ARIZONA PROJECT

LA PAZ COUNTY, ARIZONA

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for HRC Development Corp.

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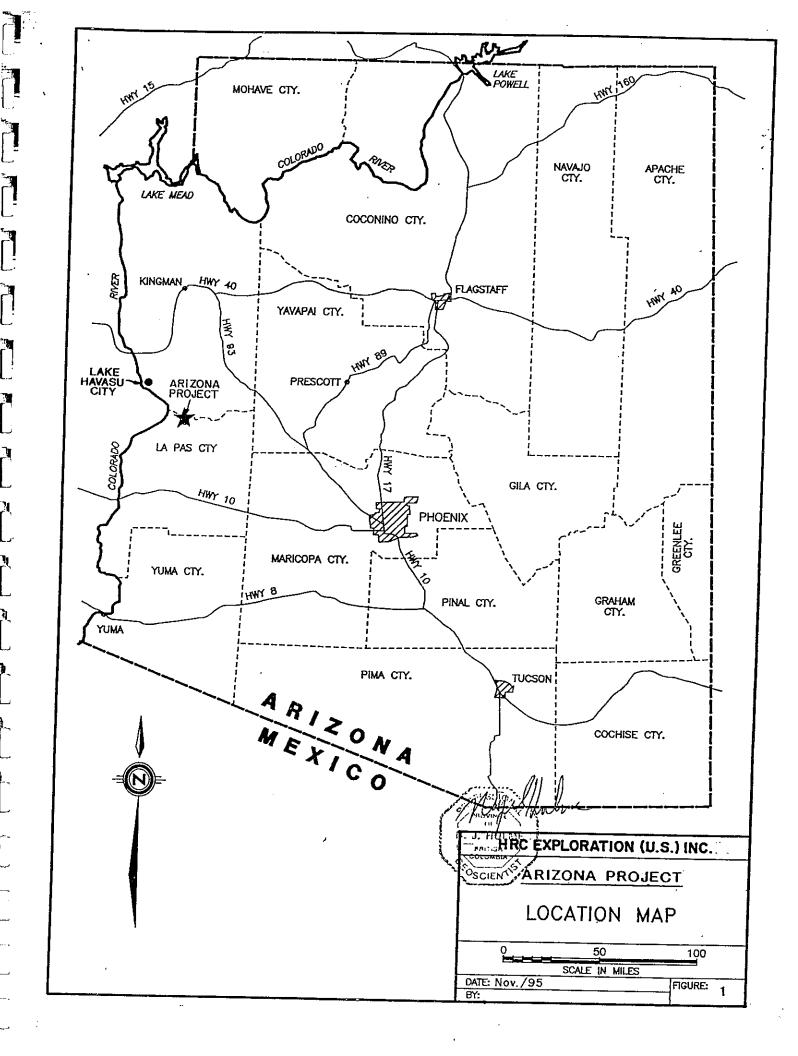
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INTRODUCTION

The Arizona Project of HRC Development Corp. consists of 33 patented and 10 unpatented mining claims located in one contiguous block approximately 15 miles due east of Parker (section 31; T11N, R16W and section 1; T10N, R17W). The property is comprised of 31 patented claims centered at the Planet Mine that are leased from the New Planet Copper Mining Co. as well as 2 patented and 10 unpatented claims centered at the Golden West Mine, 50% optioned from Hawk Mountain Minerals Inc.

The claims were originally acquired by HRC in 1991 and 1992. Work to date by HRC and others has consisted of geologic mapping, sampling and drilling that has successfully identified a near-surface, low grade gold resource.

I was requested by Wendy Mathison of HRC Development Corp. to review all of the exploration data and then conduct a brief property visit. The objective was to attempt to identify any remaining untested exploration potential. The following is a summary of my observations and conclusions.



GEOLOGY

<u>General</u>

The exploration history, geology and drill assay results to date are well covered in the examined in-house reports of Nadia Caira, March 31, 1991; G.H. Giroux, August 31, 1993 and Nigel Hulme, November 6, 1995. There is no need to review this information here except to restate the general geologic relationships:

- 1) a regional detachment fault outcrops across the northeastern portion of the claims essentially through the Planet Mine area (called the Buckskin Detachment). It dips to the south-southwest at shallow angle and underlies the entire southern two-thirds of the Arizona Project at 350-450 foot depths. The detachment is interpreted to be of Tertiary age.
- 2) footwall or lower plate units to the Buckskin Detachment are mylonite gneiss of uncertain but possible Precambrian age.
- 3) hangingwall or upper plate units to the Buckskin Detachment are metamorphosed sediments and volcanics of probable Mesozoic age. For convenience the units have been sub-divided as follows:
- a. Buckskin Formation calcareous quartzite, phyllite and quartz sericite schist. Unknown total thickness. Although it is the lower-most unit recognized in the hangingwall, there may in fact be units stratigraphically lower that do not outcrop.
- b. Vampire Formation interbedded quartzite, quartz sericite schist and quartz chlorite schist. Thickness appears to be a variable 50-250 feet within the project area.
- c. Planet Volcanics interbedded metavolcanics and quartz sericite schist with an unknown but probable +200 foot total thickness.
- 4) disconformably overlying the hangingwall or upper plate units are cemented talus breccias of probable mid-Tertiary age. Apparently the breccias were formed by erosion in response to movement along the listric faults. They were deposited primarily in surface depressions formed by the recessive weathering characteristics of the fault gouge and/or alteration parallel to the listric faults.

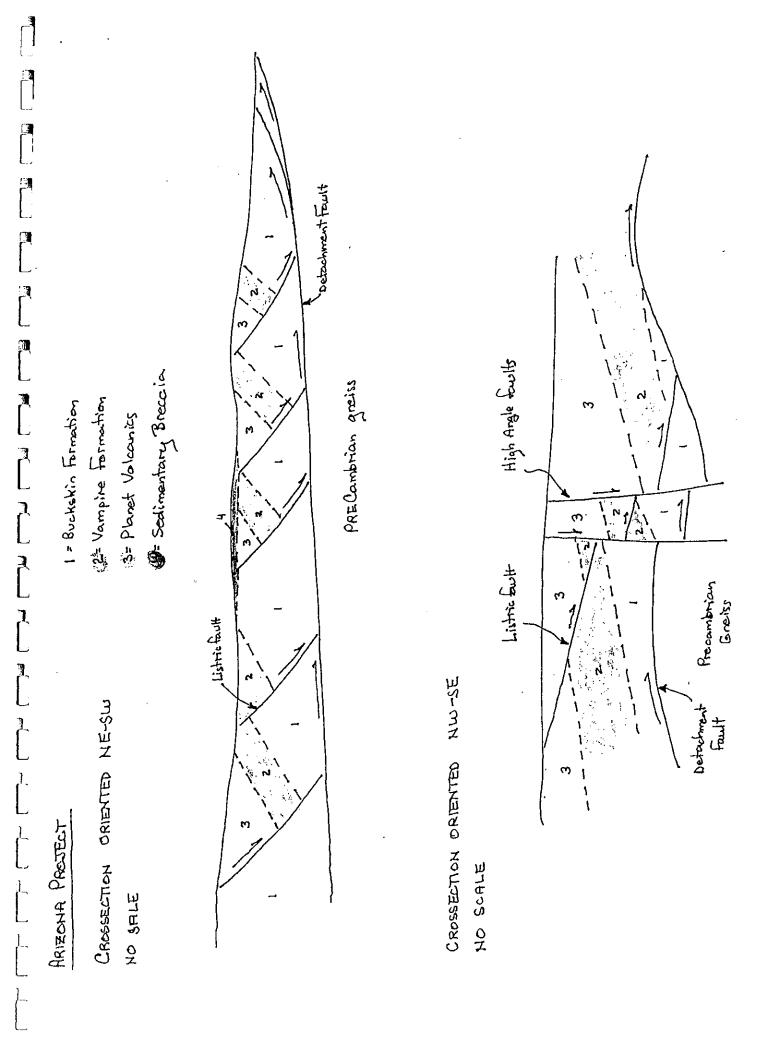
STRUCTURE

The Buckskin Detachment is the primary structure within the project area. Previous investigators have concluded that extensional movement along the detachment surface is primarily from the southwest towards the northeast a +5.0 km distance away from a core complex that presumably is located to the southwest. By definition, detachments are low angle normal faults (younger over older). The age of the displacement is unknown but postulated to be mid-Miocene.

Contemporaneously developed with the detachments are various higher angle listric normal faults that penetrate only the upper plate or hangingwall units. They generally strike NW-SE within the project area and have gently scalloped northeast dips. Offset on the listric faults is only 100-300 feet normal but the resulting configuration is for the hangingwall to be composed of multiple, rotated blocks with 35-45 degree south inclinations.

Finally a series of N35-45E trending high angle faults trend through the Arizona Project area. These faults appear to be very young since they offset the listric faults at the surface and presumably the detachment fault at depth.

An unexplained structural feature based on surface mapping and extensive drilling in the general vicinity (by others) is that the detachment surface appears to be gently warped into a NE-SW trending antiform/synform configuration. The timing of this folding is unknown but possibly young but slightly older than the gold mineralization since the antiform axis may be the preferred sites for deposition.



MINERALIZATION/ALTERATION

Significant copper mineralization is present only at the Planet Mine which is located within the northeastern portion of the Arizona Project. Past production was obtained sporadically in the period 1872-1923 with aggregate production estimated at no more than 50,000 tons @ 10% Cu. The host for this mineralization is the actual Buckskin Detachment where it outcrops at the surface. Areas to the south and southwest in the hangingwall of the detachment where the gold of present interest is located, appears to contain only 100-200 ppm Cu on average.

Gold mineralization is widely scattered throughout the general vicinity but no significant past production has been recorded other than as a byproduct credit from the copper production.

At the Arizona Project, gold is present at a variety of small prospect pits and surface exposures but exploration work has shown that it is preferentially concentrated at the following two sites:

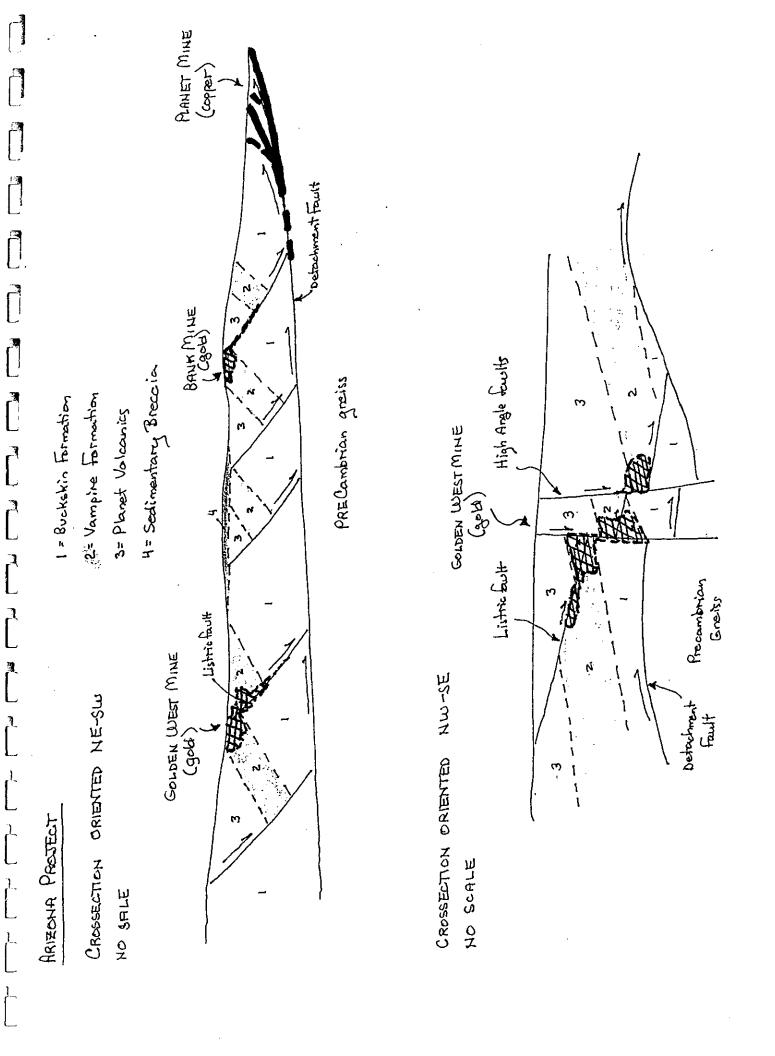
- 1) higher grade values (+0.040 opt Au) are localized primarily along the NW-SE trending listric faults at or near their intersection point with the NE-SW trending high angle faults.
- 2) lower grade stockwork mineralization (0.010-0.040 opt Au) is preferentially hosted in the Vampire Formation quartzites at the NE-SW high angle/listric fault intersections.

All of the gold mineralization identified to date is oxidized consisting of generally very fine particles embedded within a hematite-clay matrix. Silicification is nearly absent so encapsulation does not appear to be a concern. Preliminary bottle-roll, cyanide-leach tests showed favorable +95% recoveries in short 48 hour leach cycles.

In detachment settings throughout the southwestern United States, significant gold mineralization has been delineated at several other locations. The preferred host varies from the actual detachment fault (Briggs, California with reserves of 21,760,000 tons @ 0.030 opt Au and possibly the Copperstone, Arizona Mine with original reserves of +7,000,000 tons @ 0.120 opt Au)) to the listric faults in the hangingwall (Beatty, Nevada with original reserves of 14,100,000 tons @ 0.090 opt Au and possibly Yarnell, Arizona with reserves of

4,100,000 tons @ 0.051 opt Au). In all cases no direct genetic association of the gold mineralization with igneous or volcanic activity is implied which has led geologists to speculate the following as a model for gold deposition:

- 1) metamorphic fluids derived from a dewatering of the detachment fault zone mylonites. The fluids at this point are at elevated temperature and pressure.
- 2) the fluids migrate up the detachment fault and a decrease in lithostatic load causes hydrofracturing and the development of chloritic breccias.
- 3) metamorphic fluids become mixed with deuteric fluids from the chlorite breccias enriching the mixture in sulfur, base metals and/or precious metals. Propylitic and albitic metasomatism is also generated.
- 4) the metamorphic + deuteric fluid mix combines with near surface meteoric fluids creating an oxygenated, low temperature fluid. Downward convection produces widespread hematite-carbonate-manganese alteration. Metals are precipitated at permeable sites usually at or near structural intersections.



EXPLORATION POTENTIAL

To date a total of 48 drill holes have been completed at the Arizona Project by HRC Development Co. and previous exploration groups. As the enclosed drill summary listing indicates, only 12 of the holes returned completely barren assay results (less than 5 feet @ 0.010 opt Au) while several intersected attractive mineralized intervals (hole GH-4; 60-190 feet @ 0.035 opt Au and hole GH-3; 55-140 feet @ 0.017 opt Au). Both core and reverse circulation drilling methods were attempted and a reasonable correlation between the two is evident. Unfortunately all of the holes are vertical and in the future some angle holes perpendicular to the mineralized fracture trends should be attempted.

Based on the completed drilling and the geologic interpretation, several areas of laterally continuous gold mineralization, incompletely explored mineralized target areas and postulated exploration targets remain to be tested. In outline form each is described below.

Indicated Mineralization

a. Golden West Zone

A NW-SE lineated area with surface dimensions of 200 feet x 600 feet located at the Golden West Mine. It is defined by 8 mineralized drill holes on rough 100 foot centers while the perimeter is outlined by 4 dead holes and several faults. The mineralization is focused at the intersection of a NW-SE trending listric fault with a NE-SW trending high angle fault with lower grade stockwork mineralization hosted in the Vampire quartzites. Little direct expansion potential is evident. Calculations reveal a geologic resource of 450,000 tons @ 0.027 opt Au based on a tonnage factor of 13 ft3/ton.

Hole No.	Block Size	<u>Drill Interval</u>	<u>Tons</u>	Ounces of Gold
GH-4 "	100ftx220ft	15 ft@ 0.018	25,384	- -
 -		130 ft@ 0.035	220,000	7,700
GH-3	100ftx200ft	85 ft@ 0.017	130,770	2,223
GH-14	135ftx140ft	30 ft@ 0.017	43,615	-,
GW-1	150ftx100ft	5 ft@ 0.014	5,769	80
	u u	15 ft@ 0.040	17,307	- -
GW-13	130ft x 70ft	10 ft@ 0.032	<u>7,000</u>	<u>224</u>
	а	verage 41 ft thick	449,845	

Implied Mineralization

Based on the completed drilling and the geologic interpretation, two specific areas on the property contain an implied zone of mineralization.

a. Bank Zone

A NW-SE lineated area with surface dimensions of 300 feet x 1,000 feet centered at the Bank Prospect. It is defined by 10 mineralized holes on relatively wide spaced centers while the perimeter is outlined by only two dead holes and several faults. The mineralization appears to be localized at the intersection of the NW-SE trending listric faults with the NE-SW trending high angle faults. Lower grade stockwork mineralization is hosted in the Vampire quartzites as before.

The completed drilling is not on a sufficiently tight spacing to calculate a geologic resource. Also, since several faults are implied which intersect the Vampire quartzites, the mineralization appears to be more structurally confined and angle rather than vertical drilling would be a more reliable test. A geologic potential of 200,000-400,000 tons @ 0.025-0.035 opt Au is thought to be a reasonable estimate.

b. East Golden West Zone

Drill hole GH-6; 10-30 feet @ 0.033 opt Au was completed at a listric/high angle fault intersection 900 feet east of the Golden West Zone. The Vampire quartzite also outcrops throughout the area. As previous experience indicates this is the classic setting for laterally continuous mineralized zones and additional drilling is justified. A target potential of 50,000-100,000 tons @ 0.020-0.030 opt Au is assigned but in fact the ultimate size potential for the area is unknown.

Exploration Targets

Various untested exploration targets remain on the Arizona Project. Each is identified on the enclosed geologic map but in summary they are based on the following:

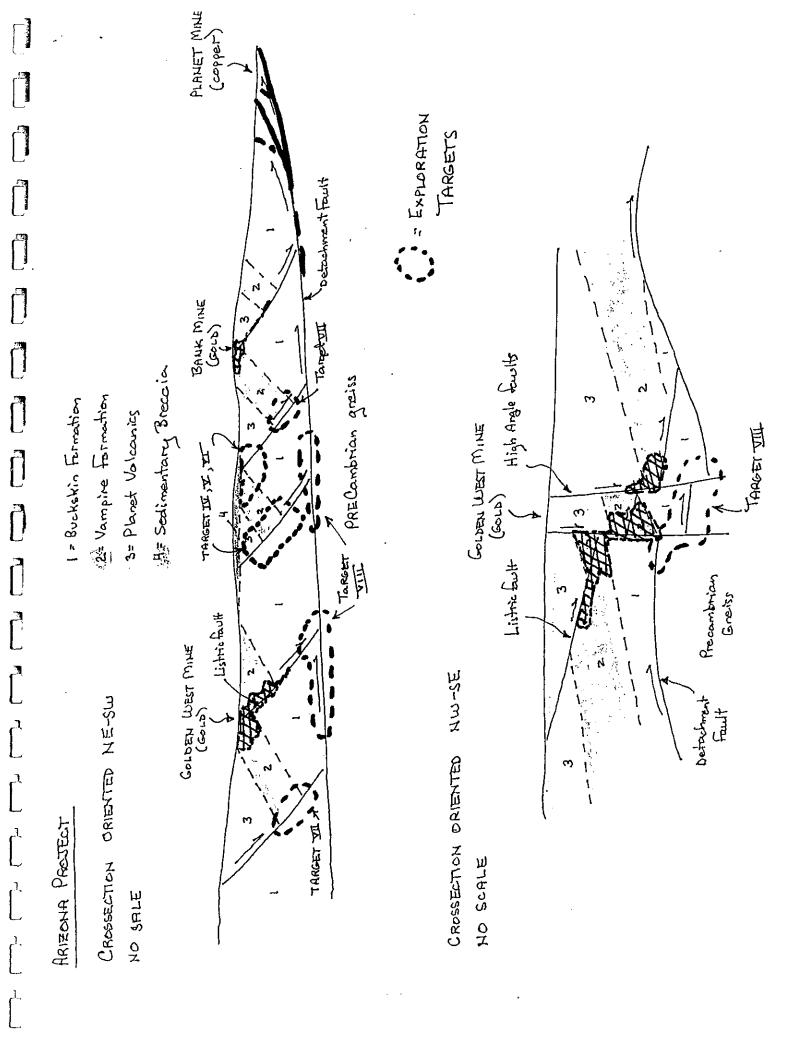
Targets I, II, III are based on a repetition of the favorable controls for the established mineralized zones namely - NE-SW and NW-SE fault intersections at or near Vampire quartzite outcrops. None of these targets have been tested by drilling while two of the targets (I and II) are located adjacent to the main mineralized zone at the Golden West Mine.

Targets IV, V, VI are slightly more speculative but still valid. The sedimentary breccia (unit 4) is postulated to be cemented talus deposited in paleo-surface depressions formed parallel to listric fault offsets. Its outcrop

pattern should therefore be bounded roughly by NW-SE trending listric faults. If the NE-SW trending high angle faults from the Golden West area are then projected north into the Bank area, several favorable fault intersection points are evident northeast of the Golden West Mine area approximately 600-1,000 feet. As the enclosed geologic crossections indicate, the mapped surface geology would imply that the Vampire quartzite probably would lie at very shallow depth under the outcropping sedimentary breccias. None of these postulated target areas have been tested by drilling.

Target VII is not shown on the attached geologic map since its location is presently unknown. As the enclosed geologic crossections indicate, there are blind areas where the Vampire quartzite is penetrated by NW-SE and NE-SW fault intersections. It is difficult to identify specifically the location of these blind targets since the completed drilling remains tightly clustered within the mineralized zones. A few stratigraphic holes between the Golden West and Bank areas is required first prior to target definition.

Target VIII is also not shown on the attached geologic map but it is located along the Buckskin Detachment underlying the near surface mineralized zones. To date the drilling completed on the Arizona Project has resulted in only one hole that has been completed to sufficient depths where the detachment surface was intersected. (hole GW-8; 430-440 feet which was barren) Since the detachment surface is known to be a favorable site of gold deposition at other properties (ex. Briggs, California) additional drilling should target this horizon for +0.15 opt Au at the Arizona Property.



CONCLUSIONS

Exploration work completed at the Arizona Project has identified one laterally continuous zone of gold mineralization with a geologic resource potential of 450,000 tons @ 0.027 opt Au. Two other areas with incomplete drill support are also implied that may contain a combined additional geologic potential of 300,000-500,000 tons @ 0.025-0.030 opt Au. Finally 8 separate exploration target areas were postulated where no drill support is available.

The Arizona Project therefore appears to contain an overall exploration potential of 1,000,000-1,500,000 tons @ 0.025-0.030 opt Au. The mineralization is relatively low grade but potentially mineable through shallow open-pits with a relatively favorable stripping ratio. All of the mineralization is oxidized with attractive leach characteristics based on the metallurgical test results obtained to date.

Additional exploration drilling is now justified with angle reverse circulation as the recommended drill method. The following factors should be considered by HRC Development Corp. prior to this work being initiated:

- 1) the ultimate size potential for the property appears to be roughly 45,000 ounces of gold.
- 2) the bulk of the mineralization is composed of stockwork zones within the non-reactive Vampire quartzite. Lateral extrapolation over +100 foot distances of mineralized drill intervals does not appear to be possible. Angle drilling on tighter drill spacings may provide the additional confidence level required for ore reserve calculations but the cost of this work may be prohibitive based on the relatively small resource that is indicated.
- 3) the larger known detachment hosted deposits in the southwestern United States (either gold or copper) are generally hosted in thick detachment and/or listric fault zones (+100 feet) or in middle detachment plates where the detachment fault appears to temporarily split and form a fault bounded sliver. None of these features are evident at the Arizona Project.

DRILL HOLE SUMMARY

Hole No.	<u>T.D.</u>	<u>Sign</u>	ificant Interva	als.	
PM-1	290	145-170 ft	@ 0.039 opt	Au. 245-290 f	t @ 0.016 opt Au
PM-2	265	75-95	0.032	165-175	0.033
PM-3	100	15-45	0.054		
PM-4	160	45-75	0.049	105-115	0.025
PM-5	160	35-50	0.011		
PM-6	120	25-35	0.018		
PM-7	200	115-150	0.007		
PM-8	120	15-30	0.065		
PM-9	80	30-35	0.037		
PM-10	140	35-45	0.008		
PM-11	280	95-100	0.010	115-120	0.012
		135-145	0.017		–
PM-12	160	90-95	0.122		
PM-13	150	20-40	0.057		
PM-14	220	0-5	0.011		
GH-1	100	25-30	0.010	45-65	0.100
GH-2	140	0-25	0.019	65-80	0.022
		90-100	0.018		
GH-3	120	55-140	0.017		•
GH-4	200	0-15	0.018	60-140	0.019
		140-190	0.067		
GH-5	240	none an	omalous		•
GH-6	255	10-30	0.033		
GH-7	80	25-35	0.009	60-75	0.025
GH-8	320	230-270	0.060		
GH-9	220	90-95	0.016	100-105	0.030
		115-120	0.011	135-140	0.011
GH-10	300	245-250	0.010		
GH-11	220	none and	none anomalous		
GH-12	180	#	u		
GH-13	220	и	u		
GH-14	140	80-110	0.017		
GH-15	40	none and	none anomalous		
GH-16	140	70-75	0.009		
GH-17	80	none and	none anomalous		
GW-1	575	15-20	0.014	45-60	0.040

<u>Hole No.</u>	<u>T.D.</u>	<u> </u>	Significant In	<u>nterval</u>		
GW-2	300	50-80 ft	@ 0.040 op	ot Au,110-115 f	t @ 0.043 opt Au	
GW-3	370	0-20	0.022	75-80	0.011	
_		140-150	0.018			
GW-4	500	115-120	0.017	200-205	0.017	
		215-220	0.011	225-230	0.013	-
		295-300	0.014			
GW-5	505	10-15	0.032	70-75	0.017	
		140-145	0.081	190-195	0.040	
		220-225	0.033	260-265	0.033	
GW-6	300	none anomalous				
GW-7	85	50-5 5	0.019			
GW-8	460	none anomalous				
GW-9	155	u	tt			
BS-10	235	Œ	и			
BS-11	130	ц	a			
GW-12	275	и	tt			
GW-13	250	45-55	0.032			
GW-14	145	55-75	0.014	110-130	0.027	
GD-1	140	10-20	0.025	75-80	0.048	
GD-2	70	20-25	0.031	40-65	0.049	
GD-3	240	65-70	0.013	105-110	0.014	
		125-135	0.019	145-155	0.011	

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