mineralized beds, over a 120-foot stratigraphic column, within which the mining activities were conducted. The upper horizon is a Zn-rich (sphalerite), sericitic, schistose, gray to rust colored phyllite which ranges from 4 to 14 feet in thickness. This unit is underlain by a 25-30 foot section of thinly laminated, argillacous schists and phyllites. The middle production horizon consists of a Cu-rich, blue-gray quartzite bed varying from 5-15 feet in thickness which overlies a 50-55 foot sequence of dense greenish mudstone with interbeds of argillite and thin quartzite stringers. The third or lower horizon consists of a green mudstone (pyritic-rich) with hematitically stained schist interbeds and thin quartzite laminae.

The only area where all three units are visible and intact as a column sequence is at the Y-junction on the 350-Level West. However, only two of the horizons were actively worked on this level (the upper two horizons). As noted on the sample map covering this area, the interbedded sequences are also mineralized.

Due to the structural complexities throughout the deposit, at no time were all three horizons worked on any level unless possibly the east-end of the 600-level near the Talmadge Fault where caving has precluded access. The middle or quartzitic bed appears to have been the most prolific producer and is recognizable on all levels.

Diagenetically remobolized quartz veins persist throughout the mine but due to their limited extent, only minor production was realized.

SAMPLING TECHNIQUES:

Recognizing the distribution of auriferous zones, e.g. stratigraphically controlled, all channel samples were oriented as near normal to bedding dip as possible. In drifts, the channels were cut vertically in the rib and back representing the maximum amount of stratigraphic exposure. In crosscuts, the sampling procedure was to align the channels either horizontially or at a diagonal (normal to the bedding dip) again to maximize lithologic coverage. The attitude of the bedding and back height where therefore the major factors determining the length of each sample.

In some areas where ground conditions prohibited the safe extraction of channel samples, grabs were taken from muck piles and broken materials in open stopes. In drifts where spaling and air slacking were prevalent, some sampling gaps occur.

Resources Inc

From the desk of

Ted H. Eyde

2-6-84

Ben Dickerson:

The attached information on the Vulture May be of interest.

Ted

TED H. EYDE
GEO SERVICES OF ARIZONA
TELEPHONE (602) 297-4330
P.O. BOX 1127
CORTARO, ARIZONA 85230

February 18, 1981

Mr. Boyce Moodie III
Moodie Minerals Exploration Company
Bend of the Rivers
Route Two
Kuttawa, Kentucky 42055

Dear Boyce:

Thanks for your letter dated February 2nd regarding the proposal on zeolites. I hope we will be able to put together an exploration program.

I reviewed the assays from samples collected by Anaconda at the Vulture Gold Mine. The values suggest high grade gold mineralization occurs in some of the narrow quartz sulfide veins. It has always seemed to me more than a coincidence that the gold deposits from the Vulture Mine on the south to the Congress Mine on the north are associated with veins in Precambrian age rocks. Judging from the Ranchers Exploration gold discovery north of Sun City which is also in Precambrian rocks, there is a good potential for other discoveries in the area.

Very best regards,

Ted H. Eyde

Ted H. Eyde

THE/mce

MOODIE MINERALS EXPLORATION COMPANY
BEND OF THE RIVERS, ROUTE TWO, KUTTAWA, KENTUCKY 42055 • TELEPHONE (502) 388-2514
Office No. (502) 388-9778

February 2, 1981

Mr. Ted Eyde
Geo Services of Arizona
P.O. Box 1127
Cortaro, Arizona 85230

Dear Ted:

I am in receipt of your proposal on Zeolites. It looks good and I will respond in about ten days to two weeks.

I have attached a copy of a letter I found in my Dad's files on the Vulture. I would appreciate your comments, are these values of interest?

Kindest regards,

Boyce

Boyce Moodie 111

BM111:sc
Enc.

COPY

THE ANACONDA COMPANY

151 S. Tucson Blvd. — Room 221
Tucson, Arizona

Geological Department
Southwestern Office

April 17, 1963

Mr. J. H. Byrd
1335 E. Linden
Tucson, Arizona

Dear Mr. Byrd:

The following are assays obtained from samples taken during our visit to the Vulture Mine, Maricopa County, Arizona, on April 3, 1963:

Sample No.	Location and Description	Width	Gold oz/ton	Silver oz/ton	Lead %
56690	Impact Drill Hole #3- portion of cuttings from 20 ft. to 30 ft.; hole drilled between two large pits west of West Incline Shaft	10.0 ft.	trace	trace	- -
56691	West Pit, southeast face; horizontal chip of north portion marked "12", fractured, altered, schistose rock, volcanic(?), iron-manganese oxide stained; included vein sampled as No. 56692	6.0 ft.	0.03	0.07	- -
56692	West Pit, southeast face; broken, lensy, quartz-hematite vein within area sampled as #56691	grab	<u>0.24</u>	0.16	- -
56693	West Pit, southeast face; horizontal chip of south portion marked "12"	4.0 ft.	0.07	trace	- -
56694	West Pit, southeast face; horizontal chip of northeast portion marked "10"; altered, iron oxide-stained, schistose rock, volcanic(?)	5.0 ft.	0.04	trace	- -
56695	Cut leading into West Pit, east side; broken, lensy quartz vein up to six inches wide, with very irregular galena, wulfenite	grab	<u>3.82</u>	2.48	3.31
56696	Cut leading into West Pit, east side; horizontal chip across section marked "7", but not included vein sampled as No. 56695	5.0 ft.	0.04	trace	0.23

Sample No.	Location and Description	Width	Gold oz/ton	Silver oz/ton	Lead %
56697	East Pit, south side; iron oxide-stained, schistose rock, volcanic(?), between altered, metamorphosed, granite outcrops	grab	0.30	trace	- -
56698	"Big Pit", northeast of West Incline Shaft; altered, bleached, schistose granite; very irregular quartz-iron oxide stringers throughout	grab	0.08	trace	- -
56699	West Pit, north face; very irregular, lensy, quartz-iron oxide vein, from nil to six inches in width; spotty galena, in contorted schist	grab	3.12	1.88	1.60

As discussed in our recent telephone conversations, The Anaconda Company will not be interested in doing further exploration on the Vulture Mine property at this time.

We thank you for bringing the mine to our attention, and for your cooperation during my visit to the area.

With best regards,

Yours very truly,

G. A. Barber

G. A. Barber

GAB:je

cc Mr. Boyce Moodie, Jr.
Mr. R. B. Mulchay

ZORTMAN/LANDUSKY MINING COMPANIES
VULTURE MINES OPERATION
P. O. Box 1904
Wickenburg, Arizona 85358

TO: Don Duncan

FROM: Russ Walker

DATE: November 16, 1982

SUBJECT: Origin of Vulture Mine Tailings

Information on milling Vulture Mine ores until recent times is rather sketchy as would be expected. Two types of milling were used to treat the ores. First of these was stamp milling.

STAMP MILLING

1864 - 1866. Forty (40) Arrastras (simple crushing device using stones; then ore was panned or washed) were built at Wickenburg on the Hassayampa River.

1866 - 1872. A new 20 stamp mill was built at Wickenburg with a 40 ton/day capacity using amalgamation and concentration. Tailings accumulation estimated at 150,000 to 200,000 tons one mile north of Wickenburg. Tailings are on property owned now by Dave Underdown. Additional batteries of stamps were constructed at Smith's Crossing, Martinez Wash and Seymour - down the Hassayampa River in the vicinity of what is now Morristown.

1880 - 1884. A 9 inch reduced to 7 inch pipeline was built to the mine and water pumped from wells drilled in the Hassayampa River flood plain. A new 80 stamp mill was constructed at the mine. Estimated tailings at 248,000 tons from the operation. 248,000

1885 - 1909. Not much production. Tailings estimate - 50,000 tons. 50,000

1910 - 1915. Vulture Mines Co. 20 stamp mill operated and produced 100 to 120 tons/day. Each stamp was 1,600 lb. capacity crushing in cyanide solution and amalgamating inside mortars, Dorr classifier, 3 Australian grinding pans, 3 Dorr pulp thickeners, 32' X 12' and one Oliver filter. Three (3) Wilfley tables were used to concentrate the ore. Tailings estimate - 150,000 tons. 150,000

1927 - 1930. Five stamp mill produced estimated 30,000 tons. 30,000

1931 - 1933. Ten stamp mill produced 10 tons of concentrate per month with an estimated tailings total of 45,000 tons. 45,000

1934. 125 ton amalgamation and concentration mill operated using quarried unmined portions of vein. Old-tails dump was run through 100 ton cyanide leaching plant. Estimated tailings - 7,500 tons. 7,500

?? 530,500

1935 - 1936. Tailings processed only.

COMPLEX MILLING

1937 - 1942. Dickie and Lincoln (East Vulture Mining Co.) constructed and operated a more complex and efficient milling operation. Their mill was built in 1939 with a capacity of 100 tons/day. It was enlarged to 200 tons/day in 1940 and 400 tons/day in 1941. A brief summary of the circuitry is as follows:

Crushing - Ore crushed to 2½ inch on a 14" X 20" primary. The product went to a double-decked Simplicity vibrating screen with the plus 1" being crushed in a cone crusher and the oversize from the bottom deck (plus 3/4 inch) rolled through 36" X 16" McFarlane rolls.

Grinding - Screen undersize minus 1/4" X 3/4" conveyed to fine ore bin. Two ore feeders fed 6' X 5' Allis-Chalmers and 4' X 8' Marcy ball mills. Both mills were in a closed circuit with a 54" Simplex Akins Classifier. Grinding was done with a one (1) pound cyanide per ton solution at 79% solids. Cyanide and lime were fed by a Denver Dry Reagent Feeder onto the ore feed belt.

Jigging - Discharge from the 4' X 8' and 6' X5' ball mills was jigged by 12" X 18" and 16" X 24" Denver Duplex Mineral Jigs. The jigs discharged into a dewatering and settling tank and the concentrates shipped to a smelter. Init[illegible] operational testing of the jigs produced a concentrate assaying 33% lead, 3.12 oz. gold and 2.76 oz. silver and a ratio of concentration 200 to 1.

Leaching - The classifier overflowed at 40% solids, minus 40-mesh and was pumped to a 12 foot Denver Hydro classifier. The overflow (minus 100-mesh) went to a 29' 8" X 10' Denver Primary Thickener. Underflow went to one of five 200-ton leaching tanks. The leaching tanks had slatted bottoms over which 1/4" cocoa matting and canvas was placed. Solution returned to the primary thickener and the sand was sluiced out to the tailings area south of the mill.

Slime Plant - Slimes from the Denver Primary Thickener were pumped to one of three 15' 4½" X 12' Denver Side Air-Lift Agitators in series. The agitators provided thorough mixing of the slime and allowed for more dissolution time. Slime pulp from third agitator flowed to first of four 29' 8" X 10' Denver Washing Thickeners which comprised a counter - current decantation system. Slimes from the fourth thickener were discarded to tailings while the solution progressed counter - current to the primary thickener. The overflow (gold bearing) from the primary thickener then joined the pregnant solution from the sand leaching plant where it was sent to a 600-ton Denver Precipitation Plant. The precipitate was then refined in a Denver Fire Clay Co. furnace.

J. Fernandez Copy

1983 ENGINEERING PROGRAMS

VULTURE MINE
Maricopa County, Arizona

ZORTMAN / LANDUSKY MINING COMPANIES

Prepared by:

DAVID C. BELING
Mining Consultant

Contributions by:
STEVE TINTLE
Project Metallurgist

June 1983

TABLE OF CONTENTS

TABLE OF CONTENTS (cont'd.) **Page**

LIST OF FIGURES

LIST OF TABLES

APPENDICES

LIST OF MAPS

LIST OF PHOTOGRAPHS

1.0 INTRODUCTION

1.1 Purpose and Scope

The purpose of this report is to present results from engineering programs conducted by Zortman Mining Company on the Vulture Mine during late 1982 and 1983.

Scope of report concentrates on metallurgical testing, pilot-scaled heap leach operations and estimation of gold reserves in tailings and resources in potential open pit mine areas.

Project engineering, construction and operations for the period January through June 1983 were under the management of David C. Beling, Mining Consultant. The pilot-scaled heap leach test was operated and supervised by Steven Tintle, Project Metallurgist, Zortman Mining Co. All programs were under the general management of Donald M. Duncan, Vice President - Projects, Pegasus Gold Corporation.

A separate report assembled in May 1983 includes land, geological, survey and assay data developed from Zortman's 1982 exploration programs on the Vulture properties.

2.0 SUMMARY

2.1 Reserve and Resource Estimates

Proven gold reserves in the east tail pond have been estimated at 12,616 troy ounces in 294,900 tons, or 0.043 ounce gold per ton.

Inferred open pit resources are estimated at some 1.25 MM tons averaging 0.077 troy ounces gold per ton. However, much additional drilling is required to define resource outlines and grades with confidence sufficient for detailed pit planning.

2.2 Metallurgical Laboratory Tests

Column leach tests indicated that approximately 70% of gold in agglomerated and unagglomerated tailings samples could be leached within 20 days. Percolation rates averaging 0.0035 gpm per square foot were observed during these tests.

Results of these laboratory tests could not be achieved in a pilot-scaled heap leach of 3500 tons of tailings. Lesser results in the pilot test are mainly attributed to the following:

(1) Laboratory tests in 5-inch diameter columns charged with 4 feet of sample are indicative but often cannot simulate what might be experienced in deeper heaps of several thousand tons. Longer term and larger scale effects of blinding or channeling in a large heap may not be observed or detected in a small column leach test.

(2) The pilot heap represented the entire east tail pond both in grade and sand/slime size consist. It is suspected that samples acquired for lab testing may have contained more sands and less slimes than tailings mined for the pilot test, particularly on the west half of the heap. As a result, higher percolation rates and better solution contact of tails in the lab tests produced higher recovery in less time than the pilot test.

2.3 Pilot Heap Leach Test

A 3500-ton pilot heap leach test was conducted on tailings from the Vulture Mine. The west half of the heap was built with tailings as mined whereas the east half was pretreated with a cyanide and caustic solution before loading on the pad. No cement or binder was added.

A clay lined pad sloped at 6% was constructed with a centerline berm to separate east and west heap effluents. Pregnant and barren solutions were stored in earthen ponds lined with a 20-mil thick PVC membrane.

A mobile test plant constructed in an 8' x 40' highway trailer provided solution pumping and carbon adsorption equipment and suitable facilities for a site laboratory and operations office.

Below is a summary of heap leach test data:

Average heap grade:	0.046 Au &	0.30 Ag, troy oz/ton.
Metal content:	161.83 Au	1036.4 Ag, troy oz.
Recovery after two months leaching:	40.6 % Au &	12.4% Ag.
	65.7 oz Au &	128.8 oz Ag.
Projected Recovery for 3 mos. leaching:	50 % Au &	15% Ag.

Average percolation rate:	0.00077 gpm/sq.ft.
Reagent consumption:	0.71 lbs. NaCN/ton tails.
	8.51 lbs. NaOH/ton tails.
Total costs for heap test engineering, construction & operations:	$195,000.00.

Based on the slow rate of heap leach recovery, constraints and limitations of developed gold resources and difficulties with lease terms and conditions, corporate management decided to cease exploration and test operations. All carbon and salvageable equipment and supplies were loaded in the plant trailer and shipped to Winnemucca, Nevada on May 4th. Neutralization of cyanide in the heap and solution storage ponds was started on May 2 and is nearly complete as of mid-June. The Lease Agreement on the Vulture Mine was terminated effective May 15, 1983.

Although laboratory tests experienced difficulties with agglomeration of Vulture tails, it is anticipated that any future heap leach operations would be based on further testwork and use of particle agglomeration leach methods.

8.0 PROJECT ACCOUNTING

A project accounting was prepared for the period January through May 1983. This accounting is supported by project checking account data, actual account of all expenses paid by Zortman's Spokane office for the period January through April 1983 and estimated payments by the Spokane office for May 1983.

Below is a comparison of office accounting data and the project accounting prepared herein:

Total checks written on project account, January - May 1983, Checks # 642-785:	$ 125,082
Accounting of project expenses paid by Spokane office, Jan.-April 1983:	117,370
Estimated payments by Spokane office for May 1983:	16,000
Allocation for mobile plant per budget:	25,000
Total Office Accounting	$ 283,452
Total Project Accounting	$ 286,233
Difference	$ 2,781 or 1 %

Total project budget for the period January through April 1983 was $301,020.

Table XIII shows accounting for the pilot heap leach test listed under direct costs. All costs listed under indirect apply to the Vulture project but not the heap leach test.

TABLE XIII.

PROJECT ACCOUNTING
January through May, 1983

	Cost, $	Quantity	Unit Cost $ / unit
I. Direct Costs (Pilot Heap Leach Test)			
1. Contractor Services (Hershkowitz Bros.)			
Site Preparation	5,364	-	-
Clay Mining & Pad Installation	6,137	850 yd^3	7.22/yd^3
Mining & Hauling Slime Tails	1,893	900 tons	2.10 / ton
Gravel Mining & Grading	855	-	-
Lining ponds	534	-	-
Mining & Loading W ½ Heap	2,110	1,660 tons	1.27 / ton
Mining, Pretreating & Loading E ½ Heap	4,956	1,840 tons	2.69 / ton
Freight on chemicals, mobilization and miscellaneous	1,223	-	-
Grading Tailings Pits	455	-	-
Sub Total	23,527	3,500 tons	6.72 / ton
2. Construction Equipment Rent & Freight			
Vibratory Compactor, 9 ton	1,165	-	-
Conveyor & Feeder	2,315	-	-
Transit	540	-	-
Sub Total	4,020	-	-
3. Construction Supply Purchases			
PVC pond liner, 20-mil	1,392	9,000 s.f.	0.155/s.f.
Typar, poly-spun fabric, 4-mil	1,426	1,641 yd^2	0.87 / yd^2
PVC & Iron Pipe, Fitting & Valves	1,795	-	-
Gravel - delivered	434	45 yd^3	9.64 /yd^3
Perimeter Fencing & Gate	589	850 l.f.	0.69 /l.f.
Lightnin Mixer-Carbon Wash	368	-	-
Sub Total	6,004	3,500 tons	1.72 / ton

TABLE XIII.

PROJECT ACCOUNTING (cont'd.)

		Cost, $	Quantity	Unit Cost $ / unit
4.	Chemicals			
	Sodium Cyanide	1,931	2,475 #	0.78 / #
	Caustic Soda	10,430	29,800 #	0.35 / #
	Calcium Hypochlorite	3,915	2,900 #	1.35 / #
	Surfactant	70	10 gal.	0.70 / gal.
	Flocculant	15	1 gal.	15.00 / gal.
	Hydrochloric Acid	45	45 #	1.00 / #
	Sub Total	16,406	3,500 tons	4.69 / ton
5.	Plant Trailer Mobilization			
	In (estimated)	2,500		
	Out	1,200		
	Sub Total	3,700		
6.	Laboratory			
	Supplies & instr. rep.	1,545		
	Outside Assaying & Testing	1,841		
	Sub Total	3,386		
7.	Office - Rent, supplies, clerical & telephone	6,597		
8.	Vehicle - Rent, oper. & rep.	1,105		
9.	Project Fuel	1,200		
10.	Contract Labor	408		
11.	Freight - unallocated	744		
12.	Operating Supplies, incl. safety equipment	1,329		
13.	Insurance - incl. medical & fringe benefits	10,000*		
14.	Payroll Taxes	2,600*		
15.	Employee Salaries (Proj. met. & 1 Oper.)	16,000*		
16.	Expense Accounts - Travel & living expenses, small tool & supply purchases	11,000*		

TABLE XIII.

PROJECT ACCOUNTING (cont'd.)

		Cost, $
	17. Company Plane	4,000*
	18. Outside Services - Includes Project & Corporate Mgmt.	58,000*
	19. Allocation for mobile plant per budget	25,000*
	TOTAL DIRECT COSTS	195,026
II.	Indirect Costs	
	1. Royalty & Rent to Lessor(VMP)	37,500
	2. VMP Generator Repairs	12,153
	3. Generator Rental	1,728
	4. VMP Backhoe Repair	1.436
	5. VMP Refrigerator Repairs	634
	6. VMP Fuel	6,411
	7. Labor - incl. sev. pay ex-emp. & VMP personnel not needed for test	29,000*
	8. Drafting Services & Supplies - Expl. data	2,345
	TOTAL INDIRECT COSTS	91,207
	TOTAL PROJECT COSTS	286,233

* Actual costs through April plus estimate for May (Spokane office).

-60°	H-22 ; 5-35' : 30'	0.070			
	5-30' : 25'	0.080	15-25 ; 10'	0.148	
vert.	H-10 ; 25-45' ; 20'	0.096	35-45' ; 10'	0.170	
-60°	H-21 : 20-60 : 40'	0.028	20-30 ; 10	0.039	
-60°	84-2 ; 30-50' : 20'	0.060	30-45 ; 15'	0.073.	
-60°	H-20 : 20-40' ; 20'	0.048	30-40 : 10'	0.079	
-60°	H-18 : 20-40' ; 20'	0.064	20-30 : 10'	0.096	
-60°	84-9 ; 10-25' : 15'	0.048	10-20' : 10'	0.065	
vert	H-7 : 10-25' ; 15'	0.023	15-25 ; 10'	0.028	
	175	0.055	85	0.086	

plus 10' 1.0 in M-2

0.182

175 x 150 x 10 ÷ 12

= 22,000 tons. @ 1:1

70% rec. @ 0086 = 1300 ozs recoverable = $585,000

@ 0.10 = 1500 ozs " = $675,000

BFD

Vulture Production Data from U.S. Bur. of Mines
(Hard rock ores only; tailings omitted)

Year	Short tons	Ounces Produced Ag	Ounces Produced Au	Grade (oz/t) Ag	Grade (oz/t) Au	Remarks
1890	300 000	142 000	238 000	0.5	0.8	Tonnage likely erroneously high
1902	1 080	140	107	.1	.1	
10	12 152	1 092	3 015	.1	.2	
11	11 351	2 715	4 615	.2	.4	
13	26 683	16 167	28 136	.6	1.1	"Lead ore"
14	36 760	6 713	17 001	.2	.5	"Leaching ore"
15	30 566	10 029	12 972	.3	.4	"Leaching ore"
17	221	435	737	2.0	3.3	
18	25	73	69	2.9	2.8	
23	14 287	1 439	638	.1	.05	} Report errors ?
24	48 000	3 893	2 564	.1	.05	
25	900	150	470	.2	.5	
27	950	170	501	.2	.5	
28	400	45	119	.1	.3	
31	6 327	729	1 838	.1	.3	
34	18 000	653	1 589	.04	.1	
35	15 000	439	1 118	.03	.1	
36	1	Ø	1	Ø	1.0	
38	4 531	215	479	.05	.11	
39	5 799	370	128	.06	.02	Report error ?
40	35 300	2 060	2 733	.06	.08	}
41	52 190	2 744	2 699	.05	.05	}
42	34 143	1 584	2 255	.05	.07	} WW II influence
43	16 349	410	452	.03	.03	}
44	2 956	304	116	.10	.04	}
46	62	16	16	.26	.26	
48	6	Ø	12	Ø	2.0	
Total*	374,039	52,585	84 380	0.14	0.23	

* 1902-1948 (omitting 1890 report)

JCW July 1986

Vulture Production Data from U.S. Bur. of Mines
(Tailing reprocessing only)

Year	Short tons	Ounces Produced: Ag	Ounces Produced: Au	Grade (oz/t): Ag	Grade (oz/t): Au	Remarks
1911	7 895	199	471	0.03	0.06	
16	18 220	2 609	2 286	.14	.13	"Copper - gold precipitates"
23	33	47	48	1.4	1.4	} Report errors - ?
34	302	1 820	907	6.0	3.0	}
35	34 650	2 258	1 323	.06	.04	
36	101 260	9 833	2 918	.10	.03	
37	71 120	6 170	2 167	.09	.03	
38	9 000	632	295	.07	.03	
39	3 020	∅	366	∅	.12	
40	7 575	∅	154	∅	.02	
41	8 140	300	799	.04	.10	
43	695	150	87	.22	.13	Includes 175… lead tailings
44	1 364	434	326	.32	.24	Includes 24… lead tailings
45	186	66	52	.35	.28	
65	19	2	8	.10	.42	
66	5	∅	2	∅	.40	
Total	263,484	24,520	12,209	0.09	0.046	

DCW July, 1986

Year	Code	Ore treated (short tons)	Lead (pounds)	%	Pb ($)	Zn (lbs)	Zn ($)	Mo (lbs)	Mo ($)	yearly value, all metals
1890		300000.	0.		0.	0.	0.	0.	0.	5068997.
1902	NG	1080.	0.	0	0.	0.	0.	0.	0.	2285.
1910	NG	12152.	0.	0	0.	0.	0.	0.	0.	62910.
1911	MGT	7895.	0.	0	0.	0.	0.	0.	0.	9843.
1911	NG	11351.	0.	0	0.	0.	0.	0.	0.	96848.
1913	NL	26683.	241829.	0.45	10568.	0.	0.	0.	0.	605931.
1914	NGL	36760.	371468.	0.50	14346.	0.	0.	0.	0.	373998.
1915	NGL	30566.	193527.	0.32	9044.	0.	0.	0.	0.	285555.
1916	MCGP	18220.	66060.	0.18	4530.	0.	0.	0.	0.	55663.
1917	NG	221.	1715.	0.29	151.	0.	0.	0.	0.	15740.
1918	NG	5.	0.	0	0.	0.	0.	0.	0.	1262.
1918	NS	20.	0.	0	0.	0.	0.	0.	0.	235.
1923	MGT	33.	0.		0.	0.	0.	0.	0.	14122.
1923	NG	14287.	0.		0.	0.	0.	0.	0.	1052.
1924	NG	48000.	0.		0.	0.	0.	0.	0.	55602.
1925	NG	900.	0.		0.	0.	0.	0.	0.	9819.
1927	NG	950.	2242.	0.12	151.	0.	0.	0.	0.	10619.
1928	NG	400.	1069.	0.13	67.	0.	0.	0.	0.	2558.
1931	NG	6327.	0.		0.	0.	0.	0.	0.	38292.
1934	NG	18000.	0.		0.	0.	0.	0.	0.	55959.
1934	MGT	302.	0.		0.	0.	0.	0.	0.	32618.
1935	NG	15000.	0.		0.	0.	0.	0.	0.	39429.
1935	MGT	24650.	0.		0.	0.	0.	0.	0.	32417.
1935	MGT	10000.	0.		0.	0.	0.	0.	0.	15500.
1936	NG	1.	0.		0.	0.	0.	0.	0.	35.
1936	MGT	20500.	0.		0.	0.	0.	0.	0.	22878.
1936	MGT	80760.	0.		0.	0.	0.	0.	0.	89437.
1937	MGT	50120.	0.		0.	0.	0.	0.	0.	54858.
1937	MGT	21000.	0.		0.	0.	0.	0.	0.	27550.
1938	NG	4531.	0.		0.	0.	0.	0.	0.	16893.
1938	MGT	9000.	0.		0.	0.	0.	0.	0.	10598.
1939	NG	730.	0.		0.	0.	0.	0.	0.	4524.
1939	NG	5069.	0.		0.	0.	0.	0.	0.	122.
1939	MGT	3020.	0.		0.	0.	0.	0.	0.	12810.
1940	NG	35300.	0.		0.	0.	0.	0.	0.	96371.
1940	MGT	7575.	0.		0.	0.	0.	0.	0.	5390.
1941	NG	52185.	900.	0.001	52.	0.	0.	0.	0.	95316.
1941	NG	5.	0.		0.	0.	0.	0.	0.	176.
1941	MGT	8140.	0.		0.	0.	0.	0.	0.	28184.
1942	NGL	34143.	7500.	0.01	486.	0.	0.	0.	0.	80131.
1943	NG	16349.	1188.	0.004	77.	0.	0.	0.	0.	16199.
1943	MGT	678.	0.		0.	0.	0.	0.	0.	2803.
1943	MLT	17.	4600.	13.5	299.	0.	0.	0.	0.	632.
1944	NG	2704.	0.		0.	0.	0.	0.	0.	2329.
1944	NL	252.	17850.	3.5	1160.	0.	0.	0.	0.	3045.
1944	MLT	24.	4250.	8.3	276.	0.	0.	0.	0.	815.
1944	MGT	1340.	0.		0.	0.	0.	0.	0.	11425.
1945	MGT	186.	500.	[illegible]	33.	0.	0.	0.	0.	1934.
1946	NG	62.	0.		0.	0.	0.	0.	0.	573.
1948	NG	6.	0.		0.	0.	0.	0.	0.	420.
1965	MGT	19.	0.		0.	0.	0.	0.	0.	286.
1966	MGT	5.	0.		0.	0.	0.	0.	0.	70.
1967	TO	0.	0.		0.	0.	0.	0.	0.	0.
TALS		937523.	914698.		41241.	0.	0.	0.	0.	7473056.

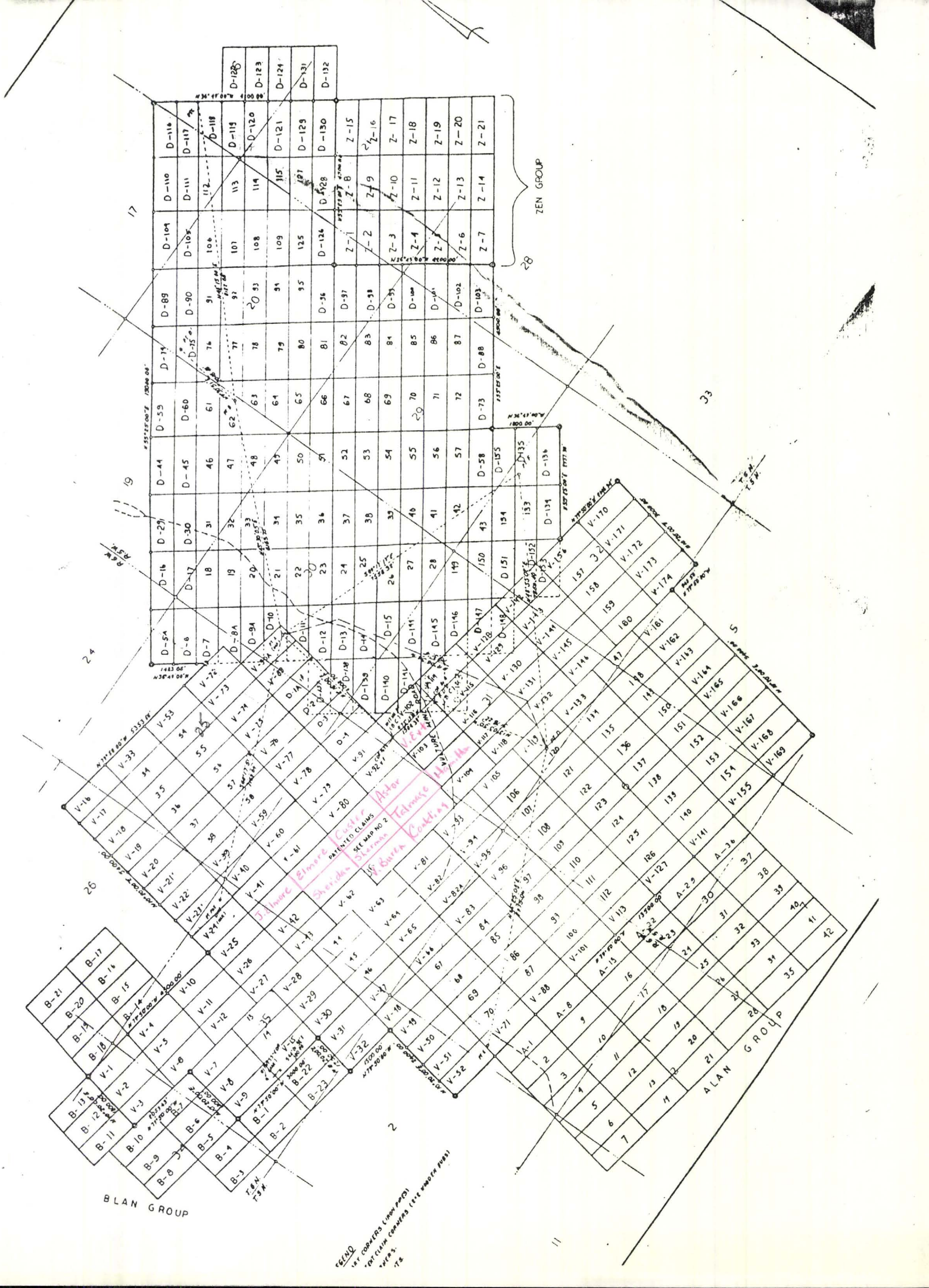
U.S. Bureau of Mines Production data on Vulture Mine

NAME — VULTURE

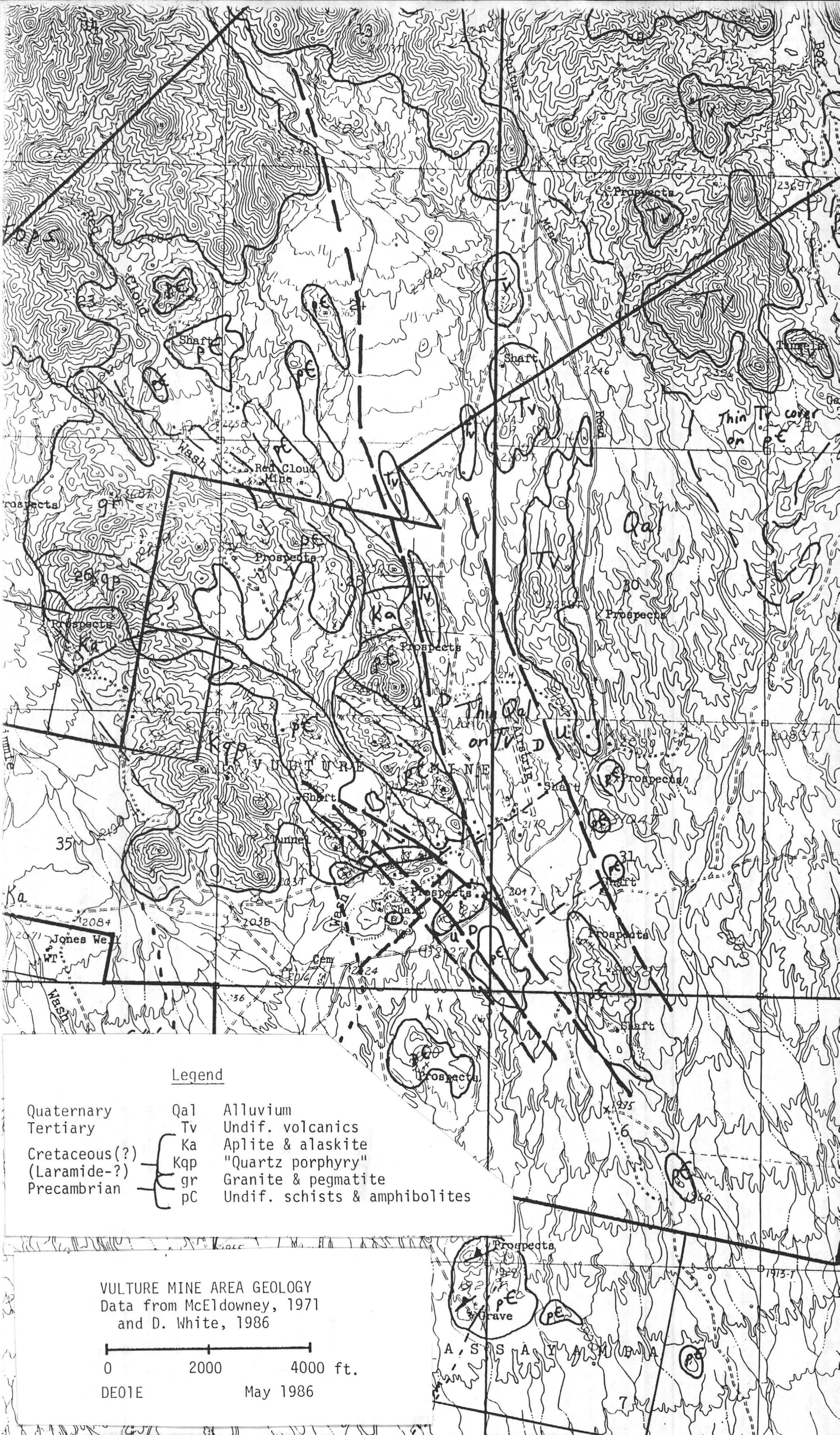
E OPERATORS — VULTURE MINES CO, CARL T MCLENDON, PRINCE+PEACH, ARTHUR COOK, FINLAYSON, AR MACKAY, JR SCHAFFER, EAST VULTURE M C, JOHN HALEMAN, AZ EASTERN AU MI, J.D. BURDEN

EAR	ORE TYPE	ORE TREATED (SHORT TONS)	COPPER (POUNDS)	%	COPPER (DOLLARS)	SILVER (OUNCES)	oz/t	SILVER (DOLLARS)	GOLD (OUNCES)	oz/t	GOLD (DOLLARS)	YEARLY VALUE ALL METALS
890		300000. ? 30,000 ?	0.	0	0.	142000.	4.7	149100.	238000.	7.9	4919897.	5068997.
902	NG — *Gold ore*	1080.	0.	0	0.	140.	0.1	73.	107.	0.1	2212.	2285.
910	NG	12152.	0.	0	0.	1092.	0.1	584.	3015.	0.2	62326.	62910.
911	MGT — *Gold Tailings*	7895.	0.	0	0.	199.	0.03	106.	471.	0.06	9736.	9843.
911	NG	11351. ?	0.	0	0.	2715.	0.2	1447.	4615.	0.4	95401.	96848.
913	NL — *Lead ore*	26683. =	26683.	0.05	4074.	16167.	0.6	9666.	28136.	1.1	581623.	605931.
914	NGL — *Gold leach*	36760.	33311.	0.05	4531.	6713.	0.2	3679.	17001.	0.46	351442.	373998.
915	NGL	30566.	19527.	0.03	3373.	10029.	0.3	4983.	12972.	0.42	268155.	285555.
916	MCGP — *Copper-Gold Precipitates*	18220.	7954.	0.02	2164.	2609.	0.1	1713.	2286.	0.13	47256.	55663.
917	NG	221.	0.	0	0.	435.	2.0	354.	737.	3.3	15235.	15740.
918	NG	5.	0.	0	0.	65.	13.0	63.	58.	11.6	1199.	1262.
918	NS — *Silver ore*	20.	0.	0	0.	8.	0.4	8.	11.	0.5	227.	235.
23	MGT	33.	0.	0	0.	? 1439.	43.6 1.4	934.	? 638.	19.3 1.4	13189.	14122.
23	NG	14287.	202.	0.0007	29.	47.	0.003 .1	30.	48.	0.003 .15	992.	1052.
24	NG	48000.	0.	0	0.	3893.	0.1	2600.	2564.	0.05	53003.	55602.
925	NG	900.	0.	0	0.	150.	0.2	104.	470.	0.5	9716.	9819.
27	NG	950.	117.	0.01	15.	170.	0.2	96.	501.	0.5	10357.	10619.
28	NG	400.	29.	0.003	4.	45.	0.1	26.	119.	0.3	2460.	2558.
31	NG	6327.	1088.	0.01	88.	729.	0.1	209.	1838.	0.3	37995.	38292.
34	NG	18000.	365.	0.001	31.	653.	0.04	313.	1589.	0.1	55615.	55959.
34	MGT	302.	0.	0	0.	1820.	6.0	873.	907.	3.0	31745.	32618.
935	NG	15000.	190.	0.001	16.	439.	0.03	282.	1118.	0.1	39130.	39429.
935	MGT	24650.	0.	0	0.	1808.	0.07	1162.	893.	0.04	31255.	32417.
935	MGT	10000.	1855.	0.01	160.	450.	0.05	289.	430.	0.04	15050.	15500.
936	NG	1.	0.	0.	0.	0.	0.	0.	1.	1.0	35.	35.
936	MGT	20500.	0.	0.	0.	1370.	0.07	618.	636.	0.03	22260.	22878.
936	MGT	80760.	60711.	0.04	5752.	8463.	0.10	3816.	2282.	0.03	79870.	89437.
937	MGT	50120.	28810.	0.03	3793.	4600.	0.09	2065.	1400.	0.03	49000.	54858.
937	MGT	21000.	0.	0	0.	1570.	0.07	705.	767.	0.04	26845.	27550.
938	NG	4531.	355.	0.004	36.	215.	0.05	93.	479.	0.11	16765.	16893.
938	MGT	9000.	0.	0	0.	632.	0.07	273.	295.	0.03	10325.	10598.
939	NG	730.	193.	0.01	21.	59.	0.08	23.	128.	0.18	4480.	4524.
939	NG	5069.	0.	0	0.	311.	0.01	122.	0.	0.0	0.	122.
939	MGT	3020.	0.	0	0.	0.	0	0.	366.	0.12	12810.	12810.
940	NG	35300.	0.	0	0.	2060.	0.06	716.	2733.	0.08	95655.	96371.
940	MGT	7575.	0.	0	0.	0.	0	0.	154.	0.02	5390.	5390.
941	NG	52185.	170.	0.002	20.	2741.	0.05	953.	2694.	0.05	94290.	95316.
941	NG	5.	0.	0	0.	3.	0.6	1.	5.	1.0	175.	176.
941	MGT	8140.	970.	0.006	114.	300.	0.04	104.	799.	0.10	27965.	28184.
942	NGL	34143.	957.	0.001	113.	1584.	0.05	607.	2255.	0.07	78925.	80131.
943	NG	16349.	.1006.	0.003	118.	410.	0.03	183.	452.	0.03	15820.	16199.
943	MGT *Gold tailings*	678.	0.	0	0.	85.	0.13	38.	79.	0.12	2765.	2803.
943	MLT *Lead tailings*	17.	200.	0.6	24.	65.	3.8	29.	8.	0.47	280.	632.
944	NG	2704.	0.	0	0.	198.	0.07	89.	64.	0.02	2240.	2329.
944	NL	252.	150.	0.03	18.	106.	0.42	47.	52.	0.21	1820.	3045.
944	MLT	24.	0.	0	0.	30.	1.25	13.	15.	0.62	525.	815.
944	MGT	1340.	3050.	0.11	359.	404.	0.30	181.	311.	0.23	10885.	11425.
945	MGT	186.	400.	0.11	47.	66.	0.35	34.	52.	0.28	1820.	1934.
946	NG	62.	0.	0	0.	16.	0.26	13.	16.	0.26	560.	573.
948	NG	6.	0.	0	0.	0.	0	0.	12.	2.0	420.	420.
965	MGT	19.	0.	0	0.	2.	0.10	3.	8.	0.42	283.	286.
966	MGT	5.	0.	0	0.	0.	0	0.	2.	0.40	70.	70.

c/m GROUP CODE	MATERIAL SEQUENCE	MATERIAL CODE	CLASS OF MATERIAL
1. Precious Metals	01	NG	ORE: GOLD
	02	NGS	ORE: GOLD-SILVER
	03	NS	ORE: SILVER
2. Base Metals	04	NC	ORE: COPPER
	05	NEC	CU ORE ELECTROWINNING
	06	NCLH	ORE: COPPER LEACH HEAPS
	07	NCLV	ORE: COPPER LEACH VATS
	08	NCL	ORE: COPPER-LEAD
	09	NCLZ	ORE: COPPER-LEAD-ZINC
	10	NCZ	ORE: COPPER-ZINC
	11	NL	ORE: LEAD
	12	NLZ	ORE: LEAD-ZINC
	13	NZ	ORE: ZINC
	14	NGLH	ORE: GOLD LEACH HEAPS
	15	NGLV	ORE: GOLD LEACH VATS
	16	NSLH	ORE: SILVER LEACH HEAPS
	17	NSLV	ORE: SILVER LEACH VATS
3. Misc. Materials	18	MGC	GOLD CLEANUP
	19	MGT	GOLD TAILINGS
	20	MGSC	GOLD-SILVER CLEANUP
	21	MGST	GOLD-SILVER TAILINGS
	22	MSC	SILVER CLEANUP
	23	MST	SILVER TAILINGS
	24	MCC	COPPER CLEANUP
	25	MCP	COPPER PRECIPITATES
	26	MCT	COPPER TAILINGS
	27	MLC	LEAD CLEANUP
	28	MLT	LEAD TAILINGS
	29	MLZC	LEAD-ZINC CLEANUP
	30	MLZT	LEAD-ZINC TAILINGS
	31	MZC	ZINC CLEANUP
	32	MZT	ZINC TAILINGS
4. Foreign Ores	33	B	BARIUM SULPHATE
	34	C	CALCIUM FLUORIDE
	35	F	FLUORSPAR
	36	P	MAGNETITE-PYRITE
	37	T	TUNGSTEN
	38	U	URANIUM



ZEN GROUP
BLAN GROUP
ALAN GROUP
PATENTED CLAIMS
SEE MAP NO 2
Elmore
Custer
Astor
Sheridan
Sherman
Talmage
V. Buren
Conkling


Legend
Quaternary Qal Alluvium
Tertiary Tv Undif. volcanics
Cretaceous(?) Ka Aplite & alaskite
(Laramide-?) Kqp "Quartz porphyry"
gr Granite & pegmatite
Precambrian pC Undif. schists & amphibolites
VULTURE MINE AREA GEOLOGY
Data from McEldowney, 1971
and D. White, 1986
0 2000 4000 ft.
DEO1E May 1986
VULTURE MINE
Red Cloud Mine
Thin Tv cover on pC
Thin Qal on Tv
Prospects
Shaft
Tunnel
Tunnels
Jones Well
Cem
Grave
Wash
HASSAYAMPA

Red Cloud Mine
Wash
Prospects
Shaft
Tunnel
Cem
Grave
Jones Well
WT
Road
Mill
V U L T U R E M I N E
H A S S A Y A M P A
Thin Tv cover on pЄ
Thin Qal on Tv
Qal
Tv
pЄ
Ka
Kgp
gr
pЄ-40'
U
D
30
31
35
36
1
2
6
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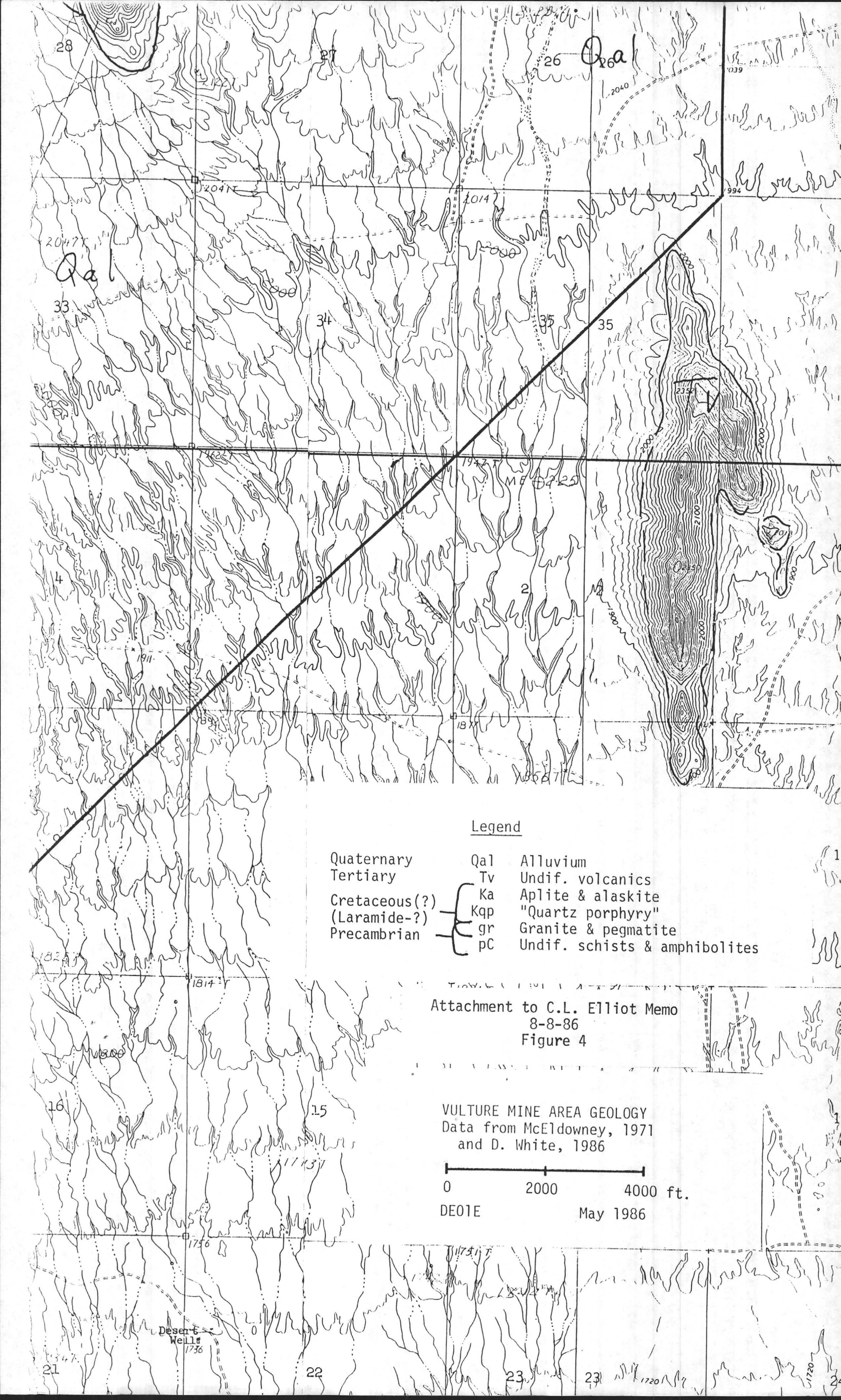
11
12



Attachment to C.L. Elliot Memo
8-8-86
Figure 4

VULTURE MINE AREA GEOLOGY
Data from McEldowney, 1971
and D. White, 1986

DE01E May 1986