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PART 2 OF 4

PRINTED: 03/05/2003

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: GLADSTONE MCCABE

ALTERNATE NAMES:
MCCABE EXTENSION
PATENTED CLAIMS MS 1158-60
MCCABE GLADSTONE MINE

YAVAPAI COUNTY MILS NUMBER: 1001B

LOCATION: TOWNSHIP 13 N RANGE 1 E SECTION 30 QUARTER SE
LATITUDE: N 34DEG 28MIN 38SEC LONGITUDE: W 112DEG 17MIN 30SEC
TOPO MAP NAME: POLAND JUNCTION - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
GOLD
SILVER
COPPER SULFIDE
LEAD SULFIDE
ARSENIC
SILICON
MANGANESE
SULFUR PYRITE

BIBLIOGRAPHY:
ADMMR GLADSTONE MCCABE FILE
YAVAPAI MAG., MAR 1918 P 4-6 SHARLOT HALL
BLM MINERAL SURVEY MS 1158, 1159, 1160
BLM MINING DISTRICT SHEET 19
ANDERSON, C.A. & S.C. CREASY "GEOL & ORE DPST OF JEROME AREA" USGS PP 308 P 171; 1958
LINDGREN, W. "ORE DPSTS OF JEROME & BRADSHAW MTS QUADS" USGS BULL 782, P 130-132; 1926
KISCHMANN, A.H. ET AL, "PRIN GOLD PROD DIST OF US" USGS PP 610, P 46; 1968
ADMMR CALIFORNIA FILE (ADJACENT PROPERTY)
ADMMR STAN WEST CORP FILE P 16,21 REGIS. STMT
AZBM BULL 137, P 36 (INCLUDED IN FILE)
AZBM BULL 140, P 101 (INCLUDED IN FILE)
USBM IC 6905, P 46 (INCLUDED IN FILE)
ADMMR 12 U/G PLAN MAPS (FLAT FILE DRAWER 18)

CONTINUED ON NEXT PAGE

GLADSTONE MCCABE (#) YAVAPAI

K AMC 97

NOTICE OF THE PRELIMINARY DECISION TO MODIFY AN INDIVIDUAL AQUIFER PROTECTION PERMIT

Pursuant to the Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality (ADEQ) intends to modify an individual Aquifer Protection Permit held by the following permittee:

Public Notice No. 37-97AZAP
McCabe Mine
Magma Gold Ltd. - McCabe Mining Division
Magma Copper Company
7400 North Oracle Road, Suite 200
Tucson, AZ 85704

On or about
June 26, 1997

Prescott Courier

Aquifer Protection Permit No. P-100309

The McCabe Mining Operation is located in Yavapai County approximately 3½ miles southwest of Humboldt on the Iron King Road over groundwaters of the Aqua Fria Basin, in Township 13 North, Range 1 East, Sections 20, 29 and 30, Gila and Salt River Baseline and Meridian.

The McCabe Mine originally operated as an underground gold mining and milling facility. The facility was converted to a copper and precious metals mine in March 1991. Mining activities ceased permanently in February 1993. The Aquifer Protection Permit for closure of the McCabe Mining Operation was signed and issued on September 9, 1996.

Since the issuance of the permit, ADEQ has determined that two permit conditions need to be modified. The first modification will consist of additional wording in Part II.C.4.e., page 4, of the permit, Closure Requirements for the Tailings Seepage Collection Pond, to allow Magma Copper Company the option of comparing metal concentrations from on-site soil samples to the Arizona Health Based Guidance Levels (HBGLs) *or* background levels. Permit no. P-100309 allows comparison to only the HBGLs. The second modification will increase the alert level for chromium in both point-of-compliance (POC) wells to reduce the number of false positive notifications to ADEQ. In permit no. P-100309, the chromium alert level for POC monitor well MW-5 was 0.023 milligrams per liter (mg/l). The chromium alert level for POC monitor well PW-1 was 0.01 mg/l. The Aquifer Water Quality Standard for chromium is 0.10 mg/l. The permit will be modified to state that the chromium alert level for both monitor wells will be 0.05 mg/l.

This modified permit and related materials are available for public review Monday through Friday, 8:00 a.m. to 5:00 p.m., at the Arizona Department of Environmental Quality, Aquifer Protection Program Section, Mining Unit, 3033 N. Central Avenue,

4th Floor, Phoenix, Arizona. Please contact Karen Schwab at (602) 207-2256 if you would like additional information or to view the permit and related materials.

Persons may submit written comments or request a public hearing in writing, to Karen Schwab at ADEQ, Aquifer Protection Program Section, Mining Unit, 3033 N. Central Avenue, Phoenix, AZ 85012 within thirty (30) days from the date of this notice. Public hearing requests must include the reason for such a request.

FILE
Gladstone - McCABE file

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Russell F. Rhoades, Director

NOTICE OF THE PRELIMINARY DECISION TO ISSUE AN INDIVIDUAL AQUIFER PROTECTION PERMIT

Pursuant to Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality intends to issue an individual Aquifer Protection Permit to the following applicant:

Public Notice No. 13-96AZAP On or about March 8, 1996
McCabe Mine

Magma Gold Ltd.
7400 North Oracle Road, Ste 200
Tucson, AZ 85704

Aquifer Protection Permit No. P-100309

The McCabe Mining Operation is located in Yavapai County approximately 3½ miles southwest of Humboldt on the Iron King Road over groundwaters of the Aqua Fria Basin, in Township 13 North, Range 1 East, Sections 20, 29 and 30, Gila and Salt River Baseline and Meridian.

The McCabe Mine originally operated as an underground gold mining and milling facility. The facility was converted to a copper and precious metals mine in March 1991. Mining activities ceased permanently in February 1993 and a Decommissioning/ Reclamation Closure Plan was submitted to the ADEQ in March 1993. This Closure Plan was amended in July 1995 with supplemental closure information submitted in September and December 1995.

The McCabe Mine consists of several facilities determined to be discharging under Aquifer Protection Permit statute. Specific facilities to be closed under this permit include the Tailings Impoundment, Compressor Pad Area, Gladstone Waste Rock Deposition Area, Tailings Seepage Collection Pond, Landfill, Fire Water Pond, Mine Water Pond. Closure activities conducted under this permit specifically address these discharging activities and will eliminate to the greatest extent practicable, any reasonable probability of further discharge from the facilities and of exceeding Aquifer Water Quality Standards at the applicable point of compliance. Specific information regarding closure activities for each facility can be found in Part II.C of the Draft Permit.

A post-closure monitoring program has been set up to insure that Aquifer Water Quality Standards (AWQS) will not be exceeded at the points of compliance designated in the Permit.

The permit and related materials are available for public review Monday through Friday, 8:00 a.m. to 5:00 p.m., at the Arizona Department of Environmental Quality, Aquifer Protection Program Section, Mining APP Unit, 3033 N. Central Avenue, 4th Floor, Phoenix, Arizona. Please contact Karen Schwab at (602) 207-2256 if you would like additional information or to view the permit and related materials.

Persons may submit written comments or request a public hearing in writing, to Karen Schwab at ADEQ, Aquifer Protection Program Section, Mining APP Unit, 3033 N. Central Avenue, Phoenix, AZ 85012 within thirty (30) days from the date of this notice. Public hearing requests must include the reason for such a request.

MAGMA GOLD, LTD.
McCABE MINING DIVISION
P.O. Box 460, Humboldt, Arizona 86329-0460
602-632-5165

March 3, 1993
NIAL
Mr. Niels Niemuth
Arizona Depart. of Mines
and Mineral Resources
1502 W. Washington
Phoenix, Arizona

Dear Mr. Niemuth:

The enclosed packet of maps and drawings represents the final " as-bilt " underground drawings for The McCabe Mine, Yavapai County, Arizona as of 3-1-93. Magma Gold, Ltd. officially ceased underground production on February 9, 1993. Underground salvage/recovery operations should be completed by 3-19-93.

These maps are to provide accurate historical mining data that may be of use to others in the future.

This packet contains general information for your files.

1. Surface maps showing active mining areas and shaft locations in existence as of 3-1-93.
2. Plan views of mining excavation on each level operated by Magma Gold, Ltd.
3. Long sections of mining excavation that occurred during this mining sequence.
4. Plans for capping the Vent shaft and the old McCabe shaft.
5. Plans for plugging and back filling the Sooner shaft.
6. Final ore reserve summary sheets.

Sincerely,

R. F. Pape
Mine Superintendent

DATE: February 18, 1993

TO: Richard F. Pape

FROM: Arnold Buchanan

SUBJECT: **Shaft Plug and Cappings - Sooner, Vent and Old McCabe Shafts**

Concrete required:

Sooner - 17 cu. yds.; vent - 3 cu. yds.; Old McCabe - 13 cu. yds.

Total - 33 cu. yds. at 3,000 psi - $54.50/yd. + Fiber Mix $5.57/yd. = $60.25/yd.

Cost - 33 x $60.25 = $1,988.25 (EZ Trans Mix Co., Prescott)

Labor: Maximum time and cost

Sooner	McCabe Shaft	Vent Shaft
2-MS pre-cut rails, plate & rebar	2-MS remove cover & excess tubing & cut plate	2-MS remove fan housing & install plate & rails
3-MS "hang" staging below shaft steel & remove pipe guides, etc.	2-MS install & weld plate & rails	2-MS weld rails & install forms
3-MS install & weld 3 rails & 3/8" plate		
3-MS install & weld 7 rails & drill & install rebar		

11-MS + 4-MS + 4-MS = 19-MS

19-MS + 1-MS overseeing pour and vibrator = 20-MS x $135/MS = $2,700

Recontouring: dozer - $90/m; tk. - $45/m; our loader - $60/m

Sooner - 1 day - McCabe 1/2 day - Vent hole 1/2 day (maximum)

dozer - 2 days x 8 hr./day x $195/hr. = $3,120

TOTAL COST:

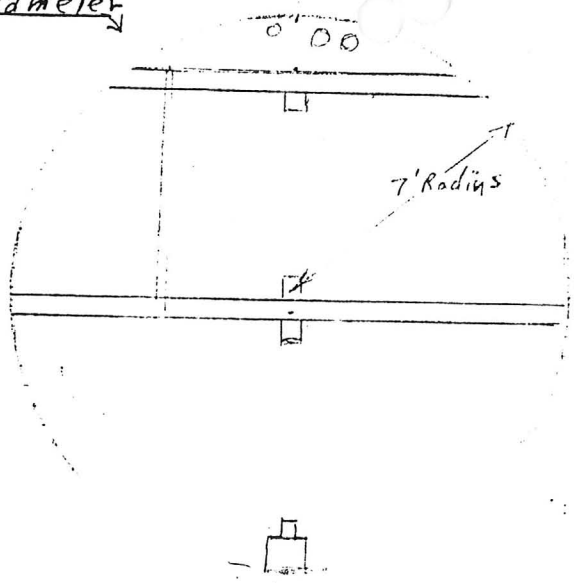
Concrete	**$1,988**		**Backfill**	
Labor	**2,700**		**Recontouring**	
	$4,688	**+**	**$3,120**	**= $7,808**

AB/cgo

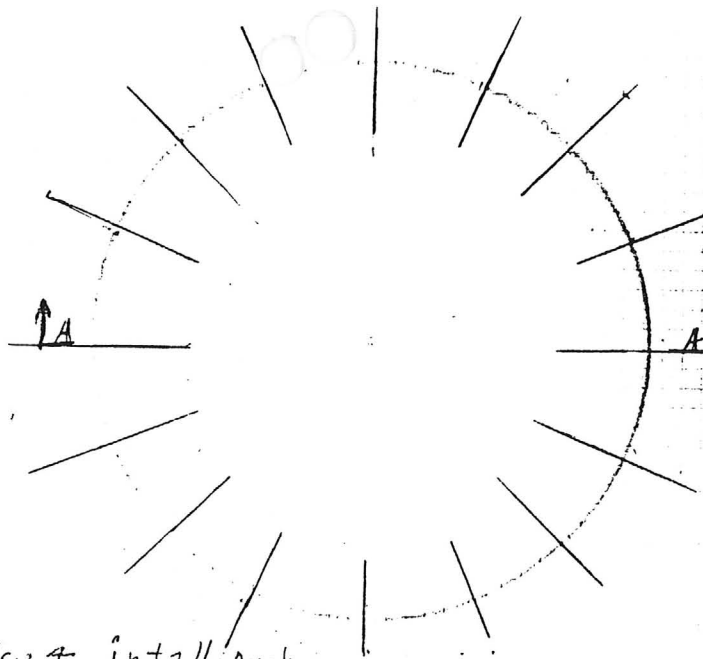
P.S. Assumed all materials acquired from "scrap" on mine site, except for concrete.

Curing time will be required for cement prior to backfilling and covering--a minimum of 14 days is recommended; preferably 21 days.

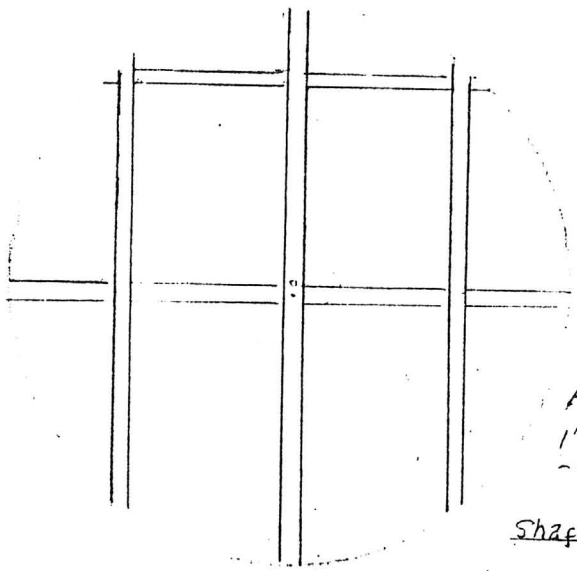
14' diameter



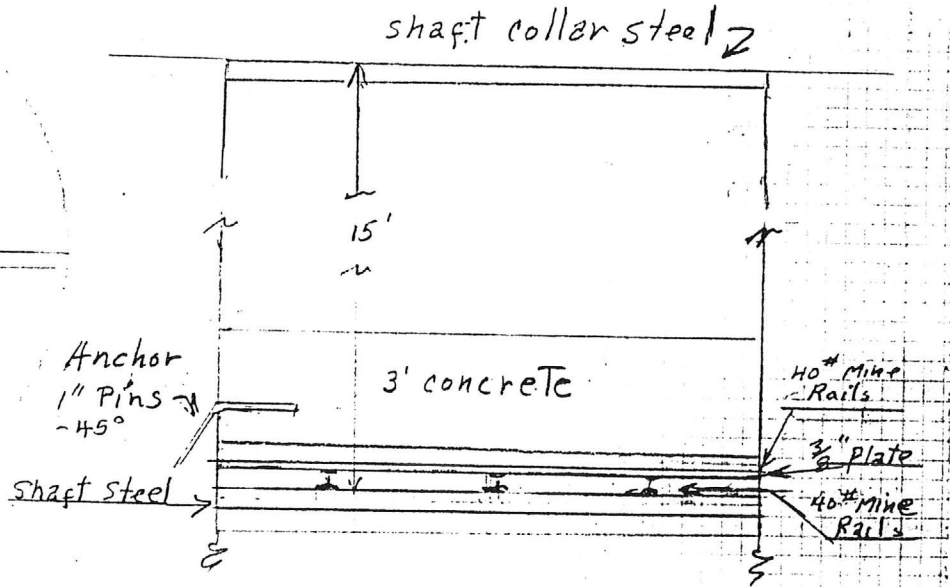
As Is



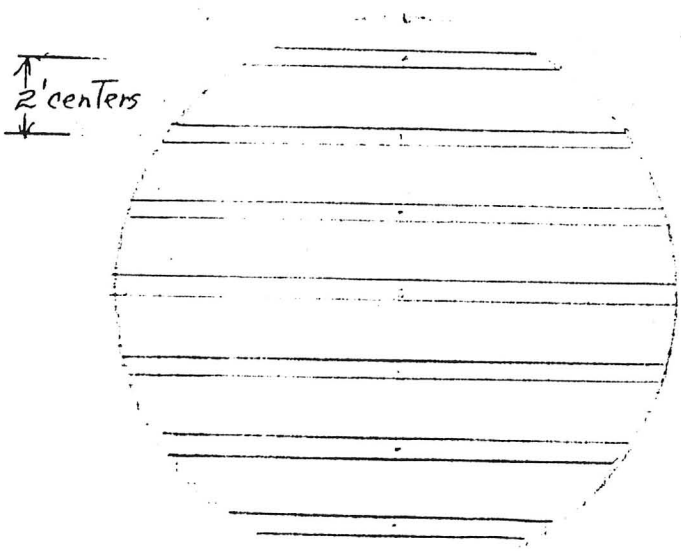
Step 4 intall Anchor pins.



Step 1 place + weld 3 Rails



Section A-A



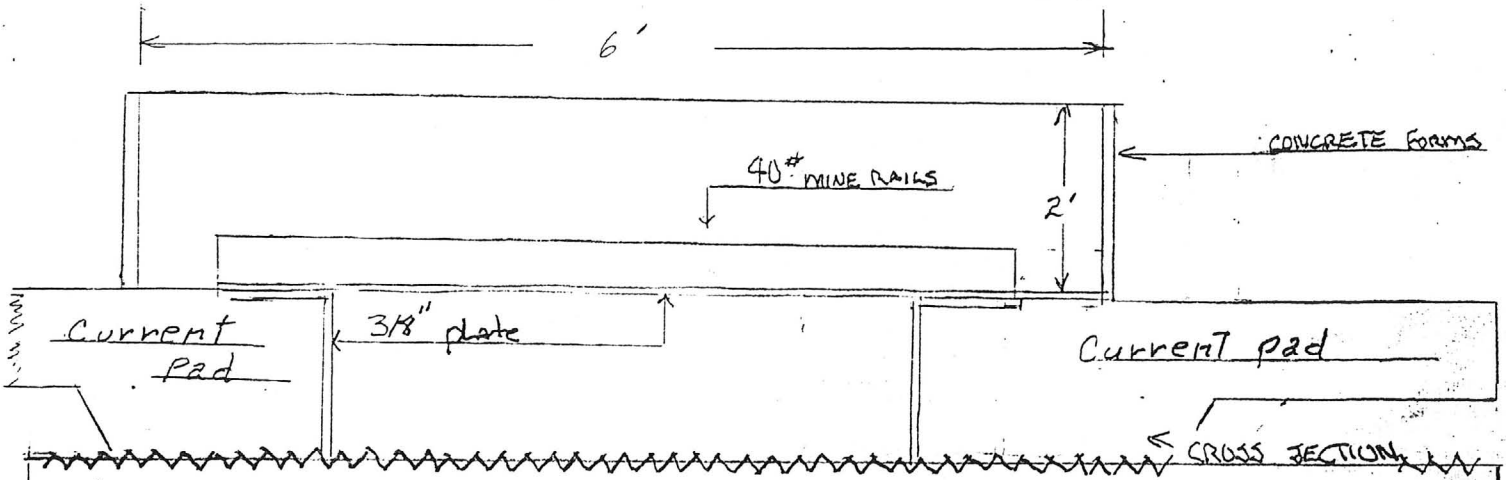
Step 2 Place + weld 7 Rails

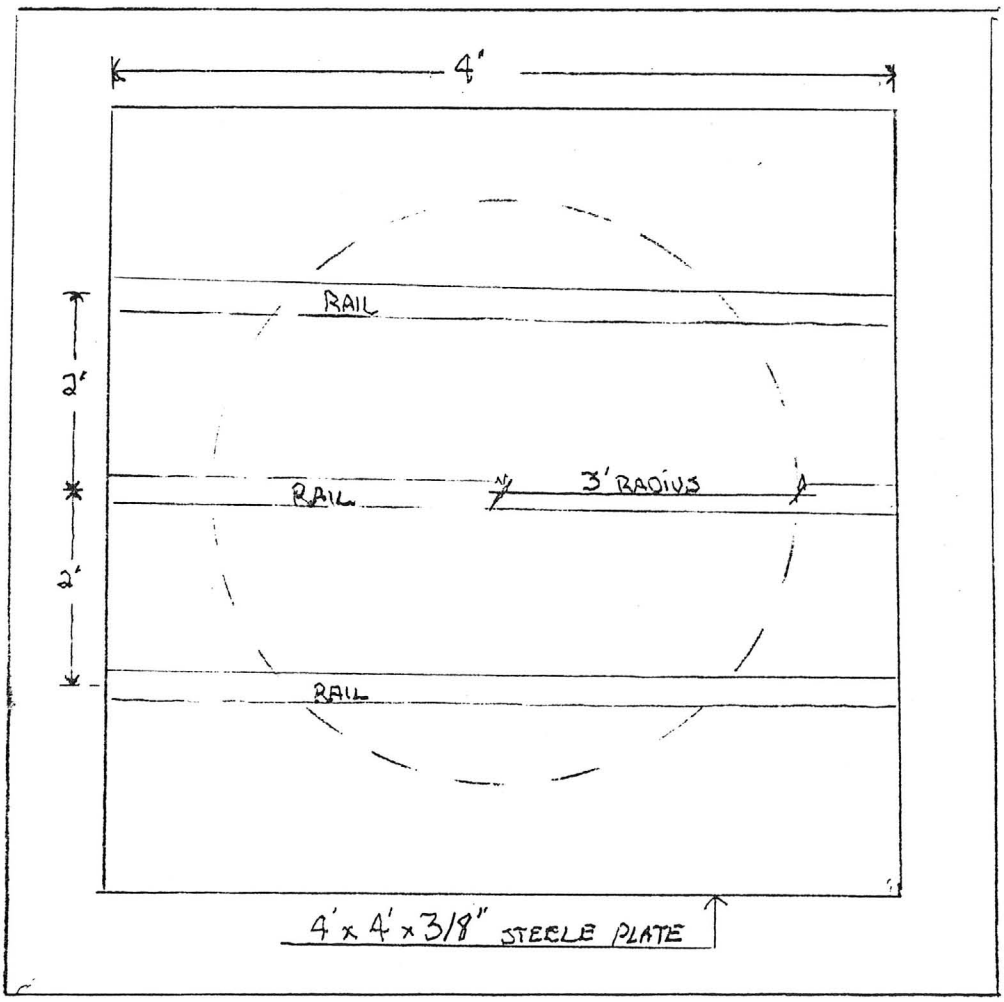
Step 5 Pour Concrete (17 Cu-yd.)

Step 6 Let cure + Back fill to Surface Including Sublevel

* 3,000 Psi concrete with fiber Mix Additive

Sooner Shaft Plug
Mclabe Mine
Scale - 1"=5' 2-17-93 AB





Current
Concrete Pad

PLAN VEIW

Install 3/8 plate
Install + Weld Rails
Install concrete forms
Pour Concrete (3 cuyd)

3,000 Psi with fiber Mix

VENT SHAFT CAP
MC°ABE MINE
1"=2" 2-17-93 AB

FINAL McCABE MINE ORE RESERVES AS OF MARCH 1993

REVISED:02/26/93
CUTOFF GRADE: 0.200 OPT AU

	MEASURED INPLACE(2)(8)						PRODUCTION TO DATE											
							MINE						MINE RECONCILED TO MILL				ADJUSTED TOTAL INPLACE				RESOURCE(6)	
	DEVELOPED		UNDEVEL		TOTAL		BROKEN		PULLED(4)		% CHANGE PULL VS BROKE		PULLED(5)		% CHANGE PULL VS BROKE		PRODUCTION ADJUSTED TO CARS(3)		TO MILL(3)		(I)	(II)
AREA	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	OPT	TOTAL TONS	TOTAL TONS
833																						
STOPE 1	1,010	0.324	0	0.000	1,010	0.324	3,170	0.348	2,728	0.286	-13.9	-17.8	2,685	0.248	-15.3	-28.9	869	0.266	856	0.230	0	0
2	819	0.365	0	0.000	819	0.365	2,336	0.330	5,896	0.241	152.4	-27.0	5,803	0.209	148.4	-36.8	2,067	0.267	2,035	0.231	0	0
3	385	0.522	0	0.000	385	0.522	4,224	0.431	5,316	0.311	25.8	-27.8	5,232	0.269	23.9	-37.5	484	0.377	477	0.326	0	0
4	673	0.243	0	0.000	673	0.243	7,036	0.272	10,208	0.202	45.1	-25.7	10,047	0.175	42.8	-35.7	976	0.180	961	0.156	0	0
P 1S	111	0.294	0	0.000	111	0.294	0	0.000	0	0.000	44.0	-26.8	0	0.000	41.8	-36.6	160	0.215	157	0.186	0	0
SUB	2,998	0.341	0	0.000	2,998	0.341	16,766	0.335	24,148	0.245	44.0	-26.8	23,768	0.212	41.8	-36.6	4,557	0.258	4,486	0.223	0	0
1050																						
STOPE 10	3,077	0.239	7,809	0.311	10,886	0.291	1,731	0.147	1,412	0.117	-18.4	-20.4	1,390	0.101	-19.7	-31.1	8,881	0.231	8,742	0.200	0	46,741
2	152	0.222	879	0.307	1,031	0.294	716	0.237	280	0.248	-60.9	4.6	276	0.215	-61.5	-9.4	403	0.308	397	0.267	0	298
3	824	0.247	1,916	0.332	2,740	0.306	1,561	0.172	1,353	0.141	-13.3	-18.0	1,332	0.122	-14.7	-29.1	2,375	0.251	2,338	0.217	0	555
4	3,702	0.392	0	0.000	3,702	0.392	6,397	0.450	7,624	0.510	19.2	13.3	7,504	0.441	17.3	-1.9	4,412	0.444	4,343	0.385	0	3,964
5	304	0.366	0	0.000	304	0.366	2,958	0.328	6,294	0.280	112.8	-14.6	6,195	0.242	109.4	-26.1	647	0.312	637	0.270	0	0
6	1,730	0.522	0	0.000	1,730	0.522	7,450	0.497	7,724	0.332	3.7	-33.2	7,603	0.287	2.0	-42.2	1,794	0.349	1,765	0.302	0	0
7&8	2,844	0.361	0	0.000	2,844	0.361	15,437	0.485	18,124	0.328	17.4	-32.4	17,839	0.284	15.6	-41.5	3,339	0.244	3,287	0.211	0	0
9S GLAD.	0	0.000	344	0.506	344	0.506	1,093	0.184	1,500	0.131	37.2	-28.8	1,476	0.113	35.1	-38.4	472	0.360	465	0.312	564	828
9N	350	0.370	0	0.000	350	0.370	52	0.254	32	0.213	-38.9	-16.1	31	0.184	-39.9	-27.4	214	0.310	210	0.269	0	1,599
SUB	12,983	0.354	10,948	0.320	23,931	0.339	37,395	0.426	44,343	0.333	18.6	-21.8	43,646	0.289	16.7	-32.3	22,537	0.294	22,183	0.254	564	53,985
1250																						
STOPE 1	112	0.272	0	0.000	112	0.272	6,567	0.176	8,872	0.184	35.1	4.5	8,732	0.159	33.0	-9.5	151	0.284	149	0.246	0	4,006
2	1,247	0.255	0	0.000	1,247	0.255	4,133	0.203	5,870	0.208	42.0	2.5	5,778	0.180	39.8	-11.3	1,771	0.261	1,743	0.226	0	1,747
3	6,745	0.381	0	0.000	6,745	0.381	12,599	0.286	13,884	0.259	10.2	-9.4	13,666	0.224	8.5	-21.6	7,433	0.345	7,316	0.299	0	0
4	398	0.362	0	0.000	398	0.362	10,862	0.369	11,515	0.291	6.0	-21.1	11,334	0.252	4.3	-31.7	422	0.285	415	0.247	0	0
5 (8)	98	0.376	0	0.000	98	0.376	1,918	0.303	1,787	0.294	-6.9	-3.0	1,759	0.254	-8.3	-16.0	91	0.365	90	0.316	0	0
P 0N-1N	0	0.000	3,684	0.365	3,684	0.365	0	0.000	0	0.000	16.2	-12.8	0	0.000	14.4	-24.5	4,281	0.318	4,214	0.276	0	0
SUB	8,600	0.360	3,684	0.365	12,284	0.362	36,079	0.282	41,928	0.246	16.2	-12.8	41,269	0.213	14.4	-24.5	14,150	0.324	13,927	0.281	0	5,753
1450																						
STOPE 3S	1,098	0.288	1,823	0.230	2,921	0.252	232	0.239	220	0.248	-5.3	3.8	217	0.215	-6.8	-10.2	2,765	0.261	2,722	0.226	0	0
1	3,856	0.357	0	0.000	3,856	0.357	9,495	0.247	10,524	0.230	10.8	-6.9	10,359	0.199	9.1	-19.4	4,274	0.332	4,207	0.288	0	0
2 (7)	231	0.535	0	0.000	231	0.535	7,849	0.206	7,087	0.165	-9.7	-19.9	6,976	0.143	-11.1	-30.7	209	0.429	205	0.371	0	0
P 6S	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	0	0.000	0	0.000	0	3,523
P 8N	0	0.000	1,068	0.256	1,068	0.256	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	1,083	0.229	1,066	0.198	0	3,520
R 4N	0	0.000	972	0.391	972	0.391	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	986	0.350	971	0.303	0	0
SUB	5,185	0.350	3,863	0.278	9,048	0.319	17,577	0.229	17,831	0.204	1.4	-10.6	17,551	0.177	-0.1	-22.6	9,317	0.303	9,171	0.262	0	7,043
1650																						
1450 10	462	0.320	7,331	0.255	7,793	0.259	756	0.263	208	0.295	-72.5	12.2	205	0.255	-72.9	-2.9	2,145	0.290	2,111	0.251	0	7,934
SWMC (1)							3,250	0.208														
TOTAL	30,228	0.353	25,826	0.302	56,054	0.330	111,822	0.328	128,458	0.270	14.9	-17.5	126,438	0.234	13.1	-28.6	52,706	0.300	51,877	0.260	564	74,715

(1) EST. REMAINING STAN WEST MINING BROKEN MUCK IN 833 1, 1050 5,6&7, 1250 2 AND 1450 1 AS TOTAL TONS AND WEIGHTED GRADE.

(2) INCLUDES PROVEN, PROBABLE AND POSSIBLE. DEVELOPED ARE RESERVES ACCESSABLE FROM CURRENT WORKINGS AND INCLUDES PILLAR REMNANTS.

(3) ADJUSTED MEASURED ARE THE TOTAL MEASURED RESERVES REFLECTING THE RESPECTIVE % CH. WHERE THERE IS NO % CH DEVELOPED THE RESPECTIVE TOTAL LEVEL VARIANCES WERE USED.

(4) TONS REPORTED PULLED.

(5) TONS PULLED RECONCILED TO BALL MILL FEED TONS.

(6) RESOURCE I: TONS BASED ON CURRENT MINING BLOCK EXTENSIONS, RESOURCE II: TONS IDENTIFIED BY RAKE PROJECTIONS.

(7) 1992 4TH QUARTER TONS BROKEN REPORTED TO 1450 2 DRAW POINTS. TONS PULLED ADJUSTED PROPORTIONALLY TO TONS BROKEN.

(8) UNDER THE EXISTING McCABE MINING PLANS 21,853 TONS GRADING 0.336 OPT AU WERE CONSIDERED MINABLE OUT OF THE TOTAL MEASURED INPLACE.

FINAL McCABE MINE ORE RESERVES AS OF MARCH 1993

REVISED:02/26/93
CUTOFF GRADE: 0.248 OPT AU

	MEASURED INPLACE(2)(8)						PRODUCTION TO DATE													
							MINE						MINE RECONCILED TO MILL				ADJUSTED TOTAL INPLACE			RESOURCE(6)	
	DEVELOPED		UNDEVEL		TOTAL		BROKEN		PULLED(4)		% CHANGE PULL VS BROKE		PULLED(5)		% CHANGE PULL VS BROKE		PRODUCTION ADJUSTED TO CARS(3)		TO MILL(3)	(I) TOTAL	(II) TOTAL
AREA	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	OPT	TONS	TONS
833																						
STOPE 1	741	0.353	0	0.000	741	0.353	3,170	0.348	2,728	0.286	-13.9	-17.8	2,685	0.248	-15.3	-28.9	638	0.290	628	0.251	0	0
2	713	0.373	0	0.000	713	0.373	2,336	0.330	5,896	0.241	152.4	-27.0	5,803	0.209	148.4	-36.8	1,800	0.272	1,771	0.236	0	0
3	385	0.522	0	0.000	385	0.522	4,224	0.431	5,316	0.311	25.8	-27.8	5,232	0.269	23.9	-37.5	484	0.377	477	0.326	0	0
4	455	0.254	0	0.000	455	0.254	7,036	0.272	10,208	0.202	45.1	-25.7	10,047	0.175	42.8	-35.7	660	0.189	650	0.163	0	0
P 1S	111	0.294	0	0.000	111	0.294	0	0.000	0	0.000	44.0	-26.8	0	0.000	41.8	-36.6	160	0.215	157	0.186	0	0
SUB	2,405	0.365	0	0.000	2,405	0.365	16,766	0.335	24,148	0.245	44.0	-26.8	23,768	0.212	41.8	-36.6	3,742	0.272	3,683	0.235	0	0
1050																						
STOPE 10	2,138	0.253	7,809	0.311	9,947	0.299	1,731	0.147	1,412	0.117	-18.4	-20.4	1,390	0.101	-19.7	-31.1	8,115	0.238	7,988	0.206	0	46,741
2	0	0.000	879	0.307	879	0.307	716	0.237	280	0.248	-60.9	4.6	276	0.215	-61.5	-9.4	344	0.321	338	0.278	0	298
3	510	0.267	1,916	0.332	2,426	0.318	1,561	0.172	1,353	0.141	-13.3	-18.0	1,332	0.122	-14.7	-29.1	2,103	0.261	2,070	0.226	0	555
4	3,124	0.426	0	0.000	3,124	0.426	6,397	0.450	7,624	0.510	19.2	13.3	7,504	0.441	17.3	-1.9	3,724	0.483	3,665	0.418	0	3,964
5	138	0.558	0	0.000	138	0.558	2,958	0.328	6,294	0.280	112.8	-14.6	6,195	0.242	109.4	-26.1	294	0.476	289	0.412	0	0
6	1,640	0.538	0	0.000	1,640	0.538	7,450	0.497	7,724	0.332	3.7	-33.2	7,603	0.287	2.0	-42.2	1,700	0.359	1,674	0.311	0	0
7&8	2,721	0.367	0	0.000	2,721	0.367	15,437	0.485	18,124	0.328	17.4	-32.4	17,839	0.284	15.6	-41.5	3,195	0.248	3,144	0.215	0	0
9S GLAD.	0	0.000	344	0.506	344	0.506	1,093	0.184	1,500	0.131	37.2	-28.8	1,476	0.113	35.1	-38.4	472	0.360	465	0.312	564	828
9N	350	0.370	0	0.000	350	0.370	52	0.254	32	0.213	-38.9	-16.1	31	0.184	-39.9	-27.4	214	0.310	210	0.269	0	1,599
SUB	10,621	0.386	10,948	0.320	21,569	0.353	37,395	0.426	44,343	0.333	18.6	-21.8	43,646	0.289	16.7	-32.3	20,160	0.306	19,843	0.265	564	53,985
1250																						
STOPE 1	64	0.314	0	0.000	64	0.314	6,567	0.176	8,872	0.184	35.1	4.5	8,732	0.159	33.0	-9.5	86	0.328	85	0.284	0	4,006
2	1,247	0.255	0	0.000	1,247	0.255	4,133	0.203	5,870	0.208	42.0	2.5	5,778	0.180	39.8	-11.3	1,771	0.261	1,743	0.226	0	1,747
3	5,628	0.412	0	0.000	5,628	0.412	12,599	0.286	13,884	0.259	10.2	-9.4	13,666	0.224	8.5	-21.6	6,202	0.373	6,105	0.323	0	0
4	362	0.375	0	0.000	362	0.375	10,862	0.369	11,515	0.291	6.0	-21.1	11,334	0.252	4.3	-31.7	384	0.296	378	0.256	0	0
5 (8)	98	0.376	0	0.000	98	0.376	1,918	0.303	1,787	0.294	-6.9	-3.0	1,759	0.254	-8.3	-16.0	91	0.365	90	0.316	0	0
P 0N-1N	0	0.000	3,684	0.365	3,684	0.365	0	0.000	0	0.000	16.2	-12.8	0	0.000	14.4	-24.5	4,281	0.318	4,214	0.276	0	0
SUB	7,399	0.382	3,684	0.365	11,083	0.377	36,079	0.282	41,928	0.246	16.2	-12.8	41,269	0.213	14.4	-24.5	12,816	0.337	12,614	0.291	0	5,753
1450																						
STOPE 3S	1,098	0.288	0	0.000	1,098	0.288	232	0.239	220	0.248	-5.3	3.8	217	0.215	-6.8	-10.2	1,039	0.299	1,023	0.259	0	0
1	3,505	0.369	0	0.000	3,505	0.369	9,495	0.247	10,524	0.230	10.8	-6.9	10,359	0.199	9.1	-19.4	3,885	0.344	3,824	0.297	0	0
2 (7)	231	0.535	0	0.000	231	0.535	7,849	0.206	7,087	0.165	-9.7	-19.9	6,976	0.143	-11.1	-30.7	209	0.429	205	0.371	0	0
P 6S	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	0	0.000	0	0.000	0	3,523
P 8N	0	0.000	1,068	0.256	1,068	0.256	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	1,083	0.229	1,066	0.198	0	3,520
R 4N	0	0.000	972	0.391	972	0.391	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	986	0.350	971	0.303	0	0
SUB	4,834	0.359	2,040	0.320	6,874	0.347	17,577	0.229	17,831	0.204	1.4	-10.6	17,551	0.177	-0.1	-22.6	7,202	0.323	7,089	0.280	0	7,043
1650																						
1450 10	354	0.353	4,291	0.264	4,645	0.271	756	0.263	208	0.295	-72.5	12.2	205	0.255	-72.9	-2.9	1,278	0.304	1,258	0.263	0	7,934
SWMC (1)							3,250	0.208														
TOTAL	25,613	0.377	20,963	0.317	46,576	0.350	111,822	0.328	128,458	0.270	14.9	-17.5	126,438	0.234	13.1	-28.6	45,198	0.314	44,487	0.272	564	74,715

(1) EST. REMAINING STAN WEST MINING BROKEN MUCK IN 833 1, 1050 5,6&7, 1250 2 AND 1450 1 AS TOTAL TONS AND WEIGHTED GRADE.

(2) INCLUDES PROVEN, PROBABLE AND POSSIBLE. DEVELOPED ARE RESERVES ACCESSABLE FROM CURRENT WORKINGS AND INCLUDES PILLAR REMNANTS.

(3) ADJUSTED MEASURED ARE THE TOTAL MEASURED RESERVES REFLECTING THE RESPECTIVE % CH. WHERE THERE IS NO % CH DEVELOPED THE RESPECTIVE TOTAL LEVEL VARIANCES WERE USED.

(4) TONS REPORTED PULLED.

(5) TONS PULLED RECONCILED TO BALL MILL FEED TONS.

(6) RESOURCE I: TONS BASED ON CURRENT MINING BLOCK EXTENSIONS, RESOURCE II: TONS IDENTIFIED BY RAKE PROJECTIONS.

(7) 1992 4TH QUARTER TONS BROKEN REPORTED TO 1450 2 DRAW POINTS. TONS PULLED ADJUSTED PROPORTIONALLY TO TONS BROKEN.

(8) UNDER THE EXISTING McCABE MINING PLANS 19,553 TONS GRADING 0.350 OPT AU WERE CONSIDERED MINABLE OUT OF THE TOTAL MEASURED INPLACE.

FINAL McCABE MINE ORE RESERVES AS OF MARCH 1993

REVISED:02/26/93
CUTOFF GRADE: 0.300 OPT AU

	MEASURED INPLACE(2)(8)						PRODUCTION TO DATE											
							MINE						MINE RECONCILED TO MILL				ADJUSTED TOTAL INPLACE				RESOURCE(6)	
	DEVELOPED		UNDEVEL		TOTAL		BROKEN		PULLED(4)		% CHANGE PULL VS BROKE		PULLED(5)		% CHANGE PULL VS BROKE		PRODUCTION ADJUSTED TO CARS(3)		TO MILL(3)		(I) TOTAL	(II) TOTAL
AREA	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	GRADE	TONS	OPT	TONS	OPT	TONS	TONS
833																						
STOPE 1	506	0.388	0	0.000	506	0.388	3,170	0.348	2,728	0.286	-13.9	-17.8	2,685	0.248	-15.3	-28.9	436	0.319	429	0.276	0	0
2	583	0.394	0	0.000	583	0.394	2,336	0.330	5,896	0.241	152.4	-27.0	5,803	0.209	148.4	-36.8	1,472	0.288	1,448	0.249	0	0
3	385	0.522	0	0.000	385	0.522	4,224	0.431	5,316	0.311	25.8	-27.8	5,232	0.269	23.9	-37.5	484	0.377	477	0.326	0	0
4	0	0.000	0	0.000	0	0.000	7,036	0.272	10,208	0.202	45.1	-25.7	10,047	0.175	42.8	-35.7	0	0.000	0	0.000	0	0
P 1S	31	0.311	0	0.000	31	0.311	0	0.000	0	0.000	44.0	-26.8	0	0.000	41.8	-36.6	45	0.228	44	0.197	0	0
SUB	1,505	0.423	0	0.000	1,505	0.423	16,766	0.335	24,148	0.245	44.0	-26.8	23,768	0.212	41.8	-36.6	2,436	0.310	2,398	0.268	0	0
1050																						
STOPE 10	0	0.000	7,809	0.311	7,809	0.311	1,731	0.147	1,412	0.117	-18.4	-20.4	1,390	0.101	-19.7	-31.1	6,371	0.248	6,271	0.214	0	46,741
2	0	0.000	879	0.307	879	0.307	716	0.237	280	0.248	-60.9	4.6	276	0.215	-61.5	-9.4	344	0.321	338	0.278	0	298
3	36	0.331	1,916	0.332	1,952	0.332	1,561	0.172	1,353	0.141	-13.3	-18.0	1,332	0.122	-14.7	-29.1	1,692	0.272	1,665	0.236	0	555
4	2,775	0.444	0	0.000	2,775	0.444	6,397	0.450	7,624	0.510	19.2	13.3	7,504	0.441	17.3	-1.9	3,308	0.503	3,256	0.436	0	3,964
5	138	0.558	0	0.000	138	0.558	2,958	0.328	6,294	0.280	112.8	-14.6	6,195	0.242	109.4	-26.1	294	0.476	289	0.412	0	0
6	1,640	0.538	0	0.000	1,640	0.538	7,450	0.497	7,724	0.332	3.7	-33.2	7,603	0.287	2.0	-42.2	1,700	0.359	1,674	0.311	0	0
7&8	1,408	0.454	0	0.000	1,408	0.454	15,437	0.485	18,124	0.328	17.4	-32.4	17,839	0.284	15.6	-41.5	1,653	0.307	1,627	0.266	0	0
9S GLAD.	0	0.000	344	0.506	344	0.506	1,093	0.184	1,500	0.131	37.2	-28.8	1,476	0.113	35.1	-38.4	472	0.360	465	0.312	564	828
9N	159	0.510	0	0.000	159	0.510	52	0.254	32	0.213	-38.9	-16.1	31	0.184	-39.9	-27.4	97	0.428	96	0.370	0	1,599
SUB	6,156	0.475	10,948	0.320	17,104	0.376	37,395	0.426	44,343	0.333	18.6	-21.8	43,646	0.289	16.7	-32.3	15,930	0.332	15,680	0.287	564	53,985
1250																						
STOPE 1	28	0.336	0	0.000	28	0.336	6,567	0.176	8,872	0.184	35.1	4.5	8,732	0.159	33.0	-9.5	38	0.351	37	0.304	0	4,006
2 (8)	0	0.000	0	0.000	0	0.000	4,133	0.203	5,870	0.208	42.0	2.5	5,778	0.180	39.8	-11.3	0	0.000	0	0.000	0	1,747
3	4,519	0.449	0	0.000	4,519	0.449	12,599	0.286	13,884	0.259	10.2	-9.4	13,666	0.224	8.5	-21.6	4,980	0.407	4,902	0.352	0	0
4	317	0.390	0	0.000	317	0.390	10,862	0.369	11,515	0.291	6.0	-21.1	11,334	0.252	4.3	-31.7	336	0.308	331	0.266	0	0
5 (7)	75	0.403	0	0.000	75	0.403	1,918	0.303	1,787	0.294	-6.9	-3.0	1,759	0.254	-8.3	-16.0	70	0.391	69	0.338	0	0
P 0N-1N	0	0.000	3,684	0.365	3,684	0.365	0	0.000	0	0.000	16.2	-12.8	0	0.000	14.4	-24.5	4,281	0.318	4,214	0.276	0	0
SUB	4,939	0.444	3,684	0.365	8,623	0.410	36,079	0.282	41,928	0.246	16.2	-12.8	41,269	0.213	14.4	-24.5	9,705	0.364	9,552	0.315	0	5,753
1450																						
STOPE 3S	194	0.320	0	0.000	194	0.320	232	0.239	220	0.248	-5.3	3.8	217	0.215	-6.8	-10.2	184	0.332	181	0.287	0	0
1	2,964	0.385	0	0.000	2,964	0.385	9,495	0.247	10,524	0.230	10.8	-6.9	10,359	0.199	9.1	-19.4	3,285	0.359	3,234	0.310	0	0
2	231	0.535	0	0.000	231	0.535	7,849	0.206	7,087	0.165	-9.7	-19.9	6,976	0.143	-11.1	-30.7	209	0.429	205	0.371	0	0
P 6S	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	0	0.000	0	0.000	0	3,523
P 8N	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	0	0.000	0	0.000	0	3,520
R 4N	0	0.000	972	0.391	972	0.391	0	0.000	0	0.000	1.4	-10.6	0	0.000	-0.1	-22.6	986	0.350	971	0.303	0	0
SUB	3,389	0.392	972	0.391	4,361	0.391	17,577	0.229	17,831	0.204	1.4	-10.6	17,551	0.177	-0.1	-22.6	4,663	0.359	4,590	0.310	0	7,043
1650																						
1450 10	354	0.353	0	0.000	354	0.353	0	0.000	0	0.000	-72.5	12.2	0	0.000	-72.9	-2.9	97	0.396	96	0.343	0	7,934
SWMC (1)							3,250	0.208														
TOTAL	16,343	0.441	15,604	0.335	31,947	0.389	111,066	0.328	128,250	0.270	15.5	-17.6	126,233	0.234	13.7	-28.7	32,832	0.344	32,316	0.297	564	74,715

(1) EST. REMAINING STAN WEST MINING BROKEN MUCK IN 833 1, 1050 5,6&7, 1250 2 AND 1450 1 AS TOTAL TONS AND WEIGHTED GRADE.

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(3) ADJUSTED MEASURED ARE THE TOTAL MEASURED RESERVES REFLECTING THE RESPECTIVE % CH. WHERE THERE IS NO % CH DEVELOPED THE RESPECTIVE TOTAL LEVEL VARIANCES WERE USED.

(4) TONS REPORTED PULLED.

(5) TONS PULLED RECONCILED TO BALL MILL FEED TONS.

(6) RESOURCE I: TONS BASED ON CURRENT MINING BLOCK EXTENSIONS, RESOURCE II: TONS IDENTIFIED BY RAKE PROJECTIONS.

(7) 1992 4TH QUARTER TONS BROKEN REPORTED TO 1450 2 DRAW POINTS. TONS PULLED ADJUSTED PROPORTIONALLY TO TONS BROKEN.

(8) UNDER THE EXISTING McCABE MINING PLANS 16,627 TONS GRADING 0.366 OPT AU WERE CONSIDERED MINABLE OUT OF THE TOTAL MEASURED INPLACE.

ADSTONE (f) YAVAPAI

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

FIFE SYMINGTON, GOVERNOR
RANDOLPH WOOD, P.E., DIRECTOR

NOTICE OF ISSUANCE OF A TEMPORARY AQUIFER PROTECTION PERMIT

Pursuant to Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality has issued a Temporary Aquifer Protection Permit(s) to the following applicant, valid for a period, not to exceed one (1) year, subject to certain special and general conditions.

Public Notice No. 20-91AZAP — On or about April 30, 1991
McCabe Mine
McCabe Mining, Inc.
P.O. Box 460
Humboldt, AZ 86329
Temporary Aquifer Protection Permit No. P-100309T

The facility is located in Yavapai County on the Iron King Road approximately 3.5 miles from Humboldt, over groundwaters of the Agua Fria Basin, in Township 13 North, Range 1 East, Section 20, 29, and 30, of the Gila and Salt River Baseline and Meridian.

The facility was previously a hydrometalurgical, precious metal recovery facility that utilized a cyanide vat leaching method. The facility was permitted under Groundwater Protection Permit No. G-0053-13. The facility has been converted to a copper and precious metals mine, mill and bulk sulfide flotation facility, and includes a tailings slurry line and impoundment, and associated tailings dewatering collection system including a collection pond, pumpback wells, and a tailings water return line.

This Temporary Aquifer Protection Permit is issued in order to accommodate process changes that constitute a major modification to the facility but that are considered to be necessary to the remediation of an accidental discharge of pollutants. Certain application requirements have been temporarily waived but will be submitted within six months of the effective date of this permit.

The permit and supporting documents are available for public review Monday through Friday, 8:00 a.m. to 5:00 p.m. at the 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 permit action, in writing, to ADEQ at the above address within thirty (30) days from the date of this notice. Public hearing requests must include the reason for such request.

GLADSTONE (F)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

JOINT NOTICE OF PROPOSED ACTION

by the

U. S. Environmental Protection Agency
Region 9 (W-5-1)
215 Fremont Street
San Francisco, CA 94105

Telephone: (415) 974-8105

On Application for National Pollutant Discharge Elimination System (NPDES) Permit to Discharge Pollutants to Waters of the United States

State of Arizona
Department of Environmental Quality
2005 North Central Avenue-Room 202
Phoenix, AZ 85004

Telephone: (602) 257-2270

On Application for Certification for Compliance with Applicable Effluent Limitations and Appropriate Requirements of the State of Arizona

The Environmental Protection Agency (EPA), Region 9, San Francisco, California, and the Arizona Department of Environmental Quality (ADEQ) are jointly issuing the following notice of proposed action under the Clean Water Act (CWA).

The Environmental Protection Agency, Region 9, San Francisco, California, has received a complete application for a National Pollutant Discharge Elimination System (NPDES) permit and has prepared tentative determinations regarding the permit.

On the basis of preliminary review of the requirements of the Clean Water Act, as amended, the implementing regulations, the Regional Administrator, Region 9 Environmental Protection Agency, proposes to issue an NPDES permit to discharge to the following applicant, subject to certain effluent limitations and special conditions.

Public Notice No. 15-89-AZ July 3, 1989

McCabe Mine
Operator: Stan West Mining Corp.
P. O. Box 460
Humboldt, Arizona 86329
NPDES Permit No. AZ0022233

The applicant operates the McCabe Mine located approximately three (3) miles southwest of Humboldt in Yavapai County. The discharge consists of mine drainage water. The discharge, at latitude 34°, 28' 46" N, longitude 112° 17' 24" W, is to Galena Gulch, tributary to the Agua Fria River. This segment of the Agua Fria River (above Lake Pleasant) has protected uses of Aquatic and Wildlife, Full Body Contact, Agriculture Irrigation and Agriculture Livestock Watering. The proposed permit contains effluent limits for Total Suspended Solids, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Silver, Zinc, Cyanide and pH. The porposed permit will expire approximately five (5) years after it becomes effective.

The State of Arizona is considering a request to certify the discharge described above, pursuant to Section 401 of the Clean Water Act. The certification will set forth any limitations and monitoring requirements necessary to assure compliance with water quality standards under Section 303, areawide waste treatment management plans under Section 208(e), effluent limitations under Sections 301 and 302, standards of performance under Section 306, or prohibitions, effluent standards or pretreatment standards under Section 307 of the CWA, and any other appropriate requirement of State law.

The State may certify a draft permit and specify conditions which are more stringent than those in the original draft permit, where the State finds such conditions necessary to meet the requirements of the CWA. For each more stringent condition, the certifying State agency shall cite the CWA or State law references upon which that condition is based. Review of appeals of limitations and conditions attributable to State certification shall be made through the applicable procedures of the State.

The Administrative Record, which includes the application, draft permit conditions and other relevant documents, is available for public review Monday through Friday from 9:00 a.m. to 4:00 p.m. at the EPA address below. A copy of the draft permit and other pertinent documents may be obtained by calling or writing to the addresses below.

Persons wishing to comment upon or object to the proposed determinations or request a public hearing pursuant to 40 CFR 124.12 should submit their comments or request in writing within 30 days from the date of this notice, either in person or by mail to:

U. S. Environmental Protection Agency
Region 9 (W-5-1)
Attn: Jon Hangartner
215 Fremont Street
San Francisco, CA 94105

Telephone: (415) 974-8299

State of Arizona
Department of Environmental Quality
Attn: Wayne H. Palsma - Room 202
2005 North Central Avenue
Phoenix, AZ 85004

Telephone: (602) 257-2270

All comments or objections submitted within 30 days from the date of this notice will be considered in the formulation of the final determinations regarding the application. If the response to this notice indicates a significant degree of public desire for a public hearing, the Regional Administrator shall hold one in accordance with 40 CFR 124.12. A public

notice of such hearing will be issued at least 30 days prior to the hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

The permit will become effective 33 days following the date of mailing by the EPA of the final permit. If no comments request a change in the draft permit, the permit will become effective three (3) days from the date of mailing.

A request for an evidentiary hearing may be submitted to the Permits Record Coordinator, (W-5-1), within 33 days following the mailing of the final determination, in accordance with 40 CFR 124.74. If granted, applicable provisions of the permit will be stayed pending the hearing.

Please bring the foregoing notice to the attention of all persons you know would be interested in this matter.

Copystone - McCabe (A)

RB
K-7

ARIZONA CONFERENCE OF AIME

UNDERGROUND MINING DIVISION - 1988 SPRING MEETING

You are cordially invited to attend the Spring Meeting of the Underground Mining Division, Arizona Conference of AIME. This years session will be held at the McCabe Mine of Stan West Mining Corporation, about 20 miles southeast of Prescott, Arizona.

Stan West is developing a 3500 ton per week narrow vein operation, due to come on line this summer. Ore will be extracted from multiple shrink stopes, averaging 4 feet in width. The poly-metallic sulphide ore, with subordinate quartz-pyrite, will be milled on site in a new carbon-in-pulp facility.

DATE:	7 May 1988, Saturday	
LOCATION:	McCabe Mine of Stan West Mining Corporation, near Prescott, Arizona	
LIMITATIONS:	Due to space constraints, total attendance will be limited to 40. The underground tour will be limited to 15.	
ATTENDANCE:	Attendance will be determined on a first come - first served basis. Please call or send registration cards in ASAP to reserve space.	
SCHEDULE:	REGISTRATION (at Mine Site):	9:00 - 9:30 am
	TECHNICAL SESSIONS:	9:30 - Noon
	TOURS - Surface & Underground:	Noon -
	LUNCH:	Early Afternoon
CAMERAS:	Surface only - no cameras underground, please.	
SAFETY EQUIPMENT:	Please bring your own hard hat, safety glasses, and steel toes.	
	Lamps and self rescuers are available for the underground tour.	
ACCOMMODATIONS:	Numerous motels in Prescott, Humbolt and Mayer. In Prescott:	
	Best Western	800-528-1234 or 602-445-3096
	Motel 6	602-776-0160
	Sheraton (open April 10)	602-445-5817
AIR CONNECTIONS:	Golden Pacific	602-778-6060
	Stateswest (starting April 3)	602-220-0070
CAR RENTALS:	Hertz	800-654-3131
	Budget	602-778-3806
	Several Others	

VERBAL INFORMATION SUMMARY

From talk presented by Stan Holmes of Stan West Mining to the Maricopa Section, AIME, February 18, 1988 on the development of the McCabe Mine (Gladstone-McCabe - file) Yavapai County.

Stan West Corporation was formed in 1980 with a specific goal - to search for precious metal deposits in 1. an historic district 2. in Precambrian rocks 3. in the Southwest United States. The latter criteria was because of the political environment and a climate amenable to year round mining.

The company succeeded in initially raising $18 million for developing the McCabe. The company believed they had a plus 300,000 oz Au deposit when the decision was made to sink the new Sooner Shaft. Since then additional drifting and underground drilling has been done to delineate the rest of the ore. The total invested to that point was $30 million. Since that time additional financing has been raised in Europe. Current expenditures will total about $13 million of which $3.2 million will be spent on the mill, $1.8 million on additional surface facilities, and the remainder spent on the underground portion of the mine.

Surface development is underway with a main part of the mill being a CIP plant with a 500 ton per day capacity. Part of the mill circuit will consist of jigs and flotation cells supplementing the main CIP circuit. Retention time in the CIP circuit is planned to be 62 hours.

Based on an annual production of 53,000 oz of gold and 100,000 oz of silver and current metal prices ($450/Au, $6/Ag) the mine will have a gross annual revenue of approximately $28 million. The estimated operating cost per oz of gold is $200. Mining will be by the shrinkage stope method on a vein structure averaging 5′ wide. A problem in this regard has been the need to import underground miners from Idaho and Colorado. They estimate they have 100 people active at the mine at the current time.

Mr. Holmes indicated that 41 regulatory permits were required to develop the mine and mill. An invitation to visit the property was extended.

Engineer: Nyal Niemuth

GLADSTONE - McCABE A)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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.

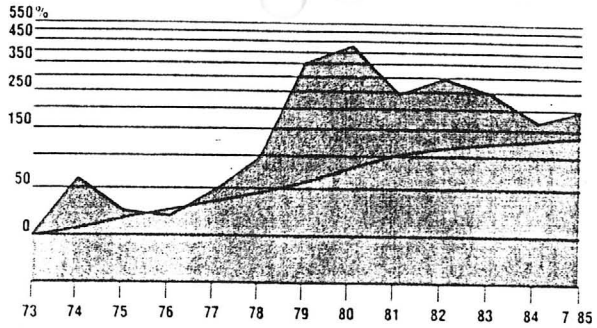
Public Notice No. 134-87AZGW December 17, 1987

McCabe - Gladstone Project
Stan West Mining Corporation
6045 N. Scottsdale Rd., Ste. 101
Scottsdale, Arizona 85253
Groundwater Quality Protection Permit No. G-0053-13

The permittee will be authorized to operate a hydrometalurgical, precious metal recovery facility, located approximately 3 miles southwest of Humboldt, Arizona, utilizing a cyanide vat leaching method and carbon-in-pulp absorption. The ore will be processed at a minimum rate of 300 tons per day. The leach processing facility is designed for zero discharge through containment of liquid from the largest vessel in any one area should it rupture. The tailings will be carried by pipeline to the disposal area. The tailings impoundment will be lined with compacted clayey soil, and a finger drain system will be utilized to carry fluid from the tailings through the dam. A leak detection system will be installed under the lined fluid collection pond, located outside the tailings impoundment. Fluid will be removed from the pond by evaporation and pump back to the tailings impoundment. Groundwater monitoring will be required around the disposal area.

The permit (application)(Notice of Disposal) is 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.



How gold has compared with inflation (cumulative change) 12 73 – 7 85
■ Gold (London PM fixing)
■ Inflation (Consumer Price Index)

To Our Shareholders:

As promised, 1986 was a year of aggressive and diversified gold exploration for Stan West Mining Corp. The following major developments were accomplished during fiscal 1986:

Noranda Joint Venture

Your Company has invested approximately $1,500,000 (Cdn) to earn a 50% interest in a new joint venture with Noranda Exploration at the Mountjoy project in Timmins, Ontario. The magnitude of the Mountjoy land position and the production history of the famous Timmins mining camp dramatically expands Stan West's opportunities.

The results of the 1985 exploration program were most encouraging. The majority of the monies were spent on drilling targets Noranda had previously delimited. The most favorable results were at the De Santis Mine, a former producer, (200,000 tons @ 0.18 ounces/gold/ton) which produced 36,000 ounces of gold. Deep drilling 500 feet below the bottom levels (1,000 feet) showed that the mineralization continued at depth and that multiple gold-bearing zones were developing. Four holes cut the zone, the best of which was MJD #12 (0.25 ounces/gold/ton over 20.9 feet). It should be emphasized that the Mountjoy holdings are directly west of the Dome, Aunor, Ankerite, Preston, East Dome and Hollinger mines, which produced millions of ounces of gold.

McCabe Mine

Your Company also received an unexpected opportunity and windfall profit when Santa Fe Mining, Inc. terminated the joint venture contract at the McCabe Mine in central Arizona. As a result of this development, Stan West retained a 100% ownership interest in the McCabe Mine, realized $1,000,000 in income from advance payments that Santa Fe forfeited and benefited from the $5,200,000 in development and exploration work that Santa Fe invested in the McCabe properties.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Governor Jane Dee Hull Jacqueline E. Schafer, Director

NOTICE OF PRELIMINARY DECISION TO ISSUE A MODIFICATION TO AQUIFER PROTECTION PERMIT NUMBER P-100309

Public Notice No. 39-00 APP **Published on Wednesday, May 10, 2000 in the Prescott Newspapers, Inc. - Daily Courier**

Pursuant to Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality (ADEQ) intends to issue a modification to Aquifer Protection Permit (APP) Number P-100309, held by the following permittee;

BHP Copper, Incorporated
McCabe Mining Operations
P.O. Box M
San Manuel, Arizona 85631

The McCabe Mining Operation is located in Yavapai County, approximately 3.5 miles southwest of Humboldt, Arizona on the Iron King Road over groundwaters of the Agua Fria Basin, in Township 13 North, Range 1 East, portions of Sections 16, 19, 20, 21, 29, 30, 31 and 32, Gila and Salt River Baseline and Meridian, at:

Tailings Impoundment:	Latitude:	34° 29' 34" North
	Longitude:	112° 16' 57" West
McCabe Mine:	Latitude:	34° 28' 37" North
	Longitude:	112° 17' 26" West

The McCabe Mine originally operated as an underground gold mining and milling facility. The facility was converted to a copper and precious metals mine in March 1991. Mining activities ceased permanently in February 1993. The APP for closure of the McCabe Mining Operation was signed and issued on September 9, 1996. The site is currently in the post-closure monitoring period, and is in reclamation.

The ADEQ has determined that certain permit conditions need to be modified at this time. Those modifications are;

1.) Change the Aquifer Quality Limit of 10.0 mg/l and the alert level of 3.0 mg/l for nitrate to "Reserved" at point of compliance (POC) well PW-1, which is designated as a hazardous substance compliance well in the APP. Since nitrate is not designated as a hazardous substance as defined in Arizona Revised Statute (A.R.S.) § 49-201.18, the analyte should not be included in the list of required substances subject to compliance at this POC well.

2.) Increase alert levels for copper, selenium and zinc at POC wells PW-1 and MW-5. Alert levels were originally set at, or just above, laboratory analytical detection limits. These levels have been determined to be unreasonably low, which has triggered inappropriate notices of violations. Alert levels for copper and zinc will be set at 1/10th of the secondary Maximum Contaminant Level, from 0.01 and 0.30, respectively, to 0.10 and 0.50, respectively. The alert level for selenium was 0.005 mg/l, and will be set at 1/5th the Aquifer Water Quality Standard, to 0.01 mg/l.

3.) Increase alert levels for sulfate from 1,066 mg/l to 2,040 mg/l and total dissolved solids from 2,225 mg/l to 3,140 mg/l at POC well MW-5. This adjustment has been determined to be necessary to prevent notices of violations in the future for increased levels of these constituents, that are attributed to post-mining related activities. ADEQ has determined a modified set of alert levels for these constituents based on the mean value during the period 1998-1999, plus two standard deviations.

4.) Add language to the permit to allow BHP access to both POC monitoring wells and granting permission to close the wells in accordance with Arizona Department of Water Resources (ADWR) requirements at such time deemed necessary. Approval from ADEQ, and notification to land owner(s) and ADWR prior to abandonment is required.

With 24-hour notice, the modified permit and associated technical documents are available for public review on Monday through Friday from 8:00 a.m. to 5:00 p.m. at the ADEQ, 3033 North Central Avenue, Records Management Center, Lower Level, Phoenix, Arizona 85012-2809. Please call 602-207-4378 to schedule an appointment to review the file.

Persons may submit comments or request a public hearing on the proposed action within thirty (30) days from the date of this published notice. The comments or request must be made in writing and submitted to the ADEQ, 3033 North Central Avenue, M0401A, Phoenix, Arizona 85012-2809, Attention: **Eric M. Wilson**, at 602-207-4663. A public hearing request must include the reason for the request.

G40 STATE McCABE A

OFFICE PHONE 255-5971

STATE MINE INSPECTOR

MAY 20 1985

State Mine Inspector

JAMES H. McCUTCHAN
PHOENIX, ARIZONA 85007

NOTICE TO STATE MINE INSPECTOR

In compliance with Arizona Revised Statute 27-303, we are hereby submitting this written notice to the State Mine Inspector, 705 West Wing, Capitol Bldg., Phoenix AZ 85007, of our intent to start/stop a mining operation.

COMPANY NAME BOYLES BROS. DRILLING COMPANY

MAILING ADDRESS 10801 N. 21ST AVENUE; PHOENIX, ARIZONA 85029

CHIEF OFFICER AT ABOVE ADDRESS CLARK HIRSCHI - DISTRICT MANAGER

PERSON SENDING THIS NOTICE PAM LANGHAMMER - OFFICE MANAGER

TYPE OF OPERATION CORE DRILLING

STARTING DATE MAY 1, 1985 CLOSING DATE DECEMBER 31, 1985

DURATION OF OPERATION UNTIL PROJECT COMPLETE

NUMBER OF EMPLOYEES SEVEN (7)

Give exact description of location of this operation (including directions for locating by vehicle).

SANTA FE MINING, INC. - MAYER, ARIZONA
McCABE MINE

Any operation found operating without sending this notice will be charged with a misdemeanor.

(COPY FROM) - GLADSTONE McCABE (F)
FAX FOR) STAN WEST (F)

Stan West Mining Corp.

PRESS RELEASE

STAN WEST MINING CORP. ARRANGES $15,000,000 PRODUCTION FINANCING WITH SANTA FE MINING

PHOENIX, ARIZONA - On March 28, 1985, Stan West Mining Corp. signed a joint operating agreement with Santa Fe Mining, Inc., a subsidiary of Santa Fe Southern Pacific Corp. Mr. Frank Crerie, Chairman of Stan West, announced that Santa Fe will invest approximately $15,000,000 to bring the McCabe Mining Unit in central Arizona into production. Santa Fe will be the operator and receive 50% of the joint operation's earnings.

Mr. Crerie explained that the construction timetable for the mill and underground work would be approximately 18 months. Initial production should be 300 tons per day, or about 40,000 ounces of gold per year.

In addition to the production financing at the McCabe, Mr. Crerie noted that Santa Fe had also entered into an exploration agreement on the adjacent claim groups controlled by Stan West Mining. Initial exploration and drilling activity on these claims should commence in the summer of 1985. If these projects are successful, Stan West Mining will have a 40% equity interest in their production.

Arizona Department of Mines and Mineral Resources

VERBAL INFORMATION SUMMARY

May be Reproduced

1. Information from: Richard Pape - Project Geologist for Stan West Corp.
   Address: Program given to Maricopa AIME March 21, 1985
2. Mine: Gladstone-McCabe 3. ADMMR Mine File Same
4. County: Yavapai 5. District
6. Township 13N Range 1E Sec(s) 30
7. Location:
8. No. of Claims - Patented Unpatented
9. Owner (if different from above) Stan West Mining Corp.
10. Address: 2701 E. Camelback Rd., Suite 260, Phoenix, Az 85016
11. Operating Company: Joint venture Stan West and Sante Fe Mining
12. Pertinent People and/or Firm: Richard Pape, Project Geologist
13. Commodities: primary gold, silver;by-product copper, lead
14. Operational Status: Exploration and development
15. Summary of information received, comments, etc.: (See Attached)

Date: 3-22-85 Richard J. Nimmo
(Signature)

ADMMR

Verbal Summary

From Program Given to Maricopa - AIME, March 21, 1985

By Richard Pape of Stan West Mining Co.

Engineer: Nyal J. Niemuth

Mine: Gladstone-McCabe, Yavapai County

History

The Gladstone-McCabe yielded 80,000 oz of gold during the period 1883-1917. This plus silver and base metal credits made it the second largest producer in the Big Bug District. Shipping grade ore averaged 1.6 oz gold and 10.2 oz silver per ton. The mine still contains 450,000 tons of broken gob left by the old timers which runs .2 oz gold/ton. About 100,000 tons of tailings remain at the old mill area which runs .036 oz gold per ton.

Geology and Current Exploration

The major rock units in the area are precambrian spud mountain andesite breccia, andesite tuff (both now metamorphosed) and a precambrian (?) quartz diorite (AKA: Big Bug Porphyry). The andesite tuff hosts the mineralization and in places is totally enclosed by the Big Bug quartz diorite.

Stan West acquired the property in 1980 and the company's holdings in the area today total 3,500 acres. Exploration began with surface mapping and a geochem sampling program. The geochem was done on parallel 400' lines across the system which strikes about N45°E with samples taken every 25 feet. These samples identified previously unknown parallel zones such as the Adventure. Also done was EM geophysical surveys which also indicated parallel zones of mineralization. Of interest is the fact that underground maps and examinations reveal no cross cutting by the old timers. An angle hole diamond drilling program conducted from the surface totalled 92,000 feet. At the end of the surface program reserves totaled 250,000 tons grading .3 oz gold and 2.2 oz silver.

In late 1981 a decision was made to sink a new shaft, not rehabilitate the old shaft, to continue exploration underground. The Sooner Shaft was initially sunk 850 feet deep at a rate of 46 feet per week. A 69 kv line was run to the site of the Sooner Shaft and a 700 hp hoist installed with a headframe obtained from Asarco's Sacaton mine site. From the 850' level drilling was conducted which not only intersected the main zone but in the footwall zone also hit 2 parallel zones. The first of these was $7\frac{1}{2}$ feet thick and ran 4.2 oz gold, the second was $2\frac{1}{2}$ feet thick and ran 1.4 oz gold. Total length of the old workings exceed 3 miles. The shaft was sunk 200 more feet to the 1050 level. Excavating the collar of the old shaft 70' has caught it and it will now serve as a ventilation shaft.

The main vein is typically $7\frac{1}{2}$ feet wide, is composed of quartz, sericite, carbonates, and sulfides, and commonly is zoned. Zones may include massive sulfide areas up to 18 inches thick, brecciated quartz with carbonate cement due to a somewhat incompetent host rock, and black chlorite zones containing fine sulfides. The vein dips at 80' and will be amenable to shrink-stopping.

From the underground exploration and development work a surface stockpile of 4,000 tons has been produced. Reserves at this stage including the probable category total 650,000 tons. The underground sampling showed better grades reflecting losses by the surface drilling program. The potential is believed to be more than plus 2 million tons.

Future Plans

Currently Stan West holds all the permits (37!) necessary to develop the mine, mill, and tailings dam. An option agreement covering all of Stan West's holdings in the area has been signed with Sante Fe Mining and will be officially announced next week.

Since the shaft still has the sinking bucket and other equipment in place plans are to sink it to the 1450 level. Further exploration drilling and lateral development work will be done. If after this work the grade holds the shaft will be deepened to the 1750 level, then converted to skips and cages, and more development laterals driven.

During this time a 500 ton per day mill will be built. Metallurgical work indicates that 45% of the gold can be recovered in a gravity circuit. A flotation concentrate will be made for chalcopyrite and perhaps galena. The rest of the material will be treated by cip (carbon in pulp) to recover the precious metal content. Estimated are that 95% of the gold can be recovered and 40 - 45% of the silver.

Of future interest will be a geology thesis being done on the property by Stan Holmes' son. This is being done at a Canadian University and will include age dates to determine the relationship of the quartz diorite.

ARIZONA McCABE (F)

NMB IK

Stan West Mining Corp.

PRESS RELEASE

STAN WEST MINING SIGNS OPTION AGREEMENT ON THE McCABE MINE WITH UMETCO

PHOENIX, Arizona, October 16, 1984 -- Stan West Mining Corp. today reported the completion of an option agreement with Umetco, a wholly-owned subsidiary of Union Carbide.

Frank H. Crerie, Chairman of the Board of Stan West Mining, announced that if exercised, Umetco agrees to invest a minimum of $14,000,000 to bring the McCabe Mine in central Arizona into production. Umetco will be a 50/50 joint venture partner and operator at the McCabe Mine. The funds will be used to build a 500 ton/day mill, complete the underground development work, explore adjacent claims and provide the working capital for the initial production rate of 300 tons/day. Umetco will also buy $1,000,000 of Stan West common stock.

Crerie noted that when the production rate is increased to 500 tons/day, Umetco will invest an additional $3,000,000 to finance the expansion. Umetco will pay $100,000 per month during the 90 day option period.

STAN WEST MINING CORP. • 2701 E. CAMELBACK • PHOENIX, ARIZONA 85016 • (602) 957-8707

ARIZONA DEPARTMENT OF HEALTH SERVICES

Division of Environmental Health Services

BRUCE BABBITT, Governor
Lloyd F. Novick, Director

JOINT NOTICE OF PROPOSED ACTION

by the

U.S. Environmental Protection Agency
Region 9 (M-5)
215 Fremont Street
San Francisco, CA 94105

415/974-7410

On Application for National Pollutant Discharge Elimination System (NPDES) Permit to Discharge Pollutants to Waters of the United States

State of Arizona
Department of Health Services
1740 West Adams Street - Room 212
Phoenix, AZ 85007

602/255-1262

On Application for Certification for Compliance with Applicable Effluent Limitations and Appropriate Requirements of the State of Arizona

The Environmental Protection Agency (EPA), Region 9, San Francisco, California, and the Arizona Department of Health Services (ADHS) are jointly issuing the following notice of proposed action under the Clean Water Act (CWA).

The Environmental Protection Agency, Region 9, San Francisco, California, has received a complete application for a National Pollutant Discharge Elimination System (NPDES) permit and has prepared tentative determinations regarding the permit.

On the basis of preliminary review of the requirements of the Clean Water Act, as amended, the implementing regulations, the Regional Administrator, Region 9 Environmental Protection Agency, proposes to issue an NPDES permit to discharge to the following applicant, subject to certain effluent limitations and special conditions.

Public Notice No. 19-84-AZ

September 4, 1984

Stan West Mining Corporation
dba Jerome Mining Corporation
P.O. Box 8
Humboldt, Arizona 86329
NPDES Permit No. AZ0022233

The applicant operates the McCabe Mine located approximately 5 kilometers (3 miles) southwest of Humboldt in Yavapai County, Arizona. The existing discharge consists of mine drainage water. The discharge at latitude 34° 28' 45" N, longitude 112° 17' 30" W, is to Galena Gulch, tributary to Agua Fria River. The Agua Fria River has protected uses of Full Body Contact, Aquatic and Wildlife, Agriculture Irrigation and Agriculture Livestock Watering. Effluent limits have been established for Flow, Total Suspended Solids, Copper, Zinc, Lead, Mercury, Cadmium and pH. This permit, as proposed will expire June 30, 1989.

The State of Arizona is considering a request to certify the discharge described above, pursuant to Section 401 of the Clean Water Act. The certification will set forth any limitations and monitoring requirements necessary to assure compliance with water quality standards under Section 303, areawide waste treatment management plans under Section 208(e), effluent limitations under Sections 301 and 302, standards of performance under Section 306, or prohibitions, effluent standards or pretreatment standards under Section 307 of the CWA, and any other appropriate requirement of State law.

The State may certify a draft permit and specify conditions which are more stringent than those in the original draft permit, where the State finds such conditions necessary to meet the requirements of the CWA. For each more stringent condition, the certifying State agency shall cite the CWA or State law references upon which that condition is based. Review of appeals of limitations and conditions attributable to State certification shall be made through the applicable procedures of the State.

The Administrative Record, which includes the application, draft permit conditions and other relevant documents, is available for public review Monday through Friday from 9:00 a.m. to 4:00 p.m. at the EPA address below. A copy of the draft permit and other pertinent documents may be obtained by calling or writing to the addresses below.

Persons wishing to comment upon or object to the proposed determinations or request a public hearing pursuant to 40 CFR 124.12 should submit their comments or request in writing within thirty (30) days from the date of this notice, either in person or by mail to:

U.S. Environmental Protection Agency
Region 9 (M-5)
Attn: GPA Permits Clerk
215 Fremont Street
San Francisco, CA 94105

Telephone: 415/974-7410

State of Arizona
Department of Health Services
Attn: OWWQM, Water Permits Unit
1740 West Adams Street - Room 212
Phoenix, AZ 85007

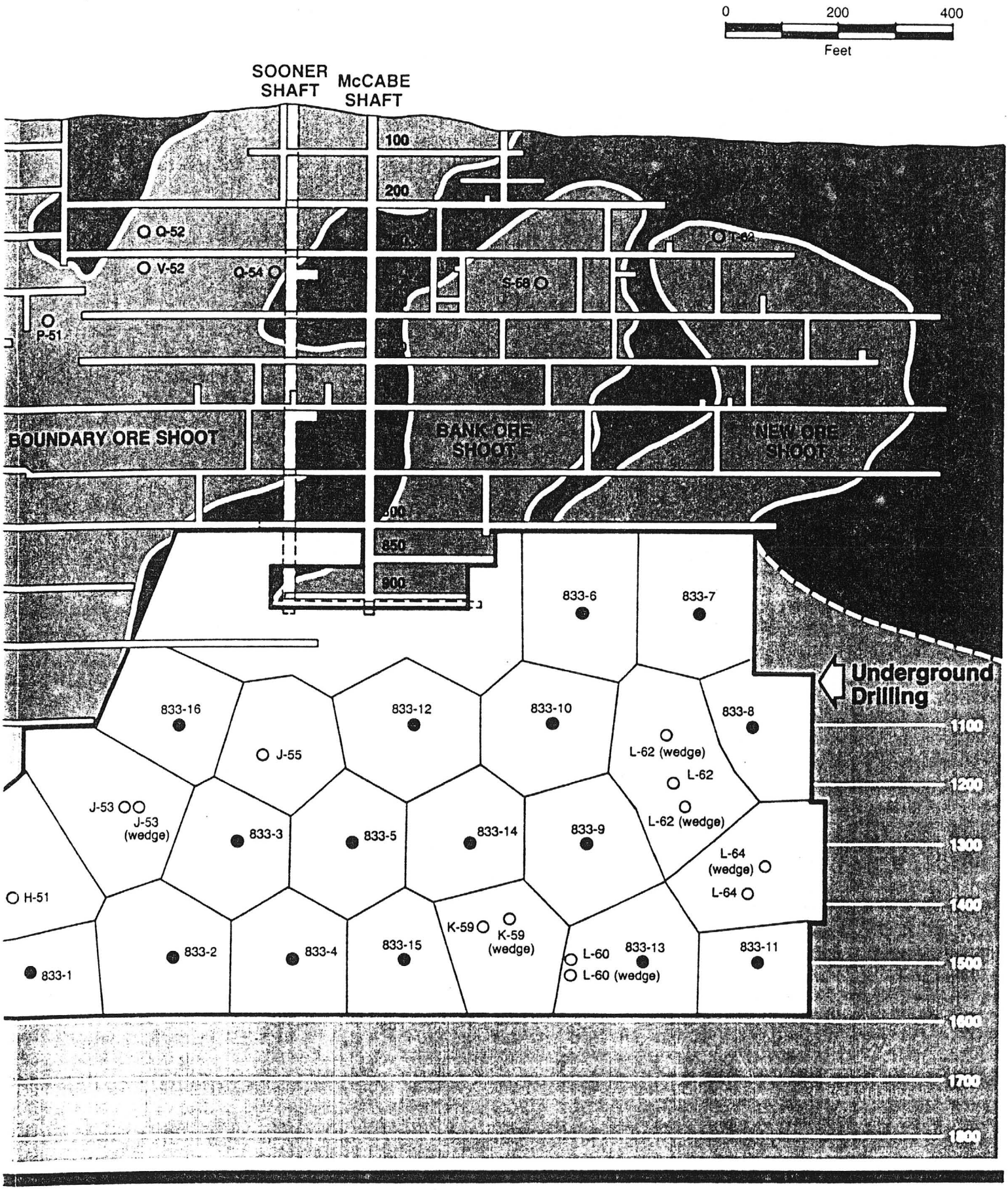
Telephone: 602/255-1262

All comments or objections submitted within thirty (30) days from the date of this notice will be considered in the formulation of the final determinations regarding the application. If the response to this notice indicates a significant degree of public desire for a public hearing, the Regional Administrator shall hold one in accordance with 40 CFR 124.12. A public notice of such hearing will be issued at least thirty (30) days prior to the hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

The permit will become effective thirty-three (33) days following the date of mailing by the EPA of the final permit. If no comments requested a change in the draft permit, the permit will become effective three (3) days from the date of mailing.

A request for an evidentiary hearing may be submitted to the Grants and Permits Administration Clerk, (M-5), within thirty-three (33) days following the mailing of the final determination, in accordance with 40 CFR 124.74. If granted, applicable provisions of the permit will be stayed pending the hearing.

Please bring the foregoing notice to the attention of all persons you know would be interested in this matter.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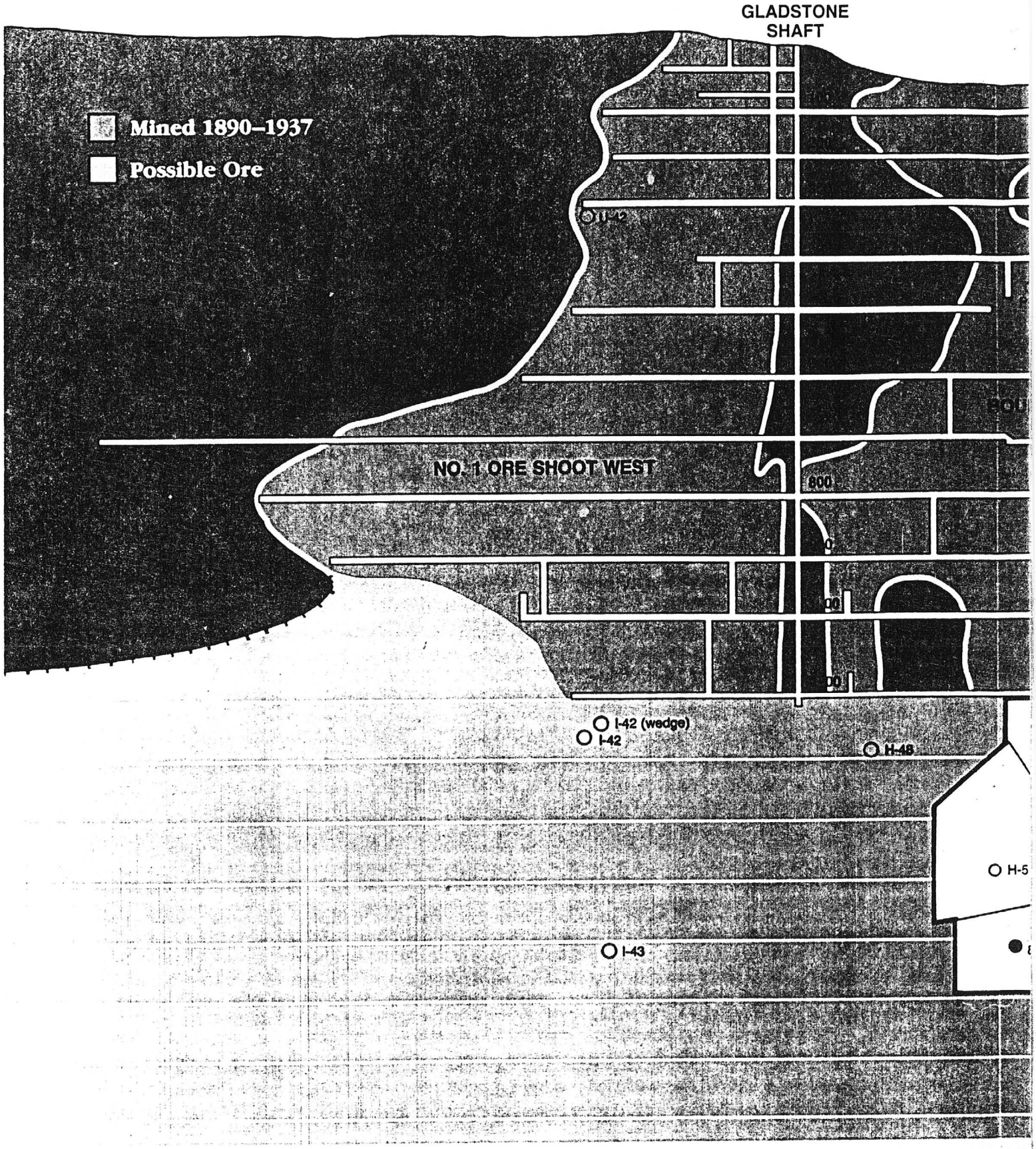
LONGITUDINAL PROJECTION

Stan West Mining Corp.

McCABE – GLADSTONE AREA

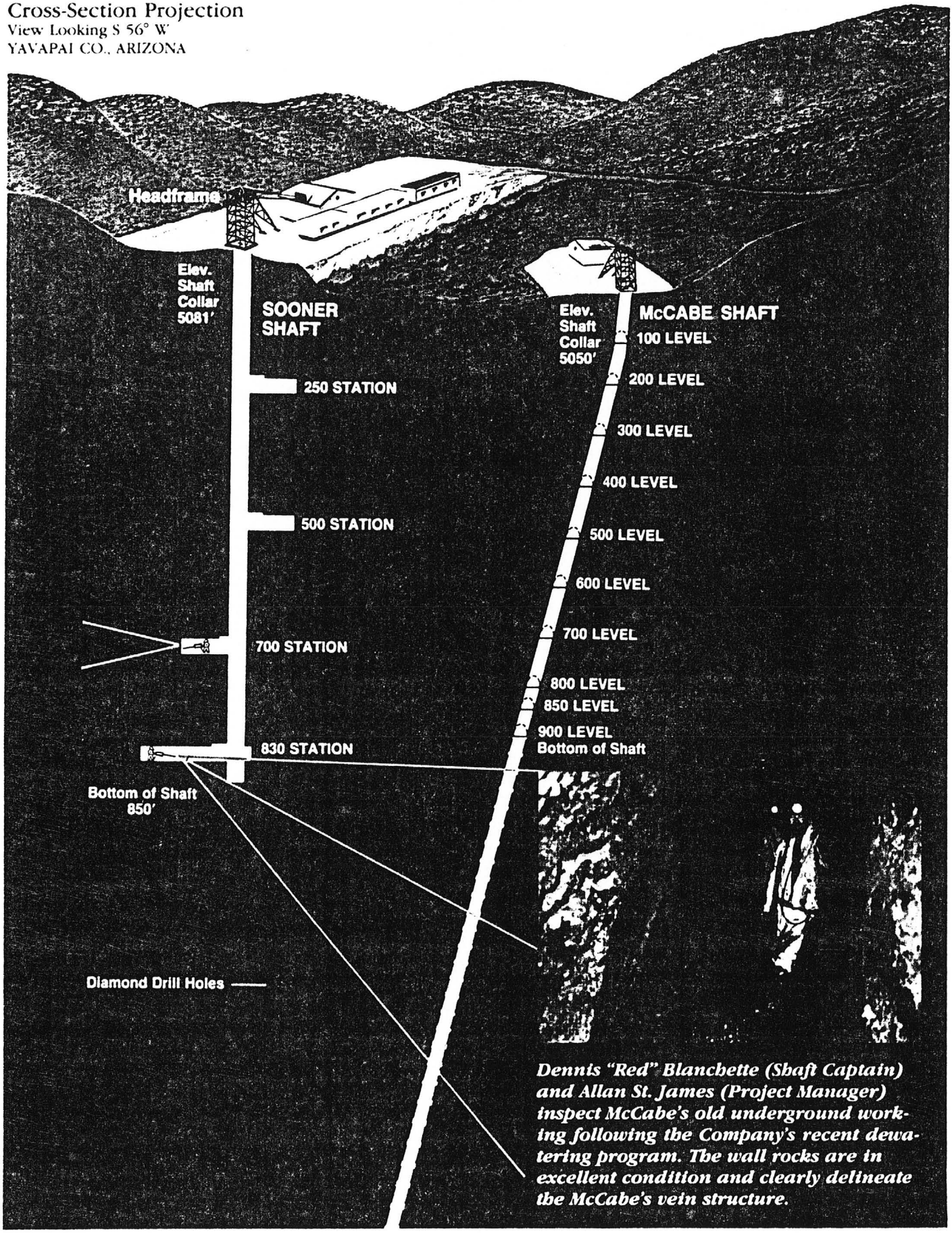
YAVAPAI CO., ARIZONA

View Looking N 31°W



Cross-Section Projection

View Looking S 56° W
YAVAPAI CO., ARIZONA



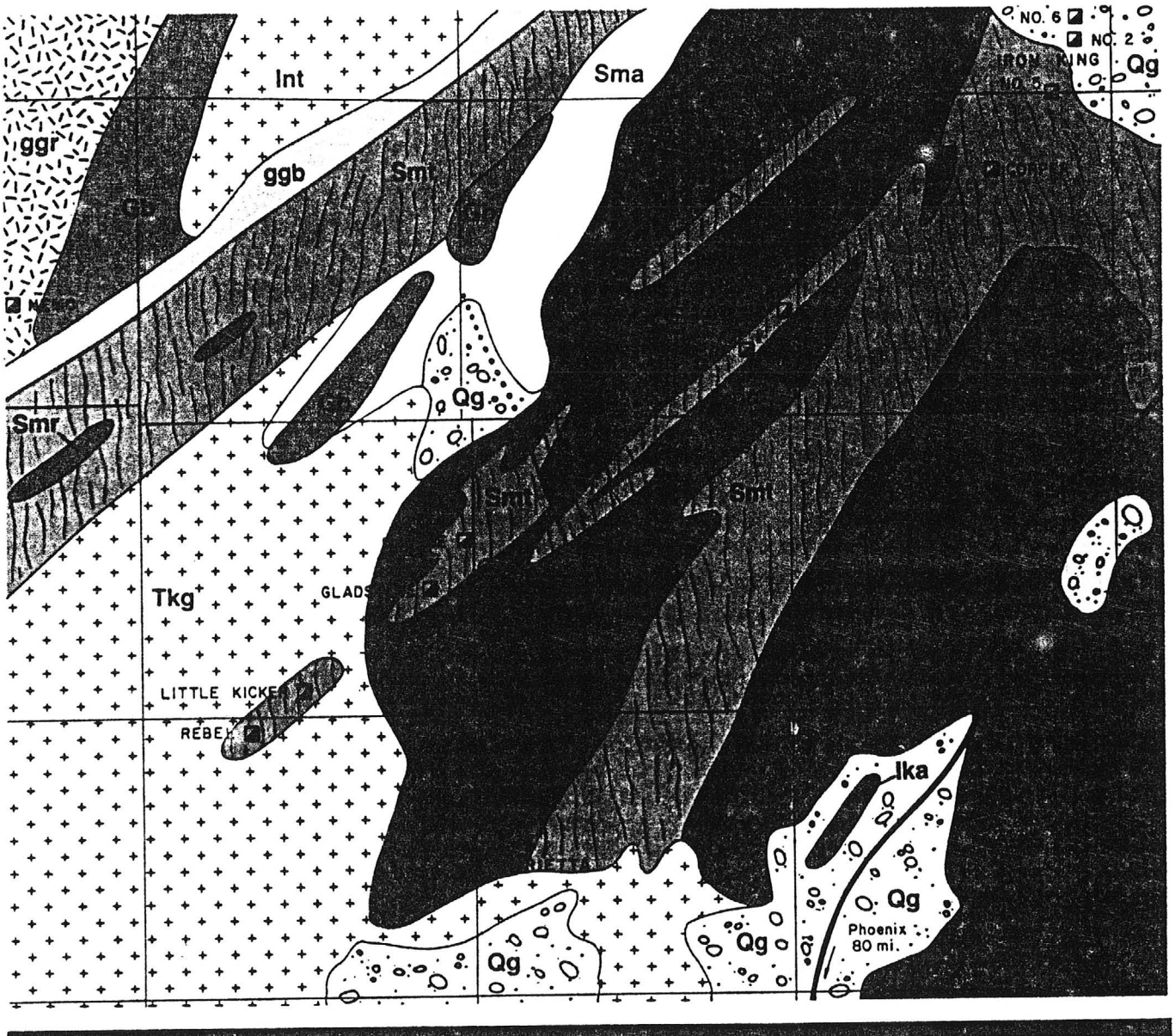
Dennis "Red" Blanchette (Shaft Captain) and Allan St. James (Project Manager) inspect McCabe's old underground working following the Company's recent dewatering program. The wall rocks are in excellent condition and clearly delineate the McCabe's vein structure.

GEOLOGY MAP

McCABE – GLADSTONE AREA
YAVAPAI CO., ARIZONA

0 2000 4000
Feet

- Gravels
- Granodiorite
- Texas Gulch Volcanics
- Gabbro
- Iron King Andesite
- Spud Mountain Rhyolite
- Spud Mountain Andesite
- Spud Mountain Tuff
- Spud Mountain breccia
- Rhyolite Tuffs
- Basalt
- Shaft
- Section Lines
- Highway



The Company's most developed properties include 116 claims and 2,300 acres along the McCabe-Iron King Belt that lies in the Bradshaw Mountains approximately 80 miles northwest of Phoenix. To date over $9,500,000 has been spent on extensive geo-chemical, geo-physical, diamond drilling and underground development activities in the area. The following exhibits illustrate the Company's property map, the McCabe's underground workings and area geology.

PROPERTY MAP

McCABE – GLADSTONE AREA

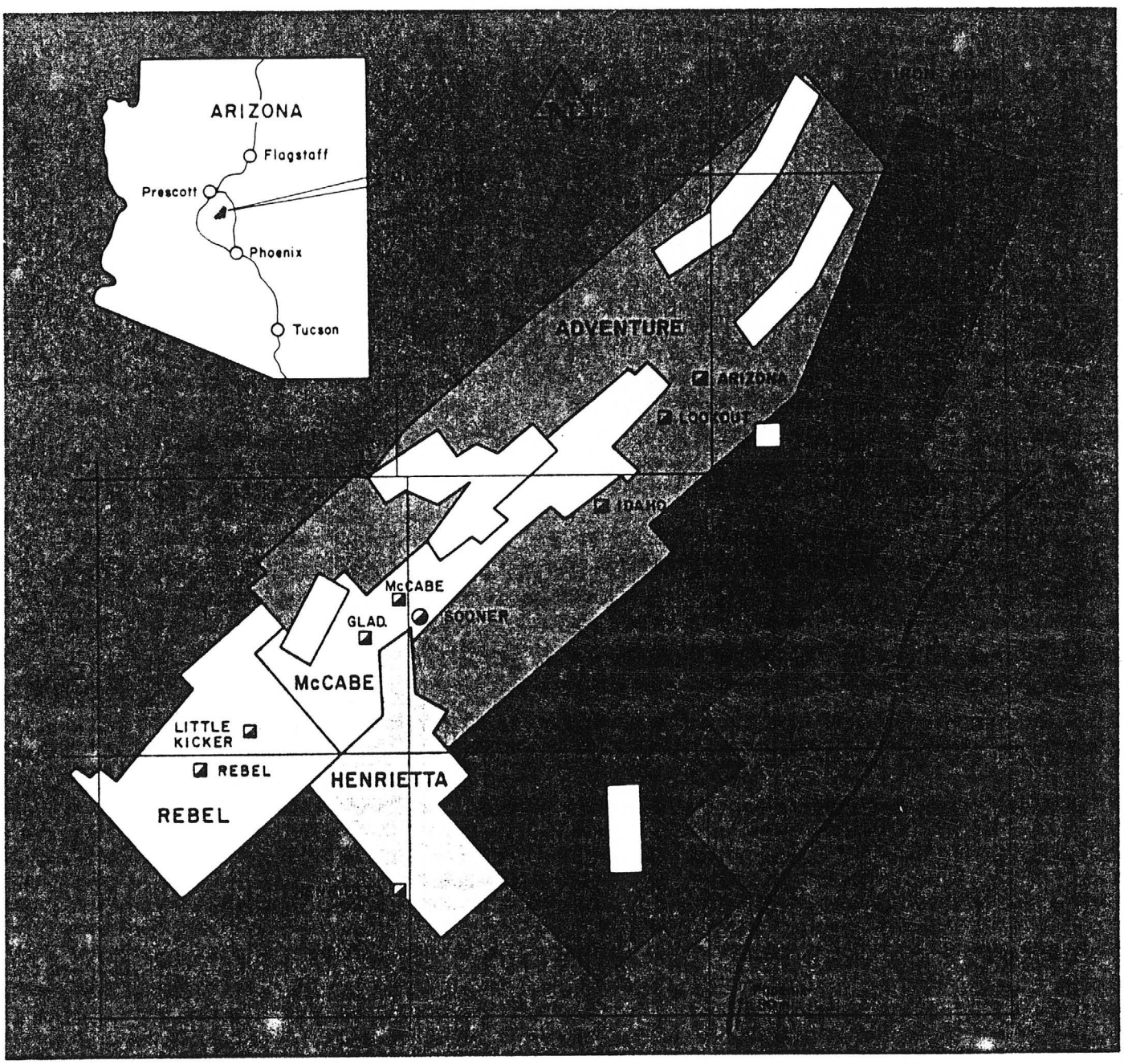
YAVAPAI CO., ARIZONA

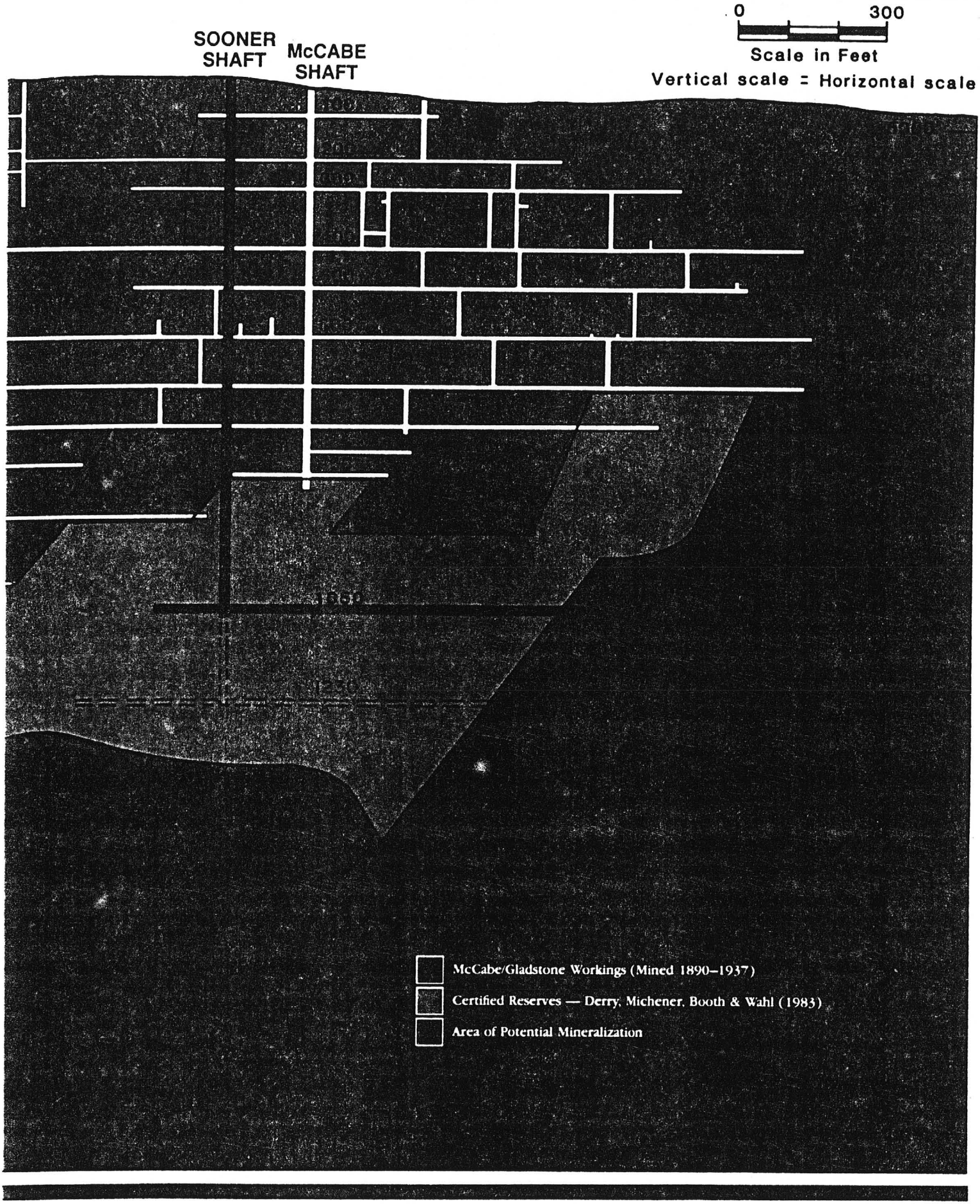
Company Owned Claim Groups:

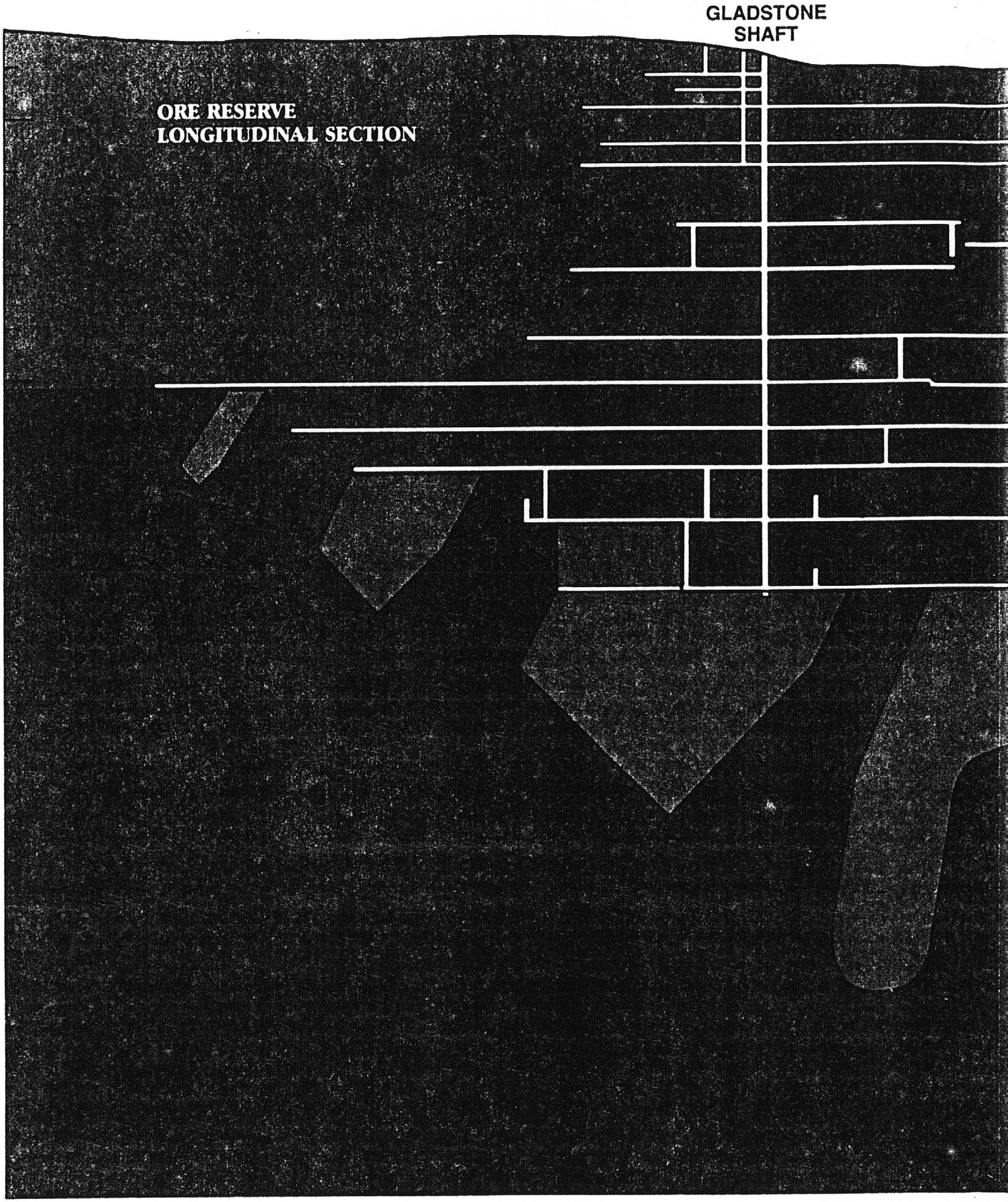
- McCabe Property
- Iron King Property
- Adventure Property
- Rebel-Little Kicker Property
- Henrietta Property
- Other Owners
- Shaft
- Section Lines
- Highway

0 2000 4000

Feet

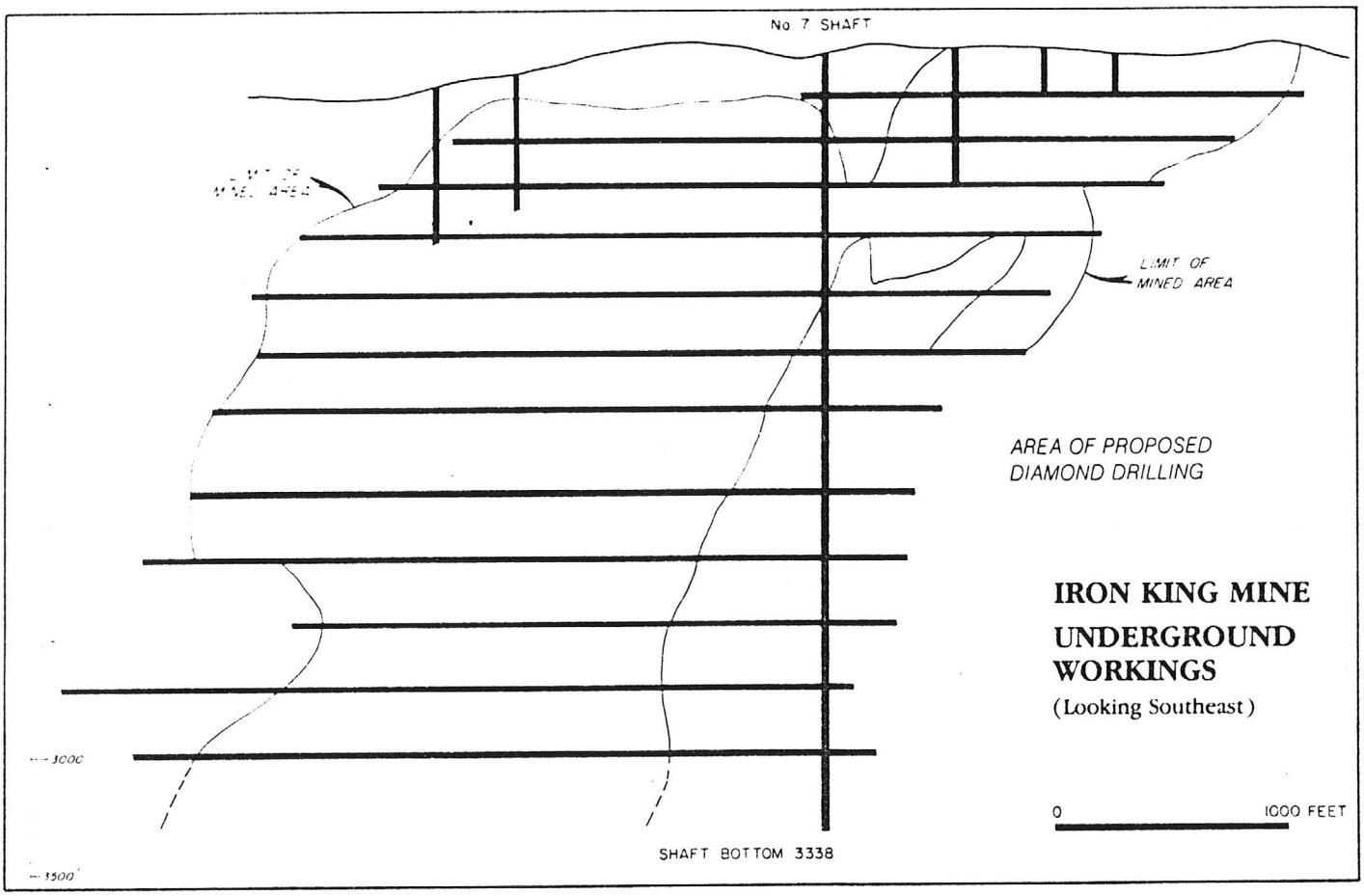



0
300
Scale in Feet
Vertical scale = Horizontal scale
SOONER SHAFT
McCABE SHAFT
1000
1250
McCabe/Gladstone Workings (Mined 1890–1937)
Certified Reserves — Derry, Michener, Booth & Wahl (1983)
Area of Potential Mineralization


GLADSTONE
SHAFT
ORE RESERVE
LONGITUDINAL SECTION

The Iron King Mine includes 54 claims that extend for approximately three miles by one mile. The original Iron King Mine produced 5,000,000 tons of massive sulphide ore with an average grade of 7.34% zinc, 2.50% lead, 3.60 ounces/ton silver and .123 ounces/ton gold. The mine bottomed in mineralization (3300 feet) when it closed in 1967.

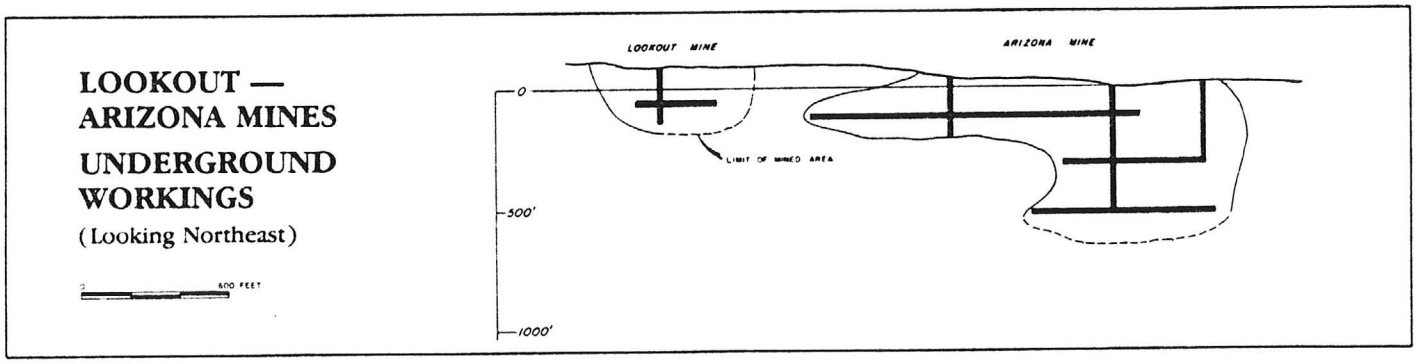
Because the Iron King is a polymetallic, massive sulphide deposit of volcanogenic origin, the possibility of mineralized extensions is considered good. A surface geology study and comprehensive geophysical study have obtained favorable results. The Company is currently planning a program of diamond drilling.



Arizona/Lookout (Silver) Mines

The Arizona/Lookout Mines lie between the Iron King Mine and the McCabe/Gladstone properties in the same belt of Precambrian volcanic mineralization. Both the Arizona and Lookout Mines have supported past production from underground workings that extend to 200–500 feet in depth. Old shipping records from 1930 exist for only the Arizona Mine and indicate that the massive sulphide ore averaged 15 ounces/ton of silver with 3% lead, 4% zinc and minor gold.

Surface geochemical and geophysical studies as well as approximately 1,000 feet of preliminary diamond drilling have had very encouraging results. The Company is currently designing a detailed exploration program.



Stan West Mining Corp.

6045 NORTH SCOTTSDALE ROAD, SUITE 101, SCOTTSDALE, ARIZONA 85253, 602/483-8000

PROGRAM OF OPERATIONS

McCABE MINE - HUMBOLDT

Underground Contractor -

American Mine Services
5810 East 77th Avenue
Commerce City, CO 80022
(303) 289-4281
telex 45-0217

Concentrator Contractor -

Cimetta Engineering & Construction Co.
9800 North Oracle Road
P.O. Box 36446
Tucson, AZ 85740
(602) 297-7231

7 KING STREET EAST, SUITE 1001, TORONTO, CANADA M5C 1A2, 416/364-0424

Both surface and underground operations will turn concurrently.

Underground

Anticipated duration of contract is nine months. Involving:

- Completion of shaft sinking
- Ore pass and level dump construction
- Headframe modifications
- Double-drum hoist installation
- Shaft equipping
- Underground construction - pumps, electrical, ventilation, compressed air and water
- Pre-production development

Surface

Anticipated duration of contract is nine months. Involving:

- Concentrator construction - civils, structural, mechanical and electrical
- Surface offices, changehouse, workshop, utility distribution and roads
- Tailings pond and dam construction

Scheduled Project Start-Up: October 1, 1987

All relevant permitting has been acquired except:

- Notice of Disposal - Department of Health Services
- Application to Appropriate and Water Development - Department of Water Resources

These are pending.

Derrick M. May
General Manager
9-1-87

GLADSTONE CABE(F)

8432415

STATE MINE INSPECTOR
Hamm
MAY 19 1983
New
10169900

Office of State Mine Inspector

705 West Wing, Capitol Building
Phoenix, Arizona 85007
602-255-5971

NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303* we are submitting this written notice to the Arizona State Mine Inspector (705 West Wing, Capitol Building, Phoenix, Arizona 85007) of our intent to start/stop (please circle one) a mining operation.

COMPANY NAME LONGYEAR COMPANY

CHIEF OFFICER Allen Krause

COMPANY ADDRESS 7773 W. Seldon Lane, Peoria, Arizona 85345

COMPANY TELEPHONE NUMBER 486-1881

MINE OR PLANT NAME McCabe Mine

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

Dewey, Arizona

TYPE OF OPERATION Drilling PRINCIPAL PRODUCT Minerals

STARTING DATE 6-1-88 CLOSING DATE Unknown

DURATION OF OPERATION Unknown

PERSON SENDING THIS NOTICE Allen Krause

TITLE OF PERSON SENDING THIS NOTICE Manager, Southwestern Zone
Contract Drilling Division

DATE NOTICE SENT TO STATE MINE INSPECTOR 5-10-88

*A.R.S. Section 27-303 NOTIFICATION TO INSPECTOR OF BEGINNING OR SUSPENDING OPERATIONS: When mining operations are commenced in any mine or when operations therein are permanently suspended, the operator shall give written notice to the inspector at his office prior to commencement or suspension of operations.

Corporate Communication

RE: Stan West Mining Corp.
2701 E. Camelback, Suite 260
Phoenix, AZ 85016

TRADED: OTC **SYM:** SWMC

For Further Information:

Thomas E. King, Jr.
King & Assoc.
617 South Olive Street
Los Angeles, CA 90014
(213) 689-1463

At the Company

Frank H. Crerie
Chairman of the Board
(602) 957-8707

FOR IMMEDIATE RELEASE
WEDNESDAY, MARCH 30, 1983

STAN WEST CONTINUES UNDERGROUND DEVELOPMENT PROGRAM

PHOENIX, Arizona, March 30, 1983 -- Stan West Mining Corp. today reported, following a recent Board of Directors meeting, that the Sooner Shaft at the McCabe Mine has been deepened to a total depth of 1,050 feet. A cross-cut on the 1,050 foot level has intersected the McCabe gold bearing zone, according to an announcement by Frank H. Crerie, chairman of the board. Drifting along the mineralized zone has been completed over a distance of 500 feet to the northeast.

Mineralization consisting of gold and silver bearing sulphides occurs over most of this drive. Systematic channel samples taken over the first two hundred feet have returned initial assay grades averaging 0.40 ounces of gold per ton and 2.0 ounces of silver per ton over a mining width of 4.5 feet. Check assays for the first two hundred feet and initial assays for the remainder of the mineralized zone are pending. The 1,050 level drive is continuing to the northeast where diamond drilling has indicated extensions of the mineralized ground.

Stan West Mining Corp. has substantial land holdings northwest of Phoenix, Arizona, in which it is engaged in the exploration and development of mineral claims.

- 30 -

Jerome Mining Corp.
107 N. CORTEZ STREET
PRESCOTT, ARIZONA 86301
TELEPHONE (602) 445-9744, 445-1439

September 14, 1981

Department of the Interior
Bureau of Mines
2721 N. Central Ave.
Phoenix, Arizona 85004

Dear Sirs:

This is to inform you that Jerome Mining Corporation, a wholly-owned subsidiary of Stan West Mining Corporation, plans to commence sinking an exploration shaft on its McCabe-Gladstone Property. The location of the property is as follows: Bug Bug Mining District, Yavapai County, Township 13 N, Range 1 E, Sections 29, 30. The site is approximately 3.5 miles southwest of Humboldt, Arizona and assess is via the existing gravel road that traverses the Iron King Mine.

Contractors for the work will be American Mine Services, 5705 Paris Street, Denver, Colorado. The work will be conducted on patented and unpatented claims owned by the company.

This phase of the work will commence in October, 1981, and is scheduled to take 35-40 weeks to complete. Contingent upon results of this work, further development work may by conducted in the area.

Sincerely yours,

Allan St. James
Project Manager

cc/ Mine Safety & Health Administration
Department of Mineral Resources
John Folinsbee
Dr. Stanley Holmes
Scott Norris

McCabe - Gladstone pet

3/78

TABLE I

IMPOUNDED TAILINGS

	Sample No.	Sample Height ft.	Au oz/ton	Ag oz/ton	Ponds Cu. Yds	Ponds Dry Short Tons
Main Pond	1	18.0	0.043	0.33		
	2	19.5	0.028	0.30		
	3	15.3	0.040	0.30		
	4	10.0	0.020	0.98		
	5	13.0	0.026	0.46		
	6	14.0	0.024	0.40		
	7	13.0	0.036	0.39	48,811	71,826
	8	16.6	0.024	0.16		
	9	14.0	0.060	0.42		
	10	14.0	0.029	0.36		
	11	13.0	0.048	0.40		
	12	12.0	0.042	0.32		
	13	13.0	0.046	0.46		
Averages		14.3	0.036	0.41		
Lower (Cyanide)	A-1	16.0	0.042	0.41		
Pond	A-2	13.0	0.033	0.33	13,144	19,342
	A-3	13.0	0.033	0.33		
Averages		14.0	0.036	0.36		
Upper (Re-Run)	B-1	13.0	0.018	0.47	2,833	4,169
Pond	B-2	12.0	0.022	0.16		
Averages		12.5	0.020	0.32		
Averages & Totals		14.0	0.034	0.39	64,788	95,337

Bulk Density Factors

Wet, in the pond @ 15% moisture = $128^{\#}/ft.^3$ = $3,466^{\#}$/Cu. yd.
Dry = $109^{\#}/ft.^3$ = $2,943^{\#}$/Cu. yd.

Size Distribution-Main Pond

Plus 20-mesh	0.55%
Plus 20 minus 65-mesh	25.04%
Minus 65 plus 100-mesh	12.06%
Minus 100 plus 200-mesh	15.89%
Minus 200-mesh	46.46%
	100.00%

APPROXIMATE PRODUCTION OF YAVAPAI COUNTY BY MINES

	Copper (pounds)	Lead (pounds)	Gold (value)	Silver (value)	Total value
Verde (Jerome) District					
United Verde, 1883-1933	1,980,000,000	—	$20,330,000	$21,500,000	$360,000,000
United Verde Ext., 1915-33	730,000,000	—	2,735,000	4,050,000	125,000,000
Verde Central, 1929-30	8,600,000	—	—	18,000	1,338,000
Copper Chief, 1916-23	—	—	530,000	372,000	902,000
Jerome Verde, 1900-1920	1,500,000	—	10,000	14,000	345,000
Equator, 1904-5	1,300,000	—	—	—	185,000
Total	2,721,400,000	—	$23,605,000	$25,954,000	$487,770,000
Big Bug District					
Blue Bell, 1896-1926	67,000,000	—	$ 1,000,000	$ 1,200,000	$ 14,000,000
Lelan-Dividend, 1900-1931	400,000	600,000	500,000	100,000	700,000
Butternut	1,200,000	—	60,000	10,000	225,000
Henrietta (Big Bug)	—	—	1,200,000	50,000	1,250,000
McCabe-Gladstone, 1830-1926	1,200,000	500,000	2,200,000	600,000	3,000,000
Little Jessie, 1867-1915	—	—	950,000	50,000	1,000,000
Poland, 1900-1912	—	1,000,000	300,000	400,000	750,000
Silver Belt, 1870-80	—	1,000,000	—	300,000	350,000
Iron King	5,000	—	50,000	50,000	100,000
Arizona National, 1921-26	—	1,000,000	—	60,000	115,000
Union	—	—	150,000	—	150,000
Sterling, 1900-1920	—	—	100,000	—	100,000
Merchants Home	—	400,000	—	50,000	70,000
Mesa, 1900-1910	—	—	40,000	—	40,000
Pocahontas, 1906-21	100,000	150,000	8,000	20,000	50,000
Hackberry (Boggs), 1930-31	100,000	—	5,000	—	20,000
Total	70,005,000	4,650,000	$ 6,563,000	$ 2,890,000	$ 21,920,000
Hassayampa District					
Howard (Harlan), 1900	—	—	$ 40,000	—	$ 40,000
Blue Dick	—	—	25,000	$ 175,000	200,000
Buzzard	—	—	—	25,000	25,000
Dos Oris	—	—	20,000	200,000	220,000
Davis Dunkirk, 1874-1930	—	—	150,000	50,000	200,000
Senator, 1883-99	—	—	500,000	30,000	530,000
Cash, 1900-1925	—	—	200,000	—	200,000
Crook, 1902-25	—	500,000	200,000	25,000	250,000
Mt. Union	—	—	125,000	25,000	150,000
Oro Flame-Sterling	—	—	200,000	—	200,000
Jersey Lily	—	—	10,000	—	10,000
Venezia	—	—	100,000	—	100,000
Starlight	—	500,000	75,000	—	100,000
Consolidated Bodie	—	500,000	—	50,000	75,000
United Gold	—	—	100,000	—	100,000
Storm Cloud	—	—	75,000	25,000	100,000
N. C. 4	—	—	—	100,000	100,000
Total	—	1,500,000	$ 1,820,000	$ 705,000	$ 2,600,000
Pine Grove District					
Wildflower, 1917-19	400,000	—	$ 15,000	$ 30,000	$ 104,000
Crown King, 1893-1922	—	—	1,100,000	100,000	1,200,000
Lincoln, 1902-8	—	—	100,000	35,000	135,000
Del Pasco	—	—	200,000	—	200,000
Philadelphia	—	—	100,000	—	100,000
Total	400,000	—	$ 1,515,000	$ 165,000	$ 1,739,000

AZBM Bull. 140

McCabe-Gladstone

Three-quarters of a mile south of Humboldt a side road turns off to the west from the Black Canyon highway, and 3 miles farther on arrives at the old mining community of McCabe in the Bigbug mining district.

According to Wilson,[26] during the early seventies this deposit yielded considerable amounts of rich oxidized ore. It was worked continuously from 1898 to 1913 by the Ideal Leasing Co., who reported a production of $2,500,000 to $3,000,000. In June 1934 mine ore mixed with old gob and dump material was being treated in a flotation mill.

The mine is developed by two shafts 800 feet apart and 900 to 1,100 feet deep, together with several miles of workings.

Here, amphibolitic schist is intruded by dikes of rhyolite-porphyry and, a short distance farther southwest, by a stock of quartz diorite. The vein strikes N. 54° E. and dips 79° SE.; it averages about 3-1/2 feet wide. Stoping has followed five ore shoots, each 200 to 500 feet long. The ore consists of quartz together with considerable amounts of pyrite and arsenopyrite and a little sphalerite, galena, and chalcopyrite.

Lindgren[27] gives the following analysis of the average shipping ore from the McCabe-Gladstone mine: Silica, 31.4%; copper, 2.0%; lead, 2.1%; zinc, 4.7%; iron, 24.6%; arsenic, 3.9%; antimony, 1%; sulphur, 20.4%; gold, 1.6 ounces per ton; and silver, 10.2 ounces per ton.

The Harbud Mining Co. is now operating the old McCabe-Gladstone property, concentrating ore from underground workings and from the dumps in a 150-ton flotation mill. The manager, W. Forri, kindly cooperated in compiling the data that follow:

Mines

The present underground workings at the Gladstone mine are reached by a small shaft that has been sunk to a depth of 120 feet; two miners are drifting west from the bottom with hand steel. The shaft follows the Gladstone vein down at a dip of 80°. A gasoline hoist raises the ore in a 500-pound bucket.

The old Gladstone dump is being removed by a 3/8-cubic yard tractor shovel loading into 3-1/2-ton trucks, which haul the material about 1,500 feet to the mill. The shovel was installed recently to continue the excavating begun by a tumblebug scraper pulled by a tractor, which discharged its load through an opening in an elevated platform into trucks below. Large pieces of waste are thrown to one side.

At the McCabe mine the old main shaft, following the dip of the ore at about 75° is being used. The vein, paralleling that at the Gladstone mine and ranging in width from 2 to 5 feet, is being mined above the 400-foot level. About 50 tons a day are hoisted in a 1,350-pound bucket, using one side of the old double-drum hoist. A 75-horsepower motor operates the hoist, which is equipped

26/ Work cited, pp. 36-37.
27/ Work cited, p. 132.

with a 1-inch steel-wire rope. The bucket dumps automatically into a hopper, from which trucks haul the ore to the mill. A 12- by 10-inch compressor, belt driven by a 50-horsepower motor, supplies air to the five drills that are used underground. The drill steel is sharpened by hand. A 9 stage, 75-horsepower pump on the 500-foot level pumps about 150,000 gallons of water per day to a 1,000,000-gallon concrete storage tank on the surface. Total power utilized at the property amounts to about 100,000 kw.-hr. per month. A force of about 16 men is employed at the mine, all work being done on the day shift.

A slusher has been operating on the old McCabe dump, loading trucks through a hole in an elevated platform. It is planned to remove the remaining 10,000 tons of this dump with the shovel now excavating the Gladstone dump.

The sources of the ore that constituted the mill heads for 1935 were approximately as follows:

	Tons per day
McCabe mine	45
Gladstone mine	10
McCabe dump	45
Gladstone dump	50
Total mill heads	150

A similar distribution is contemplated for 1936.

Mill

All the mill ore is dumped from trucks into a 100-ton storage bin at the head of the mill (fig. 9). It then passes over a 1-inch grizzly to a 9- by 16-inch Blake-type jaw crusher set at 1/2 inch. The crushed product and the undersize from the grizzly are carried by a 16-inch belt conveyor a distance of 60 feet and discharged into a 200-ton fine-ore bin. A plunger-type feeder at the bottom of the bin delivers the ore to a 6- by 6-foot cylindrical ball mill using 4-inch cast-iron balls. In closed circuit with the ball mill is a 69-inch by 19-foot duplex drag classifier, into the overflow of which are fed the flotation reagents. The mixture of reagents now being used contains 0.3 pound of sodium ethyl xanthate, 0.25 pound of cresylic acid, and 0.03 pound of pine oil per ton of ore. The classifier overflow, 70 to 75 percent of which is minus 100 mesh, passes into the first cell of a 6-cell Fahrenwald flotation machine. The first three cells make a concentrate that is pumped into a 10- by 10-foot thickener. Additional xanthate is added to the fifth cell. The froth from the last three cells is pumped with the overflow from the thickener to a McIntosh flotation machine, which is used as a cleaner and which delivers a concentrate to the above-mentioned thickener. The tails from the Fahrenwald machine and from the McIntosh cleaner pass to two 10-cell McIntosh machines, the concentrate from which is pumped to the McIntosh cleaner and the tails from which are run out to the tailings pond.

The product from the thickener is delivered by a 2-inch diaphragm pump to a 4-foot rotary drum type filter, which makes the shipping concentrate. The mill consumes 200,000 gallons of water per day, and much effort is being expended in building up the settling capacity of the tailings pond to produce a clear overflow.

The ratio of concentration of the mill is about 20 to 1, and the recovery is about 80 percent. The average grade of the mill heads is 0.13 ounce of gold per ton and the tails carry away 0.027 ounce per ton.

During 1935 the mill produced 2,500 tons of concentrates containing an average of 1.98 ounces of gold and 3.9 ounces of silver per ton. Total metals paid for during that year amounted to 5,073 ounces of gold, 10,700 ounces of silver, and 24,500 pounds of copper. The concentrates take the Hayden freight rate of $4.50 per ton to El Paso.

Lelan-Dividend[28]

The Lelan mine is on a ridge on the south side of Chaparral Gulch. This deposit was discovered during the sixties. Browne's report for 1868 states that 60 tons of ore from the Dividend mine treated in the Big Bug (Henrietta) mill yielded $20 per ton in free gold. At that time, however, it was not of commercial grade. According to Lindgren[29] the Lelan and Dividend were worked intermittently from 1900 to 1914. He states that their ore production prior to 1923 was probably at least 10,000 tons, which contained from 1/2 to 3 ounces of gold per ton together with a little silver, copper, and lead.

In 1932 and 1933 the property was operated by the Southern Exploration Co. with a force of about 25 men. This company erected a 100-ton flotation-concentration plant and produced concentrates during part of 1933. Operations were suspended at the end of the year.

The vein is a continuation of the Union. It is opened by a 500-foot shaft inclined at 80°, with development on five levels. The ore consists of disseminated sulphides carrying gold in a quartz gangue.

When the property was visited in March 1936 lessees were mining ore that the old-timers left on the 400-foot level of the Lelan mine. Three men are extracting about 1 ton a day. Their surface equipment consists of a gasoline hoist and compressor, and underground they operate two air drills, a plugger, and a stoper. The ore is being hoisted out of the old shaft. On February 18, 1936, a shipment of 33 tons of ore was made to the smelter at Clarkdale. The trucking cost was $4.50 per ton and a smelter treatment charge of $4 per ton is expected. Albert Adams, one of the partners, estimates that the shipment will assay about 1 ounce of gold and 2 to 2-1/2 ounces of silver per ton.

Henrietta or Big Bug[30]

The Henrietta mine, formerly known as the Big Bug, is about 1/2 mile north of Bigbug Creek and 1 mile west of Poland siding. Browne's report for 1868 states that in 1866 the Big Bug mine was some 50 feet deep and was producing ore from near the surface. In 1871, according to Raymond, the Big Bug vein was not being worked but the 10-stamp mill was treating gold ores from the vicinity.

In 1883 and 1884 the property was the most prominent in the district. From 1915 to 1919 gold-bearing copper ore was taken from below the old workings. The

28/ Wilson, work cited, p. 38.
29/ Work cited, p. 133.
30/ Wilson, work cited, p. 39.

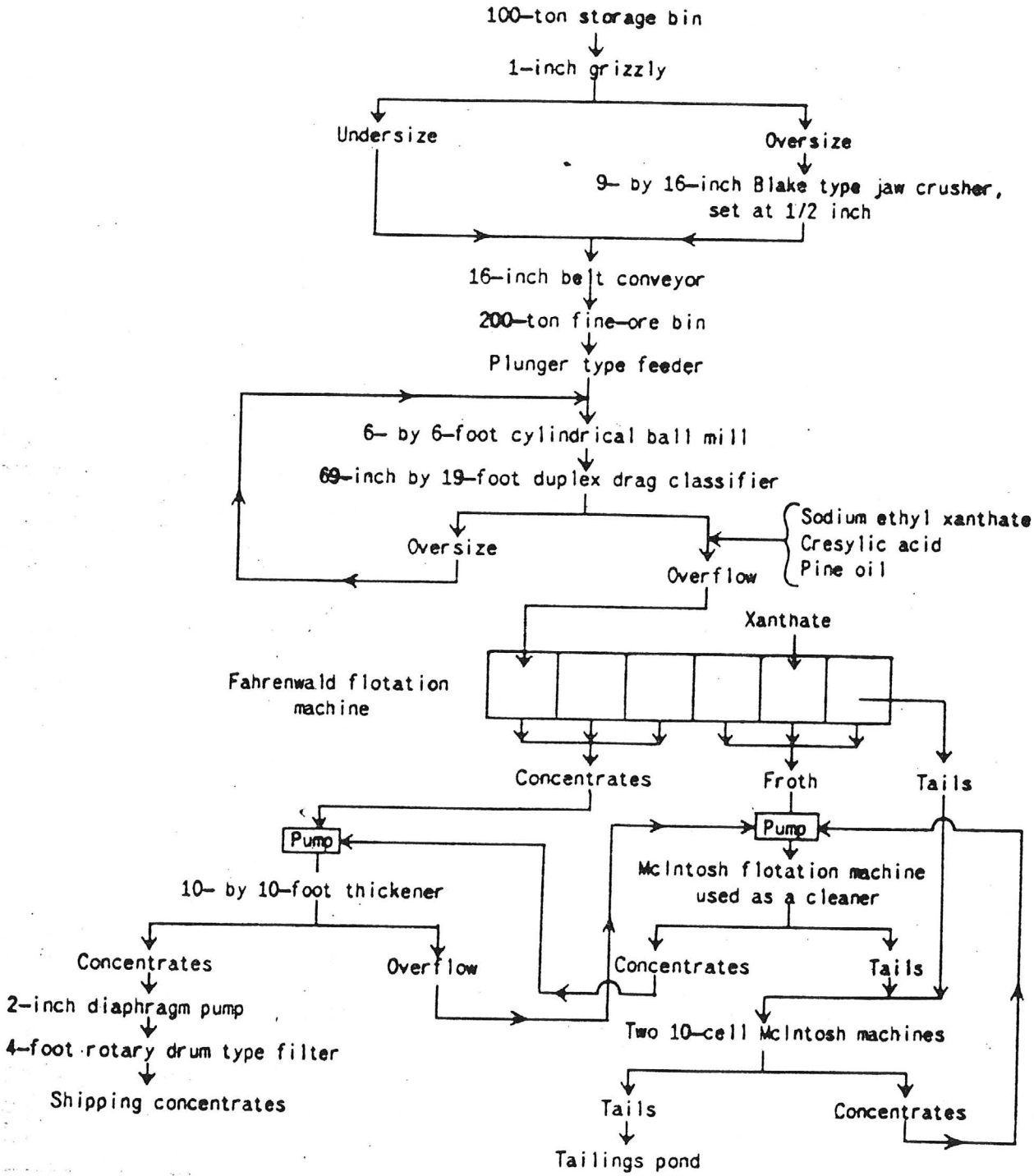


Figure 9.- Flow sheet of the McCabe-Gladstone mill.

MAGMA GOLD LTD.

McCABE MINE

The McCabe mine, located approximately 3.5 miles southwest of Humboldt, lies within the Big Bug districts' Ticonderoga subdistrict.

McCabe history dates back to 1863-1865 with the prospecting of Galena gulch by Slaughter and Hatfield. Early production ended in 1909 do to the economic depression. The mine reopened and operated from 1934 until a freak flood inundated the mine in 1937. Production, for this period was reported to be over 15,000 ounces gold and 38,000 ounces silver. During the early 1980's, Stan West Mining invested $35 million in exploring and developing the mine. However, they were unable to reach their production goals and were forced to close the mine down and put it on a care and maintenance basis.
Magma Copper Company evaluated the property and determined that by making mining and milling changes a economical successful operation would be possible. On October, 1990 they commenced reopening the mine, after forming a wholly owned subsidiary Magma Gold LTD.

Regionally, the McCabe mine lies within the transition zone between the Basin and Range province to the South and the Colorado Plateau to the North.
The McCabe veins are hosted by the Yavapai series lower PreCambrian Spud Mountain member. This unit consists primarily of a coarse grain andestic to weakly basaltic flow supported fragmental and agglomerate flows with interbedded lithic poor to lithic rich tuffs and massive fine grained andesites.
The volcanic sequence has been metamorphosed to a green schist facies and is weakly to moderately sheared. Predominate foliation direction is northeasterly and steeply dipping to the west.
The rocks have been intruded by a Laramide(?) granodiorite which lies West and South of the McCabe mine. This granodiorite has not been encountered in any of the McCabe workings but has been in the Gladstone.

The veins, in the McCabe mine area, consists of several northeast trending shear zones; the Arizona Silver Belt-McCabe vein, the Adventure, Kit Carson, Chaparral, Leland-Union- Little Jessie veins and the North-South trending Henrietta. At the McCabe mine the vein system is quit complex and forms a loosely developed cymoid system. The principal veins currently being mined are the "Purple" vein, which trends N54E and steeply dips to the southeast, the sub parallel "Blue" Vein and the "Red" vein, which strikes N36E

and also steeply dips to the southeast. These veins are narrow ranging from a few inches to 5 or 6 feet but average around 3.5 feet. The veins consist of a alteration envelope of sericite and/or quartz-sericite breccia and/or chlorite <> sericite. Within this package is normally a sulfide vein ranging in width from a few tenths of an inch to as much as 2.0 feet but, usually averages around 0.5 feet. Make-up of the sulfide veins are quit variable consisting of pyrite, marcasite, chalcopyrite, arsenopyrite, sphalerite, and galena. Supergene minerals of covellite and chalcocite have been noted. Limonite is common and occasionally hematite. Gangue minerals usually are calcite, quartz, dolomite and ankerite. Gold values associated with the sulfide veins are also variable and depend on the proportions and type of sulfides. Higher grades, 0.5 opt AU to +1.0 opt AU are more commonly associated with pyrite-marcasite-chalcopyrite assemblages. Lower grades (less than 0.25 opt AU) but higher grade silvers are found with the sphalerite-galena assemblage. Mineralization at the McCabe mine is hydrothermal and recent work by Brooke Clements suggests a minimum temperature of 342 C for the quartz associated with the sulfide mineralization. Additionally it is felt that mineralization is post-Proterzoic and probably is related to the granodiorite stock.

The ore shoots at the McCabe mine have a distinct northwest rake of around 60 degrees. They tend to be more continuous along dip and develop along the steeper portions of the vein structures.

Two principal faults cut the veins on the north side of the mine the East Fault and the A Fault. The East fault trends N25E and dips steep to moderately to the northwest. This fault exhibits left lateral movement with apparent strike displacement of at least 200 feet. The A fault trends more North-South and dips to the West. Apparent movemment appears to be right lateral with no more than 10 feet strike slip. Minor northwest trending left and right lateral faulting also can be common but displacement is usually on the order of only half of a foot to a couple of feet.
There are indications of post-mineral remobilisation along the vein structures often causing local vein becciation and rehealing with calcite. This remobilisation probably is related to movement along the East Fault.

Currently Magma Gold is mining these narrow veins by three methods, dependent on ease of free pull from the drawpoints. These are: shrink stope, open stope, or sublevel stoping. At times a stope may incorporate two or all three of the methods. Mining widths average around 3 to 4 feet

and can be as narrow as 18 inches in open stoping.

Production goals are expected to be 300 tons/day at 0.326 opt Au.
A bulk sulfide concentrate, averaging 2.5 opt Au, is processed from the ore and is shipped to the San Manual smelter.

Add to McCabe file

Early January 1977

A Mr. G.H. Seebold and Cecil K. Walker were in Wednesday. They are going to work the McCabe Mine. They have hired Jack Pierce and Mountain States Engineering. ~~I told them about your meeting, they said they would attend.~~ Mr. Seebold said he had some reports on the McCabe we could have or copy. ~~The names will be added to the Prescott Mailing List.~~

MM-22

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date September 10, 1939

Mine McCabe Extension Claims

District Big Bug

Location McCabe, Arizona

Former name McCabe Extension M & M Co.

Owner Leslie H. Childers

Address 524 Pleasant Ave., Prescott, Arizona

Operator

Address

President

Gen. Mgr. 2602 N. Potrero

Mine Supt.

Mill Supt.

Principal Metals Gold, silver, copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present

Operations Planned

Number Claims, Title, etc. Three claims, not patented - held by yearly assessment work.

Description: Topog. & Geog.

Mine Workings: Amt. & Condition Main workings consist of shaft approximately two hundred and fifty feet deep. One hundred feet of crosscutting - not accessible

(over)

Gladstone - McCabe file

Intra-Company Correspondence

SHATTUCK DENN MINING CORPORATION
and
SUBSIDIARIES

Engineering / Geology ..... Office

Date November 24, 1960

TO: D. M. Kentro

SUBJECT: Examination of two lots in the village of McCabe, Ariz.

Summary

One day was spent at the town of McCabe, Arizona examining the lots owned by Mrs. Caggiano of 723 West Gurley, Prescott, Arizona, (HI 5-4164).

Only the approximate position of the Caggiano was established. On the surface the area has no apparent mining value and probably none at depth. The property is within the old townsite of McCabe and is essentially real estate consisting of probably not more than 10,000 square feet.

General

The village of McCabe lies about three miles southeast of the Iron King Mine at the site of the abandoned McCabe-Gladstone Mine, Big Bug Mining District, Yavapai County, Arizona.

Today McCabe is almost non-existent with virtually no land marks remaing..

On November 15, 1948 Mrs. Caggiano acquired two lots in McCabe for $10.00. One lot described as follows:

One lot on New Transmogoney Mining Claim

> Bounded on the Northwesterly side by the Southeasterly side line of the U. S. Patent survey of the Oliphant Mining Claim, on the Northeasterly end by the middle of the Creek bed of Ticonderoga Gulch, on the Southeasterly side by the Northwesterly side line of the lot with the well between J. R. Rybons Salon and A. S. Cooks Saloon, said well lot being owned by Mrs. E. J. Lane and bounded on the Southwesterly end by the County road and Main Street of the village of McCabe. In Book 67 deeds Page 299.

The Yavapai County recorder and assessor have no records describing the Caggiano property relative to cadastral survey points. Mrs. Caggiano has never seen the property, but has knowledge the lots are contiguous.

In book 191 of deeds pages 309-310 the Caggiano property is described as part of the Jim Crow # 2 mining claim and bounded on the northwesterly side by the Oliphant mining claim.

The property apparently lies at or near the junctions of the Oliphant, Jim Crow # 2 and Jim Crow patented claims. This information was obtained from the county assessor. Claim corners for the above claims were not located in the field and are assumed to be no longer in existence.

In book of deeds pages 449-452 the Caggiano property is described as:

McCabe two lots.

A written note on the Caggiano deed states, "Lot 100' x 40' ".
By rough calculations the area assumed to contain the Caggiano lots lies approximately 350 yards northeast of the McCabe-Gladstone mine shafts and about 150 yards east of the Silver Belt-McCabe vein.

Mining and Geology

The McCabe-Gladstone mine is briefly described in Geological Survey Professional Paper 308, pp. 171-172, 1958.

The mine was operated from 1890 to 1913, but has not been active since. The workings extend along the Silver Belt-McCabe vein 200 to 500 feet on every level, the lowest level being about 1,000 feet. The host rock for ore was the Spud Mountain volcanics a meta sedimentary unit of the Precambrian Yavapai schist. The vein strikes about N 25 E, dips 50 degrees SE, and the width averages 3½ feet.

Production:
1,200.000 lbs. Cu
500,000 lbs. Pb
$2,200,000 --- Au
$ 600,000 --- Ag
Total production valued at $ 3,000,000

Conclusions

A surface examination of the area judged to contain the Caggiano lots does not appear to have mining potential. Further, it is doubtful if mining potential exists at depth. The McCabe-Gladstone ore body is a steeply dipping narrow vein with its closest workings some 250 yards southwest of the Caggiano property. The strike of the vein being at least 150 yards east of the Caggiano property.

To purchase a small piece of unpromising property at McCabe would seem unwise--the entire mine and town site could probably be acquired for a reasonable sum. Whether economic potential remains at the Gladstone-McCabe mine is a question that could only be answered after a detailed examination.

If in the future the Gladstone-McCabe should become an operating mine I seriously doubt the Caggiano property would be of any value other than real estate.

RGR/
cc. B. R. Waples

Robert G. Raabe
Robert G. Raabe

Intra-Company Correspondence

SHATTUCK DENN MINING CORPORATION

and

SUBSIDIARIES

Humboldt Office

Date February 21, 1966

TO: C R. Sundeen

SUBJECT: GLADSTONE-McCABE MINES

FROM: J. Olaf Sund

TYPE: Gold-Silver (past producer)

LOCATION: This old property is only 4½ miles southwest from the town of Humboldt and almost adjacent to the Iron King Mine.

INTRODUCTION: The following is a summary of information from various reports and maps etc. regarding the Gladstone-McCabe Mines. It has not been formally offered to Shattuck Denn Mining Corporation, or for that matter, it is not clearly known just who controls the property at present.

HISTORY: The original claims were first located in 1883. The properties were first operated together and separately by a variety of partnerships until 1908. From then until the early 1920's (?) the property was leased to a variety of individuals who merely salvaged and high-graded existing workings.

The Gladstone shaft is apparently down to the 11th level and the McCabe shaft to the 9th level with stations at 100 foot intervals. The shafts are about 800 feet apart. A total of at least 27000 feet of lateral development was completed on the various levels of both mines. These drifts extend well beyond the known limits of both ends of the ore zones.

The mine is completely flooded and all shafts and raises etc. are caved.

GEOLOGY: The ore bodies are enclosed in an amphibolite schist that is part of the Yavapai schist group which at this point probably represents a metamorphosed sediment.

Nearby to the west and northwest is a massive intrusive of coarse-grained quartz diorite as well as a small mass a short distance south. A 20 foot wide rhyolite porphyry dike that strikes north and south, cuts through the ore zone between the two shafts. However the genetic relationship between the intrusive massif and the dike rock with respect to one another and to the mineralized zones is not clear.

ORE ZONES: The ore veins at the Gladstone-McCabe are apparently massive quartz pyrite veins with values in gold and silver and minor copper, lead and zinc. The veins strike north 54 degrees east, and dip 80 degrees to the southeast and pitch steeply toward the southwest. Presumably they are localized within a sheared zone of some type. The trace of the overall zone corresponds very closely to a

topographic expression, namely Galena Gulch, which in itself could be controlled by the same sheared zone.

The ore zone is made up of five individual ore shoots that had stope lengths of 200 to 500 feet. The average width of the ore is somewhat less than one foot whereas the overall vein averages about a 3½ foot thickness. Two of the zones apparently extend beyond 1100 feet depth

Grab samples collected from the mine dump assayed as follows:

Sample No.	Location	Rock	Au	Ag	Cu %
10097	Gladstone	Pyrite-qtz,rusty schist	Tr	Tr	0.12
10098	McCabe	Silicified schist w/little pyrite	Tr	Tr	0.06
10099	McCabe	Rusty schist w/pyrite	Tr	Tr	0.06
10100	McCabe	Rusty Schist	0.18	0.3	0.32

RESERVES ETC.: Details of past production in terms of average grades are inadequate and misleading. This can easily be accounted for by the mine's erratic production history, especially during the latter period when a variety of contractors worked the mines. Similarly, the emphasis at the turn of the century was toward recovery of the precious metals and not the copper, lead or zinc. However, as an approximation, the ore may average: 0.4 ounces gold and 3.5 ounces silver per ton as well as 0.6 percent copper, 0.7% lead and 1.5% zinc.

A previous study by Emory and Gibbs in 1927 suggested that "...blocked out ore reserves is not very large. If the mine is reopened expectations will have to be based on ore to be opened up by new development with the best prospects apparently..... below the 11th level."

CONCLUSION AND RECOMMENDATIONS: The ore body at the Gladstone-McCabe property has been extensively worked out in the upper levels. Development has extended laterally beyond the known ore zones at both ends, namely 150 feet to the northeast on the 4th, 6th and 7th levels and 300 feet to the southwest on the 7th level. The deepest work is down plunge on the 11th level.

Exploration, therefore, would necessarily be concentrated below the 1100 foot level and down plunge. i.e. south and west of the Gladstone shaft. To do this it would be necessary to pump out the old mine and rehabilitate the Gladstone shaft. This in itself would be an extensive undertaking in view of the volume of the old workings and the fact that the mine makes 60 to 80 gallons of water per minute; and especially the undoubtly poor state of repair of the Gladstone shaft.

Geophysical methods from surface would not touch the depth extension of the Gladstone ore-zone (say to 1500 feet). Similarly surface drilling would be very costly in attempting 1500 feet deep intersections, especially in potential ore that at best will be marginal, it being mainly gold and silver.

Therefore, the writer does not recommend any exploration efforts on this old property.

JOS/db

REBEL MINE

Compiled Information - 1947

The Rebel Mine consists of two patented mining claims, the Rebel and Little Kicker, which end line the Gladstone and McCabe Mines and main vein on the south. These claims thus contain the southerly extension of this vein, which is strong throughout the length of the two claims.

The Gladstone and McCabe Mines were operated for many years around 1900 as a gold mine, and produced over $2,000,000. As the vein extends south into the Little Kicker and Revel the mineralization appears to become more basic-complex - a fact which greatly inhibited early day successful operation. Comparison between the Revel and the McCabe is of little use except to show the general strength of the vein.

The Rebel Mine was rather extensively developed, and some production obtained around 1900. It has probably not been entered since about 1904. While there seems to be considerable knowledge among old timers as to what development was done and what it showed, and although this department has made extensive efforts to obtain actual first hand information, we have been unable to find anyone who was ever in the lower levels of the mine.

What makes the property of especial interest is that the evidence shown by the dump and some known shipments indicates that the stories regarding underground development are true, and if so, it would have been impossible to carry on a successful operation with the metallurgical knowledge available around 1900. In other words there are sensible reasons why the supposed conditions could really exist. Nowadays the ore would have a value around $30.00 to $40.00 per ton.

Dr. C. E. Culver of Philadelphia, the present owner of the mine, reports that there are four shafts on the property - one over 800 feet deep, and 2,000 feet of drifts, but no stoping; that the vein is 5 - 7 feet wide with a high grade band 2 - 4 feet wide in the middle (assaying $40.00), and lower grade on each wall.

Arthur Bowen, a miner who was familiar with the mine some years ago, but says he has never been underground there, says he knows from general knowledge that the shaft is 900 feet deep with some little drifting and ore on every level.

J. E. Russell of Prescott says he was in the mine to the 200 level about 1907 and that the only ore on that level was a short shoot about 15 feet long which raked north through the shaft at about 45 degrees, at the 150' level. However, he says it was well known at that time that another shoot 400 feet long and raking to the north came in on the 400 level south. He says he shipped two carloads from the dump that assayed $30.00 per ton and left another car there that someone stole later. This was at old metal prices.

In a letter to Arthur Bowen written in November, 1925, Russell, in quoting a man who knew the mine well, also says "below the 75 foot point the hanging is so hard there will be no further caving of ground .....to catch up that small cave near the surface will open the shaft except for water".

Quoting this same man, Russell mentions 300 tons being stoped in vicinity of the 165 level and sent to the Gold Standard (Val Verde) mill. That this was the "only ore ever stoped in the mine". In all probability this is the same small shoot as he mentioned having seen himself.

The Southwestern Engineering Co. made a metallurgical report for Dr. Culver in 1928 on a head sample which assayed: Au .24; Ag 12.0; Cu 3.24%; Pb 7.0%; Zn 12.3%. This sample was evidently taken from the dump and of course proves nothing as to the amount of such ore available underground. The differential flotation test was only fairly successful but the fresh ore should give no difficulties with modern practice.

The mill tailings dump near Humboldt below the smelter on the Agua Fria River, known as the Val Verde mill tailings, is supposed to have been produced entirely from Rebel ores. This dump contains about 2,000 tons. Thirteen carloads were hauled to Clarkdale by myself in 1941 and a typical analysis was as follows: Au .12; Ag 3.13; Cu .25; Zn 1.5; Fe 8.1; SiO 58.3 (not assayed for Pb). It is evident that in those days they made a bulk table concentrate and probably were badly soaked for the zinc, and received no payment for the lead, but could not afford to discard either because of the gold content. Assuming a lead content similar to zinc, and that extraction was around 66%, it would again indicate a head value around $30.00.

Bill Snyder and an associate in 1937 erected a small bulk flotation plant at the mine dump and produced a few shipments of concentrates which averaged: Au .40; Ag 12.4; Pb 12.1; Zn 19.8; Fe 18.7; Ins 6.4. Ratio of concentration and head and tail assays are not known but Bill thinks they made a very low extraction with about a 4 - 1 ratio.

Louis E. Reber, Jr. made a brief examination and report in 1934. Mr. Reber speaks fairly well of the property geologically but looked at it entirely from the point of view of a gold mine, and was not very enthusiastic about it as such. His samples were assayed for gold and silver only, and with the exception of dump samples were taken on the surface. The surface samples averaged around .10 in Au but the dump samples are interesting in showing types as follows:

	Au	Ag
Selected for pyrite	.28	6.80
Selected for arsenopyrite	.64	.25
Selected for sphalerite	.12	5.80
Selected for galena	.09	29.50

In September 1946 I visited the property and took a sample of the clean mixed ore from the dump which assayed as follows: Au .48; Ag 4.4; Cu .16; Pb 5.00; Zn 17.31.

My lower ratio of copper and higher ratio of zinc is probably due to the copper ore being well gleaned from the dump in times past. In fact, after the several gleanings it has been through there is little ore of any kind left. I found the shaft caved at the surface but the funnel is not large, and it is reported that the water level is about 75 feet. It seems probable that the shaft would be found in accessible shape below the water level.

Three methods of approach are possible:

1) Open up the old shaft.

2) Put down a prospect shaft near the old shaft to some point below the water level and then drift to the shaft.

3) Run a tunnel to connect with the old shaft at about the 100 level.

The method which would be most economical would be a matter of engineering study and judgment. They are all possible and comparatively inexpensive.

Considering the evidence supporting the grade of this ore and the sensible reasons why it could be there; and also considering the reasonable "deal" that can be obtained, and the comparatively small cost of opening it up; it would seem a worthwhile venture to find out.

Compiled November 1946 by

Chas. H. Dunning, Director
Department of Mineral Resources.

COP V R SHATTUCK [illegible]

REPORT
ON THE
GLADSTONE - McCABE MINE PROPERTY
YAVAPAI COUNTY
ARIZONA

INTRODUCTION

The object of this report is to set forth, in as brief and orderly a manner as possible, such information as we have, that will assist in determining the advisability of purchasing the property, and equipping it with a mill, to treat the low grade material now in the surface, and later ore from the mine.

The mine has been filled with water since 1910, so no inspection could be made of the underground workings. Mr. J.L. Davis, the former resident agent of the owners, and later caretaker of the property, gave some information as to the underground conditions when the mine shut down, the rest was taken from the mine records, which are quite complete.

My connection with this property started in June, 1932, at which time I visited the property for the owners, to report to them on the condition of the property, and assist in arriving at a fair price for the mine, as they wished to dispose of it.

As a result of this work an option was given to Mr. S.R. Burdick, one of the former engineers of the Miami Copper Co. Mr. Burdick's backers failed him, after he had checked-sampled the dumps and made a lot of flotation tests. His option expired last spring.

In the fall of 1931 the A.S.& R. had an option on the property. Under this option they sampled the dumps in avery thorough manner, but finding the average less than they thought (they expected at least a $4 gold average) did not go ahead. This summer they came back in the picture, asking for a lease, but the owners will not do this. Later they asked the right to cart away 100 tons of the dump material to have a mill run made. This request was granted. Up to Aug. the 14th they had not started to take this 100 tons away. They have no option on theproperty.

PROPERTY

The property consists of six claims, five patented, and one held under location.

LOCATION

The property is in Galena Gulch, in the Big Bug Mining District of Yavapai County, Arizona, 41/2 miles southwest of Humboldt, and 21/2 miles from Huron siding on the Prescott and Middleton branch of the A.T.&S Fe.R.R.

TOPOGRAPHY AND CLIMATE

The mine is in the foot hills of the Bradshaw Mountains, at an elevation of about 4900 feet. The hills are well rounded and covered with brush.

The climate is fairly dry, with an average rainfall of about 15 inches. Snow does not last long below 6000 feet elevation. Nothing to interfere with year around surface work.

HISTORY

The first claim was located in 1883, The cropping having been found in the bottom of the gulch as a result of placer mining. Later other claims were located,and two,or more operations started, Some very rich ore was taken out, Later the six claims were consolidated under the present ownership.

The present owners never operated the mine themselves,but always had it operated under lease,as a rule at a high royalty.

C.G.Fennell operated it from March 1903 to 1907,then Massey,Flannery and Company for a year starting in August 1908, After this the owners kept the water out till the fall of 1910,when the pumps were taken out,

PAST PRODUCTION

The production up to the time of the Fennell lease is unknown,but from the most reliable information obtainable it was something over $1,000,000.

The McCabe was consolidated with the Gladstone in 1906,

The production of the Gladstone from March 1903,and the McCabe from 1903 was as follows;

	Tons	$/ton	Gross Value
First class ore	44,891	$31,67	$1,408,783,
Second class ore	2,735	11,33	31,113,
Concentrates	1,806	32,57	58,836,
Tailings,upper pile	3,026	15,03	45,489,
Tailings,lower pile	8,400	7,34	61,356,
Dump sorting			3,802,
		Total	$1,609,329,

It is safe to say that the total production has been in excess of $2,300,000,

GEOLOGY

I did not make a study of the geology of the property,This point is covered in Geological Survey Atlas,Folio 126 by T.A.Jagger,Jr.,and Chas.Palache, also in Bulletin 782 U.S.Geological Survey,by Waldemar Lindgren, The latter gives considerable information about this property,

DEVELOPMENT

The mine was operated through two main shafts,the Gladstone,1,170 feet deep,and the McCabe 900 feet deep, These shafts are about 940 feet apart,but connected on several levels, In addition to these there are three small connecting shafts along the vein,

From the mine maps,one gathers there are over 20,000 feet of drifts,but almost no cross-cuts,

The vein has been opened for a length of about 3200 feet,in that length they had five ore bodies, The vein is reported to be from 3 to 10 feet wide, Walls said to stand well,

VEIN

The vein contains a rich pay streak of shipping ore,this is what the operators were after, This seems to have averaged 18 inches wide through-out

the mine, The vein filling is quartz with sulfides.The sulfides are pyrite, chalcopyrite,galena,sphalerite,arsenopyrite,with possibly very small amounts of other sulfide minerals,

The vein filling outside of the pay streak carrys some values,but they did not sample it,so it is impossible to state the value,except as stated below,

There are small quartz veins showing on surface that have not been prospected from the mine, These have produced some shipping ore from shallow shafts, On the Western end of the property the main vein cropping shows some copper carbonate,this has not been prospected,

BLOCKED OUT ORE-

The former operators were all leasers, All sampling seems to have been confined to the pay streak,so it is impossible to say how much milling ore was left in the mine,

The method of working was to break as little of the low grade ore as possible in getting the high grade,sorting this high grade in the stopes, leaving the milling ore as filling, The stopes are full of this low grade ore, there is a considerable tonnage of it,but as to grade it is impossible to say, The former mine Supt, claims it will run from $4,gold,up, This is impossible to check,

From the records we know low grade ore extends beyond the stopes along the vein,but there are not enough assays in the records to warrent any estimate of either tonnage or value,

We have assays on the lower levels of the unmined pay streak,which the last leasers could not mine under the terms of their lease, this figuring the width of the pay streak only gives:

	in/wide	Tons	$/ton	Total
Between the 1000 and 800 levels East of the Gladstone shaft	Davis est.	650	12.00	7,800
Between the 1000 and 1100ft levels West of Gladstone shaft	11,1	2300	18,20	40,500
East of Gladstone shaft	10,7	1370	20,00	27,400
Between the Gladstone 1000 ft level and McCabe 800 ft level	12,6	1400	20,45	28,600
Above McCabe 800 ft level	13,4	450	27,00	12,300
Total		6370	18,35	116,600

On the bottom levels the five ore bodies seem to be going down strong, They have a total length of over 1000 feet along the vein,

In running the 1100 foot level West from the Gladstone shaft for a distance of 300 feet they mined all the vein, It was from 3 to 5 feet wide, All this material was hoisted,and after picking out the larger lumps of shipping ore,the rest was put through the mill, This averaged just under $8 in gold, We do not know just how much was sorted out,nor its value,but if you figure there was none sorted out,and take an average width of 3 1/2 feet,which I am informed is about correct, And using the widths and assays of the pay-streak as given in the records,the vein material outside the pay-streak must have averaged $8,40 per ton in gold,

During the dryer parts of the year the 100 foot level of the Gladstone is just above the water. Since 1910 lessors have done a little work on this level, sorting out some shipping ore. This, in a part of the mine that the former operators considered too low grade to work.

While there is very little ore that one can call blocked out, the outlook for ore below the lowest levels is very good. Also, it seems there is a large tonnage that will pay to mill under todays methods, left in the stopes, and in the vein beyond the boundries of the stopes. Unwatering is the only way to tell just how much of this ore will pay to mill.

The reconstructed assay map gives an idea of the values in the pay-streak on the bottom levels, and what might be expected in depth.

MILL TAILINGS AND MINE DUMPS. There are on the property two mill tailings piles, and four mine dumps that contain gold values as follows;

Tailings. There have been two mills on the property. The first burned after treating a few thousand tons. The tailings pile from this mill was shipped without further treatment a few years ago and averaged just under $15 per ton. This is of interest in showing what must have been the values their mill ore at that time. There are only a few tons of this pile left.

The second mill is still on the property. The tailings from this mill have been sampled by Mr. Starbird, who shipped 8400 tons of them, averaging $7.34 per ton. There are left in this pile about 5600 tons, that bore sampling show to average $4.10 per ton.

Mine Dumps.

The four mine dumps are known as the Parsons, McCabe Mill, McCabe Shaft and Gladstone Shaft dumps. The first three have been sampled by the A.S.&R. and checked sampled by Burdick. This sampling has been such that the values contained can be accepted as having been established.

The A.S.& R. put down 64 test pits, a great many of them over 20 feet in depth. Each pit was sampled and plotted. I have these dump maps. Also 1/10 of all the material taken from these pits was sent to the smelter, and put through the sampler, one sample from the Parsons dump, one from the McCabe Mill dump and two from the McCabe Shaft dump. I think these samples are more reliable then the pit samples.

The value of the Gladstone dump has been taken as $2.40 per ton. This is based on samples taken from shallow pits and cuts. This dump being 50 feet deep in places testpitting would be very costly. In working very little of the ore hoisted from this shaft was sent to the mill. The shipping ore being sorted out and the rest put in the dump. The mill was connected with the McCabe shaft. From what I am told this has always been considered a little higher grade then the McCabe Shaft dump, so I think taking the value as $2.40 is safe.

In sampling it was found that 75% of the material will pass a 3/4 inch screen.

It is something over 900 feet from the lower part of the Gladstone dump to the lower part of the McCabe Shaft dump. The other mine dumps being between these two. The tailings pile is some 600 feet below the McCabe Shaft dump.

The values and tonnages of the several dumps is given below,

Dump	Tons	Pit sample average	1/10 bulk average
Persons	5000	03,50	$3,00
McCabe Mill	5000	3,20	3,40
McCabe shaft	lower	3,31	2,30
	51,000		
	upper	2,32	2,60
Tailings	3000	4,33	
	66,000	This has all been sampled in a thorough manner,	
Gladstone	30,000	Estimated to average $2,40 per ton,	

The analysis of the four bulk samples taken by the A.S.& R. are given below:

	Persons	McCabe Mill	McCabe shaft	McCabe shaft
Dry tons	13,47	3,27	4,27	31,63
Insoluable	62.4%	65,00 %	64,8 %	68,8 %
Silica	49,4	48,6	53,2	51,8
Alumina	12,0	14,7	14,6	13,6
Zinc	,8	,7	,8	---
Sulphur	2,3	3,2	2,6	---
Iron	15,0	11,0	11,2	10,3
Lime	,7	1,5	1,5	1,5
Copper	,1	,3	,8	,1
Gold oz,	,145	,11	,13	,13
Silver oz,	,53	,65	,49	,43

FLOTATION TESTS

Flotation tests have been made by several parties. The results are given below,

Test run by Mr. W.E.Sands of the Nev. Cons.Copper Co,

	Heads			Tails			Concentrates			
	Wt	Au	Ag	Wt	Au	Ag	Wt	Au	Ag	% Recovery
Bulk	2458	,57	2,38	1922	0,06	0,67	534	2,43	8,05	Au 92,1 Ag 74,7

				Mids						
Cleaner	534	2,43	8,05	176	0,50	1,51	358	3,38	11,09	
							Concentrates			Au 88,4 Ag 80,0
							Middlings			Au 3,5 Ag 4,8

Reagents,

12,0 lbs Soda ash
0,1 " Sodium Areofloat
0,6 " Copper sulfate
} 10 minute grind before flotation

0,2	lb/t	Amyl Xanthate
3,4	"	Soda ash in cleaner
0,15	"	Pine oil,

The next two tests were run by Mr. C.R.King of the United Verde Copper Co,

Mine dump composit.

Heads		Tails		Concentrates			Conc, Ratio	% recovery Au
Gms	Au oz	Gms	Au oz	Gms	Au oz	Ag oz cu%		
485,2	0,18	470,	0,025	25,2	2,68	6,50 ,8	19,24	85,2

Reagents

12,0	lbs/ton	Trona	Before grinding,
0,8	"	Copper sulfate	Before grinding,
0,1	"	Sodium Aerofloat	Before grinding,
0,2	"	Ethyl Xanthate	Before grinding,
,1	"	Sodium silicate	15 minute grinding,
,1	"	Pine oil,	15 minute grinding,

Note,
Froth watery, but well flocculated; screen analysis of feed was all through 30 mesh and 18% plus 200 mesh,

McCabe Mill Tailings

Heads			Tails			Concentrates			Conc, Ratio	% recovery
Gms	Au oz	Ag oz	Gms	Au oz	Ag oz	Gms	Au oz	Ag oz % cu		
493,	0,205	1,43	453	,035	,50	37,	2,9	13,2 2,3	13,31	Au 84,3 Ag 66,5

Reagents

16	lbs/ton	Trona, Before a 10 minute grind,
0,3	"	Ethyl Xanthate
0,2	"	Amyl Xanthate
0,15	"	Pine oil,

Note,
Indications are that trona can be cut to about 8 lbs per ton, Froth well mineralized, Screen analysis was all through 30 mesh with 25% on 200 mesh,

The following test was run by Mr. D.C.Minton of Tucson, Arizona.

Composit Dump Sample.

	Wt. Gms.	Au oz	Gm-oz Value	% recovery	Conc. ratio
Heads	2000	.135	271		
Conc.	180	1.20	216	80.	9.3:1
Tails	1820	.03	55		

Reagents.

12.0 lb/ton	Soda ash before grinding
.2 "	Pine oil
.3 "	Sodium Xenthate
.2 "	Sodium Aerofloat

The following test was run by Mr. T.T.Watson of Miami,Arizona.

McCabe Dump Sample.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery.
Heads	1500	.094	141		
Conc.	31.5	1.44	45.4	7	79.8
Mids	25.5	2.84	67.3	8	
Tails	1443	.02	28.9		

Reagents

8.0 lb/ton	NaCO3 to ball mill before a 10 minute grind.
.02 "	Pine oil
.02 "	Secondary Butyl Xenthate before floating concentrates.
.02 "	" " " " " middlings.

Evidently not enough Xenthate to put the bulk of the gold in the concentrates.

This test was run by Mr. W.W.Eaton of Miami, Arizona.

Gladstone - McCabe Dump Composit.

	Wt.Gms.	Au oz	Gm-oz Value	Frothing time min.	Ratio of conc.	% Recovery
Heads	1500	.104	156			
Conc.	13	3.44	44.7	5	43:1	77.3
Mids. 1	41	1.30	53.3	5		
Mids. 2	29	.76	22.0	5		
Tails	1417	.025	35.4			

Reagents

10.0 lbs/ton Lime before a 15 minute grind,
.03 " Pine oil
.20 " Aero Brand Cyanide } Before floating concentrates,
.10 " Butyl Aerofloat }

.10 " Copper sulfate before floating first Mids,
.10 " Amyl Xanthate " " second Mids,

Concentrate slimy, % solids 27.5

This test run by S.R.Burdick of Miami, Arizona,

Gladstone-McCabe Dump Composit.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery	Ratio of conc.
Heads	5040	.154	7938			
Conc.	114.2	4.48	4000	7	78.9	43.6:1
1 Cl.Tails	292.0	.19	554			
2 "	264.	.24	634			
Rougher Tails	5430	.032	1656			

Reagents

0.4 lbs/ton Pine oil
.1 " Secondary Buytl Xanthate before floating concentrates,
.1 " " " " " " Mids,

Ground 5 minutes in ball mill, Added .1 lb/ton Secondary Butyl Xanthate and .1 lb/ton pine oil, Conditioned 4 min, Frothed 7 min, for concentrates, Added .1 lb/ton Secondary Butyl Xanthate, conditioned for 4 min, and frothed for 8 min, for Mids, Refloated mids to clean, and added to rougher conc, Cleaned combined conc, Feed all -65 mesh, Pulp 27.5% solid,

It will be seen by the foregoing tests, that there is no question about floating this ore, It seems that one can expect a recovery of 90%, or better with the grade of concentrate around $100.

Panning tests on the dumps show a little free gold, I think it very possible to increase the total recovery by taking care of this free gold before it goes to the foltation machine, There are several ways this can be done at very slight cost.

COST OF MILLING

In figuring the cost of milling I do not know just the wages that are being paid in this section under the N.R.A., but feel I have figured high enough, I have the power rate from the power company, a power line crosses the property,

These figures are based on using a small shovel, and two small dump trucks to get the material in the mill bin,

Labor	$0.41 Per ton
Power	.37
Supplies	.14
Marketing	.27
Total	$1.19

These figures may seem low, but the ore is soft and grinds easily,
The above figures are based on milling 3600 tons per month,
The marketing cost is high, and is based on shipping the concentrates to El Paso, It may be possible to ship to a smelter much nearer, The United Verde and the United Verde Extention smelters are not over 50 miles from the mine,

Cost of Mill

By using good second hand machinery I estimate a mill of 150 tons daily capacity can by put on the property together with the dump equipment, for not over $40,000, This will have to be checked by getting actual bids on machinery, The present mill building could be used, also there is quite a lot of other stuff on the property that can be used, thus saving money,

PROFIT IN DUMPS

In figuring the profit to be made from working the dumps all figures are based on gold at par, and no account is taken for silver or copper values which will be in the concentrates, From what we know there will always be a few ounces of silver present, and in some cases enough copper to be paid for,

The profits are figured on a concentrate running $100 per ton, on 90% gold recovery and milling cost of $1.20 per ton, It seems reasonably sure that a little better recovery than this can be made, but this is safe,

In figuring the value of the dumps I have taken the 1/10 bulk dump samples as taken by the A.S.&R.S. for the three dumps so sampled by them, as I think this is the most reliable sampling,

Dump	Tons	Value	[illegible]	Milling	Profit	Total Profit
Tailings	5800	$4.10	$3.20	$1.20	$2.00	$11,648.
Parsons	5800	3.00	2.32	1.20	1.12	6,496
McCabeMill	2000	2.48	1.98	1.20	.78	1,560
McCabeShaft	43000	2.00	1.60	1.20	.40	17,200
Gladstone	30000	2.40	1.62	1.20	.42	12,600
Totals	86400					$49,504

While I have taken the values of the three dumps sampled by the A.S.& R as shown by their total samples I have deducted almost 10,000 tons from their estimate for parts of the dump that showed to be quite a bit below the average, this should give a higher average mill feed than I have figured. I have not figured a few hundred tons of much higher grade material that will be milled.

It is also well to figure on time of milling, and premium of gold. In milling, one would mill the tailings pile first, this would be followed by the Parsons dump and the McCabe Shaft dump. Figuring on milling 5800 tons per month, we have:

Dump		Time to mill	Profit Gold at par	Additional profit for each $1 premium per oz.
Tailings	5800	2,55months	$11,648,	$648,00
Parsons	5800	1,31	6,496	672,00

McCabe shaft dump is so large we will figure the profit made per month,

	3600	1,0	$3,168,	$374,00

In other words the first years milling would give a profit of$43,49 with gold at par, and an additional profit of $4816 for each $1 premium on gold.

The water for milling will have to be pumped from the mine, The mine makes from 60 to 80 gallons per minute, thus to run the mill you would lower the water slowly, and get into the successive levels to sample the stope fillings and lower grade ore left by the former operators, This at no additional cost, except the actual sampling. If this sampling comes up to what one is led to expect from the records the shaft can be put in shape to hoist ore,

From what one can find out the Gladstone shaft should be in fairly good condition, except possible for about 100 feet between the 300 and 400 foot levels, above the water the timbers seem in good shape. The McCabe shaft would probably be found in rather bad shape, It is stated that the walls of the vein stand well.

OWNERSHIP This property is owned by the Estate of Mr, C,H,Chapin and Mr, Arthur E Turnbull, Mr, Turnbull is getting along in years, and does not care to operate the mine, and the Chapin Estate could not do it very well, so the property is for sale.

PRICE, The owners realize it is impossible to examine the mine workings, and do not care to put them in shape for examination, so have based their price on the net value of the mine dumps, The price will be such that the working of the dumps will pay for the property, repay the investment required to put a mill on the property, and give a small profit in addition, A small cash payment may be asked, the other payments being so arranged that they can be made out of profits,

SUMMARY.

While the dumps will not give a large profit in excess of the cost of the property, and the money required to equip the property, they will return these outleys figuring gold at Par. If the premium on gold holds as it is today a good profit could be made from just working the dumps.

The water will be taken out of the mine in milling the dumps. The real profit would be made from operating the mine. Have made a careful study of the mine records, and all indications are that the mine contains a considerable tonnage of ore that it will pay to mill, without sinking the shaft deeper. With the five ore bodies going down strong, as they do the outlook for more ore in depth is very good. One of these ore bodies has been worked from surface to the 1100 foot level. It is not reasonable to expect it to cut out at this level.

I have maps of the mine, a reconstructed assay map of the lower levels, copies of mill records, and other information that I will gladly show anyone interested. Also list of machinery, buildings etc now on the property.

Would suggest the following to anyone interested. First make check flotation tests of the average dump material here in the East. I have about 50 lbs taken from the test pits, which is as fair an average as I could get. Second, duplicate these tests in Arizona, using water from the mine.

This is too small for the larger operating companys, but is ideal for a few men banded together, as the risk has been eliminated by the sampling work done, as set forth above. The mine has had a good production from hand sorted ore, and with a modern mill, everything points to a good profit from the unmined ore left by former operators.

I am not looking for any commission, but do want the job of running the property, and an interest, after whoever puts up the money gets it all back with interest.

Hopewell, N.Y.
September, 16, 33

J.P. Lepay

Ore production of the Gladstone-McCabe Mines

--------ooOoo---------

The gross production of the Gladstone from March, 1903, and of the Gladstone and McCabe jointly from 1906, was as follows:

Year	First Class ore. Tons.	Gro. Value	Average	Concentrates Tons.	Gro. Value	Average
1903	2738.51	$57824.13	$21.11	18.18	$766.49	$42.15
1904	4976.51	182033.42	36.59	384.66	13070.12	33.98
1905	4002.14	170331.87	42.56	389.85	18795.36	32.98
1906	14684.82	432164.74	29.43			
1907	11190.16	336388.67	30.06	414.75	12398.56	29.89
1908	2353.24	74051.58	31.44	31.24	872.75	27.93
1909	4161.67	143673.66	34.52	387.53	12932.69	33.37
"	98 .71	2833.89	28.71	)Taken out by contractors after		
1910 -	85 .25	3430.40	40.24	)expiration of lease.		
	44290.81	$1402782.36	31.67	1806.22	$58835.95	$32.57

Year	Second Class ore. Tons.	Gro. Value.	Average
1906	845.42	10038.41	11.87
1907	1889.77	21074.10	11.15
	2735.19	$31112.51	$11.36

Total values, $1,492,730.82

Since the above operations there has been 69.85 tons of ore shipped, principally from sorting from the dumps, which had a gross value of $3,802.53, and 3,026.17 tons of tailings of a gross value of $45,138.78, an average value of $14.92 per ton, of the tailings.

There was about 15,000 tons of tailings remaining on the dumps at the first of this year, of an average value of about $5.25 in gold and silver. These have been partly shipped to the smelter at the time of the present writing. Dec. 21st, 1925.

A +

*A ORE MILLED AND BULLION PRODUCED.
B CONCENTRATES PRODUCED.
C ORE SMELTED.

YEAR	*A B C	CRUDE ORE PRODUCED		CONCENTRATES PRODUCED		GOLD (Ounces)			
		Dry Tons	Class	Dry Tons	Class	Gross in Ore	Gross in Concentrates	Recovered	Gross
1901	C	450						1125.00	
1902		—						—	
1903	C	2200						3774.88	
1904	A	8379		547				8394.00	
1905	C	4081						5750.00	
19	C	15123						14631.49	
1907	A	16308		344				11 817.09	
1908	C	2692						2812.30	
1909	C	7190						6779.00	
1910		85						148.51	
1911		—						—	
1912		1-47						134.05	
1913		13						30.20	
1914-1917		—						—	
1918		160						46.91	
1919		2731 (Tailings)						874.81	
19		162 (Tailings)						54.95	
1921		—						—	
1922		6						8.04	
1923		—						—	
1924		—						—	
1925		5823 (Tailings) 27						1379.95	
1926		3041*						712.50	
1927		—						—	
1928		—						—	
1929		64						71.9	
1930		52						56.3	

*Includes 2913 Tons of old tailings

A'

TAL PRODUCTION (~~Contents~~)
dstone-McCabe Groups #1 — Same vein - Ledger figures only just since 1901
Humboldt, Arizona

GPO 16—12560

SILVER (Ounces)			COPPER (Pounds)		LEAD (Pounds)		ZINC (Pounds)	
n Ore	Gross in Concentrates	Recovered	Gross in Ore	~~Gross in Concentrates~~ Recovered	Gross in Ore	~~Gross in Concentrates~~ Recovered	Gross in Ore	Gross in Concentrates
		2,700						–
		–		–		–		–
		41,191		66,000		264,000		–
		56,050		–		–		–
		67,413		164,000		–		–
		116,923		417933		–		–
		107,261		356,533		–		–
		25,107		116,012		–		–
		52639		212,147		69,703		–
		669		2,265		683		–
		–		–		–		–
		292		342		–		–
		103		410		–		–
		–		–		–		–
		849		3277		–		–
		15076		109137		–		–
		983		6108		–		–
		–		–		–		–
		29		181		–		–
		–		–		–		–
		–		–		–		–
		17499		95681		–		–
		6107		39200		–		–
		–		–		–		–
		–		–		–		–
		159		646		–		–
		118		327		–		–

B +

Page 2

*A ORE MILLED AND BULLION PRODUCED.
B CONCENTRATES PRODUCED.
C ORE SMELTED.

YEAR	*A B C	CRUDE ORE PRODUCED		CONCENTRATES PRODUCED		GOLD (Ounces)		
		Dry Tons	Class	Dry Tons	Class	Gross in Ore	Gross in Concentrates	Recovered
1931		24						25.00
1932		—						—
1933		—						—
1934	A	5000 dump Ore 33000 Mine Ore		1437				3,454.87
1935	A	40,645 dump ore 10500 Mine Ore		2558				5,073.42
1936	A	30,455 dump ore 20,690 Mine ore		3704				4,890.00
1937	A	22,300 "	"	—				1681.00
1938		58	Old	dump ~~dump~~				103.00
1939		1	Old	14 Tailings				7.00
1940-50		—						—
								73780 oz
								@ $130
								$ 9,591,4
								To
								Mine op
								Those

-B'

METAL PRODUCTION (Contents)

Gladstone-McCabe Groups at Humboldt, Arizona.

GPO 16—12560

SILVER (Ounces)			COPPER (Pounds)		LEAD (Pounds)		ZINC (Pounds)	
ss in Ore	Gross in Concentrates	Re l	Gross in Ore	Gross in ~~Concentrates~~	Gross in Ore	Gross in ~~Concentrates~~	Gross in Ore	Gross in Concentrates
		9		137		—		—
		—		—		—		—
		—		gross in Concentrate		gross in concentrate		—
		7,715		35,000		23,845		—
		17,073		46,066		47,187		—
		13,529		50,658		53,106		—
		5,300		18,375		24,680		—
		110		367		164		—
		3		—		—		—
		—		—		—		—
rces =		549,947 ounces		1,740,802 pounds		483,368 pounds		Didn't recover the zinc!!
		@ $4.00 =		@ 60¢		@ 20¢		
00		$2,199,800		$1,044,481		$96,673		
al production		just since 1900		$		12,932,354.00		
ated 25 years previously —								
gures not available.								