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27 March 1974

Memorandum for J. D. Lowell
Tucson, Arizona

Subject: Sacaton West Copper Prospect, Pinal County, Arizona

According to your request, I have studied the outcrops west of Asarco's Sacaton Mine, and searched the alluvial flank for drill hole and water well data. Based on this recent review, and drawing on a background of prior knowledge of the Casa Grande region, I believe the area as herewith outlined can be suggested as a valid porphyry copper exploration target. Geologic and land occupancy maps have been prepared to present my findings. This memo will outline only the basic exploration concept.

The PhD dissertation by John Balla is the basis for the regional geologic map, modified in places by previous work by myself and others. The more detailed map is based on my most recent field work.

The geologic framework, in simplest terms, consists of a pre-Cambrian basement of schist and granite, which has been intruded by two large Laramide stocks (the "Coolidge" granite) and by slightly younger Laramide porphyries. These rocks are overlain by middle to late Tertiary conglomerates. The Tertiary was characterized by complex faulting and erosion, and by the concomittant formation of irregular basins which were filled by more than one generation of conglomerates. Details of this geologic framework have been described verbally.

The Sacaton West prospect is predicated on several interrelated circumstances, which together render the area--which is totally obscured by recent alluvium--a permissively favorable area for exploration.

1. The area is in a major porphyry copper district.

2. It has not been explored by drilling, and only superficially evaluated by old Asarco I. P. work.

3. The prospect is on the up-thrown side of a major fault, and may be a pedimented surface; the area may exist in strong contrast with the highly irregular bedrock topography of the down-thrown block, which contains the Sacaton deposit.

4. To the northeast, bedrock outcrops in section 15 and drill holes in section 21 indicate a weakly mineralized area within diorite which spans a width, across the WSW strike of thin mineralized shears, of nearly one mile.

5. On the south, two miles from the nearest outcrop, a shallow dug well penetrated bedrock of Sacaton granite, which is very weakly mineralized as shown by chalky feldspars and very slight limonite/pyrite, together with a few stringers of manganiferous limonite and vuggy guartz.

6. Geochemical analyses indicate the diorite in sections 21 and 15 to be generally anomalous in both Cu and Zn. There is a slight suggestion that the Sacaton granite in the dug well, and on the bedrock which "fronts" the prospect area, may be geochemically anomalous. However, results are ambiguous at this stage of sampling.

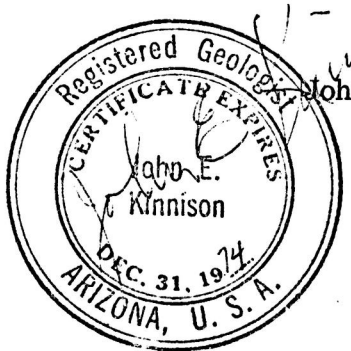
7. The prospective area is on the exterior margin of the "Coolidge" granite stock, and is on a "bend" in its generally southwest trending nothern margin. Such intrusive "curvatures" appear statistically to be favorable areas to prospect.

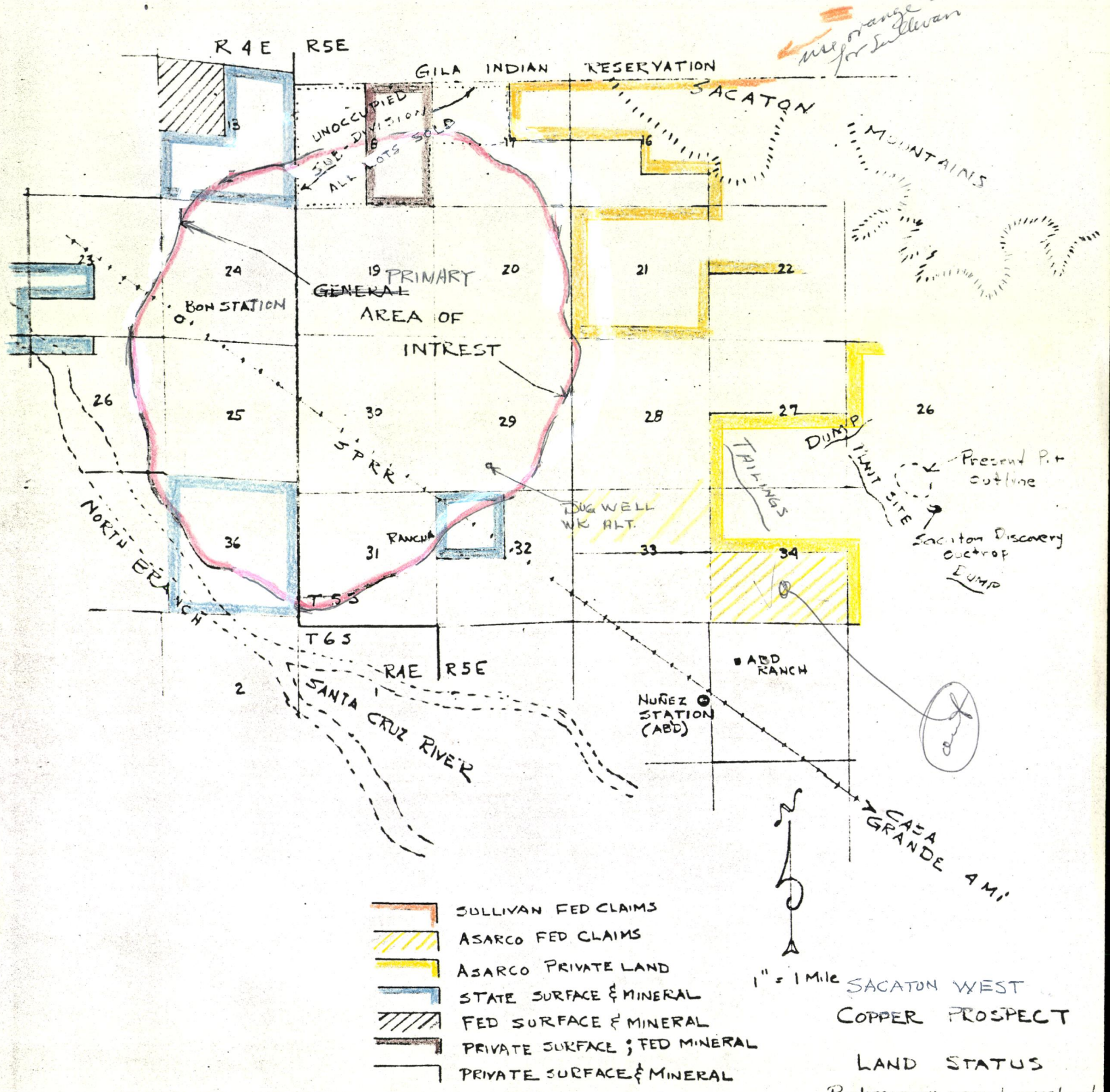
8. A final consideration is gained from the widespread occurance of cobbles of porphyry and granite which are altered and contain copper oxide, that have been penetrated by several water wells and two drill holes. These detrital fragments, which have been found generally in the area southeast of the Sacaton West prospect, could have been derived from a concealed deposit on the elevated "bedrock shelf" of the upthrown side of the major fault which strikes northeast through the Sacaton area. The Asarco Sacaton deposit seems to be an improbable source of the detrital copper since the conglomerates which lap onto that deposit contain virtually no rocks from the mineralized zone.

The prospective area is limited on the north by fresh outcrops in the Sacaton range, and on the northeast by weakly mineralized diorite in outcrop, and in drill holes in section 21. Elsewhere, water well penetrations define lateral limitations to the southeast by weakly mineralized Sacaton granite, and by fresh diorite in section 32; on the south by fresh pre-Cambrian granite (section 2); and on the northwest by gneiss (section 13). The prospect is technically "open" only to the southwest, where generally deepening gravel cover probably forms a practical exploration limit.

The area as outlined above is sufficiently small to be evaluated by drilling, providing that a few parcels of private land can be acquired by option at a sufficiently low price. The locations of four holes--three on private land and one on state--are suggested on the geologic map.

John E. Kinnison





SACATON WEST

COPPER PROSPECT

LAND STATUS

Preliminary record investigation
subject to revision

INDIAN RESERVATION

GILA RIVER INDIAN RESERVATION BOUNDARY

Cleared but Not cultivated

Cultivated

"INDIAN VALLEY RANCHETTES SUBDIVISION-UNDEVELOPED"

Cleared & leveled but now cultivated

open range grazing

"DESERT CARMEL" SUBDIVISION

BEN'S HOUSE

NUÑEZ (ABD)

ASARCO Section Mine

Cultivated

Gas Line

Railroad Tracks

Power Lines — High Voltage Transmission Line

Fence

Water area - limited access

(2) cleared, but not cultivated

(1) open range grazing

(3) cultivated

DRAFT COPY
subject to Revision
3/18/74

Registered Geologist
CERTIFICATE EXPIRES
John E. Kinnison
DEC. 31, 19
ARIZONA, U.S.A.

LOGISTICS MAP
CASA GRANDE WEST COPPER PROSPECT
PINAL COUNTY ARIZONA

PREPARED FOR J.D. LOWELL

by: John E Kinnison

March, 1974

Scale: 1" = 2000 ft

1 mile 0

4000 0 4000 feet

SACATON MOUNTAINS
GILA RIVER INDIAN RESERVATION BOUNDARY
SOUTH SIDE CANAL
SOUTHERN PACIFIC
BARNES ROAD
ETHINGTON ROAD
BIANCO ROAD
WEST VAL VISTA ROAD
North Branch
Santa Cruz
Wash
FIELDS
CAL TURF RANCH
BEN'S HOUSE
DRAINAGE
GATE
WATER TANK
R4E
R5E
STATE LAND
Not Cultivated
Not Now Cultivated
DRILL HOLE BR 640' pЄ gr
DRILL HOLE BR 2861' Pinal Schist
DRILL HOLE BR 820' Lgr
DRILL HOLE BR 1860' pЄ gr
DRILLED WELL 60' Qal
DUG WELL Qal
S1-A GROUP ASARCO
Relocated Feb 73 N/2 Sec 33
S2-A Loc
S1-A Loc
ABD RANCH Well 160' Qal gr cgl.? @160'
ABD Drilled Well 450' TD BR Gneiss? No alt.
Possible location of contact
Possible ? contact Ld Lgr
? west edge Ld
NUÑEZ STA ABD
Dry Well 1347

T4S
T5S
R5E R6E
R4E R5E
T6S
R4E R5E

Granite pediment
Pediment
SACATON
SACATON MOUNTAINS
GILA INDIAN RES BOUNDARY
MOUNTAINS
Mineralized shear zone
"pf wedge"
Hope outline match with that shown on "hand status"
NEWLY SUBDIVIDED
CULTIVATED
BON STATION
PRIMARY GENERAL AREA OF INTEREST
~EGW PROSPECT~
SACATON WEST
ABD No Log
1000(±)' No log Tgc(Cultivated)
ABD 555TD BR 495 hand schgr. cgl
1000' TD (?) No Log
Dug well BR<100'(?) Sg - Tr Min.
1000' TD No BR
RANCH
CULTIVATED
BR 640 pfg
BR 2530' pfg
BR 2190' pfgr
BR 215 Ld
BR 740' Lgr
BR 2860 Ps
BR 245' Ld
BR 326 Lgr
BR 2400' Lgr
BR 660' Ps
BR 510 Ps
Dug well BR 100' Ps
A'B'D RANCH
NUÑEZ STATION (AB'D)
Well (Ab'd) Cu oxides & Porph in Tbp
EAST ORE BODY
WEST ORE BODY
ASARCO SACATON DEPOSIT
LIMITS OF ALTERATION
pfg "Sacaton outcrop"
Lgr in Pf
Tgc
Tbp
DEEP BASIN
DEEP
BASIN
NORTH BRANCH SANTA CRUZ RIVER
CULTIVATED
MARICOPA HWY SPRR
OLD PHOENIX HWY
AND SAC
SCALE 1" = 1 MI
Smaller letters
10° TBP

LEGEND

Quaternary		Alluvium
Upper-Tertiary	Tgc	Gas Line conglomerate
	Tbp	Burgess Peak conglomerate
Mid-Tertiary		Andesite dikes
POST-ORE		
PRE-ORE		
Laramide		Intrusives
		Monzonite porphyry dikes (Some aplite inclined)
	Mg	Micro-granite & Aplite
	Lgr	Coolidge Granite
	Ld	Diorite
Paleozoic	Pl	limest. & qtzt
Younger Pre-Cambrian(?)	Sg	Sacaton Granite
Older Pre-Cambrian	pfg	Granite
	Ps	Pinal Schist

● BR 245 Ld — Drill Hole or Well, giving depth to bedrock & rock type.

Registered Geologist
CERTIFICATE EXPIRES
John E. Kinnison
DEC. 31, 1974
ARIZONA U.S.A.

PREPARED FOR: J. D. LOWELL

SACATON
~~CASA GRANDE~~ WEST
COPPER PROSPECT
PINAL COUNTY, ARIZONA

RECONNAISSANCE GEOLOGY

SOURCES: John Balla; PHD Dissertation
J.E. Kinnison; Reconnaissance

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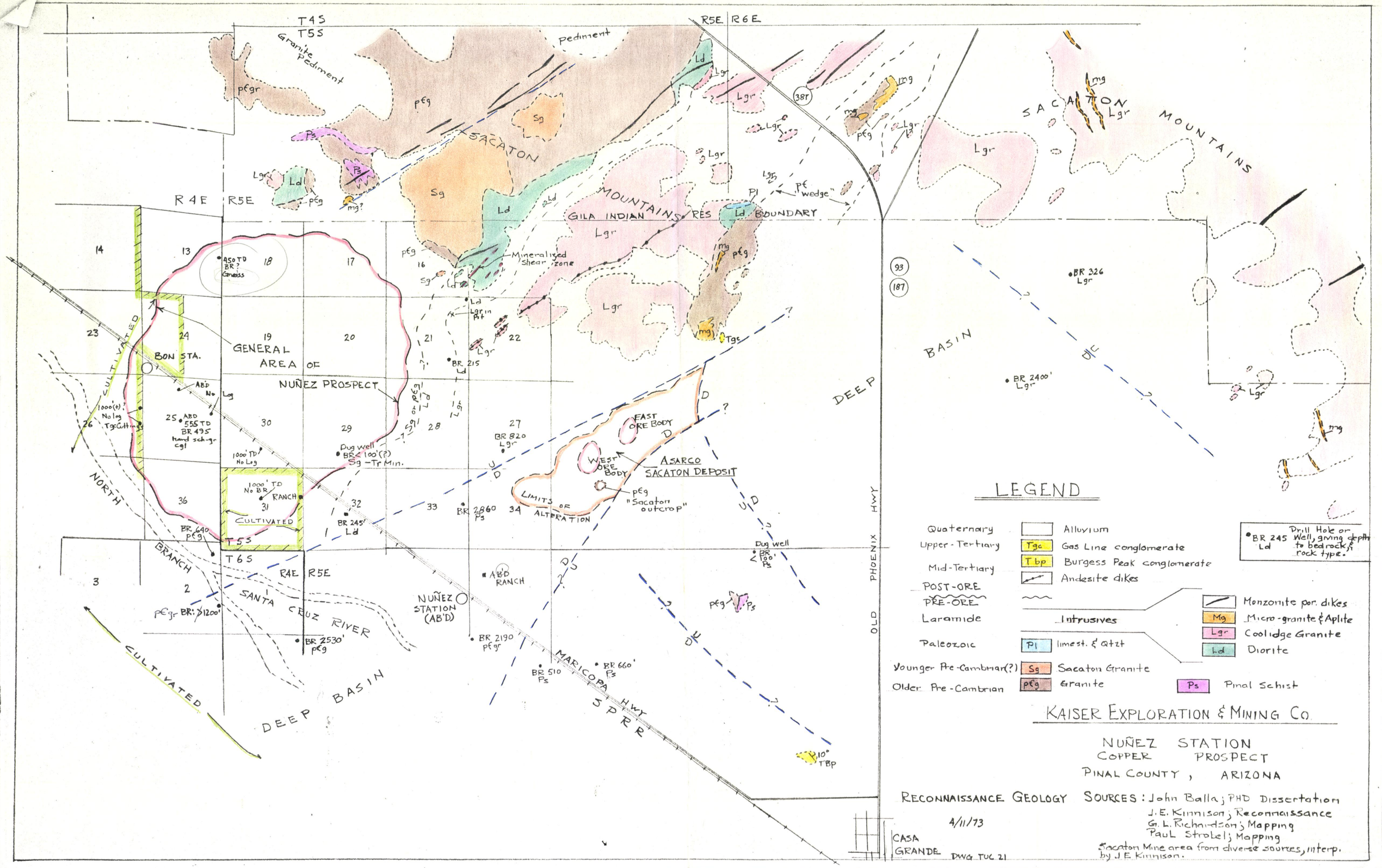
Subject to Revision
3/18/74

CASA GRANDE

*Sacaton Mine area from diverse sources, interp. by J.E. Kinnison.



LEGEND

Quaternary		Alluvium
Upper-Tertiary	Tgc	Gas Line conglomerate
	T bp	Burgess Peak conglomerate
Mid-Tertiary		Andesite dikes
POST-ORE		
PRE-ORE		
Laramide		Intrusives
		Monzonite por. dikes
	Mg	Micro-granite & Aplite
	Lgr	Coolidge Granite
Paleozoic	Pl	limest. & Qtzt
	Ld	Diorite
Younger Pre-Cambrian(?)	Sg	Sacaton Granite
Older Pre-Cambrian	pfg	Granite
	Ps	Pinal Schist

● BR 245 Ld — Drill Hole or Well, giving depth to bedrock & rock type.

KAISER EXPLORATION & MINING CO.

NUÑEZ STATION COPPER PROSPECT

PINAL COUNTY, ARIZONA

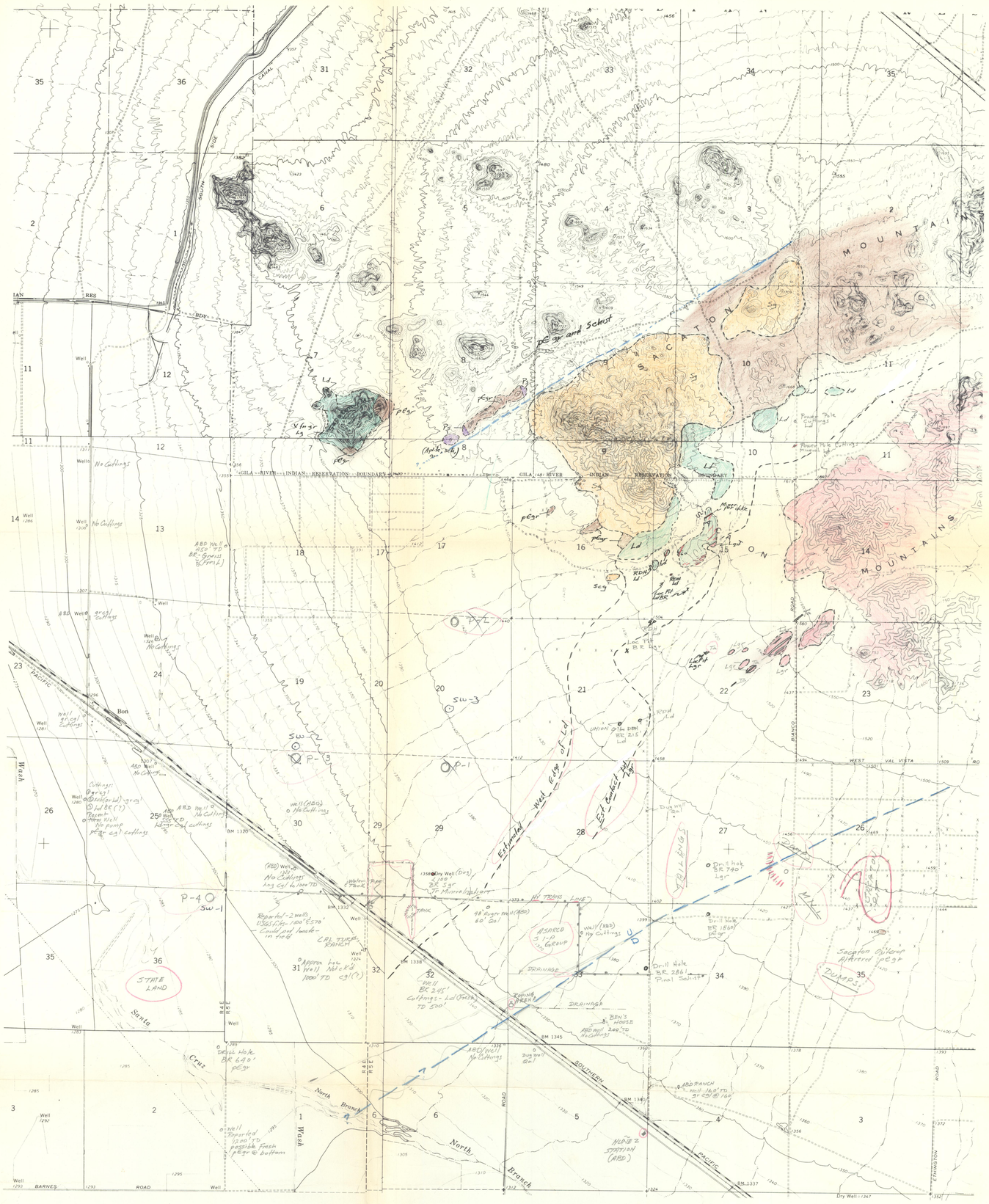
RECONNAISSANCE GEOLOGY

4/11/73

SOURCES: John Balla; PHD Dissertation
J.E. Kinnison; Reconnaissance
G.L. Richardson; Mapping
Paul Strobel; Mapping
Sacaton Mine area from diverse sources, interp. by J.E. Kinnison.

CASA GRANDE

DWG. TUC 21



EXPLANATION

TERTIARY (POST-MINERAL)	Ta	Andesite dike
LARAMIDE	Lgr	"Coolidge granite"
	Ld	Diorite
YOUNGER (?) PRE-CAMBRIAN	Sg	Sacaton granite
OLDER PRE-CAMBRIAN	pCgr	Oracle granite
	Ps	Pinal schist

O P-1 Proposed Drill Hole

+ Geochem. crpl.

PREPARED FOR J.D. LOWELL

GEOLOGY & WELL RECONNAISSANCE & GEOCHEMICAL
SACATON WEST COPPER PROSPECT
Pinal County, Arizona

by: John E. Kinnison
March 1974

Scale: 1" = 2000 ft.

PROJECT Casa Grande N. PAGE 1

D.D.H. No. CG-7 SCALE 1"=100' BY L.C. ARNOLD

COLOR _____ COLLAR EL ±1318 DATE 3-22-75 TO 3-26-75

Hole Located 900'S, 100' S of W¼ Cor. Sec 13 T6S R4E. Pinal Co., Arizona

% Core Recovery | Mineralization | Alteration | Structure | Rock Type

0-140 GRAVEL - YELLOWISH GRAY 5Y 7/2 - POORLY CONSOLIDATED. CARRIES A VARIETY OF INTERMED IGNEOUS LITHOLOGIES AS WELL AS ±30% WELL ROUNDED EXTRUSIVE FRAGS.

140-500

GRAVEL - YELLOWISH GRAY 5Y 7/2 HIGHLY ARKOSIC. FRAGS SHOW VERY LIGHT YELLOW TRANSPORTED IRON STAIN - NONE APPEAR STRONGLY ALTERED. FRAGS TEND TO BE SUBANG TO SUB ROUND

500-910

GRAVEL - YELLOWISH GRAY 5Y 7/2 - HIGHLY ARKOSIC. SLIGHTLY SILTY OR CLAYEY. SOME FRAGS SHOW LIGHT TRANSLUM - NONE APPEAR STRONGLY ALT OR MIN. UNIT. CARRIES ±5% BROKEN FRAGS OF EXTRN VOC. FRAGS.

910 EXACT POSITION BR CNT QUESTIONABLE

910-942 GRANITE - SEE DESCRIP BELOW.

SPOT CORE 940-942 BOTTOM ROT. HOLE (2,100'/126)

GRANITE - GRAYISH YELLOW GREEN 5GY 7/2 TO VERY LIGHT GRAY N8. - MOD. GRANITIC TEX. ROCK IS VERY STRONGLY BROKEN & SLICKENSIDED. K-SPAR IS FRESH

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo
0	100	20	4
100	200	10	2
200	300	10	2
300	400	30	2
400	500	35	2
500	600	65	2
600	700	50	2
700	800	20	2
800	810	30	4
810	820	75	2
820	830	60	2
830	840	55	2
840	850	40	2
850	860	40	2
860	870	35	2
870	880	25	2
880	890	35	2
890	900	55	2
900	910	60	2
910	920	85	2
920	930	115	3
930	940	240	3

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

PROJECT Casa Grande West PAGE 2
D.D.H. No. CG-7 SCALE _____ BY L. C. Arnold 3-22-75 TO
CO-OR _____ COLLAR EL ±1318 DATE 3-26-75

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		

TO LIGHTLY CLOUDED, PLAG IS CONVERTED TO LT. GREEN TALC-LIKE MINERAL.
ROCK CARRIES V. SPARSE (1%) Lim/sul AND PARTIALLY OXIDIZED SULFIDE. Lim SUGGEST HIGH PY:CPY RATIO. W/ POSSIBLE VERY SPARSE CHALCOCITE.
GRANITE CARRIES V. SP. CHRYSOCOLLA IN BROKEN ZONES BETWEEN GRANITE FRAGMENTS.

HOLE CASED 0-943 W/ 3½" STEEL CASING.

PROJECT Casa Grande West PAGE 3
D.D.H. No. CG-7 SCALE 1"=10' BY L.C. Arnold
CO-ORD ____ COLLAR EL 1317 DATE CORING 5-21-75 TO 7-1-75

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					940 Diamond drillers measure 946 vs. Rotary footage 943.				
3.5/4				pfgr	946-984 Granodio. very pale				
4.5/5.5					950 orange 10YR 8/2 tex. varies from med. grained granoblastic. Rock is mod. broken to brecciated. All feldspars	946	955	.88%	44
6/6.5					appear well clouded and texture is partly disintegrated. Some silicification				
4/4					960 has occurred and unit is slightly bleached relative to adjacent rks.	955	965	.86%	30
6/6					Rock is very open and carries chrysocolla as open space filling				
7.5/8					970 Estimated grade is .75% Cu as chrysocolla. No evid of present or former sulfide mineralization	965	975	.66%	22
6/6					980	975	985	.74%	30
6/6					984-995 Qtz. Monz. - Grayish Orange Pink - 5YR 7/2 tex is granitic or granitic (sp anh)				
5/5					990 granoblastic. Most felds show mod. clay-ser and subhedral form - a few clear K-spars (euhedral - secondary?) Note: Lim/cpy suggests 1 1/2% tot sul mostly cpy	985	995	660	46
6/6.5					995-1005.5 Qtz. Monz. - very pale orange 10YR 8/2 - tex is med. grained granitic-granoblastic. Rk is mod-strongly broken				
7/7					1000 brecciated. Near all feldspars well clouded by clay & ser. Sparse reddish brown Fe stain - otherwise unmin.	995	1005	1250	24
3.5/3.5					1005.5-1014 Qtz. Monz - White N9 to very light gray N8 med. grained granitic tex. All components				
5/5					1010 altered prin to clay-ser. Some notable silicification. At least 2 small dikes of aplite, monz por & dio in interval Sp. lim/sul poss (cc.)? Intensely shattered.	1005	1015	1300	18
3/3					1014-1020 Diorite? - Lt. Gray N7 - veg lacks def. tex. Clay-ser alt. accomp by lt.-mod. sil. Sp. dissem Mn ox or Cu pitch.				
1/1					1020 1020-1025 Granodio - v. pale or. 10YR 8/2 - tex originally med. grained granitic but strongly deteriorinted by st. clay-ser alt & brecciation	1015	1025	1150	36
5/5					Sp. yel. trans. Fe stain.				
4/4					1025-1035 Gouge & breccia - v. pale or. 10YR 8/2 - prob originally inter granitic				
1/1					1030 rock. Intense clay-ser alt & breccia.	1025	1035	1000	44
3.5/4					Mod. red trans Fe stain.				
4/4					1035-1045 Granodio - Lt. Gray N7 - granitic				
1/1					to slightly por. tex. All felds strong sericitized. Occas. 1/8-1/4" Qtz. units w/	1035	1045	720	90
					1040 lim/py-cpy. and narrow alt. selvage				

PROJECT _____ PAGE 4

D.D.H. No. CG-7 SCALE _____ BY L.C. ARNOLD

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizth	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo		
					1040 ALSO MOD DK. BROWN CU PITCH.						
6/6						1035	1045	720	90		
					1045-1071 QTZ. MONZONITE - LT. GREENISH GRAY 5GY 5/1. ROCK HAS GRANITIC TEX						
5.5/5.5					1050 EXCEPT AS NOTED. PLAGIOCLASE ARE	1045	1055	950	24		
5.5/5.5					MOD. TO STRONGLY SERICITIZED - K-SPAR. VARIES FROM CLEAN TO WELL SERICITIZED. ROCK ALSO SLIGHTLY TO MOD SILICIFIED. UNIT CARRIES SPOTTY CHRYS AS NOTED AND MOD. RED IRON STAIN. AS WELL AS SP. DK BRN PITCH!						
8/8					1060 (1063 TEXTURE OF QTZ MONZ. TENDS TO BE APLITIC)	1055	1065	.39%	8	20 1009	
					(AT 1059 AND 1065-69 NOTE STRONG DK. BLUE CHRYS AS UNIT FILLING. THIS MIN. IS EXOTIC AND ACCOMP BY ST. SIL.)						
6/6					1070	1065	1075	1.6%	20		
4/4					1071-75 GOUGE & BRECCIA - PALE RED SR 6/2. PROG. QTZ. MONZ AS 1045-71. NOTE SP. DK. BRN DISSEM PITCH.						
5.5/5.5					1075-1085 QTZ. MONZ - LT. GRAY N7 TO GRAYISH PINK SR 8/2 TEX IS GRANITIC TO SLIGHTLY POR. FELDS WELL SERICITIZED						
.5/2					1080 EXCEPT FOR OCCASIONAL FRESH K-SPAR. V. SP.	1075	1085	425	20		
1/1.5					LIM/DISSEM SUL. MOD-STRONG DK RED FE STAIN.						
4/4					1085-1098 GRANODIO - GRAYISH PINK SR 8/2 - POORLY DEVEL. POR. TEX. ALL FELDSPAR STRONGLY						
7/7					1090 SERICITIZED (OCCASIONAL CLEAR K-SPAR.) - SPARSE - MOD LIM/VFG. DISSEM. SUL. MOD. TRANS RED LIM.	1085	1095	640	46		
1/1											
2/2					PEGV						
2/2					1098-1103 GOUGE & BRECCIA - MYLONITIZED						
1/3					1100 FELDSPATHIC ROCK. STRONG RED TRANS FE STN.	1095	1105	550	24		
1/2					1103-1170 BIOTITE QTZ. MONZ. POR - GRAYISH ORANGE PINK (FELDSPAR) AND GRAYISH BLACK						
1.5/2					GMP MZ VERY DISTINCTIVE HIATAL POR TEX. FELDSPARS WELL SERICITIZED EXCEPT						
3/3					1110 FOR OCCASIONAL SEMI CLEAR K-SPAR	1105	1115	1100	20		
3/3.5					BIO. IS PERVASIVE AS MATRIX - ANHEDRAL						
3/3.5					TO ANHEDRAL AND GENERALLY CLEAR EXCEPT FOR SLIGHT CHLORITIZATION.						
5/5					NOTE PROM. FRACTURES W/ STRONG						
					1120 TRANS RED LIM. V.V. SPARSE LIM/SUL.	1115	1125	1500	28		
4.5/4.5					ALSO SPARSE 1/8-1/4" QTZ. VNLTS W/						
4/4					SP. LIM/SUL.						
					1130	1125	1135	1000	44		
4.5/4.5											
4.5/4.5						1135	1146	820	65		
					1140						

15' PICK UP 1046-1089

5/23/95 3:00P. DRILL AT 1098

PROJECT _____ PAGE 5

D.D.H. No. CG-7 SCALE 1"=10' BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
2.5/2.6					1140	1135	1145	820	45
5/5									
5/5					1150	1145	1155	660	50
5/5									
5/5					1160	1155	1165	570	28
5/5									
5/5						1165	1175	530	100
5/5					1170				
6/5						1175	1185	480	15
5/5					1180				
10/10					1190	1185	1195	480	85
12.5/13					1200	1195	1205	360	60
8/5.5					1210	1205	1215	320	70
5/5						1215	1225	800	70
5/5					1220				
4.5/4.5						1225	1235	840	15
5/5					1230				
5/3.5						1235	1245	920	18
					1240				

QTZ. LATITE - MOD. PINK. SR 7/4 - VERY FINE GRAINED SLIGHTLY PORPHYRITIC AS A RESULT OF CHLORITE PHENOCRYSTS. STRONG CLAY-SER DEVEL. NO FRESH PHENOS NOTED. MOD-ST. RED TRANS FE STAIN. GRADATIONAL THROUGH STRONGLY FRACTURED ZONES INTO QTZ. MON2. POR ABOVE & BELOW.

1189-1441

BIO. QTZ. MON POR - GRAYISH PINK SR 8/2 - WELL DEVEL. BUT SLIGHTLY RAGGED SERIATE POR TEX. COARSEST PHENOS ± 1/4".

ALL FELDSPARS STRONGLY SERICITIZED

BIO IS MOD. CHLORITIC.

STRONG TRANSPORTED FE STAIN BUT NO EVID SUL. MIN.

ROCK HAS SOAPY FEEL ESP. ON FRAC. SURFACES

CU MIN. NOT RECOGNIZED EXCEPT AS NOTED. APPARENTLY ASSOC. W/ TRANSPORTED HEMATITE.

INTENSE IRON STAINING TENDS TO COINCIDE WITH CHRYS MIN.

PROJECT _____ PAGE 6

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type
10/10				
5/5				
5/5				
5/5				
5/5				
5/5				
5/5				
5/5				
5/5				
4/4				
4/4				
5/5				
5/5	✓			
4/4				
5/5				
5/5	✓			
5/5	✓			
4.5/4.5	✓			

1240
1250
1260
1270
1280
1290
1300
1310
1320
1330
1340

(V. SP. chrys at 1283)

(V. SP chrys @ 1314.)

(1327-34' Mod. chrysocolla and Cu pitch filling. Shows tendency to occur on vertical and ± 45° fractures. Veinlets are silicified and also carry small amygdules of spec. hem.

vuggy w/ chrys, spec. hem. and Cu pitch.

Silicification diminishes away from frac.

CORE ASSAYS			
INTERVAL		MINERAL	
FROM	TO	Cu	Mo
1235	1245	920	18
1245	1255	1050	44
1255	1265	950	38
1265	1275	1350	58
1275	1285	3500	30
1285	1295	1600	28
1295	1305	1580	24
1305	1315	0.30%	22
1315	1325	1500	34
1325	1335	0.80%	28
1335	1345	0.53%	16

PROJECT _____ PAGE 7
D.D.H. No. CG-7 SCALE _____ BY _____
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Depth	Description
4.5/4.5					1340	(MOD. CHRYS AT 1337)
4/4						
5/5					1350	(1342-1357 NOTE MOD-ST CHRYS IN NARROW IRREG. BRANCHING VNLTS.)
5/5						(1358 NOTE "PINK" ALTERED PLAGIOCLASE-PROBABLY RESULT OF IRON SOAKING OF CLAY)
5/5					1360	(V. SP. CHRYS 1361)
4/4						
5/5					1370	
3.5/3.5						
2.5/2.5						
3.5/3.5					1380	(1367-1425 MOD. FE STAINING BUT NO Cu MIN RECOGNIZED AS SUCH. BIOTITE ALMOST PERFECTLY CLEAN & FRESH.)
? 9.5/9.5						
5/5					1390	
4/4						
5/5					1400	
4.5/5						
5/5					1410	(1410-1420 SLIGHT DECREASE IN GRAIN SIZE AND BIO CONTENT. ACCOMPANIES STRONG FRACTURING.
4.5/5						
5/5					1420	(1420- NOTE 1/2" BARREN QTZ. VNLTS IN QTZ. MONZ. POR.)
4/4						
5/5					1430	
4/4						
					1440	

322
.60

523
16
= .33

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1335	1345	0.53%	16		
1345	1355	1.02%	24		
1355	1365	0.38%	46		
1365	1375	1700	66		
1375	1385	0.32%	54		
1385	1395	1850	46		
1395	1405	1300	130		
1405	1415	1300	155		
1415	1425	1500	60		
1425	1435	2450	72		
1435	1445	0.85%	48		

PROJECT _____ PAGE 8

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3/3					1440				
4.5/4.5	✓				1441-1443 Gouge and Breccia - Mod. Pink - Brecciated. Probably formed from feldspathic rk.	1435	1445	0.85%	48
5/5	✓				1443-1455.5 Silicified Biotite Qtz Monz Por. Rock almost completely replaced by silica, hematite & chrysocolla. This min. apparently fracture controlled - fractures	1445	1455	3.18%	94
5/5	✓				1450 appear to dip 345°				
4/5					1455.5-1470 Gouge & Breccia - Mod. pink 5R 7/4 - strongly brecciated tex.	1455	1465	2500	320 .99
5/5					1460 Rock is silicified and talcose. & strongly iron stained.				
3/3						1465	1475	1900	66
4/4					1470				
4.5/4.5					1470-1492 Biotite Qtz. Monz. Por. Grayish Red - 5R 4/2 - crowded hiatal Por. tex. Anhedral plagioclase 1/4"	1475	1485	0.50%	58
5/5					1480 set in matrix principally composed of fine grained euhedral biotite.				
5/5	✓				Plag. strongly sericitized - Bio is very fresh & clean. Strong earthy	1485	1495	2000	28
4.5/5					limonite on vert & 345° fractures. Fe stains soak sericitized plag to produce				
4/5					1490 pink color. Mod. chrys on vert fracs @1484.				
					1492-1494 Diorite Por - Dk Gray N-3 - alt plag fresh Bio.				
5/5					1494-1568 Bio. Qtz Monz Por. do 1470-1492	1495	1505	1520	55
3.5/4.5					1500 Locally silicified and min. w/ chrysocolla and earthy red hematite as noted.				
5/5					1510	1505	1515	2050	66
3.5/3.5									
4/4.5	✓				1520 (Sp. chrys in sil. Bio. Qtz. Monz @ 1519, 1521 and 1522)	1515	1525	0.35%	36
5/5	✓								
3.5/3.5					1530 (1530-1540 - Mod. chrys & earthy hem in silicified Bio. Qtz. Monz.)	1525	1535	0.79%	62
5/5	✓								
5/5	✓				1540	1535	1545	3400	22

553

PROJECT _____ PAGE 9

D.D.H. No. C6-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					1540				
5/5	✓		/			1535	1545	3400	22
3/3	✓		/		(1545-48 INCD. CHPYS IN NEAR VERT FRACTURES.)				
1/3.5			△		1550	1545	1555	4300	22
2.5/3			/		(1551-52 GOUGE & BRECCIA - UNMIN)				
3/3.5			/						
5/5			/		1560 (@1559 SINGLE 1/8" FRAC W/ LIM/PY)	1555	1565	3200	14
3.5/4	✓		/						
3.5/3.5	✓		/		1570 1568-1660	1565	1575	4400	38
4.5/5	✓		/		BIOTITE QUARTZ MONZ. POR - GROUND MASS IS DARK GRAY N3 W/ PROMINENT SUBHEDRAL PHENOCRYSTS OF BIO & PLAG.				
3/3.5			/						
4.5/4.5			/		1580 TEXTURE IS WELL DEVELOPED HIATAL PORPHYRITIC.	1575	1585	5560	48
4/4	✓		/		LARGEST PLAG & BIO ARE 1/4". BIO				
5/5	✓		/		IS VERY CLEAN W/ ONLY SLIGHT CHLORITIZATION AT MARGINS OF GRAINS	1585	1595	11,200	75
3/4			△		1590 PLAGIOCLASE GRAINS ARE GENERALLY				
3/3.5			△		CLOUDED WITH CLAY DEVEL. BUT A FEW GRAINS APPEAR QUITE CLEAN - POSSIB. SECONDARY.				
3.5/3.5	✓		/		1600 ROCK IS GENERALLY SLIGHTLY SILICIFIED	1595	1605	6600	75
3/3.5	✓		/		AND OCCASIONAL ROUND QTZ "EYES" ARE NOTED				
1/2.5			/						
1.5/2			/		1610 (@1587 NOTE 1' "INCLUSION" COMPOSED OF VFG. BIO AND QTZ. W/ CuBy)	1605	1615	2600	90
3/3.5			/		MIN. CONSISTS OF CHPYS AND IS ASSOC. W/ MOD-STRONG TRANSPIRTED IRON STAINS				
7.5/7.5			/		1620 AND SLIGHT INC. IN INTENSITY OF SILICIFICATION AS NOTED AT LEFT.	1615	1625	3640	50
4/4	✓		/		(1593-95 STRONGLY BROKEN & BLEACHED BIO. QTZ. MONZ. POR)				
5/6	✓		/		1630	1625	1635	1.17%	1.70
5/5	✓		/			1635	1645	0.51%	50
					1640				

?

PROJECT _____ PAGE 10

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3/3.5					1640				
3/3						1635	1645	.51	50
2/2.5									
3.5/3.5					1648 FE STAINED SLICKS DIP 3/45°				
4/4					1650	1645	1655	.31	40
1.5/1.5	✓								
4.5/4.5	✓				1660	1655	1665	.85	65
3/4.5	✓				1660-1680 Bio Qtz Monz Por - VERY LIGHT GRAY NB - TEX IS MED TO FINE GRAINED CROWDED SERIATE POR TEX. SUBHEDRAL & ANHEDRAL PLAGIOCLASE				
3/4	✓				1670 ARE THOROUGHLY ARGILLIZED. BIO. IS FRESH & CLEAN.	1665	1675	.73	80
2/2	✓				NOTE OCCAS. INCLUSIONS OF PC. ORACLE QTZ. MONZ. E.G. 1668.				
5/5					(@1667 = 3" ZONE QTZ. APLITE)				
3/3					1680	1675	1685	2500	90
4/5					1680-1691. GOUGE & BRECCIA - MOD. REDDISH BROWN 10R 6/6 STRONGLY BROKEN. ORIGINAL LITHOLOGY UNCERTAIN - PROB MED TO COARSE GRAINED CALC-ALKALINE LOW MAFIC ROCK. SLIGHT TO MOD. CLAY SER - STRONGLY BROKEN CARRIES STRONG IRON STAINING AND WELL DEVEL. BRIGHT GREEN XLINE Cu MINERAL. STRONGLY FRAC TO WEAKLY BRECCIATED.				
5/5					1690	1685	1695	.79	65
5/5					1691-1706 DACITE - MOD REDDISH BROWN 10R 6/6 - STRONGLY DEGARMED - PROC ORIGINALLY POR. TEX. MOD. CLOUDING BY CLAY & SER. - ST. FE STAINING - MOD. Cu OX MIN.				
5/5					1700	1695	1705	2.00	130
5/5					CONTACT STRONGLY BROKEN - PROB FAULT ATTD. UNCERT.				
3.5/5					1706-1788				
10/10					1710 QTZ. MONZ. POR - MED DK. GRAY N4 GROUND MASS W/ WHITE PLAG. PHENOCRYST. WELL DEVEL SERIATE POR. TEX. PLAG. IS ANHEDRAL VARIED FROM CLEAN & CLEAR TO STRONGLY ARGILLIZED. BIO IS VERY CLEAR. SLIGHTLY SILICIF - SP. QTZ. "EYES."	1705	1715	.47	95
3.5/3.5					1720 ROCK MOD. BROKEN - STRONGLY IRON STAINED AND CARRIES SPARSE CHRYS AS FRAC. FILLING AND SOAKED IN ARGILLIZED PLAG.	1715	1725	.52	100
4.5/5					1730 FRAC. SURFACES ARE RANDOM - USUALLY CURVY SLICKS AND HAVE TALCY FEEL.	1725	1735	.35	75
5/5									
4/4						1735	1745	.42	60
					1740				

PROJECT _____ PAGE 11

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3/5	✓		/		1735	1745	.42%	60
5/5	✓		/					
5/5	✓		/		1745	1755	.290%	38
5/5	✓		/					
3/3	✓		/		1755	1765	.45%	55
5/5			/					
5/5			/		1765	1775	.50%	65
1.5/1.5			/					
4/4			/					
4/4			/		1775	1785	.50%	105
5/5			/					
5/5			/					
5/5			/		1785	1795	1.24%	100
5/5			/					
5/5			/		1795	1805	1.03%	55
5/5			/					
5/5			/		1805	1815	.65%	65
4.5/4.5			/		1815	1825	1.35%	110
4.5/4.5			/					
5/5			/		1825	1835	.46%	100
5/5			/					
5/5			/		1835	1845	.840	60

1740

1750

1760

1770

1780

← INT. CONTACT DIPS ±45°

1790 1788-1794 Qtz-Por- White- Poorly Devel Seriate Tex - Almost Aplitic - Strongly Argillized - Carries V.S.P. Green Cu Ox.

← Broken Possib. Gradational Contact.

1706-1886

1800 Bio Qtz Mcnz. Por- ↓ 1706-1788.

(1797- 6" Dacite Dike - Mod. Argillized - Carries mod. Cu Ox.)

(1800-1815 Strong Fe Stain Frac 25°-90° - Possib. Lim/Py.)

1810

1820

1830

1840

1827 End of Chrys: Cu Ox Mineralization.

Note: Chalcocite 1851

PROJECT _____ PAGE 12
D.D.H. No. CG-7 SCALE _____ BY L.C.A.
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type
5/5				
5/5				
5/5				
4.5/5				
5/5				
5/5				
5/5				
5/5				
5/5				
4/4				
5/5				
5/5				
3.5/3.5				
4/4				
4.5/4.5				
3.5/3.5				
1.5/1.5				
1/2				
5/5				
5/5				
3/3				
5/5				
4.5/4.5				

1840
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940

py-cc

= .6457
27.12
42

At 1851 NOTE FIRST APPEARANCE OF VEINLETS 1/4-1/2" CARRYING CHALCOCITE AND PYRITE/CPY Py/CPY APP. 85-90% REPLACED BY C.C.

STILL CONSIDERABLE DUSKY RED 5R 3/4 HEM ON V. NARROW FRACTURES BETWEEN SULFIDE VEINLETS. ALSO NOTE SPARSE LIM/CC IN SOME LEACHED VEINLETS.

VEINLETS TEND TO HAVE DARK SILICEOUS SELVAGES 1/4-1/2" ON EITHER SIDE OF VEINLET eg @1911.

1886-1888 QTZ. POR - WHITE - STRONGLY ARGILLIZED.

1888-2011 Bio. QTZ. MONZ.

do 1706-1886.

430

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1835	1845	840	60		
1845	1855	.54%	65		
1855	1865	2.53%	250		
1865	1875	1050	70		
1875	1885	130	70		
1885	1895	1.34%	70		
1895	1905	.52%	80		
1905	1915	.46%	70		
1915	1925	.51%	38		
1925	1935	0.50%	130		
1935	1945	0.48%	110		

= .653%
281400
430

PROJECT _____ PAGE 13
D.D.H. No. CG-7 SCALE _____ BY _____
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Depth	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
5/5					1940		1935	1945	0.48%	110
4.5/5										
4.5/4.5					1950		1945	1955	0.32%	130
2/2										
3/3										
5/5					1960		1955	1965	0.31%	70
5/5										
? 10/10					1970	@1970 NOTE 6" DIKE QTZ POR W/ COARSE BLEBS CPY.	1965	1975	0.43%	80
5/5					1980		1975	1985	0.75%	320
5/5										
5/5					1990		1985	1995	0.33%	110
4/4										
? 5/3					2000		1995	2005	2200	85
5/5										
4.5/5					2010		2005	2015	0.31%	130
5/5						2011-2020 PEBBLE DIKE - RND FRAGS QTZ MONZ. STRONGER ARGILLIC ALT. & DEF. INC DISSEM. CPY. BIO. GEN. DECREASED IN DIKE.				
2/2										
3/3					2020	(2021 STRONG 1/2" VNLTS LIM/PY & LIM/CPY ??	2015	2025	0.30%	105
5/5										
4.5/5					2030	2020-2050 GRANODIORITE PORPHYRY - MATRIX YELLOWISH GRAY TO GRAYISH RED - WELL DEVEL HIATAL POR. TEX. ANHEDRAL PLAG STRONGLY ARGILLIZED PROM. SER IN MATRIX. FELDSPARS HAVE DEAD CHALKY LOOK AND SHOW EVID. TEX. DECOMPOSITION.	2025	2035	.80%	100
5/5										
4/4					2040	STRONG DK RED HEM STNS AND SP-MOD LIM/SUL. CC???	2035	2045	0.36%	130

6-18-75
PICK UP CORE TO 25.5

1855-2045

$\frac{10.75}{19} = .5663$

PROJECT _____ PAGE 14

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
				2040 BIO. IS PRESENT BUT V. SP.				
5/5					2035	2045	0.36	130
				(2047 2" PEBBLE DIKE - FRAGS OF ALT QTZ-SER ROCK IN HEM MATRIX-UNMIN-DIPS 45°)				
4.5/5			oo					
			o	2050 (2049 PEBBLE DIKE C/S 2047-UNMIN-DIPS 45°)	2045	2055	260	70
3.5/5			oo					
TO 2053 6-19-75				2050.5? ORACLE GRAN.-GRAYISH RED 5R 4/2-COARSE GRANITIC TEX. STRONG SER OF FELDSPARS. ST LEOL & SP TURGITE. BOTH CONTACTS APPEAR TO BE BX OR PEBBLE DIKES.				
4/4								
			oo	2057-60 CLAY-SER GOUGE - WHITE TO PALE RED 10R 6/2. V.F.G. BANDED TRANSPORTED. FeOx STAINS				
4.5/4.5			oo					
			/	2060 BIO. MONZ POR - LT. OLIVE GRAY 5Y 6/1 - SERIATE POR. 2060-64 TEX. SUBHEDRAL PLAG STRONGLY ARGILLIZED - BIO MOD. CHLORITIZED. NOTE SINGLE 1/4" VNLT PY±CPY PARTLY OXIDIZED. ALSO SP-MOD LIM/CPY. TOT. SUL 1-2%.	2055	2065	0.45%	130
5/5			/					
			/	2064-70 LATITE POR - MED LT. GRAY N6 - VERY FINE GRAINED SERIATE POR. TEX. PLAG THOROUGHLY SERICIT. ROCK STRONGLY BROKEN - HAS "SOAPY" FEEL. CARRIES 1/4-1/8" VNLTS CPY-PY PARTLY LEACHED. ALSO LIM/SUL TOT. SUL 1-2%.				
4/5			/	2070 2070-73 BIO. MONZ POR do 2060-64	2065	2075	0.33%	60
			/					
4.5/5			/	2073-2082 LATITE POR do 2064-2070				
			/					
4.5/5			/	2080 (2080-85 - 2' IRON STAINED CLAY SUR GOUGE.)	2075	2085	0.40%	80
			A					
3.5/4			A					
			A	2085-2100 ORACLE QTZ MONZ - GRAYISH ORANGE 10YR 7/4 TO PALE RED 10R 6/2 - COARSE				
3.5/4			A					
			/	2090 GRANITIC TEXTURE PARTIALLY OBLITERATED BY STRONG CLAY-SER ALTERATION.	2085	2095	2200	135
5/5			/	ROCK ORIGINALLY CONTAINED ±1-2% PY CPY IN				
			/	1/4" VNLTS. SULFIDE ALMOST COMPLETELY LEACHED.				
5/5			/	NOW CARRIES LIM/SUL AS WELL AS STRONG				
			/	YELLOW-BROWN TRANSPORTED. V INTRUSIVE CONTACT.				
			/	2100	2095	2105	0.70%	65
5/5			/	2100-2117 BIO. MONZ POR - MED LT. GRAY N6 -				
			/	WELL DEVEL - OPEN SERIATE POR TEX.				
5/5			/	PLAG IS SUBHEDRAL-ANHEDRAL & THOROUGHLY				
			/	ARGILLIZED. BIO PRESENT AS ISOLATED CSE				
			/	PHENOS 1/8" AND VFG MATRIX IN GROUND				
4.5/5			/	2110 MASS. BOTH ARE CLEAR & CLEAN.	2105	2115	0.42%	30
			/	ROCK CARRIES SPARSE HAIR-LIKE VNLTS PY				
			/	& CPY PARTIALLY LEACHED				
4.5/5			/					
			/	2117-2176				
			△					
5/5			△	2120 GRANOD POR - V. LT. GRAY N8 - TEXTURE				
			△	SUGGESTS CATACLASIS OF POR. TEX. PRESENT				
			△	TEX IS MASSIVE CLAY & SER W/ OCCASIONAL				
4/5			△	QTZ "EYES". ROCK CARRIES 1-2% DISSEM PY-CPY	2115	2125	0.31%	25
			△	W/ THIN COVELITE - CHALCOCITE COATING.				
			△					
4/5			△	2130				
			△	(2131 - 3" FRAG OF ORACLE QTZ. MONZ)				
			△		2125	2135	0.44%	45
			△	ROCK IS MOSTLY FRESH BUT CARRIES				
4/5			△	SPOTTY LIM/SUL & TRANS LIM.				
			△					
				2140 UNIT IS VERY STRONGLY BRECCIATED	2135	2145	0.56%	95

413

827/200'

PROJECT _____ PAGE _____
D.D.H. No. CG-7 SCALE 1"=10' BY L.C. [illegible]
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
4.5/5					2140 CHARACTER OF SULFIDE CLOTS SUGGESTS CATACLASIS POST DATES SULFIDE MIN.	2135	2145	0.56%	95
4.5/5					(2145- 3" FRAG ORACLE QTZ. MONZ.- ALSO CARRIES DISSEM SUL.				
4.5/5					2150	2145	2155	1900	160
4/4									
4/4					2160	2155	2165	2700	45
4.5/5									
5/5					2170 (STRONG VERT FRAG - SLICKS IN GRAY SMEARED SUL. RAKE 40°)	2165	2175	950	50
5/5									
4/4					(2177 - NOTE STRONG BROWN LIM/SUL)				
					2180	2175	2185	.34%	35
5/9					2176-2228				
					ORACLE GRANITE - 5Y 8/1 -				
4.5/5					2190 V. COARSE GRANITIC TEXTURE STRONGLY BRECCIATED. PLAGIOCLASE IS THOROUGHLY SERICITIZED AND NEARLY ALL K-SPAR IS CLOUDED ALTHOUGH NO ALT. PRODUCT IS VISIBLE AS SUCH.	2185	2195	0.33%	45
4.5/5									
4.5/5					2200 ROCK CARRIES 1-2% DISSEM & VNLT PY:CPY. RATIO IS ± 3:1 PY:CPY. SOME SULFIDE (±20%) SHOWS THIN FILM OF CC & COVELLITE. VNLTS ARE VERY NARROW - 1/32". VNLTS LACK GOOD ALT SELVAGES BUT APPEAR TO BE ACCOMP BY MOD. DEGREE OF GENERAL SILICIFICATION.	2195	2205	2900	60
4/4									
5/5					2210	2205	2215	2400	55
4.5/5									
4.5/5					2220	2215	2225	2100	50
4/4									
4.5/5					2228-29 - HORNFELS - BLACK - APHANITIC - CHLORITIC	2225	2235	0.33%	130
4/4					2230 2228-2263				
					do 2176-2228	2235	2245	2600	40
					2240				

PROJECT _____ PAGE 16

D.D.H. No. CB-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					2240				
7/9						2235	2245	2600	40 x
2.5/3									
3/4					2250	2245	2255	1300	36
2.5/3									
4.5/5						2255	2265	0.40%	130
					2260				
4/4.5					2263-2274 GOUGE & BRECCIA - WHITE. STRONGLY BRECCIATED TEXTURE, ROCK IS STRONGLY SERICITIC CARRIES DISSEM PY & CPY				
2.5/3.5						2265	2275	0.54%	95
3/3					2270 RATIO IS ± 2PY : 1CPY. ALSO HAS SMEARED CC. (?) ON VERT FRACTURES.				
3/4									
					2274-2328				
3.5/4									
					2280 ORACLE GRANITE - VERY PALE ORANGE	2275	2285	0.79%	70
8/9					COARSE GRANITIC TEX - STRONGLY BRECCIATED. PLAGIOCLASE THOROUGHLY SERICITIZED - K-SPAR CLOUDED BUT NO ALT. PROD				
					2290 VISIBLE. FORMER CHL (?) FORMS SP. GREEN TALC-LIKE SPOTS.	2285	2295	0.32%	90
3.5/4					V.F.G. DISSEM PY : CPY ± 1-2%.				
4/4					RATIO IS ± 3:1 PY : CPY.				
					POSSIBLE V. SP. CC FILMS ON SHR.				
4.5/5					2300 BRAINS. ALSO NOTE GRAY SMEARED SHR. ON VERT FRACS.	2295	2305	2100	32
4/4									
					GRANITE IS INTENSELY DEFORMED - LOCALLY CONSISTS OF ONLY CLAY-SER				
2/3.5					2310 GOUGE AND OTHER LITHOLOGIES	2305	2315	0.33	36
4/4.5					UP TO 2-3' MAY BE PRESENT.				
4.5/5									
					2320	2315	2325	0.40%	75
5/5									
3/4									
4/4					2330 2328-2333 BIO. QTZ. MONZ FOR. MED GRN NS. SERIATE FOR. TEX. STRONLY BROKEN. PLAG → SER BIO V. CHLORITIC SINGLE LG. CLOT PY CPY.	2325	2335	0.57%	
4/4									
					2333-2353				
4.5/5					ORACLE GRANITE do 2274-2328	2335	2345	0.64%	
					2340				

.520 / 1701 = .31

PROJECT _____ PAGE 17
D.D.H. No. CG-7 SCALE _____ BY _____
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Depth	Description
					2340	
6/8						
4/4					2350	
5/5						2353-2357 GOUGE-WHITE-LACKS TEX-PROB. BREC. ORACLE GRAN ±1-2% DISSEM SUL. LC. CPY CLOT RATIO MAY BE AS HIGH AS 1:1 PY:CPY. @2363.
3/3						2357-2370 GOUGE & BRECCIA-
4/4					2360	GREENISH GRAY 5GY 6/- STRONGLY BRECCIATED. ORIGINAL LITHOLOGY PROBABLY BIO QTZ. MONZ.
3.8/4						POR. PLAG ARE SERICITIZED AND BIO IS CHLORITIC. CARRIES SPARSE DISSEM PY·CPY.
9/9					2370	2370-2410 STRONGLY SHEARED BIO QTZ MONZ POR.-MED GRAY N5. SHEARED POR. TEX.
1.5/2						DIFFICULT TO DISTINGUISH INDIVIDUAL
4/4					2380	COMPONENTS. ROCK STRONGLY SLICKEN SIDED W/ DISTINCT SOAPY FEEL.
4/4						CARRIES 1-2% VNLT & DISSEM PY & CPY.
4.5/5						RATIO ± 2:1 PY:CPY. LOCAL
5/5					2390	SLIGHT OXIDATION ON LARGER VNLTS.
5/5						NOTE GRADUAL DECREASE IN
5/5					2400	INTENSITY OF SHEARING AS DEPTH INCREASES.
5/5						
5/5					2410	2410-2500 T.D. BIO. QTZ MONZ POR- WHITE PLAGIOCLASE PHENOCRYSTS SET IN MED DK. GRAY N-5 MATRIX. WELL
5/5						DEVEL HIATAL POR. TEX.
5/5					2420	PLAGIOCLASE IS SUBHEDRAL GRAINS
3/3						1/8 - 1/4 INCH IN DIAM. MATRIX IS
3.5/4						DARK CHLORITE & BIO - BOTH APPEAR CLEAN & CLEAR. ROCK IS STRONGLY
4.5/5					2430	FRACTURED & TALCY SLICKENSIDED SURFACE ARE COMMON. ORIENTATION APPEARS RANDOM. POR TEXTURE IS LOCALLY OBLITERATED BY SHEARING.
					2440	

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
2335	2345	0.64%			
2345	2355	0.59%			
2355	2365	3.75%			
2365	2375	0.71%			
2375	2385	0.32%			
2385	2395	0.33%			
2395	2405	0.36%			
2405	2415	0.34%			
2415	2425	2950			
2425	2435	2350			
2435	2445	2600			

666/60' = 1.1%

PROJECT _____ PAGE 18

D.D.H. No. CG-7 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
9/9					2440 Plagioclase are thoroughly clouded w/ clay and some sericite				
3/5					Rock carries 1-2% total sulfides as py-cpy. Min. is both vnlt & dissem. Ratio is ± 2:1 or 3:1 py:cpy.	2435	2445	260 x	
4.5/5					2450	2445	2455	32%	
5/5					Vnlt min. is usually associated w/ 1/4-1/2" Qtz vnlts some of which carry narrow alt. selvages.				
3/4					2460	2455	2465	230	
4/4					Note v. sp. dissem FeS_2 in vnlts.				
4/4					2470	2465	2475	2120	
5/5									
4.5/5					2480	2475	2485	1920	
5/5									
5/5									
4.5/5					2490	2485	2495	2950	
4.5/5						2495	2500 T.D.	0.30%	
					2500				

2045 - 2500 455

19.65 / 46 = .427

330 / 130 .78

PROJECT Casa Grande West PAGE P.1.

D.D.H. No. CG-1 SCALE 1"=100' BY L. C. Arnold

CO-OR _____ COLLAR EL ±1317 DATE 10-30-74 TO 11-18-74

HOLE IS ±700' EAST & 100' SOUTH OF NW COR. SEC. 24 T6S R4E PINAL Co., ARIZONA.

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

0-70 GRAVEL - GRAY - POORLY CONSOL. CARRIES VOLCANIC (ACID) LITHOLOGIES AS WELL AS GRANITE FRAGS.

70-150 GRAVEL - LT. GRAY - HIGHLY ARKOSIC. NO ELIO OR ALT OR MIN.

(120-130 HEAVY CLAY - LT. BROWN)

150-360

CLAY - LIGHT BROWN - VERY STICKY HOLDS WATER

(300-320 CLEAN ARKOSIC GRAVEL)

360-660

CLAYEY GRAVEL - LT. GRAY - HIGHLY ARKOSIC - NO FRAGS ALT. OR MIN.

660-1190

CLAYEY GRAVEL - GRAY TO DARK GRAY - PRINCIPALLY COMPOSED OF CHLORITIC QTZ. MONZONITE. V. SPARSE FRAGS SHOW WK TRANSPORTED IRON STAINS.

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		
0	100	25	.12		
100	200	30	.12		
200	300	35	.2		
300	400	50	.2		
400	500	55	.2		
500	600	50	.2		
600	700	65	.2		
700	800	90	.2		
800	900	150	.2		
900	1000	130	.2		

PROJECT Casa Grande West PAGE 2
D.D.H. No. CG-1 SCALE 1"=100' BY L C Arnold
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizm	Alteration	Structure	Rock Type

1000

CLAYEY GRAVEL - SEE DESCRIPT. ABOVE.

1100

1200 (1190-1210 YELLOW CLAY)

1190-1490 CLAYEY GRAVEL - GRAY EXCEPT AS NOTED - CARRIES A VARIETY OF INTERMED MED GRAINED INTRUSIVE ROCKS. 10-15% SHOW ALT AND OR TRANS OR INDIC. LIMONITE.

1300 (1320-1340 YELLOW CLAY)

1400

1500 1490-1800 ARKOSE - PINK TO BRIGHT ORANGE. PRINCIPALLY COMPOSED OF STRONGLY ALTERED GRANITE. FRAGS SHOW SERICITE-CLAY & CHIPS LEACHED CAPPING / C.C.? SPARSE TO MOD.

1600 CHRYSOCOLLA.

1700

1800 1800-1990 GRANITE - PINKISH GRAY - MED GRAINED GRANITIC TEX ABOUT 80% OF FELDS ARGILLIZED 20% FRESH. CARRIES LIM/PY & 3% FRESH PY. SPARSE - MOD CHRYS - SOME PY SHOWS POSS. CHALCITE

FIRST PY →

SPOT CORE 1857-1862 (820/4)

GRANITE - PINKISH GRAY - MOD. COARSE GRANITIC TEX. FELDS ARE 120-80% ALTERED 120% HAVE FRESH SHINY CLEAVAGE SURF. REMAINDER SHOW MOD-ST ARGILLIC. SP. RED HEM AND V. SP. LIM/CC? LIM/CPY? ROCK THOROUGHLY LEACHED - FORMERLY ± 1% OR LESS SUL. BIO. IS FR-SLT. ALT

1900

2000

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1000	1100	125	2		
1100	1200	120	2		
1200	1300	440	2		
1300	1400	1350	10		
1400	1500	540	4		
1500	1600	1200	6		
1600	1620	4200	14		
1620	1640	2100	8		
1640	1660	1750	6		
1660	1680	1000	8		
1680	1700	No	Sample		
1700	1720	600	4		
1720	1740	890	4		
1740	1760	1000	6		
1760	1780	1450	10		
1780	1800	1550	8		
1800	1820	980	10		
1820	1840	830	10		
1840	1860	1000	4		
1860	1880	730	4		
1880	1900	3700	10		
1900	1920	No	Sample		
1920	1940	1200	6		
1940	1960	1300	6		
1960	1970	6400	4		
1970	1980	6500	6		
1980	1990	1500	2		
1990	2000	1600	2		

PROJECT _____ PAGE 3

D.D.H. No. CG-1 SCALE _____ BY L.C. ARNOLD

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

2000

1970-2160 CHLORITIC QUARTZ

MONZONITE - DARK GRAY - TEXTURE IS MED GRAINED GRANITIC - POSSIBLY SLIGHTLY POR. 95% FELDS SHOW STRONG CLAY AND OR SER. ± 5% SHOW FRESH SHINY CLEAVAGE. CARRIES 1% V.F.G. PY. & SPARSE CHRYSOCOLLA. CHLORITE APPEARS TO FORM FROM HBN & BIO - CHLORITIZATION IS PERVASIVE.

2100

2160-2230 CUTTINGS ARE MIXED MONZ. POR & GRAN. SEE 1970-2160 & 2170-77.

SPOT CORE 2170-77 (75/2)

2200

GRANITE - REDDISH GRAY - COARSE GRANITIC TEX. - PLAG IS FR TO WELL ARGILLIZED. K-SPAR FR - BIO → CHL <1% DIS. PY.

2230-70 GRANITE - PINKISH GRAY - COARSE GRAN. TEX. CUTTINGS ARE FRESH TO MOD. CHLORITIZED OR ARGILL. V. SP. DISSEM. PY. STILL SOME OXIDATION PRESENT.

2270-2310 - GRANITE do 2270

2300

2310-2370 - MONZ - SEE SPOT CORE 2328-34.

SPOT CORE 2328-34 (40/42)

MONZ. POR - GRAY TO DARK GRAY - POOR-MOD POR. TEX. 80% PLAG CLOUDED - 20% FRESH CLEAVAGE. RK. IS SILICIFIED & CARRIES SOAPY TALCOSE MIN ON FRAC. 1% V.F.G. DISSEM PY. INTERBROWN W/ SPEC. HEM APPEAR. CORE SUGGESTS BX. FRAGS PRESENT - FRAGS PARTIALLY DIGESTED

2370-2403 T.D.

2420

SPOT CORE 2398-2403 T.D. (70/2)

GRANITE - LT. GRAY - WHITE - COARSE GRANITIC TEXTURE. K-SPAR IS CLEAN AND FRESH. PLAGIOCLASE VARIES FROM FRESH TO MOD. SERICITIZED BIO IS CHLORITIZED. RK FEELS SILICIFIED. CARRIES <1% DISSEM PY. - STILL SLIGHT OXIDATION NOTED.

2500

2370-2403 T.D.

GRANITE - SEE DESCRIPT SPOT CORE 2398-2403 T.D.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
2000	2010	650	2		
2010	2020	860	2		
2020	2030	980	2		
2030	2040	800	2		
2040	2050	1100	2		
2050	2060	1300	2		
2060	2070	1050	2		
2070	2080	750	2		
2080	2090	1700	2		
2090	2100	No	Sample.		
2100	2110	1100	2		
2110	2120	870	2		
2120	2130	1000	2		
2130	2140	1350	2		
2140	2150	1350	2		
2150	2160	No	Samp.		
2160	2170	No	Samp.		
2170	2180	1700	2		
2180	2190	600	2		
2190	2200	No	Samp.		
2200	2210	700	2		
2210	2220	800	2		
2220	2230	700	<2		
2230	2240	1400	2		
2240	2250	700	2		
2250	2260	700	2		
2260	2270	1200	2		
2270	2280	650	2		
2280	2290	1900	2		
2290	2300	No	Same		
2300	2310	1350	2		
2310	2320	1350	2		
2320	2330	900	2		
2330	2340	335	<2		
2340	2350	550	<2		
2350	2360	550	2		
2360	2370	700	2		
2370	2380	200	2		
2380	2390	430	2		
2390	2400	—	—		
2400	2403	120	2		

PROJECT CASA GRANDE WEST 20-52 PAGE 1

D.D.H. No. CG-2 SCALE 1"=100' BY L.C. ARNOLD 11-24-74 TO 12-10 74

CO-OR _____, COLLAR EL ±1312 DATE

HOLE IS 1600' N & 100' W OF SE COR SEC. 14 T6S R4E PINAL CO, ARIZ.

% Core Recovery	Mineralizm	Alteration	Structure	Rock Type

0-120 SLIGHTLY CLAYEY GRAVEL - LIGHT TAN - POORLY INDURATED. ARKOSIC BUT CONTAINS SPARSE FRAGS OF INTERMEDIATE EXTRUSIVE LITHOLOGIES.

120-150 CLAYEY GRAVEL - LT. TAN - POORLY INDUR. SIM 0-120 BUT W/ INCREASING CLAY CONTENT.

150-320

CLAY - LT. BROWN - VERY STICKY - HOLDS WATER.

320-1240

CLAYEY GRAVEL - LT TAN - POORLY INDURATED. STRONGLY ARKOSIC. BUT CARRIES ±15% IF DARK CHLORITIC QTZ MONZONITE OR ANDESITE. GRANITIC FRAGS UNALT & UNMIN.

CORE ASSAYS			
INTERVAL		MINERAL	
FROM	TO	Cu	Mo
0	100	5	.12
100	200	15	.12
200	300	15	.12
300	400	40	.12
400	500	55	.12
500	600	45	.12
600	700	50	.12
700	800	70	.12
800	900	60	.12
900	1000	70	.12

PROJECT 20-52 PAGE 2
D.D.H. No. CG-2 SCALE 1"=100' BY L.C. ARNOLD
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type

1000

1100

1200

1240-1320 GRAVEL - GRAY - LIGHT CLAY - POORLY - MOD INDURATED. PRINCIPALLY COMPOSED OF GRAY QTZ - MONZ - OR GRANODIO. FELDSPARS

1300 SLIGHTLY CLOUDED - NO MIN. RECOGNIZED.

1320-1350 ARKOSIC GRAVEL - LT. TAN - FIRST CHRYSOCOLLA NOTED THIS INTERVAL.

1350-1400

TO BLACK

1400 GRAVEL - DARK GRAY VERY HOMOGENOUS PRINCIPALLY COMPOSED OF QTZ. DIO ?? V. WK. RED FeOx STNS - NO OBVIOUS MIN.

1400-1540 ARKOSIC GRAVEL - PINKISH GRAY - ±60% FRAGS SHOW SOME EVID OF ALT. - PRIN. V.F.G. PEARLY SERICITE, OR SPARSE BRIGHT

1500 GREEN CHL. SPARSE TRANSPORT HEM. & V.SP. SLAGGY LIM/PY. UNIT ALSO CARRIES SPARSE CHRYSOCOLLA.

1540-1720

GRANITE - BRIGHT PINKISH GRAY VERY COARSE "CRACKLE" SEE DESCRIP. BELOW. (315/2) (1450/6)

1600 1594-97 SPOT CORE

GRANITE - PINKISH GRAY - PINKISH GRAY GREEN. - MED GRAINED GRANITIC TEXTURE. PLAG IS ALT. TO GREENISH CLAY MIN - K SPAR IS FRESH & CLEAN. CARRIES < 1% FRESH DISSEM PY AS WELL AS LIM/PY. TOT SHLS ± 1%.

1649-56 SPOT CORE. (340/14)

GRANITE - PINKISH GRAY - MED GRAINED. GRANITIC TEX. PLAGIOCLASE ALTERED (ARGILLIZED) K-SPAR IS

1700 MOSTLY FRESH - CLEAN RK THOROUGHLY LEACHED - ORIGINALLY CARRIED 2-3% PY.

1720-1760 DIORITE - DARK GRAY GREEN - V.F.G. POSSIBLY GRANITIC ORPOR. TEX. PLAG. IS CLOUDED AND BIO. IS ALT TO V. DARK CHLORITE. V. SP. TRANS. HEM. - NO OTHER MIN. RECOG.

1760-1790 GRANITE do 1540-1720.

1800 1790-1810 - QUARTZ - WHITE - NEARLY PURE - UNMIN.

1810-2020

GRANITE - GRAY TAN - TEX. IS UNCERT. IN CUTTINGS. K-SPAR IS FRESH - PLAG IS CLOUDED TO WELL SERICITIZED V. SP TRANS LIM & V.SP BLACK SLAGGY LIM/PY. BIO IS CHLORITIZED. UNIT SHOWS OCCAS. FRAGS. CHRYSOCOLLA.

1900 ALSO PRESENT IS 10-12% DARK DIORITIC MATERIAL

SPOT CORE 1925-21 (60/2)

GRANITE - GRAY TO ORANGE GRAY - MED GRAIN GRANITIC TEX. ROCK IS STRONGLY BROKEN ALONG NEAR VERTICAL PLANES. K-SPAR & PLAG. MOSTLY FRESH & CLEAN. V. SP. TRANSPORT LIM. V. SP.

2000 TINY CLOTS EPIDOTE - NO EVID. SULFIDE MIN.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1000	1040	145	<2		
1040	1100	80	<2		
1100	1200	95	<2		
1200	1300	540	2		
1300	1400	880	<2		
1400	1470	620	4		
1470	1480	1350	4		
1480	1490	1200	2		
1490	1500	600	2		
1500	1510	350	18		
1510	1520	300	10		
1520	1530	360	8		
1530	1540	200	6		
1540	1550	260	4		
1550	1560	660	2		
1560	1570	660	2		
1570	1580	670	2		
1580	1590	860	2		
1590	1600	410	2		
1600	1610	330	2		
1610	1620	380	6		
1620	1630	420	8		
1630	1640	350	10		
1640	1650	420	14		
1650	1660	350	8		
1660	1670	320	6		
1670	1680	350	12		
1680	1690	530	8		
1690	1700	1100	4		
1700	1710	490	6		
1710	1720	490	6		
1720	1730	510	2		
1730	1740	250	4		
1740	1750	205	2		
1750	1760	265	2		
1760	1770	170	2		
1770	1780	185	2		
1780	1790	205	2		
1790	1800	180	2		
1800	1810	205	2		
1810	1820	210	<2		
1820	1830	165	2		
1830	1840	205	2		
1840	1850	280	2		
1850	1860	305	2		
1860	1870	235	2		
1870	1880	235	2		
1880	1890	210	2		
1890	1900	240	2		
1900	1910	240	2		
1910	1920	220	2		
1920	1930	90	2		
1930	1940	185	2		
1940	1950	180	2		
1950	1960	240	2		
1960	1970	200	2		
1970	1980	195	2		
1980	1990	100	2		
1990	2000	120	2		

% Core Recovery	Mineralizm	Alteration	Structure	Rock Type

PROJECT Casa Grande West PAGE 3
D.D.H. No. CG-2 SCALE 1"=100' BY L.C. Arnold
CO-OR _____ COLLAR EL _____ DATE _____

2000

2020-2175 - T.D.

GRANITE - do 1810-2020 BUT W/ SLIGHT INCREASE IN CLAY CONTENT. SEE ALSO DESCRIPT. SPOT CORE BELOW.

2100

SPOT CORE 2169-2175 T.D. (210/2)

2200 GRANITE - PINKISH GRAY - MED COARSE GRANITIC TEXTURE. K-SPAR IS FRESH TO SLIGHTLY CLOUDED. PLAGIOCLASE SHOWS MOD. GENERAL CLOUDING TO VERY STRONG SERICITE IN LOCAL CLOTS. THESE CLOTS ALSO CARRY V.V.F.G HEM/PY? OR HEM/MAG? BIO. IS WELL CHLORITIZED.
GRANITE SHOWS SPARSE CHRYSOCOLLA AND COPPER PITCH ON VERTICAL FRACTURES

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
2000	2010	165	2		
2010	2020	NO	SAMPLE		
2020	2030	165	4		
2030	2040	115	2		
2040	2050	115	2		
2050	2060	110	2		
2060	2070	160	2		
2070	2080	185	2		
2080	2090	150	2		
2090	2100	110	2		
2100	2110	105	2		
2110	2120	125	2		
2120	2130	113	2		
2130	2140	125	2		
2140	2150	140	2		
2150	2160	155	2		
2160	2169	235	2		
2169	2175	210	2		

PROJECT Casa Grande West 20-52 PAGE 1

D.D.H. No. C6-3 SCALE 1"=100' BY L. C. Arnold

CO-OR _____ COLLAR EL ±1318 DATE 12-11-74 TD 1-6-75

Hole located approx 2340' E & 1500' N of SW Cor. Sec 13 T6SR4E Final Co. Rpt.

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					0				
					0-120 Clay- Light tan- Poorly indurated.	0	100	20	2
					100				
					120-270 Clayey Gravel- Light tan.- Gravel fragments are arkosic. Vi minor extrusive intermed. volcanics.	100	200	20	2
					200				
						200	300	25	2
					270-610				
					300				
					Gravel- Light tan- slightly clayey Arkosic. Carries ±10% V.F.G. Ser-Bio Schist.	300	400	50	2
					400				
						400	500	55	2
					500				
						500	600	10	4
					600				
					610-1340 Gravel- Light tan- variable clay content- Arkosic- Carries ±20-25% V.F.G. Ser-Bio. Schist.	600	700	15	2
					700				
					This unit well indurated- As indicated by slower drill penetration. No sign of alt or min. fracs except as noted below.	700	800	49	2
					800				
					(890-940- Sparse Chrysocolla)	800	900	450	2
					900				
						900	1000	80	2
					1000				

PROJECT Casa Grande West 2012 PAGE 2

D.D.H. No. CG-3 SCALE 1"=100' BY L.C. ARNOLD

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizm	Alteration	Structure	Rock Type

1000

1100

1200

SPOT CORE 1264-71

CONGLOMERATE - TAN. PROB. MOD-POORLY INDURATED FRAGS SAND TO 2" PRINCIPALLY INTERMED INTRUSIVE. FRAGS - NO SIGN ALT OR MIN.

1300

1340-1420

GRANITE - BRIGHT ORANGE - COARSE GRAN. TEX. CARRIES STRONG EXOTIC Fe & Cu. FELDS ARG. NO SIGN SUL. MIN.

1400

SPOT CORE 1410-1417 (335/28)

GRANITE - PINKISH GRAY TO DEEP RED - MOD CSE GRAN. TEXTURE - ROCK STRONGLY BROKEN K-SPAR SLIGHTLY CLOUDED TO MOD ARGILLIZED. PLAGIOCLASE IS ALL WELL ARGILLIZED. ARGILLIZED FELDS CARRY EXOTIC Fe. BIO. IS CHLORITIZED V. V. SP. BLACK SLAGGY LIM/PY & V.V. SP. TEX. LIM/CPY??

1500

1340-1750

GRANITE & INTERMED. POR - GRAY & TAN - GRAN TO POR. TEX. - SEE DETAILED DESCRIP BELOW.

1583'-1584' SPOT CORE (5900/18)

1580-1583½ - AND. POR - DK. GRAY - CLASTIC-POR TEX. - PLAG IS ARGILLIZED & SOAKED W/ EXOTIC Fe. GROUND MASS APHAN. POR. INTRUDES GRAN. - NOTE IRREG. CONTACT

1583½-1584 - GRANITE do 1410-1417 BUT W/ ST. EXOTIC Fe (RED) & CHRYS. NO DEF. EVID. SUL.

1600

1641-1646 SPOT CORE (9200/8)

AND. POR - DARK GRAY - SERIATE POR. TEX. - PLAGIOCLASE IS THOROUGHLY ARGILLIZED. BIO IS V FRESH TO SLIGHTLY CHL. - CARRIES CHRYS AS OPEN SPACE FILLING. NO EVID SUL.

1685-1689 (3300/)

1700

GRANITE - PINKISH GRAY - COARSE GRANITIC TEX "ORACLE" PLAG. IS ARGILLIZED & SOAKED W/ CHRYS. K-SPAR TENDS TO BE CLEAN & SHINY. BIO. IS V.F.G. - RAGGED - POSSI BLY SECONDARY - OFTEN SLIGHTLY CHLORITIZED. FRACTURED CARRY STRONG CUPREROUS HEM - APPARENTLY INDIGENOUS BUT NOT AFTER SULFIDES. ??? ALSO NOTABLE CHRYS IN FRACTURES.

1750-1780 AND. POR. do 1641-1646

1800

1780-2004 GRAN & AND POR. MIXTURE. do 1340-1750 T.V. K-SPAR FRESH. PLAG → ARG BIO → CHL

← NOTE FIRST PY - 1820-1830 CARRIES ± 1% PY & SP. CB.

(315/14)

1895-1901 SPOT CORE - DIORITE POR - DARK REDDISH GRAY HIATAL POR TEX. PLAG. IS ARGILLIZED BUT GRAINS MAINTAIN EUHEDRAL OUTLINE. GROUNDMASS IS CHLORITIZED BIO. 1/8-1/4" VEINLETS W/ SIL. ALT SELVAGE VNLTS CARRY MASSIVE DEEP REDDISH BROWN LIM. CORE IS MOD. FRAC & CARRIES RED HEM - SOAKED IN MATRIX.

1921-1927 - SPOT CORE - ORACLE GRANITE - PINKISH GRAY (2600/4)

V. CSE GRANITIC TEX. PLAG IS EUHEDRAL BUT WELL ARGILLIZED. K-SPAR IS VERY FRESH & CLEAN. ± 1% PY DISSEM & 1/16 VNLTS. PY IS COATED W/ C.C. EST 0.2-0.3 % Cu.

2000

APPROX 1/3 OF CORE SHOWS EVID. OF LEACHING & OXID.

NOTE LOCAL PERSIST. OF CSE GRANITIC TEX. → POR OR GRANULAR.

NOTE - CHRYS. OCCUPIES CRUDE CELLULAR C.C. APPEARS & 1/3 LEACHED → LIM/CPY. GOETHITE NASSET. AND IS OFTEN RIMMED W/ FeOx. MINERALS. NO DEF. SUL. TEX. NOTED.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1000	1100	130	2		
1100	1200	200	2		
1200	1300	160	2		
1300	1310	345	2		
1310	1320	155	2		
1320	1330	510	2		
1330	1340	440	4		
1340	1350	690	6		
1350	1360	2000	8		
1360	1370	1750	10		
1370	1380	750	8		
1380	1390	680	6		
1390	1400	350	4		
1400	1410	450	6		
1410	1420	410	28		
1420	1430	600	14		
1430	1440	700	18		
1440	1450	380	6		
1450	1460	480	8		
1460	1470	450	6		
1470	1480	550	4		
1480	1490	690	12		
1490	1500	1490	6		
1500	1510	720	6		
1510	1520	1050	6		
1520	1530	3000	6		
1530	1540	2500	10		
1540	1550	2600	6		
1550	1560	3200	6		
1560	1570	4700	8		
1570	1580	3700	8		
1580	1590	2100	8		
1590	1600	2700	12		
1600	1610	1600	8		
1610	1620	1900	6		
1620	1630	740	4		
1630	1640	740	4		
1640	1650	1480	6		
1650	1660	1600	6		
1660	1670	1440	6		
1670	1680	4500	10		
1680	1690	11,500	8		
1690	1700	1880	10		
1700	1710	560	94		
1710	1720	640	64		
1720	1730	440	100		
1730	1740	1160	58		
1740	1750	720	72		
1750	1760	760	48		
1760	1770	640	52		
1770	1780	700	28		
1780	1790	320	50		
1790	1800	390	44		
1800	1810	560	60		
1810	1820	610	85		
1820	1830	4500	12		
1830	1840	2300	12		
1840	1850	2800	26		
1850	1860	1700	44		
1860	1870	410	50		
1870	1880	5100	44		
1880	1890	7300	38		
1890	1900	3500	40		
1900	1910	1000	23		
1910	1920	2200	12		
1920	1930	2400	12		
1930	1940	4200	12		
1940	1950	1300	8		
1950	1960	1300	10		
1960	1970	430	10		
1970	1980	1200	10		
1980	1990	1700	36		
1990	2000	2200	14		

PROJECT Casa Grande West 20-52 PAGE 3

D.D.H. No. CG-3 SCALE 1"=100' BY L.C. Arnold

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					2000 1999-2004 T.D.				
					1938-1944 Spot Core (2600/4)				
					Granite - Reddish Gray - V. coarse "Oracle" Granitic texture.				
					2100 K-spar probably microcline - fresh clean euhedral grains.				
					Plagioclase well clouded & argillized most grains yellowish green w/ sugary texture.				
					Very sp. Bio slightly chloritized.				
					Rock carries ± 1% disseminated vnlt py w/				
					2200 c.c. coating - estimate 0.2 % Cu.				
					Cpy not recognized.				
					Approx 1/4-1/3 of core shows leaching w/ Lim/Sul.				
					2300 1999-2004 T.D. Spot Core (2100/4)				
					Qtz Monzonite - Pinkish Gray -				
					Poorly Dever. Por. texture.				
					K-spar mod. coarse - very fresh				
					Plag - Euhedral - Subhedral grains				
					thoroughly argillized -				
					2400 Qtz. Monz carries ± 1½% disseminated vnlt Py				
					w/ cc coating. Estimate 0.2% Cu.				
					Core is approx ½ leached & oxidized.				
					Carries sp lim./cc. & mod. transp.				
					Jarosite?				

PROJECT Casa Grande West PAGE 1

D.D.H. No. CG-4 SCALE 1"=100' BY L.C. ARNOLD 1-11-25 TO

CO-OR COLLAR EL ±1310' DATE 1-28-25

Hole Located 30° W 3400' S of NW Cor Sec. 13 T6S R4E Pinal Co, Az.

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type	CORE ASSAYS					
					INTERVAL		MINERAL			
					FROM	TO	Cu	Mo		
					0	20	CLAYEY GRAVEL - LT. TAN ARKOSE & EXT. RK. FRAGS			
					20	120	GRAVEL - GRAY TAN - COMPOSED OF ARKOSIC & INTERMED EXTRUS. RK. TYPES NONE MINERALIZED - POORLY INDURATED.			
					100	200	SLIGHTLY SANDY CLAY - TAN - POORLY INDURATED - HOLDS WATER. SANDY FRAGS ARKOSIC - UNMIN.			
					200	300	CLAYEY GRAVEL - TAN - FRAGS ARE ARKOSIC W/ ABOUT 10% DARK DIORITE (?) FRAGS. NONE APPEAR MINERALIZED.			
					300	400				
					400	500	GRAVEL - GRAY - ARKOSIC WITH ABOUT 10-15% DARK DIO (?) FRAGS. NONE APPEAR MINERALIZED.			
					500	600				
					600	700				
					700	800				
					800	900				
					900	1000				

PROJECT Casa Grande West PAGE 2
D.D.H. No. CG-4 SCALE 1"=100' BY L.C. Arnold
CO-OR ____ COLLAR EL ____ DATE ____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

1000

1080-1120 GRAVEL - DARK 5GY 4/1 GRAY - PRINCIPALLY COMPOSED OF GRAY-GREEN GRANODIORITE - SLIGHTLY PORPHYRITIC AND FINE GRAINED. FRAGS ARE CHLORITIZED & FELDSPARS CLOUDED BUT NONE APPEAR MINERALIZED.

1100

1120-1170 GRAVEL - MOD. REDDISH ORANGE 10R 6/6 CARRIES QTZ, FELDSPAR & GRANITE FRAGS. COLOR IS FROM CLAY COVERING FRAGS. V.S.R. LEACH CAP/SUL. NO MIN. RECOG.

1200

1220-1270 GRAVEL - PALE YEL. BROWN 10YR 6/2 HIGHLY ARKOSIC - NO OBVIOUS MIN.

1270-1490 ... INTERMINGLED BIO. QTZ. LATITE AND GRANODIORITE - GRANITE. COLOR VARIES. DARK GREENISH GRAY TO MOD BROWN. SEE SPOT CORE DESCRIPTIONS BELOW.

1300

SPOT CORE 1390-93½' (1490/8)
BIOTITE QTZ. LATITE - GRAY - CROWDED HIPTAL POR. TEX. ALL PLAG GRAINS THOROUGHLY CLOUDED - SOME SHOW WELL DEVEL. SERICITE. BIO. APPEARS FRESH. ROCK CARRIES LIM/SUL SUGGESTS 2% ORIGINAL SUL CONTENT. OF PY, CPY & C.C. ORIGINAL GRADE ESTIMATE ±0.1% Cu.

1400

1500

SPOT CORE 1495-1501 (1350/4)
BIOTITE GRANODIORITE - PINKISH GRAY - COARSE GRANITIC TEXTURE. K-SPAR FRESH - PLAG CLOUDED LOCALLY WELL ARGILLIZED. NOTE SPARSE CLOTS EPIDOTE - BIOTITE BOOKS SLIGHTLY CHLORITIZED - NO EVID. SULFIDE MIN.

1600

SPOT CORE 1595-1603 (1200/2)
BIOTITE GRANODIORITE - PINKISH GRAY. VERY COARSE GRANITIC TEX. K-SPAR IS FRESH & CLEAN. PLAG IS CLOUDED AND LOCALLY ARGILLIZED. BIO IS FRESH TO SLIGHTLY CHLORITIZED. NOTE VEINLETS & DISSEM OF EPIDOTE ± 3-5%. FRACTURES CARRY STRONG RED TRANS. IRON & MnOx(?) AND OCCASIONAL WHITE SULFATE LIKE EFFLORESCENCE. NO SIGN OF INDIGEN. SUL. THIS MnOx IS Cu PITCH BASED ON Cu ASSAY

1700

SPOT CORE 1661-1670 T.D. (1000/2)
GRANITE - REDDISH GRAY - V. COARSE GRANITIC TEXTURE. K-SPAR IS EUHEDRAL & V. FRESH & CLEAN. PLAG IS SPARSE - GENERALLY SUBHEDRAL & CLOUDED. - ALSO TENDS TO BE SOAKED W/ YELLOW FE STAIN. BIO. IS CHLORITIZED. ALSO NOTE SEVERAL PERCENT EPIDOTE IN IRREG. VNLTS.

1800

1900 Rock carries apple green clay-like frac. coating & occasional black pitch. Pitch appears exotic but has occas. habit suggestive of replacement of cubic (?) mineral.

2000 No evid. sul min.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo
1000	1100	1100	2
1100	1200	2200	2
1200	1250	560	2
1250	1260	420	2
1260	1270	390	2
1270	1280	630	2
1280	1290	800	2
1290	1300	800	2
1300	1310	1200	2
1310	1320	1800	4
1320	1330	1800	4
1330	1340	900	6
1340	1350	900	2
1350	1360	800	2
1360	1370	950	4
1370	1380	900	2
1380	1390	1200	4
1390	1400	650	4
1400	1410	950	4
1410	1420	580	2
1420	1430	750	2
1430	1440	580	2
1440	1450	515	4
1450	1460	530	6
1460	1470	500	4
1470	1480	680	2
1480	1490	730	4
1490	1500	1250	4
1500	1510	930	2
1510	1520	910	2
1520	1530	730	2
1530	1540	620	2
1540	1550	680	4
1550	1560	840	2
1560	1570	690	4
1570	1580	960	2
1580	1590	830	2
1590	1600	710	2
1600	1610	750	4
1610	1620	820	2
1620	1630	750	2
1630	1640	780	2
1640	1650	580	2
1650	1660	630	2
1660	1670	1800	2

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

PROJECT _____ PAGE _____

D.D.H. No. _____ SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		

1490-1670 T.D. Biotite Granodiorite
Light brown 5YR 6/4 - coarse
Granitic tex. See spot core descript.
for lithologic detail.

PROJECT Casa Grande West PAGE 1

D.D.H. No. CG-5 SCALE 1"=100' BY L.C. Arnold

CO-ORD. _____ COLLAR EL ±1304' DATE 2-11-75 TO 3-2-75

Hole Loc. 2513.9' E & 2805.3' N of SW Cor Sec. 13 T6S R4E Pinal Co., Az

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type	
					0
					100
					200
					300
					400
					500
					600
					700
					800
					900
					1000

0-240

Gravel - Yellowish Gray 5Y 7/2 Poorly Consolidated. Principally Composed of granitic frags. ±15% intermed - acidic extrusive frags. None appear mineralized or altered.

240-1120

Clayey Gravel - Yellowish Gray - Poorly consolidated. Principally Composed frags of gray bio-chl qtz monzonite. Frags fresh & unmin. Local beds strong clay 10-20' thick

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		
0	100	20	2		
100	200	15	2		
200	300	15	2		
300	400	40	2		
400	500	35	2		
500	600	50	2		
600	700	70	2		
700	800	70	2		
800	900	40	2		
900	1000	30	2		

PROJECT 20-52 PAGE 2
D.D.H. No. CG-5 SCALE BY L C ARNOLD
CO-OR COLLAR EL DATE

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type

1000

1100

1120-1160 SANDY CLAY-PALE YELLOWISH BROWN 10YR 6/2 SAND IS ARKOSIC - FRESH & UNMIN

1160-1230 GRAVEL - YELLOWISH GRAY 5Y 7/2 STRONGLY ARKOSIC BUT ALSO CARRIES 15% RHYODACITE (?) FRAGS - LT PURPLE TO PURPLISH GRAY - NO SILN ALT-MIN

1200

1230-1480 GRAVEL LIGHT GRAY, STRONGLY ARKOSIC COMPOSED ALMOST ENTIRELY OF FRESH SLIGHTLY BIOTITIC QTZ. MONZONITE. LOCAL 10' BEDS OF MOD. CLAY CONTENT.

1300

1400

1480-1650 CONGLOM. MUDSTONE - SEE SPOT CORE DESCRIPTION BELOW. NOTE ALSO IN CUTTINGS ±5% EXTRUSIVE VOLCANIC FRAGS.

1500

SPOT CORE 1528-82 (70/8)

1600 CONG. MUDST MED. LT. GRAY N6 - PRINCIPALLY COMPOSED OF FRAGS OF MONZ - QTZ. MONZ PORPHYRY. ROCK IS FRESH & UNMINERALIZED. MATRIX IS GRAY CLAY CARRIES LOCAL SPEC. HEM (?) MAY ALSO BE CONTAM OF JOINT COMPOUND. POORLY SORT - ANG. SUBANG NO BEDDING RECOGNIZED. RESEMBLES BROKEN BEDROCK - MAY REPRESENT SHEARED GRAVEL. CARRIES COARSE FRESH MUSCOVITE

1700

1650-1810 GRAVEL - GRAYISH YELLOW 5Y 8/4 TO PALE YELLOWISH ORANGE 10YR 8/6. STRONGLY ARKOSIC COLOR DUE TO WEATH. PYRITE IN V. SMALL AMOUNTS. ALT. FRAGS PRESENT NOT ABUNDANT. NO PY IN SAMP.

1800

1810-1870 GRAVEL - LT. GRAY - ARKOSIC. FRAGS SHOW CLAY ALT (MOD.) AND DEVEL. OF EFFLOR SULFATE (?) MINERAL. NO Cu MIN. RECOGNIZED.

1870-2060 CLAY-SERICITE GOUGE - LT. GRAYISH ORANGE - SEE SPOT CORE DESCRIPTION BELOW.

1900

SPOT CORE 1960-65 (305/2)

CLAY-SERICITE GOUGE - MOD. REDDISH BROWN 10R 4/6 TO GRAYISH PINK 5R 8/2

2000

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1000	1100	15	2		
1100	1200	10	2		
1200	1210	10	2		
1210	1220	5	2		
1220	1230	15	4		
1230	1240	15	4		
1240	1250	30	2		
1250	1260	10	2		
1260	1270	10	2		
1270	1280	10	4		
1280	1290	35	2		
1290	1300	25	2		
1300	1310	15	2		
1310	1320	15	2		
1320	1330	10	2		
1330	1340	10	2		
1340	1350	10	2		
1350	1360	5	2		
1360	1370	5	2		
1370	1380	15	2		
1380	1390	15	4		
1390	1400	40	4		
1400	1410	15	2		
1410	1420	10	2		
1420	1430	10	2		
1430	1440	5	2		
1440	1450	10	2		
1450	1460	5	2		
1460	1470	10	2		
1470	1480	15	2		
1480	1490	10	2		
1490	1500	10	2		
1500	1510	40	2		
1510	1520	30	2		
1520	1530	40	2		
1530	1540	50	2		
1540	1550	40	2		
1550	1560	40	2		
1560	1570	35	2		
1570	1580	35	2		
1580	1590	20	4		
1590	1600	25	4		
1600	1610	25	2		
1610	1620	25	4		
1620	1630	45	6		
1630	1640	35	4		
1640	1650	35	6		
1650	1660	35	4		
1660	1670	35	4		
1670	1680	30	6		
1680	1690	35	6		
1690	1700	40	6		
1700	1710	45	6		
1710	1720	35	6		
1720	1730	50	4		
1730	1740	35	6		
1740	1750	35	6		
1750	1760	45	4		
1760	1770	40	6		
1770	1780	65	6		
1780	1790	60	10		
1790	1800	50	8		
1800	1810	125	8		
1810	1820	120	6		
1820	1830	165	4		
1830	1840	165	8		
1840	1850	130	8		
1850	1860	120	8		
1860	1870	120	4		
1870	1880	115	6		
1880	1890	125	6		
1890	1900	110	6		
1900	1910	140	4		
1910	1920	135	4		
1920	1930	115	4		
1930	1940	115	4		
1940	1950	150	6		
1950	1960	140	4		
1960	1970	5	10		
1970	1980	140	6		
1980	1990	135	6		
1990	2000	150	10		

PROJECT 20-52 PAGE 3
D.D.H. No. ____ SCALE 1"=100' BY L.C. ARNOLD
CO-OR ____ COLLAR EL ____ DATE ____

% Core Recovery	Mineralizm	Alteration	Structure	Rock Type

2000 COMPOSED OF BRECCIATED & INTENSELY SERICITIZED QTZ. POR (?) SPARSE Lim/py IN SER. FRAGS - V. SP. SOOTY CHALCOCITE. RECOGNIZED. BANDING IS IRREGULAR & VARIES HORIZ. TO VERTICAL.

FIRST SUL.

2060-2231 GRANITE & QTZ. MONZ. POR- SEE SPOT CORE DESCRIPTIONS BELOW.

2100 NOTE FIRST SUL V. SP. Py W/CC.

SPOT CORE 2160-67 (590/130)

QTZ. MONZ. POR. WHITE TO PALE REDDISH BROWN - RAGGED POR. TEX. MOD-ST. BROKEN ALT. VARIES WK CLAY TO STRONG. SER. CARRIES ST BOT. Lim/py & SP. Lim. CC. FRACS NEAR VERT.

2200 SPOT CORE 2225-31 (8500/38)

SPOT CORE 2231-39 (5250/10)

2231-39 GRANITE - PINKISH GRAY - MED GRAINED GRANITIC TEX. K-SPAR FRESH PLAG MOD → ST. ARGILLIZED W/CC & PARTLY FRESH

2231-70 DIAB.

2231-39 DIABASE - DARK GREENISH GRAY - V. FINE GRAINED DIAB. TEX. CARRIES VNLT PY-CPY & CC. W/QTZ. SELVAGE GRAN-DIAB. CONT IS INT. DIPS 45°

2300 SPOT CORE 2321-24 T.D. (2650/66)

TOT. SUL 4% PY:CPY >10:1 SULFIDES PARTLY LEACHED & OXIDIZED CC OCCURS AS COATING ON PY GRAINS.

NOTE GREEN TALCOSE MIN ON FRACS IN DIAB PLAG. IN DIAB THOROUGHLY CLOUDED.

→ CLAY-SERICITE GOUGE - WHITE TO DARK REDDISH BROWN - INTENSELY ARGILLIZED & SERICITIZED TEXTURELESS ROCK. CARRIES BRECCIATED PY & CHALCOCITE COATED PYRITE.

TOT. SULFIDES 12% - SULFIDES PARTIALLY LEACHED & OXIDIZED

→ 2270-2324 T.D. QTZ. MONZ - WHITE - TEX IS UNCERT. ALT. IS CLAY-SER MOD TO STRONG INTENSITY. CARRIES 2% TOT. SUL. Py, CPY & CC.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
2000	2010	205	18		
2010	2020	155	10		
2020	2030	215	12		
2030	2040	155	12		
2040	2050	110	14		
2050	2060	35	16		
2060	2070	85	14		
2070	2080	90	8		
2080	2090	80	8		
2090	2100	85	8		
2100	2110	90	10		
2110	2120	260	12		
2120	2130	1300	36		
2130	2140	380	45		
2140	2150	580	70		
2150	2160	2500	10		
2160	2170	550	60		
2170	2180	3400	24		
2180	2190	2600	28		
2190	2200	4100	24		
2200	2210	1850	20		
2210	2220	1550	8		
2220	2230	2400	14		
2230	2240	3000	18		
2240	2250	1900	20		
2250	2260	2550	18		
2260	2270	1700	10		
2270	2280	700	6		
2280	2290	900	8		
2290	2300	1400	12		
2300	2310	2100	10		
2310	2320	900	12		
2320	2330				

PROJECT Casa Grande West 20-52 PAGE 1

D.D.H. No. C6-6 SCALE 1"=100' BY L.C. ARNOLD

CO-OR _____ COLLAR EL 1298' DATE 3-8-75 TO 3-21-75

HOLE LOC. AT CENTER OF NW 1/4 SEC. 11 T6S R4E PINAL CO., ARIZONA.

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type

0-100 GRAVEL - PALE YELLOWISH BROWN 10YR 6/2 TO GRAYISH ORANGE 10YR 7/4. UNIT IS ARKOSIC & CLAYEY CARRIES 10-15% EXTRUSIVE VOL. FRAGS.

100-340 CLAYEY GRAVEL - GRAYISH ORANGE 10YR 7/4. GRAVEL IS ARKOSIC & CARRIES ±10% EXTRUSIVE VOL. FRAGS.

340-700

ARKOSIC GRAVEL - LIGHT OLIVE GRAY 5Y 6/1. UNIT CARRIES SMALL PERCENTAGE OF EXTRUSIVE FRAGS. NO FRAGS APPEAR ALTERED OR MINERALIZED.

700-820 GRAVEL & SILTY GRAVEL - YELLOWISH GRAY 5Y 7/2. ARKOSIC PART OF UNIT IS VERY FINE GRAINED. CARRIES V. SPARSE FRAGS SHOWING TRANSPORTED LIM. ALSO NOTE OCCASIONAL EXTRUSIVE VOL. LITHOLOGIES.

820-1080

ARKOSIC GRAVEL - YELLOWISH GRAY 5Y 8/1. PRINCIPALLY COMPOSED FRAGS BIO QTZ MONZ. FRAGS FRESH & UNMIN.

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		
0	100	15	2		
100	200	15	2		
200	300	15	2		
300	400	15	2		
400	500	15	2		
500	600	20	2		
600	700	15	2		
20	800	15	2		
800	900	20	2		
900	1000	15	2		

PROJECT _____ PAGE 2

D.D.H. No. CG-6 SCALE _____ BY LEARNOID

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo		
					1000						
						1000	1100	15	2		
					1100 1080-1240 CLAYEY SILTY GRAVEL - YELLOWISH GRAY 5Y 7/2 - ARKOSIC. NO ALT. OR MIN. FRAGS NOTED.	1100	1200	10	2		
					1200						
					1240-2298 T.D.	1200	1300	15	6		
					1300 CONGLOMERATIC SS. - YELLOWISH GRAY 5Y 7/2 - HIGHLY ARKOSIC AND CARRIES FRAGS OF EXTRUSIVE VOL. ROCKS (THESE ARE USUALLY LARGE & ROUNDED AS AT 1480-1500 & 1970-1990 - MAY REP. CAVED FRAGS FROM UPPER. UNITS.	1300	1400	5	6		
					1400	1400	1500	15	4		
					1500						
						1500	1600	15	4		
					1600 SPOT CORE 1611-49 CONGLOMERATIC S.S - DARK YELLOWISH BROWN 10YR 4/2 WHEN WET DRIES TO YELLOWISH GRAY 5Y 7/2 MED TO COARSE GRAINED - STRONGLY ARKOSIC. FRAGS ANG - SUBROUND - NO MIN. FRAGS NOTED. BEDS DIP 20° - THINLY BEDDED. FRAGS MOSTLY ± 1/4" LARGEST IS 3"	1600	1700	55	4		
					1700	1700	1800	25	4		
					1800						
						1800	1900	25	6		
					1900 SPOT CORE 1919-27 CONGLOMERATIC S.S - DARK YELLOWISH BROWN 10YR 4/2 TO 5Y 7/2 YELLOWISH GRAY WHEN DRY. FRAGS ARKOSIC - CSE SAND TO 2" NONE MIN MOD. - POOR SORT - FRAGS SUB ANG - SUB ROUND BEDS THIN DIP 20°	1900	2000				

PROJECT _____ PAGE 3

D.D.H. No. CG-6 SCALE _____ BY L.C. ARNOLD

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralztn	Alteration	Structure	Rock Type

2000

2100

2200

(2230-70 CLAYEY-SILTY UNIT - HOLDS WATER.)

2300 — SPOT CORE 2290-2298 T.D.

CONGLOMERATIC SS- MATRIX IS PALE YELLOWISH BROWN 10YR 6/2 TO YELLOWISH GRAY 5Y 7/2. FRAGS ARE WHITE N9 TO VERY LIGHT GRAY. - WELL INDURATED.

2400

SS. IS POORLY SORTED, FRAGS ALL GRANITIC - HIGHLY ANGULAR. BEDDING IS NOT APPARENT. FRAGS FINE GRAVEL TO 4" IN DIAMETER.

35% OF FRAGS ARE IRON STAINED AND/OR ALTERED. NO VOL. FRAGS NOTED.

HOLE CASE 0-2298 3" STEEL CASING.

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		
2000	2100	30	2		
2100	2200	25	2		
2200	2298	20	8		

PROJECT Casa Grande West PAGE 4
D.D.H. No. CG-6 core SCALE 1"=10' BY L.C. Arnold
CO-OR _____ COLLAR EL 1298 DATE 4-15-75 to 4-19-75

183' ÷ 35 RUNS = 5.23'/RUN.
181.25 ÷ 183 x 100 = 99% OVERALL RECOV.

NOTE POOR RECOV.

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type	Depth	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					2290					
						ROTARY HOLE & CASING 2298. DIAMOND DRILLERS MEASURE 2300 TO CORE POINT.				
					2300					
6.5/6.5	NIL	NONE	POORLY STRATIFIED			2300-2310 CONGLOMERATIC MUDSTONE - YELLOWISH GRAY 5Y 7/2 - INCLUDES PRINCIPALLY FRAGS OF BIO-CHL QTZ MONZ V. LT. GRAY N8. FRAGS ARE FRESH, UNMIN, POORLY SORT - SUBRND. SET IN YEL. GRAY MATRIX. NO BEDS RECOGNIZED. V. WEAK REN W/ HCl.	2300	2310	10	<2
9/55 ?					2310	2310-2340 CONGLOMERATIC MUDSTONE - SAME UNIT AS 2300-2310 BUT STRONGLY DEFORMED. NOTE ABUNDANT MICRO FOLDS AXIAL PLANES DIP 20°-90°. CONGLOMERATE REMAINS VERY TIGHT AND COMPACT DESPITE INTENSE FOLDING.	2310	2320	10	<2
4/4										
3/3										
8/8					2320	SLICKENSIDES ALSO NOTED	2320	2330	5	<2
1/2						(NOTE SPARSE FRAGS G.D. PIR W/ TRANS. HEM & CLOUDED PLAG. GRAINS.)				
4/4					2330					
5/5							2330	2340	5	<2
4/4					2340					
3/5	NIL	NONE				2340-2363 Bio BRECCIATED QTZ. MONZ. - WHITE N9 TO DUSKY YELLOW 5Y 6/4 - QTZ. MONZ IS FRESH TO SLIGHTLY CHLORITIZED. STRONG BRECCIATION & MYLONITIZATION HAS PRODUCED CONSID. CLAY & POSSIBLY SOME SERICITE. BRECCIA REMAINS TIGHT AND NOT PARTICULARLY FRIABLE. MINOR FRACTURES DIP 45-70° SLIGHT TO MOD. TRANS. YELLOW FE STAIN THIS INTERVAL.	2340	2350	<5	<2
1/1										
9/9					2350		2350	2360	<5	<2
1/1										
6/6					2360					
?						2363-2483 T.D.	2360	2370	<5	<2
6/14	SPARSE MINOR	PERVASIVE - LACKS SULFIDES.	SLIGHTLY - MOD. BROKEN.			ORACLE GRANITE - QTZ MONZ -				
?					2370	WHITE N9 WITH LOCAL TRANSPORTED FE STAINS DUSKY YELLOW 5Y 6/4 AND MODERATE REDDISH ORANGE 10R 6/6. ROCK COMPOSED OF COARSE SUBHEDRAL - EUHEDRAL K-SPAR WHICH IS FRESH TO SLIGHTLY ARGILLIZED, PLAGIOCLASE IS MED. GRAINED AND TENDS TO BE MORE STRONGLY ALT. THAN K-SPAR.	2370	2380	<5	<2
3/3										
3.5/5					2380					
2/2						BIO. COMPRISES 12-15% OF ROCK VOLUME AND IS MOD. TO THOROUGHLY CHLORITIZED. MOST OF FE STAIN SEEMS TO ORIGINATE	2380	2390	<5	<2
					2390					

PROJECT _____ PAGE 5

D.D.H. No. CG-6 SCALE 1"=10' BY L.C. ARNOLD

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineraliztn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					2390				
7.5/10				+	FROM DECOMPOSED CHLORITE.	2390	2400	<5	<2
5.5/6				+	NOTE SPARSE MnO_x (?) IN FRACTURES - NO OTHER EVIDENCE OF MIN. RECOGNIZED.				
					2400				
5.5/6				+		2400	2410	5	<2
				+					
					2410				
8/8						2410	2420	5	<2
				+					
					2420				
8/8				+		2420	2430	5	<2
7/8									
					2430				
5/4?		SPARSE MnO_x		+		2430	2440	<5	<2
8.5/10		PROPYLITIC - LOCAL SILICIFIED.	SLIGHTLY - MOD BROKEN.	+	2440				
						2440	2450	5	<2
6.5?/5?				+					
					2450				
5.5/5.5				+		2450	2460	5	<2
4/4.5				+					
					2460				
3.5/3.5						2460	2470	5	<2
4/3.5?				+					
2/2									
					2470				
7.5/8				+		2470	2480	5	<2
2/2									
					2480				
4/4				+		2480	2483	5	<2
				+					
					2483 T.D.				
					2490				

PROJECT CASA GRANDE WEST PAGE 1
D.D.H. No. CG-10 SCALE 1"=100 BY L.C. ARNOLD
CO-OR ____ COLLAR EL 3305 DATE 11/10 TO 11/13/65
HOLE 2640' N & 2700' E OF SW COR. SEC. 12 T6S R4E

% Core Recovery | Mineralizn | Alteration | Structure | Rock Type

PINAL COUNTY

0-160 CLAYEY GRAVEL - GRAYISH ORANGE PINK 5YR 7/2 - UNIT IS POORLY SORTED - WELL RND PEBBLES - ARKOSIC AND 7% TOT VOL. FRAGS.

160-560 GRAVEL - PALE YELLOWISH BROWN 10YR 6/2 - ARKOSIC - SLIGHTLY CLAYEY

560-820 GRAVEL - YELLOWISH GRAY 5Y 7/2 - NOTABLY LOWER CLAY CONTENT - ARKOSIC

830-950 GRAVEL - GRAYISH ORANGE PINK 5YR 7/2 - CLAYEY AND ARKOSIC NO COPPER MINERALS RECOGNIZED.

SPOT CORE 956-967 (250/10)

GOUGE - MOD REDDISH BROWN 10R 4/6 AND PALE YELLOWISH ORANGE 10YR 8/6 - PEBBLES ARE ARKOSIC

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo
0	100	.10	.2
100	200	.15	<.2
200	300	.15	.2
300	400	.45	.2
400	500	.55	.2
500	600	.55	.2
600	700	.50	.2
700	800	.45	.2
800	900	.210	.2
400	910	.355	.2
910	920	.260	.2
920	930	.140	.2
930	940	.130	.2
940	950	.115	.2
950	960	—	—
960	970	.115	.2
970	980	.125	.2
980	990	.165	<.2
990	1000	.155	.14

PROJECT _____ PAGE _____

D.D.H. No. CC-10 SCALE _____ BY _____

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineraliz'n	Alteration	Structure	Rock Type

1000

SPOT CORE 1017 - 1022.5 T.D (195/40)

QUARTZ MONZONITE - GRAYISH PINK 5R 8/2 TO PALE REDDISH BROWN 10R 5/4 - ORIGINAL TEX WAS MED GRAINED GRANITIC - PROBABLY NOT OPALE GRANITE.

1100

ROCK IS STRONGLY BROKEN - MOD-ST. CLAY SER. ALT - CARRIES SPARSE LIM AFTER DISSEM CPY AND/OR CC.

950 - 1022.5 T.D.

GOUGE (SEE ABOVE) GRADING INTO GRANITE OR QTZ. MON'Z AS REP BY SPOT CORE 1017 - 1022.5

HOLE CASED 0 - 1022.5 IN PROG. CORE DRILLING.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
1000	1010	115	4		

PROJECT [illegible] PAGE —
D.D.H. No. CG-10 SCALE 1"=10' BY L.C. ARNOLD
CO-OR _____ COLLAR EL ±1305 DATE 1-26-76 TO 3-11-76 CORING OP.

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
					1010				
					1020				
					1022.5 END ROTARY DRILLING 11-13-75				
					Top 1026 BEGIN CORING OPERATION 1-26-76				
2/2					1026-1036 QUARTZ LATITE POR - GREENISH GRAY 5GY 6/1 - FAINT HIATAL POR TEX.				
4/4					1030 ANHEDRAL PLAGIOCLASE TO 1/4" SET IN NEARLY APHANITIC GROUNDMASS - ALL FELDSPARS STRONGLY ARGIL. ROCK IS STRONGLY BROKEN & CARRIES SPARSE TRANS YELLOW LIMONITE.	1025	1035	320	36
4/4									
5/5					1040 1036-1056 B.H. Mon MONZONITE POR - GRAYISH ORANGE PINK - WELL DEVEL HIATAL POR TEX, EUHEDRAL - SUBHEDRAL PLAG SET IN UFG GROUNDMASS. ALL FELDS STRONGLY ALTERED TO CLAY & SER. NOTE OCCAS. 1/8" VNLTS W/ WELL DEVEL. LIM/CC. EST. GRADE PRIOR TO LEACHING 0.1-0.2% Cu.	1035	1045	255	28
5/5									
3/3									
3/3					1050	1045	1055	145	44
5/5									
? → 7/7					Top 1056-1061 FELDSPATHIC GOUGE - PALE RED 10R 6/2 PALE YELLOWISH ORANGE 10YR 8/6. STRONG CLAY COMPONENT	1055	1065	265	38
					1060				
					1061-1077 GRANITE? - GRAYISH ORANGE PINK - TEX IS FADED HAZY COARSE GRANITIC TEX. ALL FELDS STRONGLY ALT TO CLAY & SER. ANHEDRAL CHLORITE APPEARS AS HAZY GREEN BLOTCHES. ROCK IS MOD. FRAC & CARRIES MOD. TRANSPORTED & IDIGEN. LIM/CC-CPY. FORMER SULFIDES WERE DISSEM & IN 1/8-1/16" VNLTS.				
3.5/4									
3/3					1070	1065	1075	60	20
4/1									
4.5/5					1077 Both Gr?				
3/3					1077-1091 MONZONITE POR - DARK GRAY N3 - HIATAL POR. TEX. SUBHEDRAL PLAG TO 1/4" ARE COMPLETELY CLOUDED BY CLAY & SER. MATRIX IS BLACK & APHANITIC. 1/16" VNLTS CARRY ORANGE TRANSPORT LIM & HAVE SELVAGES TO 1/2" MOD TRANS LIM & INDIG. LIM/PY.				
3.5/4					1080	1075	1085	345	12
3/3									
3/3.5				Mixed Por - Gr	1090 (@1085 - 1' GRANITE AS 1061-1077)	1085	1095	700	8
3.5/4.5					1091-1098.5 GRANITE do 1061-1077 - MOD FRAC MOD-ST. IRON STAINING				
3.5/3.5									
3/4					1100 1098.5-1118 BRECCIATED MONZ POR - OLIVE GRAY 5Y 4/1 - WELL DEVEL SERIATE POR TEX. - SUBHEDRAL PLAG ± 1/4" & BIO SET IN GREENISH GRAY CHLORITIC MATRIX. FELDS WELL ALT. TO CLAY-SER & BIO IS THOROUGHLY CHLORITIZ. ROCK IS STRONGLY BRECCIATED & IRON STAINED	1095	1105	490	6
3/3									
4/4					1110				

1105.5 1-27-76
+1

PROJECT _____ PAGE 4

D.D.H. No. CG-10 SCALE _____ BY L.C.H.

CO-ORD _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3.5/4.5					1110				
2.5/3	Veins								
5/5					(1117-1119 - STRONG CHRYS AS FRAC. FILLING IN BRECCIA.)				
5/5					1120 1118-1135^{S} BRECCIATED GRANITE(?) - MOD ORANGE PINK 5YR 8/4 - VERY HAZY GRANITIC TEX. FELDS MOD COARSE ALL SHOW STRONG ALT TO CLAY-SER.	1115	1125	.58%	20
4/4					FRACS CARRY MOD BLACK SLIGHTLY				
5/5				Mixed Int - Gr	1130 LIM/PY & SP. LIM/CC. STRONG TRANS HEM.	1125	1135	430	38
2/2					1135^{S} - 1150 MONZ-POR- MED GRAY N5-				
2.5/2.5					WELL DEVEL SOLIDITE POR. TEX. SUB				
2.5/2.5					1140 HEDRM FELDS & BIO. FELDS STRONGLY	1135	1145	550	14
2/2					ALT TO CLAY SER & BIO. CHLORITIZ.				
4/4					VNLTS 1/16 - 1/4 W/ ST. IRRTHY RED HEM.				
4/4					NOTE ST. TRANS HEM & HORIZ SLICKS ON N5° SURFACES.				
2.8/3				Bx	1150 1150 - 1153.5 BRECCIATED GRANODIO- PINKISH GRAY 5YR 8/1 - CATACLASED GRAN. TEX. Sp Lim/cc-cPy	1145	1155	340	12
4/4.5					TOP 1153^{S} - 1257				
2.5/2.5					GRANITE - VERY PALE ORANGE 10YR 8/2				
1.5/1.5					1160 HAZY MOD COARSE GRANITIC TEX-	1155	1165	165	4
4/4					PROB ERUN. CRACKLE GRANITE. ALL				
4/4					FELDS → CLAY-SER BIO → CHL. FRACS				
5/5					CARRY ST. TRANS LIM & SP LIM/py-cc.				
4/4					BOTH PLAG & K-SPAR EQUALLY ALTERED				
4/4					1170 AVG. FRAC SPACING ± 2" - NEARLY ALL	1165	1175	130	4
3/3					FRACS SHOW MINERALIZATION.				
5.5/6					NO VISIBLE COPPER MINERALIZATION.				
4.5/4.5					1180	1175	1185	115	6
4/4					(SP. Lim/cc @ 1185' ON 1/8" FRAC.)				
4/4.5					1190 (SP. Lim/cc @ 1191 ON 1/8" FRACS.)	1185	1195	385	20
4/4					1200	1195	1205	480	20
					1210				

1168 1-29-76 +2.0 → 136/142 = 95%

1.8/9 ×100 = 20.0

1.5/9 ×100 = 16.7

5.4/9 ×100 = 60.0

3.5/10 ×100 = 35.0

PROJECT _____ PAGE 6
D.D.H. No. CG-10 SCALE _____ BY L.C.A
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3/3					1310 PART OF LEACHED CAPPING CARRIES MOR CHRYSOCOLLA AS OPEN SPACE FILLING.				
4/4									
3/3	CHRYS.								
3/5					1320 Bottom 30	1315	1325	610	10
2/2									
1/2					1325 - 1358				
1/1					Bio Monz Por - Med Lt Gray N6 - Fine Grained				
2/3					1330 Hiatal Por tex. Anhedral Plag & Bio	1325	1335	.33	36
2/2.5					Set in Aphan. Groundmass. Plag → clay ser Bio is chlitized. Rk strongly				
2/2					Fractured fractures carry mod.				
2.5/2.5					Yellow brown smeared limonite.				
1.5/2					1340	1335	1345	.24	44
3.5/4					Occas. vnlt Lim/py-cl as @ 1337				
4/4									
2/2.5					1350 (1349-1355 Note strong bleaching of Por. matrix & strong earthy Red Lim.	1345	1355	.25	125
3.5/3.5									
3.5/3.5									
3/3					1360 Bio. Monz Por - Lt. Gray N7 - Well Devel Seriate Por tex. - Plag alt to clay-ser & Bio strongly chlitized.	1355	1365	.32	28
5/5					Fracs 1/8" carry mod. yellow & orange Lim/py				
2.5/3	CHRYS				& occas. sparse chrys.				
3.5/5					1370	1365	1375	.42	32
2/2									
4/4					1380 (1379 Strong 1" vein Lim/sul Dips 45°	1375	1385	1100 ppm	120
3/3									
5/5									
3/3					1390	1385	1395	1250 ppm	125
5/5									
4/4					1400 (1396-97 1' G&B - Dips ± 60-70' Strongly argillic.)	1395	1405	1400 ppm	65
5/5									
4.5/5					1410	1405	1415	1350 ppm	24

2.4/8.5 x100 = 28.2
2-5-76 +1.0 98.4% Recov.
0.5/7 x100 = 7.14
1.2/8.5 x100 = 14.12
1335.5 2-10-76 +1.0
5.0/6.5 x100 = 86.2
2.5/9.5 x100 = 26.3
6.2/9.5 x100 = 65.3
6.4/8 x100 = 80
4.4/10 x100 = 44
6.2/8 x100 = 77.5
5.9/9 x100 = 65.6
9.3/9 x100 = 103.3 ?
6.3/7.5 x100 = 84

1325-1435
258/1101 = .23

PROJECT _____ PAGE 5

D.D.H. No. CC-10 SCALE _____ BY L.C.A.

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralizn	Alteration	Structure	Rock Type
3/3.5				
2.5/2.5				
3/3				
3/3				
3/3				
4/4				
3/3				
3.5/4				
2/2				
2/2				
3.5/4				
2.5/3				
3/3				
2/2				
4/4				
2/2				
1/2				
2.5/3				
3/3				
5/5				
5/5				
1/5				
3/3				
5/5				
4.5/5				
3/3				
2/2				
4/4				
2/2				

2.2/8.5 x100 = 25.9

1214.5 +1.0 2-2-76

42/42 x100 = 96%

2.5/7.5 x100 = 30

4.7/7 x100 = 57.2

3.1/9 x100 = 34.4

1.5/9 x100 = 16.7

7.5/8 x100 = 31.3

0/9 x100 = 0

1.0/10 = 10.0

3.2/11 = 29.1

1288 2-4-76 +0 66.5/73.5 x100 = 90%

0.9/9 x100 = 11.3

0.7/9 x100 = 7.8

1.7/6.5 x100 = 26.2

1210

1220

(1219-1220 - STRONGLY FRACTURED ZONE OF DARK CHLORITE IN ORACLE GRANITE)

1230

(1232 - WELL DEVEL VEINLET LIM/PY-CC W/ 1/2" ALT. SELVAGE.

1240

1250

(1256 - SPARSE CHPYS ON FRAC NOT ASSOC - LIM.)

1257-1258.5 GOUGE - MOD. REDDISH BROWN 10R 4/6 - ARKOSIC W/ ST. CLAY.

1260 1258.5-1270 ORACLE GRANITE - PINKISH GRAY 5YR 8/1 - MED GRAINED GRANITIC TEX.

EUHEDRAL-ANHEDRAL PLAG & K-SPAR MOD ALT TO CLAY & SER - K-SPAR LESS AFFECTED THAN PLAG - TEX RELATIVELY INTACT. OCCASIONAL VNLTS CARRY MOD TRANS LIM & SP. LIM/CC.

1270 Fault 1270-1275 GOUGE - PALE RED 10R 6/2 - ARKOSIC - CARRIES STRONG CLAY & TRANS LIM.

Top 1275-1280 MONZ POR - DARK GRAY N3 - POORLY DEVEL HIATAL POR. TEX - EUHEDRAL PLAG → CLAY SER 1/4" SET IN PK MIN OR STN MATRIX. CARRIES ST. LIM/CC 1/4" FRACS.

1280 1278-1287 GRANITE - GRAYISH OR. PINK. 10R 8/2 - HAZY MED GRAINED GRAN TEX. ALL FELDS WELL ALT → CLAY & SER. VERY FEW MAFICS 1/4" FRACS CARRY ST. LIM/PY-CC.

Por 1287

1287-1302 MONZ POR - DARK GRAY N3 - WELL DEVEL HIATAL GRANULAR POR. TEX. - ROCK INTENSELY BRECCIATED - DEF. TALCY FEEL. FELDS → SER MATRIX VEG OR CHLORITE 1/10 TRANS LIM.

1290 FELDS & BIO ARE SUBHEDRAL. TEXTURED LIMONITE IS SLICKENSIDED - MOST SLICKS ARE HORIZ OR VERT SURF.

1300

1302-25 GRANITE - VERY PALE ORANGE 10YR 8/2 - HAZY MED COARSE GRANITIC TEX. ROCK IS THOROUGHLY ALT TO QTZ SER - BOTH PLAG & K-SPAR AFFECTED. ROCK STRONGLY VEINED 1/4-1/2" VNS CARRY LIM/CC-CPY.

1310 U. DARK - RED STREAK.

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo
1205	1215	300	20
1215	1225	520	2
1225	1235	240	6
1235	1245	365	8
1245	1255	570	4
1255	1265	610	6
1265	1275	710	12
1275	1285	650	30
1285	1295	1350	10
1295	1305	1400	10
1305	1315	710	32

PROJECT _____ PAGE 1
D.D.H. No. CG-10 SCALE _____ BY L.C.A.
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Depth	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo		
					1410						
4/4	CHRYS										
3.5/3.5											
5/5					1420	1415	1425	.33	38		
4/4											
5/5					1430	1425	1435	1650 rpm	160		
2.5/2.5											
4.5/5											
4/5					1440	1435	1445	.39	44		
4/4											
5/5					1450	1445	1455	.39	65		
5/5											
5/5					1460	1455	1465	.87	55		
5/5											
2.5/2.5					1470	1465	1475	.57	125		
2/4.5											
2/3											
2/2					1480	1475	1485	.53	14		
2/4											
3/3.5											
3.5/3.5					1490	1485	1495	.39	6		
3/3											
3/3											
3/3					1500	1495	1505	.27	22		
4/4											
3/3											
					1510	1505	1515	.31	16		

8.6/10 x100 = 86
7.6/9 x100 = 84.4
4.5/8.5 x100 = 52.9
1439 2-13-76 + 4.5
5.2/9.5 x10 = 54.7
6.3/8 x100 = 78.8
7.2/9.5 x100 = 75.8
4.1/11 x100 = 37.3
4.2/9 x100 = 46.7
4.2/8 x100 = 52.5
2.1/7 x100 = 30
4.3/8 x100 = 53.8

Fault

1429-1435 GOUGE & BRECCIA - PALE REDDISH BROWN 10 R 4/6 - CATACLASTIC TEX STRONGLY ARGILLIC - STRONGLY IRON STAINED.

1435-1518

QTZ MINZ POR. GRAYISH PINK 5R 8/2 - HAZY SERIATE POR. TEX = HAZY

ALL FELDS STRONGLY SUB - BIO IS STRONGLY CHLITIZED & SERICITIZED.

RK STRONGLY VEINED - CARRIES STRONG EARTHY RED SMEARED LIM IN 1/8" VNLTS. ALSO CARRIES MOD. BLUE CHRYSOCOLLA AS FRACTURE FILLING BELOW ABOUT 1440. ESTIMATE GRADE THIS INTERVAL 0.3% Cu - 0.5% Cu. SMEARED EARTHY LIM PROB. AFTER SUL — IF SO ORIGINAL SUL ±1%

1435'
1615'
919/180' = .51

PROJECT _____ PAGE _____
D.D.H. No. CG-10 SCALE _____ BY L.C.A.
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Depth	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
5/5					1510					
5.5/5.5										
5/5.5					1520	1518-1527 GOUGE & BRECCIA - MOD. REDDISH ORANGE-10R 6/6 - CATACLASTIC TEX. BRECCIATE GRAN - DOM FRAC DIPS ±45° - SLICKS ON 45° SURF. RAKE 45° CARRIES ST. FEOX & SP-MOD. CHRYSOCOLLA AS FRAC FILLING.	1515	1525	.58	55
3.5/4										
2/2					1530	1527-37 BIO. MONZ POR - MED. LT. GRAY NG - OPEN UNCROWDED HIATAL POR TEX W/ PLAG TO 1/2 BIO TO 1/4" PLAG STRONGLY CLOUDED - BIO IS CHLITIZED. FRACS CARRY ST. FEOX & MOD. CHRYS.	1525	1535	1.14	90
4/4.5										
4.5/4.5						1537-1647				
5/5					1540	BIO QTZ MONZ POR - LT. GREENISH GRAY 5GY 8/1 - WELL DEVEL CROWDED SERIATE POR. TEX. - TEX. LOCALLY VERY FAINT & HAZY. PLAG IS SUBHEDRAL TO ANHEDRAL 1/4" STRONGLY ARGILLIZED & SER. BIO IS EUHEDRAL TO SUBHEDRAL LARGEST GRAINS 1/8" - STRONGLY CHLITIZED.	1535	1545	.39	42
5/5										
5/5					1550		1545	1555	.32	12
5/5										
5/5					1560	UNIT IS MOD. FRAC - MOST FRACS CARRY STRONG SMEARED TK BROWN LIM/ CC-PY AS WELL AS CHRYS. ESTIMATE SCALE [illegible]	1555	1565	.33	12
5/5										
5/5					1570	(1547-48 - BIO MONZ POR do 1527-1537)	1565	1575	.47	46
5/5										
5/5					1580		1575	1585	.32	30
4/5										
5/5					1590		1585	1595	.41	20
5/5										
5/5					1600		1595	1605	.43	12
4.5/5					1610		1605	1615	1.03	55

8.4/9 x100 = 93.3
?
6.5/10.5 x100 = 61.9
4.2/9.5 x100 = 44.2
8.0/8 x100 = 100
6.5/9 x100 = 72.2
6.8/8.5 x100 = 80
7.2/8.5 x100 = 84.7
6.7/9 x100 = 74.4
5.2/6.0 x100 = 86.7
7.5/9.0 x100 = 83.3
8.7/9 x100 = 96.7

PROJECT _____ PAGE 1
D.D.H. No. CG-10 SCALE _____ BY L.C.A
CO-OR _____ COLLAR EL _____ DATE _____

Depth	% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
8.6/10 x100 = 86	5/5					1610 (@1613 NOTE 6 INCH ZONE IN POR HAVING FLOW BANDED APP - DIPS 45')				
8.7/9 x100 = 96.7	5/5									
	5/5					1620	1615	1625	1750 ppm	44
1625 2/16/76 +0.0										
6/8.5 x100 = 71	5/5	HEM & CHRYS								
	5/5					1630	1625	1635	.29	30
5.3/8.5 x100 = 62	4.5/5	CHRYS & PITCH								
	5/5					1640	1635	1645	.33	20
6.0/8 x100 = 75 ?	5/5					1647-1650 GOUGE & BR - WHITE - STRONGLY ARGILLIC				
	4/5					1650 1650-1651 BIO MONZ POR - MED BLUISH GRAY 5B5/1 - ALT	1645	1655	1750 ppm	26
4.3/8.5 x100 = 51	5/5					1651-1661 BIO. GRANODIO POR - YEL GRAY 5Y8/1 - HAZY HIATAL POR. TEX. - SUBHEDRAL - ANHEDRAL BIO & PLAG SET IN APHAN. MATRIX - MOST PHENOS ±1/4". PLAG STRONG ARGILL & SERICITIZED - BIO IS CHLIT. MOD. EARTH RED HEM & BLACK SLAGGY LIM - YEL STK. ON 1/8-1/4 FRACS. SP - MOD. CHRYS EST 0.4% Cu.				
	5/5					1660	1655	1665	.24	30
7.7/9 x100 = 86	5/5					1661-1695 BIO - QTZ MONZ POR - LT. GRAY N7 TO VERY LT. GRAY N8. - CROWDED SERIATE POR. TEX. PHENOS TO 1/4". PLAG STRONGLY SER & ARG - BIO IS VERY CHLORITIC. ROCK IS MOD. FRAC 1/16 - 1/2" FRACS				
	5/5									
7.0/8 x100 = 88	5/5	HEM - CUP - CHRYS.				1670 CARRY STRON HEM & CUPRITE - CUPRITE APPEARS TO FORM VNLTS IN HEM (e.g. 1682)	1665	1675	.29	18
	5/5									
6.9/8 x100 = 86	4/5					1680	1675	1685	.27	20
9/9 x100 = 100	5/5									
	5/5					1690	1685	1695	.39	34
7.7/9 x100 = 86	5/5			Δ Δ Δ		1695-1708 BRECCIA - VERY LT. GRAY TO LT. BROWNISH GRAY N8 TO 5YR 6/1. - RNDED FRACS OF DK BIO. MONZ POR SET IN HEALED MATRIX OF				
	4.5/5			Δ Δ		1700 LIGHTER COL. BIO. QTZ MONZ POR. SIM TO 1661-1695. FRACS CARRY MOD. CUPRITE & SP CHRYS. MIN APPEARS COMPLETELY FRAC CONTROLLED.	1695	1705	.28	22
5.6/8.5 x100 = 66	5/5			Δ Δ Δ						
						1708-1715 1710	1705	1715	.39	24

1615-1745

364/130 = .28

PROJECT _____ PAGE _____
D.D.H. No. CG-10 SCALE _____ BY L.C.A.
CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralzn	Alteration	Structure	Rock Type	Description	CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo
3.5/3.5					1710 Bio Qtz Monz. Por - Pinkish Gray 5YR 8/1 - Well devel. Hiatal por. tex. - Plag & L spar strongly arg & ser & bio chloritized. Δ bun 1/8 vnlts carry hem & chrys				
7.5/9 x100 = 83 2/2.5					1715-1719 Brecciated Bio Monz Por - Lt. Gray N7 with strong dark reddish brown lim & cuprite(?) & sp. chrys as frac. filling.				
5/5					1720 1719-1724 Granodio-Por. ← Gradat. contact. Lt. Gray N7. Hazy hiatal por. tex - Lacks bio - plag is strongly arg & ser. vnlts to 1/8" & hairline fracs carry cup & chrys ± 50:50.	1715	1725	.31	65
7.3/8.5 x100 = 86 5/5					1723-1749 Bio Qtz. Monz Por - Lt. Gray to pinkish Gray N7 to 5Y 8/1 - Seriate por tex				
5/5					1730 Locally very faint & hazy. Plag is subhedral to 3/8" & strongly alt clay-ser bio. Somewhat finer subhedral and strongly chloritized. Fracs carry hem-cuprite & sp chrys	1725	1735	105°	28
6.5/9 x100 = 72 2/3	Cup-chrys								
4/4									
6.4/8 x100 = 80 4/4					1740 Est 0.4% Cu.	1735	1745	.39	60
2-20-76 +2.5 5/5					Brecciated zone has st. 45° frac orientation				
				Bottom of Por	(Last 1½ show distinct loss of tex.				
6.7/8.5 x100 = 79 5/5					1750 1749-1751 Brecciated Granite - Pinkish Gray 5YR 8/1 Cataclastic tex. St. hem-cuprite in fracs.	1745	1755	.76	20
				Top					
5/5					1751-1784 Granite - Pinkish Gray to Greenish Gray 5YR 8/1 to 5GY 8/1 -				
4.5/8.5 x100 = 53 5/5					1760 Hazy med grained granitic or granoblastic tex.	1755	1765	.96	20
5.7/8.5 x100 = 67 5/5	Cup-chrys & hem				Unit is mod veined & frac. Veins ½-1" carry strong hem - mod to sparse cup & chrys.				
5/5					1770 Small amounts of dissem cpy, cc and spec. are also noted.	1765	1775	1300 Am	8
6.6/8.5 x100 = 78 5/5					All components thoroughly alt to ser - some felds phenos have				
5/5					1780 Grayish yellow greencast 5GY 7/2	1775	1785	.94	28
7.3/9.5 x100 77 5/5					1784-1792 Gouge & Breccia - Dk Reddish Brown 10R 3/4 - Arkosic - Argillic Cataclastic tex. Strong hem - cup(?)				
5/5					1790 Parting ± 30° - No slicks.	1785	1795	.75	160
4.6/8.5 x100 = 54 1st cc. 5/5					1791-1809.5 Granite - Yellowish Gray 5Y 8/1 - Tex is med grained granoblastic to nonexistant. All felds v. st. sericitized				
7.4/9 x100 = 82 5/5	cc				1800 Unit carries strong dissem & incip. vnlt chalcocite est Cu > 2%. In vnlts & dissem py is ± 90% replaced by cc. - Lower part shows consid hem stn (1801-1805 Monz por do 1809.5-1814)	1795	1805	5.20	170
5/5									
7.5/11.5 x100 = 65 4/4					1810	1805	1815	185	380

1745-95

354 50

5.71

oxid Cc cpy

5.20

leached

PROJECT _____ PAGE 11

D.D.H. No. CG-10 SCALE _____ BY LCA

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralization	Alteration	Structure	Rock Type	Depth	Core Assays: Interval From	Interval To	Mineral Cu	Mineral Mo
5/5					1810				
5/5					1820	1815	1825	175	150
5/5									
3/3									
5/5					1830	1825	1835	275	48
5/5									
3.5/4					1840	1835	1845	820	12
5/5									
2.5/2.5					1850	1845	1855	340	2
5/5									
4.5/5									
4.5/4.5					1860	1855	1865	245	38
10/10					1870	1865	1875	425	60
2/2									
5/5					1880	1875	1885	1300	10
3/3.5									
5/5					1890	1885	1895	425	10
5/5									
5/5.5					1900	1895	1905	310	6
5/4									
					1910				

OMIT 1809-1814 MONZ POR - PALE RED 10R 6/2 - OPEN HIATAL POR TEX - PLAG PHENOCRYSTS SUBHEDRAL TO 1/4" STRONGLY SER. BIO SUBHEDRAL PHENOS TO 1/8 STRONG CHL & SER. SP. HEM ON HAIRLINE UNCTS

1814 - 1976.5 ← NOTE INC ALT & LOSS TEX OF POR UNIT THIS CONTACT.

GRANITE - GRAYISH OR. PINK - 10R 8/2 MED. GRAINED FAINT GRANOBLASTIC TEX. FELDS STRONGLY SER. FRACS & GRAIN BNDYS CARRY LIM/CC & EARTHY RED HEM. & LIM/SUL

LIM/SUL SUGGESTS ORIGINAL SUL FINE GRAINED AND DISSEM.

(@1850 NOTE DEF. MOD SILICIFICATION OF GRANITE)

(1864-66 - LIM/CC PY IN ANG. BRECCIA)

(1876-78 - LIM/CC PY IN ANG BRECCIA)

(1879-84 THIN UNLTS ATAC - CHRY AS UN. FILL. & V. SP CC AS REP DISSEM SUL.)

6.2/6.5 x100 = 95

2-21-76 +1.0

2.5/7.5 x100 = 33

1.1/8 x100 = 15

1.3/9.5 x100 = 14

3.5/7 x100 = 50

1.7/7.5 x100 = 23

5.1/9 x100 = 57

?

5.3/8 x100 = 66

4.5/9.5 x100 = 47

0.9/8 x100 = 11

1.6/9.5 x100 = 17

?

?

Mineralization: 1/8 cup; LIM/SUL; V.SP CC.; CHRYS. MAL

PROJECT _____ PAGE _____

D.D.H. No. CB-10 SCALE _____ BY LCA

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralization	Alteration	Structure	Rock Type		CORE ASSAYS INTERVAL FROM	TO	MINERAL Cu	Mo		
2.7/8 x100 = 34					1910						
5/5											
4/4											
3.7/8 x100 = 46											
5/5											
5/5					1920						
4.5/9 x100 = 50	cc py				1921-26 GRANITE SHOWS GRAYISH YEL. GREEN (5GY 7/2) ALT. PRODUCT. ALSO CARRIES SP CC. AS REP OF HAIRLINE PY VNLTS.	1915	1925	105	12		
10/10					1930						
6.7/9 x100 = 74						1925	1935	105	24		
5/5											
2-27-76											
+3.0					1940						
6.4/8.5 x100 = 75						1935	1945	65	10		
5/5											
4/4											
5.7/7.5 x100 = 76	cc				1950 @1952 1/8" VNLT CC-PY)	1945	1955	750	28		
5/5					GRANITE CARRIES STRONG RATHER EARTHY LIMONITE DK. REDDISH BROWN 10R 3/4 SUGGESTIVE OF 1-3% SUL PY-CPY						
5/5											
8.2/9 x100 = 91					1960	1955	1965	890	95		
5/5											
0.5/1											
5/5			Δ Δ Δ								
2.7/9 x100 = 30					1970	1965	1975	445	36		
3/3			Δ Δ Δ								
2/2.5											
4.7/8 x100 = 59					1976.5 - 1990 INTRUSIVE CONTACT- FLAT-SHARP						
4.5/4.5					1980 DIABASE - MED LT GRAY N6 - WELL DEVEL. DIABASIC TEX. SERICITIZED PLAG. LATHS 1/8" LONG SET IN V DARK GREEN MATRIX - CHLORITIC(?) CARRIES 1/8-1/4" VNLTS PY-CPY PARTLY LEACHED PARTLY REP CC.	1975	1985	.21	8	.10	
5/5											
4.7/9 x100 = 52					FRAC SURFACES SLIPPY & TALCY.						
4.5/5					1990 SHARP - FLAT INT. CONTACT.	1985	1995	.30	10	.17	
5/5					1990 - 2009						
4.3/8 x100 = 54					GRANITE - GRAYISH ORANGE PINK TO MOD. ORANGE PINK 10R 8/2 TO 10R 7/4 - FAINT HAZY MED GRAINED GRANITIC TO GRANOBLASTIC TEXTURE. FELDS STRONG ALT CLAY SER - NO MAFICS.						
5/5											
3.4/8 x100 = 43					2000	1995	2005	50	14	—	
5/5					RK MOD FRAC AND CARRIES STRONG EARTHY LIM / CPY-PY AS VNLT FILLING NOTE SP. LIM / CC (BLACK)						
5/5	cc				2010	2005	2015	.46	18	.11	

PROJECT _____ PAGE 15

D.D.H. No. CG-10 SCALE _____ BY L.C.A.

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralization	Alteration	Structure	Rock Type
5/5				
5/5	cc			
5/5				
5/5				
4S/4S	cc			
4S/5				
5/5				
5/5	cc			
5/5	cpy			
5/5				
5/5	cc			
5/5				
7/5	cc			
7/4				
4/5				
5/5				
3/4				
4.5/4.5	cc			
5/5	cc			
5/5				

5.9/9 x100 = 66

7.0/9 x100 = 78

5.0/8 x100 = 63

6.5/8.5 x100 = 76

5.9/8.5 x100 = 69

6.7/8 x100 = 84

2-27-76 +2.0

5.6/9 x100 = 62

3.9/8 x100 = 36

7.2/8 x100 = 90

6.2/9 x100 = 69

5.9/9 x100 = 66

8.1/9 x100 = 90

2010 2009-2082

GRANITE - WHITE NO LOCALLY LIGHT GREENISH GRAY TO MOD. OR. PINK. MED GRAINED GRANITIC TO GRANO BLASTIC

2020 TEX. -

ROCK I 50-60% KSPAR 20-30% PLAG. V FEW MAFICS.

ALL FELDSPARS STRONG ALT TO CLAY-SER. CARRIES STRONG EARTHY LIM. ALTN. CPY (?) AS

2030 WELL AS SP. CHALCOCITE AS NOTED AT LEFT.

2040

2050

2060

2070

2080 Bdt gr.

Pqr 2082-2096

ARKOSIC BRECCIA - GRAYISH PINK 5R 8/2 FRAGS IN DARK REDDISH BROWN 10R 3/4 MATRIX. - CATACLASTIC TEX. CONSISTS OF ANG. RNDED GRAN FRAGS - INTERSTICES AMP CARRIES STRONG SULFIDE (CPY?)

2090

2096-2107 QTZ MONZONITE - LT. GREENISH GRAY 5GY 8/1 - V.HAZY MED GRAINED GRANO-BLASTIC TEX. CARRIES MOD V.FG DISSEM & INLT CC EST. Cu 1.0%. ALL FELDS ST. ALT CLAY-SER- V. SP. MAFICS. CC IS POSS V. SLIGHTLY OX? LEACHED

2100

2110

CORE ASSAYS

INTERVAL FROM	INTERVAL TO	MINERAL Cu	MINERAL Mo		
2015	2025	355	26		
2025	2035	.36	26	.11	
2035	2045	1450	16		
2045	2055	1500	16		
2055	2065	1300	10		
2065	2075	50	4		
2075	2085	.43	44	.27	
2085	2095	70	24	-	
2095	2105	.11	6	.14	
2105	2115	.55	12	.21	

PROJECT _____ PAGE 14

D.D.H. No. C6-10 SCALE _____ BY L.C.A

CO-OR _____ COLLAR EL _____ DATE _____

% Core Recovery	Mineralization	Alteration	Structure	Rock Type
4.5/4.5				
5/5				
1.5/3			Δ Bio	
4.5/5			Δ	
4.5/5			Δ	
4.5/4.5		K	Δ	
2.5/2.5			Δ	
3.5/4.5			Δ	
3.5/4.5			Δ	
5/5			Δ	
2.5/3			Δ	
1.5/4.5			Δ	
1.5/2			Δ	
4/3			Δ	
2.5/2.5			Δ	
2.5/2			Δ	
2.5/2.5			Δ	
2.5/.1			Δ	
2.5/2.5			Δ	
5/5			Δ	
4/4			Δ	
4.5/4.5			Δ	
5/5			Δ	
4.5/4.5			Δ	
2.5/2.5			Δ	
4.5/4.5			Δ	

2110

2107 - 2120

Qtz Mon2. Pinkish Grey 2YR 8/1. Strong orange stretchy Lim/Sul - very faint granoblastic tex

2120

C 2116 Note 1' breccia - mod. content clean euhedral Bio phenos to 1/4".

2120-2265

Bio Qtz Mon2 Por. Lt. Grey N7 - crowded seriate for. tex. Anhedral plagioclase & K-spar to 1/4. Most felds strongly argillized & sericitized But note also 1/8" euhedral clean Bio & K-spar

2130

2140

Core carries mod Lim/cc-cpy and is thoroughly leached.

2150

2160

2170

2180

2190

2200

2210

CORE ASSAYS					
INTERVAL		MINERAL			
FROM	TO	Cu	Mo		
2115	2125	130	8		
2125	2135	100	4		
2135	2145	.57	IN		
2145	2155	.46	40	.13	
2155	2165	840	2	—	
2165	2175	1900	6	—	
2175	2185	1950	4	—	
2185	2195	.21	4	.09	
2195	2205	.50	8	—	
2205	2215	.40	12		

5.8/5 x100 = 64

2-27-96 +1.5

3.0/10 x100 = 30

1.7/7 x100 = 24

0.6/10 x100 = 6

0.4/8.5 = 5

3-1-96 +0.25

0/10 x100 = 0

1.6/8 x100 = 20

0.5/7 x100 = 7

0/8 x100 = 0

0.5/8 x100 = 6

1.3/7.5 x100 = 17

1.4/8.5 x100 = 29