

52E10NW9466 23 ECHO BAY

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## DIAMOND DRILLING

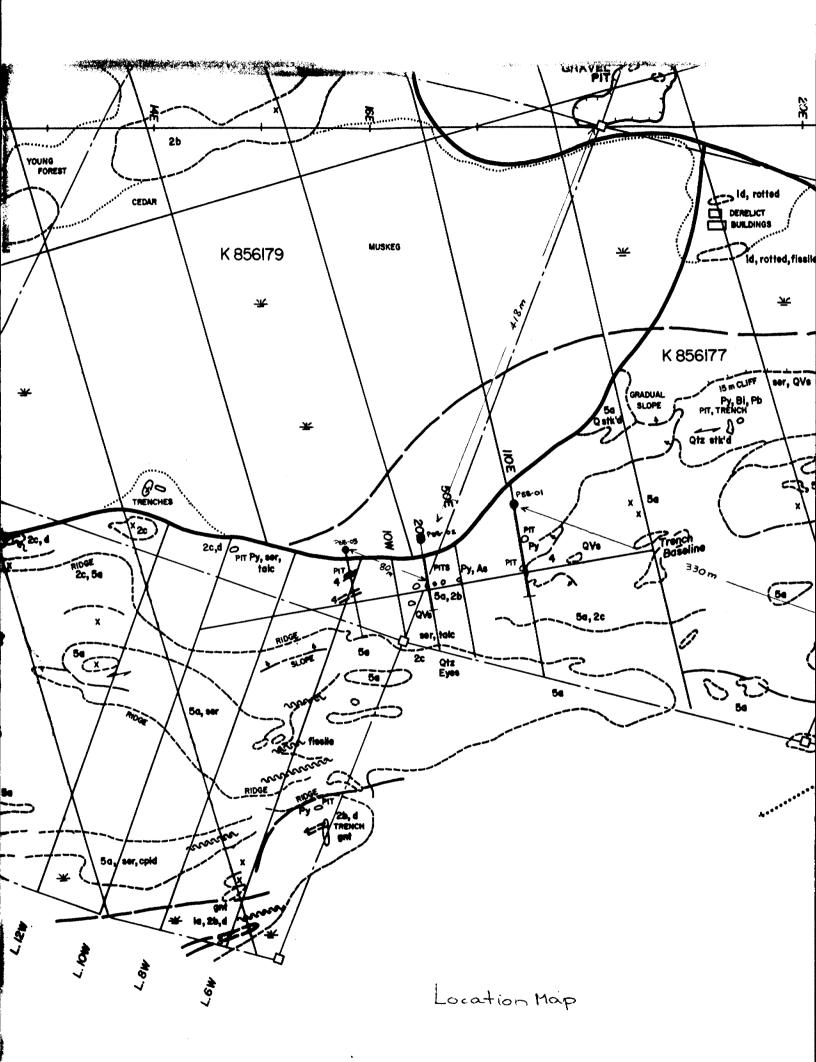
AREA:	ECHO BAY	(Glass Twp)	REPORT	NO:	23
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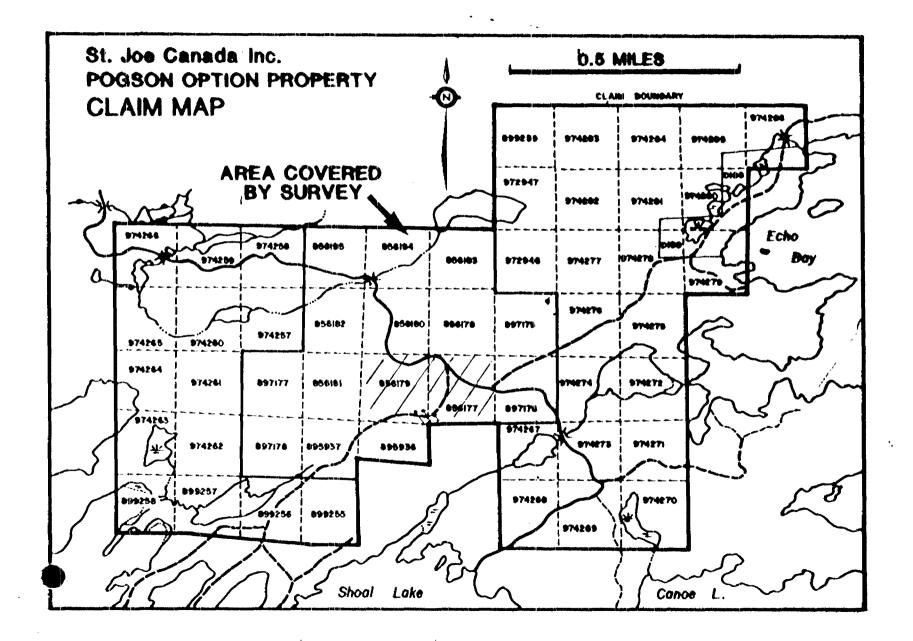
WORK PERFORMED FOR: St. Joe Canada Inc.

RECORDED	HOLDER:	Same	as	Above	[xx]	]
	:	Other			[	]

<u>Claim No.</u>	Hole No.	Footage	Date	<u>Note</u>
K 856177	P88-01 P88-02	124m 95m	Jan/88 Jan/88	(1) (1)
K 856179	P88-03	119m	Jan/88	(1)

NOTES: (1) #W8801.016, filed June/88





		ST.	JOE	JOE	JOE	JOE	CANAD	A			DIAMOND DRILL	HOLE RE	CORD			Page #1 of		
Pro Sec Cla		PBB-01 SHOAL LAKE 1+10E לארושפא EXT OF TRENCH SH Z	Northing Easting Elevation Survey N. N Survey E.	0+65N 1+10E	Grid Orient Grid Azim. Length (M) Dip-Collar Comp Bearing	0 124 -45	Depth 124.0	Dip Azimuth - 41	Test	Depth Dip	Azimuth	Test	Started Finished Drill Co. Drill No. Drill For.	JAN. 16, 1988 JAN. 17, 1988 MIDWEST MARC	Logged by J. PAUL Checked by K. LEONARD Core NQ Comments:			
FROM	TO	DES	CRIPTION			· · · · · · · · · · · · · · · · · · ·			SAMPLE	FROM	TO	WIDTH	Au g_tonne oz	Au _ton	a canada			
	sur	MARY																
0.00	3.50	Casing																
3.50	16.40	Tuffaceous Sedimen	t (Lapilli - A	Ash interbeds)														
18.16	19.14	<b>Felsic</b> Intrusive																
19.14	36.33	Tuffaceous Sedimen	ts															
36.33	37.37	Felsite																
\$7.37	42.95	Tuffaceous Sedimen	ts															
2.95	46.30	Felsite																
16.30		Tuffaceous Sedimen	ts															
6.80		Felsic Intrusion																
70.03		Tuffaceous Sedimen	ts															
30.80		Felsic Intrusive																
33.00		Tuffaceous Sedimen	ts															
24.00	124.00	End of Hole																

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		ST.	JOE CANADA	PR	DPERTY -	SHOAL LAN	KE	HO	LE - P88-01	PAGE # 2	
FROM	TO		DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_tonne	Au oz_ton		
0.00 3.50		Casing Tuffaceous Se	<ul> <li>ediment (Lapilli - Ash interbeds) <ul> <li>light greenish grey to dark greenish grey in colour; chlorite-rich; fine fimedium grained; pervasively foliated throughout hole although degree of foliation varies; clasts vary in abundance and size but always elongated al foliation-homolithic; foliation at 40-50 degrees to core axis.</li> <li>3.50-6.28: clasts up to 2cm rare, most less than 5mm; foliation very strong band of sulphide at 6.19 along foliation (pyrite).</li> <li>6.28-11.15: clasts commonly up to 3cm in length; abundant milky white quart veins along foliation-thickness from a few mm up to 1cm, less than 1% disseminated sulphides.</li> <li>11.15-11.85: clasts smaller, up to 3mm; calcite gashes much less abundant 11.85-12.50: sharp contact at 11.85, slightly coarser grained 12.50-15.23: same as interval 6.28 to 11.15</li> <li>15.23-15.50: same as interval 11.15 to 12.20</li> <li>15.50-16.40: sheared broken up patch; more abundant calcite veins again; hi chloritic; sulphides along fractures; at 15.50 very narrow clay seam (chlor breakdown) and adjacent vuggy quartz vein.</li> <li>16.40-18.16: similar to interval 11.15 to 12.20; trace disseminated sulphice</li> </ul> </li> </ul>	ong ; z ghly ite	6.00 6.50 11.85	6.50 7.20 12.50	0.50 0.70 0.65	0.17 0.17 0.17 0.17	0.005 0.005 0.005		
18.16	19.14	Felsic Intrus		10703 10705 10706	12.50 14.00 15.50	12.30 14.00 15.50 17.00	1.50 1.50 1.50	0.17 0.17 0.17 0.17	0.005 0.005 0.005		
			-much more highly altered; abundant greenish yellow veinlets throughout and mottled with granular bluish quartz eyes; very finely disseminated sulphide throughout and along some veinlets (<1%)								
17.14	36.33	Tuffaceous Se	<pre>301ments 19.14-20.25: very fine grained with minor quartz gashes; trace very finely disseminated sulphides 20.25-22.30: increase in clast size and quartz content; sulphide content increases, lenses of disseminated pyrite along foliation; varies from 2-5% pyrite with 5-7% pyrite and trace chalcopyrite from 20.34 to 20.47; from 21 to 21.73- greenish yellow alteration zone containing small chlorite pits mottled with granular bluish grey quartz. 22.30-25.35: abundant veinlets; foliation slightly less well developed in patches and 30-40 degrees to core axis; slightly waxy appearance; occassion development of an oblique set of fractures at about 30 degrees to core axis patches of increased calcite concentrations; trace disseminated pyrite, slightly more along oblique fractures (euhedral to subhedral grains) 25.35-28.70: stronger foliation again at approx. 45 degrees to core axis; t 30 cm of interval calcite filled fractures, 3-4mm wide; sulphides approx. 5 pyrite in lenses of clusters along foliation; becomes overall coarser over 10cm. 28.70-36.33: varies from light to dark grey; very fine grained at top to fi grained at bottom of interval; foliation slightly less developed; mineralization varies throughout interval, 3-4% in top 20 cm concentrated a foliation, elsewhere varies from trace to patches of up to 5%, mostly clust</pre>	al ; pp % last ne long							

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FROM	TO		DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_tonn <b>e</b>	Au oz_ton	
<u></u>		<u> </u>		10707	18.20	19.20	1.00	0.17	0.005	
				10708	20.25	21.25	1.00	0.17	0.005	
				10709	21.25	22.30	1.05	0.17	0.005	
				10710	24.00	24.85	0.85	0.17	0.005	
				10711	25.35	26.35	1.00	0.17	0.005	
				10712 10713	26.35 27.35	27.35 28.70	1.00 1.35	0.17 0.17	0.005 0.005	
				10713	28.70	29.30	0.60	0.17	0.005	
				10715	30.30	31.30	1.00	0.17	0.005	
				10716	31.30	32.30	1.00	0.17	0.005	
				10717	32.30	33.30	1.00	0.17	0.005	
				10718	33.30	34.30	1.00	0.17	0.005	
				10719	34.30	35.30	1.00	0.17	0.005	
				10720	35.30	36.30	1.00	0.17	0.005	
36.33	37.37	Felsite	-very fine grained, greenish-yellow with tiny white flecks throughout; top contact gradational over about 5cm, lower contact sharp; foliation developed but not too strongly; small blebs of pyrite (1%) smeared along foliation (fine surrounded by very fine grained pyrite); finely prophyritic (quartz eyes?)							
				10721	36.33	37.37	1.04	0.17	0.005	
37.37		Tuffaceous Sed	-light grey in colour, more buff coloured towards top; lapilli becomes slightly more obvious towards top; small calcite gashes occassionally both conformable and unconformable with foliation; trace sulphides as euhedral grains of pyrite up to 3mm in size; very finely disseminated pyrite over last 1m.	44755		10.05				
2.95	41 70	Felsite		10722	41.90	42.95	1.05	0.17	0.005	
†∠.7J	40.30	reisite	-similar to interval 36.33 to 37.37 with small patch of grey rock like surrounding rock at 45.15 to 45.32 and a slight increase in quartz eyes starting at 45.75; lower contact of interval very gradational; sulphides also highly variable from small blebs to very finely disseminated.							
6.30		Tuffaceous Sed		10723	43.60	44.70	1.10	0.17	0.005	
			<ul> <li>-medium grey in colour, fine grained, larger concentration of chlorite blebs along foliation; finely disseminated pyrite (1%) throughout and concentrated along some fractures; calcite gashes occassionally.</li> <li>48.20-50.00: similar to above but decrease in chlorite blebs 50.00-50.22: narrowly banded; grey and greenish yellow 50.22-53.90: similar to interval 48.20-50.00; sulphides decrease towards bottom 53.90-55.08: greyish green, fine to medium grained; trace sulphides; slightly banded.</li> <li>55.08-61.70: very fine grained, greenish grey; abundant calcite-filled gashes mostly along foliation; nil to trace very finely disseminated sulphides.</li> <li>61.70-63.63: similar to interval 55.08 to 63.63 with fewer calcite gashes; foliation is becoming more shallow; 60 to 70 degrees to core axis 64.40-65.92: similar to interval 22.30 to 25.35; no visible sulphides 65.92-66.30: highly altered zone; dark greenish grey; abundant chloritization and sericitization?; very finely disseminated sulphides (1%) 66.30-66.80: milky white to greyish quartz vein with 1% finely disseminated</li> </ul>							
			pyrite.							

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		ST.	JOE CANADA	PR0	PERTY -	SHOAL LAK	Έ	HOL	E - P88-01	PAGE # 4
FROM	TO		DESCRIPTION	SAMPLE	FROM	ТО	WIDTH	Au g_tonne	Au oz_ton	
		······································		10726	48.30	49.20	0.90	0.17	0.005	
				10727	49.20	50.00	0.80	0.17	0.005	
				10728	50.00	51.00	1.00	0.17	0.005	
				10729	51.00	52.00	1.00	0.17	0.005	
				10730	52.00	53.00	1.00	0.17	0.005	
66.80	70 07	Felsic Intrusi		10731	65.90	66.30	0.40	0.17	0.005	
00.0V	/0.03	reisti intrusi	-coarser grained light greenish grey with dark chloritic blebs stretched al foliation; 67.91 to 67.95 - up to 60% disseminated pyrite.							
				10732	66.75	67.75	1.00	0.17	0.005	
				10733	67.75	68.80	1.05	0.17	0.005	
** **	0.0 P.0	• • • · · ·		10734	68.80	69 <b>.8</b> 0	1.00	0.17	0.005	
70.03	80.80	Tuffaceous Sed								
			70.03-70.50: similar to 55.08 to 61.70 with more pyrite-rich patches along foliation.							
			70.50-72.09: same as interval 66.80 to 70.03							
			72.09-72.82: alternating patches of above two interval types							
			72.82-76.50: main mineralized zone, highly altered, very chloritic;localize	d						
			quartz veins but overall little quartz; mineralization varies - 3 main area							
			with 20-30% pyrite in bands along foliation: 73.20 to 73.64; 74.00 to 74.36	and						
			76.15 to 76.50; elsewhere, sulphides are in localized bands up to 1cm wide.							
			76.50-80.00: still highly chloritized rock with localized sulphide-rich zon	es						
			of up to 10% over 1-2 cm and disseminated pyrite.							
			80.00-80.80: less altered zone, slightly greenish grey, fine grained, trace							
			very finely disseminated sulphides.	10735	67.80	70.80	1.00	0.17	0.005	
				10736	70.80	71.80	1.00	0.17	0.005	
				10737	71.80	72.80	1.00	0.17	0.005	
				10738	72.80	73.85	1.05	0.17	0.005	
				10739	73.85	74.85	1.00	0.17	0.005	
				10740	74.85	75.85	1.00	0.34	0.010	
				10741	75.85	76.85	1.00	0.17	0.005	
				10742	76.85	77.85	1.00	0.00		
				10743	77.85	78.85	1.00	0.00		
				10744	78.85	80.00	1.15	0.00		
~ ~ ~				107 <b>45</b>	80.00	80.80	0.80	0.00		
30.80	82.00	Felsic Intrusiv	ve 80.80-81.50: same as interval 66.80-70.03; grades at base into finer graine	A						
			grey unit with small stretched white blebs to 81.73; <1% finely disseminate pyrite.							
			81.73-83.00: same as 80.80 to 81.50 except no sulphides							
				10746	80.80	81.74	0.94	0.00		
33.00	124.00	Tuffaceous Sed:								
			83.00-83.35: very fine grained mottled dark grey and greenish grey and a pa	tch						
			of coarser rock from above interval and a small patch of vein quartz	_						
			83.35-84.38: similar to interval 36.33 to 37.37 with up to 5mm quartz gashe	5						
			84.38-84.92: fine to medium grained darkish grey ~ homogeneous 84.92-85.10: very fine grained, dark grey with abundant quartz veinlets and							
			gashes							
			985.10-85.40: similar to 84.38 to 84.92							
			SCIEC SUFFOR SERIES IS SINCE IN STATE							
			85.40-85.45: as at 84.92 to 85.10							

## ST. JOE CANADA

ROM TO	DESCRIPTION	SAMPLE	FRDM	TO	WIDTH	Au g_tonne	Au oz_ton
	<ul> <li>which sulphides are concentrated ((11).</li> <li>B5.55-89.30: very fine grained,mottled dark grey and greenish grey; appears bleached in areas; quart eyes up to 5m in varying abundances from 1 to 5%; nil to trace subplides.</li> <li>C9.30-97.98: fine grained, grey; foliation not as strongly developed as in top of hole, at approx. 60-70 degrees to core axis; lots of breciated areas throughout core and small patches of nock as in interval 66.80-70.05, particularly over top 2m of this interval; chloritic filled cracks within breciated innex; subplides are highly variable-tend to be concentrated in breciated areas the chlority; small cone at 91m - 1 to 2m show thin up to 50% pyrit; 99.00 to 99.40 - approx. 5% pyrite in clusters; 99.50 to 99.98 - 5% py pyrite in euhedral to subhedral grains.</li> <li>99.68-101.40: similar to interval 69.30 to 99.78 except very fine grained and darker grey.</li> <li>101.40-101.90: alternating bands of smoky grey quartz and highly altered sulphide-rich bands; 5-10% over 1st 25cm; 101.65 to 101.73 - semi massive pyrit; 101.73-101.90 - brecciated</li> <li>103.78-103.96: fine grained, grey; banded appearance with narrow light and dark bands.</li> <li>103.78-103.96: fine grained, grey; banded appearance with narrow light and dark bands.</li> <li>103.78-103.06: similar to 103.78 - 103.96 with occassional stringers of pyrite along foliation; 105.30-105.70 - brecciated quartz at sulphide rich zone-103 pyrite lenses; increase in randoaly oriented quartz stringers at bottom; chlorite rich 1cm band at 108.20.</li> <li>108.50-109.60: similar to 108.50 to 108.50; 109.55-109.75 - nearly entirely chlorit; broken core.</li> <li>109.70-117.15: similar to 108.50 to 108.50; 109.55-109.75 - nearly entirely chlorit; broken core.</li> <li>101.22-111.40: homogeneous fine grained grey - minor sulphides along 1 quartz stringer.</li> <li>111.40-111.70: alternating bands of smoky quartz and pyrite (1-2cm at 502 pyrite); slightly breciated.</li> <li>117.51-115.51: similar to alterval 189.30-99.98 but l</li></ul>	10747					
		10748 10749 10750	85.20 89.38 90.38	86.60 90.38 91.38	1.40 1.00 1.00	0.00 0.00 0.00	

	<i>t</i>	ST. JOE	CANADA	PROF	IPERTY -	SHOAL LAK	E	HOLE - P88-01 PAGE # 6	
FROM	TO	DESCRIPTION		SAMPLE	FROM	TO	WIDTH	Au Au g_tonne oz_ton	
				10752	93.40	94.40	1.00	0.00	
				10753	94.40	95.40	1.00	0.00	
				10754	95.40	96.40	1.00	0.00	
				10755	96.40	97.40	1.00	0.00	
				10756	97.40	98.40	1.00	0.00	
				10757	98.40	99.40	1.00	0.00	
				10758	99 <b>.4</b> 0	100.40	1.00	0.00	
				10759	100.40	101.40	1.00	0.00	
				10760	101.40	102.00	0.60	0.00	
				10761	102.00	103.00	1.00	0.00	
				10762	103.00	103.80	0.80	0.00	
				10763		104.20	0.40	0.00	
				10764	104.20	105.20	1.00	0.00	
				10765	105.20	106.20	1.00	0.00	
				10766	106.20	107.20	1.00	0.00	
				10767	109.80	110.20	0.40	0.00	
				10768		111.80	0.50	0.00	
				10769		112.80	1.00	0.00	
				10770		113.80	1.00	0.00	
				10771		114.80	1.00	0.00	
				10772			1.00	0.00	
				10773		116.80	1.00	0.00	
				10774		120.40	0.40	0.00	
4.00 17	24.00 End of	Hole							

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	ST.	JOE	CANADA	à			DIAMOND DRIL	HOLE RE	CORD			Page #1 of	
Property Section	Claim No. K-895937KKSG4mm Survey N.		0+20E Grid Azim. O n 325 Length (M) 95 . Dip-Collar -45		0 95 -45	Depth Dip Azimuth Test Depth Dip 95.0 - 41		p Azimuth	) Test	Started JAN. 17, 1988 Finished JAN. 18, 1988 Drill Co. MIDWEST Drill No. Drill For. MARC BRETDN	Logged by R. MARTIN Checked by K. LEONARD Core NQ Comments:		
ROM TO	ם כ	ESCRIPTION						SAMPLE	FROM	TO	WIDTH	Au Au g_tonne oz_ton	~
SL	MMARY						·						
.00 3.5	50 Casing												
.88 8.8	37 Tuffaceous Sedim	ents											
.87 15.6	57 Altered felsic i	ntrusive											
.67 18.2	9 Felsite												
.26 28.1	.6 Clastic Tuff Sed	iment											
.10 54.5	78 Tuffaceous Sedim	ent											
.98 95.0	0 Felsic Intrusive												
.00 95.0	0 End of Hole												

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ST. JOE CANADA

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FROM	TO	DESCRIPTION		SAMPLE	FROM	TO	WIDTH	Au Au g_tonne oz_ton
0.00	3.50	Casing 3.50 – 3.88 Granite (p	ossibly granitic boulders)					
3.88	8.87	Tuffaceous Sediments 3.88-7.38: calcite; s minor amou are concor chloritize 7.38-8.87: pyrite; lo	Light grey green, fine grained; fragments <2mm consisting mainly of ome calcite fragments looks to have been mobilized causing stringers; nts of quartz eyes (rounded and sometimes angular); calcite stringers dant to foliation as well as in blotches; fracture surfaces are	(0775	7 70	6.07	( 40	
8.87	15.67	biotite an stringers	light grey green; fine to medium grained; quartz rich possibly d feldspar (plag); quartz eyes prominent feature, approx. 2mm to 7mm; of chlorite and calcite concordant to foliation; fracture surfaces and greasy; some pyrite mineralization.	10775	7.38	8.87	1.49	
5.67	18.29	are less i	n, fine grained; contact evident at 18.29; quartz eyes present but n abundance than section 8.87-15.67); quartz eyes also smaller; seminated; calcite stringers run throughout fractures.	10776	13.69	14.14	0.45	
				10777 10778	15.67 16.89	16.89 17.89	1.22 1.00	
		Unit has a fractures; pyrite min	ined, same as 8.87-15.67; this unit has a higher percentage of quartz brecciated character with biotite and possibly chlorite infilling small quartz vein is located at 18.81 to 18.94 with small amount of eralization.	10779 10780 10781	17.89 18.79 19.34	18.46 19.34 19.91	0.57 0.55 0.57	
1.26	20.10	calcite cr unit at 60 lineated a	ed; white feldspars (plag) crystals are prominent as well as aligned ystals; fragments are at times present; calcite stringers cut rock degrees to core axis; feldspar becomes more abundant and more t 25.80; some mineralization on fracture surface and some cubic s than 1%; some chalcopyrite in calcite veins.					
				10782	22.37	22.87	0.50	
B.10	54.98	Tuffaceous Sediment		10783	24.85	25.35	0.50	
		tuffaceous shows line chalcopyri 32.00-32.2 calcite st and discon 36.80-37.3 but with s 42.90-43.2 associated 45.42-46.1 fractures.	ed, light grey argillite sediments or possibly fine grained sediments; unit subjected to gradational changes; mineralization ation; pyrite is disseminated and euhedral; some remanent fragments te bleb at 29.85m. D: slightly sericitized; light green appearance on fracture surface; ringers very common following fractures which are concordant and cordant to foliation. D: increase in biotite; white fragments present; calcite scattered as ome lineation. D: mineralized zone (pyrite approx. 2-2.5% filling fractures) with calcite stringers. 7: quartz vein 40 cm wide with chlorite and mudstone infilling D: calcite fragments (rounded) more abundant; some fragments are					

	5	T. JOE CANADA	PR0	PERTY -	SHOAL LAK	E	HOI	.E - P88-02	PAGE # 3
FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_tonne	Au oz_ton	
<u> </u>		elongated and show lineation.							
		47.40-47.60: alternating bands of pyrite and calcite stringers; pyrite approx. 3%.							
		·**	10784	28.10	29.00	0.90			
			10785	<b>29.</b> 30	30.44	1.14			
			10786 10 <b>7</b> 87	32.00 33.74	33.22 34.23	1.22 0.49			
			10788	36.79	37.33	0.54			
			10789	38.48	39.08	0.60			
			10790	40.50	41.00	0.50			
			10791 10792	42.60 45.05	43.48 46.25	0.88 1.20			
			10793	47.00	48.00	1.00			
			10794	48.00	48.40	0.40			
			10795 10796	52.20 53.30	53.00 53.80	0.80 0.50			
54.98	95.00 Felsic In	trusive	10/70	33.30	22.00	0.30			
•••••		Fine to medium grained, foliation defined by biotite oriented at approx. 50 deg							
		to core axis. Euhedral pyrite; irregular calcite stringers; rare quartz eyes;							
		similar to 18.29-21.26 in colour. 63.33-65.80: zone of alteration (sericitization); greenish tone of fractures;							
		increase in dark fragments (possibly chlorite and calcite); abundant carbonate							
		stringers.							
	·	65.10-65.40: mineralized section concordant to foliation; approx. 2-3% pyrite							
		in association with calcite stringer ; non-mineralized section light grey, fine grained and homogenous in appearance (Pogson Zone?).							
		69.87-70.47: area is slightly brecciated; chlorite/biotite infilling fractures;							
		fragments of calcite and quartz eyes are common; calcite stringers; <1%							
		disseminated pyrite. 86.00-86.60: biotite/quartz content increases ; medium grain size; foliated.							
		86.60-87.50: aphantic; possibly sericitized zone or a fine grained felsite;							
		similar to 15.67-18.29 but dark green in colour.							
		87.50-89.00: medium grained; well foliated biotite/quartz rich intrusive;							
		quartz eyes and quartz veining present. 89.00-95.00: Aphantic felsite							
		89.50-89.90: quartz vein, some pyrite mineralization; quartz fractured with							
		chlorite and biotite infilling. Felsite has chloritic stringers throughout							
		fracturing and calcite ; disseminated pyrite; small fragments of quartz and calcite are common; some dark biotite and chlorite fragments.							
		callic are common, some dark plotic and chipilly fidyments.	10797	55.19	55.69	0.50			
			10798	58.30	59.00	0.70			
			10799	60.50	61.70	1.20			
			10800 10801	63.36 64.36	64.36 64.86	1.00 0.50			
			10802	<b>64.8</b> 6	65.86	1.00			
			10803	68.18	68.95	0.77			
			10804	71.00	71.50	0.50			
			10805 10806	72.41 74.00	73.44 75. <b>0</b> 0	1.03 1.00			
			10807	75.00	76.20	1.20			
			10808	76.65	77.75	1.10			

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ST. JOE CANADA		<u>,</u>	<del></del>			
FROM TO DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au Au g_tonne oz_ton	
			80.00	0.50	<u>an ( , , , , , , , , , , , , , , , , , , </u>	
	10811	80.55	81.35	0.80		
	10812 10813	81.35 82.61	82.05 83.11	0.70 0.50		
	10814	85.10	86.00	0.90		
	10815	88.10	89.00	0.90		
			90.50 93.10	1.50 1.10		
			95.00	1.50		
95.00 95.00 End of Hole						

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		ST	JCE	CANADA	<b>`</b>			DIAMOND DRILL	L HOLE RE	CORD			Page #1 of			
Pro Sec Cl	operty ction aim No.	P88-03 CAGING IN HOLE- SHOAL LAKE 0+50N K-895937 K856179 50M VERT. POG. SH.	Northing Easting Elevation Survey N. Survey E.	0+50N 0+50W 1325	Grid Orient Grid Azim. Length (M) Dip-Collar Comp Bearing	0 119 -45	Depth 119.0	Dip Azimuth - 42	) Test	Depth Dip	Azimuth	Test	Started Finished Drill Co. Drill No. Drill For.	JAN 18, 1988 JAN 19, 1988 MIDWEST DRILLING MARC BRETON	Logged by Checked by Core Comments:	JOANNE PAUL KEVIN LEONARD NG CASING IN HOLE
FROM	TO	DES	CRIPTION						SAMPLE	FROM	TO	WIDTH	Au g_tonne g_	Ag		
	sur	MARY					 			- <u>1</u>			4 <b>1071</b> , (111-11, 11, 11, 11, 11, 11, 11, 11, 11,			
0.00	3.90	CASING														
3.90	9.62	Tuffaceous Sedimen	ts													
6.70	9.62	Felsic Intrusion														
9.62	16.18	Felsite														
16.18	30.60	Tuffaceous Sedimen	ts													
3 <b>0.</b> 60	37.04	Felsite														
37.04	42.97	Tuffaceous Sedime	nts													
42.97	44.42	Felsic Intrusion														
44.42	45.78	Felsite														
45.78	47.10	Tuffaceous Sedimen	nts													
47.10	47.52	Felsite														
47.52		Tuffaceous Sedime	nts													
63.13		Felsic Intrusion														
63.79		Tuffaceous Sedimen	nts													
91.00		Felsic Intrusion														
92.30		Tuffaceous Sedime	nts													
74.20		Felsite														
79.75	100.24	Felsic Intrusion														

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S1	JOE CANF		PROF	PERTY - S	SHOAL LAK	E	HOLE - Ci	ASING IN HOLE	PAGE # 2
FROM TO	DESCRIPTION	 	SAMPLE	FROM	TO	NIDTH	Au Ag g_tonne g_tonn	e	
119.00 119.00 End of hol	e								

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sr.	JOE	CANADA
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PROPERTY - SHOAL LAKE

HOLE - CASING IN HOLE PAGE # 3

FROM	TO	DESCRIPTION	SAMPLE	FROM	TÖ	WIDTH	Au g_tonne	Ag g_tonne		
0.00	3.90 CASING									
3.90	9.62 Tuffaceous Se									
		3.90-5.60: dark grey, fine-medium grained; chloritic; higher concentration of								
		quartz/carbonate stringers at top; foliation pervasive throughout hole at 45-50deg, to C.A.; rusty along some fractures; 1-2% sulphides locally along								
		foliation								
		5.60-5.90: similar to above but lighter grey in colour								
		5.90-6.70: similar to interval 3.90-5.60 except medium grained and mottled								
		light and dark								
			10817 10820	3.90 4.90	<b>4.</b> 90 5.90	1.00 1.0 <b>0</b>				
			10820	<b>4.</b> 70 5 <b>.</b> 90	<b>6.</b> 70	0.80				
6.70	9.62 Felsic Intrus	ion								
		6.70-9.30: narrowly banded greenish-yellow and grey; small quartz eyes								
		increasing in abundance downwards; one inclusion of overlying lithology at top								
		of interval 9.30-9.62: similar to above but greyer in colour and increase in quartz and								
		carbonate								
			10822	6.70	7.70	1.00				
			10823	7.70	9.00	1.30				
9.62	16.18 Felsite	R /R 48 /R								
		9.62-14.10: greenish-yellow at top grading into grey-green and back into greenish-yellow at bottom; very fine grained; foliation poorly developed;								
		quartz eyes more abundant at bottom; 2-3% pyrite in lenses								
		14.10-16.18: banded light and dark greenish grey; increase in calcite filled								
		veinlets and gashes; minor localized pyrite								
			10824	9.00	10.50	1.50				
			10825 10826	10.50 12.00	12.00	1.50 1.50		·.	÷	
			10827	13.50	14.17	0.67				
			10828	14.80	15.20	0.40				
16.18	30.60 Tuffaceous Se		÷							
		dark grey, very fine grained; abundant carbonate veins; becomes increasingly more banded and lighter in colour downwards; minor felsic eyes towards bottom;								
	and the second se	2-32 pyrite in blebs and clusters along foliation and the second state of the second s		4 p		а	, An e sa age		1	
	т.	19.63-19.70: pale yellow band with 25% elongated quartz eyes and chlorite blebs								
			10829	17.00	18.50	1.50				
			10830 10831	18.50 20.00	20.00 21.50	1.50 1. <b>50</b>				
			10831	20.00	23.00	1.50				
			10833	23.00	24.50	1.50				
			10834	24.50	26.00	1.50				
			10835	26.00	27.50	1.50				
			10836 10837	27.50	29.00	1.50				
	37.04 Felsite		10221	29.00	30.50	1.50				
30.60	ALIAL LETATE	greenish-yellow, very fine grained; occasional carbonate veinlets; gradational								
30.60										
30.60		contact at top, sharp at bottom; two patches of overlying rock within; 1%								
30.60		contact at top, sharp at bottom; two patches of overlying rock within; 1% pyrite in clusters along foliation								
30.60		contact at top, sharp at bottom; two patches of overlying rock within; 1%	10838	30.50	32.00	1.50				

		ST. JOE CANADA	PROP	ERTY -	SHOAL LAK	E	HO	_E - CASING IN HOLE	PAGE # 4
FROM	TO	DESCRIPTION	SAMPLE	FROM	TD	WIDTH	Au g_tonne	Ag g_tonne	
	<u> </u>		10840	33.00	34.50	1.50			
			10841	34.50	36.00	1.50			
			10842	36.00	37.00	1.00			
57.04	42.97	Tuffaceous Sediments							
		similar to interval 16.18-30.60 except fine grained; sulphides more sporadic	10843	37.00	38.00	1.00			
			10844	40.00	41.00	1.00			
			10845	41.00	42.00	1.00			
2.97	44.42	Felsic Intrusion							
		similar to interval 6.70-9.30 with more quartz eyes		40.54		4			
			10846	42.00	43.00	1.00			
4.42	45 70	Felsite	10847	43.80	44.20	0.40			
1.11	73./0	reisice same as interval 30.60-37.04; trace sulphides							
5.78	47.10	Tuffaceous Sediments							
		same as interval 16.18-30.60 with up to 5% localized pyrite							
7.10	47.52	Felsite							
	_	same as interval 30.60- 30.07 with some larger quartz eyes up to 5mm.							
7.52	63.13	Tuffaceous Sediments							
		47.52-48.40: similar to interval 16.18-30.60							
		48.40-53.82: slight coarsening of unit with visible increase of quartz and more sheared in spots; quartz/carbonate/chlorite veins up to 40cm long; up to 5%							
		pyrite locally associated with veins, trace chalcopyrite							
		53.82-56.30: homogeneous medium grained sediments with minor quartz/carbonate							
		stringers							
		56.30-57.25: very fine grained, dark grey with bands of lighter grey material							
		along which sulphides are concentrated; 10% pyrite locally							
		57.25-57.54: main mineralized zone; banded sulphides within quartz/carbonate							
		veins within sediments; 5-10% pyrite overall, locally up to 40% 57.54-58.20: similar to interval 16.18-30.60; trace sulphides							
		58.20-59.05: alternating grey and greenish yellow bands; trace to 1% sulphides							
		59.05-60.00: similar to interval 16.18-30.60; coarsens downwards; decrease in							
		quartz/carbonate veins							
		60.00-63.16: same as interval 56.30-57.25		_	_				
			10848	49.50	50.50	1.00			
			10849 10850	50.50 51.80	51.56 52.80	1.06			
			10850	51.80 52.80	52.80 53.80	1.00 1.00			
			10852	56.30	57 <b>.25</b>	0.95			
			10853	57.25	57.65	0.40			
			10854	57.65	58.20	0.55			
			10855	58.20	59 <b>.05</b>	0.85			
			10856	59.05	60.00	0.95			
			10857	60.00	61.00	1.00			
3.13	17 JO	Felsic Intrusion	10858	61.00	62.00	1.00			
0.10	03.17	reisic intrusion medium grained, grey; felsic grains up to 5mm and chlorite grains stretched							
		along foliation							
			10859	62.00	63.16	1.16			
3.79	91.00	Tuffaceous Sediments							
		63.79-68.63: same as interval 56.30-57.25							
		68.63-91.07: grey, fine-medium grained; abundant chlorite blebs along							

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ST. JOE CANADA			PRO	PERTY -	SHDAL LAK	Έ	HO	LE - CASING IN HOLE	PAGE # 5	
FROM	TO		DESCRIPTION	SAMPLE	FROM	TO	WIDTH	Au g_tonne	Ag g_tonne	
			foliation; becomes finer grained downwards; localized sulphides- 10% pyrit	te in						
			bands with quartz/carbonate veining at 76.75-76.85; sulphides sporadic							
			elsewhere~ 1-2% maximum							
			95.58-85.74, 87.25-87.65, 89.08-89.26: three zones- light grey in colour, to locally medium grained; higher quartz content; minor sulphides on some oblique fractures	fine						
			obligge mactures	10860	63.90	64.90	1.00			
				10861	64 <b>.9</b> 0	65.90	1.00			
				10852	65.90	66,90	1.00			
				10863	66.90	67.70	0.80			
				10864	67.70	68.63	0.93			
				10865	68.63	69.63	1.00			
				10866	73.80	74.20	0.40			
				10867	76.60	77.00	0.40			
				10868	77.40	78.40	1.00			
				10869	79.50	80.50	1.00			
				10870	80.50	<b>B1.</b> 50	1.00			
				10871	81.50	82.50	1.00			
				10872	82.50	84.00	1.50			
				10873 10874	84.00 85.50	85.50 87.00	1.50 1.50			
				10875	87.00	88.50	1.50			
				10876	88.50	90.00	1.50			
				10877	70.00	91.00	1.00			
91.00	92.30	Felsic Intrus	ion							
			banded quartz eye felsic intrusion							
				10878	91.00	92.30	1.30			
92.30	94.20	Tuffaceous Se								
			similar to interval 68.63-91.07							
				10879	92.30	93.30	1.00			
6. DA	00 TE	<b>F</b> _1_;+_		10880	93.30	94.20	0.90			
94.20	44.13	Felsite	similar to interval 30.60-37.04; small greyish quartz eyes occasionally							
			SIMILAR LU INCERVAL 50.00-57.04; SMAIL GREVISH QUARLE EVES DELASIONALLY	10881	94.20	95.20	1.00			
				10001	0.00	0.00	0.00			
99.75	100.24	Felsic Intrus	ion		~ • • • •	A 1 6 A	****			
			similar to interval 91.00-92.30; trace granular pyrite							
00.24	119.00	Felsite	, , , , , , , , , , , , , , , , , , , ,							
			similar to interval 94.20-99.75							
			105.00-113.30: contains inclusions of sediments, often brecciated							
10 00	119 00	End of hole								

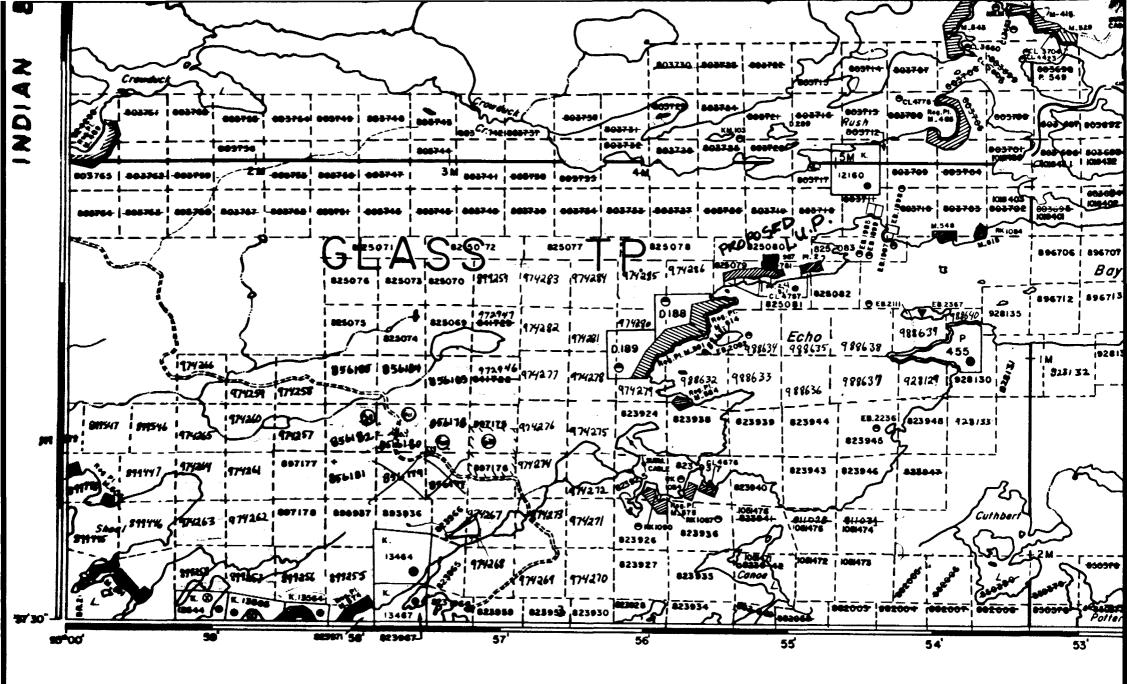
Ontario Name and t	OT WORK	DOCUME 0053W	. OIB Mining						m for sar
	Canada	Inc.	GLA	52E1ØNW9466	23 ECHO (	BAY		. 90	20
111 Richn	and St. W	1. Sui	te 1116	Tara	nto	Ont	aric	M5H 27	. 4
Summary of Work Perfo			lits Work	Mining Clair		Work	l Mini	ng Claim	1 141-0-1
1108		Number	Days Cr. Pret			Days Cr.	Prefix	Number	Work Deys Cr.
for Performance of the followork, (Check one only)		4286	20 K	( 974	278	20	K	174270	20
Manual Work		4285	20	974	772	20		974269	20
Sheft Sinking Driftin	Por 97	4284	20	974	-276	20		974268	20
Compressed Air, other	. 97	4283	20	974	275	20	È d	974267	20
Power driven or mechanical equip.	9-	14282	20	974	274	20	<b>B</b> 1	974266	20
Power Stripping	9	74281	20	, ,	273	20		974265	20
Diamond or other Co	re 1	74280	20		+272	20		974264	20
Land Survey			20					974263	20
		14279	the state of the s		<u>+271</u>	<u>20</u>		1 (700)	
All the work was performed			mandays)	56179	_	ngin d	<u>~~~</u> /		
Required Information e			······································						
Hole Line	Station	Dip	Azimuth	Depth (m)	Dati Star	e ted (	Date	4	
P88-01 1+10E	0+65N	-450	1530	124	Jani	5	Jan.17/8	8	
P88-02 0+201	E 0+50N	- 45°	1540	95	Jan 17		21 18/88		
P88-03 0+50W		-45°	154°	119	Janis	JOR	An.19/88	5	
	P88-03 0+50W 0+50N -45° 154° 119 Jan18 Jan18 Contraction dependent survey ( Contraction demonstrated Drilling RESEATION OTAGE 180 Cree Crescent, FEB 1983 eg Manitoba 189-1011112:1.2:3:4:5:8								
R	ECEIVED	ľ		Jan.	22 15	188	Recorded Ho	Ider or Agent (Si	
Certification Verifying R	eport of Work						Yen .		
t hereby certify that I ha or witnessed same during	and/or after its complet				port of Wo	rk annexi	ed hereto, hevi	ng performed the	e work
Name and Postal Address of	Person Certifying	~ ~ ~	RI	- <del></del>	0	1	-		
גאב דרג	<i>n</i>		DUALING	Dete Certi	ified	2/88	Certified by (	Signeture)	J
able of Information/At	tachments Required	by the Mini	ng Recorder	0	/	/	/~		, ,
Type of Work	Specific In	formation pe	r type	Other informe	tion (Com	mon to 2	or more types	) Attachm	ents
Manual Work		<b>A</b> .(1)							
Shaft Sinking, Drifting or other Lateral Work		NII		Names and a manual work with dates an	/operated	equipme	nt, together	Work Sketch are required the location	to show
Compressed air, other pow driven or mechanical equip				0	174	extent of wo relation to the nearest claim	he		
Power Stripping	Type of equipment Note: Proof of actu within 30 days of re	al cost must l		Names and a together with			neerest claim post.		
Diamond or other core grifting					Work Sketch above) in du				
Land Survey	Name and address o	f Ontario lan	d surveyer.		N	411	<u></u>	Nil	
<b>10 (NY 12)</b> Militar di Anglia di Cara da Cara	in Area - C. Frederic	· · · ·	an an a K			inge of the			

#16/88

## St. Joe Canada Inc.

Mining Claim		Work Day	s Credit
856 177		54	
856 178		20	
856179		54	
856180		20	
856181		20	
856182		20	
856/83		20	
856184		20	
856185		20	
895936		20	
895937		20	
897175		20	
897176		20	
897/77	19	20	
897/78	17	20	
899255	ZV	20	
899256		20	
899 257		20	
899258		20	
899259		20	> 1
97294 9729	46		} OK to record
472947 9729	MINING DIV.		
974257	RIGE.VEN	20	
974258	JAN 22 1988	20	
974259	ÂM 7,8,9,10,11,12,11,2,3,4,5,6	20	
974260		20	
974261		20	
974262		20	(52)





SHOAL LAKE