

VANGORDA GRUM  
DIAMOND DRILL RECORDS  
UNDERGROUND  
76-U-89 to 76-U-111

TYPED

018544

76-U-89 to 76-U-111

Typed

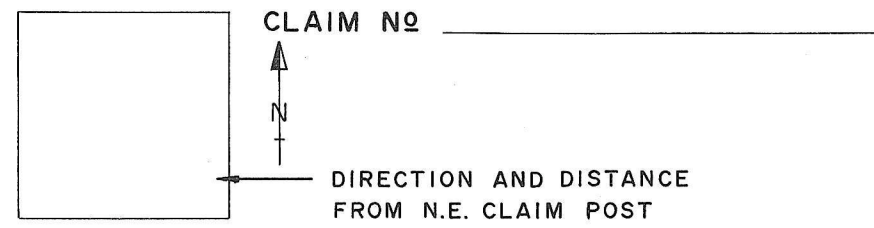
# DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-89 PAGE 1

PROPERTY GRUM JOINT VENTURE  
 LATITUDE 10820.700 2N+52.1mN STARTED MAY 24, 1976  
 DEPARTURE 7559.000 76W/X-CUT COMPLETED MAY 25, 1976  
 ELEVATION 1141.317 PROPOSED DEPTH 38.1m  
 ULTIMATE DEPTH 38.1m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	201° 23'	+54° 18'



TOTAL CORE RECOVERY: 76%

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	18.3	QUARTZ-SULFIDE (P). Competent. Foliation F =45-55°	20 6	1.5	2907	0	1.5	1.5	0.93	1.78	14.06						
		F =5-10°. Py/Zn+Pb sometimes approaches 1/1. Sul-	15 6	0.9	2908	1.5	3.0	1.5	0.69	1.18	13.03						
		<sup>1</sup> fides as regular laminae following both foliation.	15 10	1.2	2909	3.0	4.6	1.6	2.57	4.05	35.31			4.112	6.48	56.496	
		Short intervening bleached phyllite run @ 5-5.5 with	25 10	1.2	2910	4.6	6.1	1.5	1.90	4.45	27.43			2.85	6.675	41.145	
		contact=55°. Calcopryrite blebs.	30 12	1.5	2911	6.1	7.6	1.5	1.59	2.60	23.31			2.38	3.9	34.96	
		1.4-1.5: Fold nose.	10 4	1.0	2912	7.6	9.1	1.5	0.73	0.88	13.03						
		18.3: FAULT CONTACT W/MASSIVE SULFIDE.	25 6	1.5	2913	9.1	10.7	1.6	1.15	1.13	17.14			1.84	1.808	27.424	
		Broken ground with grayish black sticky gouge con-	25 8	1.1	2914	10.7	12.2	1.5	1.45	1.65	24.34			2.175	2.475	36.51	
		taining quartz-sulfide fragments = 1cm Ø.	30 15	1.5	2915	12.2	13.7	1.5	2.20	3.85	32.23			3.30	5.775	48.345	
18.3	31.9	MASSIVE SULFIDE ZONE. Broken cores. Sulfide bx in-	30 15	1.5	2916	13.7	15.2	1.5	2.58	4.50	36.34			3.87	6.75	54.51	
		tervals (1-3cm fragments) cemented by finer grained	30 15	1.3	2917	15.2	16.8	1.6	2.35	4.70	33.26			3.76	7.52	53.216	
		sulfides @ 18.5-18.6. Compositional bands = 45-50°.	25 6	1.5	2918	16.8	18.3	1.5	1.44	2.23	20.23			2.16	3.345	30.34	
		Porous bands show same 45-50° trend of voids.	75 5	0.8	2919	18.3	19.8	1.5	9.05	15.37	111.09			13.575	23.055	166.635	
			75 6	0.5	2920	19.8	21.3	1.5	9.91	18.46	147.09			14.865	27.69	220.64	
		27.4-32.0: Very broken ground. Core ranges from	80 10	0.5	2921	21.3	22.9	1.6	9.65	20.26	169.37			15.44	32.992	270.99	
		small blocks (3-4cm length) to pebble fragments	75 15	1.3	2922	22.9	24.4	1.5	8.40	18.55	143.32			12.60	27.825	214.98	
		(0.5-2cm). Po @ 26.5.	75 15	1.5	2923	24.4	25.9	1.5	10.59	22.50	154.29			15.885	33.75	231.44	







Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
53.3	59.4	QUARTZ SERICITE PHYLLITE (S). Typical-dark gray, incompetent, F -45°. <sub>2</sub>	2.2/6.1													
59.4	61.0	QUARTZ SULPHIDES (P). 10 8 Banded sulphides in quartz groundmass. F -45°. <sub>2</sub>	0.3	2873	59.4	61.0	1.6	1.11	1.45	17.14						
61.0	73.7	WHITE PHYLLITE (Ss). Yellow-gray, F variable 15-35° @ 67.0 fold nose? <sub>2</sub> 67.1-68.6: Sulphides w/, w/o F banding. 10 6 <sub>2</sub>	5.0/12.7		61.0	73.7										
73.7	79.2	MASSIVE SULPHIDE BRECCIA (MXq, MXk) 73.7-74.3: Dull white quartz, (feldspathic material 10 10 with sulphide blobs. 74.3-77.4: MXq-large fragments of sulphide breccia in 60 12 quartz-sulphide groundmass. Flecks of magnetite. 75.0-76.2: Intermediate section of white phyllite. Core is crumbly and broken. 77.4-79.2: MXk-large sulphide fragments in carbonate 60 13 cement. Flecks of magnetite. 65 11	0.5	2875	73.7	74.3	0.6	2.18	1.73	47.31						
			0.6	2876	74.3	75.0	0.7	7.67	7.84	135.09						
			0.8/1.2		75.0	76.2										
			1.2	2877	76.2	77.4	1.2	4.03	5.30	53.49			4.836	6.36	64.188	
			1.8	2878	77.4	79.2	1.8	3.63	4.03	44.23			6.534	7.29	79.614	
	79.2	END OF HOLE.		W.Av.	76.2	79.2	3.0	3.79	4.55	47.93			11.370	13.65	143.802	



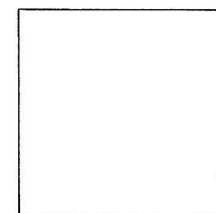
# DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-91 PAGE 1

PROPERTY GRUM JOINT VENTURE  
 LATITUDE 10,926.783 78W STARTED MAY 25, 1976  
 DEPARTURE 7,571.588 7N COMPLETED MAY 27, 1976  
 ELEVATION 1124.819 PROPOSED DEPTH 106.6m  
 ULTIMATE DEPTH 97.5m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	230° 24'	-8° 26"



CLAIM No \_\_\_\_\_

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 88%

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	19.8	QUARTZ-SULFIDE (P). Competent. Foliation=45-50°.	45 6	0.8	2927	0	1.5	1.5	1.86	2.63	35.31			2.79	3.945	52.965
		F appear = F. Localized Sph rich bands. Cpy blebs	60 6	0.5	2928	1.5	3.0	1.5	2.63	2.35	50.40			3.945	3.525	75.6
		1 2 sporadically distributed.	45 6	1.0	2929	3.0	4.6	1.6	1.73	3.63	33.26			2.768	5.808	53.216
		4.4-4.3: Shear. Broken core showing sliding plane.	45 8	1.3	2930	4.6	6.1	1.5	0.78	1.83	17.14			1.17	2.75	25.71
		15.2-18.3: Prominent graphite laminae interval.	50 +15	1.5	2931	6.1	7.6	1.5	2.38	4.85	44.23			3.57	7.28	66.35
		18-18.3: Fold nose.	60 12	1.5	2932	7.6	9.1	1.5	1.42	2.93	28.46			2.13	4.395	42.69
		19.8-20.4: Fold nose. Sericite very prominent.	45 12	1.5	2933	9.1	10.7	1.6	1.28	2.50	22.29			2.048	4.00	35.664
19.8	42.7	DARK MINERALIZED SERICITE PHYLLITE (SP).	50 15	1.5	2934	10.7	12.2	1.5	1.96	3.00	32.23			2.94	4.50	48.345
		Contact with preceeding lithology gradual. Sericite	50 15	1.5	2935	12.2	13.7	1.5	1.61	2.58	24.34			2.415	3.87	36.51
		very prominent with intercalated sulfide laminae.	40 12	1.3	2936	13.7	15.2	1.5	1.88	3.75	26.40			2.82	5.625	39.6
		Foliation changes to 35° at 30.5m on. Foliation=0°;	20 3	1.2	2937	15.2	16.8	1.6	0.85	1.93	12.00			1.36	3.09	19.20
		could be F.	30 12	1.0	2938	16.8	18.3	1.5	3.13	4.65	42.51			4.695	6.975	63.765
		1	30 10	1.3	2939	18.3	19.8	1.5	3.23	4.30	46.59			4.845	6.45	69.75
		24.2-24.4: Broken ground. Pebble size core.	30 7	2.9	2940	19.8	22.9	3.1	2.08	4.88	26.40			6.448	15.128	81.84
		38.1-39.6: FAULT. Broken ground. Pebble and	15 5	2.5	2941	22.9	25.9	3.0	0.98	1.93	14.06					
		sericite flakes with some sulfides.	25 6	3.0	2942	25.9	29.0	3.1	1.68	2.83	25.37			5.208	8.773	78.647
		40.5-41.1: FAULT. Same characteristic as above.	30 9	1.2	2943	29.0	30.5	1.5	2.33	2.50	35.31			3.495	3.75	52.965

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		42.7: Gradual change to sericite phyllite (S) by	15 5	1.4	2944	30.5	32.0	1.5	1.65	0.98	23.31			2.475	1.47	34.965
		marked decrease of sulfide showing.	15 5	1.3	2945	32.0	33.5	1.5	1.60	1.63	26.40			2.40	2.445	39.6
42.7	60.0	SERICITE PHYLLITE (S). Fairly competent in greater	15 8	1.5	2946	33.5	35.1	1.6	1.18	0.98	17.14			1.888	1.568	27.424
		part of run, except for some short intervals of very	10 4	2.5	2947	35.1	38.1	3.0	0.75	1.68	9.94			2.25	5.04	29.82
		fissile ground. Foliation=10-15°. Sporadic sulfide clots.		1.5		38.1	41.1	3.0								
			10 4	1.0	2948	41.1	42.7	1.6	1.20	2.13	23.31					
		46; 49.8; 53: Fold noses.														
		47.4-47.5: FAULT. Thick, sticky gray gouge.		16.8		42.7	60.0	17.3								
		54.5-54.9: Broken core. White bleached quartzo-feldspathic			W.Av.	0	16.8	16.8	1.66	2.90	29.51			27.96	48.79	495.75
		material, earthy lustre. Could be shear zone.			W.Av.	0	15.2	15.2	1.75	3.01	31.4			26.6	45.7	476.55
		60.0: Sharp contact with mineralized graphitic phyllite (PG)			W.Av.	16.8	22.9	6.1	2.62	4.68	35.30			15.988	28.553	215.36
		=40°. Contact marked by bull quartz.			W.Av.	25.9	30.5	4.6	1.89	2.72	28.61			8.703	12.523	131.61
					W.Av.	30.5	38.1	7.6	1.19	1.38	17.34			9.013	10.523	131.81
60.0	74.7	MINERALIZED GRAPHITIC PHYLLITE (PG). Competent.	10 6	2.5	2949	60.0	62.5	2.5	0.78	1.48	16.11					
		Foliation=30-35°. Sulfides as laminae.	45 12	1.5	2950	62.5	64.0	1.5	3.48	3.70	50.40			5.22	5.55	75.6
		61-62.6: Bleached Phyllite interval (Sb). Buff to	60 8	1.5	2951	64.0	65.5	1.5	3.08	6.65	49.37			4.62	9.975	74.055
		creamy white. Partly mineralized as widely spaced	40 5	1.6	2952	65.5	67.1	1.6	1.50	3.00	26.40					
		sulfide laminae. Foliation-10°. Fold nose @ 61.5.	20 6	1.5	2953	67.1	68.6	1.5	1.40	2.23	24.34			2.10	3.345	36.51
		Sharp contact. First=25°; Second=50°.	15 3	1.4	2954	68.6	70.1	1.5	0.73	1.35	10.97			1.095	2.025	16.455
		70-70.1: FAULT. Silvery gray gouge with graphite	15 2	2.7	2955	70.1	73.2	3.1	1.08	0.88	13.03			1.96	PbZn	
		and sulfide fragments.	10 2	1.6	2956	73.2	76.2	3.0	0.70	0.98	13.03			1.68	PbZn	
			15 3	1.4	2957	76.2	77.7	1.5	1.53	2.10	25.37					

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		72-74.8: Broken ground. Very poor recovery. No gouge but core is only pebble size fragments.	1.3		77.7	79.2	1.5									
		74.7: Change to Bleached Phyllite (Sb). Contact broken ground.		W.Av.	62.5	65.5	3.0	3.28	5.17	49.89			9.84	15.525	149.66	
				W.Av.	67.1	70.1	3.0	1.7	1.79	17.65			3.195	5.370	52.965	
74.7	79.4	BLEACHED PHYLLITE (Sb). Competent. Foliation=40° except near fold nose where it is 0°. Mineralization in form of clots and some laminae.		W.Av.	70.1	76.2	6.1	1.82	PbZn				11.116	PbZn		
		77.7-79.2: Barren. Prominent fuchsite.		W.Av.	83.8	86.9	3.1	3.99	2.08	45.79			12.375	6.466	141.97	
		77.7; 78; 79: Fold noses.		W.Av.	88.4	94.5	6.1	1.15	PbZn							
		79.2: Gradual change to Quartz-Sericite-Sulfide (P).														
79.4	94.5	QUARTZ-SERICITE-SULFIDE (P). Competent. Foliation =45°. Short intervals of bleached phyllite @ 83.5-83.6.	15 2 20 3 20 8	1.6 1.5 1.5	2958 2959 2960	79.2 80.8 82.3	80.8 82.3 83.8	1.6 1.5 1.5	0.55 0.43 1.08	0.75 0.93 1.75	17.14 8.22 13.02		1.30 1.26	PbZn PbZn		
		94.5: Gradual increase of graphitic laminae.	25 12	1.5	2961	83.8	85.3	1.5	4.73	1.26	50.40		7.095	1.89	75.6	
94.5	97.5	GRAPHITIC SERICITE PHYLLITE (SG+P). Mineralized, competent. Foliation=40-45°. F =0-5° (nose).	30 15 25 12	1.6 1.5	2962 2963	85.3 86.9	86.9 88.4	1.6 1.5	3.30 1.03	2.86 1.30	41.48 10.97		5.28	4.576	66.368	
		95.8: Fold nose.	25 6 25 3	1.5 1.5	2964 2965	88.4 89.9	89.9 91.4	1.5 1.5	0.53 0.52	0.63 0.68	8.22 6.17		1.16 1.20	PbZn PbZn		
	97.5	END OF HOLE.	30 2 20 3	1.6 1.5	2966 2967	91.4 93.0	93.0 94.5	1.6 1.5	0.50 0.48	0.60 0.68	7.20 8.22		1.10 1.16	PbZn PbZn		
			40 12	1.5	2968	94.5	96.0	1.5	2.98	3.55	49.37					
			35 4	1.5	2969	96.0	97.5	1.5	0.83	0.68	16.11					

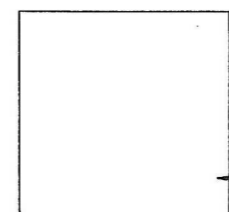
# DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

D.D.H. No 76-U-92 PAGE 1

PROPERTY VANGORDA-GRUM  
 LATITUDE 10,794,482 70N STARTED MAY 22, 1976  
 DEPARTURE 7,730.366 6W COMPLETED MAY 23, 1976  
 ELEVATION 1157.059 PROPOSED DEPTH \_\_\_\_\_  
 ULTIMATE DEPTH 73.2

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	221° 32'	-0° 57'



CLAIM No \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 75.7%

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	21.3	MASSIVE SULPHIDES (MQ).	30 20	0.7	2879	0	1.8	1.8	8.40	16.10	124.12			15.12	28.98	223.416
		0-7.6: Massive sulphides in quartz (-40%) matrix.	40 15	1.7	2880	1.8	3.5	1.7	9.85	13.27	160.46			16.745	22.559	272.782
		Core is competent, but no discernible structure.	25 25	1.3	2881	3.5	5.0	1.5	8.70	15.02	122.06			13.05	22.53	183.09
			25 25	1.4	2882	5.0	6.4	1.4	9.17	15.27	137.14			14.672	24.432	219.424
			25 25	1.2	2883	6.4	7.6	1.2	7.07	14.51	103.89			8.484	17.412	124.668
		7.6-21.3 (MV): Sulphides are soft and porous; some	65 20	1.2	2884	7.6	8.8	1.2	10.75	19.12	127.20			12.90	22.944	152.64
		portions have a brecciated appearance. No visible	85 8	1.6	2885	8.8	10.4	1.6	1.44	7.35	23.31			2.304	11.76	37.296
		structure. Little or no quartz.	80 10	1.4	2886	10.4	11.8	1.4	1.09	9.37	17.14			1.526	13.118	23.996
		(12.4-13.5) 50% quartz.	40 8	1.4	2887	11.8	13.8	2.0	1.55	7.01	32.23			3.10	14.02	64.46
			85 8	1.4	2888	13.8	15.2	1.4	4.35	10.36	72.69			6.09	14.504	101.76
			80 9	1.1	2889	15.2	16.7	1.5	7.90	18.25	94.63			11.85	22.375	141.945
		16.8-21.3: Core is blocky and broken-incompetent.	80 10	1.6	2890	16.7	18.3	1.6	8.78	13.59	114.86			14.048	21.744	183.776
			80 11	0.8	2891	18.3	19.8	1.5	1.08	5.50	17.14			1.62	8.25	25.71
			75 13	0.8	2892	19.8	21.3	1.5	3.05	8.31	42.51			4.575	12.465	63.765
21.3	47.5	QUARTZ SULPHIDES (PF)	25 12	0.9	2893	21.3	22.9	1.6	0.89	3.40	17.14			1.42	5.44	27.42
		Interbanded massive sulphides and quartz-phyllite.	30 12	1.5	2894	22.9	24.4	1.5	1.14	3.80	21.26			1.71	5.70	31.89
		Core is very competent. F =55°.	20 10	1.5	2895	24.4	25.9	1.5	1.38	2.93	25.37			1.79	3.81	32.98

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		27.3: Trace of Cu.	35 17	1.7	2896	25.9	27.6	1.7	4.50	7.90	62.40			7.65	13.43	106.08
			30 9	1.4	2897	27.6	29.0	1.4	1.33	2.05	34.29			1.86	2.87	48.01
		30.5: 1-2% Cu.	35 8	1.9	2898	29.0	30.9	1.9	1.80	2.23	34.29			3.42	4.24	65.15
		31.8: 1-2% Cu; F =0-20°.	45 12	1.9	2899	30.9	32.8	1.9	2.23	3.58	36.34			4.24	6.80	69.05
		34.3: Fold nose; F <sup>2</sup> noticeable perpendicular F .	50 5	1.8	2900	32.8	34.6	1.8	0.81	0.98	17.14			1.46	1.76	30.85
		36.4: F -50°.	45 12	1.9	3001	34.6	36.6	2.0	3.23	5.65	48.34			6.46	11.30	96.68
			45 5	1.3	3002	36.6	37.6 38.1	1.8 1.5	3.42	3.50	54.51			3.42 5.13	3.50 5.25	81.76 54.51
			50 6	1.5	3003	38.1	39.6	1.5	2.54	3.45	43.54			3.81	5.18	65.31
		39.8: F -40°.	55 7	1.5	3004	39.6	41.1	1.5	3.88	2.85	42.51			5.82	4.28	63.7
			40 8	1.4	3005	41.1	42.7	1.6	1.85	3.38	26.40			2.96	5.41	42.24
		43.0: F -0°, F perpendicular F . Fold nose?	40 3	1.4	3006	42.7	44.2	1.5	0.77	1.75	17.14			1.16	2.63	25.71
			35 2	0.8	3007	44.2	45.3	1.1	1.70	2.78	34.29			1.87	3.06	37.72
		47.3: F -25°. Quartz with zinc laminae, little	5 10	1.0	3008	45.3	47.5	2.2	2.18	4.48	29.14			4.8	9.86	64.1
		or no Py.														
					W.Av.	34.6	37.6	3.0	3.29	4.93	50.4			9.88	14.80	151.19
					W.Av.	36.6	41.1	4.5	3.28	3.27	46.9			14.76	14.71	210.85
					W.Av.	44.5	47.5	3.0	2.05	4.03	30.5			6.16	12.08	91.53
					W.Av.	21.3	47.5	26.2	2.13	3.5	34.1			55.84	91.61	893.81
47.5	49.4	BLEACHED PHYLLITE (Sbm).		1.5/1.9	W.Av.	34.6	41.1	6.5	3.26	4.00	4.73			21.22	26.01	307.53
					W.Av.	41.1	44.5	3.4	1.36	2.61	23.0			4.63	8.87	78.24
		Pale yellow-gray, typical with scattered flecks of maripo-			W.Av.	0	18.3	18.3	6.55	13.19	94.5			119.89	241.37	1729.3
		site. @ 49.0, Long gentle fold nose. F perpendicular to			W.Av.	0	21.3	21.3	5.82	12.30	85.38			126.084	262.093	1818.73
		F .			W.Av.	8.8	13.8	5.0	1.38	7.78	25.15			6.93	38.898	125.75
					W.Av.	18.3	21.3	3.0	2.07	6.91	29.8			6.20	20.72	89.48
					W.Av.	24.6	27.6	3.0	3.15	5.75	46.4			9.44	17.24	139.06
					W.Av.	21.3	27.6	6.3	2.04	4.60	31.3			12.84	28.97	197.45



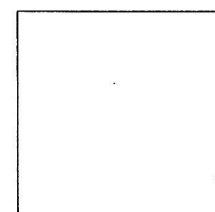
# DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-93 PAGE 1

PROPERTY GRUM JOINT VENTURE  
 LATITUDE 10,925.528 STARTED MAY 27, 1976  
 DEPARTURE 7,572.886 78W COMPLETED MAY 30, 1976  
 ELEVATION 1126.409 7N PROPOSED DEPTH \_\_\_\_\_  
 ULTIMATE DEPTH 76.2 M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	225° 44'	+30° 32''



CLAIM No \_\_\_\_\_

TOTAL CORE RECOVERY: 84.2%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	18.0	QUARTZ-SULPHIDES (P). Competent. Foliation=45-45°.	50	7	0.9	2970	0	1.5	1.5	1.78	2.00	37.37			2.67	3.0	56.055
		Trace of graphite. Sulfides as regularly spaced laminae.	45	7	0.7	2971	1.5	3.0	1.5	1.82	2.78	35.31			2.73	4.17	52.965
		4.6-6.1: Very poor core recovery. No gouge material	50	10	1.5	2972	3.0	4.6	1.6	2.60	4.55	50.40			4.16	7.28	80.64
		Core blocky. (.20/1.5 recovery).	50	8	1.8	2973	4.6	7.6	3.0	2.53	3.58	45.26			7.59	10.74	135.78
		13.7-13.9: Broken core pebble size. No gougy mat.	60	12	1.5	2974	7.6	9.1	1.5	2.45	3.90	45.26			3.675	5.85	67.89
		18.0: Sharp change 30° to Graphitic-Sulf-phyll. (PG).	60	10	1.5	2975	9.1	10.7	1.6	2.90	3.80	53.49			4.64	6.08	85.58
18.0	21.3	MINERALIZED GRAPHITIC PHYLLITE (PG). Competent.	50	10	1.3	2976	10.7	12.2	1.5	2.10	4.40	37.37			3.15	6.60	56.055
		Foliation=25-30°. F =5-10°. Sulfides as laminae	60	5	1.2	2977	12.2	13.7	1.5	1.95	2.80	29.14			2.925	4.20	43.71
		following both foliation. Blebs of Cpy.	30	7	1.2	2978	13.7	15.2	1.5	1.28	2.93	10.97			1.92	4.395	16.455
		21.3: Broken ground. Contact with Qtz-Sulfide (P).	25	8	1.4	2979	15.2	16.8	1.6	1.13	3.25	15.09			1.808	5.20	24.114
21.3	29.0	QUARTZ-SULFIDE (P). Competent except near fault	15	6	1.3	2980	16.8	18.3	1.5	1.05	2.33	20.23			1.575	3.495	30.345
		zone. Foliation=45-50°. No clear F noted.	15	5	1.0	2981	18.3	19.8	1.5	1.65	2.88	23.31			2.475	4.32	34.965
		24.0: Broken core. Pebble size fragments. No	15	5	1.2	2982	19.8	21.3	1.5	1.68	2.38	22.29			2.52	3.57	33.435
		gougy material.	25	7	1.3	2983	21.3	22.9	1.6	2.05	3.30	33.26			3.28	5.28	53.16
		29.0: Gradual change to Sericite Phyllite (S).	25	3	1.1	2984	22.9	24.4	1.5	1.13	1.08	16.11			1.695	1.62	24.165
29.0	39.6	SERICITE PHYLLITE (S). Competent (first 5m of run).	30	6	1.5	2985	24.4	25.9	1.5	1.35	1.73	24.34			2.025	2.595	36.51
			20	7	1.5	2986	25.9	27.4	1.5	1.90	2.15	26.40			2.85	3.225	39.6

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		Foliation=40°. No clear F noted. Sporadic sulfide clots.	1.5	2987	27.4	29.0	1.6	0.68	0.70	10.97						
		31.5-31.7: Broken core. Some fragments friable. Appears to be sheared zone.	9.2		29.0	39.6	10.6									
		34.9-36.7: FAULT ZONE. Thick grayish sticky gouge with sands and phyllite fragments.		W.Av.	0	3.0	3.0	1.80	2.39	36.34			5.40	7.17	109.02	
		38.1-39.6: Broken core. Some sulfide fragments mostly Py.		" "	3.0	12.2	9.2	2.52	3.97	46.30			23.215	36.55	425.95	
		39.6: Change to Bleached Phyllite (Sb).		" "	12.2	22.9	10.7	1.54	2.85	22.1			16.50	30.46	236.27	
				" "	22.9	25.9	3.0	1.24	1.40	20.22			3.720	4.215	60.675	
39.6	43.9	BLEACHED PHYLLITE (Sb). Fairly competent except from 39.6-40.0 where ground is fragmented. Foliation=30°. Buff greenish colour (fuchsite).	3.8		39.6	43.9	4.3									
		41.5: Fold nose.														
		43.9: Gradual change to Qtz-Sericite-Sulfide (P), by introduction of sulfide laminae.														
43.9	59.4	QUARTZ-SERICITE-SULFIDE (P). Plenty of broken ground interval. Foliation=40-45°. F parallel to F.	1.5	2988	43.9	45.7	1.8	2.85	6.31	47.31			5.13	11.36	85.16	
		Intercalated bleached phyllite intervals.	0.9	2989	45.7	47.2	1.5	2.08	3.50	28.46			3.12	5.25	42.69	
		47.3-48.8: Bleached phyllite (Sb). Buff greenish colour with prominent fuchsite laminae.	1.4	2990	47.2	48.8	1.6	2.00	3.80	28.46			3.2	6.08	45.536	
			0.8	2991	48.8	50.3	1.5	1.48	3.38	23.31			2.22	5.07	34.965	
		48.6-48.7: Greenish white gouge.	0.7	2992	50.3	51.8	1.5	1.13	2.53	18.17			1.695	3.795	27.255	
		59.4: Contact with mineralized graphitic phyll. (PG)	1.0	2993	51.8	53.3	1.5	0.68	1.50	14.06			1.02	2.25	21.09	

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		Contact broken ground. 30 5	0.9	2994	53.3	54.9	1.6	0.98	2.08	17.14			1.568	3.328	27.424
59.4	67.1	MINERALIZED GRAPHITIC PHYLLITE (PG). Competent. 20 6	2.8	2995	54.9	57.9	3.0	0.88	1.05	13.03					
		Foliation=65-70° marked by regular sulfide-graphite- 25 8	1.4	2996	57.9	59.4	1.5	2.98	1.85	35.31			4.47	2.775	52.965
		quartz lamination. 40 10	1.6	2997	59.4	61.0	1.6	1.78	4.10	29.14			2.848	6.56	46.624
		61.5: Fold nose. 45 4	1.5	2998	61.0	62.5	1.5	0.63	2.03	24.34			0.95	3.05	36.51
		67.1: Change to Graphite phyllite (G). Contact 45 8	1.5	2999	62.5	64.0	1.5	2.68	5.45	44.23			4.02	8.175	66.345
		marked by bleached phyllite (=10cm) with bull quartz. 50 12	1.5	3000	64.0	65.5	1.5	3.38	6.11	56.57			5.07	9.165	84.855
		Broken ground. 50 15	1.6	3101	65.5	67.1	1.6	6.86	12.32	104.92			10.976	19.712	167.87
67.1	68.0	GRAPHITIC PHYLLITE (G). Broken ground. Foliation=55°. 67.1 68.0	0.9				0.9	NIL							
		Sporadic clots of sulfides.													
		68.0: Sharp contact with qtz-sulfide (P). Contact is clean		W.Av.	43.9	48.2	4.3	2.24	4.75	36.4			9.63	20.41	156.31
		even break=65°.		W.Av.	48.2	50.3	2.1	1.63	3.50	24.8			3.42	7.35	52.05
68.0	69.5	QUARTZ-SULPHIDE (P). Competent. Numerous qtz strin- 70 +15	1.5	3102	68.0	69.5	1.5	4.62	9.59	74.74			6.93	14.385	12.11
		gers and inclusions. Compositional bands=75-80°.		W.Av.	43.9	50.3	6.4	2.14	4.34	32.6			13.67	27.76	208.35
				W.Av.	45.7	50.3	4.6	1.86	3.56	26.78			8.54	16.40	123.19
		69.5: Sharp contact with bleached phyllite =80°.		W.Av.	43.9	46.9	3.0	2.54	5.19	39.8			7.63	15.51	119.13
				W.Av.	50.3	54.9	4.6	0.93	2.04	16.47			4.283	9.373	75.769
69.5	70.0	BLEACHED PHYLLITE (Sb). Competent. Buff-greenish. 69.5 70.0	0.5				0.5								
		Prominent fuchsite spots. Contain clots of sulfides.													
		Foliation=50°.													
		70.0: Sharp contact with Graphitic phyllite (G)=55°.	5.8		70.0	76.2	6.2								
70.0	76.2	GRAPHITIC PHYLLITE (G)-CHANGING GRADUALLY TO GRAPHITIC 70.0 76.2		W.Av.	57.9	61.0	3.1	2.36	3.01	32.12			7.318	9.335	99.589
		SERICITE PHYLLITE from 75.5 on. Fissile. Foliation=50-55°.		W.Av.	57.9	62.5	4.6	1.80	2.69	29.6			8.27	12.39	136.10
				W.Av.	62.5	65.5	3.0	3.03	5.78	50.4			9.09	17.340	151.200
		74.4-74.6: FAULT. Thick sticky black gouge. 74.4 74.6		W.Av.	65.5	69.5	4.0	4.48	8.52	69.99			17.906	34.097	279.982











Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		25.5: Shear. Contact with quartz-sulfide (P). Sliding plane marked by sericite flakes=30°.													
25.5	30.8	QUARTZ-SULFIDE (P). Competent in greater part of run 35 8	1.5	3118	25.5	27.1	1.6	3.55	11.25	65.49			5.68	18.0	104.784
		except in faulted interval. Foliation=30°. Traces of 40 8	0.9	3119	27.1	28.6	1.5	1.43	3.53	26.40			2.145	5.295	39.6
		calcite in groundmass. 40 5	1.4	3120	28.6	30.9	2.3	1.98	7.16	31.20			4.55	16.47	71.76
		27.7-27.9: FAULT ZONE. White sticky gouge bounded on each side by bleached "chewed-up" sericite flakes with sulfide fragments.		W.Av.	0	6.7	6.7	3.45	5.36	56.39			23.135	35.935	377.82
				W.Av.	6.7	10.7	4.0	2.49	4.69	37.58			9.968	18.776	150.32
		30.8: Sharp contact with graphitic phyllite (G)=40°.		W.Av.	12.2	15.2	3.0	4.27	7.28	72.17			12.825	21.825	216.51
				W.Av.	15.2	18.3	3.1	1.63	3.16	32.02			5.065	9.785	99.254
30.8	38.2	GRAPHITIC PHYLLITE (G). Fissile. Foliation=40°. Sporadic clots of sulfides. No clear F noted.	6.8		30.9	38.2	7.3								
				W.Av.	19.8	24.4	4.6	6.29	8.48	78.67			28.96	38.99	361.89
				W.Av.	12.2	24.4	12.2	4.18	6.35	61.24			51.041	77.425	747.09
		31.9-32.0: FAULT. Black sticky gouge.		W.Av.	25.5	28.6	3.1	2.52	7.51	46.57			7.825	23.295	144.38
		38.2: Sharp contact with quartz-sulfide (P)=70°.		W.Av.	0	10.7	10.7	3.09	5.11	49.36			33.103	54.711	528.14
38.2	47.2	QUARTZ-SULFIDE (P) W/SHORT INTERVALS OF GRAPHITIC-QUARTZ-SULFIDE (P). Competent. Compositional banding=65-70°													
		35 15	2.8	3121	38.2	41.1	2.9	6.10	13.70	87.77			17.69	39.73	254.53
		in some massive sulfide intervals. Fissility=75° in 65 20	1.6	3122	41.1	42.7	1.6	6.45	11.70	93.94			10.32	18.72	150.30
		graphite bearing intervals. 50 20	1.5	3123	42.7	44.2	1.5	5.96	8.36	78.86			8.94	12.54	118.29
					50 10	44.2	45.7	1.5	3.55	4.20	50.40				
		43-44.4: Graphitic (PG). 40 6	0.7	3125	45.7	47.2	1.5	2.38	2.65	38.40					
		47.2: Broken ground. Contact with sericite phyllite (S).		W.Av.	38.2	44.2	6.0	6.16	11.83	87.19			36.95	70.99	523.13
				W.Av.	44.2	47.2	3.0	2.97	3.43	44.4					









Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
18.7	35.3	QUARTZ SULPHIDES (P).	40 6	1.1	3033	18.7	19.8	1.1	2.20	4.30	39.43					
		18.7-21.7: Interbanded sulphide laminae and quartz-	50 8	1.8	3034	19.8	21.7	1.9	1.18	2.28	23.31			2.242	4.332	44.289
		sericite. F -50°; F <sub>1</sub> F <sub>2</sub> . Competent core.	25 9	1.0	3035	21.7	22.9	1.2	0.66	1.68	13.03			0.792	2.016	15.636
		21.7-32.0: Bands of sulphide in quartz matrix.	30 12	1.4	3036	22.9	24.4	1.5	0.58	0.90	9.94			0.87	1.35	14.91
		F stable-60°. Core is broken into .lm pieces but	35 14	1.5	3037	24.4	25.9	1.5	1.10	2.58	16.11			1.65	3.87	24.165
		2 otherwise competent.	45 18	1.5	3038	25.9	27.4	1.5	3.70	7.15	56.57			5.55	10.725	84.855
		32.0-35.3: As previous but little Py. Core is	45 17	1.6	3039	27.4	29.0	1.6	3.13	3.55	42.51			5.008	5.68	68.016
		crumbly, brecciated and broken. Solid pieces show	35 16	1.2	3040	29.0	30.5	1.5	3.40	3.34	43.54			5.10	5.025	65.31
		contorted F and tension cracks.	50 7	1.2	3041	30.5	32.0	1.5	1.43	1.80	32.23			2.145	2.70	48.345
		Fault? 2	5 10	1.5	3042	32.0	33.5	1.5	1.10	3.80	16.11			1.65	5.70	24.165
			5 13	1.3	3043	33.5	35.3	1.8	1.80	3.38	23.31			3.24	6.084	41.958
35.3	36.2	WHITE PHYLLITE (Ss).	5 Tr.	0.8	3044	35.3	36.2	0.9	0.23	3.50	3.09			0.207	3.15	2.781
		Pale yellow-gray, F variable and contorted.			W.Av.	16.7	19.8	3.1	1.16	4.36	27.43					
		2			W.Av.	19.8	25.9	6.1	0.92	1.89	16.23			5.552	11.568	99.0
					W.Av.	25.9	29.0	3.1	3.41	5.29	49.3			10.56	16.41	152.88
					W.Av.	30.5	36.2	5.7	1.27	3.09	20.57			7.242	17.634	117.249
					W.Av.	32.0	35.3	3.3	1.48	3.57	20.0			4.89	11.79	66.13
36.2	50.3	QUARTZ SULPHIDES (P). 36.2-38.7: As per 21.7-	5 13	1.6	3045	36.2	38.1	1.9	2.78	5.50	40.46			5.282	10.45	76.874
		32.0, F <sub>2</sub> -45°.														
		38.7-41.6: FAULT ZONE. Core is consolidated mud	5 12	1.5	3046	38.1	39.6	1.5	2.53	5.67	39.43			3.795	8.505	59.145
		and pebbles.	5 3	0.6	3047	39.6	41.1	1.5	0.68	0.60	12.00					
		41.6-50.3: A quartz-sericite matrix with stringers	5 5	1.2	3048	41.1	42.7	1.6	0.95	1.75	15.09					
		of sulphide, mostly sphalerite but some pyrite. At	5 1	0.3	3049	42.7	44.2	1.5	3.23	4.15	73.71			4.845	6.225	110.565
		42.4 fold nose and tension cracks.	10 6	0.5	3050	44.2	45.7	1.5	2.83	4.12	64.46			4.245	6.18	96.69
		F -45° @ 46.5.	5 Tr.	1.1	3051	45.7	47.2	1.5	2.05	0.13	Tr.					





# DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-97

PAGE 1

PROPERTY GRUM JOINT VENTURE

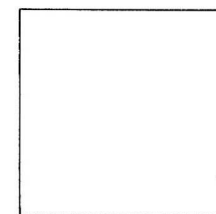
LATITUDE 10, 926.18 7N STARTED JUNE 3, 1976

DEPARTURE 7,752.655 78W COMPLETED JUNE 5, 1976

ELEVATION 1124.215 (6N 15.5) PROPOSED DEPTH 76.2M

ULTIMATE DEPTH 62.5M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	219° 02'	-31°



CLAIM No \_\_\_\_\_

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 60%

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	49.0	QUARTZ-SULFIDE (P). Broken core. Av. length of core=4-5cm.															
		Break of core predominantly=90°. Foliation=75-80°. 25 9		1.4	3133	0	3.0	3.0	3.03	5.65	51.43			9.09	16.95	154.29	
		Groundmass very siliceous. Trace of graphite in 40 5		0.8	3134	3.0	4.6	1.6	2.93	4.60	50.40			4.688	7.36	80.64	
		some small intervals (=20cm) as thin laminae. 45 5		1.1	3135	4.6	6.1	1.5	2.20	2.75	39.43			3.30	4.125	59.145	
		35 6		1.5	3136	6.1	7.6	1.5	2.43	4.90	46.29			3.645	7.35	69.435	
		4.2-44.3: Pebble size core composed of quartz- 50 8		1.2	3137	7.6	9.1	1.5	1.73	4.03	34.29			2.595	6.045	51.435	
		sulphides and what appear to be bleached phyllites. 30 6		1.1	3138	9.1	10.7	1.6	1.13	3.03	21.26			1.808	4.848	34.016	
		No gougy material present. 35 6		0.6	3139	10.7	12.2	1.5	1.58	2.98	27.43			2.37	4.47	41.145	
		44.3-47.5: Bx. Angular pebble size sulphides 35 7		0.8	3140	12.2	13.7	1.5	1.53	4.65	26.40			2.295	6.975	39.6	
		cemented by crypto x'lline silica and some black non 25 6		0.5	3141	13.7	15.2	1.5	1.28	4.78	24.34			1.92	7.17	36.51	
		sooty materials. 35 6		0.8	3142	15.2	16.8	1.6	1.43	5.47	28.46			2.288	8.752	45.536	
		47.5-48.2: Broken core. Pebble size. Some frag- 40 7		0.6	3143	16.8	18.3	1.5	2.98	4.35	55.54			4.47	6.525	83.31	
		ments show brecciated nature of rx mass. 40 10		0.5	3144	18.3	21.3	3.0	2.23	8.02	40.46			6.69	24.06	121.38	
	49.0:	Gradational change to Sericite Phyllite. Decreasing 30 9		0.6	3145	21.3	22.9	1.6	1.65	5.15	28.46			2.64	8.24	45.536	
		amount of sulfide laminae starting from 48.5m. 40 9		0.9	3146	22.9	24.4	1.5	1.68	5.07	39.43			2.52	7.605	59.145	
	NOTE:	Runs with low core recoveries are pebbly. 35 5		1.0	3147	24.4	25.9	1.5	1.75	4.50	37.37			2.625	6.75	56.055	
		35 8		1.1	3148	25.9	27.4	1.5	1.85	5.08	44.23			2.775	7.62	66.345	

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
49.0	62.0	SERICITE PHYLLITE (S). Some trace of graphite as thin laminae. Cores are combination of some broken ground and long solid ones. Foliation=40°. No clear indication of F.	30 8	0.5	3149	27.4	29.0	1.6	1.98	4.05	46.29			3.168	6.48	74.064
		49.5-50.3: Broken core. Cores as fragmented poker chips-no gouge materials present.	30 7	0.5	3150	29.0	30.5	1.5	2.13	3.40	52.46			3.195	5.10	78.69
		57.8-57.9: Broken core. Pebbles to sand size ser. flakes. No gougy material.	35 8	1.2	3151	30.5	32.0	1.5	1.83	4.90	42.51			2.745	7.35	63.765
		62.0: Sharp contact with Quartz-Sulfide=35°.	35 7	1.0	3152	32.0	33.5	1.5	2.81	4.65	56.57			4.215	6.975	84.855
		62.0: Sharp contact with Quartz-Sulfide=35°.	25 8	0.9	3153	33.5	35.1	1.6	3.78	6.55	69.60			6.048	10.48	111.36
		62.0: Sharp contact with Quartz-Sulfide=35°.	30 7	0.8	3154	35.1	36.6	1.5	1.63	4.84	33.26			2.445	7.26	49.89
		62.0: Sharp contact with Quartz-Sulfide=35°.	35 10	1.5	3155	36.6	38.1	1.5	3.35	8.20	62.40			5.025	12.30	93.6
		62.0: Sharp contact with Quartz-Sulfide=35°.	40 11	1.4	3156	38.1	39.6	1.5	3.23	7.65	64.46			4.845	11.475	96.69
		62.0: Sharp contact with Quartz-Sulfide=35°.	30 9	0.9	3157	39.6	40.8	1.2	3.58	7.13	66.51			4.296	8.556	79.812
62.0	62.5	QUARTZ SULFIDE. Broken cores but rx mass is, dense and hard. Appears to be beginning of a zone or band. Compositional bands=40°. Py=50, PbZn=2.	50 8	0.5	3158	40.8	42.0	1.2	3.80	8.95	74.74			4.56	10.74	89.688
		QUARTZ SULFIDE. Broken cores but rx mass is, dense and hard. Appears to be beginning of a zone or band. Compositional bands=40°. Py=50, PbZn=2.	40 2	0.4	3159	42.0	44.2	2.2	3.13	10.48	43.54			6.886	23.056	95.788
		QUARTZ SULFIDE. Broken cores but rx mass is, dense and hard. Appears to be beginning of a zone or band. Compositional bands=40°. Py=50, PbZn=2.	45 2	0.9	3160	44.2	45.7	1.5	3.58	7.85	58.63			5.37	11.775	87.945
		QUARTZ SULFIDE. Broken cores but rx mass is, dense and hard. Appears to be beginning of a zone or band. Compositional bands=40°. Py=50, PbZn=2.	30 1	0.8	3161	45.7	47.2	1.5	1.30	2.88	20.23			1.95	4.32	30.345
	62.5	END OF HOLE.	25 3	1.1	3162	47.2	49.3	2.1	1.15	2.80	20.23			2.415	5.88	42.483
		NB: This hole was proposed down to 76.2m (250'). Pulled out at 205' because of machine trouble.														
		NB: This hole was proposed down to 76.2m (250'). Pulled out at 205' because of machine trouble.		10.2		49.3	62.0	12.7								
		NB: This hole was proposed down to 76.2m (250'). Pulled out at 205' because of machine trouble.		0.4		62.0	62.5	0.5	2 PZ, est.							
					W.Av.	7.6	12.2	4.6	1.47	3.34	27.5			6.77	15.36	126.6
					W.Av.	12.2	33.5	21.3	1.95	5.14	40.13			41.546	109.602	854.791
					W.Av.	0	33.5	33.5	2.06	4.8	40.1			69.04	160.75	1344.96
					W.Av.	33.5	45.7	12.2	3.24	7.83	57.76			39.475	95.642	704.773
					W.Av.	33.5	36.6	3.1	2.74	5.72	52.0			8.49	17.74	161.25
					W.Av.	40.8	44.2	3.4	3.36	9.94	54.55			11.446	33.796	185.476
					W.Av.	36.6	45.7	9.1	3.40	8.56	59.73			30.982	77.902	543.523





Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	2.0	MASSIVE SULPHIDE (MV). Porous, soft and incompetent. No visible structure.	80 7	0.6	3059	0	2.0	2.0	4.75	8.61	70.63			9.50	17.22	141.26
2.0	5.8	QUARTZ SULPHIDES (P). Irregularly disseminated sulphides in quartz. No visible structure. Core is generally competent. 40% quartz.	30 20	1.7	3060	2.0	3.8	1.8	8.37	19.67	145.03			15.066	35.406	261.054
			30 20	1.3	3061	3.8	5.8	2.0	9.17	23.91	152.23			18.34	47.82	304.46
5.8	10.2	MASSIVE SULPHIDES (MV). Generally porous and soft with some brecciated sections and some banded sections. Banding-35°; upper contact-55°.(5.8-6.1) White phyllite seam. Competent. 8.0-8.2: Same as 5.8-6.1.	70 7	1.3	3062	5.8	8.1	2.3	2.10	4.65	43.54			4.83	10.695	100.142
			60 17	1.4	3063	8.1	10.2	2.1	7.02	9.74	121.03			14.742	20.454	254.163
10.2	12.6	QUARTZ SULPHIDES (P). Irregular bands of sulphides in a quartz matrix. Banding @ 60° (F ? F ) . 2?	30 15	1.2	3064	10.2	12.6	2.4	5.46	11.55	76.80			13.104	27.72	184.32
12.6	15.6	MASSIVE SULPHIDES (M). 12.6-14.9: (MXm) Slightly brecciated Sulphides with sulphide cement. Hard and structureless. 14.9-15.6 (MV): Porous but competent.	80 8	1.1	3065	12.6	14.2	1.6	3.10	4.05	46.29			4.96	6.48	74.064
			80 9	1.4	3066	14.2	15.6	1.4	5.26	7.44	94.63			7.364	10.416	132.482







Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
8.4	33.0	GRAPHITIC-SERICITE PHYLLITE (SG). Dark gray colour. Fissile. Foliation=75-80°. F =10° (c to c plane). Sporadic cubic xls. of Py along fissures.	19.3/24.6		8.4	33.0											
		21.3-25.9: Broken/fragmented core. No gouge. Pebble size 3-4cm.															
		24.4-33.0: Mixed short intervals of solid core (=2-3cm long), block sticky clay and soft clayey cores with dis- tinguishable shearing or sliding planes.															
33.0	35.1	MUD-SAND INTERVAL. Dark gray colour. Some materials made of sericite flakes, angular quartz and graphite. Generally gritty to the touch except where materials are silt size in which case it has a smooth talcy feel.	2.0/2.1		33.0	35.1											
		35.1: Sudden change to a more solid core. Marked by broken bull quartz run until 35.3, then to Sericite Phyllite (S).															
35.1	89.9	SERICITE PHYLLITE (S). Broken core averages 4-5cm long. Foliation=75-80°. Trace of graphite.															
		42.6-45.7: Greenish colour-chloritic (?).															
		48.4-48.6: Sulfide band=45°. Py: 20, PbZn: 25.															
		50.2-50.3: Quartz-sulfide interval. Contacts clean and sharp=85°. Py: 30, Pb+Zn: 20	25 10	1.4	3306	49.2	50.6	1.4	4.09	5.78	62.40						



Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
		100.4-100.8: Broken core. Appear like shear zone. No clay material noted.															
		102.1: Gradual change to interlaminated dark and white Sericite (S). Core has striped appearance.															
102.1	109.7	INTERLAMINATED DARK AND WHITE SERICITE PHYLLITE (S+Ss). Competent. Foliation=75-80°, F =0-3°. Some sporadic clots of sulfides.	7.6/7.6		102.1	109.7											
		109.7: Gradual change to dark sericite phyllite alone (S).															
109.7	113.5	DARK SERICITE PHYLLITE (S). Competent. Foliation=75°. F =30° @ 112.3. Calcite as stringers. Sulfides along fractures=35-40°.	3.5/3.8		109.7	113.5											
		113.5: Change to White Phyllite (Ss). Broken ground.															
113.5	114.4	WHITE SERICITE PHYLLITE (Ss) W/SHORT INCLUDED INTERVALS OF BLEACHED PHYLLITE (Sb). Broken core. Foliation=80°.	0.8/0.9		113.5	114.4											
		114.1-114.3: Shear zone. Sliding plane marked by sericite flakes. No gouge noted but core is very soft.															
		114.4: Sharp contact with Massive Sulfides with Quartz inclusions (MI)=60°. Contact is clean.															
114.4	121.0	MASSIVE SULFIDES W/QUARTZ INCLUSION (MI). Dense and brittle. Compositional banding=85-90°. Some included porous variety (=15cm ex: 115.9-116). Showing voids having aligned trend=75-80°.															
		75 4	1.5	3307	114.3	115.8	1.5	6.20	11.25	108.0			9.30	16.875	162.0		
		80 6	1.5	3308	115.8	117.3	1.5	4.30	6.93	55.54			6.45	10.395	83.81		
		80 3	2.0	3309	117.3	119.7	2.4	6.47	9.15	104.9			15.528	21.96	251.81		











Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		26.7-27.4: Massive sulphide.	60	22	0.7	3092	26.7	27.4	0.7	2.18	5.93	30.17			1.526	4.151	21.119
			15	5	2.2	3093	27.4	29.8	2.4	1.23	2.73	19.20			2.952	6.552	46.08
29.8	31.5	MASSIVE SULPHIDE (MB).	50	15	1.7	3094	29.8	31.5	1.7	3.14	5.60	50.40			5.338	9.52	85.69
		Banded sulphides in a quartz matrix. F -40°.	5	18	1.8	3095	31.5	33.5	2.0	2.83	6.49	40.46			5.66	12.98	80.92
31.5	54.0	QUARTZ SULPHIDES (P).	5	12	1.0	3096	33.5	35.1	1.6	1.38	2.55	17.14			2.208	4.08	27.424
		Thin laminae of sphalerite and some pyrite in a	5	12	0.3	3097	35.1	36.6	1.5	2.38	5.90	34.29			3.57	8.85	51.435
		quartz matrix. F -30°.	5	12	0.8	3098	36.6	38.1	1.5	1.13	4.94	17.14			1.695	7.41	25.71
		35.1-54.0: Fault zone. Core is pebbly and in some	5	12	0.7	3099	38.1	39.6	1.5	3.08	3.50	41.49			4.62	5.25	62.235
		spots gouged.	5	12	0.5	3100	39.6	41.1	1.5	1.70	7.00	25.37			2.55	10.5	38.055
			5	12	0.2	3201	41.1	42.7	1.6	1.05	2.63	15.09			1.68	4.208	24.144
			5	12	0.9	3202	42.7	44.2	1.5	4.89	10.94	86.74			7.335	16.41	130.11
			5	12	0.6	3203	44.2	47.2	3.0	2.43	3.15	37.37			7.29	9.45	112.11
			20	12	0.9	3204	47.2	48.8	1.6	4.89	2.75	71.66			7.824	4.4	114.66
			5	12	0.3	3205	48.8	50.3	1.5	5.54	4.50	72.69			8.31	6.75	109.04
			5	12	0.3	3206	50.3	51.8	1.5	1.90	1.83	26.40			2.85	2.745	39.6
			5	12	0.5	3207	51.8	54.0	2.2	1.43	0.68	18.17			3.146	1.496	39.974
54.0	56.5	WHITE PHYLLITE (Ss).	Tr.	Tr.	1.9	3208	54.0	56.5	2.5	0.13	Tr.	Tr.			0.33	0	0
		Buff white, showing silvery sheen on most surfaces.				W.Av.	22.9	50.3	27.4	2.61	4.53	38.44			71.662	124.215	1053.41
		F =10-15°. Sharp in/out contacts.				W.Av.	42.7	50.3	7.6	4.05	4.87	61.30			30.759	37.01	465.911
						W.Av.	42.7	45.7	3.0	3.66	7.04	62.05			10.980	21.135	186.17
56.5	58.7	GRAPHITE PHYLLITE (GP).	5	3	2.0	3209	56.5	58.7	2.2	1.10	2.45	15.09					
		Dark gray to black. F sub-parallel to core. Stringers				W.Av.	29.8	33.5	3.7	2.97	6.08	45.03			10.998	22.50	166.60
						W.Av.	50.3	54.0	3.7	1.62	1.14	21.51			5.996	4.241	79.574

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		both within F and perpendicular to F. Traces of pyrrhotite				W.Av.	0	13.7	13.7	7.03	13.29	99.62			96.365	182.09	1364.78
						W.Av.	13.7	21.3	7.6	2.63	5.25	41.13			20.025	39.935	312.621
58.7	63.6	WHITE PHYLLITE (Ss).			4.5/4.9	W.Av.	18.3	21.3	3.0	4.26	7.13	60.51			12.78	21.405	181.55
		Pale yellow-gray to buff. F generally sub parallel to				W.Av.	13.7	50.3	36.6	2.56	4.57	38.8			93.66	167.17	1419.93
		core. Bull quartz veins: 58.7-59.2; 60.3-60.6; 62.4-62.7.															
63.6	66.7	QUARTZ SERICITE PHYLLITE (S).			3.0/3.1												
		Typical dark gray, F -35°. Core is blocky but not incom-															
		petent.															
66.7	68.0	WHITE PHYLLITE (Ss).			1.0/1.3												
		Light gray to buff with a .1m section of kaolinized feldspar															
		and bull quartz.															
68.0	80.2	QUARTZ SERICITE PHYLLITE (S).			12.2/12.2												
		As previous (63.6-66.7) but not blocky. F variable 35-55°.															
		Thin scattered tension cracks perpendicular to core angle															
		filled with felsic material.															
80.2	82.0	QUARTZ SULPHIDES (PF).															
		As previous (68.0-80.2) but with bands of F sulph-	10	7	1.5	3210	80.2	82.0	1.8	2.20	5.20	31.20			3.96	9.36	56.16
		ides. 5cm band of po at 80.2.	5	3.5	1.0	3211	82.0	83.2	1.2	1.38	3.70	22.29			16.56	4.44	26.784







































Interval		DESCRIPTION	Py PZ	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
86.9	100.0	WHITE PHYLLITE (Ss).		4.6/7.6		86.9	94.5										
		Cream coloured; quartzose-25-50% within phyllite, plus vein-															
		lets 1-10cm which appear to be brecciated and cemented with															
		sulphides+phyllite. Phyllite is NOT brecciated, but F is															
		very contorted-general trend is -60°. Montmorillonite(?) @															
		96.1-fold nose @ 91.4? also @ 93.5 sharp nose-1% Po. 7 1		3.0	3253	94.5	97.5	3.0	0.08	Tr.	Tr.						
				1.3	3254	97.5	100.0	2.5	0.78	0.33	9.94						
100.0	103.6	MASSIVE SULPHIDE (MB).	60 12	1.4	3255	100	102.1	2.1	4.98	5.70	78.86			10.458	11.97	165.61	
		Banded sulphides in a 25% quartz matrix. Sphalerite	60 12	1.0	3256	102.1	103.6	1.5	8.88	10.50	111.1			13.32	15.75	166.64	
		varies from red to pale brown. Also some chert (red)-chert															
		and sphal. can be mistaken.			W.Av.	100.0	103.6	3.6	6.60	7.70	92.29			23.788	27.72	332.24	
103.6	125.1	QUARTZ SULPHIDES (Pg).	10 12	0.7	3257	103.6	105.2	1.6	2.63	5.74	34.29			4.208	9.184	54.864	
		Blebs of sulphides and thin laminae of sphalerite in	15 10	1.2	3258	105.2	106.7	1.5	2.23	4.35	32.23			3.345	6.525	48.345	
		a banded F phyllite . F similar to banding of (MB)	15 8	1.3	3259	106.7	108.2	1.5	2.00	3.90	30.17			3.00	5.85	45.255	
		previous-35° @ 104.0, 25° @ 106.0, 45° @ 107.3. @	15 8	0.9	3260	108.2	109.7	1.5	2.03	3.85	30.17			3.045	5.775	45.255	
		113.1 F is visible parallel to core. @ 107.4 slick	15 8	1.1	3261	109.7	111.3	1.6	1.65	3.68	26.40			2.64	5.888	42.24	
		enslides @ 20°.	15 8	0.9	3262	111.3	112.8	1.5	1.23	2.90	21.26			1.845	4.35	31.89	
		116.8-123.1: F perpendicular to F as follows:.	15 8	1.5	3263	112.8	114.3	1.5	0.75	1.40	15.09			1.125	2.10	22.635	
			15 8	1.2	3264	114.3	115.8	1.5	1.45	2.58	22.29			2.175	3.87	33.435	
			15 8	1.3	3265	115.8	117.3	1.5	1.28	3.40	17.14			1.92	5.10	25.71	
			15 8	1.6	3266	117.3	118.9	1.6	1.10	2.43	16.11			1.76	3.888	25.776	



# DIAMOND DRILL RECORD

LOGGED BY

ALEXANDER YOUNG PO

D.D.H. No 76-U-107

PAGE 1

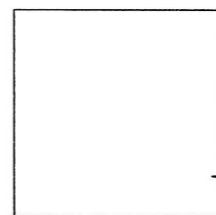
PROPERTY GRUM JOINT VENTURE

LATITUDE 10,936.5 \* 78W STARTED JUNE 30, 1976

DEPARTURE 7,583.5 \* 7N COMPLETED JULY 25, 1976

ELEVATION 1127.6 \* PROPOSED DEPTH 150' - 45.72  
 \* - approximated ULTIMATE DEPTH - 70.1m

HOLE SURVEY:		
DEPTH	BEARING	DIP
*COLLAR	-----	+90°



CLAIM No \_\_\_\_\_

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 82%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	32.0	MINERALIZED GRAPHITIC PHYLLITE (PG). Very blocky core ave: 3cm long. Foliation F = 90°; F = 0-5°. Local Sph rich laminae/bands. 10 6	1.2	3360	0	3.0	3.0	1.78	2.60	28.46						
		17: Fold nose. 10 2	3.1	3361	3.0	7.6	4.6	0.10	0.18	Tr.						
		26: Foliation changing to 75-80°. 8 2	2.2	3362	7.6	10.7	3.1	0.01	Tr.	Tr.						
		28.5: Fold nose. 30 8	0.6	3363	10.7	12.2	1.5	2.03	3.46	31.20			3.045	5.19	46.8	
		32.0: Gradual change to Quartz-sulfide. Groundmass 25 6	1.0	3364	12.2	13.7	1.5	1.55	2.55	23.31			2.325	3.825	34.965	
		more siliceous. 25 5	0.9	3365	13.7	15.2	1.5	1.68	2.85	26.40			2.52	4.275	39.60	
		20 5	1.1	3366	15.2	16.8	1.6	1.60	3.45	30.17			2.56	5.52	48.272	
32.0	52.0	QUARTZ-SULFIDE (P). Competent. Foliation = 85-90 30 6	1.0	3367	16.8	18.3	1.5	1.00	2.13	18.17			1.5	3.195	27.255	
		marked by sulfide bands. 35 5	1.1	3368	18.3	19.8	1.5	1.38	2.00	21.26			2.07	3.00	31.89	
		36.6-37.4: Foliation = 80°; 48.8: F =80-85, F =0-5°. 30 5	1.0	3902	19.8	21.3	1.5	1.55	1.88	24.34			2.295	2.82	36.51	
		37.4-38.0: Greenish-buff bleached phyllite. First 30 5	1.2	3903	21.3	22.9	1.6	2.75	3.40	38.40			4.40	5.44	61.44	
		contact = 85°; Second contact = 70°. 30 8	1.3	3904	22.9	24.4	1.5	3.80	5.00	55.49			5.70	7.50	80.235	
		38.6-42.0: Sericite phyllite interval. From 38.6- 20 7	1.0	3905	24.4	25.9	1.5	4.20	5.55	55.54			6.30	8.325	83.31	
		40 is bleached phyllite gradually changing to dark 25 8	1.1	3906	25.9	27.4	1.5	2.85	4.85	38.40			4.275	7.725	57.6	
		sericite phyllite. 30 10	1.5	3907	27.4	29.0	1.6	4.50	8.86	83.71			7.20	14.176	117.94	

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		Foliation = 80-85°. Nose at 40.3. All contacts	35 15	1.4	3908	29.0	30.5	1.5	7.35	12.75	100.80			11.025	19.125	151.2
		broken ground.	35 12	1.5	3909	30.5	32.0	1.5	6.08	9.91	84.69			9.12	14.965	127.035
		43.8-44.1: Bleached Phyllite. Broken core. Buff	35 12	1.5	3917	32.0	33.5	1.5	3.30	7.82	54.51			4.95	11.73	81.765
		with greenish hue.	35 15	1.5	3918	33.5	35.0	1.5	3.65	9.70	48.34			5.475	14.55	72.51
		52.0: Sharp contact with Bleached Phyllite = 65°.	35 15	1.5	3919	35.0	36.5	1.5	3.15	4.95	52.46			4.725	7.425	78.69
			30 8	1.9	3920	36.5	38.6	2.1	2.89	3.35	38.40			6.069	7.035	80.64
				2.5		38.6	42.0	3.4								
52.0	53.0	BLEACHED PHYLLITE (Sb). Broken, blocky core. Buff	35 19	1.9	3921	42.0	44.2	2.2	3.60	6.43	60.34			7.92	14.15	132.75
		with green stripes (fuchsite). Foliation = 70-75°.	30 12	1.5	3926	44.2	45.7	1.5	1.15	2.18	22.29			1.725	3.27	33.435
			25 6	1.5	3927	45.7	47.2	1.5	2.08	2.45	30.17			3.12	3.675	45.255
		53.0: Sharp wavy contact with quartz-sulfides (P).	25 8	1.6	3928	47.2	48.8	1.6	1.95	1.76	28.11			3.12	2.816	44.976
		General contact trend = 85°.	30 8	1.5	3929	48.8	50.3	1.5	1.55	3.30	29.14			2.325	4.95	43.71
			25 6	1.5	3930	50.3	52.0	1.7	1.85	2.05	26.40			3.145	3.485	44.88
53.0	53.7	QUARTZ-SULFIDE (P). Competent. Foliation = 85-90° inter-														
		lamination of quartz/sulfides. Cpy as short stringers = 0°.		1.0		52.0	53.0	1.0								
		Py: 15, Zn + Pb: 5		0.7		53.0	53.7	0.7								
		53.7: Sharp clean contact with Chloritic Phyllite (Sc & Sb)			W.Av.	10.7	16.8	6.1	1.71	3.08	27.81			10.45	18.81	169.64
		and short bleached phyllite.			W.Av.	16.8	21.3	4.5	1.30	2.00	21.26			5.865	9.015	95.655
					W.Av.	10.7	21.3	10.6	1.54	2.63	25.03			16.32	27.83	265.30
					W.Av.	21.3	27.4	6.1	3.39	4.68	46.32			20.675	28.540	282.585
					W.Av.	22.9	27.4	4.5	3.62	5.13	49.1			16.82	23.10	221.15
53.7	57.5	CHLORITIC PHYLLITE W/SHORT BLEACHED PHYLLITE INTERVAL (Sc+Sb)		3.8		53.7	57.5	3.8								
		Competent. Chlorite as stripes and spots in quartz0-felds-			W.Av.	45.2	50.3	5.1	1.79	2.46	28.5			9.15	12.54	145.1
		pathic groundmass and trace of calcite.			W.Av.	27.4	35.0	7.6	4.97	9.79	72.43			37.77	74.446	550.446
					W.Av.	42.0	45.2	3.2	2.83	5.10	48.4			9.07	16.33	154.99
					W.Av.	35.0	38.6	3.6	2.99	4.02	44.26			10.794	14.460	159.33
					W.Av.	21.3	38.6	17.3	4.00	6.79	57.4			69.24	117.45	992.36



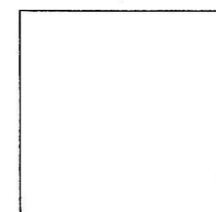
# DIAMOND DRILL RECORD

 LOGGED BY JOCK HOWARD

 D.D.H. No 76-U-108 PAGE 1

PROPERTY GRUM JOINT VENTURE (VANGORDA-GRUM)  
 LATITUDE 10,751.562 6N STARTED JUNE 10, 1976  
 DEPARTURE 7,732.922 70W COMPLETED JUNE 12, 1976  
 ELEVATION 1156.252 PROPOSED DEPTH \_\_\_\_\_  
 ULTIMATE DEPTH 72.5

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	044° 31'	-30° 57'



CLAIM No \_\_\_\_\_

TOTAL CORE RECOVERY: 56.3%

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	3.0	QUARTZ SULPHIDE BRECCIA (QXp).	10 30	0.8	3273	0	3.0	3.0	9.31	21.22	144.2			27.93	63.66	432.69
		Small quartz fragments (-1mm) in a quartz-sulphide matrix.														
		Core is blocky and broken but competent.														
3.0	7.8	MASSIVE SULPHIDE SAND-FAULT ZONE (M).	65 20	0.4	3274	3.0	4.6	1.6	3.70	6.91	55.54			5.92	11.056	88.864
		Short-0.1m sections of (QXp) (see above) in a sul-	65 20	0.5	3275	4.6	6.1	1.5	4.91	6.74	83.66			6.285	10.11	125.49
		phide sand.	65 20	0.5	3276	6.1	7.8	1.7	5.98	10.61	85.72			10.166	18.037	145.72
7.8	12.8	QUARTZ SULPHIDE BRECCIA (PXs).	30 20	0.8	3277	7.8	9.1	1.3	6.38	9.64	88.80			8.294	12.532	115.44
		Angular quartz and sulphide fragments in a quartz	25 12	1.6	3278	9.1	10.7	1.6	0.88	1.03	17.14			3.06	PbZn	
		sericite matrix. Matrix may also contain some fine	30 8	2.1	3279	10.7	12.8	2.1	0.83	1.15	17.14			4.16	PbZn	
		grained sulphides at 10.5, banding or foliation-15°.														
		Traces of graphite.														
					W.Av.	0	9.1	9.1	6.44	12.68	99.80			58.595	115.40	908.21
12.8	19.8	FAULT ZONE (S+Sb).		1.0/7.0	W.Av.	3.0	6.1	3.1	3.94	6.82	69.15			12.205	21.166	214.35
		Upper contact-20°. Pebbles and gouge.			W.Av.	9.1	12.8	3.7	1.95	PbZn				7.22	PZ	

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
19.8	47.2	QUARTZ SERICITE PHYLLITE (S).		18.5/27.4													
		Typical, dark gray. At 23.0, F -90°; @ 24.2, F =35°, <small>2</small> <small>2</small> @ 26.0, F =75°, @ 26.2 sharp nose followed by visible F <small>2</small> <small>1</small> perpendicular to F but contorted-wavy within F. Scattered <small>2</small> <small>2</small> thin laminae of sulphides (Py, Zn, Pb). From 38.1-47.2 core becomes platy and broken. Contact with White Phyllite next is gradual. F consistently 75-90°. At 47.5 .1m bull <small>2</small> quartz with massive PZ (25%).															
47.2	53.9	WHITE PHYLLITE (Ss).		3.3/6.7													
		Platy, broken, largely incompetent. Pale yellow-gray. F <small>2</small> generally 75-90°; F is perpendicular to F. <small>1</small> <small>2</small>															
53.9	58.6	MASSIVE SULPHIDES (Mk).															
		Massive sulphide in a calcic matrix (-15%). Core is 55 +20	55 +20	0.5	3280	53.9	54.9	1.0	8.30	9.87	117.60			8.30	9.87	117.60	
		generally competent but broken and blocky in places. 55 +20	55 +20	1.3	3281	54.9	56.4	1.5	7.85	9.51	111.09			11.775	14.265	166.64	
		No apparent structure. 55 +20	55 +20	1.1	3282	56.4	58.6	2.2	6.75	8.44	92.92			14.85	18.568	204.42	
58.6	72.5	QUARTZ SULPHIDES (Pg).	30 16	1.0	3283	58.6	61.0	2.4	6.54	8.64	84.69			15.696	20.736	203.26	
		Bands (F ?) of sulphides in a quartz-sericite graph- <small>1</small> ite matrix and thin laminae (mostly PZ) (F ?). 30 11	30 11	1.1	3284	61.0	62.5	1.5	2.73	2.35	34.29			4.095	3.525	51.435	
		62.9-63.1: White Phyllite sand! Core is generally <small>2</small> 25 13	25 13	1.1	3285	62.5	64.0	1.5	1.65	1.50	23.31			2.475	2.25	34.965	
		62.9-63.1: White Phyllite sand! Core is generally <small>2</small> 25 13	25 13	1.2	3286	64.0	65.5	1.5	3.60	2.78	37.37			5.40	4.17	56.055	



# DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG-PO

D.D.H. No 76-U-109

PAGE 1

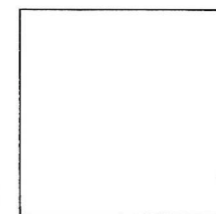
PROPERTY GRUM JOINT VENTURE

LATITUDE 10,936.752 78W STARTED JULY 7, 1976

DEPARTURE 7,585.229 7N COMPLETED JULY 14, 1976

ELEVATION 1127.587 PROPOSED DEPTH 182.8  
 ULTIMATE DEPTH 116.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	38° 43'	+53° 40'
115'35.1	34°	+55°
215'65.6	31°	+62°
315'96m	31°	+65°



CLAIM No \_\_\_\_\_

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 82.5%

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	4.6	MINERALIZED GRAPHITIC PHYLLITE (PG). Blocky core	25 10	0.5	3369	0	1.5	1.5	1.73	5.35	30.17			2.595	8.025	45.255
		ranging from 2-4cm long. Foliation=55-60°. No clear	30 10	1.0	3370	1.5	3.0	1.5	1.83	4.48	39.29			2.745	6.72	58.935
		F noted. Intervening short Bleached Phyllite run.	35 12	1.2	3371	3.0	4.6	1.6	5.62	11.02	108.0			8.99	17.632	172.8
		<sup>1</sup> Po band at 4.5.														
		2.0-2.3: Bleached Phyllite (Sb). Buff with green fuchsite			W.Av.	0	3.0	3.0	1.78	4.92	34.73			5.340	14.745	104.19
		spots.			W.Av.	0	4.6	4.6	3.12	7.04	60.21			14.33	32.377	276.99
		4.6: Sharp change to Graphitic Phyllite. Contact broken			W.Av.	1.5	4.6	3.1	3.79	7.86	74.8			11.74	24.35	231.74
		bull quartz ground.														
4.6	48.9	GRAPHITIC PHYLLITE (G). Broken ground ave: 2cm long.		40.6		4.6	48.9	44.3								
		Foliation=70-75°. F =5°. Minor leaf Py occurrence.														
		<sup>1</sup> 16.9-17.5: Bleached phyllite interval. White to buff with														
		minor fuchsite spots. Sporadic sulphide clots. Foliation=														
		55-60°. First contact clean and sharp=55°. Second contact														
		broken ground.														
		30.5-32; 32-33.5: Very broken core. Extremely poor reco-														
		very. Core Ø=1cm. No gouge noted. 0.3/3.0														
		36.6-38.1: F very well formed=0-5°.														









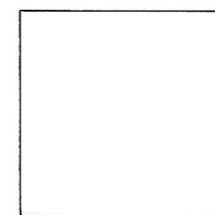
# DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

D.D.H. No 76-U-110 PAGE 1

PROPERTY GRUM JOINT VENTURE (VANGORDA-GRUM)  
 LATITUDE 10,894.584 6N+31.5mNE. STARTED JUNE 12, 1976  
 DEPARTURE 7,627.339E 76W COMPLETED JUNE 13, 1976  
 ELEVATION 1132.983M PROPOSED DEPTH \_\_\_\_\_  
 ULTIMATE DEPTH 90.8M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR		-90°



CLAIM No \_\_\_\_\_

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

CORE RECOVERY: 83.6%

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	1.5	QUARTZ SULPHIDES (P). Hard structureless sulphides in a quartz matrix.	20 10	0.2/1.5		0	1.5		10% PbZn Est. (Recovery very poor)							
1.5	51.8	QUARTZ SERICITE PHYLLITE (S). Typical dark gray, F <sub>2</sub> perpendicular to core, F <sub>1</sub> -where visible as waves or S's perpendicular to F <sub>2</sub> . Very sharp nose @ 13.4. Core is generally competent but platy in places like poker chips. Several quartz veins (.05m-.25m). Also traces of po.		46.3/50.3												
51.8	55.7	WHITE PHYLLITE (Ss). Pale gray, with thin yellow laminae. F <sub>1</sub> not visible, F <sub>2</sub> perpendicular to core. Core is generally competent but poor recovery 53.3-55.7		1.8/3.9												
55.7	66.8	QUARTZ SULPHIDES (Pg). 55.7-57.9: Thin laminae of sulphides in phyllite.	3 1	0.4	3291	55.7	57.9	2.2	2.25	3.35	35.31					
			15 10	1.1	3292	57.9	59.4	1.5	3.98	5.76	61.37			5.97	8.64	92.055

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		Core generally incompetent, broken, platy. F is	10 8	1.1	3293	59.4	61.0	1.6	2.85	3.35	40.46			4.56	5.36	64.736
		perpendicular to core. Trace of graphite.	10 9	1.5	3294	61.0	62.5	1.5	2.53	2.25	33.26			3.795	3.375	49.89
		57.9-58.6: Bands and laminae of sulphide in a quartz	15 8	0.8	3295	62.5	64.0	1.5	2.93	4.40	44.23			4.395	6.6	66.345
		matrix with minor phyllite and traces of graphite.	20 10	0.8	3296	64.0	65.5	1.5	3.00	2.30	50.4			4.5	3.45	75.6
		Core is broken and blocky.	25 6	1.1	3297	65.5	66.8	1.3	1.58	3.00	15.09			2.054	3.90	19.617
		58.6-59.8: FAULT ZONE. Core is pebbly or fragments in			W.Av.	57.9	64.0	6.1	3.07	3.93	44.76			18.720	23.975	273.03
		mud gouge.			W.Av.	64.0	66.8	2.8	2.34	2.62	34.01			6.554	7.35	95.217
		59.8-65.5: Sulphides in a quartz-phyllite matrix. Traces														
		of graphite.														
		61.6-62.0 and 65.4-66.0: White phyllite. General-F =75-90°.														
		F is not noticeable. Core is competent.														
		1														
66.8	79.2	QUARTZ SERICITE PHYLLITE (S).														
		As per 1.5-51.8, no change.														
		75.5: .1m bx.														
79.2	79.6	MASSIVE SULPHIDE (M).	60 25	0.3/0.4												
		Hard, competent, structureless.														
79.6	90.8	QUARTZ SERICITE PHYLLITE (S).														
		Light gray above fault zone (84.9-86.6) becoming dark below														
		fault. F =75-90°. F perpendicular to F where visible.														







Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
		43.5-46.5: Broken core ave: 3cm Ø. Bleached Phyllite.															
		Light buff colour.															
		46.5-59.8: FAULT ZONE. Intervals of gouge and broken (solid)															
		sericite phyllite sand/pebble fragments of Quartz; Phyllite,															
		graphite. 57.5-58.2: Black graphitic gouge.															
		59.4-59.8: Transition zone from gougy material to more solid															
		core. Fault's wall=45°.															
		59.8: Sharp change to Massive Sulfide Zone. Contact appa-															
		rently=10° based on interface between phyllite/massive sul-															
		fides in some broken fragments.															
59.8	67.9	MASSIVE SULFIDE ZONE. Competent. Almost structureless															
		except for short porous intervals, and brecciated in-	70 8	1.5	3372	59.8	61.3	1.5	6.20	6.00	67.54			9.30	9.00	103.31	
		tervals. Porous intervals show orientation of voids=	70 10	1.5	3373	61.3	62.8	1.5	5.10	6.37	63.43			7.65	9.555	95.145	
		60°. Faint trace of Sph/py compositional bands=65-70.	65 8	1.5	3374	(62.8 62.8	63.1 64.3	0.3) 1.5	2.35	3.46	31.20			(0.71	1.04	9.36)	
		Calcite xls. lining cavity walls.	65 8	1.4	3375	64.3	65.8	1.5	0.40	0.68	7.89			1.08	PbZn		
		61.9-62.3: Breccia. Angular sulfide fragments Ø=1mm	60 8	1.5	3376	65.8	67.3	1.5	0.55	0.73	9.94			1.28	PbZn		
		to 1cm. Very well (healed) cemented by sulfides/cal-	65 10	1.5	3377	67.3	68.8	1.5	0.38	0.35	5.14						
		cite.	70 12	1.3	3378	68.8	70.3	1.5	1.70	2.80	18.17						
		63.3-65.0: Barite in groundmass and cavity walls.	60 8	1.2	3379	70.3	71.8	1.5	0.85	1.10	13.03			1.95	PbZn		
		64-64.7: Breccia. Angular sulfide fragments ave: 2cm	50 9	0.9	3380	71.8	73.3	1.5	0.28	0.43	6.17			0.71	PbZn		
		cemented by sulfides, quartz and barite.	50 10	1.2	3381	73.3	74.8	1.5	0.55	0.73	7.20			1.28	PbZn		
		66.4-67.9: Breccia. Same as above but fragments ave:	45 9	1.0	3382	74.8	76.3	1.5	0.78	0.23	8.23			1.01	PbZn		



