



DIAMOND DRILL HOLE HEADER LOG

Page 1 of 9

DATE SEPT 96

LOGGED BY: J.T. KELLNER

HOLE ID: 96 GRM-04

REFERENCE FABRIC ORIENTATION DIAGRAM

PROJECT: GRUM

CLAIM: _____

UTM CO-ORDS:

--

 N
E

MINE GRID CO-ORDS:

--

 N
E

ALL SYMMETRY DETERMINATIONS LOOKING

NE WITH S₂ DIPPING

ELEVATION: _____ (m)

N WITH DIP AZIMUTH (000)

TOTAL DEPTH: 180.4 (m)

AZIMUTH: _____ INCLINATION: _____

PURPOSE: GRUM N. OREBODY EXTENSION

REASON HOLE TERMINATED: IN NON-CALCAREOUS PHYLLITE.

LOGGED BY: J.T. KELLNER

DATE(S) LOGGED: OCT 5 - 12 / 96

DRILLING CONTRACTOR: ADVANCED DRILLING

CORE SIZES

HOLE CEMENTED: _____

SIZE FROM TO

STEEL DOWN HOLE: 20' CASING LEFT

1110 61 1804

COLLAR CASED AND CAPPED: _____

STARTED: SEPT 28/96

COMPLETED: SEPT OCT 2/96

LITHOLOGIC LOG

HOLE ID: 96 6cm-04

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Core Size: NQ

Date: OCT 4 - 196

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
0.0	6.1	01			CASING
6.1	53.1	8	1	410g	MED GREY CALCAREOUS PHYLLITE; WELL FOLIATED, OCCASIONAL FAULTS (@ 16.6-17.4m, 20.1m, 22.3-22.5m, & 50.8-50.9m). $\leq 3\%$ QTZ & QTZ/CARB VNLETS UP TO 6cm; NO SX; WHITE. - WEAK GRAPHITE CONTENT.
53.1	73.0	9	2	410gPis (30)(14) 85:10:5	MED TO DARK GREY CALCAREOUS PHYLLITE w CARBONACEOUS PHYLLITE LENS. 2 TO 3% QTZ/CARB VNING UP TO 9cm WIDE, WHITE w $\leq 1\%$ PYRITE NEAR GRAPHITIC SEPTA. LOCAL SERICITE DEVELOPMENT, POSSIBLY REMNANT. 44 FINGERS.
73.0	73.7	9	3	Q1 (40g) 90:10	BULL WHITE QTZ VEIN w CALC. PHYLLITE FRAGMENTS. GRAPHITIC SEPTA, NO SX. BROKEN // TCA.
73.7	91.57	8	4	40gP (30)(40)(30) 70:20:6:4	CALCAREOUS PHYLLITE AS BEFORE w HIGHER GRAPHITIC PHYLLITE CONTENT AND MULTIPLE FAULTS BETWEEN 2 AND 60 cm (SEE FAULT LOG). TRACES OF PYRITE NEAR 40/30 CONTACTS. SOME LOCAL TALCUSE AREAS OF 40 (ESPECIALLY NEAR FAULT ZONES.)
91.57	91.83	8	5	44P 44P1g	MED PALE GREEN METABASITE, W/LY SILICIFIED + $< 1\%$ QTZ/CARB VNS UP TO 8cm w $\leq 1\%$ PYRITE WITHIN. FAULT GONGI @ 96.8m, VERY TALCUSE.

LITHOLOGIC LOG

HOLE ID: 96 GRM-04

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Core Size: _____

Date: _____

Logged By: J.T.K.

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
9.83	110.07	9	6	47X11	WELL CONSOLIDATED, BLEACHED PALE GREEN METABASITE FAULT BRECCIA. QUITE CHLORITIC; VERY QTZ-RICH (~3% OVERALL) FOLIATIONS VERY ERRATIC, HARD TO GET A RFE MEASUREMENT. TRACES OF PYRITE AND RARE SPHAL BLEBS.
10.07	110.15	6	7	47M	BROKEN TO PASTY METABASITE FAULT GONGE; CONTACTS BROKEN OR DESTROYED.
110.15	110.47	9	8	47I12	PALE GREEN, COARSE GRN'D METABASITE w/ TALC or "FUCHSITE". WELL-FOLIATED, NON-SHEARED. No Sx
110.47	111.20	9	9	52PZGWS (47S) 60:40	BLEACHED QTZ PHYLLITE (POSSIBLY RIBBON BANDED QTZITE w/o GRAPHITE); OVERALL A PALE GREY QTZ w/ 3 TO 4% PYRITE IN MED GRN'D BANDS ACCOMPANIED BY 2 TO 3% SPHAL & TRACES OF GALENA. WK TO MOD SERICITE DEVELOPMENT T/O. FOLIATION IS VARIABLE & CONTORTED GOOD MUSC/SER ON FRACT. SURFACES. MINOR CHLORITIC PHYLLITE FINGERS T/O, POSSIBLY OFFSHOTS OF THE 47 ABOVE. PALE GREEN, w/ $\leq 5\%$ BULL WHITE QTZ VNS, No Sx.
111.20	112.25	9	10	30PAGLIC	GRAPHITIC PHYLLITE w/ 2 TO 3% SPHAL, 3 TO 4% PYRITE & TRACES OF GALENA AS MED-FINE TO MED-COARSE GRN'D BANDS. BLACK TO DRK GREY w/ 5 TO 10% QTZ UNLETS & WK SILICIFICATION. 1% CALITE UNLETS THAT X-WT FOL, WHICH IS VERY CONTORTED & DISRUPTED.
112.25	113.08	8	11	2PZAL19 (3PZH15) 90:10	RIBBON BANDED QTZITE; MED TO DRK GREY, 4 TO 5% PYRITE, 3 TO 4% SPHAL, 2% GALENA, w/ ONE 80cm SEGMENT OF PYRITIC QTZITE w/ 8 TO 10% SPHAL, 2 TO 3% GALENA & 20% QTZ. STR SERICITE DEVELOPMENT. (INT. FROM 126.1m) W/C BOUNDED BY FAULT @ 91° TO, 1cm WIDE.

LITHOLOGIC LOG

HOLE ID: 96 Gem-04

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Logged By: J.T. KELLNER

Core Size: _____

Date: _____

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1,308	1,351	8	112	3PZ6GR	PYRITIC QTZITE w SPHAL & GALENA. PALE MED GREY w BROWN & PURPLE BANDS. 8 TO 10% SPHAL, 4 TO 5% PYRITE & 2% GALENA IN MED TO COARSE GRAINED BANDS // TO RFE. UPPER CONTACT IS BOUNDED BY A BROKEN QTZ VEIN CONTAINING 5% GALENA & 1% SPHAL, PYRITE.
1,351	1,376	9	113	4H76L9S	MINERALIZED METABASITE; PALE BLEACHED GREEN w YELLOW/GREEN & PURPLE BANDS. MOD TO STRONG SER. DEVELOPMENT. 3 TO 4% SPHAL & 2% GALENA AS MED GRN'D XALS EITHER IN BANDS OR FREESTANDING. WK TO MOD SILICIFICATION.
1,376	1,398	8	114	3PZ6GRS	PYRITIC QTZITE; PALE MED TO DRK GREY, 5 TO 8% PYRITE AS MED GRN'D BANDS OR COARSE GRN'D POCKETS. 2 TO 3% SPHAL AS F.G. BANDS. <1% GALENA AS SMALL XALS NEAR PYRITE. WEAK SERICITE DEVEL. NEAR 44 CONTACT. NO GRAPHITE UNTIL 138.2m, THEN WEAK CONTENT, INCREASING D/H
1,398	1,485	9	115	30P	BLACK GRAPHITIC PHYLLITE; 3 TO 4% PYRITE TO 142.7m, DECREASING TO <1%. TRACES OF SPHAL BUT <1%. 1 TO 2% QTZ UNLETS T/O; UNIT FROM 142.7 TO 148.5 IS QUITE HOMOGENOUS AND DRY, WELL-FOLIATED.
1,485	1,598	9	116	3PZ6GRS	PYRITIC QTZITE SIMILAR TO PREVIOUS UNITS; MED TO DRK GREY; 5 TO 7% PYRITE IN MED TO COARSE GRN'D BANDS // TO FOL, 4 TO 5% SPHAL & <1% GALENA AS F.G. BANDS OR DISSEM. XALS. BLEACHING & MOD SERICITE FIN FROM 156.5 TO 158.3m. - L/C BOUNDED BY FAULT IN 30.

LITHOLOGIC LOG

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Core Size: _____

Date: OCT 12/96

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1159.8	1160.6	181	117	30PZ6L ~ {X (3PZ6R) 70:30	GRAPHIC FAULT GONGE & BRITTLE BRECCIA w LENSES OF PYRITIC QTZITE - VERY BLACK, COARSE GR'D. BRECCIA FROM 159.9 - 160.2m & 160.3 - 160.4m, 160.5 - 160.6m - 4/5 OF 1 ST DESTROYED, L/C @ 80° TCA; 2 ND W/C @ 81° TCA, L/C @ 44° TCA; 3 RD W/C @ 78° TCA, L/C DESTROYED.
1160.6	1168.8	181	118	2PZ6L (2PZ6L~) 70:25:5	RIBBON BANDED QTZITE w BRITTLE FAULT BRX & MINOR GONGE. BLACK w BRONZE BANDS; 5 TO 7% PYRITE AS MED GR'D TO COARSE GR'D BANDS, 1 TO 2% SPIHAL (FINE GR'D), AND 1 TO 2% GALENA IN BLOBS UP TO 4mm. 2 TO 3% QTZ VEINS UP TO 5cm w HIGH GALENA CONTENT (HENCE 32% OVERALL). - BRECCIA FROM 165.1 - 166.7m; CONSOLIDATED.
1168.8	1171.7	191	119	20g1P15 (20g1Wk) 90:10	NON-CALCAREOUS, GRAPHIC PHYLLITE w QTZ/ANK VEINING. PALE MED GREY TO BLACK; WK TO MOD GRAPHITE CONTENT; 1 TO 2% PYRITE AS THIN STRINGERS ALONG FRACTURES. MOD TO STRONG LOCAL SERICITE DEVELOPMENT, DECREASING D/H.
1171.7	1180.4	191	120	20g1	NON-CALCAREOUS PHYLLITE; MED GREY, WK GRAPHITE CONTENT, TRACE AMOUNTS OF PYRITE IN BLOBS // TO FOL. 1 TO 2% BULL WHITE QTZ UNLES (M ₂ S ₂); VERY SOFT ROCK (MUSC. RICH).



FAULT LOG

HOLE ID 96 GRM-04

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Date: OCT 4 - 196

Logged By: JT KELLNER

FROM (m)	TO (m)	FEATURE	R E C	UPPER		INTERNAL		LOWER		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
61	84	B ₁ 2	8							
84	166	B ₁ 1	9							
166	174	F _G 3	6	51				?		L/C BROKEN.
174	201	B ₁ 1	9							
201	223			8.4	18.0			7.4		3cm GOUGE
223	274	F _G 2	8	8.8				7.2		CHLORITIC
274	305	B ₁ 2	8							
305	394	B ₁ 2	9							
394	453	B ₁ 1	9							
453	508	B ₁ 3	7							NEARING 40/30 CONTACT.
508	523	F _G 3	9	4.8				4.6		FAULT GOUGE; LOW ANGLE
523	579	B ₁ 2	9							
579	642	F _G 2	9	6.6				6.2		3cm GOUGE
642	648	F _G 3	8	7.2				7.3		GRAPHITIC
648	670	B ₁ 2	9							
670	671	F _G 2	8	?				?		CONTACTS BROKEN.
671	730	B ₁ T 1	9							
730	737	B ₁ R								QTZ VEIN
737	764	B ₁ T 2	9							
764	777	B ₁ 3	8							
777	799	B ₁ T 1	9							
799	799	F _G 2	9	7.8				7.1		2cm GOUGE
799	855	B ₁ T 2	8							MISMATCH @ WRE TUBE
855	873	B ₁ 3	8							+ MINOR QTZ.
873	888	B ₁ 2	9							
888	892	F _G 3	7	4.8				?		CONTACTS BROKEN.
892	910	B ₁ 2	9							
910	935	F _G 3	8	?				7.0		
935	968	F _G 2	9	7.9				6.1		VERY GRAPHITIC; 2cm
968	968	F _G 3	8	5.2				?		5cm GOUGE; CHLORITIC
968	1011	B ₁ 2	9							
1011	1063	F _G 3	5	6.8				?		CHLORITIC
1063	1091	B ₁ 2	9							
1091	1193	B ₁ 1	9							
1193	1227	F _G 3	9	7.4				7.9		2cm GRAPHITIC
1227	1227	F _G 3	7	8.5				?		L/C BROKEN.



STRUCTURE LOG

HOLE ID 96 GEM-04

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Date: _____

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FROM (m)	TO (m)	FEATURE	SYM	S ₀		S ₁		S ₂		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
	63							516		RFE
	131							616		RFE
	199									3m DISTRAL FAULT // TCA
	212		S			72	0.412			S.S. S-FOLDS
	270							513		RFE
	3104		S			79	3.516			
	358							76		RFE
	374		S			84	3.417			S-FOLD
	409							74		RFE
	453					42	1.80			TENSION GASHES ⊥ FOL.
	516							59		RFE
	567		Z			81	2.911			
	615		Z			74	0.118			
	626							67		RFE
	674							710		RFE
686	693					34	1.810			TENSION GASHES ⊥ FOL.
	724							64		RFE
	727		Z			78	3.518			
	780							78		RFE
	841							71		RFE
843	845		S			74	0.014			
	855		S			810	0.010			
	898							516		RFE
	957							66		RFE
	1019							68		RFE
	1055		S			54	?			S-FOLDS
	1076							74		RFE
	1106							65		RFE
1129	11130		m			74	3.518			CLOSURE
	11152							811		RFE
11163	11165					27	3.118			X-cutting QV.
	11187		m			82	0.91			CLOSURE
	1204		S			89	3.34			S-FOLDS
	1248							82		RFE
	1273		Z			78	0.111			Z-FOLDS
	1330							81		RFE

