



DIAMOND DRILL HOLE HEADER LOG

Page 1 of 14

DATE SEPT 19/96

LOGGED BY: J.T. KELLNER

HOLE ID: 96 GRM-02

REFERENCE FABRIC ORIENTATION DIAGRAM

PROJECT: GRUM

CLAIM: \_\_\_\_\_

UTM CO-ORDS: 

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MINE GRID CO-ORDS: 

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ALL SYMMETRY DETERMINATIONS LOOKING

\_\_\_\_\_ WITH \_\_\_\_\_ DIPPING

ELEVATION: \_\_\_\_\_ (m)

\_\_\_\_\_ WITH DIP AZIMUTH \_\_\_\_\_

TOTAL DEPTH: 209.2 (m)

AZIMUTH: \_\_\_\_\_ INCLINATION: \_\_\_\_\_

PURPOSE: GRUM PIT EXPANSION

REASON HOLE TERMINATED: \_\_\_\_\_

LOGGED BY: \_\_\_\_\_ DATE(S) LOGGED: \_\_\_\_\_

DRILLING CONTRACTOR: ADVANCED DRILLING

CORE SIZES

HOLE CEMENTED: \_\_\_\_\_

SIZE	FROM	TO
<u>1/2</u>	<u>3:0</u>	_____
_____	_____	_____
_____	_____	_____

STEEL DOWN HOLE: 10' CASING LEFT

COLLAR CASED AND CAPPED: \_\_\_\_\_

STARTED: SEPT 19/96

COMPLETED: SEPT. 23/96

LITHOLOGIC LOG

HOLE ID: 966RM-02

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Core Size: NQ

Date: SEPT/96

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
0.0	3.0	0			CASING
3.0	4.43	8	1	4.0 (4.7iv) 95:5	CALCAREOUS PHYLLITE w CHLORITIC PHYLLITE FINGERS (META-IGNEOUS SOURCE?) $\leq$ 0.8m WIDE, WITH GRADATIONAL CONTACTS. - 40 is MED GREY TO PALE GREY-GREEN w $\leq$ 2% QTZ & QTZ/CALCITE UNLETS // & X-LITTING FOL, UP TO 20cm WIDE (NO Sx). - 47 is MED TO BLEACHED GREEN, SLIGHTLY CARBONATE-BEARING. NO Sx. QTZ VNS UP TO 25cm; BARREN, BULL WHITE.
4.43	4.54	9	2	3.0 P.V.	GRAPHITIC PHYLLITE; MOD CARBONATE-BEARING. BLACK TO DRK GREY, $\leq$ 1% CARBONATE UNLETS // TO CONTORTED FOL. TRACES OF Py @ SOME UNLET/WALLROCK CONTACTS.
4.54	5.40	8	3	4.0 (4.7iv) 95:5	CALCAREOUS PHYLLITE w CHLORITIC PHYLLITE SEGMENTS AS BEFORE. MED GREY TO PALE GREY-GREEN; $\leq$ 1% QTZ VNS UP TO 11cm, BARREN & WHITE. WELL FOLIATED.
5.40	5.46	9	4	4.7is	CHLORITIC PHYLLITE w MOD SERICITE DEVELOPMENT // FOL. NO CARBONATE, NO Sx. SLIGHTLY SILICIFIED. OVERLIES CARBONACEOUS PHYLLITE (BREAK IN SEQUENCE).
5.46	5.71	8	5	3.0 P.V.	GRAPHITIC PHYLLITE; DRK GREY TO BLACK, W/ MOD CARBONATE; TRACES OF PYRITE // TO FOL AS SMALL BLESS $\leq$ 4mm. - SMALL FAULT @ 5.8m, 2cm WIDE. W/C?, L/C @ 66° TCA.

LITHOLOGIC LOG

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Core Size: \_\_\_\_\_

Date: \_\_\_\_\_

Logged By: JTK

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
157.1	162.7	9	16	410g	CALCAREOUS PHYLLITE w MINOR GRAPHITE; MED GREY-GREEN TO MED GREY; <1% QTZ/CARB UNLETS; NO SX SEEN
162.7	165.2	16	17	416V (46~V) 90:10	CHLORITIC PHYLLITE; PALE TO MED GREEN, UR TO MOD CARBONATE. <1% QTZ/CARB UNLETS; NO SX SEEN. POOR RECOVERY AS THE UNIT IS BOUNDED BY FAULTS. - 1 <sup>st</sup> FAULT: 84° TCA,    TO FOL., 1cm WIDE, @ 62.7m - 2 <sup>nd</sup> FAULT: 64.4 - 65.2m; 40% RECOVERY, U/C?, L/C @ 77° TCA. VERY SOFT & BROKEN
165.2	105.5	8	18	30P 40:40:20	(40g)(44V) ALTERNATING UNITS OF GRAPHITIC CARBONATE-BEARING PHYLLITE & CALCAREOUS PHYLLITE w METABASITE. - 30P is BLACK TO DRK GREY w TRACES OF Py ALONG QTZ/CALITE UNLETS. INTERVALS: 65.2 - 67.9m 75.6 - 77.3m 79.9 - 83.7m 84.1 - 84.9m 92.0 - 94.1m - 40g is MED GREY w ≤1% QTZ/CARB UNLETS T/O. WELL FOL'D, MOD CARBON CONTENT. INTERVALS: 68.3 - 70.7m 71.6 - 73.8m 77.3 - 79.9 84.9 - 92.0m 94.7 - 105.5m

LITHOLOGIC LOG

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
106.5	107.2	8	8	30 PV	(40g)(44v) CONT
				40:40:20	- 44v is PALE TO BLEACHED GREEN, MOD CARBONATE; WK TO MOD CHLORITE. INTERVALS: 67.9 - 68.3m 70.9 - 71.6m 73.8 - 75.6m 83.7 - 84.1m 94.1 - 94.7m
110.5	110.85	9	9	44 IS	COARSE-GRAINED METABASITE; PALE GREY/GREEN, MOD SILICIFIED; 2% QTZ VNS UP TO 3cm WIDE. HAS A PORRIDGE-LIKE TEXTURE; NO SX SEEN.
110.85	117.2	9	110	48 PZIG WS	METABASITE w DISSEM. Py, SPHAL & GALENA. MED GREEN w YELLOW SER BANDS; 2 to 3% QTZ VNS UP TO 9cm, SOME w GLOBULAR GALENA ALONG FRACTURES. - FROM 108.5 - 110.1m, 10 TO 15% Py, 1 TO 2% GALENA & TRACES OF SPHAL., DISSEM T/O. - FROM 110.1 - 117.2m, $\leq$ 1% Py, 2 TO 3% SPHAL AND $\leq$ 1% GALENA, USUALLY IN DISSEM BANDS // TO FOL.
111.7	120.8	9	111	20g	NON-CALCAREOUS PHYLLITE; MED TO DRK GREY, FAIRLY COMPETANT; 2 TO 3% QTZ UNING UP TO 7cm, BARREN (NO SX). WK TO MOD CHLORITE IN OR NEAR VNS.

LITHOLOGIC LOG

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Logged By: JTK

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
11208	11217	7	112	QP(4Q1) 64:40	BROKEN WHITE - QZ VEIN W/ FRAGMENTED NON-CALCAREOUS PHYLLITE. TRACES OF PYRITE W/IN VEIN. VERY BROKEN, POOR RECOVERY.
11217	11260	9	113	Z101g1	NON-CALCAREOUS, MED TO DARK GREY PHYLLITE; $\leq$ 2% QZ VNS UP TO 5cm, BULL WHITE W/ STRONG CHLORITE DEVELOPMENT W/IN @ MARGINS. WELL FOLIATED; COLOUR BECOMES BLEACHED AS CONTACT WITH 47 (BELOW) IS REACHED
11260	11313	9	114	471g15	CHLORITIC PHYLLITE W/ 10 TO 12% QZ VEINING UP TO 23cm WIDE (WHITE, NO SX). MOD SERICITE DEVELOPMENT.
11313	11378	9	115	481PZ1GWI(30) 90:10	CHLORITIC PHYLLITE/METABASITE W/ 3 TO 5% QZ VEINS UP TO 12cm. MED GREEN TO PALE GREY W/ DRK GREY (GRAPHIC) SEGMENTS, ~5% DISSEM & GLOBULAR Py, 1 to 2% SPIRAL IN DISSEM. BANDS // to fol, AND TRACES OF GALENA IN QZ. UNIT MAY BE SLIGHTLY SILICIFIED.
11378	11424	9	116	Z101g15	NON-CALCAREOUS, CARBON & SERICITE BEARING PHYLLITE. MED TO DARK GREY WITH PALE YELLOW BANDS. GUNGE @ 140.6, ~9cm WIDE. NO SX SEEN.
11424	11432	9	117	471g1	CHLORITIC PHYLLITE, W/SLY SILICIFIED, NO SX; ONE BARREN QZ VEIN @ 142.4 to 142.5, BULL WHITE.

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J.T.K.

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1432	1495	19	118	210g11P <sub>g</sub>	NON-CALCAREOUS, med SILICIFIED / CARBONACEOUS PHYLLITE. MED TO PALE GREY w 1 TO 2% QTZ VEINS UP TO 9cm (BARREN). TRACES OF PYRITE. MINOR CHLORITE ALONG SOME FOLIATIONS.
1495	1510	18	119	48P <sub>g</sub>	CHLORITIC PHYLLITE; PALE GREEN, TRACE TO 1% PYRITE. APPEARS TO BE MOD SILICIFIED; QTZ VEINS FROM 149.6-149.7m; QTZ RUBBLE FROM 150.3-150.5m; TRACES OF PYRITE.
1510	1541	19	120	240P <sub>g</sub>	NON-CALCAREOUS, MOD SILICIFIED PHYLLITE; MED TO DRK GREY, WK TO MOD CARBON CONTENT. PYRITE WDS UP TO 4mm (<1%). HAVE PYRITITE PRESSURE SHADOWS // TO RFE.
1541	1568	19	121	47P <sub>S</sub>	CHLORITIC PHYLLITE w WK SERICITE DEVELOPMENT // TO RFE. TRACES OF PYRITE AS SMALL XTALS. RELATIVELY HOMOGENOUS PALE GREEN COLOUR; VERY COMPETANT. 2% QTZ VNS UP TO 4cm, WITH
1568	1635	17	122	310P <sub>Z</sub> W <sub>g</sub>	GRAPHITIC PHYLLITE w BANDS OF PYRITE & SPHAL, ~ ≤1% OF EACH; VERY BLACK w WHITE LAMINA (QTZ). VERY FRIABLE; APPROX ≤2% QTZ VNS UP TO 9cm CONTAINING TRACES OF PYRITE & SERICITE.
1635	1711	19	123	310	GRAPHITIC PHYLLITE (OR NON-CALCAREOUS, CARBON-RICH PHYLLITE); BLACK TO DRK GREY, VERY UNIFORM, FAIRLY HARD & COMPETANT. TRACES OF PYRITE, BUT < 1% OVERALL. NO FAULTS; OVERLIES B, ALL WHITE QTZ VEIN.

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FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1711	1725	8	24	Q	BULL WHITE QTZ VEIN w VERY MINOR 30 "WAFERS" $\leq 3mm$ (ONLY 4 IN THIS INTERVAL!). N. Sx; OCCASIONAL HEALED FRACTURES; A VERY PLAIN, WHITE QTZ.
1725	1737	9	25	30, P, q	CONTINUATION OF GRAPHITIC PHYLLITE. BLACK TO DARK GREY, TRACES OF PYRITE, WEAKLY SILICIFIED.
1737	1783	8	26	Q, P, Z, G, W (30, P) 8q: 2q	WHITE QTZ VEIN w DISSEM. & GLOBULAR PYRITE (UP TO 3%), DISSEM. SPHAL TO 1%, AND GLOBULAR GALENA TO 1% OCCURRING ADJACENT TO FRACTURES.
1783	1818	8	27	30, P, q	BLACK GRAPHITIC PHYLLITE; MOD HARD TO MOD SOFT AREAS; $\leq 1\%$ PYRITE AS F.G. BANDS // TO FOL. WEAK LOCAL SILICIFICATION. BULL WHITE QTZ UN FROM 179.6 - 179.7m.
1818	1863	6	28	30, P, Z, G, W (30X)(30~) 6q: 2q: 2q	GRAPHITIC PHYLLITE w BANDS OF PYRITE, SPHAL, & GALENA (5-8%, 3%, 1% RESPECTIVELY), AND 1 TO 2% QTZ UNLETS - VERY BROKEN INTERVAL BUT GOOD LOOKING ROCK. RFE IS VERY CONTORTED AND MESSY UP (HARD TO FOLLOW!).
1863	1871	8	29	5, Z, G, R, q	MASSIVE PYRITE w FINE GRND SPHAL & TRACES OF GALENA (15% & 2-3%). WEAK SILICIFICATION; RELATIVELY GOOD RECOVERY.

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Logged By: J.T.K.

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1187.1	1191.2	8	30	ZPZGW (44) 95:5	RIBBON BANDED QTZITE w ~ 5 to 10% Pyrite, 2 to 3% SPHAL, AND ≤ 1% GALENA. WHITE/BLACK w BRONZE & PURPLE BANDS. ONE METABASITE FINGER @ 190.7 - 190.8m; MED PALE GREEN, NO SX.
1191.2	1194.9	6	31	30PIX (ZPZIW) 70:30	GRAPHITIC PHYLLITE, PRIMARYLY AS RUBBLE AND FAULT BRECCIA, WITH RIBBON BANDED QTZITE SEGMENTS. BLACK TO DRK GRAY w WHITE & BLACK FRAGMENTS.
1194.9	1196.4	8	32	441915	MOD. TALCOSE METABASITE; PALE GREEN/YELLOW, LOCALLY SILICIFIED w STRONG SERICITE DEVELOPMENT. TRACES OF PYRITE; FAULT BRECCIA FROM 194.9 - 195.2m
1196.4	1199.2	8	33	5ZG1H (ZPZGW)(44S) 80:10:10	MASSIVE PYRITE w ~ 30% F.G. SPHALERITE & GALENA. RIBBON QTZITE FROM 197.4 - 197.8m; 8-10% PYRITE, 2 to 3% SPHALERITE ± GALENA, IN BANDS w/in QTZ // TO RFE. METABASITE FROM 198.7 - 198.9m; BLEACHED GREEN, MOD SERICITE DEVELOPMENT; TRACES OF FUCHSITE-LIKE TALC MINERAL; NO SX.
1199.2	2016	9	34	4415 (ZPZGW)(5ZGH) 48:39:13	METABASITE w RIBBON QTZITE & MASSIVE SX. PALE BLEACHED YELLOW/ GREEN COLOR w BLACK & BRONZE SEGMENTS. NO SX IN 44s. - MASSIVE Py HAS ~ 20% SPHAL + GALENA & 5% QTZ (w SILICIFICATION). - QTZITE HAS ~ 5% PYRITE, ≤ 2% SPHAL, ≤ 1% GALENA & TRACES OF CHALCOPY, ALL IN BANDS // TO FOL. * MASS. Py FROM 200.6 - 200.9m; QTZITE FROM 200.1 - 200.3m & 200.9 - 200.6m.



# LITHOLOGIC LOG

HOLE ID: 9662m-02

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Core Size: \_\_\_\_\_

Date: \_\_\_\_\_

Logged By: \_\_\_\_\_

JTK.

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
2016	2063	9	35	44s1g (5ZW) 95:5	METABASITE w 2 INTERVALS OF MASSIVE PYRITE. OVERALL A BLEACHED WHITE TO PALE GREEN DUE TO MOD SILICIFICATION. 2 TO 3% QZ VEINS w STRONG CHLORITE DEVELOPMENT.
2063	2080	9	36	5ZGHg	MASSIVE PYRITE w 20 TO 25% F.G. SPHALERITE & GALENA. WEAR SILICIFICATION; OCCASIONAL SERICITE RIBBONS (REMNANT 44).
2080	2092	8	37	30P (30m) 60:40	GRAPHITIC PHYLITE IN FAULT GOUGE OR MOD SHEARED & CASTY MATERIAL BLACK TO DRK GREY, 1 to 2% PYRITE; ONE SMALL 4cm BAND OF ZGEPW NEAR 208.9m, NOT MUCH TO GO ON! APPEARS TO BE OUT OF METABASITE / SX CYCLE AND SEATED IN 30P.
					END OF HOLE!



# FAULT LOG

HOLE ID 96 GRM-02

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Date: SEPT 196

Logged By: J.T. KELLNER

FROM (m)	TO (m)	FEATURE	R E C	UPPER		INTERNAL		LOWER		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
30	64	B 38								
64	169	B 29								
169	177	B 38								
177	214	B 19								
214	216	B 538								
216	258	B 19								
258	259	G 27								GOUGE MATERIAL.
259	269	B T 29								
269	294	B T 28								
294	535	B T 28								
535	548	F G 39						6.6		1cm FAULT
548	600	B 29								
600	627	F G 39						8.4		1cm FAULT.
627	644	B 39								
644	652	F G 34						7.7		40% Recovery @ FAULT.
652	678	B 38								
678	703	F G 38.1						7.4		10cm FAULT.
703	716	F G 39						7.3		FAULT & GOUGE
716	733	G 28								GOUGE MATERIAL
733	755	B T 29								
755	799	B T 39								
799	835	B T 39								
835	845	B T 29								
845	880	T 19								
880	913	T 19								
913	1002	G 28								1cm OF GOUGE.
1002	1019	T 19								
1019	1053	B 28								
1053	1150	B 29								
1150	1186	B 29								
1186	1207	B 37								BROKEN QTZ VEIN & 48 PZGW
1207	1218	B 37								
1218	1226	B 29								
1226	1226	F G 39								CHLORITIC FAULT., 4cm.
1226	1270	B 29								
1270	1281	B 28								
1281	1355	B 28								
1355	1406	F G 39								VERY PASTY.
1406	1433	B 39								
1433	1503	B 38								QTZ RUBBLE
1503	1578	F G 37.6								GRAPHITIC + MASSIVE SX.





# STRUCTURE LOG

HOLE ID 96GRM-02

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Date: Sept/96

Logged By: J.T. Kellner

FROM (m)	TO (m)	FEATURE	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
	48							72		RFE.
	132		S			88				S-FOLDS.
	201							78		RFE
	269							79		RFE
	284		M			74	180			FOLD NOSE IN CALC. PHYLL.
	339							73		RFE
	361		S			87				S.S. S-FOLDS
	423							68		RFE.
	449		S			61				S.S. S-FOLDS
	479							64		RFE
	504		S			78				S.S. S-FOLDS.
	536		S			89				S-FOLDS.
	536							72		RFE
	598		S			76	180			S-FOLDS
	614							68		RFE.
	682		M			71				FOLD NOSE
	729		S			72				S-FOLDS.
	729							64		RFE
	791							74		RFE
	842		S			72				S-FOLDS
	916							78		RFE
	916		S			83				S-FOLD
	1010		S					71		RFE
	1010		S			86	180			S-FOLD
	1010		S			52	180			S-FOLD & KINK BANDS.
	1105							76		RFE
	1108							66		RFE
	1108		M			58				CLOSURE.
	1115							78		RFE
	1186		M			87				CLOSURE
	1207							63		RFE
	1268		Z			57				Z-FOLDS
1302	1305		Z			72				Z-FOLDS
	1363		M			71				CLOSURE
	1396		S			81				S-FOLDS
	1455							79		RFE



**Anvil Range**  
MINING CORPORATION

STRUCTURE LOG

HOLE ID 96GRM-02

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Date: SEPT 196

Logged By: J.T. KELLNER

FROM (m)	TO (m)	FEATURE	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
11455	11456		S			8.8	1.810			} S-FOLDS.
			S			8.9				
	11486							7.9		RFE
	11537							6.6		RFE
	11571							7.2		RFE
	11607							7.2		RFE
	11627		m			6.4				CLOSURE.
	11656		S			8.4	1.810			S-FOLDS
	11697							6.6		RFE
	11698		m			6.8				CLOSURE
	11735							7.2		RFE
	11751							8.1		RFE IN 30 WIN QTZ UN.
	11782							5.2		RFE
	11810		S			7.6				S-FOLDS
	11821							7.1		RFE
	11894							4.8		RFE
	11905			4.7						SPHAL/PY
	11909			4.1						Py/SPHAL
	11966			6.4						Py/SPHAL
11978	11983			5.4						Py/SPHAL
11986	11988					3.6				METABASITE.
12010	12013							4.6		RFE
12052	12055							7.9		RFE IN METABASITE.
	12068			7.1						} Py/SPHAL.
				8.2	1.810					
	12088							7.8		RFE

