APPENDIX B

Geological and Geotechnical

Drill Logs 1-44 - Volume 2 of 3

Noranda Minerals Wisconsin Corp.

LYNNE PROJECT

16

(p. 491 - 563)

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-83

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										D	×× 122.5 141.5 DACITE								
										R	×× 141.5 237.0 RHYOLITE								
										gR	^^ 141.5 168.5 Granophyric Rhyolite								
									-24										
										Rcl	^^ 168.5 171.0 Rhyolite Lapilli Crystal Tuff								
										Rt	^^ 171.0 205.0 Rhyolite Tuff								
185.00											Note: @ 185.0 205.0 Pyrrhotite	a				1			1
	100	95	R3	b	10	2			-55			a				1			1
				b	30							a				1			1
				c								a				1			1
				b								a				1			1
195.00				b								a				1			1
	100	100	R3	c	10	3						a				1			1

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-83

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	30								a				1			1
				c	50								a				1			1
				a									a				1			1
205.00				a							Rt	^^ 205.0 237.0 Rhyolite Tuff, altered, bleached	a				1			1
	100	100	R3	b	5	3														
				b	45															
				c	60															
				c																
215.00				c						-48										
	99	95	R3	c	5	3														
				c	45															
				c	60															
				b																
225.00				b																
	100	100	R3	b	10	4														
				c	30															
				c	60															
				c	80															
235.00				c							D	** 237.0 307.0 DACITE								
	100	90	R3	b	5	3														
				a	30															
				a	80															
				b																
245.00				b																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-83

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										Rcl	** 307.0 316.2 RHYOLITE LAPILLI CRYSTAL TUFF								
										Rt	** 316.2 333.5 RHYOLITE TUFF, altered, with talcose interbeds								
									-38										
										Rc	^^ 333.5 340.5 Rhyolite Crystal Tuff								
									-44		^^ 340.5 352.0 Altered by a contact metamorphism with, below dike								
									-75C -70	gQD	^^ 352.0 356.2 Granophyric Quartz Diorite								
									-75C	D	^^ 356.2 362.0 Dacite (?)								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-83

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										gQD	⁜ 362.0 382.5 GRANOPHYRIC QUARTZ DIORITE								
375.00									-50										
	100	95	R2	a	10	3													
				a	40														
				a	70					TS	~~ 382.5 387.0 Talcose Sediment								
				a															
385.00				a						MS	~~ 385.0 387.0 Massive Sulfide	e	40		5				45
	100	95	R2	a	5	3													
				a	20				-60C	QD	⁜ 387.0 550.0 QUARTZ DIORITE								
				a	70														
				a							Note: @ 387.0 408.0 Fault zone, foliated to mylonitic, sheared								
				a															
395.00									-15										
									-5		Note: Quartz Diorite is coarse-grained, but moderately to well sheared								
									-24		~~ 426.0 429.0 Sheared								

DRILL HOLE: LYN91-83

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
											^^ 449.0 450.5 Sheared								
									-20		^^ 464.5 471.0 "Mylonitic"								
									-9		Note: @ 468.0 2 cm wide fault gouge								
									-25		Note: @ 475.0 "Mylonitic"								
									-20		^^ 501.0 528.0 Mylonitic								
									-28										

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-83

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	I
									-30		Note: @ 530.0 Foliated to sheared								
											E.O.H. 550' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	179.3	-58.5
200'	179.3	-58.7
300'	179.9	-58.8
400'	180.6	-58.8
500'	181.8	-58.7
670'	184.1	-58.7

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski\T. Harding
DATE COLLARED: 2-11-91
REMARKS:
CORE SIZE: NQ\HQ

HOLE NO: LYN91-84 (WDNR #205)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-14-91

BEARING: S179.5E INCLINATION: -60 T.D: 670'
COORDINATES: L10300 E, 11160 N
ELEV: 1559.7' SEC: 15 TWP: 37N RANGE: 4

DATE: 9-25-91
PAGE 1 OF 10

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 50.0			0.0 50.0 OVERBURDEN	
50.0 53.0	(not recovered)			
53.0 63.0	(HQ core)			
50.0 156.0		R	50.0 156.0 RHYOLITE	
156.0 162.3		BP,m	156.0 162.3 BEDDED PYRRHOTITE	156.0 162.3 20% Po, Py
162.3 218.0		SL,ch	162.3 218.0 SILTSTONE, SANDSTONE	
218.0 447.8		R	218.0 447.8 RHYOLITE	
447.8 454.0		SLch	447.8 454.0 SILTSTONE, Cherty	
454.0 464.2		Xca	454.0 464.2 TUFFITE, Calcareous	
464.2 494.3		Wq,>R	464.2 494.3 QUARTZ WACKE, Spherulitic Rhyolite	
494.3 543.0		Ch/TS	494.3 543.0 CHERT-DIOPSIDE AND TALC SEDIMENT, With Sulfides	494.3 543.0 5% Sp, Cp, Ga

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	179.3	-58.5
200'	179.3	-58.7
300'	179.9	-58.8
400'	180.6	-58.8
500'	181.8	-58.7
670'	184.1	-58.7

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski\T. Harding
DATE COLLARED: 2-11-91
REMARKS:
CORE SIZE: NQ\HQ

HOLE NO: LYN91-84 (WDNR #205)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-14-91

BEARING: S179.5E INCLINATION: -60 T.D: 670
COORDINATES: L10300 E, 11160 N
ELEV: 1559.7' SEC: 15 TWP: 37N RANGE: 4

DATE: 9-25-9
PAGE 1 OF 1

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
543.0 552.2		SL	543.0 552.2 SILTSTONE	
552.2 571.0		Xp	552.2 571.0 TUFFITE, Pyrrhotite Rich	552.2 571.0 15% Po, 10% Cp
571.0 584.0		SL	571.0 584.0 SILTSTONE	
584.0 600.8		TSs	584.0 600.8 TALC SEDIMENT, With Sulfides	584.0 600.8 6% Sp, Cp, Ga
600.8 613.0		D	600.8 613.0 DACITE	
613.0 622.0		SS,t	613.0 622.0 SANDSTONE, Talcose	
622.0 626.4		Xz,t	622.0 626.4 TUFFITE, Talcose	622.0 626.4 12% Sp, Cp, Ga
626.4 634.5		SS	626.4 634.5 SANDSTONE	
634.5 670.0		QD	634.5 670.0 QUARTZ DIORITE	
634.5 639.5		gQD	634.5 639.5 Granophyric Quartz Diorite	
			E.O.H. 670' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)
% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 50.0												** 0.0 50.0 OVERBURDEN							
												~~ 0.0 3.0 Muskeg							
												~~ 3.0 28.0 Fine sand							
												~~ 28.0 50.0 Sand, gravel, and cobbles							
						Logged by AMZ to 425'					R	** 50.0 156.0 RHYOLITE							
63.00																				
	100	100	R3	b	10	2														
65.00					35															
	100	95	R3	b	20	3														
				b	35															
				a	60															
				b																
75.00				c																
	100	90	R3	c	5	3														
				b	30															
				a	55							Note: @ 79.0-83.0 Zone of feldspar and quartz intergrowths, patches of epidote alteration, coarser towards base							
				b																
85.00				c																
	100	90	R3	c	10	2														
				c	60															
91.00				c																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	100	R3	b	10	3														
				c	45															
95.00					70															
	100	100	R3	c	5	3														
				c	35															
				c	65															
				c																
105.00				c																
	100	100	R3	c	5	3														
				b	20															
110.00				c	45															
	100	100	R3	c	5	3														
				b	25															
115.00				b	50															
	100	100	R3	c	15	2														
				c	55															
				c																
				c																
125.00				c							Rc	^^ 125.7 156.0 Rhyolite/Debris Flow, Flow 1: @ 125.7-132.5 crystal lapilli tuff, grading upward into pyroclastic ash tuff, Flow 2: @ 132.5-140.2 crystal lapilli tuff, up into forest green, fine-grained, massive bed, Flow 3: @ 140.2-156.0 crystal tuff at base, fining up into dark green, massive fine-grained tuff-actinolite, phlogopite, magnetite, calcite filled fractures in fine-grained tuff								
	100	100	R3	c	15	2														
				c	30															
				b																
				b																
135.00				c																
	100	100	R3	c	15	2														
				c	30															
140.00				b																
	100	100	R3	c	30	2														
				c	45															
145.00				b																
	100	95	R3	c	30	2														
				b	50															
				b																
				b																
155.00				c							BP,m	>< 156.0 162.3 BEDDED PYRRHOTITE, finely laminated, magnetite	c			3	17			20
	100	100	R3	c	20	1							c			3	17			20
157.00													c			3	17			20
	100	100	R3	c	5	3							c			3	17			20
				c	25						SL/SS	>< 162.3 218.0 SILTSTONE, SANDSTONE	c			3	17			20
				c	50								c			3	17			20

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				c							SS	^^ 162.3 177.0 Sandstone, altered, fine-grained, disseminated pyrrhotite, pyrite in fractures; diopside, epidote alteration	c				3	17		20
165.00																				
	100	100	R3	c	25	3														
				c	40															
				c	70															
				c																
175.00				c																
	100	100	R3	c	5	2					SLch	^^ 177.0 204.3 Siltstones, finely laminated, cherty alteration								
				c	25															
				b								Note: @ 182.4-184.4 Calcite alteration								
				b																
185.00				a																
	100	100	R3	a	10	3														
				a	25					-30C	pRd	Note: @ 189.0 191.0 Porphyric Rhyolite Dike, high angle (20-30 degree) contacts, dark matrix, plag-phyric, with blue quartz eyes								
				a	50															
				a																
195.00				a																
	100	100	R3	a	10	3														
				b	30															
				b	50															
				a							D	^^ 204.3 218.0 Dacite, dark, fine-grained, calcite filled fractures, minor epidote alteration								
205.00				b																
	100	100	R4	b	10	3														
				a	30															
				b	50															
				b																
215.00				b																
	100	80	R3	b	10	3					R	>>< 218.0 447.8 RHYOLITE								
				a	30															
				a	50						xRa	^^ 218.0 225.2 Rhyolite Ash Tuff, spherulitic, black matrix, grey massive ash beds								
				b																
				b																
225.00											Rcl	^^ 225.2 274.4 Rhyolite Crystal Lapilli Tuff, fining upwards, small blue quartz eyes, feldspar, crystal size, finer at base. Areas of calcite and epidote alteration.								
	100	100	R3	b	10	3														
				c	40															
				b	60															
				a																
235.00				b																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	95	R3	a	20	3														
				a	40															
				b	55															
				b																
245.00				c																
	100	95	R3	b	10	2														
				c	40															
				c																
				b																
255.00				b																
	100	100	R3	a	10	2														
				b	30															
				c																
				b																
265.00				b																
	100	95	R3	c	15	3														
				b	30															
				a	70						IR/Ra*	~~ 271.4 304.5 Interbedded Intrusive & Altered Ash Tuffs, calcite filled fractures and epidote alteration of ash tuffs, highly fractured intrusives; obscured contacts, massive feldspars, hornfelsed							
				b																
275.00				c																
	100	95	R3	c	10	3														
				c	30															
				c	60															
				c																
285.00				b																
	100	100	R3	a	10	3														
				a	40															
				a	70															
				b																
295.00				b																
	100	90	R3	b	25	2														
				b	40															
				b																
				b																
305.00				b																
	100	90	R3	b	5	3														
				c	15															
				b	40															
				a																
315.00				b																

	WI	~~ 304.5 343.0 Lapilli Wacke, distinct flow features, small scale graded bedding, ash beds at top, with clasts of quartz and feldspar. Blue quartz eyes, clasts of chert, granophyric matrix, calcite filled fractures, calcite/ diopside alteration near base.

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	90	R3	b	5	3														
				c	15															
				c	40															
				b																
325.00				b																
	99	80	R3	b	5	3														
				b	15															
				c	30															
				a																
335.00				a																
	100	85	R3	b	10	2														
				b	30															
				b																
				b																
345.00				b							Rt	>< 343.0 403.0 RHYOLITE TUFF, small feldspar laths, grey matrix								
	100	90	R3	c	15	2														
				c	30															
				c																
				c																
355.00				c																
	100	100	R3	b	20	3														
				b	45															
				b	60															
				b																
365.00				b																
	100	90	R3	a	15	3					IR	Note: @ 367.0 376.3 Intrusive Rhyolite, chilled margins, minor alteration at contacts								
				a	40															
370.00				a	60															
	100	100	R3	a	20	3														
				a	40															
375.00				a	55							Note: @ 376.3-384.1 Altered Lapilli Tuff								
	99	90	R3	a	20	3														
				b	40															
				b	70															
				c							IR	Note: @ 384.1 403.0 Intrusive Rhyolite, irregular lower contact, chilled margins								
385.00				b																
	100	95	R3	a	15	3														
				a	30															
				a	70															
				a																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%		Sp	Cp	Ga	Py	Po	As	T
395.00				a																	
	100	90	R3	a	15	3															
				a	30																
				a	70																
				a							RI	^^ 403.0 436.5 Rhyolite Lapilli Tuff, chert, blue quartz eyes, lt. grey clasts									
405.00				b																	
	100	95	R3	b	15	3															
				c	30																
				c	60																
				b																	
415.00				b																	
	100	100	R3	a	20	3															
				b	40																
				b	70																
				a																	
425.00				b																	
	100	100	R3	c	30	2						Note: TAH started logging at 425'									
				b	60																
				c																	
				b																	
435.00				b						-20C	pMd	^^ 436.5 442.0 Plag-phyric Mafic Dike, high angle contact @ 20 degrees									
	100	95	R3	a	30	2				-20C											
				a	65																
				b							RI	^^ 442.0 447.8 Rhyolite Lapilli Tuff, as above									
				b																	
445.00				b																	
	99	95	R2	b	5	3				-40B	SLch	>>< 447.8 454.0 VOLCANICLASTIC SEDIMENT, interbedded siltstone and massive lt. grey chert. Garnet at top, chert could be just clasts.									
				a	30																
				a	60																
				a																	
				a																	
											MS	>>< 454.0 464.2 MASSIVE SULFIDE, calcareous contorted bedding		d	22	3	2	2		29
455.00														d	22	3	2	2		29
	100	100	R3	b	10	3								d	22	3	2	2		29
				c	30					-40B				d	22	3	2	2		29
				c	60					-60B				d	22	3	2	2		29
				c							Wq	>>< 464.2 494.3 VOLCANICLASTIC SEDIMENTS, predominantly blue quartz eyes, quartz wacke, with chert, pumice, and bedded. Cherty-Po bed with chalcopyrite from	a		1			1		2
465.00				b									a		1			1		2	
	100	95	R3	a	10	3							a		1			1		2	
				a	30								a		1			1		2	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	60							469.5-471.0 and @ 489.7-494.3. Fine-grained spherulitic toward base.	a	1				1		2
				b									a	1				1		2
475.00				c									a	1				1		2
	100	95	R3	c	10	3							a	1				1		2
				c	30								a	1				1		2
				c	60								a	1				1		2
483.00				c									a	1				1		2
	100	95	R3	c	20	3							a	1				1		2
				a	40								a	1				1		2
				a	60								a	1				1		2
491.00				a									a	1		2	1			4
	100	100	R3	a	10	2							a	1		2	1			4
				a	40						Ch/TS	** 494.3 543.5 INTERBEDDED CHERT-DIOPSIDE AND TALC SEDIMENT, with sulfides	a	1		2	1			4
													a	1		2	1			4
											ChCs	~~ 494.3 499.0 Chert-diopside, with sulfides	a	1		2	1			4
495.00													b	3		2	1			6
	100	100	R3	b	10	2							b	5		1	1			7
				c	40						TS	~~ 499.0 504.0 Talc Sediment	b	5		1	1			7
				c									b	5		1	1			7
				c							CS,t	~~ 504.0 509.5 Calcareous Sediment, talcose, contorted	b	4			2	2		8
505.00				b									b	4			2	2		8
	100	100	R2	b	10	3							b	4			2	2		8
				a	30								b	5			1	2		8
				a	60								b	5			1	2		8
				b									b	5			1	2		8
				a							ChCs	~~ 513.0 514.5 Chert-diopside	b	5			1			6
515.00													b	5			1			6
	100	100	R3	a	5	3							b	5			1			6
				b	30						Chs	~~ 519.5 526.3 Predominantly Chert-diopside	c	12	1	4	3	1		21
				a	60								c	12	1	4	3	1		21
				a									c	12	1	4	3	1		21
525.00				b									c	12	1	4	3	1		21
	100	100	R3	a	5	3					Chs	~~ 526.3 528.3 Chert, with sphalerite	c	12	1	4	3	1		21
				a	30								c	12	1	4	3	1		21
				a	60								c	12	1	4	3	1		21
				a									c	7		1	2			10
				b							X	~~ 534.0 539.0 Tuffite	c	10		1	2			13
535.00													c	10		1	2			13
	100	100	R3	b	30	3							c	10		1	2			13
				a	50								c	10		1	2			13

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a	70					-65B										
				a							SL	** 543.5 552.2 SILTSTONE, laminated with chert beds and sulfides. Chert clasts @ base.	a		1		1	1		3
545.00				a						-65B			a		1		1	1		3
	100	100	R3	a	15	4							a		1		1	1		3
				b	30								a		1		1	1		3
				b	50						X,P	** 552.2 571.0 TUFFITE, chalcopyrite rich, pyrrhotite rich, in altered wacke. Quartz eyes, small clasts, not bedded.	a		1		1	1		3
				b	75								d		25			12		37
555.00				c									d		25			12		37
	100	100	R3	d	40	2							d		25			12		37
				d	60								d		25			12		37
				d									d		25			12		37
				c									d		25			12		37
565.00				c						-55B			d		25			12		37
	100	100	R3	c	10	3							d		25			12		37
				c	35								d		25			12		37
				c	65					-80B	SL	** 571.0 584.0 SILTSTONE, with disseminated and stringer sulfides	d		25			12		37
				a									c	2		1	1	10		14
				b									c	2		1	1	10		14
575.00											SLs	^^ 576.0 581.0 Siltstone, with sulfides	c	2		1	1	10		15
	100	100	R2	b	5	3							c	3	1	1	1	10		16
				a	20								c	3	1	1	1	10		16
				b	50						TSs	^^ 581.0 586.0 Talc Sediment, with sulfides	c	3	2	1	1	10		17
				b									c	3	2	1	1	10		17
				b									c	3	1	1	1	10		16
											TS	** 584.0 600.8 TALC SEDIMENT, stringery sulfides	c	3	1	1	1	10		16
585.00													c	3	1	1	1	10		16
	100	95	R2	b	5	4							c	3	1	1	1	10		16
				b	20								c	3	2	1	9			15
				c	50								c	2	1	1	9			13
				c	80								c	2	1	1	9			13
595.00				b									c	2	1	1	9			13
	100	100	R3	b	20	3							c	2	1	1	9			13
				b	50						D	** 600.8 613.0 DACITE	c	2	1	1	9			13
				b	80															
				b																
605.00				a																
	100	100	R3	a	20	3														
				a	40															
				b	80															
				b							SS,t	** 613.0 622.0 SANDSTONE, talcose, faintly	b	4	1	1				6

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-84

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b								laminated, stringery, talcose beds	b	4	1	1				6
615.00																				
	100	100	R3	b	10	3							b	4	1	1				6
				b	40								b	4	1	1				6
				b	70						Xz,t	>< 622.0 626.4 TUFFITE, talcose, stringery	b	4	1	1				6
				b									b	4	1	1				6
625.00				c							SS	>< 626.4 634.5 SANDSTONE OR WACKE,	c	10	1	1				12
	100	100	R3	c	10	3						altered (epidote-sericite) matrix.	b	4	1	1				6
				c	25								a		1		1			2
				c	40								a		1		1			2
				c						-35F	QD	>< 634.5 670.0 QUARTZ DIORITE	a		1		1			2
				c									a		1		1			2
											gQD	^^ 634.5 639.5 Granophyric Quartz Diorite								
635.00																				
												E.O.H. 670' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	178.3	-60.7
300'	178.8	-60.8
500'	181.6	-60.6
700'	187.1	-59.9
1002'	189.7	-59.4

PROJECT: LYNNE P.O. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: J. Schaff
DATE COLLARED: 2-12-91
REMARKS:
CORE SIZE: NQ\HQ

HOLE NO: LYN91-85 (WDNR #198)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-17-91

BEARING: S180E INCLINATION: -62.5 T.D: 1002'
COORDINATES: L10100 E, 11705 N
ELEV: 1562' SEC: 15 TWP: 37N RANGE: 4E

DATE: 3-6-91
PAGE 1 OF 15

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 67.0			** 0.0 67.0 OVERBURDEN	
67.0 70.0	(not recovered)			
70.0 82.5	(HQ core)			
67.0 721.5		:R	** 67.0 721.5 RHYOLITE	
67.0 79.5		:Rt	^^ 67.0 79.5 Rhyolite Tuff	
79.5 96.5		:Ra	^^ 79.5 96.5 Rhyolite Ash Flow	
96.5 164.9		:Wa	^^ 96.5 164.9 Agglomerate	
164.9 334.5		:Rt	^^ 164.9 334.5 Rhyolite Tuff	
334.5 346.0		:pIR	^^ 334.5 346.0 Porphyritic Rhyolite	
346.0 363.0		:Rl	^^ 346.0 363.0 Rhyolite Lapilli Tuff	
363.0 388.0		:Rt	^^ 363.0 388.0 Rhyolite Tuff	
388.0 410.5		:Rl	^^ 388.0 410.5 Rhyolite Lapilli Tuff	
410.5 439.0		:pIR	^^ 410.5 439.0 Porphyritic Intrusive Rhyolite	
439.0 453.5		:Rt	^^ 439.0 453.5 Rhyolite Tuff	
453.5 459.5		:pIR	^^ 453.5 459.5 Porphyritic Intrusive Rhyolite	
459.5 553.0		:Wl	^^ 459.5 553.0 Lapilli Wacke	
553.0 573.5		:Rt	^^ 553.0 573.5 Rhyolite Tuff	
573.5 624.0		:IR	^^ 573.5 624.0 Intrusive Rhyolite	
624.0 636.5		:Wf	^^ 624.0 636.5 Feldspathic Wacke	
636.5 648.0		:Wl	^^ 636.5 648.0 Lapilli Wacke	
648.0 721.5		:Rlch	^^ 648.0 691.0 Rhyolite Lapilli Tuff, Cherty	
691.0 703.5		:CS	^^ 691.0 703.5 Calcareous Sediment	
703.5 721.5		:Rl	^^ 703.5 721.5 Rhyolite Lapilli	
721.5 728.0		:Sk	** 721.5 728.0 TACTITE	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	178.3	-60.7
300'	178.8	-60.8
500'	181.6	-60.6
700'	187.1	-59.9
1002'	189.7	-59.4

PROJECT: LYNNE P.O. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: J. Schaff
DATE COLLARED: 2-12-91
REMARKS:
CORE SIZE: NQ\HQ

HOLE NO: LYN91-85 (WDNR #198)

DATE: 3-6-91
PAGE 1 OF 15

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-17-91

BEARING: S180E INCLINATION: -62.5 T.D: 1002'
COORDINATES: L10100 E, 11705 N
ELEV: 1562' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
728.0 761.0		W	** 728.0 761.0 WACKE	
761.0 769.0		SLm	** 761.0 769.0 SILTSTONE	
769.0 879.0		TS	** 769.0 879.0 TALCOSE SEDIMENT	
794.0 796.0		Ch	^^ 794.0 796.0 Chert	
799.7 804.5		Rch	^^ 799.7 804.5 Rhyolite Tuff, Cherty	
836.5 852.0		BPch	^^ 836.5 852.0 Bedded Pyrrhotite	
879.0 898.3		pMd	** 879.0 898.3 MAFIC DIKE	
898.3 1001.5		QD	** 898.3 1001.5 QUARTZ DIORITE	
898.3 904.5		gQD	^^ 898.3 904.5 Granophyric Quartz Diorite	
			E.O.H. 1002' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 67.0											** 0.0 67.0 OVERBURDEN								
										R	** 67.0 721.5 RHYOLITE								
										Rt	^^ 67.0 79.5 Rhyolite Tuff, black to green, aphanitic, moderate pumice								
											Note: @ 79.5-83.5 Abundant Spherulites								
										Ra	^^ 79.5 96.5 Rhyolite Ash Flow Tuff, good flow banding, elongated pumice, minor lapilli sized clasts								
											Note: @ 89.5 96.5 Cherty (?) Ash Flow Tuff, moderate pumice								
										Wa	^^ 96.5 164.9 Agglomerate (?), or Tuff Breccia, rhyolitic to cherty clasts, reddish-tan to grey, plag-phyric to silicic matrix								
											Note: @ 109.5-110.5 Zone of strong epidote alteration ?								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)
% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 151.0 155.0 Rhyolite Tuff (or sandstone), with minor amount of porphyritic rhyolite								
										Rt	^^ 164.9 334.5 Rhyolite Tuff (or Sandstone), green to black, very fine-grained, massive								
											Note: @ 177.5-178.5 Rock is broken, possible fault zone								
											Note: @ 190.5-192.5 Rock is very broken, fault zone ?								
											Note: @ 209.5 Small .1" fault or shear, with weak fault breccia and minor calcite veinlets								

DRILL HOLE: LYN91-85

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 269.5-278.0 Mafic Dike, black, plag-phyric								
											Note: @ 297.0-315.5 Minor zones of								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
											weakly laminated siltstones								
										pIR	^^ 334.5 346.0 Porphyritic Intrusive Rhyolite, gradational contacts								
										R1	^^ 346.0 363.0 Rhyolite Lapilli Tuff, dark green to black, abundant pumice								
										Rt	^^ 363.0 388.0 Rhyolite Tuff or Dacite (?), black, very fine-grained, patchy light green epidote alteration								

DRILL HOLE: LYN91-85

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										Rl	~~ 388.0 410.5 Rhyolite Lapilli Tuff, minor pumice								
										pIR	~~ 410.5 439.0 Porphyritic Intrusive Rhyolite, tan with minor epidote along fractures; gradational contacts								
										Rt	~~ 439.0 453.5 Rhyolite Tuff, grey-black, fine to medium-grained, minor pumice or glass shards (?)								
									-55C	pIR	~~ 453.5 459.5 Porphyritic Intrusive Rhyolite, feldspar rich, moderate blue quartz eyes								

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

ROCK QUALITY:

DRILL HOLE: LYN91-85

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										W1	^^ 459.5 553.0 Lapilli Wacke (or Tuff), porphyritic texture, clasts similar (?) to matrix, grey to black								
											Note: @ 471.0-472.0 Silicified or bleached zone								
											Note: @ 516.0-553.0 Matrix becoming finer-grained with abundant pumice or glass shards present								
											Note: @ 535.0-537.0 Zone of strong								

ORIGINAL

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

ROCK QUALITY:

DRILL HOLE: LYN91-85

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											epidote alteration								
										Rt	^^ 553.0 573.5 Rhyolite Tuff (Sandstone) to Rhyolite Crystal Tuff(?), fine-grained, to porphyritic, black								
											Note: @ 573.5 Gradational contact								
										IR	** 573.5 624.0 INTRUSIVE RHYOLITE, tan, plag-phyric, occasional bleached zones								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	ROD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalX	Sp	Cp	Ga	Py	Po	As	T
											Wf	^^ 624.0 636.5 Feldspathic Wacke, or a strongly feldspar rich porphyritic rhyolite dike								
												Note: @ 631.0 635.5 Mafic Dike (?), black, plag-phyric								
										-35C	W1	^^ 636.5 648.0 Lapilli Wacke (?), coarse-grained, (porphyritic) ?, matrix with minor blue quartz eyes and large pumice (?) fragments								
646.50																				
	100	100	R3	a	10	2					Rlch	^^ 648.0 691.0 Rhyolite Lapilli Tuff (or Wacke), with abundant interbedded chert and cherty beds, laminated to bedded, minor contorted zones (soft sediment deformation) similar to LYN91-78, @ 613.7-629.2								
				a	25															
				a																
				b																
656.50				a																
	100	100	R3	a	5	3						Note: @ 662.5-663.5 Zone of semi-massive pyrrhotite, cubic pyrite and minor chalcopyrite	b		1		3	5		9
				b	20															
				b	40															
				b																
666.50				a																
	100	100	R3	c	20	3														
				c	60															
				b	80															
				a																
676.50				a																
	99	90	R3	b	10	2														
				a	30															
				b																
				c																
686.50				c								Note: @ 683.3-691.0 Matrix is coarse-grained, abundant blue quartz eyes (unit similar to the sinatra rhyolite)								
	100	95	R3	c	10	3														
				c	30															
				b	50						CS	^^ 691.0 703.5 Calcareous Sediment, grey to light green, very crude bedding								
				c																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalX	Sp	Cp	Ga	Py	Po	As	T
696.50				b																
	100	100	R3	b	10	2														
				c	30															
				c																
				c							R1	^^ 703.5 721.5 Rhyolite Lapilli								
706.50				c																
	100	100	R3	c	20	2														
				c	45					-60										
				c																
				c																
716.50				c																
	100	100	R2	c	5	2														
				b	45															
				b							Sk	** 721.5 728.0 TACTITE (?), moderate diopside (skarn) or epidote alteration, light green, minor disseminated pyrite								
				b																
726.50				b																
	100	100	R2	a	15	3					W	** 728.0 761.0 WACKE (?), medium-grained, dark grey to green (ash or pumice), looks similar to a tactite								
				c	55															
				b	70															
				c																
736.50				c																
	100	100	R2	c	5	3							a	2						2
				c	25															
				b	70															
				c																
746.50				c																
	100	100	R2	b	10	2				-30		Note: @ 747.0-747.6 Light green epidote altered zone or mafic dike								
				b	30															
				b																
				b																
756.50				a																
	100	95	R3	a	10	3														
				a	40															
				a	65						SLm	** 761.0 769.0 SILTSTONE, black, very fine-grained, very well laminated with numerous offsets, finely disseminated magnetite (bedded magnetite ?)								
				a																
766.50				b																
	99	90	R2	b	5	3														
				b	30															
				c	65						TS	** 769.0 879.0 TALCOSE SEDIMENT, light	a			2	2			4

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%		Sp	Cp	Ga	Py	Po	As	T
				c								to dark green, disseminated sulfides		a				2	2		4
				c										a				2	2		4
776.50														a				2	2		4
	100	95	R2	b	30	2								a				2	2		4
				c	50									a				2	2		4
				c										b	3			2	2		7
				c										b	3			2	2		7
786.50				c										b	3			2	2		7
	100	95	R2	c	20	2						Note: @ 791.5-794.0 Beddded sulfides		b	3			2	2		7
				c	50									b	3			2	2		7
				b										b	3			2	2		7
				c										b	3			2	2		7
796.50				c							Ch	^^ 794.0 796.0 Chert, grey, disseminated pyrite		b	3			2	2		7
	100	100	R2	c	20	2								b	3			2	2		7
				a	50						Rch	^^ 799.7 804.5 Cherty Rhyolite Tuff (?), black, minor fractures		b	3			2	2		7
				a										b	3			2	2		7
				b										b	3			2	2		7
				c										b	3			2	2		7
806.50														b	3			2	2		7
	100	95	R2	c	10	2								b	3			2	2		7
				c	50									b	3			2	2		7
				c										b	3			2	2		7
				c										b	3			2	2		7
816.50				c										b	3			2	2		7
	100	95	R2	c	10	2								b	3			2	2		7
				c	30									b	3			2	2		7
				c										b	3			2	2		7
				c										b	4			2	2		8
826.50				c										b	4			2	2		8
	100	100	R2	c	30	2								b	3	1		2	2		8
				c	50							Note: @ 833.0-836.5 Crude bedding or cherty zones		b	3	1		2	2		8
				c										b	3	1		2	2		8
				c										b	3	1		2	2		8
836.50				c							BP,ch	^^ 836.5 852.0 Bedded Pyrrhotite, minor cherty zones		b	3	1		2	2		8
	100	100	R2	c	50	1								e	4	3		2	38		47
				c										e	4	3		2	38		47
				c										e	4	3		2	38		47
				c										e	4	3		2	38		47
846.50				c										e	4	3		2	38		47
	100	100	R2	c	10	2								e	4	3		2	38		47
				c	30									e	4	3		2	38		47
														e	4	3		2	38		47

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology
				b								
				a								
856.50				b								
	100	100	R2	b	10	2						
				b	30							
				c								
				b								
866.50				c								
	100	100	R2	c	10	2						Note: @ 868.0-876.0 Well bedded
				b	30							
				b						-55B		
				b								
876.50				b								
	100	100	R2	b	30	2				-30C		
				b	60						pMd	** 879.0 898.3 MAFIC DIKE, black, plag-phyric
				b								
				b								
886.50				b								
											gQD	** 898.3 904.5 QUARTZ DIORITE, Granophyric
											QD	** 904.5 1001.5 QUARTZ DIORITE

Total%	Sp	Cp	Ga	Py	Po	As	T
e	4	3		2	38		47
b	1	1		2	5		9
b	1	1		2	5		9
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
c	1	1		10	2		14
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6
b	1	1		2	2		6

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-85

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											E.O.H. 1001.5' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	188.9	-66.0
200'	189.2	-66.3
300'	190.4	-66.6
400'	190.5	-66.9
580'	191.3	-65.7

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 2-12-91
REMARKS:
CORE SIZE: NQ/HQ

HOLE NO: LYN91-86 (WDNR #219)
CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-14-91

DATE: 7-18-
PAGE 1 OF 9
BEARING: S188.3E INCLINATION: -66.6 T.D: 580'
COORDINATES: L9500 E, 11285 N
ELEV: 1561.5' SEC: 15 TWP: 37N RANGE: 4

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 38.0		**	0.0 38.0 OVERBURDEN	
38.0 42.5	(not recovered)			
42.5 60.0	(HQ core)			
38.0 114.0		R	** 38.0 114.0 RHYOLITE	
114.0 150.0		SL	** 114.0 150.0 SILTSTONE	
150.0 173.0		R	** 150.0 173.0 RHYOLITE	
173.0 194.5		SL	** 173.0 194.5 SILTSTONE	
194.5 218.4		R	** 194.5 218.4 RHYOLITE	
218.4 300.5		SL,Wq	** 218.4 300.5 INTERBEDDED SILTSTONE, QUARTZ WACKES	
234.7 253.0		R	^^ 234.7 253.0 Rhyolite	
300.5 354.5		R	** 300.5 354.5 RHYOLITE	
320.0 342.0		TS	^^ 320.0 342.0 Talcose Sediment	
354.5 357.0		BP	** 354.5 357.0 BEDDED PYRRHOTITE	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	188.9	-66.0
200'	189.2	-66.3
300'	190.4	-66.6
400'	190.5	-66.9
580'	191.3	-65.7

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 2-12-91
REMARKS:
CORE SIZE: NQ/HQ

HOLE NO: LYN91-86 (WDNR #219)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-14-91

DATE: 7-18
PAGE 1 OF 9

BEARING: S188.3E INCLINATION: -66.6 T.D: 58
COORDINATES: L9500 E, 11285 N
ELEV: 1561.5' SEC: 15 TWP: 37N RANGE:

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
357.0 365.0		gRd	** 357.0 365.0 RHYOLITE DIKE, Granophyric	
365.0 367.0		BP	** 365.0 367.0 BEDDED PYRRHOTITE	
367.0 371.3		gRd	** 367.0 371.3 RHYOLITE DIKE, Granophyric	
371.3 376.4		WI	** 371.3 376.4 LAPILLI WACKE	
376.4 380.5		MS	** 376.4 380.5 MASSIVE SULFIDE	376.4 380.5 60% Sp
380.5 387.3		Xz,t	** 380.5 387.3 TUFFITE, Talcose, Stringery	380.5 387.3 12% Sp
387.3 388.5		CS,t	** 387.3 388.5 CALCAREOUS SEDIMENT, Talcose	
388.5 390.0		MS	** 388.5 390.0 MASSIVE SULFIDE	
390.0 400.0		CS	** 390.0 400.0 CALCAREOUS SEDIMENT	
400.0 403.0		W,t	** 400.0 403.0 WACKE, Talcose	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	188.9	-66.0
200'	189.2	-66.3
300'	190.4	-66.6
400'	190.5	-66.9
580'	191.3	-65.7

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 2-12-91
REMARKS:
CORE SIZE: NQ/HQ

HOLE NO: LYN91-86 (WDNR #219)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-14-91

BEARING: S188.3E INCLINATION: -66.6 T.D: 580'
COORDINATES: L9500 E, 11285 N
ELEV: 1561.5' SEC: 15 TWP: 37N RANGE: 4E

DATE: 7-18-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
403.0 408.0		Xtp	** 403.0 408.0 TUFFITE, Tuffaceous, With Pyrrhotite	403.0 408.0 10% Sp
408.0 412.5		CSp	** 408.0 412.5 CALCAREOUS SEDIMENT, With Pyrrhotite	
412.5 413.5		MS	** 412.5 413.5 MASSIVE SULFIDE	
413.5 420.0		BPM	** 413.5 420.0 BEDDED PYRRHOTITE AND MAGNETITE	
420.0 580.0		QD	** 420.0 580.0 QUARTZ DIORITE	
420.0 423.0		gQD	^^ 420.0 423.0 Quartz Diorite, Granophyric	
			E.O.H. 580' (total depth)	

DRILL HOLE: LYN91-86

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Totalx	Sp	Cp	Ga	Py	Po	As	T
0.0 38.0											** 0.0 38.0 OVERBURDEN								
										R	** 38.0 114.0 RHYOLITE								
										Rcl	^^ 42.5 76.4 Rhyolite Lapilli Tuff, lt. grey, glassy matrix with reddish rhyolite or cherty clasts. Clast size increases with depth								
									-70										
										R	^^ 76.4 81.0 Tuff, altered, dark green, with epidote, massive top to flow								
									-75										
										R	^^ 81.0 91.0 Rhyolite Flow, fragment matrix, with elongate plag-phyric clasts and bedded shards								
									-20C	Rt	^^ 91.0 114.0 Rhyolite Tuff, fragment, granophyric								
									-52										

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	RF	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										SL	** 114.0 150.0 SILTSTONE, dark grey, massive, occasionally laminated, with grainy interbeds								
										R	** 150.0 173.0 RHYOLITE								
										IR	^^ 150.0 160.0 Intrusive Rhyolite								
										Ch	^^ 160.0 164.0 Cherty Tuff								
										pR	^^ 164.0 169.0 Rhyolite Porphyry Quartz, feldspathic matrix with lapilli-sized pR clasts								
									-60 -70	W	^^ 169.0 173.0 Wacke								
										SL	^^ 173.0 194.5 Siltstone, fragment quartz wacke								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalX	Sp	Cp	Ga	Py	Po	As	T
										R	** 194.5 218.4 RHYOLITE								
										ChT	^^ 194.5 199.6 Cherty Tuff								
										Rcl	^^ 199.6 215.5 Rhyolite Lapilli Crystal Tuff								
										W#	^^ 215.5 218.4 Wacke, altered tuff								
										SL	** 218.0 300.5 SILTSTONE								
									-50										
										R	^^ 234.7 253.0 Rhyolite								
											Note: @ 234.7-250.5 Cherty Tuff								
											Note: @ 250.5-253.0 Lapilli Wacke								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
										-60	Wq	^^ 263.0 273.0 Wacke, Quartz								
275.00																				
	100	90	R3	b	5	3					Wq	^^ 274.7 279.0 Wacke, Quartz								
				b	20															
				c	50						W#	^^ 279.0 300.5 Wacke, altered								
				b																
285.00				b																
	100	95	R3	b	5	3						Note: @ 290.0-293.0 Garnet								
				b	20															
				b	50															
				c																
295.00				b																
	100	95	R3	b	5	3					R	** 300.5 354.5 RHYOLITE								
				c	20						ChSL	^^ 300.5 302.3 Chert, Cherty Siltstone								
				b	50						gR	^^ 302.3 320.0 Rhyolite, Granophyric								
				b																
				b																
305.00																				
	100	100	R3	a	30	3														
				a	50															
				a	70															
				a																
315.00				a																
	100	100	R3	a	10	4					TS	^^ 320.0 342.0 Talcose Sediment								
				a	30															
				a	50															
				a	70															
325.00				a																
	100	95	R3	a	10	3														
				a	40															
				a	60															
				b																
335.00				c																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%		Sp	Cp	Ga	Py	Po	As	T
	100	100	R3	c	5	3															
				b	30																
				b	60						gRd	** 342.0 354.5 RHYOLITE DIKE, Granophyric									
				a																	
345.00				a																	
	100	100	R3	a	10	3															
				a	30																
				a	60																
				a						-40C	BP	** 354.5 357.0 BEDDED PYRRHOTITE									
355.00				a																	
	100	95	R3	b	5	3				-30C	gRd	** 357.0 365.0 RHYOLITE DIKE, Granophyric									
				a	30																
				a	60																
				a																	
365.00				a						-25C	BP	** 365.0 367.0 BEDDED PYRRHOTITE									
	100	100	R3	a	5	3															
				a	30					-40C	gRd	** 367.0 371.3 RHYOLITE DIKE, Granophyric									
				a	60																
				a						-65C	Wl	** 371.3 376.4 LAPILLI WACKE									
				a																	
375.00											NS	** 376.4 380.5 MASSIVE SULFIDE		f	60			2			62
	100	100	R3	b	10	3								f	60			2			62
				c	30						Xz,t	** 380.5 387.3 TUFFITE, talcose, stringery		f	60			2			62
				c	60								c		12		3	2			17
				c									c		12		3	2			17
385.00				b									c		12		3	2			17
	100	65	R2	b	30	2					CSt	** 387.3 388.5 CALCAREOUS SEDIMENT, talcose	c		12		3	2			17
				b	60									f	70						70
				a										f	70						70
				a							NS	** 388.5 390.0 MASSIVE SULFIDE		f	70						70
				a																	
											CS	** 390.0 400.0 CALCAREOUS SEDIMENTS, with magnetite rich interbeds									
395.00										-65		Note: @ 390.0-394.0 Fracture zone									
	100	100	R2	b	40	2															
				b	60						W,t	** 400.0 403.0 WACKE, talcose									
				b																	
				b							Xtp	** 403.0 408.0 TUFFITE, tuffaceous, with pyrrhotite									
				c									c		10			10			20
													c		10			10			20

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG		Fol	CODE	Lithology	TotalZ	Sp	Cp	Ga	Py	Po	As	T
405.00														c	10				10		20
	100	100	R3	c	30	2						BP	^^ 405.0 406.5 Bedded Pyrrhotite	c	10				10		20
				c	60							MS	^^ 406.5 408.0 Massive Sulfide	e					40		40
				c										f	70		5				75
				c								Cs,p	** 408.0 412.5 CALCAREOUS SEDIMENT, with pyrrhotite	f	70		5				75
				c										f	70		5				75
										-60		MS	** 412.5 413.5 MASSIVE SULFIDE								
415.00												BP	** 413.5 418.0 BEDDED PYRRHOTITE								
												Sk	** 418.0 420.0 Ep-Mt Tactite								
												QD	** 420.0 580.0 QUARTZ DIORITE								
												gQD	^^ 420.0 423.0 Quartz Diorite, Granophyric								
										-30F			Note: @ 446.0 Weak fracture foliation								
										-80C			^^ 455.2 459.3 Mafic Sill								
										-40C											

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
									-30	Md	^^ 491.0 510.0 Mafic Dike								
									-270										

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-86

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	TotalX	Sp	Cp	Ga	Py	Po	As	T
											^^ 550.0 580.0 Less coarse-grained, increase in shear fabric								
									-30										
											E.O.H. 580' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.3	-61.4
400'	182.2	-61.9
600'	183.3	-61.5
800'	185.4	-60.9
1000'	187.3	-60.1
1129'	188.7	-59.6

PROJECT: LYNNE P.O. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding and J. Schaff
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-87 (WDNR #251)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-20-91

DATE: 5-13-91
PAGE 1 OF 17

BEARING: S180E INCLINATION: -62 T.D: 1129.0'
COORDINATES: L10000 E 12125 N
ELEV: 1553' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 38.0			** 0.0 38.0 OVERBURDEN	
38.0 67.0		SL	** 38.0 67.0 SILTSTONE	
57.0 67.0		WF	^^ 57.0 67.0 Feldspathic Wacke	
67.0 99.2		D	** 67.0 99.2 DACITE	
99.2 339.0		R	** 99.2 339.0 RHYOLITE	
99.2 108.0		R	^^ 99.2 108.0 Rhyolite Flow	
108.0 135.0		R	^^ 108.0 135.0 Rhyolite Flow	
135.0 215.5		Rb	^^ 135.0 215.0 Rhyolite Breccia	
215.5 243.0		Rcl	^^ 215.0 243.0 Rhyolite Crystal Lapilli Tuff	
243.0 297.0		Rb	^^ 243.0 297.0 Rhyolite Breccia	
297.0 332.0		Rl	^^ 297.0 332.0 Rhyolite Lapilli Tuff	
332.0 339.0		gR	^^ 332.0 339.0 Granophyric Rhyolite	
339.0 430.0		D	** 339.0 430.0 DACITE	
430.0 480.8		R	** 430.0 480.0 RHYOLITE	
430.0 449.2		Rt	^^ 430.0 449.2 Rhyolite Tuff	
449.2 480.8		R	^^ 449.2 480.8 Rhyolite Flow	
480.8 508.0		D	** 480.8 508.0 DACITE	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.3	-61.4
400'	182.2	-61.9
600'	183.3	-61.5
800'	185.4	-60.9
1000'	187.3	-60.1
1129'	188.7	-59.6

PROJECT: LYNNE P.O. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding and J. Schaff
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-87 (WDNR #251)

DATE: 5-13-91
PAGE 1 OF 17

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-20-91

BEARING: S180E INCLINATION: -62 T.D: 1129.0'
COORDINATES: L10000 E 12125 N
ELEV: 1553' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
508.0 714.4		R	** 508.0 714.4 RHYOLITE	
508.0 551.0		pRd	^^ 508.0 551.0 Porphyritc Rhyolite Dike	
551.0 580.5		Rt	^^ 551.0 580.5 Rhyolite Tuff	
580.5 585.0		Rc	^^ 580.5 585.0 Rhyolite Crystal Tuff	
585.0 590.5		pRd	^^ 585.0 590.5 Porphyritic Rhyolite Dike	
590.5 595.5		Wf	^^ 590.5 595.5 Feldspathic Wacke	
595.5 603.8		Rt	^^ 595.5 603.8 Rhyolite Tuff	
603.8 636.0		Rl	^^ 603.8 636.0 Lapilli Tuff	
636.0 686.5		SS	^^ 636.0 686.5 Sandstone	
686.5 714.4		Wf	^^ 686.5 714.4 Lapilli Wacke	
714.4 781.7		R	** 714.4 781.7 RHYOLITE	
773.0 781.7		Wl	^^ 773.0 781.7 Lapilli Wacke	
781.7 1024.0		R	** 781.7 1024.0 RHYOLITE	
781.7 782.5		Ch	^^ 781.7 782.5 Chert	
782.5 803.5		Rc	^^ 782.5 803.5 Rhyolite Crystal Tuff	
803.5 812.0		Rt	^^ 803.5 812.0 Rhyolite Tuff	
812.0 823.0		Rc	^^ 812.0 823.0 Rhyolite Crystal Tuff	
823.0 853.6		Rt	^^ 823.0 853.6 Rhyolite Tuff	
853.6 867.0		xR	^^ 853.6 867.0 Spherulitic Rhyolite	
867.0 886.0		SS	^^ 867.0 886.0 Sandstone	
886.0 902.0		BM	^^ 886.0 902.0 Bedded Magnetite	
902.0 905.0		TS	^^ 902.0 905.0 Talc Sediment	
905.0 909.8		Rt	^^ 905.0 909.8 Rhyolite Tuff	

Noranda Exploration Inc.
Eastern Division

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.3	-61.4
400'	182.2	-61.9
600'	183.3	-61.5
800'	185.4	-60.9
1000'	187.3	-60.1
1129'	188.7	-59.6

PROJECT: LYNNE P.O. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding and J. Schaff
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-87 (HONR #251)

DATE: 5-13-91
PAGE 1 OF 17

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-20-91

BEARING: S180E INCLINATION: -62 T.D: 1129.0'
COORDINATES: L10000 E 12125 N
ELEV: 1553' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY
909.8 934.0	
934.0 940.0	
940.0 1000.4	
1000.4 1009.0	
1009.0 1013.0	
1013.0 1024.0	
1024.0 1129.0	
1024.0 1029.0	

CODE	GEOLOGIC UNITS
TS	^^ 909.8 934.0 Talc Sediment
MP	^^ 934.0 940.0 Massive Pyrite and Pyrrhotite
Rt	^^ 940.0 1000.4 Rhyolite Tuff
TS	^^ 1000.4 1009.0 Talc Sediment
Rt	^^ 1009.0 1013.0 Rhyolite Tuff
xR	^^ 1013.0 1024.0 Spherulitic Rhyolite
QD	** 1024.0 1129.0 QUARTZ DIORITE
gQD	^^ 1024.0 1029.0 Granophyric Quartz Diorite

E.O.H. 1129.0' (total depth)

MINERALIZATION & ALTERATION

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN9i-87

ROCK QUALITY:

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 38.0											** 0.0 38.0 Overburden								
										SL	** 38.0 67.0 SILTSTONE, WACKE, laminated siltstone with 2-12" lapilli, feldspathic interbeds								
										Wf	^^ 57.0 67.0 Feldspathic Wacke, looks like dacite but it is laminated								
										D	** 67.0 99.2 DACITE, plag-phyric intervals								
										R	** 99.2 339.0 RHYOLITE								
										R	^^ 99.2 108.0 Rhyolite Flow, grading from Rl to Cht, 3' Cht cap								
											Note: Rhyolite Lapilli Tuff @ 102.0-108.0								

DRILL HOLE: LYN91-87

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										R	^^ 108.0 135.0 Rhyolite Flow grading from Rb-Cht,								
											Note: Cherty Tuff @ 108.0 111.0								
											Note: Rhyolite Lapilli @ 111.0 131.0								
											Note: @ 125.0 129.0 Core broken								
											Note: Rhyolite Breccia @ 131.0 135.0								
										Rb	^^ 135.0 215.5 Rhyolite Breccia								
											Note: Cherty Tuff @ 135.0 137.5								
											Note: Rhyolite Breccia with 1-6" clasts @ 137.5 169.0								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										Rcl	^^ 215.0 243.0 Rhyolite Crystal Lapilli Tuff								
										Rb	^^ 243.0 297.0 Rhyolite Breccia, greenish matrix with reddish quartz and rhyolite porphyry clasts, and plag-phyric clasts								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Totalz	Sp	Cp	Ga	Py	Po	As	T
										R1	^^ 297.0 332.0 Rhyolite Lapilli Tuff								
											Note: @ 325.0 330.0 Fe-staining and core fractured								
										gR	^^ 332.0 339.0 Granophyric Rhyolite								
										D	** 339.0 430.0 DACITE								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 389.0 391.0 Core broken								
									-20C		Note: @ 408.0 430.0 Fault Zone								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	ROD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										R	** 430.0 480.0 RHYOLITE								
										Rt	^^ 430.0 449.2 Rhyolite Tuff								
										R	^^ 449.2 480.8 Rhyolite Flow								
										D	** 480.0 508.0 DACITE								

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

ROCK QUALITY:

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										R	** 508.0 714.4 RHYOLITE								
										pRd	^^ 508.0 551.0 Rhyolite Porphyry Dike								
											Note: @ 508.0 559.0 Fracture Zone								
											Note: @ 515.0 551.0 Fe-staining								
									-15F										
									-20F										
										Rt	^^ 551.0 580.5 Rhyolite Tuff, medium to dark grey, moderately granophyric, patchy light green epidote								
										Rc	^^ 580.5 585.0 Rhyolite Crystal Tuff (or Wacke), grey to black								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
									-45C	pRd	^^ 585.0 590.5 Porphyritic Rhyolite Dike, bright orange, minor blue to clear quartz eyes								
										Wf	^^ 590.0 595.5 Feldspathic Wacke, minor lapilli sized clasts (?) grades into a finer grained (ashy) unit downward								
										Rt	^^ 595.5 603.8 Rhyolite Tuff, (or Dacite), black, very fine-grained, patchy light green epidote								
										Rl	^^ 603.8 636.0 Lapilli Tuff, good flow banding or bedding, minor agglomerate sized clasts, trace stringer pyrite (<1%)								
										SS	^^ 636.0 686.5 Sandstone, grey-black, medium to fine-grained, trace stringer pyrite								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 669.4 670.0 Fault Zone, moderate serpentinite								
										W1	^^ 686.5 714.4 Lapilli Wacke, with interbedded siltstone to sandstone								
										R	** 714.4 781.7 RHYOLITE, granophyric, grey to black with occasional light tan (bleached?) zones								
											Note: @ 734.0 752.0 Stringer pyrite and								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol -25B -30B	CODE	Lithology	TotalX	Sp	Cp	Ga	Py	Po	As	T
											pyrhotite along fracture or bedding (?) planes.								
											Note: @ 764.0 765.0 Bleached and fractured zone								
										Wf	^^ 773.0 781.7 Lapilli Wacke (?), black, fine-grained, crudely bedded sediment, minor stringer pyrite								
										R	** 781.7 1024.0 RHYOLITE flow sequence:								
										Ch	^^ 781.7 782.5 Chert								
										Rc	^^ 782.5 803.5 Rhyolite Crystal Tuff or Flow, crude flow banding, large feldspar phenocrysts with a "spherulitic look", minor small blue quartz eyes								
										Rt	^^ 803.5 812.0 Rhyolite Tuff or Sandstone, black, fine-grained, crudely bedded, trace magnetite								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										Rc	^^ 812.0 823.0 Rhyolite Crystal Tuff, minor flow banding or bedding, blue quartz eyes								
										Rt	^^ 823.0 853.6 Rhyolite Tuff with interbedded volcaniclastics, crudely bedded to laminated, occasional spherulitic layers, black, fine-grained, occasional "accidental" clasts								
										xR	^^ 853.6 867.0 Spherulitic Rhyolite, grey with brownish-tan spherulites, spherulite layers often graded occasional "accidental" clast								
										SS	^^ 867.0 886.0 Sandstone, greenish-black, very fine-grained, very weak spherulite (?) development								
875.00																			
	100	95	R2	a	5	2													
				b	40														
				b															
881.50																			
	100	95	R2	b	20	2													
				c	40														
				c															
				b						BM	^^ 886.0 902.0 Bedded Magnetite with minor pyrrhotite, well bedded to laminated,	a				3		3
												a				3			3

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%		Sp	Cp	Ga	Py	Po	As	T
891.00				b								minor floding of laminations, (30% magnetite)	a						3	3
	100	100	R3	b	20	2							a							3	3
				b	40								a							3	3
				b									a							3	3
				b									a							3	3
				c									a							3	3
902.00				c									a							3	3
	100	95	R2	c	20	2					TS	^^ 902.0 905.5 Talc Sediment, well developed bladed talc (?) crystals, light to medium green	a						3	3
				c	40																
				c																	
				c																	
											Rt	^^ 905.0 909.8 Ash (?) or Rhyolite Tuff, grey, contorted appearance with epidote (?) in vienlets, possibly metasomatically altered	a		2					2
													a		2						2
													a		2						2
													a		2						2
911.00													a		2						2
	100	100	R2	c	30	1					TS	^^ 909.8 934.0 Talc Sediment, light to medium green, well developed bladed talc (?) crystals	a		2					2
915.00				c									a		2						2
	99	95	R2	c	30	1							a		2						2
				c									a		2						2
				c									a		2						2
				c									a		2						2
925.00				c									a		2						2
	100	95	R2	c	10	2							a		2						2
				c	30								a		2						2
				c									a		2						2
				c									a		2						2
935.00				c									a		2						2
	100	100	R2	c	35	2					MP	** 934.0 940.0 MASSIVE PYRITE AND PYRRHOTITE		e			40	5			45
				c	60									e			40	5			45
				c										e			40	5			45
				c							Rt	^^ 940.0 1000.4 Rhyolite Tuff, black, fine-grained, minor stringer pyrrhotite	a				2	2		4
945.00													a				2	2			4
													a				2	2			4

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
995.00																				
	100	95	R2	b	30	2														
				b	75															
				b							TS	^^ 1000.4 1009.0 Talc Sediment, green,	a	1					1
				c								fiberous to bladed talc (?) crystals	a	1					1
1005.00				c									a	1						1
	100	100	R2	c	45	2							a	1						1
				c	60								a	1						1
				b							Rt	^^ 1009.0 1013.0 Rhyolite Tuff?, strong	a				5		5
				c								pyrrhotite, minor spherulites	a				5		5
				c									a				5		5
1015.00											xR	^^ 1013.0 1024.0 Spherulitic Rhyolite,							
	100	100	R3	c	45	2						brown to black, crudely bedded							
				c	70															
				c																
				c																
										-25C	QD	** 1024.0 1129.0 QUARTZ DIORITE							
											gQD	^^ 1024.0 1029.0 Granophyric Quartz							

ROCK QUALITY:

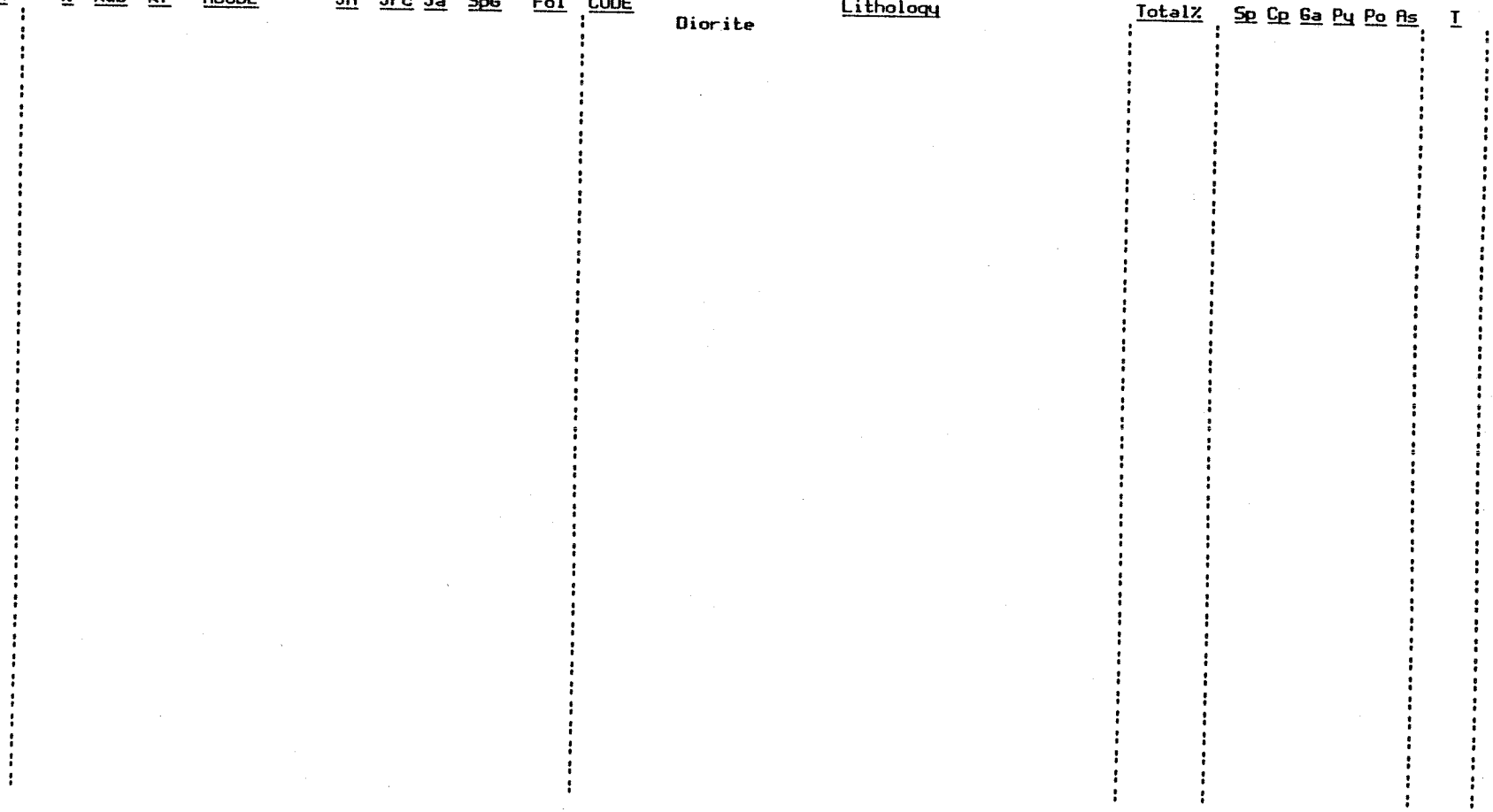
FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Diorite								



ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-87

SULFIDES: (T)
% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											E.O.H.1129.0' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.8	-61.3
400'	182.9	-61.5
600'	186.4	-60.4
770'	187.4	-61.2

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-88 (WDNR #206)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-18-91

BEARING: S180.9E INCLINATION: -61.4 T.D: 770'
COORDINATES: L10300 E 11275 N
ELEV: 1559.6' SEC: 15 TWP: 37N RANGE: 4E

DATE: 9-26-91
PAGE 1 OF 11

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 50.0			0.0 50.0 OVERBURDEN	
50.0 58.0	(not recovered)			
50.0 75.6		R	50.0 75.6 RHYOLITE	
75.6 135.0		SS/SL	75.6 135.0 SANDSTONES/SILTSTONE	
135.0 190.8		R	135.0 190.8 RHYOLITE	
190.8 228.2		SL	190.8 228.2 SILTSTONE	
228.2 479.0		R	228.2 479.0 RHYOLITE	
479.0 492.0		TSp	479.0 492.0 TALC SEDIMENT, With Pyrrhotite	479.0 492.0 8% Po, Py
492.0 524.8		Rc	492.0 524.8 RHYOLITE CRYSTAL TUFF	
524.8 552.5		ChCx	524.8 552.5 CHERT, With Diopside	
552.5 588.0		Rc	552.5 588.0 RHYOLITE CRYSTAL TUFF	
562.0 565.3		pD	562.5 565.3 Dacite Sill or Flow, Plag-phyric	
584.3 592.0		FZ	Note: @ 584.3 592.0 Fault Zone	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.8	-61.3
400'	182.9	-61.5
600'	186.4	-60.4
770'	187.4	-61.2

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-88 (WDNR #206)
CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-18-91

DATE: 9-26-91
PAGE 1 OF 11

BEARING: S180.9E INCLINATION: -61.4 T.D: 770'
COORDINATES: L10300 E 11275 N
ELEV: 1559.6' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
588.0 606.0		TS	** 588.0 606.0 TALC SEDIMENT	
592.0 606.0		TSs	^^ 592.0 606.0 Talc Sediment, With Sulfides	592.0 606.0 7-9% Sp, Cp, Ga
606.0 618.3		Xz,t	** 606.0 618.3 TUFFITE, Talcose, Stringery	606.0 618.3 20% Sp
618.3 630.5		CS,t	** 618.3 630.5 CALCARIOUS SEDIMENTS, Sulfide Rich, Talcose	618.0 630.5 7% Sp, Ga
630.5 637.0		Rc	** 630.5 637.0 RHYOLITE CRYSTAL TUFF	
637.0 665.0		SS,t	** 637.0 665.0 SANDSTONE, Talcose	
665.0 672.0		Chp	** 665.0 672.0 CHERT, With Pyrrhotite, Laminated	
672.0 676.0		R	** 672.0 676.0 RHYOLITE	
676.0 678.0		Chp	** 676.0 678.0 CHERT, With Pyrrhotite	676.0 678.0 5% Po, Py
678.0 682.2		D	** 678.0 682.2 DACITE OR SANDSTONE	
682.2 770.0		QD	** 682.2 770.0 QUARTZ DIORITE	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
200'	181.8	-61.3
400'	182.9	-61.5
600'	186.4	-60.4
770'	187.4	-61.2

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 2-14-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-88 (WDNR #206)

DATE: 9-26
PAGE 1 OF

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 2-18-91

BEARING: S180.9E INCLINATION: -61.4 T.D: 7
COORDINATES: L10300 E 11275 N
ELEV: 1559.6' SEC: 15 TWP: 37N RANGE:

FOOTAGE	ROCK QUALITY	DRILL HOLE SUMMARY CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
			E.O.H. 770' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	I
0.0 50.0											** 0.0 50.0 OVERBURDEN								
											^^ 0.0 2.0 Muskeg								
											^^ 2.0 40.0 Fine sand								
											^^ 40.0 50.0 Sand and gravel								
							Logged by AMZ to 400'			R	** 50.0 75.6 RHYOLITE, Flow 1: @ 72.0 75.0 Lapilli Wacke clasts of chert and rhyolite, Flow 2: @ 72.0 65.0 Granophyric Rhyolite, purple feldspar phenocrysts, Flow 3: @ 65.0 58.0 Agglomeratic rhyolite clasts of white rhyolite in matrix from 2mm-80mm.								
58.00																			
	99	80	R3	b 5 c 20 c 50	3														
65.00				b															
	99	80	R3	b 10 b 50	2														
				a															
				a															
75.00				b															
	100	80	R4	a 10 a 40 b 60	3					SS/SL	** 75.6 135.0 SANDSTONE, fining upward to siltstones, finely laminated calcite filled fractures dense, black								
				b															
85.00				a															
	100	100	R4	a 10 b 30 b 60	3														
				b															
95.00				c															
	100	100	R4	b 15 c 70	2														
				c															
				b															
105.00				c															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	95	R4	a	15	3														
				a	45															
				b	70															
				a																
115.00				a																
	100	100	R4	a	5	3														
				a	20															
				a	60															
				a																
125.00				a																
	100	95	R4	a	5	3														
				a	35															
				a	65															
				b																
135.00				a							R	** 135.0 190.8 RHYOLITE								
	100	100	R4	a	10	3														
				a	35						Rf	^^ 135.0 155.3 Rhyolite Flow								
					65															
139.00																				
	100	100	R4	a	10	3														
				a	35															
145.00				a	65															
	100	100	R4	a	10	2														
				b	40															
				b																
				b																
155.00				b						-40C	IR	^^ 155.3 183.0 Intrusive Rhyolite, fault zone gouge highly fractured, interbedded rhyolite and wacke at base, calcite and serpentine filled fractures, lapilli wacke, quartz, rhyolite interclasts, rhyolite orange to purple, porphyritic									
	100	100	R3	a	10	3														
				a	40															
				a	65															
				a																
165.00				a																
	100	95	R3	a	5	3														
				a	45															
				a	60															
				a																
175.00				b																
	100	100	R3	c	10	3														
				c	45															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	60															
				b							WI	^^ 183.0 190.8 Lapilli Wacke, grading to							
185.00				b						-15F		siltstone, faulted, highly fractured								
	100	95	R3	a	20	3														
				b	40						SL	** 190.8 228.2 SILTSTONE, Cherty								
				b	60							dark siltstone, finely laminated wacke,								
				c								light grey, fractured, highly irregular								
195.00				b								bedding, calcite filled fractures, ashy								
	100	100	R3	a	10	3						interbeds								
				a	30															
				a	60															
				a																
205.00				a																
	100	100	R3	a	10	2														
				a	35															
				a																
				a																
215.00				a																
	100	100	R3	a	10	2														
				b	30															
220.00				b																
	100	100	R3	c	10	2														
				b	30															
225.00				b																
	100	95	R3	b	10	2					R	** 228.2 479.0 RHYOLITE								
				c	30															
				c							Rc	^^ 228.2 254.0 Rhyolite Cystal Tuff,								
				c								granophyric, small white feldspar, blue								
												quartz eyes								
235.00				c								Note: @ 235.0 254.0 Feldspathic,								
	100	95	R3	b	10	3						large white feldspar, quartz filled veins,								
				b	30							epidote alteration near contact								
				c	60															
				c																
245.00				c																
	100	100	R3	b	10	3														
				b	30															
				a	50															
				a						-40C	Rc*	^^ 254.0 258.0 Rhyolite Crystal Tuff,								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
255.00				b								altered, cherty and diopside alteration								
	100	95	R3	b	10	3														
				b	30						IR	^^ 258.2 268.0 Rhyolite Intrusive,								
				a	60							granophyric purple to tan, diopside								
				a								alteration at contact								
265.00				a						-20C										
	100	100	R3	a	10	3					Rc	^^ 268.0 287.0 Rhyolite Crystal Tuff								
				a	25															
				b	60															
				b																
275.00				b																
	100	100	R3	c	10	2														
				c	60															
				c						-15F										
				c																
285.00				c																
	100	100	R4	c	10	3					pR	^^ 287.0 338.0 Intrusive Rhyolite,								
				b	40							porphyritic, fine-grained, very fine								
				a	60							white feldspar diopside and chert								
				b								alteration from 287.0 295.6, ashy								
295.00				b								interbeds, black, spherules, successive								
	100	90	R4	c	10	3						intrusive events brecciating underlying								
				b	30							intrusive, lower contact, calcitic, very								
				b	60							fractured								
				b																
305.00				c																
	100	100	R4	c	10	3														
				b	30															
				b	60															
				c																
315.00				c																
	100	90	R4	b	10	3														
				c	40															
				b	60															
				a																
325.00				a																
	100	95	R3	b	10	3														
				c	30															
				c	60															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				c																
335.00				c																
	100	90	R4	b	30	2					Rc	^^ 338.0 402.0 Rhyolite Crystal Tuff, small feldspar laths, small fractured blue quartz eyes, cherty alteration, increasing downwards, fracture filled with calcite or chert								
				b	60															
340.00				c																
	100	95	R4	c	10	3														
				c	30															
345.00				c	60															
	100	95	R4	c	10	2														
				b	35															
				c																
354.00				c																
	80	80	R4	c	10	2														
355.00					35															
	100	90	R4	c	35	2														
				c	50															
				b																
				c																
365.00				a																
	100	90	R4	b	10	2														
				c	20															
369.00				b																
	100	100	R4	a	10	3														
				b	45															
372.00					65															
	100	100	R4	c	35	2														
375.00				c	60															
	100	100	R4	c	10	2														
379.50				c	40															
	99	80	R4	b	10	2														
382.00					30															
	98	70	R4	b	10	2														
385.00				c	30															
	100	100	R4	c	10	3														
				c	30															
				b	55															
				c								Note: @ 394.5 402.0 Interbedded Crystal Tuff, and quartz, (intrusive) tuff is highly fractured								
395.00				b																
	100	100	R3	b	10	3														
				b	40		Started logging													

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc Ja SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a	65		@ 400', TAH		gR	^^ 402.0 431.0 Granophyric Rhyolite, highly fractured and altered massive quartz, and feldspar, areas of epidote alteration towards edges, granophyric, fine feldspar laths								
				a														
405.00				a														
	100	80	R3	a	10	3												
				a	40													
				a	65													
				a														
415.00				a														
	100	85	R3	a	10	3												
				a	30													
				a	65													
				a														
425.00				a														
	100	90	R3	a	20	3												
				a	40													
				a	70				Rcl	^^ 431.0 439.0 Rhyolite Crystal Lapilli Tuff								
				a				-45C										
435.00				a														
	100	100	R3	b	20	3												
				b	40				R	^^ 439.0 452.0 Rhyolite Flow, fine-grained, ashy, laminated intervals, pumice clasts								
				a	60													
				a														
445.00				a														
	100	85	R2	a	25	3												
				a	35													
				a	50				Rc	^^ 452.0 479.0 Rhyolite Crystal Tuff								
				a														
455.00				c														
	100	95	R3	b	15	3												
				c	30													
				a	65													
				a														
465.00				a														
	99	75	R3	a	15	3												
				b	30													
				b	70					Note: @ 471.7-479.0 Interbedded crystal tuff (blue quartz eyes), with ashy layers and pumice clasts. Predominantly crystal tuff.								
473.00				b														
	100	100	R3	b	50	2												
475.00					70													
	100	95	R3	b	40	1		-30B										

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
480.00				b							TSp	** 479.0 492.0 TALC SEDIMENT, with	c	1		1	2	6		10
	100	100	R2	b	10	2						pyrrhotite, massive, with disseminated	c	1		1	2	6		10
				b	40							sulfides	c	1		1	2	6		10
				b									c	1		1	2	6		10
485.00													c	1		1	2	6		10
	100	100	R3	c	10	2							c	1		1	2	6		10
				c	40								c	1		1	2	6		10
				c							Rc	** 492.0 524.8 RHYOLITE CRYSTAL TUFF,	c	1		1	2	6		10
				c								brown matrix, small blue quartz eyes,								
495.00				c								obvious plag crystals, pumice clasts								
	100	95	R3	c	15	2														
				c	40															
				c																
				c																
505.00				c																
	100	90	R3	c	10	2														
				c	45															
				b																
				a																
515.00				b																
	99	80	R2	a	25	2														
				a	40															
523.00				a																
	100	100	R2	b	10	2					ChC*	** 524.8 552.5 CHERT, with diopside								
525.00					40															
	100	95	R2	a	10	3														
				a	40															
				a	60															
				b																
535.00				b																
	100	95	R2	a	10	3														
				a	40															
				a	60															
				a																
545.00				a																
	100	85	R2	a	10	3														
				a	40															
				a	60						Rc	** 552.5 588.0 RHYOLITE CRYSTAL TUFF, blue								
				a								quartz eyes, little feldspar, patches								
555.00				a								of epidote alteration, brown matrix								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	I
	100	90	R2	a	10	3														
				a	40															
				a	60						pD	^^ 562.5 565.3 Dacite Sill or Flow, plag-phyric								
				a																
				a																
565.00											Rc	^^ 565.3 584.3 Rhyolite Crystal Tuff, blue quartz eyes, brown matrix								
	99	70	R2	a	10	3														
				b	40															
				b	60															
573.00				b																
	100	95	R2	a	10	2														
				c	40							Note: @ 577.2 579.0 Diopside, serpentine, calcite fault fill								
				c																
				c																
583.00				c							FZ	Note: @ 584.3 592.0 Fault Zone, slickensides sc-fabric 35 to 85 degrees, calcite, serpentine filled fractures, rhyolite crystal tuff, highly brecciated, contorted								
	100	100	R2	b	10	2														
585.00																				
	99	80	R2	a	40	1														
				a																
				a							TS	^^ 588.0 606.0 TALC SEDIMENT								
				a																
595.00				b	10	2														
	99	75	R2	b	40															
597.00				b	10	2														
	99	75	R2	b	40															
603.00				b																
	100	95	R2	c	10	2					Xz,t	^^ 606.0 618.3 TUFFITE, highly fractured, talcose, stringery	c	8		1	1	1		11
				c	30								c	8		1	1	1		11
				c									c	8		1	1	1		11
				c									c	10		3	2			15
613.00				c									c	10		3	2			15
	100	100	R2	c	5	2							c	10		3	2			15
				c	50						CSs	^^ 618.3 630.5 CALCAREOUS SEDIMENT, with sulfides, sulfide rich, talcose	c	10		2	2			14
				b									c	10		3	2			14
				b									c	10		3	2			14
624.00				b									c	10		3	2			14
	100	90	R2	b	5	2							c	10		3	2			14
				b	50								c	10		3	2			14

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

LYN91-88

SULFIDES: (T)

A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				c							Rc	⋇⋇ 630.5 637.0 RHYOLITE CRYSTAL TUFF,	c	10		3	2			14
				c								blue quartz, brown matrix	a				1	2		3
634.00				c									a				1	2		3
	100	100	R2	c	5	1							a				1	2		3
635.00													a				1	2		3
	99	90	R2	c	20	2					SS	⋇⋇ 637.0 665.0 SANDSTONE, massive sediment,	a				1	2		3
				b	40							altered matrix, talcose, serpentine	a				1	1		2
				b								alteration @ 654.0-665.0	a				1	1		2
642.50				c									a				1	1		2
	100	100	R3	b	5	2							a				1	1		2
645.00				b	60								a				1	1		2
	99	90	R2	c	10	3							a				1	1		2
				c	40								a				1	1		2
				c	70								a				1	1		2
				b									a				1	1		2
655.00				b									a				1	1		2
	100	100	R2	c	10	2							a				1	1		2
				c	40								a				1	1		2
				b									a				1	1		2
				b									a				1	1		2
665.00				b							Chp	⋇⋇ 665.0 672.0 CHERT, laminated, with	b				1	5		6
	100	100	R2	b	10	2						disseminated Pyrrhotite	b				1	5		6
				b	40								b				1	5		6
				b							R	⋇⋇ 672.0 676.0 RHYOLITE FLOW, calcareously	a				1			1
				b								altered, (fizzed) pink-yellow, graded,	a				1			1
				b								quartz and pumice clasts.	a				1			1
													a				1			1
675.00											Chp	⋇⋇ 676.0 678.0 CHERT, with pyrrhotite	b	5			1			6
	100	95	R2	b	20	2							a					5		5
				b	50						SS	⋇⋇ 678.0 682.2 SANDSTONE, black, fine-								
				b								grained								
				c																
				c						-55C	QD	⋇⋇ 682.2 770.0 QUARTZ DIORITE								
685.00																				