



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

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June 17, 1993

Royal Oak Mines Inc.
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

Dear Sirs:

Re: OMIP File No. OM93-053

I am pleased to inform you that your Application for Designation under the Ontario Mineral Incentive Program (OMIP) has been reviewed and approved for a maximum grant amount of \$85,050 representing 30% reimbursement of your expenditures eligible under the Regulations for the Program. The exact payment will depend on the approval of your Application for Grant and technical submission after your program is complete.

Please note that the maximum designated grant is equal to the amount initially requested for surface diamond drilling on your December 30, 1992 OMIP Application for Designation. As discussed, the underground portion is eligible for assistance under the Heritage Fund.

Please find enclosed copies of the Certificate of Designation and your Application for Grant form. It is important for you to realize that the OMIP Regulations require that the Application for Grant form and the relevant supporting documentation must be submitted to this office by no later than February 15, 1994.

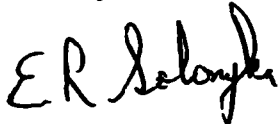
Please also note that according to the Regulations, if exploration work on a designated project is discontinued before the project is completed, you must notify this office in writing within thirty days of discontinuing the work. This provision is to allow any unused funds to be passed on to applicants who were initially unable to receive a grant as a result of the program's budget being fully allocated. Failure to notify this office would make you ineligible to apply for further incentives for a period of three years from the expiry of the designation of the project.

Please also note that reclamation costs are not eligible expenses under the program.

If you have any questions about these or other aspects of OMIP, I will be pleased to discuss them with you.

I wish you every success with your project and look forward to reviewing your submission at the conclusion of your field work.

Yours truly,

A handwritten signature in black ink, appearing to read "ER Solonyka". The signature is written in a cursive, slightly slanted style.

Edward R. Solonyka
Supervisor
Incentives

Attachments.



Ministry of Northern Development and Mines

The Ontario Mineral Incentive Program

Ministère du Développement du Nord et des Mines

Programme ontarien d'encouragement à l'exploration minière

Designated Program Certificate

Designation Number / N° d'enregistrement: OM93-053

Certificat d'enregistrement à titre de programme désigné

Applicant - Name/Nom du demandeur: ROYAL OAK MINES INC.

Street Name and Number/Adresse (rue et numéro): P.O. BAG 2010

City, Town/Ville, Localité: TIMMINS

Province: ONTARIO

Postal Code/Code postal: P4N 7X7

The above named applicant's proposed mineral exploration program submitted on an OMP Application for Designation form, and having met the requirements of the Ontario Mineral Incentive Program, has been approved and herewith certified and duly registered as a Designated Program.

Le présent certificat atteste que le projet de programme d'exploration minière, proposé par le demandeur au moyen d'une formule de demande d'enregistrement en vertu du POEM, satisfait aux exigences du Programme ontarien d'encouragement à l'exploration minière et est approuvé et dûment enregistré à titre de programme désigné.

Period of designation is from

Month/Day/Year mois/jour/année	to au	Month/Day/Year mois/jour/année
01/04/93		12/31/93

L'agrément porte sur la période du

Budgeted Total Expense

\$ 598,500

Montant total des dépenses prévues

Eligible Expenses

\$ 283,500

= Dépenses admissibles

Maximum Grant (30% Eligible Expenses)

\$ 85,050

Montant maximum de la subvention (30 % des dépenses admissibles)

Supervisor, Incentives/Superviseur, Programme d'encouragement

Date

June 18, 1993

Note:

Applicants must notify the Minister within 30 days if the exploration work is discontinued before the proposed work is completed. Any applicant who fails to notify the Minister shall be ineligible to apply for further incentives under the OMEP Act, 1989 for a period of three years from the expiry of the designated project.

Remarque:

Les demandeurs doivent informer le ministre dans un délai de 30 jours de toute suspension des travaux d'exploration survenant avant l'exécution au complet du programme proposé. Tout demandeur qui omet d'informer le ministre en cas de suspension des travaux perd pour une période de trois ans, à compter de l'expiration de la période d'enregistrement du projet, le droit de demander d'autres subventions en vertu de la Loi de 1989 sur le Programme d'exploration minière de l'Ontario.

0149(01/93)

Original - Applicant/demandeur
Copy/copie - Filer/ Dossier





42A11SE0013 OM93-053 WHITNEY

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ROYAL OAK MINES
PAMOUR AREA WORK
O.M.I.P. REPORT - 1993

Submitted by:

A handwritten signature in black ink, appearing to read "M. Robb". The signature is written in a cursive style and is positioned over a faint circular stamp.

Malcolm Robb,
Senior Project Geologist,
Royal Oak Mines Inc.

February 1994



42A11SE0013 OM93-053 WHITNEY

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SUMMARY

During 1993 Royal Oak Mines Inc. completed a total of 19,538 feet of surface diamond drilling on its Pamour area 1993 O.M.I.P. designated targets.

A total of 4 targets saw work completed during the year. Results were encouraging enough on 2 for additions to the year end mineral inventory of over 220,000 tons. The other 2 projects will be continuing at various levels of activity throughout 1994.

The total expenditures for these 4 targets were C\$311,805.62 for a total loaded cost of C\$15.91/foot drilled (including all geological supervision and reporting plus analytical work).

The ability to continuously mount exploration programs of this scale at producing mines is critical to their survival and the success of the 1993 projects clearly shows the potential for such to work to continue to add value to the resource base.

1.0) INTRODUCTION

During 1993 Royal Oak Mines Inc. continued to explore its extensive portfolio of properties in the Timmins area for gold mineralization to increase the reserves available for processing at the Pamour Mill. Effort during the year again focused on the Pamour area properties (Figure 1). All of the work consisted of diamond drilling programs.

All of the targets included in this document were included in the 1993 O.M.I.P. application for designation and the work financed out of corporate cash flow. Total expenditures are summarized in Table 1. Detailed breakdowns of individual project expenditures can be found in Appendix 2, along with accounting backup.

2.0) LOCATION, ACCESS and OWNERSHIP

Figure 2 is a plan showing the location of the various O.M.I.P. designated exploration projects completed during 1993 with respect to infrastructure and the latest land ownership position. All of the work undertaken on the Pamour, Hallnor, Broulan or Hoyle South Properties in Whitney Township. Access to all projects was via the extensive infrastructure on these adjoining properties.

Royal Oak Mines owns the Pamour, Broulan and Hallnor properties outright. Title to the Hoyle Property is held through two separate agreements with Falconbridge Gold Corp as follows: the Hoyle South property (south of the volcanic-sediment unconformity) is held through a lease agreement; the Hoyle North property (north of the unconformity) is held through an option agreement whereby Royal Oak Mines Inc. can earn a 51% interest in any gold mineralization on the property by expending C\$2.0 million by September 30, 1994.

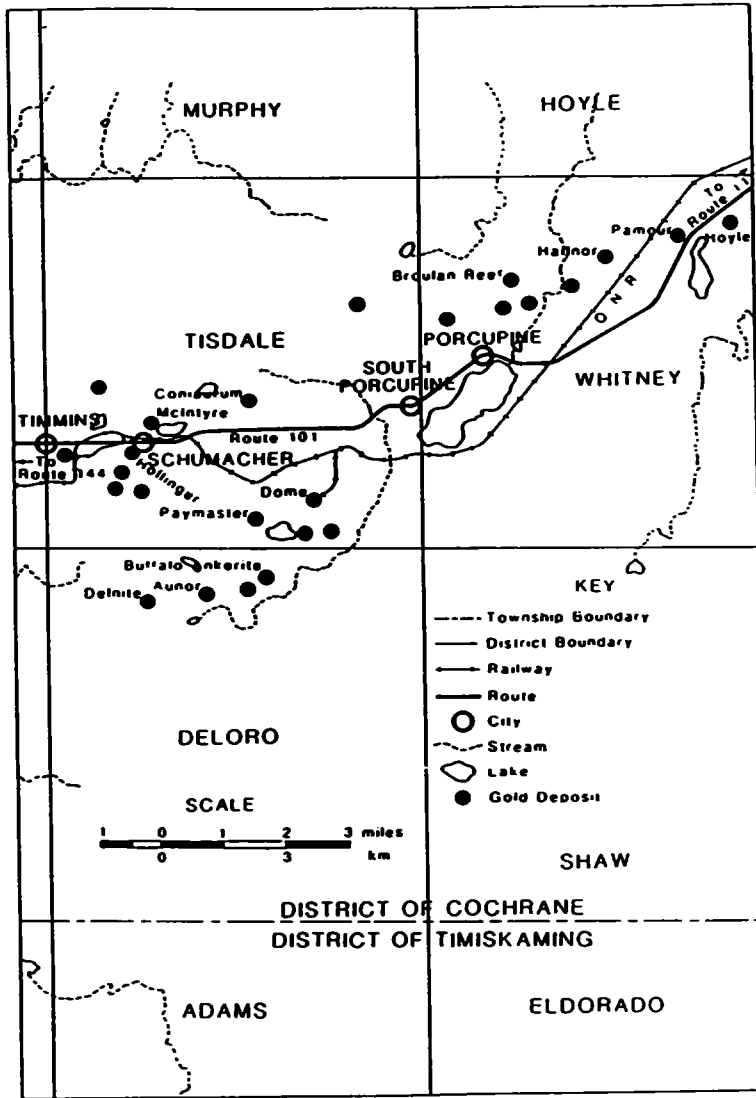


Figure 1.

TIMMINS PROPERTIES

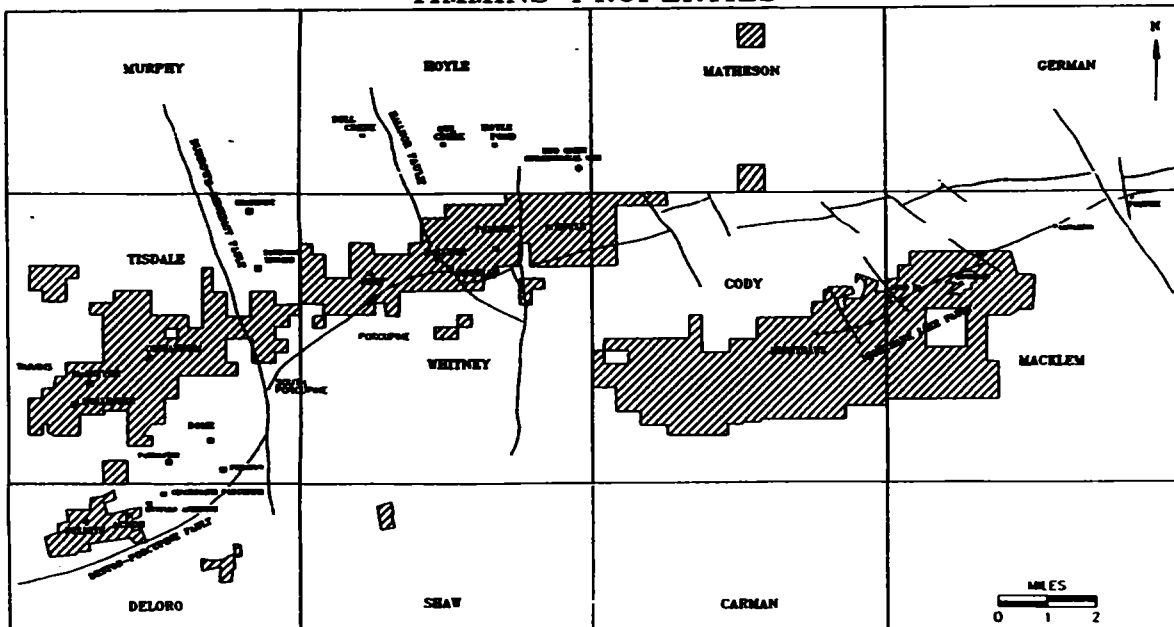


TABLE 1

O.M.I.P. Designated Projects - Summary

Projects	Total Expenditures C\$	Work Completed Diamond Drilling	Other	Comments/Results
Hallnor/Broulan	\$185,863.23 } 46,063.31 }	15,294'	1.8 miles linecutting	Results currently being evaluated for possible underground exploration from Hallnor 1st level - drifting and raising to establish grade/continuity. Of 35 holes drilled, 14 contained VG. Four possible zones identified.
Pamour	67,856.16 } West Pit }	3,349' 263'	---	Mining reserve of 188,000 tons @ 0.08 opt Au established (probable). Development work planned in 1994. Follow-up drilling of 4,500' completed on West Pit in December 1993. Currently developing zone with proven reserves/broken reserves of 41,600 tons @ 0.1 opt Au.
Hoyle	12,022.92	632'	---	
Total	\$311,805.62	19,538'		

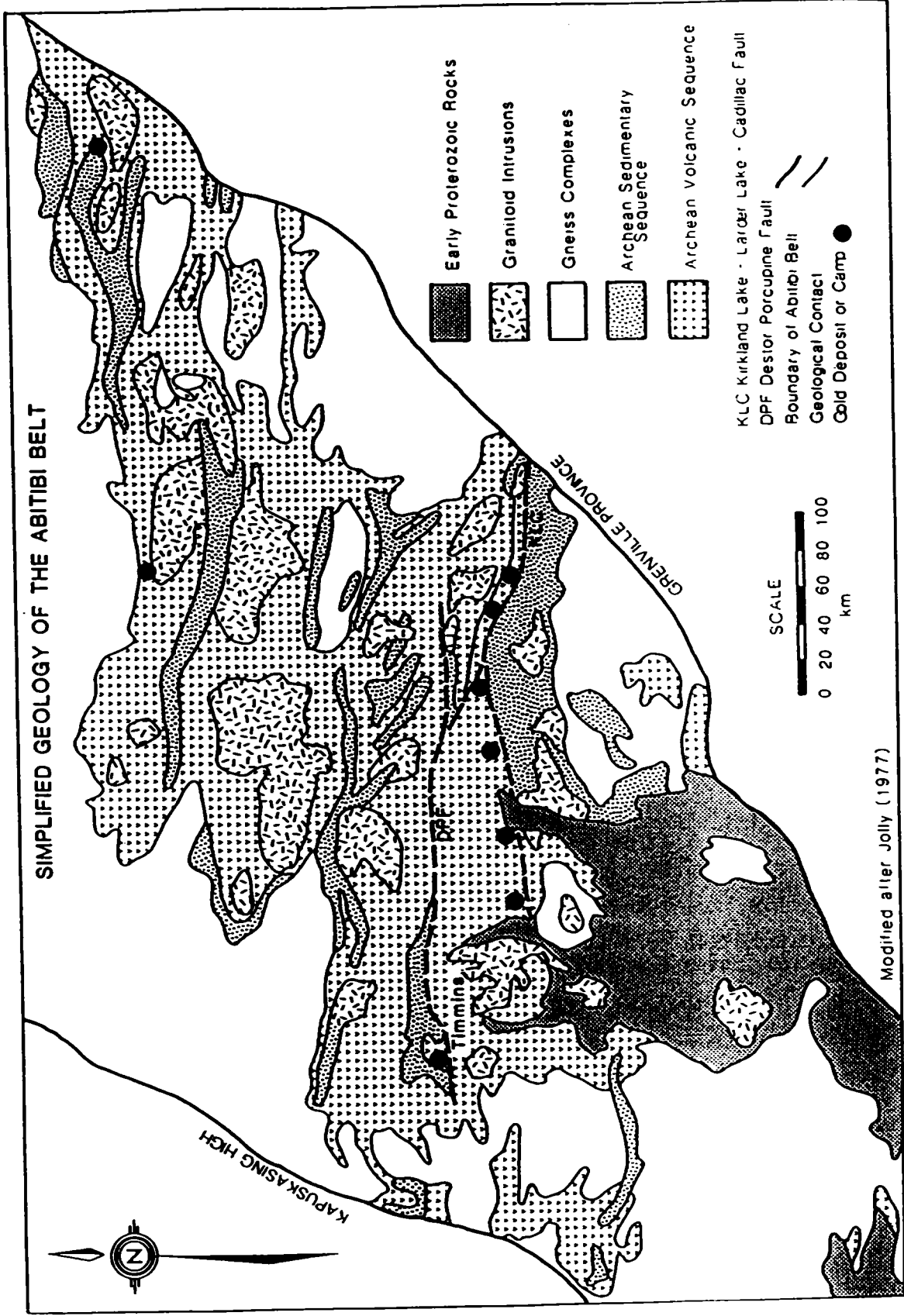
3.0) GENERAL GEOLOGY and PAST WORK

The general geology of the Timmins area is well documented in several reports by government, university and industry workers. The reader is referred to the OGS Open File Report 5768 (1991, Piroshco and Kettles) for a discussion of the regional geology of Tisdale and Whitney Townships. An unpublished thesis (Aitken, 1991) is the most recent academic study of data on the Pamour Mine. The other mines in the vicinity (Hallnor, Broulan Reef, Broulan Porcupine and Bonetal) have seen very few academic studies and were last documented in the classic 1948 CIMM volume on Structural Geology of Canadian Ore Deposits. Figures 3 and 4 are from recent publications on the Timmins area geology and show the position of the Pamour and other mines in relation to other deposits and the broader regional geology scheme as it is presently interpreted.

3.1) PROPERTY GEOLOGY

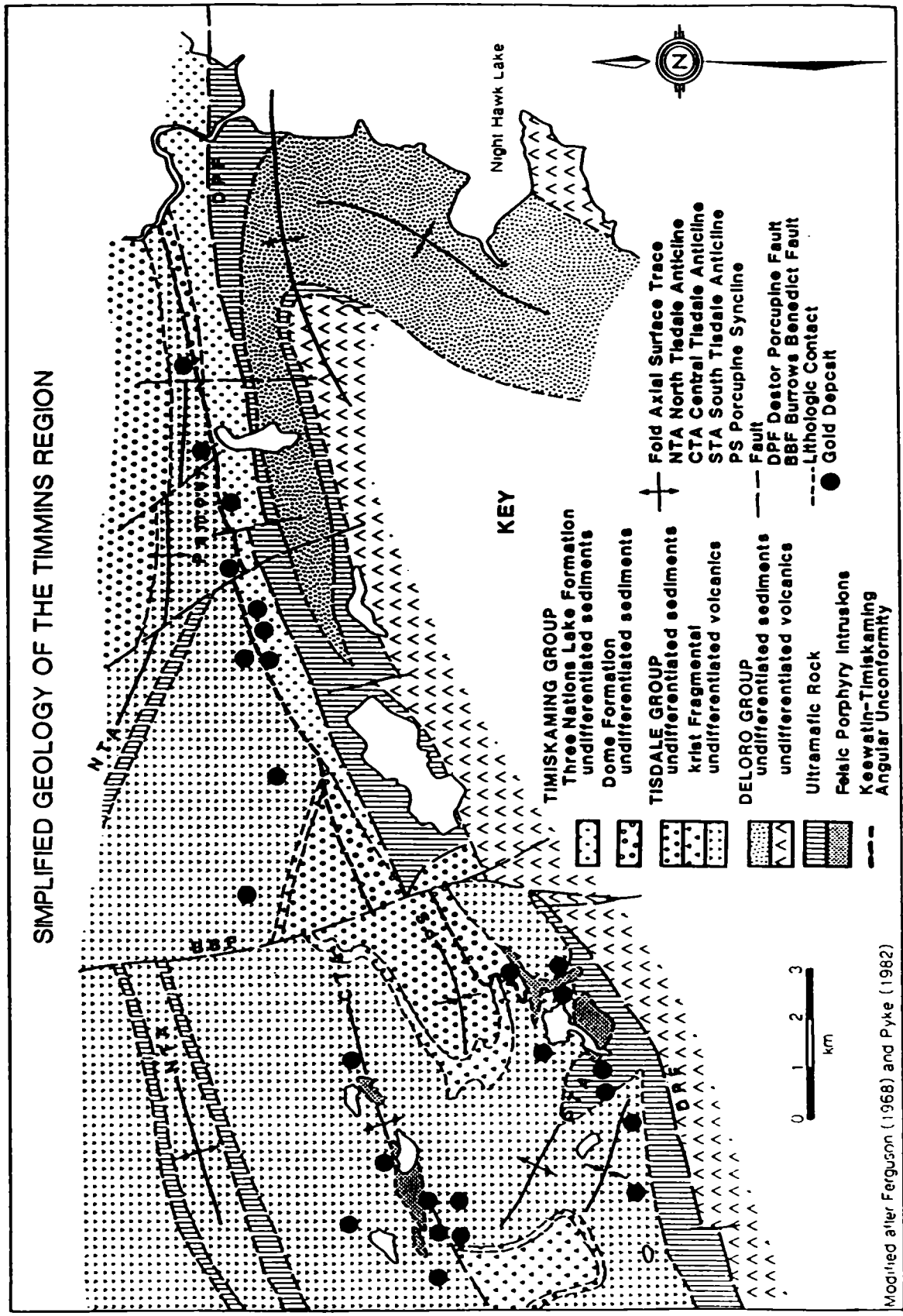
The general surface geology underlying the area covered by the various 1993 O.M.I.P. designated exploration programs is shown in Figure 5. The area is underlain by east-west striking, moderately to steeply dipping meta-volcanic and meta-sedimentary rocks of the Archean Abitibi Greenstone Belt (Figure 4). The main structural feature of the area is an ENE trending angular unconformity between the older EW trending interbedded Keewatin volcanics and sediments to the north and the younger ENE trending Timiskaming sediments to the south. The Destor Porcupine fault Zone is located to the south of this unconformity and underlies portions of the Hoyle property and dips onto the Hallnor/Pamour Properties at depth. Several NNW - SSE faults disrupt the EW trending lithologies (Hallnor, Pamour, Reef faults). A number of NNW-SSE diabase dykes also cut the volcanic/sedimentary rocks in the area. Underground mining has identified a number of flat "thrust style" faults particularly in the west end of the Pamour mine. These late features are an important consideration in mining and exploration as they displace mineralization several hundred feet in places.

Mineralization has been developed and mined in both the volcanic and sedimentary lithologies using narrow vein and surface/underground bulk mining technology. All significant mineralization is located within a couple thousand feet of the unconformity. Form and attitude of the mineralized zones vary over the 30,000 feet of strike length from the Burrows Benedict Fault in the west to Nighthawk Lake in the east.



Modified after Jolly (1977)

Figure 3



Modified after Ferguson (1968) and Pyke (1982)

Figure

Figure 4

GEOLOGY OF THE PAMOUR ONE MINE AREA

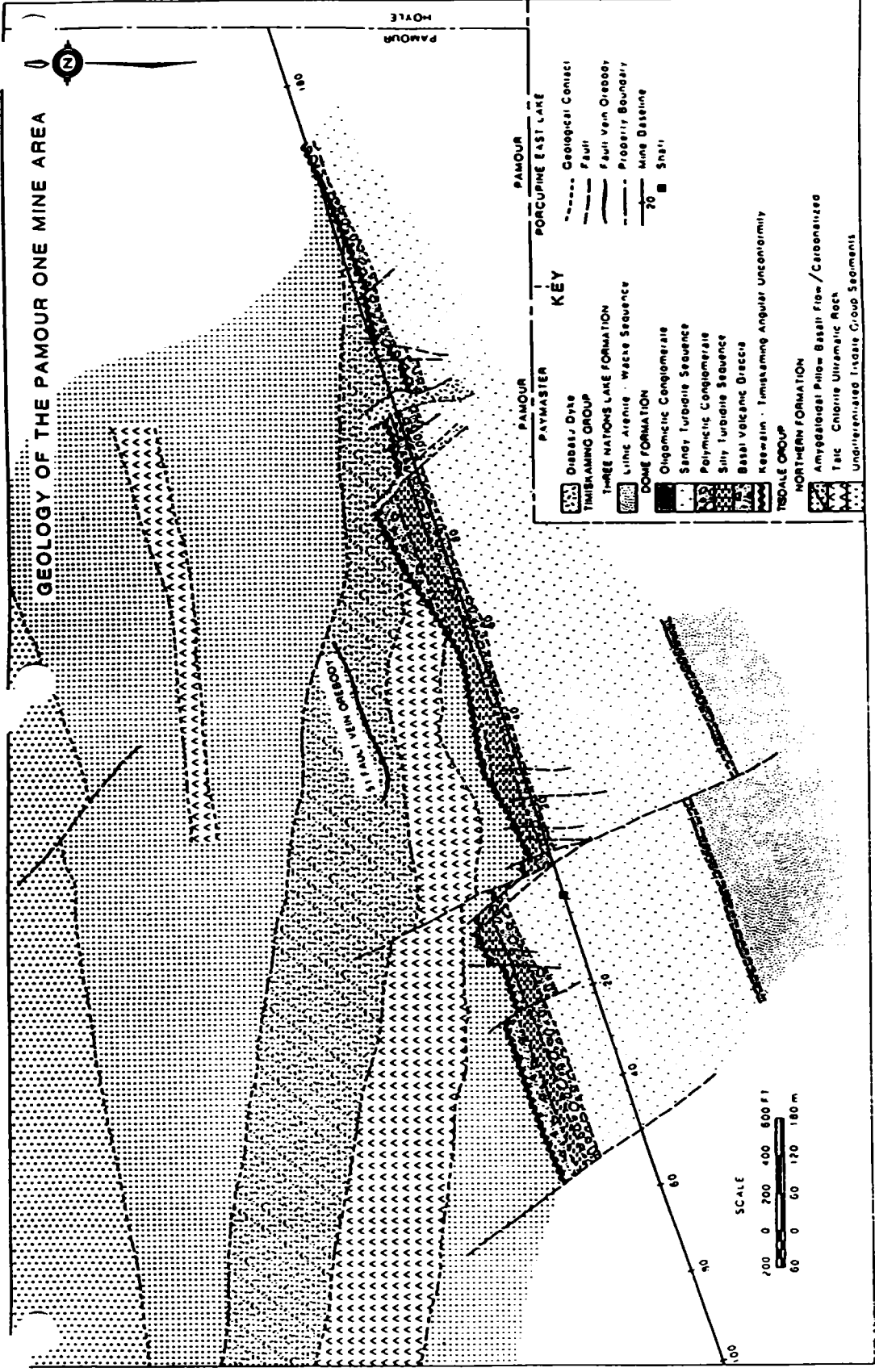


Figure 5

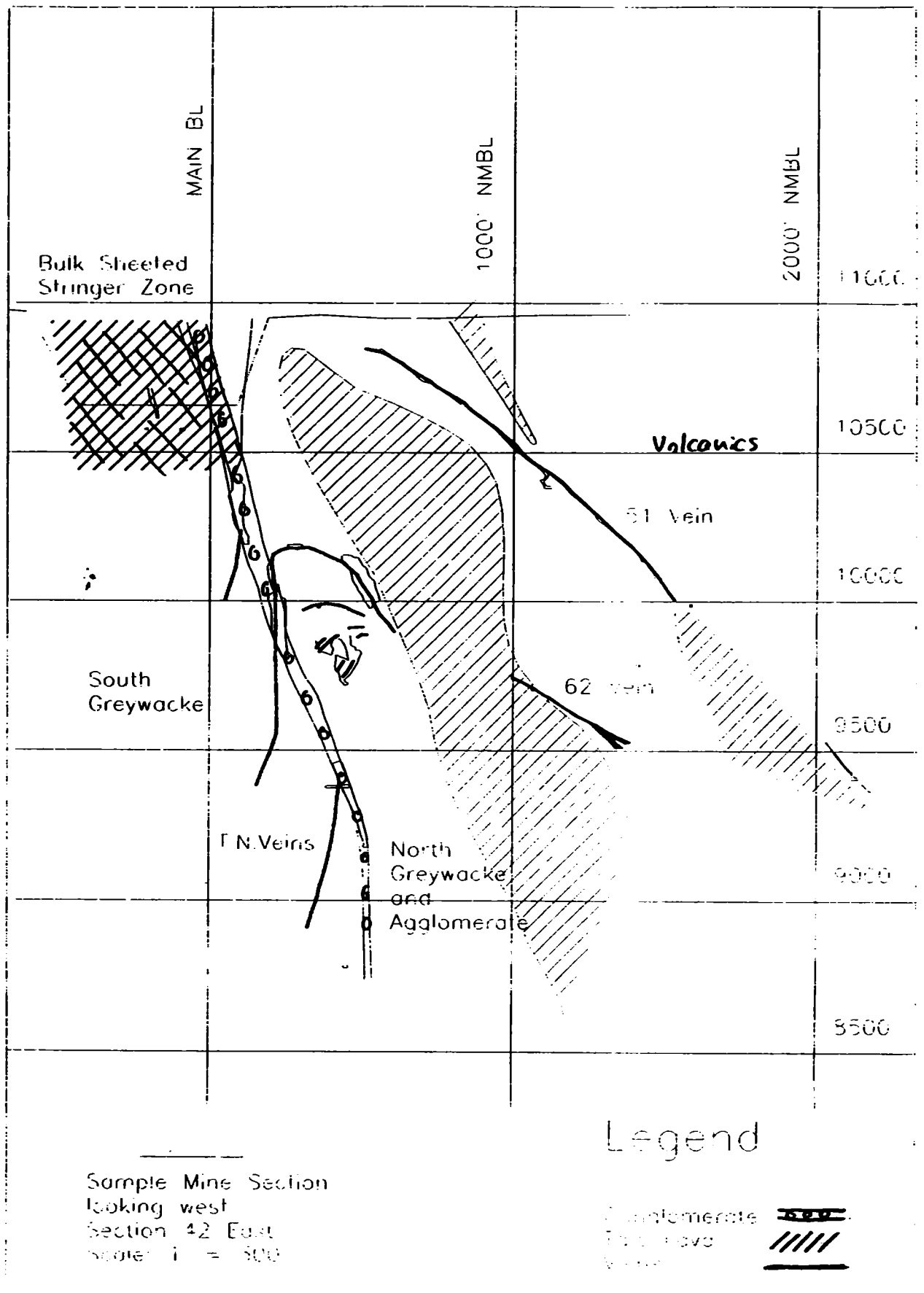


Figure 6 Schematic Mine Section - Pamour Area

(3)

In much simplified terms the various zones of mineralization identified to date can be envisioned as a vertically stacked set of inverted "v" structures related to a system of conjugate fractures (Figure 6). The tails of the v are usually the site of variably dipping, narrow, but often high grade, mineralized structures (Hallnor Upper Mine, 51 Vein, Pamour "TN" Veins). The intersection of these conjugate fractures (intersection lineation) with favourable lithologies is often the site of substantial, lower grade, bulk mineable mineralization. These bulk zones consist of extension style flat ladder and/or sigmoidal quartz stringer zones. The most significant of these bulk deposits mined to date have been associated with a thick conglomerate unit located immediately south of the unconformity on the east end of the Pamour and west end of the Hoyle Property. At the west end of the system bulk mineable zones are associated with a coarse grained gritty greywacke/quartzite (Broulan Porcupine Mine).

3.2) PAST PRODUCTION

The six mines along the structure have produced, from numerous zones, over 7 million ounces of gold from 57 million tons ore since production commenced in the area in the mid-1930's. Table 2 lists the deposits with their cumulative production to 1991. Presently, production is restricted to the Pamour and Hoyle South Properties with some minor open pit mining on the Broulan property (Pamour No. 5 Pit crosses into the Broulan Property). There has never been any gold production from the Hoyle North Property.

Current reserves on the Pamour Property are accessed via the No 3 shaft, No. 3 Pit, No. 2 Pit and a ramp from No. 2 pit. Reserves on the Hoyle South Property are accessed via the ramp from No. 2 Pit and an extension of the Pamour 1400 level (for ore haulage).

All of the deposits in the area saw initial development work in the mid 1930's following the rise in gold price from US\$20.67/oz to US\$35.00/oz. Of the four gold milling plants that have been active in the area only the Pamour facility is still in operation. Despite almost 60 years of mining activity the "Pamour" gold mineralized system has seen significant exploration below 3,000' in only two areas and in one of these a significant deposit was discovered (Hallnor 19 vein - 650,000 tons @ 0.42 opt Au recovered grade).

TABLE 2

PAST PRODUCTION STATISTICS - PANOUR AREA MINES

MINE NAME	TOWNSHIP	YEARS OF PRODUCTION	TONS MILLED	OZS PRODUCED	GRADE
BANNER	WHITNEY	1927-1928, 1933, 1935	315	670	0.19
BONETAL	WHITNEY	1941-1951	352,254	51,510	0.15
BONWHIT	WHITNEY	1951-1954	200,555	67,940	0.34
BROULAN	WHITNEY	1939-1953	1,146,059	243,757	0.21
HALLNOR (PANOUR NO. 2)	WHITNEY	1938-1968, 1981	4,226,419	1,645,892	0.39
HOYLE	WHITNEY	1941-1944, 1946-1949	725,494	71,843	0.10
HUGH-PAM	WHITNEY	1926, 1948-1965	636,751	119,604	0.19
PANOUR NO. 1 (incl. pits 3 & 4 & heap leach)	WHITNEY	1936-	46,437,259	4,315,892	0.09
REEF MINE	WHITNEY	1915-1965	2,144,507	498,932	0.23

4.0) O.M.I.P. GRANT PROJECTS - 1993

In 1993, Royal Oak Mines Inc. explored four targets with O.M.I.P. grant funds. All of the work consisted of diamond drilling on the area surrounding the Pamour Mine operation. In all a total of 19,587' of BQ core drilling was completed in 47 holes by Dominik Drilling (1981) Inc. and Mackenzie Drilling. This work was extremely successful and has resulted in the addition of at least 220,000 tons of probable and proven ore to the Pamour Mine inventory. In addition, about 10,000' of follow-up drilling to define pitable mineralization in the 500,000-1,000,000 ton range was recommended for one of the projects and the other is under review for a possible underground exploration program to define mineralization mineable with narrow-vein techniques. By year end 1993, about half of the recommended follow-up drilling on the pit target was complete. The remaining follow-up work is scheduled for completion following some interpretive work on the first phase.

4.1) HALLNOR/BROULAN PROPERTY TARGETS (HALLNOR SOUTH VEINS)

The majority of the 1993 O.M.I.P. grant work was completed on the contiguous Hallnor/Broulan properties. In all, a total of 15,294' of diamond drilling in 35 holes was completed to explore a number of mineralized structures south of the main zones mined from the upper three levels of the Hallnor Mine. The area was targeted following an intersection in DDH 15179 in February 1992 of 0.186 opt Au/13.4'. The hole was originally drilled as part of a wide spaced stratigraphic "fence" program. The results of the drilling are summarized in Appendix 1 (Hallnor South Vein Drilling), while the detailed logs and assay certificates are attached as Appendix 4.

The drilling was successful in defining three possible parallel mineralized structures. Two of these (Hallnor #1S and Hallnor #2S) have been traced over about 300-500' of strike and down dip about 100-400' below the bedrock surface (about 70' average overburden thickness). A possible third zone, only cored in a few holes, may also be present. Table 1 summarizes results by zone, while Figures 6 and 7 show the location of the zones with respect to the Hallnor Mine.

The zones show two styles of mineralization, gradational into each other. In some holes, a strong "bleaching" style of alteration is evident in the greywacke with typical development of pale green-tan sericite, mgr pyrite and numerous quartz stringers. The quartz stringers are usually accompanied by ankerite +/- calcite +/- albite. In addition to pyrite, pyrrhotite is common along with much smaller amounts of sphalerite (brown), chalcopyrite, arsenopyrite and galena. Visible gold is often present both in the larger vein structures and smaller veinlets. The visible gold is usually closely associated

TABLE 3
SUMMARY OF DIAMOND DRILLING - 1993 O.M.I.P. EXPLORATION TARGETS
HALLNOR SOUTH VEIN DRILLING

HOLE NO	LENGTH (FT)	HALLNOR SECTION	PAMOUR COORDS				DIP	AZIMUTH	NO. SAMPLES	DRILLING	COSTS ASSAYS	TOTAL
			N	E	EL							
15338	286	59 L11+72'S	11566.4	7622.9	10931.1	-50	338?	20	2,981.00	200.00	3,181.00	
15339	304	57 L11+110'S	11588.9	7741.2	10933.2	-50	330	27	3,140.00	310.00	3,450.00	
15341	294	54 L11+65'S	11690.3	7838.8	10939.0	-50	330	15	3,037.50	150.00	3,187.50	
15342	306	56 L11+60'S	11642.4	7749.6	10936.5	-50	330	26	3,068.13	280.00	3,348.13	
15343	506	54 L12+15'S	11564.6	7917.7	10938.2	-50	330	54	4,775.90	540.00	5,315.90	
15344	396	54 L11+150'S	11627.4	7883.5	10938.6	-50	330	28	3,764.40	280.00	4,044.40	
15345	373	55 L11+145'S	11605.0	7837.9	10938.4	-50	330	27	4,507.10	270.00	4,777.10	
15386	251	55 L11+65'S	11664.7	7799.2	10937.9	-50	330	33	2,435.15	505.00	2,940.15	
15387	406	56 L11+145'S	11573.9	7792.3	10935.2	-50	330	36	4,109.40	360.00	4,469.40	
15388	182	57 L12+5'S	11496.0	7777.0	10935.0	-50	330	6	1,700.00	60.00	1,760.00	
15388A	506	57 L12+15'S	11488.9	7782.9	10935.0	-50	330	49	5,660.90	490.00	6,150.90	
15389	406	57 L11+155'S	11546.0	7757.3	10933.8	-50	330	41	3,990.90	435.00	4,425.90	
15390	349	59 L11+130'S	11511.4	7656.2	10931.5	-51	330	40	3,324.85	475.00	3,799.85	
15391	487	61 L12+40'S	11369.1	7616.9	10932.2	-51	330	56	4,941.55	640.00	5,581.55	
15419	403	61 L11+170'S	11434.5	7579.8	10932.0	-51	330	42	3,860.95	420.00	4,280.95	
15420	306	61 L11+100'S	11481.6	7549.9	10931.7	-50	330	23	2,949.00	230.00	3,179.00	
15421	440	59 L12+10'S	11440.5	7692.5	10933.3	-52	330	47	4,639.00	470.00	5,109.00	
15422	506	61 L12+140'S	11280.3	7670.5	10932.8	-53	330	33	4,750.90	330.00	5,080.90	
15423	356	63 L12+90'S	11279.6	7547.1	10932.0	-50	330	46	3,403.40	510.00	3,913.40	
15424	556	63 L13+100'S	11090.1	7663.6	10932.9	-48	334	39	5,329.40	390.00	5,719.40	
15425	352	57 L12+90'S	11426.3	7826.3	10935.0	-50	330	21	3,287.80	210.00	3,497.80	
15426	506	65 L12+175'S	11151.5	7520.6	10931.8	-47	330	57	4,398.50	570.00	4,966.50	
15427	503	65 L12+90'S	11218.3	7479.4	10931.9	-47	333	72	4,387.05	820.00	5,207.05	
15428	600	65 L13+75'S	11072.05	7570.2	10932.8	-47	330	46	5,200.00	460.00	5,660.00	
15429	506	69 L12+150'S	11083.3	7334.5	10932.0	-47	330	57	4,398.80	570.00	4,968.80	
15430	353	69 L12+50'S	11167.0	7284.8	10932.0	-47	330	43	3,060.75	430.00	3,490.75	
15480	358	67 L12+90'S	11177.7	7393.7	10931.8	-47	330	55	3,877.60	675.00	4,552.60	
15481	303	67 L12+40'N	11286.8	7326.1	10931.9	-47	330	33	3,046.75	330.00	3,376.75	
15482	429	63 L12	11353.3	7521.8	10931.8	-47	330	43	3,750.05	430.00	4,180.05	
15483	657	63 L13	11180.3	7618.6	10932.9	-47	330	53	5,791.00	560.00	6,351.00	
15484	607	67 L13+60'S	11033.7	7479.7	10932.6	-47	330	68	5,254.35	680.00	5,934.35	
15485	693	69 L13+100'S	10945.4	7410.9	10932.5	-50	330	54	5,791.00	540.00	6,331.00	
15486	717	63 L14+50'S	10962.9	7743.5	10936.9	-45	150	86	7,410.70	860.00	8,270.70	
15487	737	71 L13+100'S	10893.1	7323.7	10935.2	-45	150	101	7,828.90	1,010.00	8,838.90	
15488	354	59 L12+105'S	11368.8	7741.4	10933.5	-50	330	27	3,135.85	295.00	3,430.85	
15294								1504	\$146,986.53	\$15,785.00	\$162,771.53	

(5)

with increased amounts of sphalerite. In other holes, the strong "bleaching" is not evident but a zone of increased quartz veining and pyrite, with only minor amounts sericitic bleaching occasionally present around quartz stringers is present. A calcitic +/- ankeritic alteration is present in these zones and mineralization consists of py with lesser po and sph. In some holes, very high grades are present in quartz veins with very little associated alteration (DDH 15339 - 1.95 opt Au).

Of the two main zones delineated, Zone #1S is primarily of the latter type, i.e. weak to non-existent sericite/albite alteration but an easily observable increase in quartz veining over a distinct interval. This "zone" has been traced over a strike length of about 400' and dip length of up to 300' with some deeper intersections possibly correlatable. The #2S Zone more typically consists of a zone of moderate-intense sericite bleaching with associated quartz veining, pyrite, pyrrhotite +/- sphalerite and arsenopyrite. Gold is associated with both large quartz veins and small quartz stringers. Brown sphalerite can be locally very common.

The gold distribution is nuggety and generally fairly coarse in grain size. Pulp and metallic assays were undertaken on most samples with visible gold in core. The degree of nugget effect is demonstrated by the low assays returned from several "strong" quartz structures that lack any visible grains.

The two main structures drilled appear to be cut off to the west by a series of faults that the main Hallnor vein structure also terminated against. To the east, the structures pinch out. Overall, a shallow westerly plunge to the zones is indicated (with possible steeper internal plunges for high grade "shoots" within the zones).

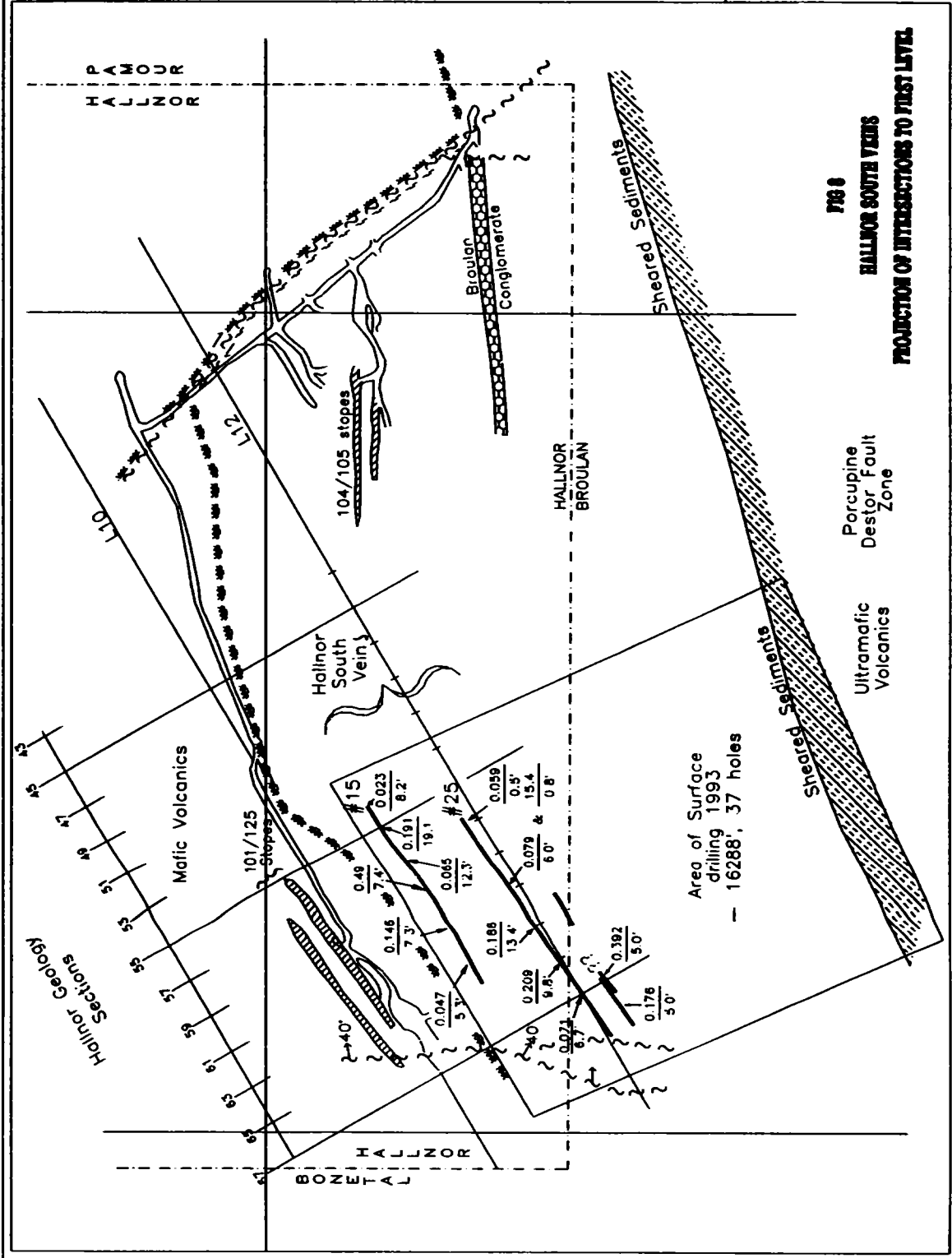
At present the two zones are drilled off on +/- 100' sections with some 50' spaced sections at the east end. This work has shown enough indications of a nugget effect to indicate that an exploration drift/raise program may be the only way to determine if a mineable reserve exists in this area. A detailed geological interpretation will be completed prior to attempting such a program.

4.2) PAMOUR MK ZONE

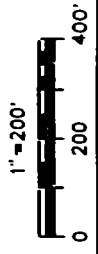
This target was developed during interpretation of the results of a 1992 O.M.I.P. grant project at Pamour (3 Pit Greywacke Target). A number of significant intersections were noted straddling the unconformity between the North Greywacke and volcanics. A small drill program of 8 holes totalling 3,349' as completed by Dominik Drilling in late September 1993. The holes

TABLE 4
HALLNOR SOUTH VEIN DRILLING

HOLE NO	LENGTH	HALLNOR SECTION	SIGNIFICANT RESULTS			ZONE #3S
			ZONE #1S	ZONE #2S	ZONE #3S	
15338	286	59 L11+72'S	0.046/2.0'	DID NOT TEST		
15339	304	57 L11+110'S	1.177/5.0'	DID NOT TEST		
15341	294	54 L11+65'S	0.06/12.0'	DID NOT TEST		
15342	306	56 L11+60'S	0.94/10.5' (1.95/5.0')	DID NOT TEST		
15343	506	54 L12+15'S	0.044/1.4'		?	
15344	396	54 L11+150'S	0.023/8.2'	DID NOT TEST		
15345	373	55 L11+145'S	0.01/7.3'	DID NOT TEST		
15386	251	55 L11+65'S	0.333/15.8'	DID NOT TEST		
15387	406	56 L11+145'S	NSA	DID NOT TEST		
15388	182	57 L12+5'S	ABANDONED	0.032/2.0' ?		
15388A	506	57 L12+15'S	0.033/29.2' (0.176/3.4')	0.099/12.7' (0.31/2.1')		
15389	406	57 L11+155'S		DID NOT TEST		
15390	349	59 L11+130'S	0.496/7.4' (3.57/0.5')	DID NOT TEST		
15391	487	61 L12+40'S	0.069/10' (0.308/1.3')	0.075/30.0' (0.079/6.8' & 15.4/0.8')		
15419	403	61 L11+170'S		DID NOT TEST		
15420	306	61 L11+100'S		0.031/18.8' (0.047/11.0')		
15421	440	59 L12+10'S	0.032/10.5' (0.053/5.5')			
15422	506	61 L12+140'S		0.132/20.9' (0.209/8.0')	0.210/20.8' (0.551/7.4')	
15423	356	63 L12+90'S		0.139/5.2' ?		
15424	556	63 L13+100'S		0.059/0.5'		
15425	352	57 L12+90'S		0.039/29.0' (0.086/11.5')	NSA	
15426	506	65 L12+175'S		0.209/9.8' (0.570/2.5') & 0.05/15.7' (0.132/4.3')	DID NOT TEST?	
15427	503	65 L12+90'S	0.033/16.7' (0.05/7.5')	NO ZONE	NO ZONE	
15428	600	65 L13+75'S	DID NOT TEST	NO ZONE	NO ZONE	
15429	506	69 L12+150'S	DID NOT TEST	NO ZONE	0.107/31.0' (0.169/12.6')	
15430	353	69 L12+50'S	DID NOT TEST	0.071/6.7' (0.131/1.0')		
15480	358	67 L12+90'S	DID NOT TEST	WEAK ZONE, MAX 0.017 OPT	DID NOT TEST	
15481	303	67 L12+40'N	0.045/10.7' (0.157/2.6')	0.015/22.2' (0.029/4.8')	DID NOT TEST	
15482	429	63 L12	0.03/11.0' (0.106/1.1')	NO ALTERATION	NO ALTERATION	
15483	657	63 L13		NO ALTERATION	NO ALTERATION	
15484	607	67 L13+60'S	NO ALTERATION	NO ALTERATION	NO ALTERATION	
15485	693	69 L13+100'S	0.086/9.2' (0.143/4.5')	NO ALTERATION	NO ALTERATION	
15486	717	63 L14+50'S	DID NOT TEST	DID NOT TEST	NO ALTERATION	
15487	737	71 L13+100'S	DID NOT TEST	DID NOT TEST	NO ALTERATION	
15488	354	59 L12+105'S		DID NOT TEST	NO ALTERATION	



Hallnor Project
First Level (200') plan



were drilled to fill in gaps in the database and confirm the continuity of the mineralization. The results were encouraging and allowed the calculation of a probable mining reserve (including dilution) of 188,000 tons. An underground development program is scheduled for 1994.

The gold-bearing zones are located mainly in greywacke along with minor amounts in an irregular agglomerate unit at the unconformity. Mineralization consists primarily of pyrite plus minor amounts of pyrrhotite, sphalerite and rare fine-grained arsenopyrite. Alteration is typical of the Pamour area greywacke hosted mineralization, a strong sericite bleaching with narrow tensional quartz veins occasionally containing specks of VG. Results of the drilling, along with transverse sections, are attached as Appendix 1.

4.3) PAMOUR WEST PIT

Following completion of the MK Zone drilling, two short holes totalling 263' were completed west of the Pamour headframe to test an area for the possibility of open pit mineralization. The area was targeted following a review of data from a 1992 drill program immediately to the south. This previous program was designed to test for the presence of pitable mineralization up-dip of some steep dipping "TN" vein stopes in the North Greywacke. Results of drilling north of this area suggest the possibility of a classic Pamour roll-over structure with the mineralization and alteration flattening into the unconformity and steepening again within the volcanics with a northerly dip (see Figure 9). Two holes collared from a single set-up tested this idea by testing for flat north-dipping high grade mineralization in the volcanic/agglomerate indicated by one of the original holes drilled on the property. Although the hole intersected strong visible alteration and mineralization, assay results were low. However, the strength of the mineralization intersected was sufficient to justify a follow-up drill program in December. The results of the drilling are currently being evaluated.

4.4) HOYLE SOUTH - 2240 BLOCK

Two short holes totalling 632' were drilled to follow-up the results of DDH 15056 (part of the Hoyle South Greywacke 1992 O.M.I.P. grant work program). This hole returned 0.095 opt Au/102.0' from greywacke/conglomerate contact. The two holes were drilled 50' east and west of this intersection and both returned significant intersections. These results, combined with a small amount of underground work, allowed the definition of a mineable ore block of 41,000 tons currently being developed.

5.0) **CONCLUSIONS & RECOMMENDATIONS**

As in 1992, Royal Oak Mines Inc.'s 1993 O.M.I.P. grant projects were successful in adding material to the Timmins Division mineral inventory. Two of the projects resulted in additions to the 1993 year-end inventories, while follow-up work recommended on the Hallnor South Vein and West Pit projects will likely result in additional reserve definition during 1994.

At the time of writing, planning was in progress for an aggressive program of surface diamond drilling on the Pamour mineralized system in 1994. Some of this work will include follow-up drilling of the West Pit target and ongoing evaluation of the Hallnor South Vein structure for a potential underground exploration program.

PROGRAM PROCEDURES

1.0) SURVEY CONTROL

All holes are surveyed with reference to the Pamour Mine Grid and plotted using the Pamour Mine section system (162 - 342 Azimuth). Casings are either left in or, if local mine infrastructure would make these a hazard, removed and a cement plug poured. Longer drillholes (> 300') are surveyed with a Sperry Sun Single Shot Instrument. Shorter holes are surveyed with acid tests.

2.0) SAMPLING PRACTICE

The sampling practice utilised is dependent on the geology and mineralization of the target being tested.

2.1) Volcanic Hosted Mineralization

The ore-bearing structures in the volcanics are generally narrow and visually distinct so sampling is determined by lithology and alteration. Underground drill core is sampled whole unless there is a reason to save the core for research. Most surface core is sawed and stored at Royal Oak Mines Timmins core processing facility on the Hollinger Property.

2.2) Sediment Hosted Mineralization

Narrow vein "TN" type targets in the Greywacke are sampled the same way as narrow vein volcanic targets. The bulk conglomerate and greywacke mineralization is sampled on regular 2.5' intervals in well altered/mineralized zones and on a wider 5.0' interval in less heavily altered/mineralized sections. If a particularly densely quartz veined zone is encountered an odd sample interval may be taken. As with the volcanic hosted mineralization underground core is sampled whole whereas the surface drillholes are saved at the Hollinger core processing facility.

3.0) ANALYTICAL PROCEDURES

All sampling was completed at Royal Oak Mines Timmins Division Analytical Laboratory, Schumacher, Ontario. Most samples were analysed using a duplicate Atomic Adsorption technique (26g sub-samples) with a standard gold Geochemical finish. Digestion is standard aqua regia. Assays over 0.5 opt Au are routinely reassayed using Fire Assay and a 30g sub-sample. Control samples and blanks are inserted within runs on a routine basis.

4.0) DATA PROCESSING

All drilling is now entered into the Lynx Geosystems Unix based mine modelling software database. Usually only header, rock type and assay data is entered. The original log is filed in a vault. A set of manual sections is updated although these are rarely used as working sections except in remoter parts of the mine where development has not been entered into the computer database. The Pamour mine is slowly moving towards a computer based database for base geology data. The built in block modelling program in Lynx is used to evaluate the bulk conglomerate/greywacke exploration data which is essentially a statistical number crunching exercise. More geological interpretation is required in interpreting the narrow vein data.


Various cut-offs and cutting grades are applied to the raw data depending on the type of mineralization, potential mining methodology to be used and current metal prices. Any grades calculated from diamond drill data are compared to In The Hole production samples and broken muck samples. Discrepancies are assessed to determine if future exploration data should be evaluated differently.

STATEMENT OF QUALIFICATIONS

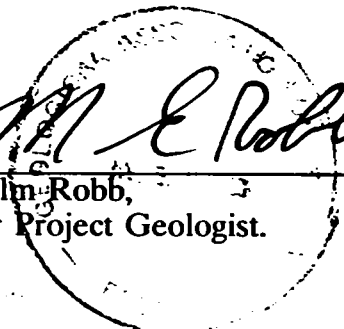
I, Malcolm Robb, of the City of Timmins, Province of Ontario, do hereby certify that:

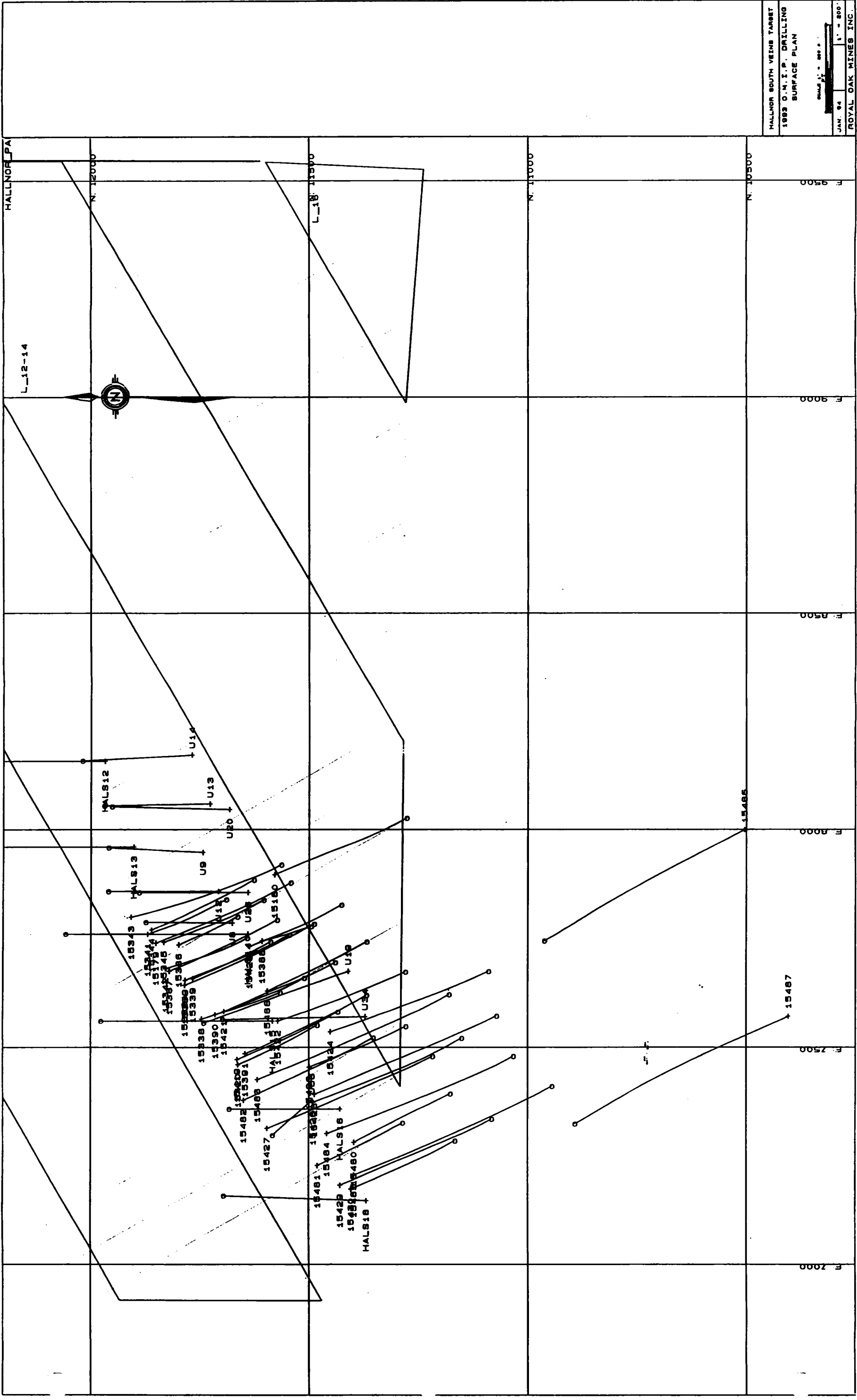
- 1) I received a Hons B.Sc. degree, Mining Geology Major, from Royal School Mines, Imperial College, University of London, U.K.
- 2) I have been employed as a geologist by various mining companies since 1980.
- 3) I am a Fellow of the Geological Association of Canada.
- 4) I am the author of this report.
- 5) I have no direct interest, nor do I have any shares of any company exploring on the properties described in this report, nor on any adjacent or surrounding properties.

Dated this 11th day of February, 1994, Timmins, Ontario.



Malcolm Robb,
Senior Project Geologist.





HALLNOR SOUTH VEINE TARGET
 1983 O.M.I.P. DRILLING
 SURFACE PLAN

SCALE: 1" = 800'

JAN. 84

ROYAL OAK MINES INC.

SUMMARY LOG

Hole Number: 15486
Date Drilled: November 2-4, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Broulan
Township: Whitney
Claim No.: P14932
Co-ordinates: 10962.9N, 7743.5E, El. 10936.88 (Pamour coords)
Hallnor Section 63W, L14+50'S
Azimuth 150°, -45° dip
Length: 717 feet
Survey: 7 Sperry Sun Single Shots
Size: BQ
Casing: 92 feet - left in
Purpose: Test greywacke stratigraphy to Porcupine Destor Fault Zone
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$7,410.70
Sampling	860.00

	\$8,270.70/717' = \$11.54/ft

RESULTS

GEOLOGY

DDH 15486 was the first of two holes drilled to test the greywacke stratigraphy south of Hallnor to the Porcupine Destor Fault Zone. It intersected a narrow quartz vein averaging 0.208 opt Au within quartzitic greywacke. The sediments adjacent the ultramafic volcanics were heavily quartz veined and altered, but contained relatively little metallic mineralization and no significant assays were returned from any of the samples taken.

SAMPLING

A total of 180.5' of the core (28.2%) was sawed and 60 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 26 samples representing 453.0' (70.8%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 35 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 77.0	Overburden
77.0- 156.5	Quartzitic Greywacke 127.0-142.0 Quartz veined and weakly altered quartzite incl. 129.5-134.0 0.208 opt Au/4.5', 50% quartz, 0.5% py, VG
156.5-159.5	"Cherty" Slate Distinctive marker unit - similar to unit seen at Hoyle South. Tr asp.
159.5-391.6	Greywacke/Slatey Greywacke
391.6-497.5	Variably Quartz Veined/Altered and Sheared Greywacke (Mylonite?) 391.6-410.0 Sericitic greywacke - 3-90% quartz, tr-1% py, tr-10% sericite, tr fuchsite, NSA 410.0-445.5 Massive barren quartz, NSA 445.5-497.5 Quartz and silicified, sheared greywacke, tr gal, NSA
497.5-717.0	Ultramafic Volcanics 557.0-597.0 Spinifex textured
717.0	EOH

SUMMARY LOG

Hole Number: 15487
Date Drilled: November 4-6, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Broulan
Township: Whitney
Claim No.: P14932
Co-ordinates: 10893.1N, 7323.7E, El. 10935.2 (Pamour coords)
Hallnor Section 71W, L13 + 100'S
Azimuth 150°, -45° dip
Length: 735 feet
Survey: 7 Sperry Sun Single Shots
Size: BQ
Casing: 102 feet - left in
Purpose: Test greywacke stratigraphy south of Hallnor to Porcupine
Destor Fault Zone
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$7,828.90
Sampling	1,010.00

	\$8,838.90/735' = \$12.03/ft

(2)

RESULTS**GEOLOGY**

DDH 15487 was the second of two holes drilled to test the sediments south of Hallnor to the Porcupine Destor Fault Zone. Although considerable quartz veining was intersected adjacent the ultramafics, no significant results were returned from samples. Excellent spinifex textures were noted in the ultramafic volcanics.

SAMPLING

A total of 323.7' of the core (50.8%) was sawed and 85 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 16 samples representing 313.8' (50.2%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 35 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 97.0	Overburden
97.0- 197.5	Greywacke/Slaty Greywacke 135.2-147.2 Brecciated zone
197.5-246.6	"Tectonized" Conglomerate Possibly portion of "Broulan" conglomerate unit 215.5-223.0 Albitic dike?
246.6-336.8	Quartzitic Greywacke Sericitized, fuchsitic, weakly pyritic 310.0-317.0 Fault zone
336.8-467.2	Slaty Greywacke 386.0-389.7 Cherty slate, tr asp - similar to DDH 15486 and at Hoyle property
467.2-603.6	Sheared, Quartz Veined Greywacke Sericitized, quartz veined, contorted greywacke - mylonitic texture, fuchsitic, minor galena 513.5-517.5 3% quartz, 30% sericite, 2% py, 1-2% fch - 0.044 opt Au/4.0' 586.4-603.6 Contact zone - sediments/ultramafics
603.6-735.0	Ultramafic Volcanics 667.0-735.0 Spinifex textured - coarse bladed texture
735.0	EOH

SUMMARY LOG

Hole Number: 15429
Date Drilled: October 22-23, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11083.3N, 7334.5E, El. 10932
Hallnor Section 69W, L12+150'S
Azimuth 330°, -47° dip
Length: 506 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 100 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South veins on section 69W
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,398.80
Sampling	570.00

	\$4,968.80/506' = \$9.82/ft

(2)

RESULTS**GEOLOGY**

DDH 15429 was the first of three holes drilled to test the Hallnor South vein structure on section 69W. No strong zones of alteration and mineralization were intersected although several weakly quartz veined sections of greywacke were cored. A strong fault zone was intersected high in the hole so most of the hole could have been drilled in a fault block distinct from that containing the mineralization. A weakly altered zone from 116.2-131.0 that averaged 0.039 opt Au/14.8' may be equivalent to the third of the three zones intersected in previous drilling.

SAMPLING

A total of 178.8' of the core (44.0%) was sawed and 43 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 227.2' (56.0%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 29 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 100.0	Overburden
100.0- 506.0	Greywacke/Slaty Greywacke
	116.2-131.0 Weakly altered greywacke with 2-12% qtz-carbonate (calcite) stringers and 1-2% py - 0.039 opt Au/14.8'
	incl. 120.0-125.0 0.098 opt au/5.0' - possibly a weak expression of Zone #3S?
	177.3-202.5 Fault zone - heavily brecciated graphitic shear zone with minor qtz-albite sections
	incl. 177.3-178.3 0.086 opt Au/1.0'
	219.4-234.8 Quartz carbonate veined zone, NSA
	235.0-282.5 Quartz carbonate veined zone, NSA
	337.2-370.2 Quartz carbonate veined zone, NSA
	418.0-421.0 Fault zone
	457.4-484.5 Weakly quartz veined greywacke, 1-30 quartz, tr-2% py, tr po, max assay 0.02 opt Au
506.0	EOH

SUMMARY LOG

Hole Number: 15430
Date Drilled: October 23-24, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11167N, 7284.8E, El. 10932
Hallnor Section 69W, L12+50'S
Azimuth 330°, -47° dip
Length: 353 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 88 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South veins on section 69W
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,060.75
Sampling	430.00

	\$3,490.75/353' = \$9.89/ft

RESULTS

GEOLOGY

DDH 15430 was the second of two holes drilled to test the Hallnor South vein structures on section 69W. Two mineralized zones were intersected, both near the bedrock collar of the hole. The first averaged 0.11 opt Au/10.5', the second was a wider zone closely associated with a fault zone. It ran 0.107 opt Au/31.0' and included a narrow quartz veined zone that averaged 0.428 opt Au/0.8'. A large fault zone was intersected below these two intersections (157.5-191.0).

SAMPLING

A total of 144.5' of the core (54.2%) was sawed and 35 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 8 samples representing 122.0' (45.8%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 16 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 86.5	Overburden	
	74.0-86.5	Clay and boulder till recovered
86.5- 353.0	Greywacke/Slaty Greywacke	
	91.0-101.5	Quartz veined and altered greywacke - 0.110 opt Au/10.5', 2-90% qtz, 3-10% sericite, 1-3% py, tr sph, tr gal
	incl. 92.5-97.5	40% quartz, 0.176 opt Au/5.0' Massive quartz stringer from 97.5-98.7, only averaged 0.036 opt Au
	126.5-157.5	0.107 opt Au/31.0' - quartz veined, weakly bleached greywacke
	incl. 126.5-147.0	0.148 opt Au/20.5'
	incl. 126.5-139.6	0.169 opt Au/12.6'
	incl. 138.3-139.1	40% quartz, 0.428 opt Au/0.8'
	157.5-191.0	Fault zone
	336.0-353.0	Bleached greywacke
	incl. 336.0-340.5	0.051 opt Au/4.5', 25% qtz, 1% albite, 3% py, tr po
353.0	EOH	
	Hole stopped at edge of stoped area	

SUMMARY LOG

Hole Number: 15485
Date Drilled: November 1-2, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 10945.4N, 7410.9E, El. 10932.5 (Pamour coords)
Hallnor Section 69W, L13 + 100'S
Azimuth 330°, -50° dip
Length: 693 feet
Survey: 7 Sperry Sun Single Shots
Size: BQ
Casing: 80 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South vein structures at depth
Logged by: M.E. Robb
Comments: Broke through into stope

Direct Costs (Drilling & Sampling)

Drilling	\$5,791.00
Sampling	540.00

	\$6,331.00/607' = \$9.74/ft

(2)

RESULTS**GEOLOGY**

DDH 15485 was the last of three holes drilled to test below the strong fault zones cutting off the Hallnor South Vein structures below 2nd level to the west. The only significant alteration and mineralization intersected in the hole was a zone close to the main vein mined at Hallnor, which returned results of 0.086 opt Au/9.2'.

SAMPLING

A total of 102.1' of the core (16.7%) was sawed and 28 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 26 samples representing 510.9' (83.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 34 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 80.0

Overburden
Till recovered

80.0- 693.0

Greywacke/Slaty Greywacke

129.0-224.0 Sheared/brecciated greywacke - three distinct "breaks" at 139.8-151.0, 182.0-197.0 and 205.5-221.0. Latter fault zone consists of cemented brecciated greywacke and newer mud slips.

617.0-644.0 Weakly bleached greywacke, possibly associated with main veined zone.

incl. 620.0-629.3 0.086 opt Au/9.2', 15-50% quartz, 3-10% sericite, tr-1% py, tr sph, VG (1 speck)

& 638.7-640.0 90% quartz, tr po, tr sph, 0.030 opt Au/1.3'

693.0

EOH
Hole broke through into stope

LEGEND

- GEOLOGY**
- Overburden, No Recovery
 - Overburden, 50% Recovery
 - Overburden, 100% Recovery
 - Overburden, 150% Recovery
 - Overburden, 200% Recovery
 - Overburden, 250% Recovery
 - Overburden, 300% Recovery
 - Overburden, 350% Recovery
 - Overburden, 400% Recovery
 - Overburden, 450% Recovery
 - Overburden, 500% Recovery
 - Overburden, 550% Recovery
 - Overburden, 600% Recovery
 - Overburden, 650% Recovery
 - Overburden, 700% Recovery
 - Overburden, 750% Recovery
 - Overburden, 800% Recovery
 - Overburden, 850% Recovery
 - Overburden, 900% Recovery
 - Overburden, 950% Recovery
 - Overburden, 1000% Recovery
- MAP SYMBOLS**
- 1/4" = 100' (1:12500)
 - 1/8" = 100' (1:25000)
 - 1/16" = 100' (1:50000)
 - 1/32" = 100' (1:100000)
 - 1/64" = 100' (1:200000)
 - 1/128" = 100' (1:400000)
 - 1/256" = 100' (1:800000)
 - 1/512" = 100' (1:1600000)
 - 1/1024" = 100' (1:3200000)
 - 1/2048" = 100' (1:6400000)
 - 1/4096" = 100' (1:12800000)
 - 1/8192" = 100' (1:25600000)
 - 1/16384" = 100' (1:51200000)
 - 1/32768" = 100' (1:102400000)
 - 1/65536" = 100' (1:204800000)
 - 1/131072" = 100' (1:409600000)
 - 1/262144" = 100' (1:819200000)
 - 1/524288" = 100' (1:1638400000)
 - 1/1048576" = 100' (1:3276800000)
 - 1/2097152" = 100' (1:6553600000)
 - 1/4194304" = 100' (1:13107200000)
 - 1/8388608" = 100' (1:26214400000)
 - 1/16777216" = 100' (1:52428800000)
 - 1/33554432" = 100' (1:104857600000)
 - 1/67108864" = 100' (1:209715200000)
 - 1/134217728" = 100' (1:419430400000)
 - 1/268435456" = 100' (1:838860800000)
 - 1/536870912" = 100' (1:1677721600000)
 - 1/1073741824" = 100' (1:3355443200000)
 - 1/2147483648" = 100' (1:6710886400000)
 - 1/4294967296" = 100' (1:13421772800000)
 - 1/8589934592" = 100' (1:26843545600000)
 - 1/17179869184" = 100' (1:53687091200000)
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SUMMARY LOG

Hole Number: 15480
Date Drilled: October 24-25, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11177.7N, 7393.7E, EL. 10931.8
Hallnor Section 67W, L12+90'S
Azimuth 330° (332 @ collar?), -47° dip
Length: 358 feet
Survey: 2 Sperry Sun Single Shots
Size: BQ
Casing: 104 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South veins on section 69W
Logged by: M.E. Robb
Comments: Seams @ 210' and 309'. Hole abandoned at 358', however main target was tested adequately.

Direct Costs (Drilling & Sampling)

Drilling	\$3,827.60
Sampling	675.00

	\$4,502.60/358' = \$12.58/ft

RESULTS

GEOLOGY

DDH 15480 was one of three holes drilled to complete 100' section drilling of the Hallnor South Vein structures. Drilling problems prevented completion to the planned depth of 450' but the main target, the #2S Zone, was intersected, along with a possible intersection of the #3S Zone. The #2S Zone was relatively weakly developed over 6.7' and averaged only 0.071 opt Au despite at least one speck of VG. The #3S Zone was better developed and higher grade, average 0.137 opt Au/17.1' including a vein averaging 0.392 opt Au/5.0' that contained a very coarse gold nugget that was not sent for analysis.

SAMPLING

A total of 193.5' of the core (76.0%) was sawed and 50 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 5 samples representing 61.0' (24.0%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Five of the sawed samples were analysed using the pulp and metallic method.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 16 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 103.5	Overburden
103.5- 358.0	Greywacke/Slaty Greywacke
	107.0-124.0 Bleached and quartz veined greywacke, 1-60% quartz, tr-3% Py, tr sph, VG (including 1 very coarse speck kept as a specimen) - 0.137 opt Au/17.0'
	incl. 114.0-124.0 0.219 opt Au/10.0'
	175.5-205.0 Weakly altered quartz veined greywacke, 1-70% qtz-carb, tr-3% py, 0.001-0.064 opt Au
	incl. 201.2-205.0 0.056 opt Au/3.8'
	247.0-253.7 Quartz veined/altered greywacke, weakly altered (bleached) greywacke. 2 quartz stringers, 1 speck VG in narrow quartz stringer - 0.071 opt Au/6.7'
	incl. 248.6-249.6 0.131 opt Au/1.0'
	305.5-313.5 Fault zone
	incl. 305.5-307.0 60% quartz, 3% tml, 3% py, 0.099 opt Au/1.5'
	327.0 Bad cave zone
358.0	EOH Cave from fault zone at 305.5-313.5 prevented hole reaching any deeper. Main target intersected however.

SUMMARY LOG

Hole Number: 15481
Date Drilled: October 23-24, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11286.8N, 7326.1E, El. 10931.9 (Pamour coords)
Hallnor Section 67W, L12+40'S
Azimuth 330°, -47° dip
Length: 303 feet
Survey: 3 Sperry Sun Single Shots
Size: BQ
Casing: 77 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South vein structures
Logged by: M.E. Robb
Comments: Seam at 213'.

Direct Costs (Drilling & Sampling)

Drilling	\$3,046.75
Sampling	330.00

	\$3,376.75/303' = \$11.14/ft

RESULTS

GEOLOGY

DDH 15481 was the second of three holes drilled to complete testing of the Hallnor South Vein structures on 100' sections. It intersected two of the zones - the #1S Zone was weakly developed and returned 0.045 opt Au/10.7', with the best assay being 0.157 opt Au/2.6'. The #2 Zone was only very weakly developed and returned a maximum assay of 0.017 opt Au.

SAMPLING

A total of 96.0' of the core (42.4%) was sawed and 26 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 7 samples representing 130.5' (57.6%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 14 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 76.5

Overburden

72.0-76.0 Clay-till (cored)

76.5- 303.0

Greywacke/Slaty Greywacke

179.0-211.2 Weakly bleached greywacke. Tr-7% qtz-carb, tr-1% sericite, tr-1% py, tr po. Maximum assay 0.017 opt Au.

211.2-229.8 Fault zone - sheared, brecciated greywacke

229.8-240.5 Quartz veined slaty greywacke. Possibly along strike extension of #1S Zone, weakly developed, 2 main zones of quartz veining. 5-80% qtz-carb, up to 10% sericite, 0.5-2% py, tr po, 0.045 opt Au/10.7'

incl.

229.8-236.6 0.021 opt Au/6.8'

incl.

234.0-236.6

0.157 opt Au/2.6'

Greywacke to EOH is weakly altered, probably shoulder to main vein system mined.

290.8-293.2 20% quartz, 3% py, tr po, 0.055 opt Au/2.4'

303.0

EOH

SUMMARY LOG

Hole Number: 15484
Date Drilled: October 25-26, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11033.7N, 7479.7E, El. 10932.6 (Pamour coords)
Hallnor Section 67W, L13+60'S
Azimuth 330°, -47° dip
Length: 607 feet
Survey: 6 Sperry Sun Single Shots
Size: BQ
Casing: 83 feet - pulled, hole cemented
Purpose: Test Hallnor South vein structures
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$5,254.25
Sampling	680.00
	<hr/>
	\$5,934.25/607' = \$9.78/ft

RESULTS

GEOLOGY

DDH 15484 was a deeper hole drilled on section 63W to test for faulted extensions of the Hallnor South Vein structures below the strong fault zone seen in holes closer to surface. Little alteration was observed in the hole and no significant assays were returned from any of the samples taken.

SAMPLING

A total of 176.8' of the core (33.7%) was sawed and 51 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 17 samples representing 347.2' (66.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

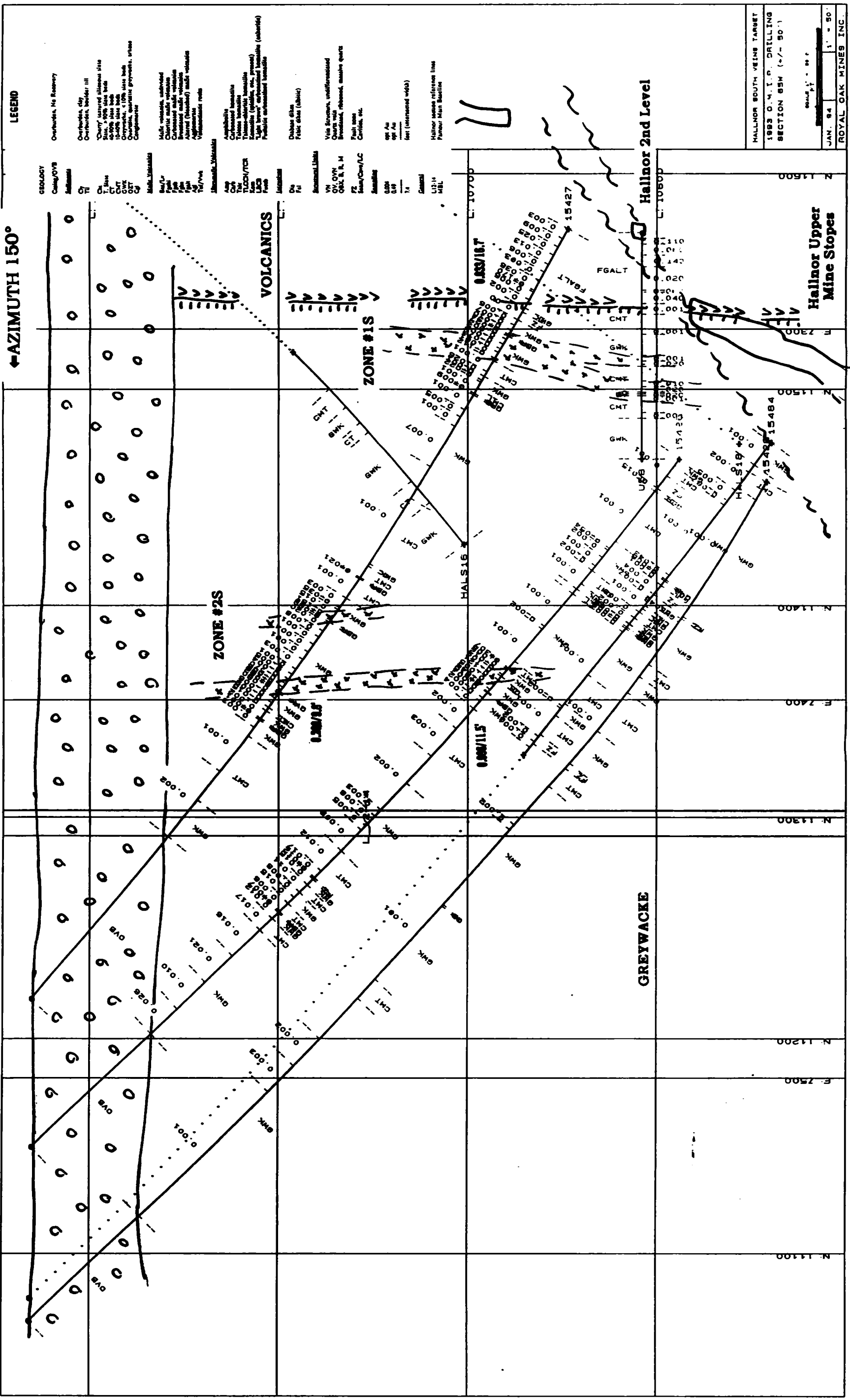
Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 29 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 82.7	Overburden
82.7- 607.0	Greywacke/Slaty Greywacke
	89.5-95.0 Diabase dike
	347.0-367.0 Weakly developed quartz stringer zone, up to 3% quartz, tr-1% py, tr gal, tr sph, max assay is 0.007 opt Au
	397.0-406.0 Fault zone, mud gouge at 404.5-406.0
	477.0-514.0 Fault zone, brecciated greywacke with minor quartz-carb stringers, NSA
	562.0-577.3 Increased density of quartz-carb stringers, little alteration, occasional cgr py blebs (1-12% quartz)
	incl. 565.0-568.0 12% quartz, 1-2% py, 0.087 opt Au/3.0'
607.0	EOH

← AZIMUTH 150°



LEGEND

GEOLOGY

Comp/OVR

Substrata

OT

Ch. lens

Ch. int

Ch. int

Ch. int

Ch. int

Ch. int

Ch. int

Ch. int

Ch. int

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Ch. int

- Overburden, No. Recovery
- Overburden, 40%
- Overburden, 50%
- Overburden, 60%
- Overburden, 70%
- Overburden, 80%
- Overburden, 90%
- Overburden, 100%
- Overburden, 110%
- Overburden, 120%
- Overburden, 130%
- Overburden, 140%
- Overburden, 150%
- Overburden, 160%
- Overburden, 170%
- Overburden, 180%
- Overburden, 190%
- Overburden, 200%
- Overburden, 210%
- Overburden, 220%
- Overburden, 230%
- Overburden, 240%
- Overburden, 250%
- Overburden, 260%
- Overburden, 270%
- Overburden, 280%
- Overburden, 290%
- Overburden, 300%
- Overburden, 310%
- Overburden, 320%
- Overburden, 330%
- Overburden, 340%
- Overburden, 350%
- Overburden, 360%
- Overburden, 370%
- Overburden, 380%
- Overburden, 390%
- Overburden, 400%
- Overburden, 410%
- Overburden, 420%
- Overburden, 430%
- Overburden, 440%
- Overburden, 450%
- Overburden, 460%
- Overburden, 470%
- Overburden, 480%
- Overburden, 490%
- Overburden, 500%
- Overburden, 510%
- Overburden, 520%
- Overburden, 530%
- Overburden, 540%
- Overburden, 550%
- Overburden, 560%
- Overburden, 570%
- Overburden, 580%
- Overburden, 590%
- Overburden, 600%
- Overburden, 610%
- Overburden, 620%
- Overburden, 630%
- Overburden, 640%
- Overburden, 650%
- Overburden, 660%
- Overburden, 670%
- Overburden, 680%
- Overburden, 690%
- Overburden, 700%
- Overburden, 710%
- Overburden, 720%
- Overburden, 730%
- Overburden, 740%
- Overburden, 750%
- Overburden, 760%
- Overburden, 770%
- Overburden, 780%
- Overburden, 790%
- Overburden, 800%
- Overburden, 810%
- Overburden, 820%
- Overburden, 830%
- Overburden, 840%
- Overburden, 850%
- Overburden, 860%
- Overburden, 870%
- Overburden, 880%
- Overburden, 890%
- Overburden, 900%
- Overburden, 910%
- Overburden, 920%
- Overburden, 930%
- Overburden, 940%
- Overburden, 950%
- Overburden, 960%
- Overburden, 970%
- Overburden, 980%
- Overburden, 990%
- Overburden, 1000%

HALLNOR SOUTH VEINS TARGET
 1983 O. M. I. P. DRILLING
 SECTION 65W (1/2 - 50')

JAN. 84 1" = 50'
 ROYAL OAK MINES INC.

SUMMARY LOG

Hole Number: 15426
Date Drilled: October 18-19, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 47361
Co-ordinates: 11151.5N, 7520.6E, El. 10931.78 (Pamour coords)
Hallnor Section 65W, L12+175'S
Azimuth 330°, -47° dip
Length: 506 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 88 feet - pulled, hole cemented
Purpose: Test vein structures in greywacke south of Hallnor Upper Mine workings
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,396.50
Sampling	570.00

	\$4,966.50/506' = \$9.82/ft

RESULTS**GEOLOGY**

DDH 15426 was one of three holes drilled on Hallnor section 65W to test for continuation of Au mineralized quartz veined and altered zones in greywacke south of the stopes at the west end of the Upper Hallnor Mine. One moderately altered and mineralized zone, probably equivalent to the middle of the three zones, returned an assay of 0.086 opt Au/11.5'. Another zone cored higher in the hole and probably equivalent to the southernmost mineralized structure did not return significant results.

SAMPLING

A total of 158.0' of the core (37.8%) was sawed and 42 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 15 samples representing 256.6' (61.4%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 24 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 88.0	Overburden
88.0- 506.0	Greywacke/Slaty Greywacke
	176.0-212.0 Quartz veined/weakly altered greywacke (equivalent of high grade Zone #3 in DDH 15423?), 0.5-80% qtz-carbonate veining, 0.5-1% py, 0.006-0.017 opt Au
	242.0-257.0 Weakly quartz veined greywacke, 0.003-0.017 opt Au
	331.0-360.0 Variably altered and quartz veined greywacke, 0.039 opt Au/29.0' (Zone #2S)
	incl. 348.5-360.0 0.086 opt Au/11.5', 3-60% quartz, 3% py, 0.1-5% Po, tr sph
	443.8-445.2 Narrow ribboned quartz stringer, 0.054 opt Au/1.4'
506.0	EOH

SUMMARY LOG

Hole Number: 15427
Date Drilled: October 19-20, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11218.3N, 7479.4E, El. 10931.9
Hallnor Section 65W, L12+90'S
Azimuth 333°, -47° dip
Length: 503 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 112 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South structures
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,387.05
Sampling	820.00

	\$5,207.05/503' = \$10.35/ft

(2)

RESULTS**GEOLOGY**

DDH 15427 was the second of three holes drilled to test the Hallnor South Vein structures on section 65W. Three zones of alteration and mineralization were intersected, two corresponding to the #2S Zone, the other to the initially identified #1 Zone. Sampling of the first two zones returned results of 0.209 opt Au/9.8' (including 0.570 opt Au/2.5') and 0.05 opt Au/15.7' (including 0.181 opt Au/1.8'). Sampling of the third zone returned assays of 0.033 opt Au/16.7', including 0.134 opt Au/1.0'.

SAMPLING

A total of 222.3' of the core (56.9%) was sawed and 64 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 8 samples representing 168.7' (43.1%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Four of the sawed samples were analysed using the pulp and metallic method.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 22 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 112.0	Overburden
112.0- 446.0	Greywacke/Slaty Greywacke
	181.5-218.8 Weakly-moderately altered and mineralized greywacke, main bleached and altered zone from 206.2-216.0
	incl. 206.2-216.0 2-80% qtz-carb, tr-5% sericite, 2-5% py, tr-2% po, tr sph, VG - 0.209 opt Au/9.8'
	incl. 213.5-216.0 0.570 opt Au/2.5'
	251.0-266.7 Altered/mineralized greywacke, 1-85% qtz, tr-10% ser, 2-5% py, tr-2% po, tr sph - 0.05 opt Au/15.7'
	incl. 155.7-260.0 0.132 opt Au/4.3'
	incl. 258.2-260.0 0.181 opt Au/1.8'
	387.7-439.2 Quartz veined and altered greywacke, probably equivalent to "Zone 1"
	incl. 422.5-439.2 0.033 opt Au/16.7'
	incl. 422.5-430.0 0.05 opt Au/7.5', 3-70% qtz
	& 438.2-439.2 0.134 opt Au/1.0', 70% qtz
456.0-503.0	Altered Mafic Volcanics Bleached pillowed basalt, pyritic throughout with minor po
	465.5-466.5 40% quartz, 0.170 opt Au/1.0'
503.0	EOH

SUMMARY LOG

Hole Number: 15428
Date Drilled: October 20-22, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11072N, 7570.2E, El. 10932.8
Hallnor Section 65W, L13+75'S
Azimuth 330° (333 actual?), -47° dip
Length: 600 feet
Survey: 6 Sperry Sun Single Shots
Size: BQ
Casing: 82 feet - pulled, hole cemented
Purpose: Test Hallnor South veins on section 65W
Logged by: M.E. Robb
Comments: Bad ground in hole, one burnt bit due to cave, lost water at 312'

Direct Costs (Drilling & Sampling)

Drilling	\$5,200.00
Sampling	460.00

	\$5,660.00/600' = \$9.43/ft

(2)

RESULTS**GEOLOGY**

DDH 15428 was the last of three holes drilled to test the Hallnor South vein structures on section 65W. No zones of alteration or mineralization were cored in the hole. Very bad ground conditions and a number of strong fault gouge zones appear to indicate that the hole was drilled below a possible fault zone cut-off.

SAMPLING

A total of 88.1' of the core (16.7%) was sawed and 25 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 21 samples representing 429.9' (81.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 29 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 82.0	Overburden
82.0- 600.0	Greywacke/Slatey Greywacke
	273.0-275.0 Muddy fault gouge zone
	229.0-315.5 Fractured "porous" textured greywacke, lost return at 312.0'
	410.3-414.0 Fault gouge
	510.5-517.0 Fault zone - very strong fault zone.
	510.5-512.7 0.048 opt Au
	512.7-514.2 Healed qtz-albite and mud gouge
600.0	EOH

SUMMARY LOG

Hole Number: 15423
Date Drilled: August 19-23, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11279.6N, 7547.1E, El. 10932
Hallnor Section 63W, L11+90'S
Azimuth 330°, -50° dip
Length: 356 feet
Survey: 3 Sperry Sun Single Shots
Size: BQ
Casing: 100 feet - pulled and hole cemented at bedrock
Purpose: Test Hallnor South Vein structures on section 63W
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,403.40
Sampling	510.00

	\$3,913.40/356' = \$10.99/ft

(2)

RESULTS**GEOLOGY**

DDH 15423 was the first of 4 holes drilled to test the Hallnor South Vein structures on section 63W. Three zones of alteration and mineralization were intersected - one correlates with the #2S zone, the others are new, previously undrilled zones. Assays returned averaged 0.186 opt Au/13.4' for the #2S Zone and 0.210 opt Au/20.8' for the previously unknown zone. The third zone (between these two) was narrow and returned grades of 0.091 opt Au/6.1'.

SAMPLING

A total of 105.0' of the core (41.0%) was sawed and 36 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 10 samples representing 151.0' (59.0%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Two of the sawed samples were analysed using the pulp and metallic method.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 16 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 100.0	Overburden
100.0-356.0	Greywacke/Slaty Greywacke
	109.5-130.3 Altered and quartz veined greywacke - typical of zones seen in other holes - 0.210 opt Au/20.8'
	incl. 114.3-121.7 0.551 opt Au/7.4', 30-90% qtz, 2% ank, 2% cal, tr-10% sericite, 2-5% py, tr cpy, tr sph, VG
	130.3-145.5 Fault zone?
	188.5-194.6 Weakly altered (bleached) greywacke - 0.091 opt au/6.1'
	incl. 190.3-194.6 0.115 opt Au/4.3'
	226.7-247.6 Altered, mineralized greywacke - 0.132 opt Au/20.9'
	incl. 226.7-247.6 0.186 opt Au/13.4'
	incl. 226.7-234.7 0.209 opt Au/8.0'
	incl. 229.3-231.6 0.286 opt Au/2.3'
	305.0-306.5 20% qtz, 2% py, weakly bleached greywacke, 0.154 opt Au/1.5'
356.0	EOH

SUMMARY LOG

Hole Number: 15424
Date Drilled: August 23-25, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14923/Poulet Veteran 4736
Co-ordinates: 11090N, 7663.6E, El. 10932.9 (Pamour coords)
Hallnor Section 63W, L13+100'S
Azimuth 334°, -48° dip
Length: 556 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 102 feet - pulled and hole cemented at bedrock
Purpose: Test below intersections in DDH 15423
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$5,329.40
Sampling	390.00

	\$5,719.40/556' = \$10.29/ft

(2)

RESULTS**GEOLOGY**

DDH 15424 was drilled to follow up the zones intersected in DDH 15423 downdip. No similar mineralization was cored, suggesting the zones either pinch out or the hole is located in a separate fault block.

SAMPLING

A total of 60.9' of the core (13.4%) was sawed and 17 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 22 samples representing 393.1' (86.6%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 26 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 556.0

Greywacke/Slaty Greywacke
339.0-346.0 Fault zone?

513.3-518.5 0.139 opt Au/5.2', 3% qtz-carb, .5% py

556.0

EOH

SUMMARY LOG

Hole Number: 15482
Date Drilled: October 28-29, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11353.3N, 7521.8E, El. 10931.8 (Pamour coords)
Hallnor Section 63W, L12+00'S
Azimuth 330°, -47° dip (probably sank in swamp as first test was
41° - 43° used as dip)
Length: 429 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 122 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South vein structures - fill in gap on section
63W
Logged by: M.E. Robb
Comments: Broke through into stope

Direct Costs (Drilling & Sampling)

Drilling	\$3,750.05
Sampling	430.00

	\$4,180.05/492' = \$9.74/ft

(2)

RESULTS**GEOLOGY**

DDH 15482 was one of two holes drilled to complete the 100' sectional drilling of the Hallnor South Vein structures on section 63W. It intersected two weakly mineralized zones (equivalent to the #1 and #2S Zones seen in earlier drilling). Sampling of both mineralized zones returned low grades (0.029 opt Au/4.8', the best in #2S and 0.047 opt Au/5.4' in #1S).

SAMPLING

A total of 115.8' of the core (37.7%) was sawed and 33 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 10 samples representing 191.2' (62.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 18 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 122.0	Overburden Till/boulders/clay
122.0- 367.7	Greywacke/Slaty Greywacke
	122.0-127.0 Bleached greywacke - 7% qtz-carb, 2% py, 0.032 opt Au/5.0'. Very blocky.
	169.8-192.0 Quartz veined and weakly altered greywacke, very low assays, even in stronger veined sections - 0.015 opt Au/22.2'. Best assay 0.03 opt Au/3.0' adjacent a 1.8' wide quartz-tourmaline vein running 0.026 opt Au. Possibly Zone #2S?
	300.5-346.0 Weakly quartz veined and mineralized greywacke, tr-40% quartz-carbonate, tr-3% py, tr po, tr sph, 0.001-0.106 opt Au. Probably equivalent to Zone #1S.
	incl. 330.5-341.5 0.03 opt Au/11.0'
	incl. 334.1-339.5 0.047 opt Au/5.4'
	incl. 334.1-335.2 0.106 opt Au/1.1'
	This section contains best quartz veining (25-40% and most visible sph)
367.7-429.0	Bleached Pillowed Volcanics
	403.7-412.2 0.066 opt Au/8.5'
	incl. 409.7-412.2 0.105 opt Au/2.5', 30% quartz
429.0	EOH Broke through into stope

SUMMARY LOG

Hole Number: 15483
Date Drilled: October 27-28, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Hallnor/Broulan
Township: Whitney
Claim No.: 14932/Poulet Veteran 4736
Co-ordinates: 11180.3N, 7618.6E, El. 10932.9 (Pamour coords)
Hallnor Section 63W, L13+00'S
Azimuth 330°, -47° dip
Length: 650 feet
Survey: 6 Sperry Sun Single Shots
Size: BQ
Casing: 97 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South vein structures on section 63W
Logged by: M.E. Robb
Comments: Seam at 283.0'

Direct Costs (Drilling & Sampling)

Drilling	\$5,791.00
Sampling	560.00

	\$6,351.00/650' = \$9.77/ft

(2)

RESULTS**GEOLOGY**

DDH 15483 was a deeper hole drilled on section 63W to determine the potential for the faulted continuation of mineralization cored near surface. This interpretation does not appear to be correct based on the negative results in this hole. A high grade vein intersected near the end of the hole may be related to the #1S Zone or could be a branch of the main vein mined at Hallnor.

SAMPLING

A total of 122.5' of the core (22.2%) was sawed and 30 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 23 samples representing 430.5' (37.8%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). One of the sawed samples was split into three separate samples and the total sample assayed because of high assay results in the original sample.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 31 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 97.0	Overburden
97.0- 650.0	Greywacke/Slaty Greywacke Relatively monotonous sequence of greywacke.
	538.0-540.2 Fault zone
	574.0-579.5 5-80% quartz, tr-10% sericite, 2% tourmaline, 2% py, tr sph, 0.707 opt Au/5.5' (uncut)
	incl. 574.0-575.7 2.185 opt Au/1.7' (uncut), 80% quartz, brecciated "vuggy" quartz vein. Possibly downdip of Zone #1S?
	617.0-650.0 Quartz veined/faulted zone
	incl. 628.0-630.5 70% quartz, 0.002 opt Au, evidence of multiple brecciation - old fault zone, reworked
650.0	EOH Hole stopped to avoid hitting mine workings

SUMMARY LOG

Hole Number: 15391
Date Drilled: August 9-11, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11369.1N, 7616.9E, El. 10932.2
Hallnor Section 61W, L12+40'S
Azimuth 330°, -51° dip
Length: 487 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 80 feet - pulled, hole cemented
Purpose: Test to west of DDH 15390
Logged by: M.E. Robb
Comments: Seam at 448 - lost return.
Seam at 483' - burnt bit.

Direct Costs (Drilling & Sampling)

Drilling	\$4,951.55	
Sampling	645.00	

	\$5,586.55	= \$11.47/ft

RESULTS

GEOLOGY

DDH 15391 was the first of three holes drilled on Hallnor section 61W to test the two zones intersected south of the west end Upper Hallnor Mine stoping areas. Both structures were intersected and visible gold was noted in two of the veins. The southernmost zone (#2) consists of a strongly altered (bleached) zone from 183.0-189.0' that averaged 0.079 opt Au/6.0', plus a second zone below it that contained a narrow quartz vein grading 15.4 opt Au/0.8'. The northern zone (closest to the previously stoped areas) consists of a wide zone of quartz veined greywacke with only weak associated alteration. Assays from this zone are generally low with best section averaging 0.065 opt Au/10.0' (including 0.308 opt Au/1.3').

SAMPLING

A total of 125.0' of the core (30.7%) was sawed and 39 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 17 samples representing 276.7' (68.0%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Three samples containing visible gold were sent for pulp and metallics analysis.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 24 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 80.0	Overburden
80.0-487.0	Greywacke/Slaty Greywacke
	183.0-213.0 Variably quartz veined and altered greywacke - two zones (183.0-189.0 and 203.6-204.4).
	183.0-213.0 0.432 opt Au/30.0' (uncut) 0.075 opt Au/30.0' (cut to 2 opt)
	incl. 183.0-189.0 0.079 opt Au/6.0'
	& 203.6-204.4 15.4 opt Au/0.8' (VG)
	383.6-414.7 Quartz veined greywacke - up to 80% qtz-carbonate, pyritic (up to 5%), one vein with VG - 0.022 opt Au/31.1'
	incl. 399.2-414.7 0.044 opt Au/15.5'
	incl. 404.7-414.7 0.069 opt Au/10.0'
	incl. 406.5-407.8 0.308 opt Au/1.0'
	423.6-424.5 0.243 opt Au/0.9' in weakly quartz veined greywacke with 7% qtz
	482.6-483.5 0.095 opt Au/0.9', 8% qtz, 2% py, tr cpy
487.0	EOH

SUMMARY LOG

Hole Number: 15419
Date Drilled: August 11-12, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11434.6N, 7579.8E, El. 10932
Hallnor Section 61W, L11+170'S
Azimuth 330°, -51° dip
Length: 403 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 94 feet - casing pulled, hole cemented
Purpose: Test Hallnor South Vein structures
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,860.95
Sampling	420.00

	\$4,280.95/403' = \$10.62/ft

RESULTS

GEOLOGY

DDH 15419 was the second of three holes drilled on Hallnor section 61W to follow up encouraging results on section 59W, 100' east. Both of the zones intersected in previous drilling were cored but results were disappointing with the best intersections returning 0.121 opt Au/1.6' (Zone #2) and 0.051 opt Au/5.1' in Zone #1.

SAMPLING

A total of 89.6' of the core (29.3%) was sawed and 31 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 11 samples representing 216.7' (70.7%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 18 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 94.0	Overburden
94.0-384.5	Greywacke/Slaty Greywacke (Zone #2)
	94.0-115.5 Weakly altered and quartz veined greywacke, 2-8% quartz-carbonate, 1-10% py, tr sph
	incl. 106.4-108.0 0.121 opt Au/1.6', 3% quartz-carb, 10% mgr py
	304.5-313.0 Quartz-calcite stringer zone - weakly developed Zone #1, 1-60% qtz-carb, tr-3% fuchsite, tr tml, tr-3% chl, 2-5% py, tr-2% po, tr sph
	incl. 304.5-309.6 0.051 opt Au/5.1'
	360.0-360.5 Ground core zone, approx. 80% quartz rubble, 20% lost core, 0.267 opt Au/0.5'
384.5-403.0	Mafic Volcanics
	Carbonated mafic volcanics with minor agglomerate at contact, weakly pillowed and amygdaloidal
403.0	EOH

SUMMARY LOG

Hole Number: 15420
Date Drilled: August 12-13, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11481.6N, 7549.9E, El. 10931.7
Hallnor Section 61W, L11+100'S
Azimuth 330°, -50° dip
Length: 306 feet
Survey: 3 Sperry Sun Single Shots
Size: BQ
Casing: 86 feet - pulled, hole plugged at bedrock
Purpose: Test Hallnor South Vein structures
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$2,949.00
Sampling	230.00

	\$3,179.00/306' = \$10.39 /ft

RESULTS**GEOLOGY**

DDH 15420 was the last of a fence of three holes drilled to test the Hallnor #1 South Vein structure. It intersected a zone averaging 0.146 opt Au/7.3', including a narrow quartz stringer that averaged 0.528 opt Au/1.9'.

SAMPLING

A total of 47.3' of the core (21.5%) was sawed and 14 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 9 samples representing 172.7' (78.5%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 13 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 86.0	Overburden
86.0-253.0	Greywacke/Slaty Greywacke
	165.7-173.0 Quartz-carbonate veined greywacke, "Zone #1", approx. 10-15% core missing. 5-40% qtz-carb, 10% sericite, tr-3% py, tr-1/2% po, tr cpy, tr sph, 0.146 opt Au/7.3'
	incl. 171.1-173.0 0.528 opt Au/1.9'
253.0-306.0	Mafic Volcanics Pale green-grey carbonated volcanics
306.0	EOH

SUMMARY LOG

Hole Number: 15422
Date Drilled: August 18-19, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11280.3N, 7670.5E, El. 10932.8
Hallnor Section 61W, L12+ 140'S
Azimuth 330°, -53° dip
Length: 506 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 75 feet - pulled and hole cemented at bedrock
Purpose: Test Hallnor South Vein #2 downdip
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,750.90
Sampling	330.00

	\$5,080.90/506' = \$10.04/ft

RESULTS**GEOLOGY**

DDH 15422 was drilled to test for the downdip continuation of the second of the two altered/mineralized zones intersected south of the No. 1 vein at Hallnor. Only a very weak zone of altered greywacke was intersected and assay values were low (0.011 opt Au/4.0').

SAMPLING

A total of 39.5' of the core (9.3%) was sawed and 13 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 20 samples representing 387.5' (90.7%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 24 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 75.0	Overburden
75.0-506.0	Greywacke/Slaty Greywacke
	442.4-451.4 Weakly altered (bleached) and quartz veined greywacke incl. 447.4-451.4 0.011 opt Au/4.0'
	475.0-482.2 Fault zone, weakly pyritic
506.0	EOH

SUMMARY LOG

Hole Number: 15338
Date Drilled: June 1-3, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11566.4N, 7622.9E, El 10931.1
Hallnor Section 59, L11+72'S
Azimuth 338°?, -50° dip
Length: 286 feet
Survey: 2 Sperry Sun Single Shots
Size: BQ
Casing: 98 feet BW, pulled, hole plugged with cement
Purpose: Test 150' west of intersection in DDH 15342
Logged by: J. Houle
Comments: Drillers reported seams at 126.0' and 162.0' which reduced circulation in hole. This hole was collared further north than planned and may have missed the vein.

Direct Costs (Drilling & Sampling)

Drilling	\$2,981.00
Assays	200.00

	\$3,181.00/286' = \$11.12/ft

RESULTS

GEOLOGY

DDH 15338 was drilled to test 150' west of the intersection in 15342 that returned an assay of 1.95 opt Au/5.0'. It intersected a weakly bleached zone from 125.0-127.0' that averaged 0.046 opt Au. The hole was collared further north than planned and may have missed the main zone of veining. A small vein in the volcanics also returned low values (0.074 opt/1.5').

SAMPLING

A total of 44' of the core (22.1%) was sawed and 12 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 8 samples representing 145' (72.9%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 4 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 98.0	Overburden
98.0-196.5	Greywacke/Slatey Greywacke
	125.0-127.0 50% quartz/carb
	0.046 opt Au/2.0'
196.5-286.0	Mafic Volcanics
	Weakly-moderately bleached mafic volcanics, brecciated.
	222.5-228.0 25-50% quartz/ankerite veining
	incl. 224.5-228.0 0.074 opt Au/1.5'
286.0	EOH

SUMMARY LOG

Hole Number: 15390
Date Drilled: July 16-20, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11511.38N, 7656.15E, El. 10931.49
Hallnor Section 59W, L11+130'S
Azimuth 330°, -51° dip
Length: 349 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 88 feet - pulled, hole cemented at bedrock
Purpose: Test westerly strike/plunge continuation of Hallnor South Veins Zone
Logged by: M.E. Robb
Comments: An assaying problem is indicated by the widely divergent assays from the resampling of samples 2316-2327. The second set of results is more representative and has been used. Seams at 100', 130', 150', 227' and 348'.

Direct Costs (Drilling & Sampling)

Drilling	\$3,324.85	
Sampling	535.00	
	<hr/>	
	\$3,859.85	= \$11.06/ft

RESULTS

GEOLOGY

DDH 15390 was drilled to test downdip of a relatively weak intersection (DDH 15338) on section 59W. It intersected a strongly developed zone of quartz veining and alteration similar to that seen in the "discovery" hole DDH 15179 on section 55W that averaged 0.496 opt Au/7.4'.

SAMPLING

A total of 101.7' of the core (39.0%) was sawed and 32 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 8 samples representing 159.0' (61.0%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Three samples containing visible gold were analyzed using the pulp and metallics method.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 15 Boxes).

FOOTAGE**LITHOLOGY**

0.0- 88.0

Overburden

88.0-345.0

Greywacke/Slaty Greywacke

240.6-248.0 Quartz veined and altered greywacke, 0.496 opt Au/7.4'
Strongly altered, quartz veined greywacke, typical
bleaching with py, sph, po, etc.

incl. 240.6-243.6 0.51 opt Au/3.0'
& 247.5-248.0 3.57 opt Au/0.5'

345.0-349.0

Mafic Volcanics

349.0

EOH

SUMMARY LOG

Hole Number: 15421
Date Drilled: August 16-17, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11440.47N, 7692.47E, El. 10933.33
Hallnor Section 59W, L12+ 10'S
Azimuth 330°, -52° dip
Length: 440 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 90 feet
Purpose: Test downdip of 0.496 opt Au intersection in DDH 15390
Logged by: M.E. Robb
Comments: Hit seam at 327', 400-407', lost return at 420', burnt bit

Direct Costs (Drilling & Sampling)

Drilling	\$4,639.00
Sampling	470.00

	\$5,109.00/440' = \$11.61 /ft

(2)

RESULTS

GEOLOGY

DDH 15421 was drilled to test downdip of an intersection in DDH 15390 (0.496 opt Au/7.4'). It intersected two zones of alteration and mineralization, both of which correlate with previous intersections in surrounding holes. The first of these zones (#2S) is visually strong with well developed strong sericitic bleaching over 20 feet and several quartz veined zones. Po, sph, asp and cpy are present, along with py. Assay results are low (0.029 opt Au/20.5', with a "higher grade" section averaging 0.047 opt Au/11.0'). The second zone (#1S) consisted of a very weakly altered sequence of greywacke containing a section of 5-30% quartz veining with associated py, po and sph that averaged 0.053 opt Au/5.5'.

SAMPLING

A total of 98.7' of the core (28.7%) was sawed and 34 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 245.2' (71.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 20 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 90.0	Overburden
90.0-440.0	Greywacke/Slaty Greywacke
	142.0-162.5 Quartz veined/altered and mineralized zone - 0.029 opt Au/20.5', 1-80% quartz-carb, tr-20% ser, 1-7% py, tr sph, asp, tr-1% po
	incl. 142.0-160.8 0.031 opt Au/18.8'
	incl. 142.0-153.0 0.047 opt Au/11.0'
	365.2-390.8 Quartz veined greywacke with weak alteration - downdip equivalent of 0.496 opt Au intersection in DDH 15390 - 0.016 opt Au/25.6'
	incl. 380.3-390.8 0.032 opt Au/10.5'
	incl. 380.3-385.8 0.053 opt Au/5.5'
440.0	EOH Burnt bit in seam, hole did not reach volcanics

SUMMARY LOG

Hole Number: 15488
Date Drilled: November 6-7, 1993
Contractor: Mackenzie Drilling Ltd.
Property: Broulan
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11368.8N, 7741.4E, El. 10933.5 (Pamour coords)
Hallnor Section 59W, L12+105'S
Azimuth 330°, -50° dip
Length: 354 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 92 feet - pulled, hole cemented at bedrock
Purpose: Test Hallnor South Vein structures
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,135.75
Sampling	295.00

	\$3,430.75/354' = \$9.72/ft

RESULTS

GEOLOGY

DDH 15488 was drilled below a previous hole (DDH 15421) that intersected a wide, low grade (0.031 opt Au/18.8') zone of alteration and quartz veins. Only a narrow altered zone was intersected in the hole and results were low (best: 0.03 opt Au). A narrow cross-cutting vein with VG higher in the hole returned an assay of 0.344 opt Au/0.6'.

SAMPLING

A total of 38.1' of the core (14.6%) was sawed and 14 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 222.0' (85.4%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). One of the sawed samples was analysed using the pulp and metallic method.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 15 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 92.0	Overburden Recovered 1.5' of till
92.0- 354.0	Greywacke/Slaty Greywacke 203.6-204.2 VG in cross-cutting fracture zone. 80% quartz, 1% tml, 2% chl, specks VG - 0.344 opt Au/0.6' 257.0-268.2 Quartz veined and mineralized greywacke (probably equivalent to Zone #2). Core spilled, mixed up between 262.5 and 268.2. Assays low, best 0.03 opt Au from narrow zone of 60% quartz with 2% py
345.0	EOH

SUMMARY LOG

Hole Number: 15339
Date Drilled: June 3-7, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11588.9N, 7741.2E, El 10933.2
Hallnor Section 57, L11+110'S
Azimuth 330°, -50° dip
Length: 304 feet
Survey: 2 Sperry Sun Single Shots
Size: BQ
Casing: 92 feet, casing pulled, hole cemented
Purpose: Test 50' west of DDH 15342
Logged by: J. Houle
Comments: Seam hit at 156.0', 198.0', 248.0', 255.0' and 270.0'.

Direct Costs (Drilling & Sampling)

Drilling	\$3,140.00
Assays	310.00

	\$3,450/304' = \$11.35/ft

RESULTS

GEOLOGY

DDH 15339 was the second of two holes drilled to follow up the zone in 15179 (0.255 opt Au/13.4'). It intersected weakly bleached and quartz veined greywacke from 145.5-183.0' that included a quartz-carbonate (ankeritic) vein from 157.0-160.5' that averaged 1.57 opt Au/3.5'. The vein contained all the normal indicator minerals (sphalerite, etc.) plus several specks of V.G. Narrow quartz stringers in the volcanics did not return any significant assays despite the presence of visible gold in one vein.

SAMPLING

A total of 41.5' of the core (19.7%) was sawed and 12 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 169.5' (80.3%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Two samples containing coarse visible gold were sent for pulp and metallic analysis.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 11 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 92.0	Overburden
92.0-117.0	Greywacke
117.0-133.5	Slaty Greywacke
133.5-183.0	Greywacke
	145.5-183.0 Weakly bleached and quartz veined
	incl. 155.5-160.5 1.117 opt Au/5.0'
	incl. 157.0-160.5 1.57 opt Au/3.5'
183.0-253.5	Slaty Greywacke
253.5-304.0	Mafic Volcanics (Pillow & Pillow Breccia)
	Weakly-moderately altered mafic volcanics, carbonate altered
	259.0-264.5 10% qtz, 0.033 opt Au/5.5'
	282.5-285.5 30% qtz, 0.033 opt Au/3.0', VG
304.0	EOH

SUMMARY LOG

Hole Number: 15388
Date Drilled: July 9-12, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11496N, 7777E, El. 10935 (Pamour coords)
Hallnor Section 57W, L12+5'S
Azimuth 330°, -50° dip
Length: 182 feet
Survey: 1 Sperry Sun Single Shots
Size: BQ
Casing: 91 feet - casing pulled, hole cemented
Purpose: Test below intersection in DDH 15339 (1.57 opt Au/3.5')
Logged by: M.E. Robb
Comments: Hole collared off azimuth; abandoned after first test.
DDH 15388A collared about 10' back on section.

Direct Costs (Drilling & Sampling)

Drilling	\$1,700.00	
Sampling	<u>60.00</u>	
	\$1,760.00	= \$9.67/ft

RESULTS**GEOLOGY**

DDH 15388 was drilled to test down-dip of a high grade intersection in DDH 15339 (1.57 opt Au/5.0'). The hole was collared off azimuth and abandoned after the first single shot at 150'. DDH 15388A was collared 10' south.

SAMPLING

A total of 13.0' of the core (14.3%) was sawed and 3 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 3 samples representing 78.0' (85.7%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 5 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 91.0	Overburden
91.0-182.0	Greywacke 139.0-152.0 incl. 144.0-146.0
182.0	EOH

Weakly bleached and mineralized greywacke.
7% qtz, 5% py, tr asp, 0.032 opt Au/2.0'

SUMMARY LOG

Hole Number: 15388A
Date Drilled: July 12-14, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11488.97N, 7782.9E, El. 10935.08 (Pamour coords)
Hallnor Section 57W, L12+15'S
Azimuth 330°, -50° dip
Length: 506 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 92 feet - casing pulled, hole cemented at bedrock
Purpose: Follow up intersection in DDH 15339
Logged by: M.E. Robb
Comments: Seam @ 395' - lost return, grouted hole. Seam @ 400'.

Direct Costs (Drilling & Sampling)

Drilling	\$5,660.90	
Sampling	<u>490.00</u>	
	\$6,150.90	= \$12.16/ft

RESULTS

GEOLOGY

DDH 15388A was one of two holes drilled on Hallnor Section 57 to follow up an intersection of 1.12 opt Au/5.0' in DDH 15339. It intersected a strongly altered zone of bleached volcanics from 143.5-160.2' that included a 12.7' wide zone averaging 0.099 opt Au with two narrow veins at each contact that returned assays of 0.310 opt Au and 0.286 opt Au. This zone lines up roughly with weakly quartz veined greywacke in 15179 and 15343. A record broad zone of quartz veined greywacke from 364.3-393.5 averaged 0.033 opt Au/29.2' and included a zone averaging 0.176 opt Au/3.4'. This zone correlates with that in DDH 15339.

SAMPLING

A total of 118.8' of the core (29.5%) was sawed and 35 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 14 samples representing 283.6' (70.5%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 23 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 92.0	Overburden
92.0-470.7	Greywacke/Slaty Greywacke
	143.5-160.2 Bleached, quartz veined and mineralized greywacke - typical green-tan bleaching of greywacke.
	incl. 143.5-156.2 0.099 opt Au/12.7'
	incl. 143.5-145.6 0.310 opt Au/2.1', 60% qtz
	& 154.6-156.2 0.286 opt Au/1.6', 20% qtz
	364.3-393.5 Quartz veined zone. Weakly altered (i.e. no bleaching). 0.033 opt Au/29.2'
	incl. 364.3-367.7 0.176 opt Au/3.4', 50% qtz
	& 381.1-381.7 60% qtz, 0.004 opt Au/0.6'
	& 387.9-393.5 7-75% qtz, 0.03 opt Au/5.6'
470.7-506.0	Mafic Volcanics
	Fgr carbonate (calcitic) altered amygdoloidal volcanics with minor pillow breccia.
506.0	EOH

SUMMARY LOG

Hole Number: 15389
Date Drilled: July 15-16, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11545.9N, 7757.3E, El. 10933.8 (Pamour coords)
Hallnor Section 57W, L11+155'S
Azimuth 330°, -50° dip
Length: 406 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 110 feet - removed and cement plug left at bedrock
Purpose: Follow up DDH 15339 (1.12 opt Au/5.0') down-dip
Logged by: M.E. Robb
Comments: Seam at 275' (lost return), burnt bit

Direct Costs (Drilling & Sampling)

Drilling	\$3,999.90	
Sampling	<u>435.00</u>	
	\$4,334.90	= \$10.92/ft

RESULTS

GEOLOGY

DDH 15389 was the second of two holes drilled on Hallnor Section 57 to follow up an intersection of 1.12 opt Au/5.0' in DDH 15339. It intersected a zone of quartz veining and mineralization and weak alteration from 274.4-286.7' that averaged 0.065 opt Au/12.3', including two narrow quartz carbonate stringers that averaged 0.625 opt Au/0.9' and 0.203 opt Au/1.0'. Quartz veining, although variable, is dominantly oriented at 15-40° to the core axis both subparallel and perpendicular to bedding.

SAMPLING

A total of 89.0' of the core (30.1%) was sawed and 30 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 10 samples representing 207.0' (69.9%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). One sample containing visible gold was sent for pulp and metallics analysis.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 17 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0-110.0	Overburden
110.0-378.2	Greywacke/Slaty Greywacke
	238.0-238.5 60% quartz-carbonate in bleached greywacke - 0.20 opt Au/0.5'
	274.4-286.7 Quartz stringer zone. Down-dip equivalent of quartz vein in 15339 - 0.065 opt Au/12.3'
	incl. 274.4-275.3 0.625 opt Au/0.9' in quartz-ankerite vein (60% qtz, 20% ank)
	& 285.7-286.7 0.203 opt Au/1.0' (80% qtz)
378.2-406.0	Mafic Volcanics
	Carbonate altered amygdoloidal pillow volcanics
406.0	EOH

SUMMARY LOG

Hole Number: 15425
Date Drilled: August 25-26, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11426.3N, 7826.3E, El. 10935 (Pamour coords)
Hallnor Section 57W, L12+90'S
Azimuth 330°, -50° dip
Length: 352 feet
Survey: 2 Sperry Sun Single Shots
Size: BQ
Casing: 106 feet - pulled, hole cemented
Purpose: Test downdip of intersection in DDH 15388A (0.099 opt Au/12.7')
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,287.80
Sampling	210.00

	\$3,497.80/352' = \$9.93/ft

RESULTS

GEOLOGY

DDH 15425 was drilled to test the second Hallnor South Vein structure downdip of DDHs 15388/15388A, which intersected 0.032 opt Au/2.0' and 0.099 opt Au/12.7' in this structure. A narrow quartz stringer from 235.5-236.0 that averaged 0.059 opt Au/0.6' is probably the equivalent of this zone. This result confirms that the zone probably has a shallow westerly plunge.

SAMPLING

A total of 19.7' of the core (7.4%) was sawed and 8 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 246.3' (92.6%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 16 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 86.0	Overburden
86.0-352.0	Greywacke/Slaty Greywacke 230.5-239.8 Weakly bleached greywacke, narrow quartz stringer at 235.5-236.0 similar to veins seen in DDH 15388/15388A up-dip on same section - 0.059 opt Au/0.5'
352.0	EOH

SUMMARY LOG

Hole Number: 15342
Date Drilled: May 13-14, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11642.36N, 7749.59E, El. 10936.47 (Pamour)
Hallnor Section 56
Azimuth 330°, -50° dip
Length: 306 feet
Survey: 1 Single Shot at 250'
Size: BQ
Casing: 98 feet NW, 100 feet BW, both pulled, hole cemented
Purpose: Test 50' west and up-dip of intersection in 15179 on Section 55
Logged by: J. Houle
Comments: Drillers hit a bad seam at 134.0'.

DIRECT COSTS

Drilling	\$3,068.13
Assays	280.00

	\$3,348.13/306' = \$10.94/ft

(2)

RESULTS**GEOLOGY**

DDH 15342 was the second of two holes drilled to further test the significant intersection in 15179 on Hallnor Section 55, south of the mined out areas. It intersected quartz-veined, mineralized and bleached greywackes at the expected depth, including a three foot veined section containing several specks of visible gold. A five foot sample including this vein averaged 1.95 opt Au. Ribboning in the vein was at 40°-50° to the core axis, indicating a steeply dipping structure. The volcanics north of the sediments were also altered but returned no significant results.

SAMPLING

A total of 95' of the core (45.7%) was sawed and 20 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 5 samples representing 113' (53.4%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). One sample containing visible gold was sent for pulp and metallic analysis.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 12 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 98.0	Overburden
98.0-116.0	Slaty Greywacke
116.0-135.0	Greywacke
	116.0-126.5 Altered and quartz veined greywacke, 10-50% qtz, 10-20% calcite, 2-10% ankerite, 2-3% py, 1-3% po, tr-0.5% sph. Main vein @ 122.5-125.5.
	116.0-126.5 0.94 opt Au/10.5'
	incl. 121.5-126.5 1.95 opt Au/5.0'
135.0-306.0	Mafic Volcanics
	135.0-157.0 Altered volcanics, bleached
	incl. 140.5-146.0 0.027 opt Au/5.5'
	157.0-182.0 Brecciated sericitic volcanics
	182.0-306.0 Fine grained chloritic volcanics
	incl. 285.0-287.0 0.031 opt Au/2.0', 20% qtz, 20% calcite, tr py, po, cpy
306.0	EOH

SUMMARY LOG

Hole Number: 15387
Date Drilled: July 7-9, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11573.9N, 7792.3E, El. 10935.18 (Pamour coords)
Hallnor Section 56W, L11+145'S
Azimuth 330°, -50° dip
Length: 406 feet
Survey: 3 Sperry Sun Single Shots
Size: BQ
Casing: 104 feet - casing pulled, hole cemented
Purpose: Test down-dip of high grade intersection in DDH 15342
Logged by: M.E. Robb
Comments: Seam @ 202'

Direct Costs (Drilling & Sampling)

Drilling	\$4,109.40	
Sampling	<u>360.00</u>	
	\$4,469.40	= \$11.00/ft

(2)

RESULTS**GEOLOGY**

DDH 15387 was drilled to test between 15342 (1.95 opt Au/5.0') and an older hole that intersected a weakly mineralized zone averaging 0.14 opt Au/4.3'. The hole intersected a broad zone of weak quartz veining from 230.0-254.2' with little significant alteration. Values were low (max. 0.014 opt Au). The contact between the volcanics/sediments returned better results (0.069 opt Au/9.3').

SAMPLING

A total of 59.9' of the core (19.8%) was sawed and 36 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 11 samples representing 211.6' (70.2%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 17 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0-104.0	Overburden
104.0-333.0	Greywacke/Slaty Greywacke
	119.2-197.0 Greywacke
	197.0-230.0 Slaty Greywacke
	230.0-254.2 Quartz Veined Greywacke. Broad zone of weak but increased density of quartz veining. Main veined zones at:
	240.6-242.7 40% qtz-carb, 5% py, tr sph, 0.014 opt Au/2.1'
	&
	246.8-247.4 40% qtz-carb, 5% py, tr sph, 0.002 opt Au/0.6'
	254.2-333.0 Greywacke
	325.9-333.0 1-90% qtz, 1-3% py, tr sph, 0.071 opt Au/7.1'
	incl. 330.8-333.0 0.146 opt Au/2.2'
333.0-406.0	Mafic Volcanics
	Calcitic amygdoloidal volcanics. Contact is mineralized with tr-1% py, 5% qtz-carb.
	333.0-335.2 0.062 opt Au/2.2'
	* Contact - Greywacke/Mafic Volcanics
	325.9-335.2 0.069 opt Au/9.3'
	390.5-392.0 Narrow intrusive Dike? Possibly ultramafic.
406.0	EOH

SUMMARY LOG

Hole Number: 15345
Date Drilled: July 1-6, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11604.9N, 7837.9E, El 10938.4 (Pamour coords)
Hallnor Section 55W, L11 + 145'S
Azimuth 330°, -50° dip
Length: 373 feet
Survey: 3 Sperry Sun Single Shots
Size: BQ
Casing: 100 feet, pulled, hole cemented at bedrock
Purpose: Test up-dip of intersection in DDH 15179
Logged by: M.E. Robb

Direct Costs (Drilling & Sampling)

Drilling	\$4,507.10	
Sampling	<u>270.00</u>	
	\$4,777.10	= \$12.81/ft

(2)

RESULTS**GEOLOGY**

DDH 15345 was drilled to test up-dip of the intersection in DDH 15179. It intersected a very weakly altered zone in the anticipated location containing three narrow quartz stringers. Samples from the zone returned low values, the best being 0.097 opt Au/0.7'. Vein orientation ranged from 30-50° to the core axis. Mineralization associated with the quartz consists of py with minor po and asp. The volcanics also contained several narrow quartz veins, one of which returned an assay of 0.135 opt Au/0.6'.

SAMPLING

A total of 45.5' of the core (17.3%) was sawed and 17 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 10 samples representing 217.7' (82.7%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 16 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0-100.0	Overburden	
100.0-101.5	Boulder Till	
101.5-131.0	Greywacke	
131.0-162.5	Slaty Greywacke	
162.5-308.5	Greywacke	
	231.3-251.0	Quartz veined greywacke. Probable up-dip equivalent of zone in 15179 - very weak alteration and narrow quartz stringers.
	incl. 239.8-247.1	Three approx. 1/2" quartz veins, tr-2% py, tr asp, tr po, 0.01 opt Au/7.3'
	incl. 244.5-245.2	0.097 opt Au/0.7'
308.5-376.0	Mafic Volcanics	
		Carbonate altered pillowed volcanics.
	348.6-356.0	Quartz veined volcanics, tr-3% py, tr po, 0.041 opt Au/8.4'
	incl. 352.5-353.1	0.135 opt Au/0.6'
376.0	EOH	

SUMMARY LOG

Hole Number: 15386
Date Drilled: July 6-7, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11664.7N, 7799.2E, El 10937.9
Hallnor Section 55W, L11+65'S
Azimuth 330°, -50° dip
Length: 251 feet
Survey: 2 Sperry Sun Single Shots
Size: BQ
Casing: 100.3 feet - casing removed, hole cemented at bedrock
Purpose: Test up-dip of intersection in DDH 15179
Logged by: M.E. Robb

Direct Costs (Drilling & Sampling)

Drilling	\$2,435.15		
Sampling	<u>505.00</u>		
	\$2,940.15	=	\$11.71/ft

(2)

RESULTS**GEOLOGY**

DDH 15386 was the second of two holes to test up-dip of the intersection in DDH 15179. It intersected a wide zone of heavily altered and quartz veined greywacke, including a section from 109.5-125.3' that averaged 0.333 opt Au/15.8'. A second zone was cored deeper in the hole from 154.0-155.8' that averaged 0.461 opt Au/1.8'.

SAMPLING

A total of 82.5' of the core (54.9%) was sawed and 23 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 3 samples representing 67.7' (45%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish). Seven samples containing visible gold were analyzed utilizing pulp and metallics with the +80 and -80 mesh size fractions assayed separately.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 9 Boxes).

(3)

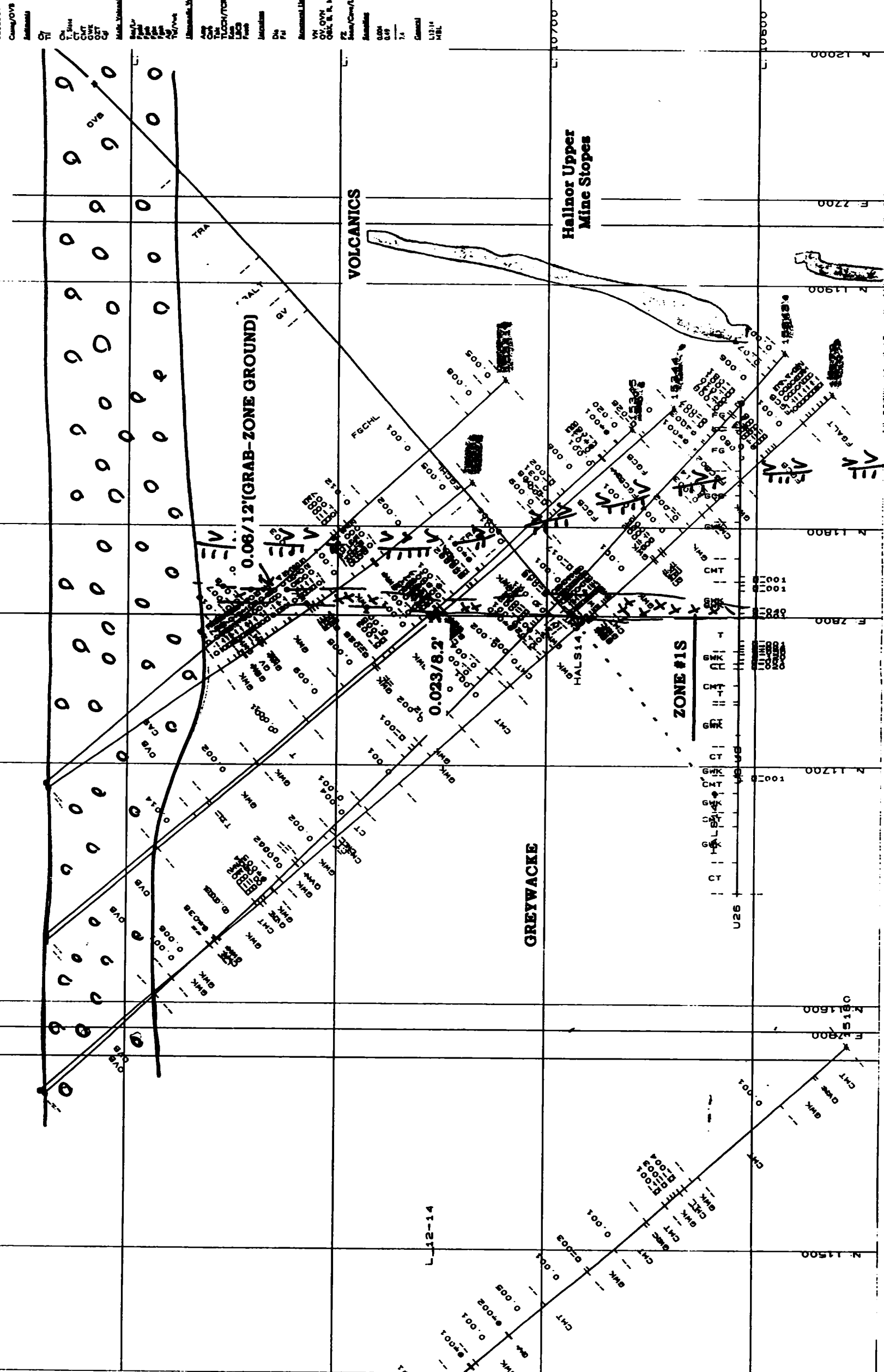
FOOTAGE**LITHOLOGY**

0.0-100.3	Overburden
100.3-109.5	Greywacke
109.5-133.9	Quartz Veined/Altered Greywacke Very strongly altered/quartz veined greywacke.
109.5-125.3	5-90% qtz, tr-7% py, tr-1% po, tr-1% sph + VG and asp, 0.333 opt Au/15.8'
incl.	113.3-113.7 2.35 opt Au/0.4', 90% qtz
&	114.1-125.3 0.332 opt Au/11.2'
	incl. 114.1-117.0 0.676 opt Au/2.9'
	& 123.5-125.3 0.4 opt Au/1.8'
133.9-152.5	Weakly Altered Greywacke
152.5-161.5	Moderately Altered Greywacke
153.3	prominent mud seam @ 50° to core axis
154.0-155.8	80% quartz-carbonate with 5% py, 1% sph, tr-1% po, 0.46 opt Au/1.8'
161.5-191.5	Greywacke/Slatey Greywacke
191.5-251.0	Mafic Volcanics Carbonate altered/weakly bleached volcanics
251.0	EOH

LEGEND

GEOLOGY	
Symbol	Description
○	Outbursts, No Runway
○	Outbursts, 40'
○	Outbursts, 50-100'
○	Outbursts, 100-150'
○	Outbursts, 150-200'
○	Outbursts, 200-300'
○	Outbursts, 300-400'
○	Outbursts, 400-500'
○	Outbursts, 500-600'
○	Outbursts, 600-700'
○	Outbursts, 700-800'
○	Outbursts, 800-900'
○	Outbursts, 900-1000'
○	Outbursts, 1000-1100'
○	Outbursts, 1100-1200'
○	Outbursts, 1200-1300'
○	Outbursts, 1300-1400'
○	Outbursts, 1400-1500'
○	Outbursts, 1500-1600'
○	Outbursts, 1600-1700'
○	Outbursts, 1700-1800'
○	Outbursts, 1800-1900'
○	Outbursts, 1900-2000'
○	Outbursts, 2000-2100'
○	Outbursts, 2100-2200'
○	Outbursts, 2200-2300'
○	Outbursts, 2300-2400'
○	Outbursts, 2400-2500'
○	Outbursts, 2500-2600'
○	Outbursts, 2600-2700'
○	Outbursts, 2700-2800'
○	Outbursts, 2800-2900'
○	Outbursts, 2900-3000'
○	Outbursts, 3000-3100'
○	Outbursts, 3100-3200'
○	Outbursts, 3200-3300'
○	Outbursts, 3300-3400'
○	Outbursts, 3400-3500'
○	Outbursts, 3500-3600'
○	Outbursts, 3600-3700'
○	Outbursts, 3700-3800'
○	Outbursts, 3800-3900'
○	Outbursts, 3900-4000'
○	Outbursts, 4000-4100'
○	Outbursts, 4100-4200'
○	Outbursts, 4200-4300'
○	Outbursts, 4300-4400'
○	Outbursts, 4400-4500'
○	Outbursts, 4500-4600'
○	Outbursts, 4600-4700'
○	Outbursts, 4700-4800'
○	Outbursts, 4800-4900'
○	Outbursts, 4900-5000'
○	Outbursts, 5000-5100'
○	Outbursts, 5100-5200'
○	Outbursts, 5200-5300'
○	Outbursts, 5300-5400'
○	Outbursts, 5400-5500'
○	Outbursts, 5500-5600'
○	Outbursts, 5600-5700'
○	Outbursts, 5700-5800'
○	Outbursts, 5800-5900'
○	Outbursts, 5900-6000'
○	Outbursts, 6000-6100'
○	Outbursts, 6100-6200'
○	Outbursts, 6200-6300'
○	Outbursts, 6300-6400'
○	Outbursts, 6400-6500'
○	Outbursts, 6500-6600'
○	Outbursts, 6600-6700'
○	Outbursts, 6700-6800'
○	Outbursts, 6800-6900'
○	Outbursts, 6900-7000'
○	Outbursts, 7000-7100'
○	Outbursts, 7100-7200'
○	Outbursts, 7200-7300'
○	Outbursts, 7300-7400'
○	Outbursts, 7400-7500'
○	Outbursts, 7500-7600'
○	Outbursts, 7600-7700'
○	Outbursts, 7700-7800'
○	Outbursts, 7800-7900'
○	Outbursts, 7900-8000'
○	Outbursts, 8000-8100'
○	Outbursts, 8100-8200'
○	Outbursts, 8200-8300'
○	Outbursts, 8300-8400'
○	Outbursts, 8400-8500'
○	Outbursts, 8500-8600'
○	Outbursts, 8600-8700'
○	Outbursts, 8700-8800'
○	Outbursts, 8800-8900'
○	Outbursts, 8900-9000'
○	Outbursts, 9000-9100'
○	Outbursts, 9100-9200'
○	Outbursts, 9200-9300'
○	Outbursts, 9300-9400'
○	Outbursts, 9400-9500'
○	Outbursts, 9500-9600'
○	Outbursts, 9600-9700'
○	Outbursts, 9700-9800'
○	Outbursts, 9800-9900'
○	Outbursts, 9900-10000'

← AZIMUTH 150°



HALLNOR SOUTH VEINS TARGET
 1983 C & T DRILLING
 SECTION 54W (±/- 100'/50)
 SCALE 1" = 100'
 JAN 94 1" = 50'
 ROYAL OAK MINES INC.

SUMMARY LOG

Hole Number: 15341
Date Drilled: May 11-12, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran
Co-ordinates: 11690.26N, 7838.79E, El. 10939.04 (Pamour)
Hallnor Section 54, L11+65'S
Azimuth 330°, -50° dip
Length: 294 feet
Survey: Sperry Sun at 250'
Size: BQ
Casing: 111 feet BW, 82 feet NW, pulled, hole not cemented
Purpose: Test 50' east of Section 55, DDH 15179
Logged by: J. Houle
Comments: Hole stopped on footage in volcanics.

Direct Costs (Drilling & Sampling)

Drilling	\$3,037.50
Assays	150.00

	\$3,187.50/294' = \$10.84/ft

RESULTS

GEOLOGY

DDH 15341 was drilled to test to the east and up-dip of the intersection in DDH 15179 (0.255 opt Au/134') drilled in February 1993. Poor ground was intersected where the zone was expected. A grab sample of the rubble from this area returned an assay of 0.06 opt Au, the best in the hole.

SAMPLING

A total of 17.5' of the core (9.6%) was sawed and 5 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 10 samples representing 165.5' (90.4%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 10 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0-111.0	Overburden
111.0-191.0	Greywacke/Slaty Greywacke
	111.0-142.0 5-20% qtz-carb veining, 2% tourmaline
	incl. 130.0-142.0 75% lost core, grab sample ran 0.06 opt Au, quartz in debris
	182.5-184.5 Conglomerate
191.0-294.0	Mafic Volcanics
	Chloritic mafic volcanics, occasional barren quartz-carbonate stringers
294.0	EOH

SUMMARY LOG

Hole Number: 15343
Date Drilled: June 28-30, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11564.6N, 7917.7E, El 10938.2
Hallnor Section 54W, L12+ 15'S
Azimuth 330° (335°?), -50° dip
Length: 506 feet
Survey: 5 Sperry Sun Single Shots
Size: BQ
Casing: 70 feet, casing pulled, hole cemented at bedrock
Purpose: Test 50' east of intersection in hole 15179 (0.255 opt Au/13.4')
Logged by: M.E. Robb
Comments: Hole was probably collared nearer azimuth 340 than 330.

Direct Costs (Drilling & Sampling)

Drilling	\$4,775.90	
Sampling	<u>540.00</u>	
	\$5,315.90	= \$10.51/ft

RESULTS

GEOLOGY

DDH 15343 was drilled to follow up on intersection in DDH 15179 (0.255 opt Au/13.4') on Hallnor Section 55W. It was the first of two holes on Section 54 testing east of this zone and down dip of an earlier follow up hole that had a large amount of ground core in the location of the anticipated intersection. An increased amount of quartz veining was cored at the expected location of the zone, however, values from sampling were low. Quartz vein orientations in the core are very variable, ranging from 0° to 90°. Common orientations are sub-parallel to bedding and at 40-50° to the core. Mineralization accompanying the quartz vein is dominantly pyrite with minor pyrrhotite. Minor quartz veins in the volcanics returned some interesting results.

SAMPLING

A total of 119' of the core (27%) was sawed and 40 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 14 samples representing 283.1' (70.4%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 24 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 70.0	Overburden
70.0-412.8	Greywacke & Slaty Greywacke
	164.6-187.3 Weakly quartz veined and altered zone. No significant assays.
	incl. 177.4-178.4 30% quartz, 1% tourmaline, tr po, cpy. NSA.
	317.0-360.5 Quartz veined greywacke - probably equivalent of mineralized zone in 15179. Main areas of quartz at:
	317.0-317.7 20% qtz, 1% py, 0.02 opt Au/0.7'
	326.0-327.4 40% qtz, 3% py, 0.044 opt Au/1.4'
	340.6-346.0 7-60% qtz, 1-2% py
	incl. 340.6-342.5 7% qtz, 2% py, 0.048 opt Au/1.9'
	358.0-360.5 65% qtz, 3% py, tr po, 0.017 opt Au/2.5'
412.8-506.0	Mafic Volcanics
	Fine grained, carbonate altered (calcite) amygdaloidal pillow lava
	466.6-467.8 70% qtz, 3% fuchsite, 2% py, tr po, 0.147 opt Au/1.2'
	474.0-476.8 "green carb" appearance to volcanics, tr po, asp, 0.081 opt Au/2.8'
	491.5-495.7 5% qtz, 1% py, tr po, aspy, 0.074 opt Au/4.2'
506.0	EOH
	Hole stopped on footage to avoid hitting stoped area

SUMMARY LOG

Hole Number: 15344
Date Drilled: June 30-July 1, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hallnor
Township: Whitney
Claim No.: Poulet Veteran 4736
Co-ordinates: 11627.4N, 7883.5E, El 10938.6 (Pamour coords.)
Hallnor Section 54W, L11+150'S
Azimuth 330°, -50° dip
Length: 396 feet
Survey: 4 Sperry Sun Single Shots
Size: BQ
Casing: 70 feet, casing removed, hole cemented at bedrock
Purpose: Test east of zone in 15179 and below 15338 on Hallnor Section 54W
Logged by: M.E. Robb

Direct Costs (Drilling & Sampling)

Drilling	\$3,764.40		
Sampling	<u>280.00</u>		
	\$4,044.40	=	\$10.21/ft

RESULTS

GEOLOGY

DDH 15343 was the second of two holes drilled on Hallnor Section 54 to test for the easterly continuation of the quartz veined and mineralized zone in DDH 15179 (0.255 opt Au/13.4'). Quartz veining and weak alteration was intersected in the hole at the expected depth but assay results were low (max. 0.25 opt Au/0.5'). The quartz veining was associated with pyrite and trace pyrrhotite but alteration is very weak. Vein orientations are very variable ranging from parallel to perpendicular to bedding.

SAMPLING

A total of 33.1' of the core (10.6%) was sawed and 15 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 271.5' (86.9%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property (Shack 16, 19 Boxes).

(3)

FOOTAGE**LITHOLOGY**

0.0- 70.0	Overburden
70.0-312.5	Greywacke/Slatey Greywacke
	205.5-206.8 Quartz-carbonate veined slatey greywacke with 2" ribboned stringer @ 206.3-206.5, 0.026 opt Au/1.3'
	238.0-253.3 Quartz veined zone - probable equivalent of mineralized zone in 15179
	incl. 241.0-249.2 0.023 opt Au/8.2'
	incl. 244.6-245.1 0.25 opt Au/0.5', 85% qtz, 2% py
	267.7-270.5 20% qtz, 2% py, 0.045 opt Au/2.8'
312.5-396.0	Mafic Volcanics
	Carbonate altered pillowed volcanics, minor quartz veining throughout
396.0	EOH

SUMMARY OF DRILLING

PAMOUR MK ZONE - SECTIONS 22, 24, 26 & 28

HOLE NO.	LENGTH/SECTION	FOOTAGE	ANALYTICAL		ASSAYS (OPT/FT)	LITHOLOGY ZONE	VG	MINERALIZATION				QTZ-CARB		ALTERATION TYPE/INTENSITY	
			CPY	SPH				PO	ASP	CPY	QTZ-CARB	SPH	PO		ASP
			%	%	%	%	%	%	%	%	%	%	%	%	%
15451	306'/22	186.0-188.5 292.0-306.0 INCL.			0.026/2.5' 0.096/14.0' 0.12/5.0'	CARB. ULTRAMAFIC GREYWACKE GREYWACKE		1.5 2					35 17	ANK/SER/FUCH SERICITIC SERICITIC	
15450	444'/24	239.0-242.5 244.5-253.5 260.5-261.5 266.0-271.0 281.0-282.5 298.0-314.5 INCL. 310.0-314.5 331.0-386.0			0.016/3.5' 0.006/9.0' 0.023/1.0' 0.014/5.0' 0.033/1.5' 0.070/16.5' 0.136/4.5' 0.081/56.0'	CARB ULTRAMAFIC CARB ULTRAMAFIC CARB ULTRAMAFIC AGGLOMERATE MAFIC TUFF GREYWACKE GREYWACKE GREYWACKE								ANKERITE/FUCHSITE ANKERITE/FUCHSITE ANKERITE/FUCHSITE BLEACHED/SERICITIC CHLORITIC SERICITIZED	
15449	426'/26	156.0-186.0 270.5-291.0 INCL. 288.0-291.0 310.5-319.5 INCL. 332.0-390.6 INCL. & 332.0-341.1 & 349.0-356.0 & 364.0-390.6			0.001->0.007 0.08/20.5' 0.202/3.0' 0.076/85.5' 0.121/10.0' 0.081/58.6' 0.083/9.1' 0.146/7.0' 0.092/26.6'	ULTRAMAFIC VOLCS AGGLOMERATE AGGLOMERATE GREYWACKE GREYWACKE GREYWACKE GREYWACKE GREYWACKE GREYWACKE		tr-.5 tr-5 tr-7 2-3 2-7 3-7 2-7	tr tr-2 tr-2 .5-2 .5-2 .1-2 tr-2	tr tr	tr tr	tr-90 1-90 tr-80 5-25 1-80 5-20 2-60	TALC-CHLORITE FUCHSITIC BLEACHED BLEACHED BLEACHED BLEACHED BLEACHED		
15448	373'/28	236.0-258.0 255.5-257.5 282.0-284.0 347.5-359.0 INCL. 347.5-348.5			0.041/2.0' 0.049/2.0' 0.047/2.0' 0.11/11.5' 3.15/1.0'	AGGLOMERATE AGGLOMERATE GREYWACKE GREYWACKE GREYWACKE		4 2 3 2-8 3				5 25 4 5-65 8	BLEACHED BLEACHED BLEACHED BLEACHED		

SUMMARY LOG

Hole Number: 15451
Date Drilled: Sept. 21-22, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14182.33N, 16031.08E, Elev. 10964, Section 22E
Azimuth 161°, -62° dip
Length: 306 feet
Survey: 3 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 22 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 22E.
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$2,964.90
Sampling	600.00

	\$3,564.90/306' = \$9.69

RESULTS**GEOLOGY**

DDH 15451 intersected 0.096 opt Au/14.0' @ 292.0-306.0.

SAMPLING

A total of 176.0' of the core (62%) was sawed and 54 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 6 samples representing 108.0' (38%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 22.0	Overburden
22.0-106.0	Talc Carbonated Ultramafic Grey-black with lacey ankerite veining. Local large polygonal fracture/joint patterns evident. Also tensional quartz/ankerite veins. Fault zone @ 49.5-55.0'. "Agglomerate" interval @ 56.5-76.5' due to tectonics. Fault/rubble/clay @ 71.5' (30°) for 3 inches.
106.0-268.0	Carbonated Rock Ankeritic (grey carbonate) to sericitic (brown carbonate) to fuchsite (green carbonate) altered rock. Fuchsite from 174.0-254.0'. Both lacey and tensional veining. Best: 0.026 opt Au/2.5' @ 186.0-188.5' (35% qtz and 1.5% py).
268.0-270.5	Tuff Mafic/ultramafic tuff. Vague stretched clast. Returned 0.013 opt Au/2.5'.
270.5-276.0	Agglomerate Chloritic. Variably altered fragments (i.e. chl, serpt, fuch, sericite). Returned 0.014 opt Au/5.5' (7% py).
276.0-280.5	Quartz Vein 20-40% qtz and 10% to 30% ankerite. Structured, tensional veining in sericitized wacke/slate. Best: 0.011 opt Au/2.0' @ 276.0-278.0' (40% qtz, 10% ank, tr py).
280.5-283.0	Greywacke With 5% argillaceous/slate beds. Strongly sericitized. Returned 0.004 opt Au/2.5' @ 280.5-283.0' (.5% qtz, .5% py).
283.0-287.0	Quartz Breccia Zone Angular fragments of sediment (locally limonitized) float in quartz matrix. Returned 0.005 opt Au/4.0' (tr py).
287.0-306.0	Greywacke with Slaty Beds (20%) Moderately to strongly sericitized. Best: 0.096 opt Au/14.0' @ 292.0-306.0' (17% qtz, 2% py). Py in X-fractures and locally in matrix.
306.0	EOH

SUMMARY LOG

Hole Number: 15450
Date Drilled: Sept. 22-23, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14224.81N, 16071.28E, Elev. 10967, Section 24E
Azimuth 164°, -64° dip
Length: 444 feet
Survey: 4 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 10 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 24E.
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,209.60
Sampling	870.00

	\$5,079.60/444' = \$11.44/ft

(2)

RESULTS**GEOLOGY**

DDH 15450 intersected 0.070 opt Au/16.5' @ 298.0-314.5' and 0.081 opt Au/56.0' @ 331.0-386.0'. Values are uncut.

SAMPLING

A total of 285.5' of the core (66%) was sawed and 80 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 7 samples representing 148.5' (34%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 10.0	Overburden
10.0-166.0	Talc Carbonated Komatiite Grey-black serpentized and carbonated. Fault zones @ 38.7-40.5' and 54.0-57.0'. Quartz vein @ 146.0-147.0'.
166.0-261.5	Carbonated Ultramafic Ankeritic and fuchsite altered (from 211.0-261.5'). Lacey veining and tensional veins. Quartz veins @ 196.0-201.5' (0.001 opt Au/5.5') and 239.0-242.5' (0.016 opt Au/3.5') and 244.5-253.5' (0.006 opt Au/9.0') and 260.5-261.5' (0.023 opt Au/1.0').
261.5-279.0	Agglomerate Chloritic; out-contact area is bleached and sericitized. Best: 0.014 opt Au/5.0' @ 266.0-271.0' (3% py).
279.0-291.4	Tuff Chloritic mafic tuff. Best: 0.033 opt Au/1.5' @ 281.0-282.5' (7% qtz, 2% py, .5% po)
291.4-295.0	Quartz Vein 40% qtz and 5% ankerite (0.007 opt Au/3.6' with 1.5% py + 1% po)
295.0-441.0	Greywacke With local slaty sections and one quartzite or quartz-rich wacke interval. Greywacke is weak to strongly sericitized to 381.5', then chloritic to next unit. Best: 0.070 opt Au/16.5' @ 298.0-314.5' (3% qtz, 3.5% py) and 0.081 opt Au/56.0' @ 331.0-386.0' (14% qtz, 2.5% py). Note - best assay in latter interval also exhibit significant pyrrhotite values (see detailed log).
441.0-444.0	Conglomerate Sericitic and clast supported. Returned 0.005 opt Au/3.0'.
444.0	EOH

SUMMARY LOG

Hole Number: 15449
Date Drilled: Sept. 23-27, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14238.8N, 16119.4E, Elev. 10967.8, Section 26E
Azimuth 162°, -52° dip
Length: 426 feet
Survey: 4 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 18 feet, pulled, hole cemented at bedrock
Purpose: Fill in gaps in MK Zone drill database to allow ore reserve calculations
Logged by: M.E. Robb
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,053.00
Sampling	790.00

	\$4,843.90/426' = \$11.37/ft

(2)

RESULTS**GEOLOGY**

DDH 15449 was one of eight holes drilled to explore a potential bulk ore zone located at the North Greywacke/Volcanic contact east of the main Pamour headframe. Quartz veining and mineralization (py, po with minor sph) was cored throughout the hole, but the only significant intersections were in agglomerate at the sediment/volcanic contact (0.08 opt Au/20.5' from 270.5-291.0') and a broad zone in the North Greywacke (0.076 opt Au/85.5' from 310.5-396.0').

SAMPLING

A total of 237.7' of the core (58.3%) was sawed and 70 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 9 samples representing 170.3' (41.7%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 18.0	Overburden
18.0-237.5	Ultramafic Volcanics Ankeritic ultramafic volcanics - talcose-chloritic, several mud zones to 74.7', more competent after this.
156.0-186.0	Quartz veined, occ. polysuture texture, up to 90% quartz, max assay 0.007 opt Au. Overall 30% quartz. Mineralized with tr-.5% py, tr po, tr cpy
237.5-291.0	Agglomerate Quartz veined, fuchsitic agglomerate, tr-5% py, tr-2% po, tr sph incl. 270.5-291.0 0.08 opt Au/20.5' incl. 288.0-291.0 0.202 opt Au/3.0' (VG)
291.0-426.0	Greywacke Variably altered and mineralized, tr-80% quartz, tr-7% py, tr-2% po, tr-5% sph 310.5-396.0 0.076 opt Au/85.5' incl. 310.5-319.5 0.121 opt Au/10.0' & 332.0-390.6 0.081 opt Au/58.6' incl. 332.0-341.1 0.083 opt Au/9.1' & 349.0-356.0 0.146 opt Au/7.0' & 364.0-390.6 0.092 opt Au/26.6'
426.0	EOH

SUMMARY LOG

Hole Number: 15448
Date Drilled: Sept. 20-21, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14245.22N, 16168.71E, Elev. 10969.61, Section 28E
Azimuth 161°, -53° dip
Length: 373 feet
Survey: 4 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 30 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 28E.
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$3,613.10
Sampling	660.00

	\$4,273.10/373' = \$11.46/ft

(2)

RESULTS**GEOLOGY**

DDH 15448 intersected 0.11 opt Au/11.5' @ 347.5-359.0' (cut assay) with 14% associated quartz and 4% pyrite.

SAMPLING

A total of 212.8' of the core (62%) was sawed and 62 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 4 samples representing 130.2' (38%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 30.0	Overburden
30.0-136.0	Intercalated Talc Carbonated Komatiite With sections of "agglomerate" (tectonically derived?). Possible large "block" or thin mafic flow @ 61.0' area. Fault @ 95.3-96.5'.
136.0-186.0	Carbonated Rock Ankeritic and fuchsitic near out-contact. Ankerite veins fill original polygonal fracture/joint pattern.
186.0-201.0	Talc Carbonate Rock Lacey ankerite is grey-black-buff ultramafic. Local fuchsite next to quartz veins. QV @ 194.0-196.0' (70 ppb Au).
201.0-208.5	Quartz Vein White quartz and colourless grey QV's. Vein at low angle with fuchsitic carbonate rock. Returned 0.001 opt Au/7.5'.
208.5-226.8	Carbonated Rock Fuchsitic and ankerite altered. Possible agglomerate fragments - difficult to discern. QV @ 224.5-226.8'. Best: 0.011 opt Au/3.5' @ 221.0-224.5'.
226.8-270.0	Agglomerate Predominantly chloritic but short intervals of fuchsite/sericite alteration (i.e. near areas of quartz veins). Best: 0.041 opt Au/2.0' @ 236.0-258.0' and 0.049 opt Au/2.0' @ 255.5-257.5'.
270.0-296.0	Greywacke With minor intercalated slate beds. Local sections of moderate sericite alteration. Best: 0.047 opt Au/2.0' @ 282.0-284.0'.
296.0-325.0	Slate Local wisps or siltstone or very fine grained wacke.

(4)

FOOTAGE**LITHOLOGY**

325.0-373.0

Greywacke

With 5-15% slate beds. Predominantly moderately to strongly sericitic. Argillaceous - slaty beds are pale yellow and aphanitic. VG next to QV (25°) at 348' area. Local pyrite in X-fractures. QV @ 354.5-356.5' exhibits angular inclusions of sericitic sediment. Best: 0.11 opt Au/11.5' @ 347.5-359.0' (14% qtz + 4% py). (NB - high value of 3.15 opt Au/1.0' @ 347.5-348.5' cut to 0.18 opt Au).

373.0

EOH

SUMMARY LOG

Hole Number: 15447
Date Drilled: Sept. 17-20, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14288.42N, 16211.48E, Elev. 10970.11, Section 30E
Azimuth 160°, -59° dip
Length: 451 feet
Survey: 5 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 30 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 30E.
Logged by: P. Coad
Comments: Pseudo "agglomerate" sections in talcose/serpentinized ultramafic tectonically produced.

Direct Costs (Drilling & Sampling)

Drilling	\$4,732.90
Sampling	750.00

	\$5,482.30/451' = \$12.16/ft

(2)

RESULTS

GEOLOGY

DDH 15447 intersected 0.065 opt Au/25.0' (336.0-361.0') and 0.086 opt Au/35.0' (381.0-416.0'). Values uncut. Values spatially associated with quartz veins (tensional) and pyritic, weak-moderate sericitic alteration in greywacke (minor slate) sediment. Pyrite content appears to be significant. In the latter interval, pyrrhotite and trace sphalerite are also important sulphide minerals (see detailed log).

SAMPLING

A total of 260' of the core (61%) was sawed and 69 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 6 samples representing 102' (24%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 30.0	Overburden
30.0-201.0	Talc Carbonated Komatiite Intercalated sections of "agglomerate" - these represent "tectonic" zones of ductile/shearing. Consist of predominantly talcose-serpentinized ultramafic fragments. Fault at 157.2-157.6'.
201.0-271.0	Carbonated Rock Carbonated (ankerite) and fuchsitic ultramafic. Matrix of unit is sericitic and fuchsitic adjacent to quartz veins.
271.0-276.0	Talc Carbonated Komatiite
276.0-278.5	Carbonated Rock Fuchsitic altered.
278.5-287.0	Agglomerate Predominantly dark serpentinized ultramafic clasts with local sericitized mafic clasts - local py crystals and clots. 30° structure at 284.6'.
287.0-290.5	Quartz Vein Fuchsitic carbonate rock is host. Grades: 0.018 opt Au/3.5'.
290.5-311.0	Intercalated Carbonate Rock & Talc-Carbonated Ultramafic
311.0-339.5	Carbonated Rock Ankeritic and fuchsitic altered. Ankerite veins fill polygonal fracturing. Best: 0.114 opt Au/3.5' @ 336.0-339.5'.
339.5-341.0	Agglomerate Chloritic and serpentinous.
341.0-451.0	Greywacke with Slaty Sections CMT: coarse-medium-thin. Weak to moderately sericitic. Local pyrite in late X-fractures. Quartz veining predominantly tensional. Best: 0.065 opt Au/25.0' (336.0-361.0') with 2% qtz and 3.5% py; also 0.086 opt Au/35.0' (381.0-416.0') with 1% qtz and 1% py.
451.0	EOH Hole breakthrough.

SUMMARY LOG

Hole Number: 15446
Date Drilled: Sept. 15-16, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14348.03N, 16237.93E, Section 32E
Azimuth 163°, -58° dip
Length: 506 feet
Survey: 5 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 36 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 32E.
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,745.90
Sampling	1,120.00

	\$5,865.90/506' = \$11.59/ft

RESULTS**GEOLOGY**

DDH 15446 intersected 0.102 opt Au/85.5' (349.5-435.0') and 0.101 opt Au/22.5' (467.0-489.5'). Values uncut. A speck of VG was identified in a tensional quartz/ankerite vein at 130.5' in talc-carbonate rock, however it returned only 0.072 opt Au/5.0'. Another speck of VG as identified in a quartz-ankerite vein at 192.6-194.5' in talc-carbonate rock. This returned only 0.014 opt Au/1.9', however the adjacent sample from 194.5-196.0' returned 0.205 opt Au (QV).

SAMPLING

A total of 470' of the core (100%) was sawed and 121 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

- 0.0- 36.0 **Overburden**
- 36.0-372.5 **Intercalated Talc-Carbonated Ultramafic & Carbonate Rock**
 Brown carbonate (i.e. ankeritic and sericitized) is the predominant alteration in the carbonate rock to 351.0'. After 351.0', fuchsite is the predominant alteration. Talc-carbonated ultramafic is grey with carbonate speckling and laced with quartz/carbonate veins and locally cut by tensional quartz/carbonate veins.
 Best values: 0.072 opt Au/5.0'; VG speck in QV in talc-carbonated ultramafic.
- 0.071 opt Au/8.4' @ 192.6-201.0' (10% qtz, 16% ank, tr py + cp); speck of VG in grey-blue quartz-ankerite vein, within 192.6-194.5' interval.
- 0.141 opt Au/23.0' (349.5-372.5') with 25% qtz and 4% py in interval marked by strong fuchsite alteration. Evidence for 2 generations of quartz veins (tensional).
- 372.5-388.0 **Agglomerate**
 Fuchsitic + sericite altered. Ultramafic and bleached buff mafic clasts. Medium grained "shotgun-pyrite". Returned 0.16 opt Au/15.5' (372.5-388.0') with 6% qtz and 10% py associated. Tensional veining.
- 388.0-435.0 **Greywacke**
 Best: 0.064 opt Au/47' (388.0-435.0') with 22% qtz + 4% py with minor pyrrhotite and sphalerite.
- 435.0-467.0 **Slate**
 Best: 0.035 opt Au/3.0' @ 461.0-464.0' (1% ankerite + .5% py)
- 467.0-506.0 **Greywacke with Minor Slate**
 Best: 0.106 opt Au/21.0' (467.0-488.0') with 6% qtz + 3% py. Both strike and tensional quartz veins. Locally py in X-fractures.

SUMMARY OF DRILLING

PAMOUR MK ZONE - SECTIONS 34 & 36

HOLE NO.	LENGTH/SECTION	FOOTAGE	ANALYTICAL	ASSAYS (OPT/FT)	LITHOLOGY ZONE	VG	MINERALIZATION			QTZ/			ALTERATION TYPE/INTENSITY
							PY %	PO %	ASP %	SPH %	CPY %	QTZ-CARB %	
15445	456' /34	127.0-140.0		0.121 OPT AU GRAB SAMPLE	ULTRAMAFIC VOLCS								BROWN CARB (ANKERITE & SERICITE)
		290.0-341.0		0.098/51.0'	CONTACT ZONE								BROWN CARB & FUCHSITE
		INCL. &	290.0-294.0 294.0-320.7	0.44/4.0'	ULTRAMAFIC VOLCS	7					10		BROWN CARB & FUCHSITE
			INCL. &	0.06/26.7'	AGGLOMERATE	tr-10					tr-12		BROWN CARB & FUCHSITE
				0.109/9.7'	AGGLOMERATE								BROWN CARB & FUCHSITE
				0.081/20.3'	GREYWACKE	2-5					5-10		SERICITIC
				0.129/5.0'	GREYWACKE	4					7		SERICITIC
				0.087/20.0'	GREYWACKE	1-6					3-12		SERICITIC
				0.126/10.0'	GREYWACKE								SERICITIC
				0.044/15.0'	GREYWACKE	tr-4		tr-1			1-2		SERICITIC
				0.213/5.0'	GREYWACKE	10					18		SERICITIC
15444	387' /36	343.5-364.0		0.128/20.5	GREYWACKE	tr-8		tr			tr-35		SERICITIC
		INCL. &	343.5-354.5	0.164/11.0'	GREYWACKE	3-8		tr			8-35		SERICITIC

SUMMARY LOG

Hole Number: 15445
Date Drilled: Sept. 13-15, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14288.29N, 16321.40E, Section 34E
Azimuth 163°, -58° dip
Length: 456 feet
Survey: 5 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 16 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes on section 34E.
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$4,382.40
Sampling	550.00

	\$4,932.40/456' = \$10.82/ft

(2)

RESULTS**GEOLOGY**

DDH 15445 intersected 0.099 opt Au/51.0' (290.0-341.0') and 0.055 opt Au/40.0' (356.0-396.0'). Values are uncut. This mineralization is spatially associated with carbonated ultramafic, agglomerate, sericitized greywacke contact area and an interval of sericitized greywacke, located further south from the main unconformity volcanic/sediment contact. See summary log for respective quartz and sulphide percentages.

SAMPLING

A total of 208' of the core (46%) was sawed and 44 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 11 samples representing 248' (54%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

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FOOTAGE**LITHOLOGY**

0.0- 16.0	Overburden
16.0-294.0	<p>Carbonated Ultramafic Intercalated with talcose-serpentinized ultramafic. Brown carbonate (i.e. ankerite & sericite) predominates, however fuchsite alteration picks up near the volcanic/sediment contact. Best value: 0.121 opt Au/36.0' in a geochem-grab type of sample. Probably this gold picked up in piece of quartz veining. Also value of 0.44 opt Au/4.0' @ 290.0-294.0 (uncut). 7% py and 5% qtz associated (tensional). Note - lacey and tensional veining in interval.</p>
294.0-320.7	<p>Agglomerate Variety of clasts-tear drop shaped due to stretching. Variably altered. Fuchsite near contact, then chlorite, then sericite down hole to south. 0.06 opt Au/26.7' (294.0-320.7'), 1% qtz and 3% py associated.</p>
320.7-456.0'	<p>Greywacke with Minor Slate Best values: 0.081 opt Au/20.3' @ 320.7-341.0' (6% qtz + 3% py) 0.087 opt Au/20.0' @ 356.0-376.0' (4% qtz + 3% py) 0.044 opt Au/15.0' @ 381.0-396.0' (1.5% qtz + 2.5% py + tr pyrrhotite and sphalerite) 0.213 opt Au/5.0' @ 423.0-428.0' (15% qtz + 10% py + .5% sph)</p> <p>Dark metallic-looking mineral in quartz veins at 391.0-396.0' X-rayed as pyrrhotite. Local pyrite in X-fractures. Greywacke sericitized. Quartz veining is tensional.</p>
456.0	EOH

SUMMARY LOG

Hole Number: 15444
Date Drilled: Sept. 10-13, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: Porcupine Grande - Parcel 9096 W & T - Parcel 630 SNP
Co-ordinates: 14330.32N, 16351.29E, Section 36E
Azimuth 166°, -57° dip
Length: 387 feet
Survey: 4 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 18 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates/N. greywackes on section 36E.
Logged by: P. Coad
Comments: Talc-carbonated ultramafic with lacey qtz/carb veins and late qtz/carb veining event (straight edged).

Direct Costs (Drilling & Sampling)

Drilling	\$4,825.41
Sampling	450.00

	\$5,275.41/387' = \$13.63/ft

RESULTS**GEOLOGY**

DDH 15444 intersected 0.128 opt Au/20.5' @ 343.5-364.0' with spatially associated quartz veins and relatively high pyrite contents, with traces of sphalerite and galena in strongly sericitized greywacke. Local pyrite in late tensional fractures.

SAMPLING

A total of 124' of the core (32%) was sawed and 28 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 17 samples representing 263' (68%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

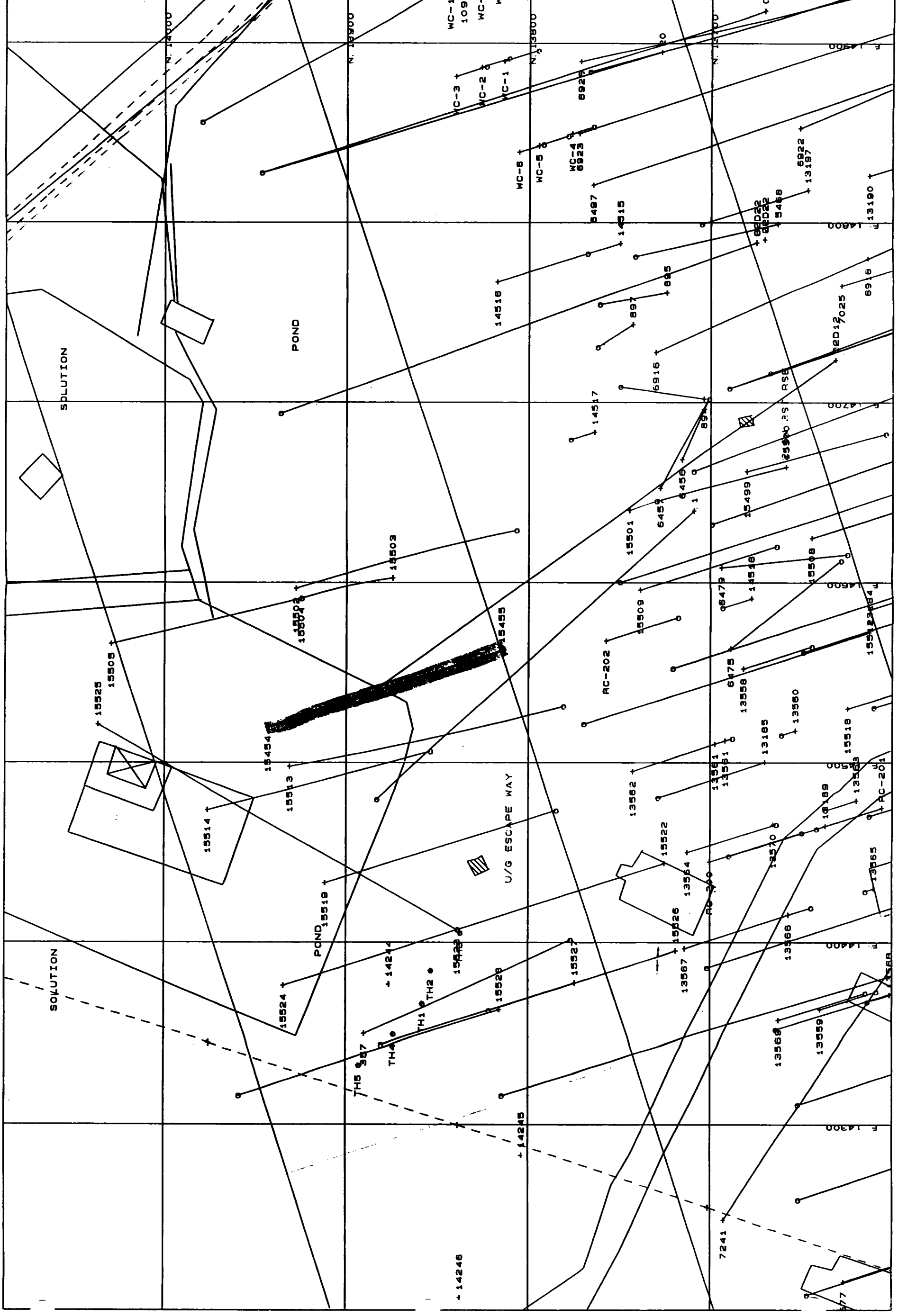
FOOTAGE**LITHOLOGY**

0.0- 18.0	Overburden
18.0-293.0	Carbonate Rock Sections of green carbonate (fuchsite) and brown carbonate (ankerite and sericite) laced with quartz-ankerite veins; spinifex at 19.5'. 62.5-78' (Grey Carbonate) 206-224' (Grey Carbonate) Local porphyroblasts of ankerite in matrix of carbonated ultramafic. Protolith is peridotitic komatiite.
293.0-302.0	Talc-Chlorite-Serpentinized Ultramafic Grey-black with weak to moderate carbonate speckling. Local chalcopyrite and pyrite with late X-cutting quartz-carbonate veinlets. Local very coarse subhedral pyrite crystals.
302.0-320.0	Agglomerate Predominantly chloritic and serpentinized ultramafic fragments. Local fine grained, massive mafic clasts.
320.0-387.0	Greywacke Best intersection: 0.128 opt Au/20.5' @ 343.5-364 (10% qtz and 4% py with traces of sphalerite and galena). Gouge at 380-380.1'.
387.0	EOH Hole terminated due to lost H ₂ O.

SUMMARY OF DRILLING

PANOUR WEST PIT - SECTION 38

HOLE NO.	LENGTH/SECTION	FOOTAGE	ANALYTICAL	ASSAYS (OPT/FT)	LITHOLOGY ZONE	VG	MINERALIZATION					QTZ/		ALTERATION TYPE/INTENSITY
							PY %	PO %	ASP %	SPH %	CPY %	QTZ-CARB %	QTZ %	
15454	156'/38	21.0-37.0		0.07/16.0'	AGGLOMERATE		1-4					tr-20		CHLORITE-FUCH-SER
		59.0-71.0		0.083/12.0'	MAFIC VOLCANIC		.5-5					1-15		CHL-SILICIFIED-SER
		INCL.	68.0-71.0	0.180/3.0'	MAFIC VOLCANIC									
15455	107'/38	70.0-73.0		0.032/3.0;	AGGLOMERATE		1					1		FUCHSTIE/SERICITE



SUMMARY LOG

Hole Number: 15454
Date Drilled: Sept. 29, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: P13793
Co-ordinates: 13865N, 14546E, Elev. 10961, Section 38W
Azimuth 342, -58° dip
Length: 156 feet
Survey: 3 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 12 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes in Cyanide Pond Target
Logged by: P. Coad
Comments: Basalt is pillowed, locally amygdaloidal and marked by local serpentine/chlorite filled interstices/voids. Probably high Mg-Tholeiite. Locally strongly silicified and bleached.

Direct Costs (Drilling & Sampling)

Drilling	\$1,469.40
Sampling	430.00

	\$1,899.40/156' - \$9.42/ft

(2)

RESULTS**GEOLOGY**

DDH 15454 intersected only 0.070 opt Au/16.0' @ 21.0-37.0' and 0.083 opt Au/12.0' @ 59.0-71.0', however a much wider interval of quartz veining with pyrite and pyrrhotite was intersected from 71.0-156.0' in altered pillowed basalt. This latter interval could be peripheral to significant gold mineralization.

SAMPLING

A total of 144.0' of the core (100%) was sawed and 43 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. All of the samples were also analyzed for arsenic.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 12.0	Overburden
12.0- 40.3	Agglomerate Chloritic and fuchsitic-sericitic from 21.0-40.3'. Quartz veins more evident in areas of stronger alteration. Quartz as strike oriented "sweat-outs" or straight-edged tensional veins. Best: 0.07 opt Au/16.0' @ 21.0-37.0' (3.5% qtz and 2.5% py).
40.3-156.0	Basalt Greyish-green with local pillows. Dark chlorite/serpentine in fractures/voids - probably high Mg-Tholeiite. Unit bleached and silicified from 51.0-147.0'. Best: 0.083 opt Au/12.0' @ 59.0-71.0' (6% qtz and 2.5% py). At 71.0-156.0' (18% qtz, 2% py, 2.5% po) but only locally weakly anomalous geochemical gold values. See detailed log.
156.0	EOH

SUMMARY LOG

Hole Number: 15455
Date Drilled: Sept. 29, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Pamour Minesite
Township: Whitney
Claim No.: P13793
Co-ordinates: 13865N, 14546E, Elev. 10961
Section 38W, Azimuth 162, -61° dip
Length: 107 feet
Survey: 1 Sperry Sun Single Shot Survey
Size: BQ
Casing: 10 feet, casing pulled, hole cemented at bedrock
Purpose: To test agglomerates and N. greywackes in Cyanide Pond Target
Logged by: P. Coad
Comments:

Direct Costs (Drilling & Sampling)

Drilling	\$ 976.90
Sampling	300.00

	\$1,276.90/107' = \$11.93 ft

(2)

RESULTS**GEOLOGY**

DDH 15455 intersected 0.032 opt Au/3.0' @ 70.0-73.0'. The entire hole intersected variably altered agglomerate, except for the interval 94.5-107.0', which intersected slatey (argillaceous) greywacke.

SAMPLING

A total of 97.0' of the core (100%) was sawed and 30 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario.

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

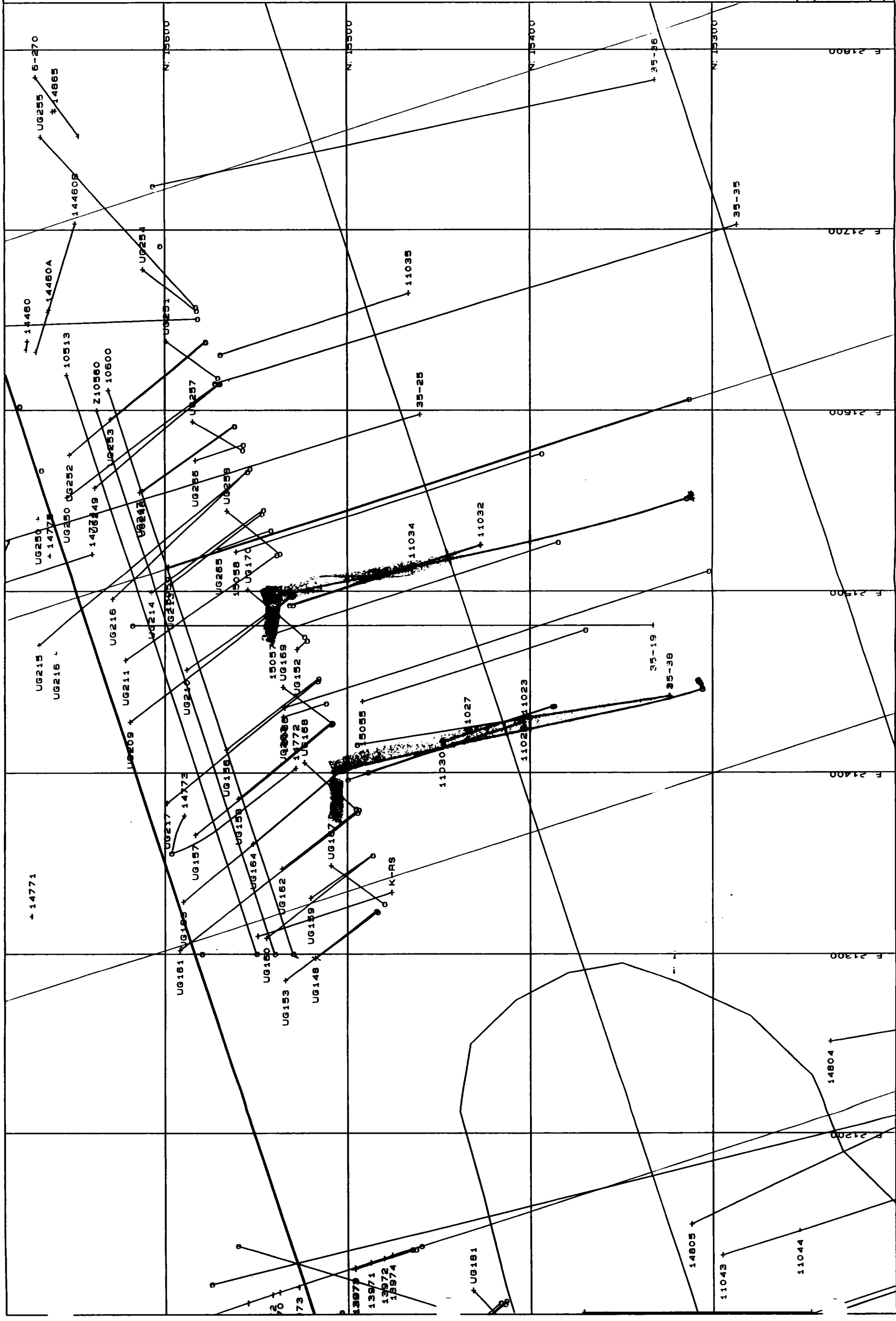
FOOTAGE**LITHOLOGY**

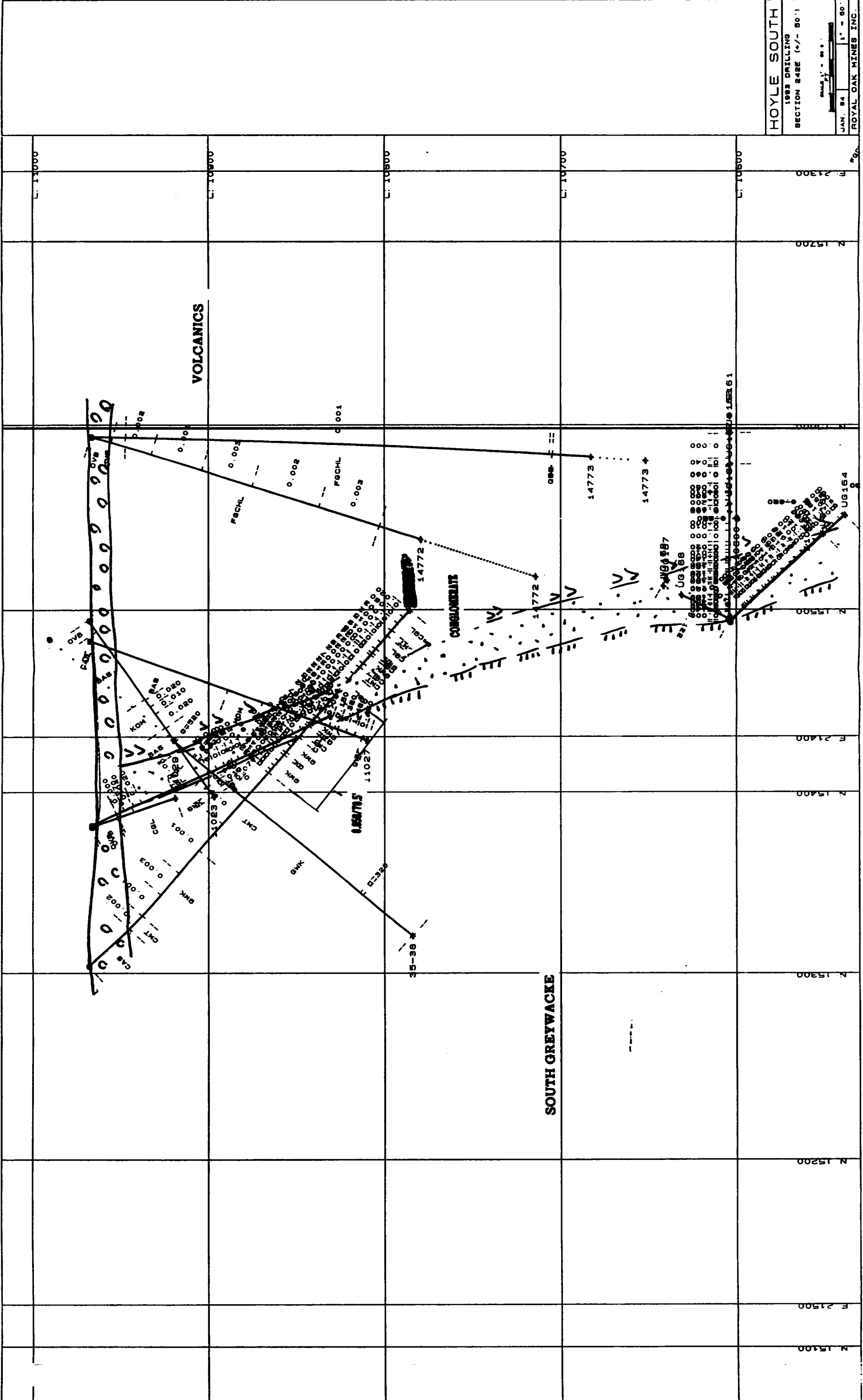
0.0- 10.0	Overburden
10.0- 94.5	Agglomerate Variably altered with fuchsite and sericite alteration best developed in areas of quartz veining. Both strike and tensional veins. Best: 0.032 opt Au/3.0' @ 70.0-73.0' (1% qtz and 1% py).
94.5-107.0	Slaty/Argillaceous/Greywacke Best: 0.005 opt Au/2.5' @ 94.5-97.0' (.5% ankerite and tr pyrite)
107.0	EOH

SUMMARY OF DRILLING

HOYLE SOUTH-2240 ZONE - SECTIONS 242 & 246

HOLE NO.	LENGTH/SECTION	FOOTAGE	ANALYTICAL	ASSAYS (OPT/FT)	LITHOLOGY ZONE	VG	MINERALIZATION				QTZ/QTZ-CARB		ALTERATION TYPE/INTENSITY		
							PY %	P0 %	ASP %	SPH %	CPY %	%			
15442	276'/242	152.5-223.0 INCL. & &		0.059/70.5'	CONTACT		tr-5	tr-10				1-75	SERICITE		
				0.554/2.0'	GREYWACKE		%						75	SERICITE	
				0.167/2.5'	SLATEY GREYWACKE		3							30	SERICITE
				0.162/3.0'	CONGLOMERATE		5	10						50	SERICITE
15443	356/246	204.0-210.0 229.3-281.0 INCL. INCL. & &		0.045/6.0'	GREYWACKE-SLATE		tr-3	.5		tr		tr-3	SERICITE		
				0.118/51.7'	CONGLOMERATE		.5-10	tr-10		tr-.5			tr-100	SERICITE	
				0.254/16.7'	CONGLOMERATE	X	tr-10	tr-10		tr			tr-100	SERICITE	
				0.364/1.2'	CONGLOMERATE										SERICITE
				0.379/5.0'	CONGLOMERATE										SERICITE
				0.128/10.0'	CONGLOMERATE		2-4	1-4	tr		3-12	SERICITE			





SUMMARY LOG

Hole Number: 15442
Date Drilled: Sept. 7-8, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hoyle South
Township: Whitney
Claim No.: P7673
Co-ordinates: 15305.78N, 21445.91E, Section 242E
Azimuth 342°, -49° dip
Length: 276 feet
Survey: 1 Sperry Sun Single Shot Survey
Size: BQ
Casing: 32 feet, casing pulled, hole cemented at bedrock
Purpose: To test for strike extent of mineralization intersected in 15056 (244E), i.e. 0.095 opt Au/102' @ 165-227'. Stepout of 50' to west.
Logged by: J. Houle
Comments: Py in tensional fractures carry local gold values.

Direct Costs (Drilling & Sampling)

Drilling	\$2,565.40
Sampling	380.00

	\$2,945.40/276' = \$10.67/ft

RESULTS

GEOLOGY

DDH 15442 was drilled on section 242E, 50' along strike to the west of DDH 15056 (section 244E), which returned 0.095 opt Au/102' at 165-267' in altered greywacke/quartzites/conglomerates (Timiskaming sediments), positioned just south of the unconformity between volcanics to the north and sediments to the south. The hole intersected 0.059 opt Au/70.5' from 152.5 to 223', including 0.12 opt Au/15.5' from 152.5-168' (uncut).

SAMPLING

A total of 123.5' of the core (51%) was sawed and 31 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 7 samples representing 120.5' (49%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

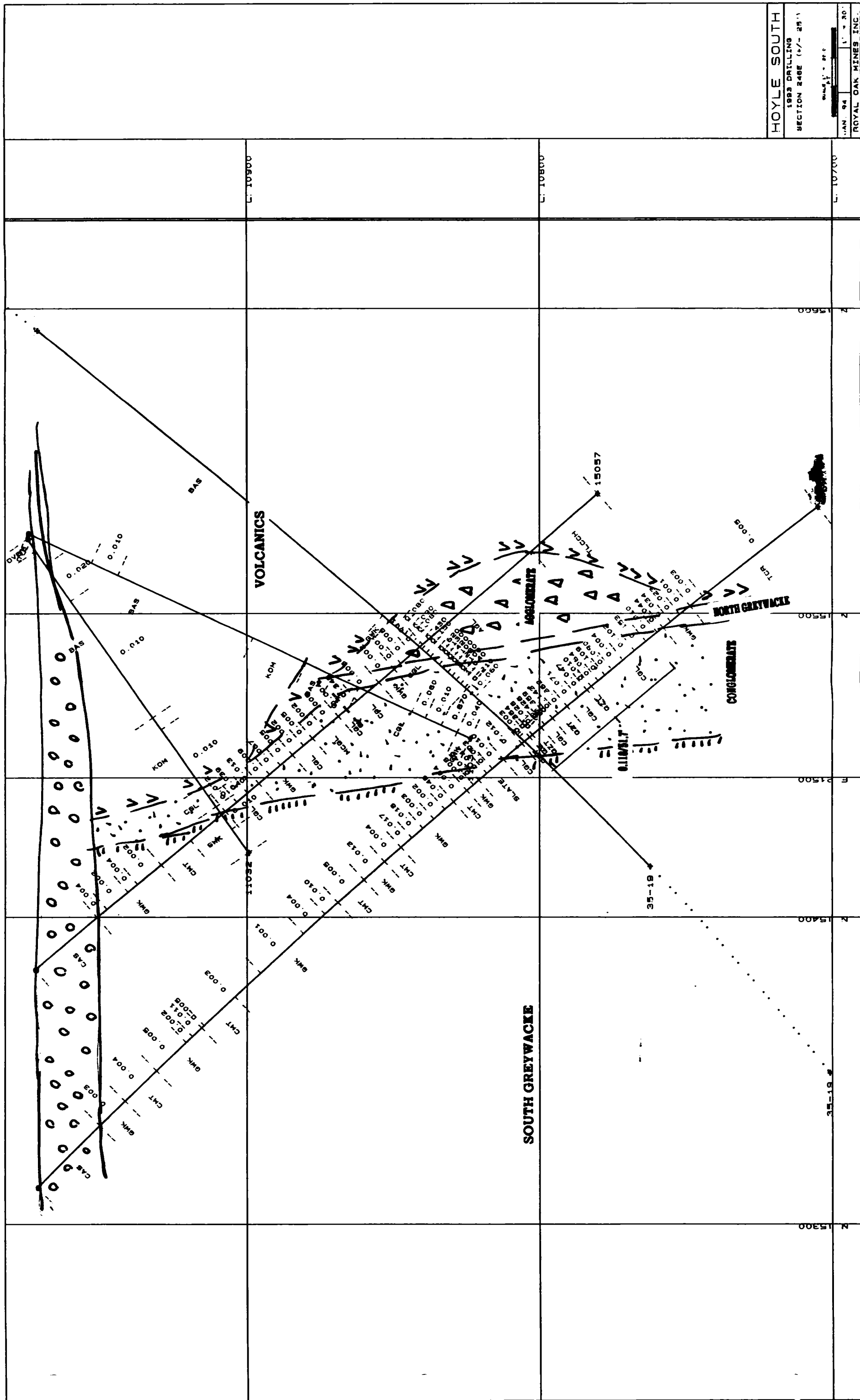
Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 32.0	Overburden
32.0-211.0	Greywacke + Slaty Sediments Best interval: 152.5-223' returned 0.059 opt Au/70.5' (uncut) with 10% Qtz and 1.5% Py associated. Quartz vein @ 166-168' returned 0.554 opt Au/2.0' (uncut)
211.0-270.0	Conglomerate + Greywacke Best assays: see above, are spatially associated with sericitized sediments, quartz veining and elevated pyrite contents, with or without associated pyrrhotite.
270.0	EOH - Breakthrough

← AZIMUTH 162°



HOYLE SOUTH
1993 DRILLING
SECTION 246E (1/7-25)
SCALE 1" = 30'
ROYAL OAK MINES INC.

SUMMARY LOG

Hole Number: 15443
Date Drilled: Sept. 8-10, 1993
Contractor: Dominik Drilling 1981 Inc.
Property: Hoyle South
Township: Whitney
Claim No.: P7674
Co-ordinates: 15314.42N, 21551.51E, Section 246E
Azimuth 342°, -45° dip
Length: 356 feet
Survey: 3 Sperry Sun Single Shot Surveys
Size: BQ
Casing: 30 feet, casing pulled, hole cemented at bedrock
Purpose: To test for strike extent (50' to east) of mineralization intersected on section 244E (i.e. 0.095 opt Au/102').
Logged by: P. Coad
Comments: Sericitized quartzites or quartz-bearing wacke, important component of quartz (gold-bearing) conglomerate unit.

Direct Costs (Drilling & Sampling)

Drilling	\$3,327.90
Sampling	500.00

	\$3,827.90/356' = \$9.35/ft

RESULTS**GEOLOGY**

DDH 15443 was drilled on section 246E, 50' along strike to the east of DDH 15056 (section 244E), which returned 0.095 opt Au/102' at 165-267' in altered Timiskaming sediments, positioned just south of the unconformity. The hole intersected 0.118 opt Au/51.7' from 229.3-281.0'.

SAMPLING

A total of 170.3' of the core (48%) was sawed and 37 samples sent for gold assay (1AT fire assay with atomic absorption finish) to the Royal Oak Mines Inc. laboratory in Schumacher, Ontario. In addition, 13 samples representing 185.7' (52%) of the core were grabbed outside of the sawed portion and also assayed for gold (1AT with atomic absorption finish).

CORE/REJECTS

Drill core and rejects are stored at Royal Oak Mines Timmins core processing facility on the Hollinger Mine Property.

(3)

FOOTAGE**LITHOLOGY**

0.0- 30.0	Overburden
30.0-217.5	Greywacke + Slatey Sediments Best mineralized section: 0.045 opt Au/6.0' @ 204-210' in sericitized greywacke with trace arsenopyrite in matrix and 1-2% qtz-ank veins (tension) with minor py, po and sph. Slate interval with 3% disseminated py also helped to carry interval (see detailed log - sample 3411).
217.5-300.5	Conglomerate + Quartzites + Greywacke Predominantly clast supported conglomerate with sections of moderately to strongly sericitized quartz-bearing wacke or quartzite with thin partings of yellow, sericitized argillite. Interval from 229.3-281.0 returned 0.118 opt Au/51.7' (uncut) with 13% quartz and 5% py. VG was observed at 239'.
300.5-356.0	Talc-Chlorite Rock Serpentinized grey-black ultramafic with lacey talc-carbonate-quartz veining.
356.0	EOH

**ROYAL OAK MINES INC.
STATEMENT OF 1993 APPROVED EXPENDITURES
BY PROJECT AND PROPERTY**

PROJECT NAME: Timmins Central ROYAL OAK & INTEREST (VESTED): 100%

PROPERTY NAME: Hallnor ROYAL OAK & INTEREST (EARNING): 100%

REFERENCE: 1301 **FUNDING SOURCE:** Flowthrough - 2%
93 O.M.I.P - 22%
93 NORFUND - 75%
Royal Oak * - 1%

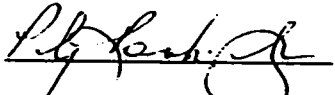
ACCT. DESCRIPT. OF ACTIV. DEC.31TTL FEB.28TTL OMIP TTL NORFUNDTTL

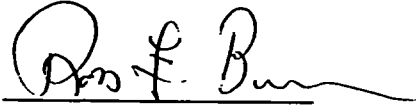
5505 OFFICE RENT	\$ 5127.38\$		\$ 2563.69\$	2563.69
5515 OFFICE SUPPLIES	2865.98		1432.99	1432.99
5520 COMPUTER SERVICES	4259.82		2129.91	2129.91
5525 PROFESSIONAL SALAR.	48654.42	3480.88	33880.16	11293.38
5530 SUPPORT SAL./WAGES	4512.80	2447.84	1548.72	516.24
5535 CONSULTANTS	11948.29	5290.81		6657.48
5540 VEHICLE LEASE	5568.69	10.80	4168.42	1389.47
5545 FUEL	1823.99	283.85	1155.10	385.04
5555 TRAVEL & EXPENSES	451.19	38.25	309.71	103.23
5560 PROPERTY MGMT/TAXES	186.94*			
5575 LINECUTTING	968.00		968.00	
5600 ASSAYS	17060.00	995.00	16065.00	
5615 SURFACE CONTRACT DD	121930.69	13400.00	108530.69	
5625 CORE/SAMPLE STORAGE	13484.34	373.50	13110.84	
5640 DEVELOPMENT WORK	98.28	added to+		98.28+
5645 REHABILITATION WORK	177293.69	added to+		177293.69+
5655 J.V. EXPENSES	70.72*			
5665 DE-WATERING	444709.10			444709.10

TTL 1993 EXPENDITURES \$861014.32\$ 26320.93\$185863.23\$648572.50

5535 CONSULTANTS (92 OMIP)\$ 5290.81\$ 5290.81

ACTUAL 1993 EXPENDITURES \$855723.51\$ 21030.12\$185863.23\$648572.50

APPROVED BY: 
NAME: P.G. ROOK-GREEN
TITLE: CONTROLLER

APPROVED BY: 
NAME: R.F. BURNS
TITLE: VICE-PRESIDENT

**ROYAL OAK MINES INC.
STATEMENT OF 1993 APPROVED EXPENDITURES
BY PROJECT AND PROPERTY**

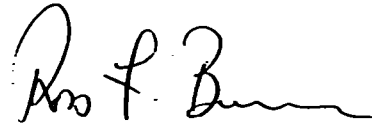
PROJECT NAME: Timmins Central ROYAL OAK & INTEREST (VESTED): 100%

PROPERTY NAME: Pamour ROYAL OAK & INTEREST (EARNING): 100%

REFERENCE: 1302 FUNDING SOURCE: Flowthrough - 7%
93 OMIP - 88%
93 NORFUND - 4%
Royal Oak * - 1%

ACCT. DESCRIPT. OF ACTIV.	DEC.31TTL	FEB.28TTL	OMIP TTL	NORFUNDTTL
5505 OFFICE RENT	\$ 50.63		\$ 50.63	\$
5515 OFFICE SUPPLIES	33.15	22.50	10.65	
5520 COMPUTER SERVICES	60.00		60.00	
5525 PROFESSIONAL SALARIES	23923.12	5023.58	18899.54	
5530 SUPPORT SALARIES/WAGES	2708.16	83.94	2624.22	
5535 CONSULTANTS	1000.00		1000.00	
5540 VEHICLE LEASE	474.84	10.80	464.04	
5545 FUEL	450.57		450.57	
5560 PROPERTY MGMT./TAXES	1011.53*			
5590 W.R.A./TRACE ELEMENT	236.50		236.50	
5595 PETROGRAPHY/RESEARCH	56.62		56.62	
5600 ASSAYS	6575.00		6575.00	
5615 CONTRACT SURFACE D.D.	36110.41		36110.41	
5625 CORE/SAMPLE STORAGE	1317.98		1317.98	
5645 REHABILITATION WORK	3140.50	added to+		3140.50+
TOTAL 1993 EXPENDITURES	\$ 77149.01	\$ 5140.82	\$ 67856.16	\$ 3140.50

APPROVED BY: 
NAME: P.G. ROOK-GREEN
TITLE: CONTROLLER

APPROVED BY: 
NAME: R.F. BURNS
TITLE: VICE-PRESIDENT

**ROYAL OAK MINES INC.
STATEMENT OF 1993 APPROVED EXPENDITURES
BY PROJECT AND PROPERTY**


PROJECT NAME: Timmins Central ROYAL OAK % INTEREST (VESTED): 100%

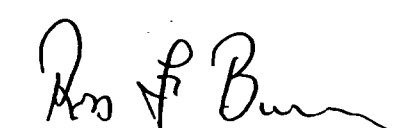
PROPERTY NAME: Hoyle South ROYAL OAK % INTEREST (EARNING): 100%

REFERENCE: 1303 FUNDING SOURCE: Flowthrough - 70%
93 OMIP - 30%
93 NORFUND - 0%

ACCT. DESCRIPT. OF ACTIV. DEC.31TTL FEB.28TTL OMIP TTL NORFUNDTTL

ACCT. DESCRIPT. OF ACTIV.	DEC.31TTL	FEB.28TTL	OMIP TTL	NORFUNDTTL
5505 OFFICE RENT	\$ 743.80	\$ 743.80		\$
5515 OFFICE SUPPLIES	12.95	12.95		
5520 COMPUTER SERVICES	172.08		172.08	
5525 PROFESSIONAL SALAR.	16746.12	13852.42	2893.70	
5530 SUPPORT SALAR./WAGES	1195.68	707.78	487.90	
5540 VEHICLE LEASE	505.06	499.66	5.40	
5545 FUEL	161.46		161.46	
5600 ASSAYS	1460.00	580.00	880.00	
5615 SURFACE CONTRACT D.D.	16590.44	10800.00	5790.44	
5625 CORE/SAMPLE STORAGE	1997.00	1079.00	918.00	
5630 BOREHOLE SURVEY EQUIP.	713.94		713.94	
TTL 1993 EXPENDITURES	\$ 40298.53	\$ 28275.61	\$ 12022.92	

APPROVED BY: 
NAME: P.G. ROOK-GREEN
TITLE: CONTROLLER

APPROVED BY: 
NAME: R.F. BURNS
TITLE: VICE-PRESIDENT

**ROYAL OAK MINES INC.
STATEMENT OF 1993 APPROVED EXPENDITURES
BY PROJECT AND PROPERTY**

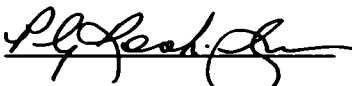
PROJECT NAME: Timmins Central ROYAL OAK % INTEREST (VESTED): 100%

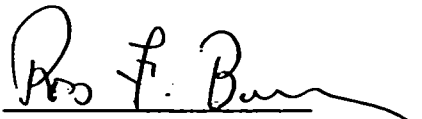
PROPERTY NAME: Broulan ROYAL OAK % INTEREST (EARNING): 100%

REFERENCE: 1307 FUNDING SOURCE: Flowthrough - 10%
93 OMIP - 30%
93 NORFUND - 58%
Royal Oak * - 2%

ACCT. DESCRIPT. OF ACTIV. DEC.31TTL FEB.28TTL OMIP TTL NORFUNDTTL

ACCT.	DESCRIPT. OF ACTIV.	DEC.31TTL	FEB.28TTL	OMIP TTL	NORFUNDTTL
5525	PROFESSIONAL SALAR. \$	6587.95\$	2172.85\$	4415.10\$	
5530	SUPPORT SAL./WAGES	597.00	497.93	99.07	
5540	VEHICLE LEASE	33.75	33.75		
5545	FUEL	51.00		51.00	
5560	PROPERTY MGMT./TAXES	3231.91*			
5600	ASSAYS	1170.00	1110.50	60.00	
5615	SURFACE CONTRACT D.D.	52138.14	10700.00	41438.14	
5645	REHAB. WORK	87013.73			87013.73
TOTAL 1993 EXPENDITURES		\$150823.48\$	14514.53\$	46063.31\$	87013.73

APPROVED BY: 
NAME: P.G. ROOK-GREEN
TITLE: CONTROLLER

APPROVED BY: 
NAME: R.F. BURNS
TITLE: VICE-PRESIDENT



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

Royal Oak Mines Inc.
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

No de facture / Invoice No: 5319

Date May 15, 1993

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING - BQ - PORCUPINE AREA

MAY 15, 1993

DRILL No. 1

Royal Oak, 121-704, P.O. # 97196

Hole no. 93-3 BQ (15341)

From 0 to 50' = 50' casing	X 9.50 =	475.00
50 to 100' = 50' casing	X 11.00 =	550.00
100 to 111' = 11' casing	X 14.00 =	154.00
111 to 294' = 183' coring	X 9.50 =	1,738.50

2,917.50\$

GST

204.22

TOTAL:

3,121.72\$

Hole no. 93-4 BQ (15342)

From 0 to 50' = 50' casing	X 9.50 =	475.00
50 to 100' = 50' casing	X 11.00 =	550.00
100 to 306' = 206' coring	X 9.50 =	1,957.00

2,982.00\$

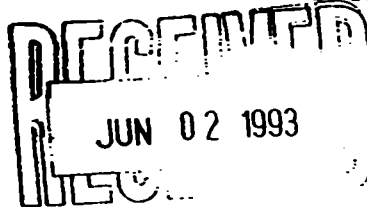
GST

208.74

TOTAL:

3,190.74\$

[Handwritten signature]
6/7/93
REP ACCI REF
902 5815 1301





FORAGE DOMINIK (1981) INC.
 DOMINIK DRILLING (1981) INC.

Page No. 2
 No. Page
 Invoice No. 5319
 No. de Facture

CON'T:

ANALYSE

Hole 93-3: Test at 50', 250'
 2 sperry sun test

X 60.00 = 120.00

Hole 93-4: Test at 250'

X 60.00 = 60.00

180.00\$

GST 12.60

TOTAL: 192.60\$

MATERIEL LEFT IN HOLES:

1 rubber plug AQ

15.00

Handling 15% 2.25
 PST 8% 1.38

GST 7% 1.20

Total: 19.83\$

OTHER COSTS:

May 14: 1 machine hrs plus hole X 22.00 =

22.00\$

GST 7% 1.54

TOTAL: 23.54\$

SUMMARY

CONTRACT NO. 121-704

Invoice 6,116.50\$

FOOTAGE DRILLED: 600'

15% handling 2.25

8% PST 1.38

7% GST 428.30

TOTAL..... 6,548.43\$



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 - Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5340

Date June 15, 1993

L

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING BQ PORCUPINE AREA JUNE 15/ 1993

P.O. No. 97196

Drill N° 6

Hole No. HAL-93-5

From 0' to 50'	=	50' casing	x	9,50	=	475,00
50' to 100'	=	50' casing	x	11,00	=	550,00
100' to 286'	=	186' coring	x	9,50	=	1 767,00

Hole No. HAL-93-6

From 0' to 50'	=	50' casing	x	9,50	=	475,00
50' to 92'	=	42' casing	x	11,00	=	462,00
92' to 304'	=	212' coring	x	9,50	=	2 014,00

5 743,00 \$

7% GST

402,01

6 145,01 \$

ANALYSES:

No. HAL-93-5 : sperry sun test at 151',281'.

No. HAL-93-6 : sperry sun test at 150',300'.

4 sperry sun test x 60,00 = 240,00

240,00 \$

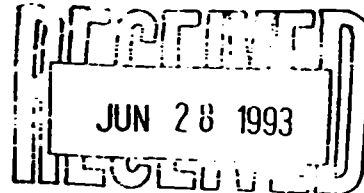
Acct ReF 7% GST

16,80

5615 - 1391 6121.00

256,80 \$

GST 428-47



[Handwritten signatures and notes]
26/6/93 Re SP 938



DOMINIK

FORAGE DOMINIK (1981) INC. Page No. 002
DOMINIK DRILLING (1981) INC. Invoice No. 5340
No. de Facture

SUITE:

OTHER COSTS:

Jun 03 : 2 man hrs (plug hole with cement)
Jun 03 : 1 drill hrs (" ")
Jun 07 : 2 man hrs (plug hole with cement)
Jun 07 : 1 drill hrs (" ")

4 man hrs x 23,50 = 94,00

2 drill hrs x 22,00 = 44,00

7% GST

138,00 \$

9,66

147,66 \$

Contract N° 121-704
Footage drilled 590'

SUMMARY

Invoiced

6 121,00 \$

7% GST

428,47

TOTAL...

6 549,47 \$



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 - Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010.
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5354
Date June 30, 1993

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING - BQ - HALLNOR PROPERTY JUNE 16-30 / 1993

DRILL NO. 6

Hole No. 15343 BQ

From	0'	to	50'	=	50' casing	x	8,65	=	432,50
	50'	to	70'	=	20' casing	x	10,15	=	203,00
	70'	to	506'	=	436' coring	x	8,65	=	3 771,40

Hole No. 15344 BQ

From	0'	to	50'	=	50' casing	x	8,65	=	432,50
	50'	to	70'	=	20' casing	x	10,15	=	203,00
	70'	to	286'	=	216' coring	x	8,65	=	1 868,40

6 910,80 \$
483,76
7 394,56 \$

7% GST

ANALYSES TROPARY:

7x \$60.00

420.00

June 29 : 2 man hrs (cementing)
June 29 : 1 drill hrs (")

2 man hrs	x	23,50	=	47,00
1 drill hrs	x	22,00	=	22,00

69,00 \$
4,83

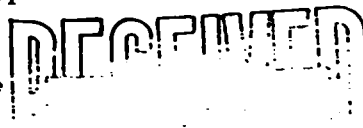
7% GST

acct 5645

Ref 1301
GST

6924280
478259

7399.80
517.99



MAR 938.

73,83 \$



FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

Page No. 002
No. Page
Invoice No.
No. de Facture 5354

SUITE:

CONTRACT N° 121-706
Footage drilled 792'

SUMMARY

Invoiced	7 399,80 \$
7% GST	<u>517,99</u>
TOTAL.....	<u>7 917,79 \$</u>



FACTURE - INVOICE

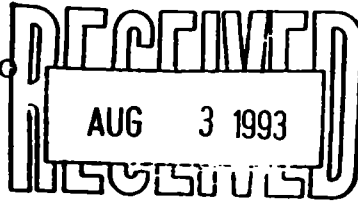
FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 - Fax: (819) 824-4217

ROYAL OAK MINES INC.
P.O. Bag 2010
TIMMINS; ONTARIO
P4N 7X7

No de facture / Invoice No: 5367

Date JULY 15, 1993



TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING - BQ - HALLNOR PROPERTY - JULY 1-15, 1993

DRILL NO. 6

HOLE NO. 15-344

From 286' to 396' ✓ = 110' Coring x 8.65 = 951.50

HOLE NO. 15-345

From 0' to 50' ✓ = 50' CASING x 8.65 = 432.50
From 50' to 100' ✓ = 50' CASING x 10.15 = 507.50
From 100' to 373' ✓ = 273' CORING x 8.65 = 2,361.45

ReF Act
1301-5615

HOLE NO. 15-386

From 0' to 50' ✓ = 50' Casing x 8.65 = 432.50
From 50' to 100' ✓ = 50' Casing x 10.15 = 507.50
From 100' to 251' ✓ = 151' Coring x 8.65 = 1,306.15

21,750.17
(GST 1515.62)

HOLE NO. 15-387

From 0' to 50' ✓ = 50' Casing x 8.65 = 432.50
From 50' to 100' ✓ = 50' Casing x 10.15 = 507.50
From 100' to 104' ✓ = 4' Casing x 12.15 = 48.60
From 104' to 406' ✓ = 302' Coring x 8.65 = 2,612.30

MRL
Regn 938.

HOLE No. 15-388

From 0' to 50' ✓ = 50' Casing x 8.65 = 432.50
From 50' to 92' ✓ = 42' Casing x 10.15 = 426.30
From 92' to 182' ✓ = 90' Coring x 8.65 = 778.50

HOLE No. 15-288A

From 0' to 50' ✓ = 50' Casing x 8.65 = 432.50
From 50' to 92' ✓ = 42' Casing x 10.15 = 426.30
From 92' to 506' ✓ = 414' Coring x 8.65 = 3,581.10



ROYAL OAK MINES INC.

HOLE No. 15-389

From	0'	to	50' ✓	=	50' Casing	x	8.65	=	432.50
From	50'	to	100' ✓	=	50' Casing	x	10.15	=	507.50
From	100'	to	110' ✓	=	10' Casing	x	12.15	=	121.50
From	110'	to	246' ✓	=	136' Coring	x	8.65	=	1,176.40

7% G.S.T.

18,415.10
 1,289.05

19,704.15 \$

TROPARY TESTS:

Hole No.	15-344:	Tropary test	at 300'	390' ✓	
"	"	15-345:	at 150' ✓	250' ✓	360' ✓
"	"	15-386:	at 150' ✓	240' ✓	
"	"	15-387:	at 150' ✓	270' ✓	400' ✓
"	"	15-388:	at 140' ✓		
"	"	15-388A:	at 120' ✓	220' ✓	320' ✓, 420' ✓, 500' ✓
"	"	15-389:	at 140' ✓	240' ✓	

18 TROPARY TESTS x 60.00 = 1,080.00

7% G.S.T.

1.080.00

75.60

1,155.60 \$

OTHER CHARGES:

July 01/93:	2 ✓	Man hrs	(Plug hole with cement)
" 01/93:	1 ✓	Drill hr	(" " " ")
July 05/93:	2 ✓	Man hrs	(Grouting)
" 05/93:	1 ✓	Drill hr	(")
July 06/93:	6 ✓	man hrs	(Grouting, Cemnt Hole)
" 06/93:	3 ✓	Drill hrs	(" " ")
July 07/93:	2 ✓	man hrs	(Cement Hole)
" 07/93:	1 ✓	Drill hr	(" ")
July 09/93:	2 ✓	man hrs	(Cement Hole)
" 09/93:	1 ✓	Drill hr	(" ")
July 14/93:	6 ✓	Man hrs	(Grouting)
" 14/93:	3 ✓	Drill hr	(")
July 15/93:	2 ✓	Man Hrs	(Cement Hole)
15/93:	1 ✓	Drill hr	(" ")

22	Man hrs	x	23.50	=	517.00
11	Drill Hrs	x	22.00	=	242.00

7% G.S.T.

759.00

53.13

812.13 \$



FORAGE DOMINIK (1981) INC. Page No. -3-
 DOMINIK DRILLING (1981) INC. Invoice No. 5367
 No. de Facture

ROYAL OAK MINES INC.

MATERIALS LEFT IN HOLES:

HOLE No. 15-345:	1 BQ BIT (Scrapped)	x	375.00 =	375.00 ✓	
HOLE No. 15-345	1 BQ BIT (Scrapped)	x	375.00 =	375.00 ✓	
HOLE No. 15-388A:	1 BQ BIT (Scrapped)	x	375.00 =	375.00 ✓	
					1,125.00
			15% Service Charge		168.75
			7% G.S.T.		90.56
			8% P.S.T.		90.00
					<u>1,474.31 \$</u>

MISCELLANEOUS:

July 5/93:	3 lbs. DD EXPAND	x	8.00/lb =	24.00 ✓	
6/93:	5 lbs. DD EXPAND	x	8.00/lb =	40.00 ✓	
" 14/93:	5 lbs. DD EXPAND	x	8.00/lb =	40.00 ✓	
					104.00
			7% G.S.T.		7.28
			8% P.S.T.		8.32
					<u>119.60 \$</u>

CONTRACT NO. 121-706
 FOOTAGE DRILLED 2074'

SUMMARY

INVOICED	21,483.10
15% SERVICE CHARGE	168.75
7% G.S.T.	1,515.62
8% P.S.T.	98.32
TOTAL.....	<u>23,265.79 \$</u>



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5374

Date July 30, 1993

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING BQ HALLNOR PROPERTY JULY 15-30/ 1993

DRILL N° 6

Hole No. 15389

From 246' to 406' = 160' coring x 8,65 = 1 384,00

Hole No. 15390

From 0' to 50' = 50' casing x 8,65 = 432,50

50' to 88' = 38' casing x 10,15 = 385,70

88' to 349' = 261' coring x 8,65 = 2 257,65

4 459,85 \$

7% GST

312,18

4 772,03 \$

ANALYSES:

No. 15389 : tropary test at 320',400'.

No. 15390 : tropary test at 130',230',350'.

5 tropary test x 60,00 = 300,00

300,00 \$

7% GST

21,00

321,00 \$

Acct
5615

ReF
~~48245~~
1301

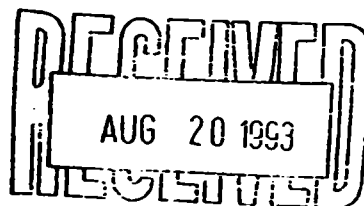
~~52749~~
4897.85

342.84

651

M. E. Robit

Rep 938





FORAGE DOMINIK (1981) INC.
 DOMINIK DRILLING (1981) INC.

Page No.
 No. Page
 Invoice No.
 No. de Facture

002
 5374

CON'T :

OTHER COSTS:

July 16 : 4 man hrs (plug hole with cement)
 July 16 : 2 drill hrs (" ")

4 man hrs	x	23,50	=	94,00	
2 drill hrs	x	22,00	=	44,00	
					7% GST

138,00 \$

9,66

147,66 \$

Contract N° 121-706
 Footage drilled 509'

SUMMARY

Invoiced

4 897,85 \$

7% GST

342,84

TOTAL.....

5 240,69 \$



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

ROYAL OAK MINES INC
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5390
Date August 15, 1993

TPS: R101840684
GST: R101840684

P.O. # P-0115

SURFACE DIAMOND DRILLING BQ HALLNOR PROPERTY AUGUST 1-15/ 1993

DRILL N° 6

Hole No. 15391

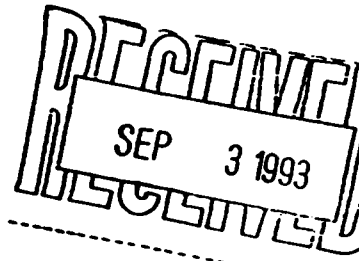
From	0'	to	50'	=	✓ 50' casing	x	8,65	=	432,50
	50'	to	80'	=	✓ 30' casing	x	10,15	=	304,50
	80'	to	487'	=	✓ 407' coring	x	8,65	=	3 520,55

Hole No. 15419

From	0'	to	50'	=	✓ 50' casing	x	8,65	=	432,50
	50'	to	96'	=	✓ 46' casing	x	10,15	=	466,90
	96'	to	403'	=	✓ 307' coring	x	8,65	=	2 655,55

Hole No. 15420

From	0'	to	50'	=	✓ 50' casing	x	8,65	=	432,50
	50'	to	86'	=	✓ 36' casing	x	10,15	=	365,40
	86'	to	306'	=	✓ 220' coring	x	8,65	=	1 903,00



10 513,40 \$

735,94

11 249,34 \$

7% GST

Carl
8/15/93
ACC# 5615
REF 1301
PO# P-0115

**DOMINIK**FORAGE DOMINIK (1981) INC. Page No. 002
DOMINIK DRILLING (1981) INC. Invoice No. 5390
No. de Facture

SUITE:

ANALYSES:

No. 15391 : sperry sun test at 110',310',400',480'. ✓

No. 15419 : sperry sun test at 120',220',310',400' ✓

No. 15420 : sperry sun test at 110',300'. ✓

10 sperry sun test	x	60,00	=	600,00	600,00 \$
				7% GST	42,00
					<hr/> 642,00 \$

OTHER COSTS:

Aug. 11 : 2 man hrs (plug hole with cement)

Aug. 11 : 1 machine hr (" ")

Aug. 12 : 2 man hrs (plug hole with cement)

A . 12 : 1 machine hr (" ")

4 man hrs	x	23,50	=	94,00 ✓	
2 drill hrs	x	22,00	=	44,00 ✓	138,00 \$
				7% GST	9,66
					<hr/> 147,66 \$

MATERIAL LEFT IN HOLE:

No. 15391 : 1 BQ bit scrap in dry hole	x	375,00 ✓		375,00 \$
			15% Handling charge	56,25
			7% GST	30,19
			8% PST	30,00
				<hr/> 491,44 \$

Contract no. 121-706

Footage drilled 1196'

SUMMARY

Invoiced	11 626,40 \$ ✓
15% Service charge	56,25 ✓
7% GST	817,79
8% PST	30,00 ✓
TOTAL....	<hr/> 12 530,44 \$



FACTURE - INVOICE

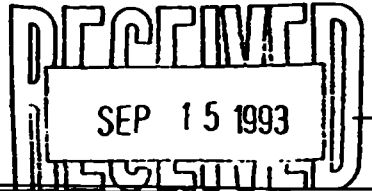
FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5395

Date August 31, 1993



TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING---BQ---HALLNOR PROPERTY AUGUST 16-31/ 1993

DRILL N° 6 No. P-01115

Hole No. 15421

From	0'	to	50'	=	50' casing	x	8,65	=	432,50
	50'	to	90'	=	40' casing	x	10,15	=	406,00
	90'	to	440'	=	350' coring	x	8,65	=	3 027,50

Hole No. 15-422

From	0'	to	50'	=	50' casing	x	8,65	=	432,50
	50'	to	80'	=	30' casing	x	10,15	=	304,50
	80'	to	506'	=	426' coring	x	8,65	=	3 684,90

Hole No. 15-423

From	0'	to	50'	=	50' casing	x	8,65	=	432,50
	50'	to	100'	=	50' casing	x	10,15	=	507,50
	100'	to	356'	=	256' coring	x	8,65	=	2 214,40

Hole No. 15-424 (320' - Breulon, 236' Hallnor)

From	0'	to	50'	=	50' casing	x	8,65	=	432,50	Breulon
	50'	to	100'	=	50' casing	x	10,15	=	507,50	Breulon
	100'	to	102'	=	2' casing	x	12,15	=	24,30	Breulon
	102'	to	556'	=	454' coring	x	8,65	=	3 927,10	1885.7 Breulon 2041.4 Hallnor

218' Breulon
236' Hallnor.

5615-1301 18495.-
5615-1307 3168.-
5645-1307 2337.-
+ GST 1676.
MR
Resp. 938

2450.00 Breulon 2850.00 -
Hallnor 2041.40 -

CON'T:

Hole No. 15-425

From 0' to 50'	= 50' casing	x 8,65	= 432,50
50' to 86'	= 36' casing	x 10,15	= 365,40
86' to 352'	= 266' coring	x 8,65	= 2 300,90

Hallnor ~~13,444~~ 16582.5
Bradon 2850.0
19432.5 7% GST

19 432,50 \$

1 360,27

20 792,77 \$

ANALYSES:

- No. 15-420 : sperry sun test at 210'.
- No. 15-421 : sperry sun test at 120', 220', 320', 420'.
- o. 15-422 : sperry sun test at 110', 210', 310', 500'.
- No. 15-423 : sperry sun test at 130', 230', 250'.
- No. 15-424 : sperry sun test at 130', 230', 330', 430', 550'.
- No. 15-425 : sperry sun test at 120', 220'.

19 sperry sun test x 60,00 = 1 140,00

1 140,00 \$

7% GST

79,80

Hallnor 16x60 960.00
Bradon 3x60 180.00
1140.00

1 219,80 \$

OTHER COSTS:

- August 16 : 2 man hrs (plug hole with cement)
- August 16 : 1 machine hrs (" ")
- August 17 : 4 man hrs (grouting and plug hole with cement)
- August 17 : 2 machine hrs (" " ")
- August 19 : 2 man hrs (plug hole with cement)
- August 19 : 1 machine hrs (" ")
- August 23 : 2 man hrs (plug hole with cement)
- August 23 : 1 machine hrs (" ")

CON'T:

Other costs:

August 25 : 4 man hrs (waiting for instructions and plug hole) }
 August 25 : 2 machine hrs (" " ") } Brojlan.
 August 26 : 2 man hrs (plug hole)
 August 26 : 1 machine hrs (" ")
 August 26 : 9 man hrs (set up and clean one old hole) }
 August 26 : 3 machine hrs (" " ") } Brojlan
 August 26 : 1 tractor hrs (move on hold hole) } rehub

BE	ME	BR		x		=	
4	12	9	25 man hrs		23,50	=	587,50
2	6	3	11 drill hrs		22,00	=	242,00
		1	1 tractor hrs		80,00	=	80,00
13	8	44					
		357-50					

Holler Exp - 444
 Brojlan Exp - 138
 Brojlan rehub - 357.5

909,50 \$
 63,66
 973,16 \$

7% GST

Other costs:

August 26 : 2 man hrs (set up 2 pump to cement holes) }
 August 26 : 1 tractor hrs (move in a skidder) }
 August 27 : 27 man hrs (cement hole) }
 August 27 : ½ skidder hrs (move pump and cement) } Brojlan → 1767.00
 August 27 : 8 hrs pump & equip. } rehub
 August 28 : 15 man hrs (cement holes)
 August 28 : 6 hrs pump & equip.
 August 30 : 8 man hrs (cement holes)
 August 30 : 2 hrs pump & equip.
 August 30 : ½ skidder hrs (move equip.)
 August 30 : 1½ tractor hrs (repair road)

1 skidder hrs	x	45,00	=	45,00
1½ tractor hrs	x	80,00	=	120,00
52 man hrs	x	23,50	=	1 222,00
1 truck hrs	x	60,00	=	60,00
16 pump and equip.	x	20,00	=	320,00

1 767,00 \$



FORAGE DOMINIK (1981) INC. Page No.
 DOMINIK DRILLING (1981) INC. Invoice No. No. de Facture

004
 5395

CON'T:

Other costs:

	1 767,00 \$
7% GST	123,69
	1 890,69 \$

MATERIAL LEFT IN HOLE:

No. 15421 : 1 Bit BQ scrap in the seam at 407' x 375,00 =	375,00	375,00 \$
<i>Hallnor DDT</i>		
<i>461.25</i>	15% Service charge	56,25
	7% GST	30,18
	8% PST	30,00
		491,43 \$

MISC:

DD expand grout 3 lbs	a 8,00 per lbs	24,00	}	<i>Hallnor Expln.</i>	
DD expand grout 3 lbs	a 8,00 per lbs	24,00			
DD expand grout 3 lbs	a 8,00 per lbs	24,00			
22 bags of portland	a 8,95	196,90		<i>Broulau rehab. (Bmetal)</i>	268,90 \$
			7% GST		18,82
			8% PST	21,51	309,23 \$

*HEXP - 77.76
 B Rehab - 212.65*

Contract N° 121-706
 FOOTAGE DRILLED 2210'

SUMMARY

Invoiced	23 892,90 \$
15% Service charge	56,25
7% GST	1 676,42
8% PST	51,51
TOTAL...	25 677,08 \$

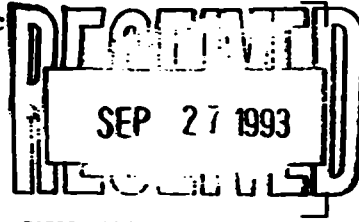


FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7



No de facture / Invoice No: 5415

Date September 15, 1993

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING BQ HALLNOR PROPERTY SEPTEMBER 1-15/ 1993

P.O. P-01116

Drill N° 6

Hole No. 15442

From	0'	to	30'	=	30' casing	x	8,65	=	259,50
	30'	to	276'	=	246' coring	x	8,65	=	2 127,90

Hole No. 15443

From	0'	to	30'	=	30' casing	x	8,65	=	259,50
	30'	to	356'	=	326' coring	x	8,65	=	2 819,90

Hole No. 15444

From	0'	to	18'	=	18' casing	x	8,65	=	155,70
	18'	to	387'	=	369' coring	x	8,65	=	3 191,85

Hole No. 15445

From	0'	to	16'	=	16' casing	x	8,65	=	138,40
	16'	to	456'	=	440' coring	x	8,65	=	3 806,00

Hole No. 15446

From	0'	to	36'	=	36' casing	x	8,65	=	311,40
	36'	to	216'	=	180' xoring	x	8,65	=	1 557,00

7% GST

*7 LEAD
Sept 29/93
ACCT 5615
Ref 1303
* 5957.20
413.97 GST*

*ACCT 5615
Ref 1302
* 1152.81
* 779.35 GST*

14 627,15 \$
1 023,90
<u>15 651,05 \$</u>



CON'T:

ANALYSES:

- No. 15442 : sperry sun test at 60'.
- No. 15443 : sperry sun test at 160', 250', 350'.
- No. 15444 : sperry sun test at 50', 150', 380', 250'.
- No. 15445 : sperry sun test at 60', 150', 250', 350', 450'.
- No. 15446 : sperry sun test at 80', 180'.

	x	60,00	=	900,00	
15 sperry sun tests					900,00 \$
		7%	GST		63,00
					963,00 \$

OTHER COSTS:

- Sept. 08 : 4 man hrs (plug hole with cement and pull casing) 15442
- Sept. 08 : 2 drill hrs (" ")
- Sept. 10 : 2 man hrs (plug hole with cement)
- Sept. 10 : 1 drill hrs (" ") 15443
- Sept. 13 : 4 man hrs (grouting and plug hole with cement)
- Sept. 13 : 2 drill hrs (" ") 15444
- Sept. 14 : 4 man hrs (grouting and blasting)
- Sept. 14 : 2 drill hrs (" ") 15444
- Sept. 15 : 4 man hrs (plug hole with cement and blasting) 15445
- Sept. 15 : 2 drill hrs (" ")

	x	23,50	=	423,00	
18 man hrs					621,00 \$
9 drill hrs		x 22,00	=	198,00	43,47
		7%	GST		664,47 \$



FORAGE DOMINIK (1981) INC.
 DOMINIK DRILLING (1981) INC.

Page No. 003
 No. Page
 Invoice No.
 No. de Facture 5415

CON'T:

MATERIAL LEFT IN HOLE:

No. 15444	:	1 BQ bit	x	375,00 =	375,00	}	
	:	1 BW bit	x	375,00 =	375,00		
	:	4 lbs DD expand	x	8,00 =	32,00		
							782,00 \$
				15% Service charge			117,30
				7% GST			62,95
				8% PST			62,56
							1 024,81 \$

CONTRACT N° 121-706
 FOOTAGE DRILLED 1691'

SUMMARY	
Invoiced	16 930,15 \$
15% Service charge	117,30
7% GST	1 193,32
8% PST	62,56
TOTAL.....	18 303,33 \$



FACTURE - INVOICE

FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

1080, rue de l'Écho
C.P. / P.O. Box 247, Val-d'Or, P.Q. J9P 4P3
Téléphone: (819) 824-6839 • Fax: (819) 824-4217

Royal Oak Mines inc
P.O. Bag 2010
Timmins (Ontario)
P4N 7X7

No de facture / Invoice No: 5431
Date Sept. 30, 1993

TPS: R101840684
GST: R101840684

SURFACE DIAMOND DRILLING BQ HALLNOR PROPERTY SEPTEMBER 1-15/ 1993

P.O. P-01116

Drill N° 6

Hole No. 15446

From 216' to 506' = 290' coring x 8,65 = 2 508,50

Hole No. 15447

From 0' to 30' = 30' casing x 8,65 = 259,50

30' to 457' = 427' coring x 8,65 = 3 693,55

Hole No. 15448

From 0' to 30' = 30' casing x 8,65 = 259,50

30' to 374' = 344' coring x 8,65 = 2 975,60

Hole No. 15451

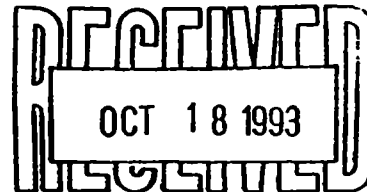
From 0' to 22' = 22' casing x 8,65 = 190,30

22' to 306' = 284' coring x 8,65 = 2 456,60

Hole No. 15450

From 0' to 10' = 10' casing x 8,65 = 86,50

10' to 444' = 434' coring x 8,65 = 3 754,10





FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

Page No. 002
No. Page
Invoice No. 5432
No. de Facture

SUITE:

CON'T:

Hole No. 15449

From 0' to 18' = 18' casing x 8,65 = 155,70
18' to 426' = 408' coring x 8,65 = 3 529,20

Hole No. 15455

From 0' to 6' = 6' casing x 8,65 = 51,90
6' to 106' = 100' coring x 8,65 = 865,00

Hole No. 15454

From 0' to 12' = 12' casing x 8,65 = 103,80
12' to 156' = 144' coring x 8,65 = 1 245,60

7% GST

22 135,35 \$
1 549,47
23 684,82 \$

ANALYSES:

- No. 15446 : sperry sun test at 270', 360', 500'. +2
- No. 15447 : sperry sun test at 170', 200', 360'. +2
- No. 15448 : sperry sun test at 70', 170', 270', 370'. ✓
- No. 15451 : sperry sun test at 60', 170', 300'. ✓
- No. 15450 : sperry sun test at 50', 150', 250', 350', 440'. -1
- No. 15449 : sperry sun test at 50', 150', 250', 350', 420'. ✓
- No. 15455 : sperry sun test at 100'. ✓
- No. 15454 : sperry sun test at 50', 150'. ✓

4-1=3

27 sperry sun test x 60,00 = 1 620,00

26 + 3 = 29

7% GST

29 x 60 = 1740

P. G. [Signature]

1740

~~1 620,00 \$~~
~~113,40 121,80~~
~~1 733,40 \$~~
1861,80



FORAGE DOMINIK (1981) INC.
DOMINIK DRILLING (1981) INC.

Page No.
No. Page
Invoice No.
No. de Facture

003
5432

CON'T:

OTHER COSTS:

Sept. 16 : 2 man hrs (plug hole) *15446*
 Sept. 16 : 1 drill hr (" ")
 Sept. 20 : 4 man hrs (plug hole and blasting in the pit) *15447*
 Sept. 20 : 2 drill hrs (" " ")
 Sept. 21 : 4 man hrs (plug hole and blasting in the pit) *15448*
 Sept. 21 : 2 drill hrs (" " ")
 Sept. 22 : 4 man hrs (plug hole & blasting in the pit) *15448-15451*
 Sept. 22 : 2 drill hrs (" " ")
 Sept. 23 : 2 man hrs (plug hole) *15450*
 Sept. 23 : 1 drill hrs (" ")
 Sept. 27 : 2 man hrs (plug hole) *15449*
 Sept. 27 : 1 drill hr (" ") *15449*

18 man hrs	x	23,50	=	423,00
9 drill hrs	x	22,00	=	198,00
		7% GST		

621,00 \$
43,47
<u>664,47 \$</u>

MATERIAL LEFT IN HOLE:

No. 15447 : 1 BQ bit x 375,00 = 375,00

15% Service charge

7% GST

8% PST

375,00 \$
56,25
30,19
30,00
<u>491,44 \$</u>



FORAGE DOMINIK (1981) INC.
 DOMINIK DRILLING (1981) INC.

Page No. 004
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 Invoice No.
 No. de Facture 5432

CON'T:

Contract N° 121-706
 Footage drilled 2559'

SUMMARY

Invoiced
 15% Service charge
 7% GST
 8% PST
 TOTAL....

	24,871.35
	24,751.35 \$
	56.25 ✓
1744.93	1,736.53
	30.00 ✓
	26,574.13 \$
	26,702.53

@k to pay
 24,957.60
 (ie. GST = 1744.93)

NET 5615
 Ref. 1302
 Oct. 19/93
 T. CORREY

INVOICE



N° 161

x 53,
Timmins, Ontario
P4N 7C5
PH: 705-268-7972

F.O. No 01124

ROYAL OAK MINES INC
Eastern Canada Exploration Division
P.O. Bag 2010
Timmins, Ontario
P4N 7K7

Date: November 1, 1993

Surface diamond drilling program - Hallnor Prop. - Oct 18-29, 1993

Hole # 15426

230' Bradon	BW Casing	0	-	92ft at 7.75/ft	Hallnor 2614.00	713.00
276' Hallnor	BQ Core	92	-	506ft at 7.75/ft	Bradon 1982.50	3,208.50
	Sperry Sun tests X 5			at \$75.00/test		375.00
	Cement Hole			(\$100.00 per cement hole plug)		100.00

Hole # 15427

100' Bradon	BW Casing	0	-	112ft at 100ft X 7.75		775.00
493' Hallnor	BQ Core	112	-	503ft at 7.75/ft		106.80
	Sperry Sun tests X 5				Hallnor 3562.00	3,030.25
	Cement Hole				Bradon 825.00	375.00
						100.00

Hole # 15428

360' Bradon	BW Casing	0	-	84ft at 7.75/ft	Hallnor 2060.00	651.00
240' Hallnor	BQ Core	84	-	600ft at 7.75/ft	Bradon 3140.00	3,999.00
	Sperry Sun tests X 6					450.00
	Cement Hole					100.00

Hole # 15429

360' Bradon	BW Casing	0	-	102ft at 100ft X 7.75		775.00
146' Hallnor	BQ Core	102	-	506ft at 7.75/ft		17.80
	Sperry Sun tests X 5				Hallnor 1331.50	3,131.00
	Cement Hole				Bradon 3067.30	375.00
						100.00

		<u>Costs</u>	
Hallnor	Footage	2735	25,310.85
Bradon	Footage	2080	17,801.90
			43,112.75 ✓

Continued on Invoice #162

16/11/93

Acct	Ref	
5615	1301	25,310.85
5615	1307	17,801.90

M. Elwell
Rep 938

INVOICE

N^o 162



Box 53,
Timmins, Ontario
P4N 7C5
PH: 705-268-7972

ROYAL OAK MINES INC
Eastern Canada Exploration Division
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

Date: November 1, 1993

Continued from Inv #161

Hole # 15430

225' Bradou	BW Casing	0	-	88ft at 7.75/ft	Hollner 1117.00	682.00
121' Hollner	30 Core	88	-	353ft at 7.75/ft	Bradou 1963.75	2,053.75
	Sperry Sun tests	3				225.00
	Cement Hole					100.00

Hole # 15431

Hollner	BW Casing	0	-	82ft at 7.75/ft		635.50
373	30 Core	82	-	303ft at 7.75/ft		1,712.75
	Sperry Sun tests	3				225.00
	Cement Hole				Hollner 3046.75	100.00
	1 case DD 2000 mud					203.50
	2 hrs hole stabilizing (85.00 per hour)					170.00

Hole # 15430

Bradou	BW Casing	0	-	104ft at 100ft @ 7.75		775.00
210				4ft @ 8.00		35.60
Hollner	30 Core	104ft	-	358ft at 7.75/ft		1,968.50
148	Sperry Sun tests	2				150.00
	Cement Hole				Hollner 2070.50	100.00
	1 case DD 2000 mud				Bradou 1757.10	203.50
	7 hrs hole stabilizing (85.00 per hour)					595.00
				(Hollner)		

Hole # 15434

Bradou	BW Casing	0	-	82ft at 7.75/ft		635.50
Hollner	30 Core	82	-	607ft at 7.75/ft		4,680.75
	Sperry Sun tests	6				450.00
	Cement Hole				Hollner 1649.25	100.00
					Bradou 3605.00	

Continued on Invoice # 163

INVOICE

N^o 163



53,
Timmins, Ontario
P4N 7C5
PH: 705-268-7972

ROYAL OAK MINES INC
Eastern Canada Exploration Division
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

Date: November 1, 1993

* PAYMENT TERMS: 30 days...Interest charged at 2% per month on overdue accounts.

Continued from Inv # 162

Hole # 15485

Ryan Jan 175.00	BW Casing	0	-	100ft at 7.75/ft	3775.00
Hollner 475.00	BQ Core	100	-	650ft at 7.75/ft	4,262.50
	Sperry Sun tests	6			450.00
	Cement Hole				100.00
	1 case DD 2000 mud				203.50
					(Hollner)

Hole # 15482

Hollner	BW Casing	0	-	122ft at 100ft @ 7.75	775.00
429	BQ Core	122	-	22ft @ 8.90	195.30
	Sperry Sun tests	4		429ft at 7.75/ft	2,379.25
	Cement Hole				300.00
					100.00

Total 43,112.75

7% GST 2,972.62

GSE(R103437153)

Total footage this invoice: 4,315ft

Total Amount Due 46,085.37

Total footage this program: 4,315ft

NOTE: If payment for this invoice arrives in our office on or before November 11, 1993 please pay 45,438.63. This is a discount of 1.5% (\$646.69).

INVOICE



N° 164

Box 53,
Timmins, Ontario
P4N 7G5
PH: 705-268-7972

P.O. NO. 01124

ROYAL OAK MINES INC
Eastern Canada Exploration Division
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

Date: November 9, 1993

Surface diamond drilling program - Hallnor Prop. - Nov 1-7, 1993

Hole # 15485

Bradon Hallnor	610' 81'	BW Casing	0	-	82ft at 7.75/ft		3635.50
		BQ Core	82	-	693ft at 7.75/ft	Hallnor 768.25	4,735.25
		Sperry Sun tests X 7			at 75.00/test	Bradon 527.50	525.00
		Cement Hole					100.00

Hole # 15486

Bradon		BW Casing	0	-	94ft at 7.75/ft		728.50
		BQ Core	94	-	717ft at 7.75/ft		4,828.25
717		Sperry Sun tests X 7					525.00
		Materials left in hole:				Bradon - 7410.70	
		1 BW Casing Shoe					185.00
		9 - 10ft BW Casing					1,055.25
		2 - 2ft BW Casing					88.70

Hole # 15487

Bradon		BW Casing	0	-	102ft at 100ft X 7.75		775.00
					2ft X 8.90		17.80
735'		BQ Core	102	-	735ft at 7.75/ft		4,905.75
		Sperry Sun tests X 7					525.00
		1 case DD 2000 mud					203.50
		Materials left in hole:				Bradon 7828.9	
		1 BW Casing shoe					185.00
		10 - 10ft BW Casing					1,172.50
		1 - 2ft BW Casing					44.35

Hallnor	Footage	436'	(cost)	
Bradon		2062	3904.00	
		2698	20467.10	

Continued on Inv #165

16/11/93

Acct
~~REF~~
5615
5615

Ref
1301 3904.00
1307 20467.10

M. E. [Signature]
Roy 938.

INVOICE

N° 165



Box 53,
Timmins, Ontario
P4N 7C5
PH: 705-268-7972

ROYAL OAK MINES INC
Eastern Canada Exploration Division
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

Date: November 9, 1993

**PAYMENT TERMS: 30 days..Interest charged at 2% per month on overdue accounts.

Continued from Invoice # 164

Hole # 15438

10/11/93
353'

EW casing	0	-	92ft at	7.75/ft	
BB Core	92	-	353ft at	7.75/ft	
Sperry Sun tests X 4					
Cement hole					

Ho llwr - 3135.75

713.00
2,022.75
300.00
100.00

Total
7% GST

24,371.10
1,690.39

Total Amount Due

26,051.49

GST(R103437158)

Total footage this invoice: 2,498 ft

Total footage this program: 7,313 ft

NOTE: If payment for this invoice arrives in our office on or before November 19, 1993 please pay 25,685.92. (This is a discount of 1.5% / 365.57)



**ASSAY CHARGES FOR EXPLORATION SAMPLES
MAY 1993**

COST CODE	Au/FA	Ag/AA	BM/AA	As	P&M	TOTAL
-----	-----	-----	-----	-----	-----	-----
5590-1100		35	65	38		138
5600-1100	52					52
5600-1301	52					52
5590-2802		48	192			240
5600-2802	48					48

						534

5590-1100

35 Ag/AA @ \$ 2.25 = \$ 78.75
65 BM\AA @ \$ 2.25 = \$ 146.25
38 As @ \$ 5.50 = \$ 209.00

\$ 434.00

5600-1100

52 Au/FA @ \$10.00 = \$ 520.00

\$ 520.00

~~5600-1301~~

~~52 Au/FA @ \$10.00 = \$ 520.00
1 P&M @ \$35.00 = \$ 35.00~~

~~\$ 555.00~~

5590-2802

48 Ag/AA @ \$ 2.25 = \$ 108.00
192 BM/AA @ \$ 2.25 = \$ 432.00

\$ 540.00

5600-2802

48 Au/FA @ \$10.00 = \$ 480.00

\$ 480.00

TOTAL

\$ 2559.00

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
JUNE 1993**

<u>COST CODE</u>	<u>Au/FA</u>	<u>Ag/AA</u>	<u>BM/AA</u>	<u>As</u>	<u>S</u>	<u>P&M</u>	<u>TOTAL</u>
5590-1100		9	14	8	7		38
5600-1100	17						17
5600-1100	1						17
							102
5590-1100							
	9 Ag/AA @ \$ 2.25 = \$		20.25				
	14 BM\AA @ \$ 2.25 = \$		31.50				
	8 As @ \$ 5.50 = \$		44.00				
	7 S @ \$ 5.50 = \$		38.50				
						\$ 134.25	
5600-1100							
	17 Au/FA @ \$10.00 = \$		170.00				
						\$ 170.00	
5600-1301							
	15 Au/FA @ \$10.00 = \$		150.00				
	2 P&M @ \$35.00 = \$		70.00				
						\$ 220.00	
TOTAL						\$ 824.25	

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
JULY 1993**

COST CODE	Au/FA	Ag/AA	BM/AA	As	S	P&M	TOTAL
5590-1100		55	77	55			187
5600-1100	55						55
5600-1301	308						308
5600-1603	2						2
							563

5590-1100

55 Ag/AA @ \$ 2.25 = \$ 123.75
77 BM\AA @ \$ 2.25 = \$ 173.25
55 As @ \$ 5.50 = \$ 302.50

\$ 599.50

5600-1100

55 Au/FA @ \$10.00 = \$ 550.00

\$ 550.00

~~5600-1301~~

~~308 Au/FA @ \$10.00 = \$ 3080.00
11 P+M @ \$35.00 = \$ 385.00~~

~~\$ 3465.00~~

5600-1603

2 Au/FA @ \$10.00 = \$ 20.00

\$ 20.00

TOTAL

\$ 4634.50

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
AUGUST 1993**

<u>COST CODE</u>	<u>Au/FA</u>	<u>Ag/AA</u>	<u>BM/AA</u>	<u>As</u>	<u>P&M</u>	<u>TOTAL</u>
5590-1100				43		43
5600-1100	122					122
5600-1101	217					217
5600-1601	10					10
5600-1603	7					7
						<u>404</u>

5590-1100
43 As @ \$ 5.50 = \$ 236.50
\$ 236.50

5600-1100
122 Au/FA @ \$10.00 = \$ 1220.00
\$ 1220.00

~~5600-1101~~
~~217 Au/FA @ \$10.00 = \$ 2170.00~~
~~5 P&M @ \$35.00 = \$ 175.00~~
~~\$ 2345.00~~

5600-1601
10 Au/FA @ \$10.00 = \$ 100.00
\$ 100.00

5600-1603
7 Au/FA @ \$10.00 = \$ 70.00
\$ 70.00

TOTAL
\$ 3971.50

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
SEPTEMBER 1993**

<u>COST CODE</u>	<u>Au/FA</u>	<u>Ag/AA</u>	<u>BM/AA</u>	<u>As</u>	<u>P&M</u>	<u>TOTAL</u>
5590-1100		14	44	27		85
5600-1100	34					34
5600-1301	91					91
5600-1302	118					118
5600-1303	88					88
						<u>416</u>
5590-1100		14 Ag/AA @ \$ 2.25 = \$	31.50			
		44 BM/AA @ \$ 2.25 = \$	99.00			
		27 As @ \$ 5.50 = \$	148.50			
				\$	279.00	
5600-1100	34 Au/FA @ \$10.00 = \$	340.00				
				\$	340.00	
5600-1301	91 Au/FA @ \$10.00 = \$	910.00				
				\$	910.00	
5600-1302	118 Au/FA @ \$10.00 = \$	1180.00				
				\$	1180.00	
5600-1303	88 Au/FA @ \$10.00 = \$	880.00				
				\$	880.00	
TOTAL				\$	<u>3589.00</u>	

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
OCTOBER 1993**

<u>COST CODE</u>	<u>Au/FA</u>	<u>Ag/AA</u>	<u>BM/AA</u>	<u>As</u>	<u>P&M</u>	<u>TOTAL</u>
5590-1100		42	126	42		210
5600-1100	42					42
5600-1201	1					1
5600-1301	77					77
5600-1302	536					536
5600-1415	3					3
						----- 913
5590-1100	42 Ag/AA @ \$ 2.25 = \$ 94.50		126 BM/AA @ \$ 2.25 = \$ 283.50			
	42 As @ \$ 5.50 = \$ 231.00					
						\$ 609.00
5600-1100	42 Au/FA @ \$10.00 = \$ 420.00					
						\$ 420.00
5600-1201	1 Au/FA @ \$10.00 = \$ 10.00					
						\$ 10.00
5600-1301	77 Au/FA @ \$10.00 = \$ 770.00					
						\$ 770.00
5600-1302	43 As @ \$ 5.50 = \$ 236.50					
						\$ 236.50
5600-1302	536 Au/FA @ \$10.00 = \$ 5360.00		1 P+M @ \$35.00 = \$ 35.00			
						\$ 5395.00
5600-1415	3 Au/FA @ \$10.00 = \$ 30.00					
						\$ 30.00
TOTAL						----- \$ 7470.50 -----

NOTE: You will be invoiced for the above amount.



5590-2802

12 Ag/AA @ \$ 2.25 = \$ 27.00
36 BM/AA @ \$ 2.25 = \$ 81.00
12 As @ \$ 5.50 = \$ 66.00

\$ 174.00

5600-2802

12 Au/FA @ \$10.00 = \$ 120.00

\$ 120.00

TOTAL

\$ 9138.00

NOTE: You will be invoiced for the above amount.



**ASSAY CHARGES FOR EXPLORATION SAMPLES
NOVEMBER 1993**

COST CODE	Au/FA	Ag/AA	BM/AA	As	P&M	TOTAL
5590-1100		11	11			22
5600-1100	11					11
5600-1301	712				10	722
5600-1415	14					14
5590-1602		1	3	1		5
5600-1602	106					106
5590-2802		12	36	12		60
5600-2802	12					12
						952

5590-1100

11 Ag/AA @ \$ 2.25 = \$ 24.75
11 BM/AA @ \$ 2.25 = \$ 24.75

\$ 49.50

5600-1100

11 Au/FA @ \$10.00 = \$ 110.00

\$ 110.00

~~5600-1301~~

712 Au/FA @ \$10.00 = \$ 7120.00
10 P+M @ \$35.00 = \$ 350.00

\$ 7470.00

5600-1415

14 Au/FA @ \$10.00 = \$ 140.00

\$ 140.00

5590-1602

1 Ag/AA @ \$ 2.25 = \$ 2.25
3 BM/AA @ \$ 2.25 = \$ 6.75
1 As @ \$ 5.50 = \$ 5.50

\$ 14.50

5600-1602

106 Au/FA @ \$10.00 = \$ 1060.00

\$ 1060.00



COBRA CONSTRUCTION

TEL. (705) 235-4663
FAX. (705) 235-4663

MECHANICAL, CIVIL & STRUCTURAL CONTRACTOR

INVOICE

TO: Royal Oak Mines Inc.
P.O. Bag 2010
Timmins, Ontario
P4N 7X7

DATE: October 19, 1993

ATTENTION: Mr. J. Houle

RE: Labour, material and equipment charges to construct one
Core Storage building as per our Quotation No: C028.
Also extras to contract. P.O. # ~~P0119~~

INVOICE NO: M049

P.O. # 01119

LUMP SUM AS PER QUOTE NO: C028 \$ 5,973.00

EXTRAS TO CORE SHACK CONTACT:

Repair and Install Core Racks:

20 Man Hours at \$30.00 P/H Regular Time		600.00
2 X 8 X 16' 4 EA. at \$8.37	\$ 33.48	
2 X 4 X 8' 6 EA. at \$2.05	12.30	
Particle Board 2 at \$9.02	18.04	
6 X 6 X 17' 4 EA. at \$30.00	120.00	
	<u>\$ 183.82</u>	
10% Administration Fee	18.38	
SUB TOTAL		<u>202.20</u>
G.S.T.		\$ 6,775.20
TOTAL OF THIS INVOICE		<u>474.26</u>
		<u>\$ 7,249.46</u>

Our G.S.T Registration Number is R-126405588.

[Signature]
902 5625 1301
Please pay Quota to -
John Curran.

FORPRO 
 Mining Exploration & Forestry
 **RESOURCES** LTD.

909 Government Road
 P.O. Box 1513
 South Porcupine, Ontario
 P0N 1H0
 PHONE: (705) 235-2474

Date AUGUST 1/93

ROYAL OAK MINES INC,
TIMMINS DIVISION
FAX 267-2332

Invoice 553

DESCRIPTION	AMOUNT
LINECUTTING : HALLNOR PROPERTY	
1.87 miles @ 400/MILE	\$ 748 ⁰⁰
TRANSIT TURNS	\$ 120 ⁰⁰
CLEAN OUT + RE-ALIGN BASELINE PICKETS	\$ 100 ⁰⁰
SUB-TOTAL	\$ 968 ⁰⁰
GST #R101849669	GST 67 ⁷⁶

Thank You

(TOTAL) \$ 1035⁷⁶

VIC'S APPLICATION SHOPPING

P.O. Box 1960
 South Porcupine, Ont. P0N 1H0
 (705) 235-3669

No. 1779

Date Sept 14/93

Sold To Royal Oak Mines
 Bag 2010
 Timmins, Ont
 P4N 7X7

P.O. No. P01118
 Shipped To Core Station
 Hollinger Property

QUANTITY	DESCRIPTION	AMOUNT
50 bundle	500.00 Core Trays @ \$4.50 ea	\$ 2250.00
	GST 7%	157.50
		<u>2407.50</u>

[Handwritten Signature]
 7/16/93
 932 5825 1301

RECEIVED
 OCT 4 1993
 ISSUED

TERMS: NET 15 DAYS
 BUYER SIGNATURE: *[Signature]*
 TOTAL: \$ 2407.50

We certify that the goods ordered, specified hereby are to be used as outlined in sections 1, 3 and 4 of Part XIII of Schedule B of the Excise Tax Act.

PROGRAM PROCEDURES

MINISTRY OF INDUSTRY
DEVELOPMENT AND MINES

FEB 14 1994

1.0) SURVEY CONTROL

INCENTIVES OFFICE

All holes are surveyed with reference to the Pamour Mine Grid and plotted using either the Pamour Mine section system (162 - 342 Azimuth) or Hallnor Mine section system (150 - 330 Azimuth). Casings are either left in or, if local mine infrastructure would make these a hazard, removed and a cement plug poured. Longer drillholes (> 300') are surveyed with a Sperry Sun Single Shot Instrument. Shorter holes are surveyed with acid tests.

2.0) SAMPLING PRACTICE

The sampling practice utilised is dependent on the geology and mineralization of the target being tested.

2.1) Volcanic Hosted Mineralization

The ore-bearing structures in the volcanics are generally narrow and visually distinct so sampling is determined by lithology and alteration. Most surface core is sawed and stored at Royal Oak Mines Timmins core processing facility on the Hollinger Property.

2.2) Sediment Hosted Mineralization

Narrow vein "TN" type targets in the Greywacke are sampled the same way as narrow vein volcanic targets. The bulk conglomerate and greywacke mineralization is sampled on regular 2.5' intervals in well altered/mineralized zones and on a wider 5.0' interval in less heavily altered/mineralized sections. If a particularly densely quartz veined zone is encountered an odd sample interval may be taken. Surface drillholes are saved at the Hollinger core processing facility.

3.0) ANALYTICAL PROCEDURES

All sampling was completed at Royal Oak Mines Timmins Division Analytical Laboratory, Schumacher, Ontario. Most samples were analysed using a Fire Assay and a 30g sub-sample. Digestion is standard aqua regia. Control samples and blanks are inserted within runs on a routine basis. If visible gold is noted in logging, the samples are generally analysed using the pulp and metallic method.

4.0) **DATA PROCESSING**

All drilling is now entered into the Lynx Geosystems Unix based mine modelling software database. Usually only header, rock type and assay data is entered. A summary log is completed for exploration holes. This lists all relevant drill and survey data, along with the geologist's interpretation of any significant geological features and a summary of analytical results. These are stored as WordPerfect files for ease of inclusion into any subsequent reports. The original log is filed in a vault. A set of manual sections is updated although these are rarely used as working sections except in remoter parts of the mine where development has not been entered into the computer database. The Pamour mine is slowly moving towards a computer based database for base geology data. The built-in block modelling program in Lynx is used to evaluate the bulk conglomerate/greywacke exploration data which is essentially a statistical number crunching exercise. More geological interpretation is required in interpreting the narrow vein data.

Various cut-offs and cutting grades are applied to the raw data depending on the type of mineralization, potential mining methodology to be used and current metal prices. Any grades calculated from diamond drill data are compared to In The Hole production samples and broken muck samples. Discrepancies are assessed to determine if future exploration data should be evaluated differently.

LYNX LEGEND

GENERAL PROCEDURES

Orient core and list box intervals.

DIST (Distance at bottom of interval)

Sample intervals should not exceed 5 feet (1.5m). Other intervals may be longer. When resampling is required, add the sample distance, description, etc., to the bottom of the log. New sample intervals can be inserted in the appropriate spot on the log in the computer.

ID (Identification)

These two spaces can be used to put numbers/codes corresponding to rock name/possible faults/structure, etc., which can be referred to at a glance.

RQ-RQD

RQD is an estimated percentage of pieces of core in a sample length which are as long or longer than: AQ = 3", 7.5 cm; BQ = 4", 10 cm; NQ = 5", 12.5 cm. This should represent only natural breaks.

ROCK DESCRIPTION

COM (Competency)

M	Massive, will not break without considerable effort
S	Breaks roughly on shear planes
SS	Breaks easily
SSS	Breaks in hands without effort
B	Broken/blocky
F	Fractured
G	Gouge/fault

GRS (Grain Size)

VFG	Very fine grained	
FG	Fine grained	aphanitic
FMG	Fine medium grained	aphanitic
MG	Medium grained	aphanitic
MCG	Medium coarse grained	aphanitic
CG	Coarse grained	phaneritic
VCG	Very coarse grained	phaneritic

TEXT (Texture)

VAR	Variolitic - globular structures of devitrified glass (basic)
SPH	Spherulitic - globular structures of devitrified glass (acid)
POIK	Poikilitic - small grains floating in one large grain
OPH	Ophitic - euhedral/subhedral feldspar embedded in pyroxene xtal
DIA	Diabasic/doleritic - lath-like feldspar with pyroxene between
POR	Porphyritic - large phenocrysts in fine-grained matrix
GLOM	Glomeroporphyritic - phenocrysts occur in clusters
SERI	Seriate - complete grain range from matrix to phenocryst
AMYG	Amygdaloidal - vesicle filled with minerals

ALIG	Alligator	HOM	Homogeneous
BLO	Blotchy	LAM	Laminated
BND	Banded	MBX	Mild brecciated
BX	Brecciated	MOT	Mottled
CLAS	Clastic	NED	Needled
COT	Contorted	SHD	Sheared
CRA	Crackled	SPT	Spotted
CZ	Chill zone	SPX	Spinifex
FRAG	Fragmental	SUG	Sugary
GRAN	Granitic	VUG	Vuggy
GRT	Gritty	MUD	Muddy
RUB			

CO (Colour)

AQ	Aqua	LM	Lime
BK	Black	OR	Orange
BL	Blue	PL	Purple
BR	Brown	RB	Red brown
CR	Cream	RD	Red
GBR	Grey brown	RG	Red green
GG	Green grey	TN	Tan
GR	Green	VI	Violet
GTN	Grey tan	WH	White
GY	Grey	YL	Yellow

ALT (Alteration)

ALB	Albitized
BAF	Buff Altn Flecks
BLD	Bleached
CAL	Carbonaceous
CAR	Carbonatization
CCL	Calcite-Chlorite
CHL	Chloritic
CC	Calcitic
EPD	Epidotization
FEL	Felsic
HEM	Hematized (red altn)
HMS	Hematitic Spotted
LEC	Leached
OXD	Oxidized
QAC	Quartz-Carbonate
QCV	Quartz-Carbonate Veining
SCS	Sericitic-Chloritic
SER	Sericitic
SIL	Silicification
SNF	Snowflake
SRP	Serpentinization
SUL	Sulphidization
TAT	Tan Alteration
TCL	Talc Chlorite
WAC	White Altn Flecks (Calcite)
WAL	White Altn Flecks (Leucoxene)

NAM (Rock Name)

OVB	Overburden
L/C or LC	Lost Core
CAS	Casing
MC	Missing Core
MI	Massive Indefinite
VOL	Volcanic
IGN	Ignimbrite/Ash Flow
FBX	Flow Breccia
MF	Massive Flow
VPF	Variolitic PF
TUF	Tuff
AGL	Agglomerate
BX	Breccia
PBX	Pillow Breccia
PF	Pillow/Pillow Flow

NAM (cont'd.)

FVO	Felsic Volcanic
DAC	Dacite
RDC	Rhyodacite
FTF	Felsic Tuff
KRI	Krist/Felsic Metavolcanic
RHY	Rhyolite
AND	Andesite
ATF	Andesitic Tuff
IVO	Intermediate Volcanic
MVO	Mafic Volcanic
PMB	Pillowed MB
MG	Metagabbro
MTF	Mafic Tuff
MB	Metabasalt
VMB	Variolitic MB
GAB	Gabbro
BAS	Basalt
DIO	Diorite
AMP	Amphibolite
FAM	Feather AMP
PDT	Peridotite
SRP	Serpentinite
UMV	Ultramafic VOL
SES	Sericite Schist
SCS	Sericite-Chlorite Schist
TCS	Talc-Chlorite Schist
CRB	Carbonate
CLS	Chlorite Schist
CSS	Chlorite-Sericite Schist
SRS	Serpentinized Schist
FPP	Feldspar Porphyry
QFP	Quartz-Feldspar Porphyry
SYN	Syenite
QZP	Quartz Porphyry
FST/FEL	Felsite
SYP	Syenite Porphyry
CTZ	Contact Zone
DIA	Diabase
LAM	Lamprophyre

QCV	Quartz-Carbonate Vein
CV	Carbonate Vein
QV	Quartz Vein
SED	Sediments
SST	Sandstone
BOL	Boulder
SL	Slate
IFS	Interflow Sediment
GSL	Graphitic Slate
GA	Graphitic Argillite
MST	Mudstone
SLT	Siltstone
CON	Conglomerate
ARG	Argillite
GWK	Greywacke
GRA	Graphite
CHT	Chert
PHY	Phyllite
QZT	Quartzite

NAM2

This column has been added to accommodate future changes in geology names.

FORM

A formation column has been added to accommodate extensive geological naming practices. FORM will be used to plot geology, and must be limited to a maximum of eight names or numbers (for the 8 plotter pens).

STRUCTURE

<u>B/S</u>	S	Schistosity	C	Contact
	F	Foliation	V	Vein (primary if more
	B	Bedding		than one occurs)
<u>J/F</u>	J	Joint Plane		
	V	Vein (secondary if more than one occurs)		
	F	Fault Plane/Fracture		

A1/A2

Measurement of above with respect to core axis (C.A.)

MINERALS**GANGUE**

ACT	Actinolite	GAR	Garnet
ANH	Anhydrite	HBL	Hornblende
ANK	Ankerite	LEU	Leucoxene
BIO	Biotite	MUS	Muscovite
CC	Calcite	PYR	Pyroxene
CAR	Carbonate	QC	Qtz Carbonate
CHL	Chlorite	QTZ	Quartz
DOL	Dolomite	SER	Sericite
EP	Epidote	SPR	Serpentine
FSP	Feldspar	TOU	Tourmaline
FUC	Fuchsite		

METALLIC

ASP	Arsenopyrite	PO	Pyrrhotite
CPY	Chalcopyrite	PY	Pyrite
GN/GA	Galena	SID	Siderite
GRA	Graphite	SP	Sphalerite
HM	Hematite	ST	Stibnite
		VG	Visible Gold

MINERAL %

0.01	Trace
0.05	Minor Occurrence

SPL #

Sample number

WIDTH (Width)**T (Sample Type)**

C	Core	L	Channel
G	Grab	S	Sludge
H	Chip		

COMMENTS

Standard abbreviations should be used where possible so that anyone can refer to this "dictionary" and clearly read the logs. If abbreviations are being used that are not included on this list, please add them.

ANH	Anhedral	NOD	Nodules
BLB	Blebs	OCC	Occasional
BL-QTZ	Blue Quartz	OC	Out Contact
CA	Core Axis	OVC	Out Vein Contact
CV	Carbonate Vein	PLL	Parallel
DEFMD	Deformed	QCV	Qtz-Carb Vein
DIS	Disseminated	QV	Quartz Vein
EUH	Euhedral	RXN	Reaction
EXT	Extensive	STG	Strong
FOL	Foliation	STK	Stockwork
FUCH	Fuchsite	STR	Stringer
GRD	Ground Core	SUB	Subhedral
GT	Greater Than	TR	Trace
IC	In Contact	TW	True Width
IVC	In Vein Contact	VNS/VN/V	Veins
IRR	Irregular	VLETS	Veinlets
LT	Less Than	W	With
MAG	Magnetic	WO	Without
MNR	Minor	WK(LY)	Weak(ly)
MOD	Moderate(ly)		

ASSAY

Suggested usage for assay columns

AU1	PPB
AU2	Fire Assay
ASSAY3, etc	To be used if there is a need to show a relationship with gold, otherwise geochemical analysis is available on other systems

Sample's sound (Progress)

DX 03846
 Pr 03903 - 3405

700 - 700 / 700

DIST	ROCK QUALITY			ASSAY DATA							Ratcl	Sound		
	Recl	Pc	Pcs1	Rq	Re%	Width	Avout							
98.0														
125.0														
127.9														
165.9														
196.5														
200.0														
204.5														
208.5														
222.5														
224.5														
226.5														
228.0														
242.0														
258.0														
260.5														
253.5														
259.0														
267.0														
273.5														
281.0														
282.0														

700
 700
 700

Drumville Drilling Inc. June 1997 CAT PAGE 1 From: June 7/95

DRILL HOLE	NORTHING	EASTING	ELEVATION	LENGTH	OBI	OBE	INC	LEASE
15339	1528888	770421	109332	3040				

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	330	50	300	337	48						

13 Grab 169.5
14 Saw 415
27

130 Core

DIST	Id	ROCK DESCRIPTION				Com	Gr	Test	Co	Alt	Nom	MINERALS				COMMENTS 1	COMMENTS 2
		Gr	Test	Co	Alt							Gr	Test	Co	Alt		
122		SS	FM	FM	FM	SS	FM	FM	FM	FM	SS	FM	FM	FM	FM		
117		SS	FM	FM	FM	SS	FM	FM	FM	FM	SS	FM	FM	FM	FM		
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ROYAL OAK ANALYTICAL LABORATORY

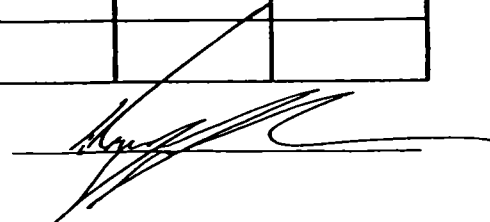
CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301
15339 (H0193-6)

DATE: JUNE 7/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	³ DX 00915	<.001	<35				
2	16	.012	410				
3	17	.001	35				
4	18	<.001	<35				
5	19	<.001	<35				
6	20	.003	105				
7	21	.006	205				
8	22	.059	2070				
9	³ DX 00924	.007	240				
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23							
24							

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

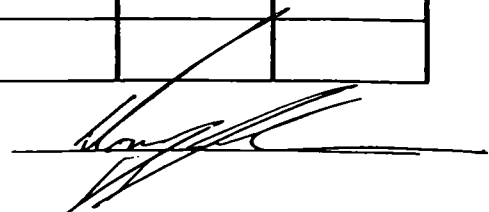
CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: JUNE 11/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03895	.002	70					
2	96	.046	1580					
3	97	.001	35					
4	98	.004	135					
5	99	<.001	<35					
6	3900	<.001	<35					
7	01	<.001	<35					
8	02	<.001	<35					
9	03	.013	445					
10	04	<.001	<35					
11	05	.074	2540					
12	06	<.001	<35					
13	07	<.001	<35					
14	08	<.001	<35					
15	09	<.001	<35					
16	10	<.001	<35					
17	11	.005	170					
18	12	<.001	<35					
19	13	.001	35					
20	DX 03914	<.001	<35					
21								
22								
23								
24								

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

15339 Chal 93-6

DATE: JUNE 11/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03925	.001	35					
2	26	.002	70					
3	27	.001	35					
4	28	<.001	<35					
5	29	.005	170					
6	30	.003	105					
7	31	.032	1100					
8	32	.001	35					
9	33	<.001	<35					
10	34	<.001	<35					
11	35	.004	135					
12	36	.033	1130					
13	37	.005	170					
14	3939	.008	275					
15	40	.006	205					
16	DX 03941	.004	135					
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

H/L 93-3

DATE: MAY 14/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03843	.018	615.				
2	44	.007	240.				
3	45	.008	275.				
4	46	.060	2060.				
5	47	.003	105.				
6	48	.003	105.				
7	49	.005	170.				
8	50	.004	135				
9	38 62	.007	240				
10	63	.012	410				
11	64	.001	35				
12	65	.001	35				
13	66	.001	35				
14	67	.008	275				
15	DX 038 68	.005	170.				
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

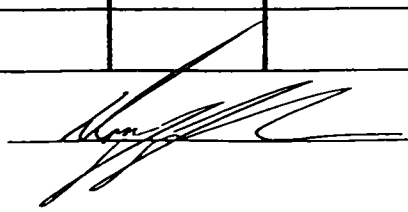
EXPLORATION 5600-1301

DDH 15342

DATE: MAY 19/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 0.3880	.001	35					
2	81	.001	35					
3	82	.001	35					
4	83	.001	35					
5	84	.001	35					
6	85	.001	35					
7	86	.001	35					
8	87	.001	35					
9	88	.001	35					
10	89	.001	35					
	90	.001	35					
12	91	.001	35					
13	92	.001	35					
14	93	.031	1060					
15	DX 0.3894	.001	35					
16								
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DDH 15342

DATE: May 18/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03869	.014	480					
2	70	.004	135					
3	71	.001	35					
4	72	.002	70					
5	73	.022	755					
6	3875	.010	340					
7	76	.001	35					
8	77	4.001	435					
9	78	.027	925					
10	DX 03879	.003	105					
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

DRILL HOLE	15343	NORTHING	11564.57	EASTING	7917.69	ELEVATION	10938.22	LENGTH	506.0	INC		ORI		OH	
------------	-------	----------	----------	---------	---------	-----------	----------	--------	-------	-----	--	-----	--	----	--

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	330	50	50	335	48	100	340	46	220	339	46.5	330	342	42.5
410	344	41.5	40.5	347	40.5									

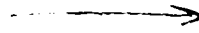
146106 2831' casing R/d, cemented off at collar
40706 1190 277

BQ Core

DIST	ROCK DESCRIPTION			B/S J/F		MINERALS			GANGUE		METALLIC			COMMENTS 1	COMMENTS 2
	Com	Grs	Text	Co	Alt	Mem	B1	A1	J1	A2	D%	E%	F%		
70.9															Overburden
87	M	FG	low	66	RL	GMK									70.9 - 42.8 Greywacke
103.5	M	FG	Blk	66	RL	GMK									Weakly bleached Gk - pale green fine homogeneous, lacks significant slaty bands, very coarse development of bedding
110.5	M	FG	bed	67	RL	GMK									Platy, carbon smk increase in amount
111.4	M	FG	low	67	RL	GMK									OF slaty core
116.0	M	FG	bed	67	RL	GMK									Slaty Gk
152.9	J	L	low	66	RL	GMK									Q12 v. 145 - 5 - 1/10 Q17 v. 145 - 5 - 1/10 Q18 v. 145 - 5 - 1/10 Q19 v. 145 - 5 - 1/10 Q20 v. 145 - 5 - 1/10 Q21 v. 145 - 5 - 1/10 Q22 v. 145 - 5 - 1/10 Q23 v. 145 - 5 - 1/10 Q24 v. 145 - 5 - 1/10 Q25 v. 145 - 5 - 1/10 Q26 v. 145 - 5 - 1/10 Q27 v. 145 - 5 - 1/10 Q28 v. 145 - 5 - 1/10 Q29 v. 145 - 5 - 1/10 Q30 v. 145 - 5 - 1/10 Q31 v. 145 - 5 - 1/10 Q32 v. 145 - 5 - 1/10 Q33 v. 145 - 5 - 1/10 Q34 v. 145 - 5 - 1/10 Q35 v. 145 - 5 - 1/10 Q36 v. 145 - 5 - 1/10 Q37 v. 145 - 5 - 1/10 Q38 v. 145 - 5 - 1/10 Q39 v. 145 - 5 - 1/10 Q40 v. 145 - 5 - 1/10 Q41 v. 145 - 5 - 1/10 Q42 v. 145 - 5 - 1/10 Q43 v. 145 - 5 - 1/10 Q44 v. 145 - 5 - 1/10 Q45 v. 145 - 5 - 1/10 Q46 v. 145 - 5 - 1/10 Q47 v. 145 - 5 - 1/10 Q48 v. 145 - 5 - 1/10 Q49 v. 145 - 5 - 1/10 Q50 v. 145 - 5 - 1/10 Q51 v. 145 - 5 - 1/10 Q52 v. 145 - 5 - 1/10 Q53 v. 145 - 5 - 1/10 Q54 v. 145 - 5 - 1/10 Q55 v. 145 - 5 - 1/10 Q56 v. 145 - 5 - 1/10 Q57 v. 145 - 5 - 1/10 Q58 v. 145 - 5 - 1/10 Q59 v. 145 - 5 - 1/10 Q60 v. 145 - 5 - 1/10 Q61 v. 145 - 5 - 1/10 Q62 v. 145 - 5 - 1/10 Q63 v. 145 - 5 - 1/10 Q64 v. 145 - 5 - 1/10 Q65 v. 145 - 5 - 1/10 Q66 v. 145 - 5 - 1/10 Q67 v. 145 - 5 - 1/10 Q68 v. 145 - 5 - 1/10 Q69 v. 145 - 5 - 1/10 Q70 v. 145 - 5 - 1/10 Q71 v. 145 - 5 - 1/10 Q72 v. 145 - 5 - 1/10 Q73 v. 145 - 5 - 1/10 Q74 v. 145 - 5 - 1/10 Q75 v. 145 - 5 - 1/10 Q76 v. 145 - 5 - 1/10 Q77 v. 145 - 5 - 1/10 Q78 v. 145 - 5 - 1/10 Q79 v. 145 - 5 - 1/10 Q80 v. 145 - 5 - 1/10 Q81 v. 145 - 5 - 1/10 Q82 v. 145 - 5 - 1/10 Q83 v. 145 - 5 - 1/10 Q84 v. 145 - 5 - 1/10 Q85 v. 145 - 5 - 1/10 Q86 v. 145 - 5 - 1/10 Q87 v. 145 - 5 - 1/10 Q88 v. 145 - 5 - 1/10 Q89 v. 145 - 5 - 1/10 Q90 v. 145 - 5 - 1/10 Q91 v. 145 - 5 - 1/10 Q92 v. 145 - 5 - 1/10 Q93 v. 145 - 5 - 1/10 Q94 v. 145 - 5 - 1/10 Q95 v. 145 - 5 - 1/10 Q96 v. 145 - 5 - 1/10 Q97 v. 145 - 5 - 1/10 Q98 v. 145 - 5 - 1/10 Q99 v. 145 - 5 - 1/10 Q100 v. 145 - 5 - 1/10

DIST	ROCK QUALITY			ASSAY				DATA		Pulp	Seved	
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	TL	TL			
327.4						3968	1.4	5	0.44	1510		
329.9						3969	2.0	5	0.11			
336.0						3970	6.6	5	0.1			
340.6						3971	4.6	5	0.11			
342.5						3972	1.9	5	0.05			
343.6						3973	1.1	5	0.03	105		
346.9						3974	2.4	5	0.01	35		
351.2						3975	5.2	5				
356.5						3976	5.3	5	0.01	35		
358.9						3977	1.5	5	0.01	35		
360.5						3978	2.5	5	0.017	585		
363.0						3979	2.5	5	0.001	<35		
386.9						3980	23.9	6	0.01	35		
428						3981	26.8	6	0.01	35		

wkly all'd
8 gtz vnd



ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 7/93

HALLMARK 15343

	SAMPLE NUMBER	A_{u} oz/ton	A_{u} ppb				
1	DX 03942	<.001	<35				
2	43	.001	35				
3	44	<.001	<35				
4	45	<.001	<35				
5	46	.004	135				
6	47	.002	70				
7	48	.002	70				
8	49	<.001	<35				
9	50	<.001	<35				
10	51	<.001	<35				
	52	.001	35				
12	53	<.001	<35				
13	54	<.001	<35				
14	55	.001	35				
15	56	.001	35				
16	57	<.001	<35				
17	58	<.001	<35				
18	59	<.001	<35				
19	60	.002	70				
20	61	.001	35				
21	62	.005	170				
22	63	.004	135				
23	64	.002	70				
24	DX 03965	.020	685				

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 8/93

Hammer 15343

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03978	.017	585					
2	79	.001	35					
3	80	<.001	<35					
4	81	.001	35					
5	82	.001	35					
6	83	.001	35					
7	84	<.001	<35					
8	85	.003	105					
9	86	.001	35					
10	87	.007	240					
11	88	.008	275					
12	89	.147	-					
13	90	.010	340					
14	91	.001	35					
15	92	.081	2780					
16	93	.006	205					
17	94	.074	2540					
18	DX 03995	.002	70					
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 7/93

Hummer 15343

	SAMPLE NUMBER	A _n oz/ton	A _n ppb				
1	DX 03966	.001	35				
2	67	.002	70				
3	68	.044	1510				
4	69	.004	135				
5	70	.001	35				
6	71	.001	35				
7	72	.048	1650				
8	73	.003	105				
9	74	<.001	<35				
10	75	.001	35				
11	76	<.001	<35				
12	77	.001	35				
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HALLOW 15344

DATE: July 8/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	<u>Dx 00751</u>	<u>.001</u>	<u>35</u>					
2	<u>52</u>	<u>.001</u>	<u>35</u>					
3	<u>53</u>	<u>.026</u>	<u>890</u>					
4	<u>54</u>	<u>.003</u>	<u>105</u>					
5	<u>55</u>	<u>.005</u>	<u>170</u>					
6	<u>56</u>	<u><.001</u>	<u><35</u>					
7	<u>57</u>	<u><.001</u>	<u><35</u>					
8	<u>58</u>	<u>.017</u>	<u>585</u>					
9	<u>59</u>	<u>.250</u>	<u>-</u>					
10	<u>60</u>	<u>.002</u>	<u>70</u>					
11	<u>61</u>	<u><.001</u>	<u><35</u>					
12	<u>62</u>	<u><.001</u>	<u><35</u>					
13	<u>63</u>	<u><.001</u>	<u><35</u>					
14	<u>64</u>	<u><.001</u>	<u><35</u>					
15	<u>65</u>	<u>.007</u>	<u>240</u>					
16	<u>66</u>	<u>.045</u>	<u>1540</u>					
17	<u>67</u>	<u><.001</u>	<u><35</u>					
18	<u>68</u>	<u><.001</u>	<u><35</u>					
19	<u>69</u>	<u>.004</u>	<u>135</u>					
20	<u>70</u>	<u><.001</u>	<u><35</u>					
21	<u>71</u>	<u><.001</u>	<u><35</u>					
22	<u>72</u>	<u>.026</u>	<u>890</u>					
23	<u>Dx 00773</u>	<u>.001</u>	<u>35</u>					
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 8/93

Harbor 15344

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	Dx 03996	.014	480					
2	97	.001	35					
3	98	<.001	<35					
4	99	.001	35					
5	Dx 04000	<.001	<35					
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK MINES INC.
 DRILL HOLE 15345
 PROJECT: Ha Lher Section 55
 Logged By: MER
 Date: 6/27/1973
 Page 1 of 2

Dominant Drilling Inc
 PAGE 1
 Finished 6:30 July 93 CAT

NORTHING 1604.95
 EASTING 7837.87
 ELEVATION 10938.37
 LENGTH 373
 OBI
 OBE
 INC
 LEASE

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
100.0	330	50	10.9	334	57.9	750	337	47	250	337	47.5
101.5											
131.0											
162.2											
186											
206											
231.3											

BR Core
 Casing Pulled, hot cement at bedrock.

10606 2177
 1750w 455
 27 2032
 PXP

DIST	ROCK DESCRIPTION			STRUCT.		MINERALS			COMMENTS 1	COMMENTS 2
	Com	Gr	Text	Co	Alt	Na	Am			
100.0										
101.5										
131.0	M	CG	Bed	QC	64K	B	14	130		
162.2	Bk	FC	hard	6	ERC	B	0			
186	M	FC	604	66	64K	B	24			
206										
231.3										

10606 2177
 1750w 455
 27 2032
 PXP

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

15345

DATE: July 12/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 00774	.002	70				
2	775	<.001	435				
3	851	.009	310				
4	52	.005	170				
5	53	.004	135				
6	54	.007	240				
7	55	.003	105				
8	56	.005	170	*			
9	57	<.001	435				
10	58	.097	3330	*			
11	59	.001	35				
12	60	.001	35	*			
13	61	.007	240				
14	62	.001	35				
15	63	.002	70				
16	64	.001	35				
17	65	.006	205				
18	66	.009	310				
19	67	.008	275				
20	68	.031	1060				
21	69	.002	70				
22	70	.006	205				
23	71	.015	515				
24	DX00872	.135	-				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 12/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 00873	.066	2760					
2	74	.001	35					
3	DX 00875	.020	685					
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcal	Rq	Re%	Width	TT	Au opt	Au ppb
139.0						5.1	5	0.005	170
139.8						0.8	5	0.002	70
141.6						1.8	5	0.002	70
142.3						0.6	5	0.001	43.5
146.0						3.0	5	0.002	70
152.5						0.5	5	0.004	135
154.0						1.5	5	0.005	170
155.8						1.8	5	0.061	81.64
									579.33
									601.2
									1.02
									3.83
									461
158.9						3.1	5	0.012	410
159.3						0.4	5	0.006	3.34
									18.24
									121.58
									105
161.5						2.2	5	0.006	705
161.0						4.5	5	0.025	855

Pulp 8 Mc Gill
 wt 80 6.1.30 6.1.30 6.1.30 6.1.30 6.1.30 6.1.30 6.1.30 6.1.30 6.1.30

ROYAL OAK
MINES INC.

PROJECT: Hg (LWS)
585' from 580' - 1111453

Logged By: MER M. E. Noble

Domestic Drilling for

started 7/14 July 93

Date: 9/07/1993

Finished 9/14 July 93

CAT

Page 1 of 4

DRILL HOLE 15387 NORTHING 157393 EASTING 779232 ELEVATION 10935.18 LENGTH 406.0 OBI 0 BE 0 INC 0 LEASE

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	330	50°	150	334	48°	270	334	48°	400	337	45

BQ Core

11006 2116
2580, 589

Casina finished. Hole completed

DIST	Id	ROCK DESCRIPTION				STRUCT. B/S J/F	GANGUE			MINERALS			SP#	With T	COMMENTS 1	COMMENTS 2	
		Com	Gr	Text	Co		Az	Bz	Cz	Dz	Ez	Fz					
1040																	
1192		S	FG	Bed	G												
136		M	FG	Hard	G												
156																	
182.2																	
185.3		M	FG	Bed	G												
190		M	FG	hard	G												
1942																	
1970																	
216		B	FG	Bed	G												

909 15.2
910 16.8
911 20.0
912 20.2
913 31.5
914 47.5
915 42.5
916 28.5
917 19.0

Slaty bed with
gltz. calc. string. in
within zone -
Cg. gult. sl. Fgults
Bleached Gult in contact with slaty
gltz weather - gult 2 veined - blacky
pass. Flt zone
1970 - 230.0 Slaty grey weather
1970 - 230.0 Slaty grey weather

Coin stored at Hallings Property, Minerals Block 16 (17 Bases).
 Analytical work at Royal Oak Mines, Schumacher On (AT 1, 1990)

Costs

Casing 50x 8.05 642.00
 100 1.15 500.50
 4x 1.75 7.00
 3000 5.00 15000.00
 10 100 180.00
 5x 0.50 2.50

6109.00

30.00

66,69.40 / 6.05: 11,004.4

Sample 20001

D200004- 92.1 level
 0.800133: 4.16 7.00
 1x 0.67.2

DIST	ROCK QUALITY			ASSAY DATA		
	Recl	Pc	Pcs1 RqRe%	Width	Augul	Augp
104.0						
119.2				152.6	116	
136.0				168.6	110	
156.0				200.6	10	
182.2				262.6	95	
185.3				315	10	
190.0				47.6	135	
196.2				42.5	135	
197.0				42.8	135	
216.0				199.6	10	
239.0				140.6	10	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 15/93

HOLE #15387

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 00909	.005	170				
2	10	.002	70				
3	11	.002	70				
4	12	.001	35				
5	13	.002	70				
6	14	.001	35				
7	15	.004	135				
8	16	<.001	235				
9	17	.002	70				
10	18	.005	170				
11	19	.014	480				
12	20	.002	70				
13	21	.003	105				
14	22	.001	35				
15	23	.014	480	X			
16	24	.001	35				
17	25	.002	70				
18	26	.003	105				
19	27	.006	205				
20	28	.116	-				
21	29	.003	105				
22	30	.001	35				
	31	.023	790				
24	DX00932	.083	2850				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Hoie #15387

DATE: July 15/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	Dx 00933	.074	2540				
2	34	.005	170				
3	35	.146	-				
4	36	.062	2130				
5	37	<.001	<35				
6	38	<.001	<35				
7	39	<.001	<35				
8	40	.035	1200				
9	41	<.001	<35				
10	42	<.001	<35				
11	43	.027	925				
12	Dx 00944	.001	35				
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 22/93

HOLE # 15387

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02291	.003	105				
2	92	.004	135				
3	93	.001	35				
4	94	.002	70				
5	DX 02295	.003	105				
6							
7							
8							
9							
10							
11							
12							
13							
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24							

Handwritten notes on the left side of the page, including 'Assay', 'Pulp', and 'Sample'.

Costs
 50 x 8.65 432.50 Samples
 61 x 10.15 619.35
 91 x 8.65 787.15
 1 x 65.0 65.00
 1700.00

1760/182 9.61

Pulps Saved

96.77 - 94.9

DIST	ROCK QUALITY			ASSAY DATA			Pulp Saved
	Recl	Pc	Pcsl RqRe%	Spl #	Width	Avopt	
91.0							
116.0				965	25.0	6.002	70
138.0				966	23.0	5.0016	135
144.0				967	25.0	5.002	70
146.0				968	2.0	5.052	1192
152.0				969	6.0	5.003	105
182.0				950	30.0	6.5005	1355

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15388

DATE: July 16/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX00945	.002	70					
2	46	.004	135					
3	47	.002	70					
4	48	.032	1100					
5	49	.003	105					
6	DX00950	.004	135					
7								
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23								
24								

DIST	Id	ROCK DESCRIPTION				STRUCT. B/S J/F	MINERALS				COMMENTS 1	COMMENTS 2				
		Com	Gr	Text	Co Alt Nam		GANGUE		METALLIC							
						B	A	J	A2	C%	B%	EZ	F%	Spl #	Width	T
147-6		M	PG	B/G	GI BLS GWH	A74								959	2.015	
149-3		M	FG	h.c.	GY B/L GWH	323								960	1.75	
157-5		B	FG	B/d	GT B/G GWH	1322								961	3.25	
156-6		M	FG	h.c.	GE B/L GWH	B7								962	2.15	
156-2		S	FG	B/d	GT BLS GWH	A85	V80							963	1.65	
157-9		M	FG	h.c.	GE B/L GWH									964	1.75	
160-2		I	I	I	I B/L GWH	V73								965	2.35	
164-8		I	I	I	GWH	V30								966	4.65	
169-0		B	FG	h.c.	CT	B24								967	4.35	
175-3		M	FG	h.c.	GY AC GWH	B18	V66							968	6.35	
196-0		M	FG	Bed	GY GWH	B18								969	20.75	
216-0						B18								970	20.05	
236-0						F14								971	20.05	
258-0						P17								972	20.05	
282-0						B16								973	26.25	
302-2						B17								974	5.35	
307-4						B18	V30							975	14.75	
326-0		M	FG	Bed	AC GWH	B17								976	18.65	
346		M	FG	I	CHT	B16								977	20.85	

COMMENTS 1	COMMENTS 2
po. resp. address: 149-9 hwt. search for water collection at 2 vns	
3 vns. at 2 stns - 9/10/10/10/10	
drill holes around stn @ 2.5' for core	
axis 1 - 3" section to center of zone 1.5	
cut. h.c. bleached	
cut. bleached gwh	
vns @ 5 18 900 1 core gwh. cut	
across cuts. h.c. 100% core	
cut. bleached gwh	
v. f. gwh 3' - similar to zone. first on	
h.c.?? - 1' gwh. vns 8' off. clearly	
cut across bedding	cut is confined
bleach. bleached gwh	
cut. v. h.c. gwh	similar @ 166.6 (2)
200 ft. core gwh - cut. h.c. vns	
vns. 2' vns. cut. h.c. vns	
slab. h.c. vns	
slab. gwh. vns	v. h.c. vns? 6' h.c.
core	
Other vns. gwh	slabs. 1/2 - 1" wide
Bedding. confined	to D in center
of section	
Typical gwh	
0.12 slng. vns. 1' bedding	
200' 1/2' vns. strings	
Small bleached slates gwh	
cut. h.c. vns. gwh	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15388A

DATE: July 16/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX00969	.002	70					
2	70	.001	35					
3	71	.004	135					
4	72	.003	105					
5	73	.003	105					
6	74	.001	35					
7	DX00975	.004	135					
8								
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ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 16/93

HOLE #15388A

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX00951	.048	1650				
2	52	.006	205				
3	53	.001	35				
4	54	.001	35				
5	55	<.001	<35				
6	56	<.001	<35				
7	57	.002	70				
8	58	.310	-	2.1			
9	59	.036	1230	2.0			
10	60	.005	170	1.7			
11	61	.013	445	3.2			
12	62	.006	205	4.1	0.985		
13	63	.286	-	1.6	147		
14	64	.024	135				
15	65	.006	205				
16	66	.001	35				
17	67	<.001	<35				
18	DX00968	<.001	<35				
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HE# 15388A

DATE: July 20/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02194	.014	480				
2	95	.012	410				
3	96	.021	375				
4	97	.001	35				
5	98	<.001	<35				
6	DX 02199	<.001	<35				
7							
8							
9							
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ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 19/93

Hole #15388A

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02176	.002	70				
2	77	.004	135				
3	78	.006	205				
4	79	.008	275				
5	80	.001	35				
6	81	.007	240				
7	82	.176	-				
8	83	.175	-				
9	84	.021	720				
10	85	.004	135				
11	86	.015	515				
12	87	.003	105				
13	88	.004	135				
14	89	.003	105				
15	90	.008	275				
16	91	.049	1680				
17	92	.013	445				
18	DX 02193	.005	170				
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 20/93

Hole #15389

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX02281	.013	445					
2	82	.005	170					
3	83	.001	35					
4	84	<.001	<35					
5	85	<.001	<35					
6	86	<.001	<35					
7	87	<.001	<35					
8	88	.008	275					
9	89	.003	105					
10	DX02290	.019	650					
11								
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ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15389

DATE: July 20/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02200	.003	105				
2	2251	<.001	<35				
3	52	<.001	<35				
4	53	.003	105				
5	54	.002	70				
6	55	.002	70				
7	56	.005	170				
8	57	.201	-				
9	58	.009	310				
10	59	.001	35				
11	60	.001	35				
12	61	.015	515				
13	62	.009	310				
14	63	.005	170				
15	64	.005	170				
16	2266	RA					
17	67	<.001	<35				
18	68	<.001	<35				
19	69	.003	105				
20	70	.203	-				
21	71	.041	1410				
22	72	.001	35				
23	73	.001	35				
24	DX 0 2274	<.001	<35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 20/93

Hole #15389

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02275	.001	35				
2	76	.005	170				
3	77	<.001	<35				
4	78	<.001	<35				
5	79	.018	615				
6	DX 02280	.015	515				
7							
8							
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Dominic Perlingi
 16/10/93
 Finished 20/02/1993

DRILL HOLE: 15380
 NORTHING: 11511.38
 EASTING: 2656.15
 ELEVATION: 1093.99
 LENGTH: 349.0
 OBI: _____ OBE: _____ INC: _____ LEASE: _____

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	330	-56	70.0	335	51	130	339	51	230	339	51.5

8 G06 1590
 32 Saw 1927
 70
 2607

Casing Pulled to Cemented

DIST	ROCK DESCRIPTION			GANGUE			MINERALS			STRUCT. B/S J/F	COMMENTS 1	COMMENTS 2
	Com	Gr	Bed	A%	B%	C%	D%	E%	F%			
28.0												0.0 - 88.0 Overburden
109.0	M	FG	Bed GY									88.0 - 200.0 GRS. warts/slaty Gypsum
124.3												Scalloped with calc. lines
141.5	M	FG	Bed GY									Small warts. Fault zone
142.0	B	FG	Bed GG									11.3.0 - 16.0 = Slaty section, blocky
152.0	M	FG	Bed GY									beds, possibly a fault zone
172.0												Small to varied brecciated Fault zone
172.5	M	FG	Bed GY									Warts. Equis. conch. destroyed
179.3	M	FG	Bed GY									Warts. bedded. low spars. gulk.
187.0	B	FG	Bed GY									Warts. massive. at calc. str. - gulf
187.0	M	FG	Bed GY									pyrite scattered throughout
213.8	B	FG	Bed GY									172.0 - 186.0 warts. gulf varied gulf/gulf
												Warts. thin. calc. str. in beds
												Warts. bleached & gulf. calc. varied gulf
												Warts. followed. var. @ 180.0. very bed. gulf
												sh. zone @ 199.0. varying generally
												@: high angle to core (60° - 90°) warts.
												Warts.
												Warts. gulf = 7' gulf. calc. str. @
												187.0
												Warts. gulf. str. @ 192.0
												Warts. gulf. str. @ 192.0

DIST	ROCK QUALITY			
	Recl	Pc	Pcal	Rq/Re%
215.2				
224.8				
228.0				
232.4				
233.6				
237.1				
238.2				
240.6				
246.2				
248.6				
248.9				

Spl #	ASSAY DATA			
	Width	T	Avg/ft	Avg/ft
2306	1.4	5	.072	79
2307	4.6	5	.901	35
2308	3.2	5	50.001	535
2309	1.4	5	.073	105
2310	1.2	5	.073	105
2311	3.5	5	.002	79
2312	1.1	5	.012	410
2313	2.4	5	.013	445
2314	0.6	5	1.63	
2315	2.4	5	0.23	
2316	3.9	5	50.001	
2317	0.5	5	3.57	

Spl #	ASSAY DATA			
	Width	T	Avg/ft	Avg/ft
2316	3.9	5	50.001	
2317	0.5	5	3.57	
2318				
2319				
2320				
2321				
2322				
2323				
2324				
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2498				
2499				
2500				

0.496/7.3' - 240.6 - 248.0

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: July 29/93

HUE # 15390

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02316	<.001	<35	---	should	be H.G.	
2	18	.011	375	?			
3	19	.056	1920	.			
4	20	.025	855	?			
5	21	.020	685				
6	22	.172	-	←	Normal	...	
7	23	.013	445				
8	24	.012	410				
9	25	.002	70				
10	26	<.001	<35				
	27	.006	205				
12	28	<.001	<35				
13	29	<.001	<35				
14	30	.005	170				
15	31	<.001	<35				
16	32	.001	35				
17	33	<.001	<35				
18	34	<.001	<35				
19	DX 02335	.002	70				
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

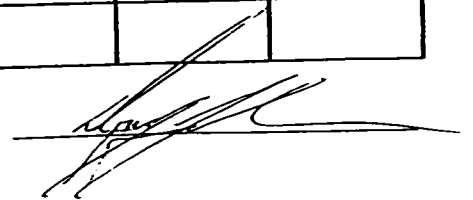
EXPLORATION 5600-1301

DATE: Aug 10/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 02336	.091	3120					
2	37	.022	755		PC 522	FE	2316	7200
3	38	.022	755					
4	39	.021	720					
5	40	.013	445					
6	DX 02341	.032	1100					
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Lab16 M Robbins

Chief Chemist:



ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS


EXPLORATION 5600-1301

DATE: July 29/93

Hole # 15390

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02296	.002	70				
2	97	.003	105				
3	98	<.001	<35				
4	99	<.001	<35				
5	2300	.003	105				
6	01	.002	70				
7	02	.001	35				
8	03	.001	35				
9	04	.002	70				
10	05	.019	650				
-	06	.002	70				
12	07	.001	35				
13	08	<.001	<35				
14	09	.003	105				
15	10	.003	105				
16	11	.002	70				
17	12	.012	410				
18	DX02313	.013	445				
19							
20							
21							
22							
23							
24							

Lab16

Chief Chemist: 

Analytical Works of Royal Gull Mines, Missions 606, Schwabach
 Core stored at Hallinger Property (26 Boxes, Shock 16).

Costs
 50 x 8-65 432.50 Cement 67.00
 30 x 10-15 306.50 Bit 532.00
 40 x 8-65 3520.55 32 35.00
 40 x 60-00 260.00 645.00
 4687.55

Sample: Core
 D70 2331- 2368
 2380- 2392
 2396 1397

DIST	ROCK QUALITY			ASSAY DATA			Sample
	Recl	Pc	Posl	Rq	Re%	Wdth	
38.0							
93.5							
101.9							
103.0							
110.6							
113.7							
129.0							
135.2							
137.0							
143.5							
148.5							
149.1							
153.5							
173.3							

DIST	ROCK QUALITY				ASSAY DATA																
	Recl	IFc	Pool	Rq	Re%	Spl #	Width	T	Alund	A. gpb											
196.7						2362	5.7	5	0.024	0.825											
200.0						2363	5.3	5	0.010	0.340	Recl. 8	11.6									
203.6						2364	3.6	5	0.008	0.275	5.4+1.80	4.4	1.80	1.00	1.80	1.00	1.80	1.00	1.80	1.00	1.80
204.4						2365	0.8	5	0.014	0.154	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
206.0						2366	1.6	5	0.012	0.225											
209.0						2367	3.0	5	0.047	1.640											
213.0						2368	6.0	5	0.010	0.340			1.83.0	0.432/3.0	(uncy)						
216.0						2369	13.0	6	0.023	0.70											
216.2						2371	20.0	6	0.007	0.225											
217.0						2372	21.0	6	0.012	0.340											
217.3						2373	0.3	5	0.013	0.46											
218.0						2374	12.7	6	0.005	0.170											
218.0						2374	0.0	6	0.006	0.135											
218.8						2375	2.8	5	0.001	0.135											
216.0						2376	23.3	6	0.001	0.35											
216.0						2377	20.0	6	0.002	0.70											
216.0						2378	70.0	6	0.001	0.35											
216.6						2379	12.6	6	0.001	0.35											

0.075/3.0 (cut), 2025

ROCK QUALITY				ASSAY DATA																	
DIST	Recl	Pc	Pcsl	Rq	Re%	Spl #	Width	T	A	l	l	opt									
388.6						2380	5.0	5	0.061			35									
396.0						2381	5.6	5	0.001			35									
399.2						2382	5.2	5	0.001			35									
401.7						2383	7.0	5	0.001			35									
406.5						2384	1.3	5	0.334			1170									
407.3						2387	1.3	5	0.303												
410.6						2388	2.6	5	0.32			1100									
413.6						2389	5.0	5	0.14			420									
414.7						2390	1.3	5	0.55			1880									
423.6						2391	8.9	5	0.05			170									
424.5						2393	0.8	5	2.63												
446.0						2393	21.5	6	0.023			1905									
466.0						2394	20.9	6	0.006			135									

Pulp/ Metollics

61.80
46.4

60.2-107/0.08/0.07

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DDH 15391

DATE: AUGUST 17/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02342	.008	275				
2	43	.007	240				
3	44	.005	170				
4	45	.012	410				
5	46	.001	35				
6	47	.002	70				
7	48	.001	35				
8	49	.003	105				
9	50	.009	310				
10	51	.003	105				
11	52	.003	105				
12	53	.002	70				
13	54	.001	35				
14	55	.001	35				
15	56	.001	35				
16	57	.041	1410				
17	2359	.054	1850				
18	60	.006	205				
19	61	.092	3150				
20	62	.024	825				
21	63	.010	340				
22	64	.008	275				
-	2366	.008	275				
24	DX 02367	.042	1440				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DDH 15391

DATE: August 17/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DXC 2368	.010	340				
2	69	.002	70				
3	70	.004	135				
4	71	.003	105				
5	72	.013	445				
6	73	.005	170				
7	74	.004	135				
8	75	.004	135				
9	76	.001	35				
10	77	.002	70				
11	78	.001	35				
12	79	.001	35				
13	80	.001	35				
14	81	.001	35				
15	82	.001	35				
16	83	.001	35				
17	84	.001	35				
18	85	.012	410				
19	86	.034	1170				
20	2388	.032	1100				
21	89	.014	480				
22	90	.055	1890				
23	91	.005	170				
24	DXC 2392	.243	-				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DDH 15391

DATE: August 17/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX02393	.003	105				
2	94	.004	135				
3	95	.004	135				
4	96	.095	3260				
5	DX02397	.077	2640				
6							
7							
8							
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24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Aug 20/93

46 # 15419

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	LX 02398	.005	170				
2	99	.011	375				
3	2400	.011	375				
4	01	.121	-				
5	02	.007	240				
6	03	.004	135				
7	04	.004	135				
8	05	.006	205				
9	06	.005	170				
10	07	.004	135				
11	08	.002	70				
12	09	.003	105				
13	10	.003	105				
14	11	.002	70				
15	12	.003	105				
16	13	.004	135				
17	14	.004	135				
18	15	.001	35				
19	16	.003	105				
20	17	.004	135				
21	18	.005	170				
22	19	.018	615				
23	20	.054	1850				
24	DX 0 24 21	.048	1650				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

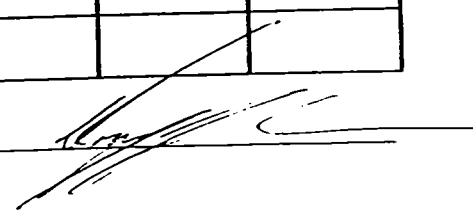
EXPLORATION 5600-1301

DATE: Aug 20/13

HOLE #15419

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02422	.037	1270				
2	23	.007	240				
3	24	.132	-				
4	25	.017	585				
5	26	.004	135				
6	27	.003	105				
7	28	.006	205				
8	29	.004	135				
9	30	.011	375				
10	31	.267	-				
11	32	.002	70				
12	33	.003	105				
13	34	.002	70				
14	35	.001	35				
15	36	.001	35				
16	37	.001	35				
17	38	.001	35				
18	DX02439	.001	35				
19							
20							
21							
22							
23							
24							

Lab16 M. Robb

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Aug 20/93

House #15420

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02440	.065	2230				
2	41	.002	70				
3	42	.011	375				
4	43	.002	70				
5	44	.003	105				
6	45	.001	35				
7	46	.003	105				
8	47	.013	445				
9	48	.008	275				
10	49	.528	-				
11	50	.002	70				
12	51	.002	70				
13	52	.010	340				
14	53	.002	70				
15	54	.029	995				
16	55	.002	70				
17	56	.001	35				
18	57	.001	35				
19	58	.001	35				
20	59	.001	35				
21	60	.001	35				
22	61	.001	35				
	DX 02462	.001	35				
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301
15421.

DATE: Aug 29/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02203	.005	170				
2	04	.007	240				
3	05	.001	35				
4	06	.001	35				
5	07	.004	135				
6	08	.001	35				
7	09	.004	135				
8	10	.001	35				
9	2211	.001	35				
10	2463	.003	105				
11	64	.001	35				
12	65	.001	35				
13	66	.001	35				
14	67	.001	35				
15	68	.065	2230				
16	69	.038	1300				
17	70	.048	1650				
18	71	.018	615				
19	72	.081	2780				
20	73	.002	70				
21	74	.006	205				
22	75	.034	1170				
	76	.001	35				
24	DX 02477	.003	105				

ROYAL OAK ANALYTICAL LABORATORY

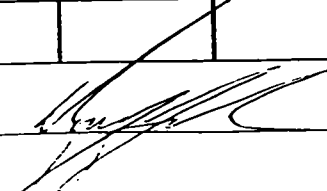
CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Aug 20/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	Dx 02478	.001	35				
2	79	.001	35				
3	80	.001	35				
4	81	.002	70				
5	82	.005	170				
6	83	.008	275				
7	84	.008	275				
8	85	.001	35				
9	86	.001	35				
10	87	.001	35				
11	88	.001	35				
12	89	.001	35				
13	90	.005	170				
14	91	.003	105				
15	92	.003	105				
16	93	.004	310				
17	94	.006	205				
18	95	.001	35				
19	96	.002	70				
20	97	.078	2670				
21	98	.027	925				
22	99	.052	1780				
23	Dx 02500	.012	410				
24							

Lab16 M. Robs

Chief Chemist: 

Production ...
 24 Boxes

Rejects Sawd
 2235-2237 Jarl

DIST	ROCK QUALITY			ASSAY DATA											
	Rec1	Pc1	Pcs1	Rq	Re%	Spl #	Width	IT	Aggr	Imp	Imp	Imp	Imp	Imp	Imp
75.0															
95.7						2212	20.7	6	500.2						
98.5						2213	20.8	5	600						
126.0						2214	22.5	6	500.1	35					
146.0						2215	20.0	6							
166.0						2216	20.0	6							
186.0						2217	20.9	6	500.1	35					
206.0						2218	20.0	6							
227.6						2219	16.6	6							
246.0						2220	14.5	5							
266.0						2221	22.0	6							
286.0						2222	20.0	6							
306.0						2223	20.0	6							
326.0						2224	20.0	6							
346.0						2225	20.0	6							
366.0						2226	13.0	6	500.1	35					
386.0						2227	35.5	5							
406.0						2228	50.5	5							
426.0						2229	17.0	6	500.1	35					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Aug 30/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 02212	.002	70					
2	13	.001	35					
3	14	.001	35					
4	15	.001	35					
5	16	.001	35					
6	17	.001	35					
7	18	.001	35					
8	19	.001	35					
9	20	.001	35					
10	21	.001	35					
11	22	.001	35					
12	23	.001	35					
13	24	.001	35					
14	25	.001	35					
15	26	.001	35					
16	27	.001	35					
17	28	.001	35					
18	29	.001	35					
19	30	.001	35					
20	31	.001	35					
21	32	.001	35					
22	33	.001	35					
23	34	.001	35					
24	DX 02235	.013	445					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Aug 30/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	Dx 02236	.036	1230					
2	37	.005	170					
3	38	.001	35					
4	39	.001	35					
5	40	.002	70					
6	41	.001	35					
7	42	.001	35					
8	43	.001	35					
9	Dx 02244	.001	35					
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Analysis of Sample Co. Report Job No. 10000, Laboratory 10000
 Case Study of Heavy Duty Bearings about 16, 16 Boxes

50 x 100 6.52 50
 50 x 100 50 x 100
 100 x 100 20 x 100
 100 x 100 100 x 100
 100 x 100 100 x 100

3913.6/200

DIST	ROCK QUALITY		
	Recl	Pc	PcsI RqRe%
100.0			
106.0			
109.5			
113.0			
114.3			
115.5			
118.0			
120.0			
121.7			
126.0			

SPI #	Width	T	ASSAY DATA	
			Amount	Temp
2265	6.2	5	0.002	
2246	2.5	5	0.005	
2247	3.5	5	0.039	
2248	1.3	6	0.039	
2249	1.2	5	0.067	
2250	2.5	5	0.175	
2251	2.6	5	0.470	
2252	1.1	5	0.661	
2253	1.3	5	0.019	

Sample Rejects: send
 DXO 2267 - 2290
 3251 - 3254
 3260 - 3266
 3270 - 3282
 3287

109.5 - 130.3

ROCK QUALITY	
Recl	Pc
100.0	
106.0	
109.5	
113.0	
114.3	
115.5	
118.0	
120.0	
121.7	
126.0	

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcal	Rq	Spl #	Width	Amount	Suppl	
2316					3273	0.2	0.311		
2347					3274	2.1	0.000		
2371					3276	2.6	0.029		
2401					3275	3.0	0.259		2767-2991 0.024//2.6
2435					3276	3.6	0.000		
2442					3277	0.7	0.933		
2476					3278	3.6	0.004		
2526					3279	5.0	0.004		
2580					3280	5.6	0.000		
2603					3281	2.3	0.002		
2610					3282	0.7	0.066		
2645					3283	3.5	0.001		

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301
15623

DATE: Aug 25 1993

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 022.45	.002	70				
2	46	.003	105				
3	47	.003	105				
4	48	.039	1340				
5	49	.267	—				
6	52	.661	—				
7	53	.075	2570				
8	54	.014	480				
9	55	.002	70				
10	56	.003	105				
11	57	.001	35				
12	58	.002	70				
13	DX 022.59	.001	35				
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Howe# 15423

DATE: SEPT 2/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03260	.002	70					
2	61	.035	1200					
3	62	.127	-					
4	63	.049	1680					
5	64	.242	-					
6	65	.005	170					
7	66	.002	70					
8	67	.001	35					
9	68	.002	70					
10	69	.004	135					
11	70	.176	-					
12	71	.272	-					
13	72	.311	-					
14	73	.180	-					
15	74	.029	995					
16	75	.249	-					
17	76	.064	2190					
18	77	.053	1820					
19	78	.004	135					
20	79	.004	135					
21	80	<.001	<35					
22	81	.002	70					
	82	.066	2260					
24	DX 03283	<.001	<35					

Lab16 M. Ross

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15423

DATE: SEPT 2/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03284	<.001	<35					
2	85	.002	70					
3	86	<.001	<35					
4	87	.154	-					
5	88	<.001	<35					
6	89	.002	70					
7	DX 03290	<.001	<35					
8								
9								
10								
11								
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13								
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15								
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22								
23								
24								

Lab16 M. Robb

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

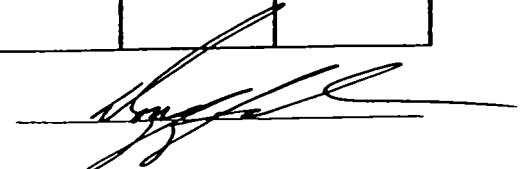
EXPLORATION 5600-1301

DATE: SEPT 7/93

HOLE # 15424

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03291	.001	35				
2	92	.002	70				
3	93	.002	70				
4	94	.002	70				
5	95	.008	275				
6	96	.001	35				
7	97	.001	35				
8	98	.008	275				
9	99	.003	105				
10	3300	.001	35				
11	01	6.001	635				
12	02	.011	375				
13	03	.001	35				
14	04	.003	105				
15	05	.016	550				
16	06	.006	205				
17	07	6.001	635				
18	DX 03308	6.001	635				
19							
20							
21							
22							
24							

Lab16 M. Ross

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15424

DATE: SEPT 2/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03309	.012	410					
2	10	.006	205					
3	11	.006	205					
4	12	.002	70					
5	13	.008	275					
6	14	<.001	<35					
7	15	.002	70					
8	16	<.001	<35					
9	17	.002	70					
10	18	.001	35					
11	19	<.001	<35					
12	20	.066	2260					
13	21	.002	70					
14	22	.012	410					
15	23	<.001	<35					
16	24	.006	205					
17	25	.004	135					
18	26	<.001	<35					
19	27	.139	-					
20	28	.007	240					
21	DX 03329	.043	1470					
22								
23								
24								

Lab16 M. Ross

Chief Chemist: 

ROYAL OAK MINES INC.

PROJECT: 116603
 Logged By: M. B. [Signature]

Date: 11/19/19
 Page 1 of 1

DRILL HOLE: 15623
 NORTHING: 116603
 EASTING: 78263
 ELEVATION: 10935
 LENGTH: 3520
 OBI: _____ OBE: _____ INC: _____ LEASE: _____

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
1000	330	50	120	334	50	220	338	50						

13 G199 2463
 8 SOW 1917
 28660

Casey Hill, hole completed

DIST	Id	ROCK DESCRIPTION			STRUCT. B/S J/F	MINERALS			COMMENTS 1	COMMENTS 2
		Com	Gr	Test Co Alt Nom		GANGUE	METALLIC			
		AZ	DIP	Dist	B	A	J	F		
1000										
1200										
1400										
1600										
1800										
2000										
2050										
2100										
2150										
2200										
2250										
2300										
2350										
2400										
2450										
2500										

DIST	Id	ROCK DESCRIPTION			STRUCT. B/S J/F	MINERALS			COMMENTS 1	COMMENTS 2
		Com	Gr	Test Co Alt Nom		GANGUE	METALLIC			
		AZ	DIP	Dist	B	A	J	F		
1000										
1200										
1400										
1600										
1800										
2000										
2050										
2100										
2150										
2200										
2250										
2300										
2350										
2400										
2450										
2500										

BR Core

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS


EXPLORATION 5600-1301

DATE: SEPT 2/93

HOLE #15425

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03330	.004	135				
2	31	.001	35				
3	32	.004	135				
4	33	.003	105				
5	34	.003	105				
6	35	.001	35				
7	36	.001	35				
8	37	.001	35				
9	38	.001	35				
10	39	.001	35				
	40	.003	105				
12	41	.059	2020				
13	42	.005	170				
14	43	.004	135				
15	44	.001	35				
16	45	.019	650				
17	46	.003	105				
18	47	.002	70				
19	48	<.001	<35				
20	49	<.001	<35				
21	DX 03390	<.001	<35				
22							
23							
24							

Lab16 M. Ross

Chief Chemist: 

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	Area	Area
3447						4253	1.8	0.044	1516
3485						4254	3.8	0.015	1710
3515						4255	3.0	0.021	
3540						4256	7.5	0.031	
3551						4257	1.1	0.012	410
3590						4258	3.9	0.054	215
3600						4259	1.0	0.017	
3650						4260	5.0	0.011	
3740						4261	1.0	0.011	
3735						4262	4.5	0.011	
3765						4263	3.0	0.011	
3810						4264	4.5	0.021	35
3810						4265	7.0	0.031	35
3900						4266	2.0	0.022	30
4100						4267	20.9	0.031	
4106						4268	2.0	0.011	
4100							3.5		
4208						4269	3.8	0.001	35
4300						4270	9.2	0.021	35
4330						4271	3.0	0.022	30
4340						4272	6.0	0.021	35

348.5 - 360.0
0.036 / 11.5

331.0 - 360.0 0.033 / 22.0

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: OCT 28/93

HOLES # 15426

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04256	.109	-				
2	57	.012	410				
3	58	.008	275				
4	59	.307	-	e			
5	60	<.001	<35	j			
6	61	.001	35				
7	62	<.001	<35				
8	63	.001	35				
9	64	<.001	<35				
10	65	.001	35				
11	66	.002	70				
12	67	.001	35				
13	68	.001	35				
14	69	.001	35				
15	70	<.001	<35				
16	71	.002	70				
17	72	<.001	<35				
18	73	.002	70				
19	74	.054	1850				
20	75	.001	35				
21	76	<.001	<35				
22	77	.001	35				
	78	<.001	<35				
24	DX 04279	.015	515				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Oct 28/93

HOLE# 15426

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX04280	.001	35				
2	81	.001	35				
3	DX04282	.001	35				
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Howe # 15426

DATE: Oct 28/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 02976	.026	890				
2	77	.010	340				
3	78	.021	720				
4	79	.016	550				
5	80	.017	585				
6	81	.012	410				
7	82	.007	240				
8	83	.006	205				
9	84	.015	515				
10	85	.008	275				
11	86	.011	375				
12	87	.015	515				
13	88	.012	410				
14	89	.017	585				
15	90	.012	410				
16	91	.009	310				
17	92	.005	170				
18	93	.008	275				
19	94	.003	105				
20	95	.002	70				
21	96	.002	70				
22	97	.003	105				
23	98	.002	70				
24	DX 02999	.004	135				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15426

DATE: OCT 28/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03000	.002	70				
2	4251	.004	135				
3	52	.019	650				
4	53	.044	150				
5	54	.005	170				
6	DX 04255	.121	-				
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK MINES INC.

PROJECT: UG (low)
 Section 650512-605

Logged By: M.R. M.R. 10/28
 PAGE 1

Date: / / 19
 Page of 5

DRILL HOLE: 15427 NORTHING: 11218.27 EASTING: 7479.43 ELEVATION: 10931.89 OBI: ORE: INC: LEAST:

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	333	43	137	337	38	217	336	33	317	336	32
447	338	27									

Hole was called @ 47. Sol. in sweep after drilling put down

B R Core

8600 168.7
 64000 222.3
 72 347.0

DIST	ID	ROCK DESCRIPTION			STRUCT.	MINERALS			COMMENTS 1	COMMENTS 2							
		Com	Gr	Text		GANGUE	METALLIC										
		Com	Gr	Text	Co	Alt	Nom	AZ	BZ	CZ	DZ	EZ	FZ	Spl #	Width	T	
117.0																	
127.0		B												4283	3300		
157.0		S	FG	Red										4286	2500		
181.5		S	FG	Red										4285	2050		
181.5																	
192.0		M	FG	Red										4287	2000		
192.0																	
193.0		B	FG	Red										4288	1100		
198.0		M	FG	Red										4289	500		
200.0		M	FG	Red										4290	200		
203.0		B	FG	Red										4291	200		
203.0																	

Comments 1:
 0.0 - 112.0 Overburden
 112.0 - 456.0 Gneiss with Siderite/Siderite
 456.0 - 477.0 Gneiss with Siderite/Siderite
 477.0 - 483.0 Gneiss with Siderite/Siderite
 483.0 - 485.0 Gneiss with Siderite/Siderite
 485.0 - 487.0 Gneiss with Siderite/Siderite
 487.0 - 488.0 Gneiss with Siderite/Siderite
 488.0 - 489.0 Gneiss with Siderite/Siderite
 489.0 - 490.0 Gneiss with Siderite/Siderite
 490.0 - 491.0 Gneiss with Siderite/Siderite
 491.0 - 492.0 Gneiss with Siderite/Siderite
 492.0 - 493.0 Gneiss with Siderite/Siderite
 493.0 - 494.0 Gneiss with Siderite/Siderite
 494.0 - 495.0 Gneiss with Siderite/Siderite
 495.0 - 496.0 Gneiss with Siderite/Siderite
 496.0 - 497.0 Gneiss with Siderite/Siderite
 497.0 - 498.0 Gneiss with Siderite/Siderite
 498.0 - 499.0 Gneiss with Siderite/Siderite
 499.0 - 500.0 Gneiss with Siderite/Siderite

0.05/15.1

ROCK QUALITY				1111 ASSAY DATA							
Dist	Recl	Pc	Posl	Rq	Re%	Spl #	Width	T	CAI	14E	14E
255.7						4306	4.7		0.20	635	
256.9						07	1.2		0.00	2000	2510-260.7
258.2						08	1.3		0.20		0.13
260.9						09	1.5		0.15		
263.3						10	5.3		0.15	515	
266.7						11	1.4		0.35	1200	
270.0						12	6.3		0.03	105	
285.7						13	12.7		0.01	35	
286.5						14	0.8		0.21	720	
294.0						15	7.5		0.01	35	
295.5						16	1.5		0.01	35	
310						17	2.5		0.01	35	
327.0						18	20.0		0.01	35	
357.0						19	20.0		0.01	35	
382.0						4320	5.0		0.03	240	
384.7						4321	5.7		0.01	35	

DIST	ROCK QUALITY			1714 ASSAY DATA						
	Recl	Pc	Pcs1	Rq	Rq%	Spl #	Width	T	CMAT	1714
432.1						4322	4.4		.005	110
436.5						23	4.4		.001	35
437.6						24	1.1		.001	35
401.2						25	3.6		.001	35
422.7						26	1.0		.005	110
405.5						27	2.3		.001	35
408.0						28	3.5		.001	35
410.2						29	1.2		.022	755
412.6						30	2.4		.001	35
415.5						31	2.1		.026	210
422.5						32	7.0		.001	35
424.0						23	1.5		.112	
										0.05/7.5
427.7						34	3.7		.001	35
430.0						35	2.3		.013	2500
										0.007
										1.67
433.0						26	3.0		.002	70
436.2						37	3.2		.013	105
438.2						38	2.0		.027	125
439.2						39	1.0		.134	
441.6						4340	2.4		.016	340

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: OCT 28/93

HOLES# 15427

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04283	.002	70				
2	84	.002	70				
3	85	.001	35				
4	86	.001	35				
5	87	.003	105				
6	88	.001	35				
7	89	.002	70				
8	90	.015	515				
9	91	.009	310				
10	92	.006	205				
11	93	METALLICS					
12	94	METALLICS					
13	95	METALLICS					
14	96	.006	205				
15	97	METALLICS					
16	98	.004	135				
17	99	.005	170				
18	4300	<.001	<35				
19	01	.003	105				
20	02	<.001	<35				
21	03	.004	135				
22	04	<.001	<35				
23	05	.008	275				
24	DX 04306	.020	685				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 2/93

Howe#15427

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	<u>DX 04307</u>	<u>.060</u>	<u>2060</u>				
2	<u>08</u>	<u>.130</u>	<u>-</u>				
3	<u>09</u>	<u>.181</u>	<u>-</u>				
4	<u>10</u>	<u>.05</u>	<u>515</u>				
5	<u>11</u>	<u>.035</u>	<u>1200</u>				
6	<u>12</u>	<u>.003</u>	<u>105</u>				
7	<u>13</u>	<u><.001</u>	<u><35</u>				
8	<u>14</u>	<u>.021</u>	<u>720</u>				
9	<u>15</u>	<u><.001</u>	<u><35</u>				
10	<u>16</u>	<u><.001</u>	<u><35</u>				
11	<u>17</u>	<u><.001</u>	<u><35</u>				
12	<u>18</u>	<u><.001</u>	<u><35</u>				
13	<u>19</u>	<u><.001</u>	<u><35</u>				
14	<u>20</u>	<u>.007</u>	<u>240</u>				
15	<u>21</u>	<u><.001</u>	<u><35</u>				
16	<u>22</u>	<u>.005</u>	<u>170</u>				
17	<u>23</u>	<u><.001</u>	<u><35</u>				
18	<u>24</u>	<u><.001</u>	<u><35</u>				
19	<u>25</u>	<u><.001</u>	<u><35</u>				
20	<u>26</u>	<u>.009</u>	<u>310</u>				
21	<u>27</u>	<u><.001</u>	<u><35</u>				
22	<u>28</u>	<u><.001</u>	<u><35</u>				
23	<u>29</u>	<u>.022</u>	<u>755</u>				
24	<u>DX 04330</u>	<u><.001</u>	<u><35</u>				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 2/93

HOLE # 15427

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04331	.026	890				
2	32	<.001	<35				
3	33	.112	-				
4	34	<.001	<35				
5	DX 04335	.073	2500				
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

Hole # 15427

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04336	.002	70				
2	37	.003	105				
3	38	.027	925				
4	39	.134	-				
5	40	.010	340				
6	41	.007	240				
7	42	.006	205				
8	43	.004	135				
9	44	.004	135				
10	45	.002	70				
11	46	.006	205				
12	47	.170	-				
13	48	.036	1230				
14	49	.003	105				
15	50	.006	205				
16	51	.013	445				
17	52	.025	855				
18	53	.009	310				
19	DX 04354	.003	105				
20							
21							
22							
23							
24							

ROYAL OAK MINES INC.

PROJECT: 11072.05

Logged By: MFR

Date: 11/11/19

Page: 3 of 3

DRILL HOLE: 15428 NORTHING: 11072.05 EASTING: 7570.2 ELEVATION: 10932.83 LENGTH: 600.00 OBI: _____ OBE: _____ INC: _____ LEASE: _____

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	338	47	97	337	44	300	338	42	407	337	41			
501	336	34	897	338	29									

BQ Core

DIST	Id	ROCK DESCRIPTION				STRUCT. B/S J/F	MINERALS			COMMENTS 1	COMMENTS 2				
		Com	Gr	Text	Co Alt Nom		GANGUE	METALLIC							
		A%	B%	C%	D%	E%	F%	Spl #	Width	T					
167															0.9 - 82.9 Overblow
177															82.0 - 699.9 Grey wacke / Slaty Gneiss
167															Typical wacke / Slaty Gneiss
172.0															Blocky, etc. 113
172.5															Fracture sub // to core axis = 133-137
172.7															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															Blocky, etc. 113
172.9															Fracture sub // to core axis = 133-137
172.9															pyritic + calcine
172.9															167.0 - 172.7 = mineral fracture pt
172.9															pyritic calcine
172.9															

DIST	ROCK QUALITY				141 ASSAY DATA										
	Recl	Pc	Pcsl	Rq	Re%	Spl #	Width	FT	OFT	P1B					
280.5						4380	7.5		.001	35					
289.0						71	18.5		.001	35					
293.5						72	5.5		.001	35					
295.0						73	4.5		.001	35					
302.0						74	0.4		.001	35					
313.0						75	0.1		.001	35					
315.5						76	2.5		.001	35					
337.0						77	1.2		.001	35					
343.3						78	2.3		.001	35					
365.7						79	2.1		.001	35					
367.3						80	3.6		.002	70					
370.6						81	1.3		.001	35					
375.0						82	4.4		.001	35					
377.0						83	7.2		.001	35					
400.3						84	12.3		.001	35					
414.0						85	3.7		.001	35					
433.0						86	7.1		.001	35					
443.0						87	2.6		.001	35					
448.0						4288	5.0		.001	35					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

HOPE#15428

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04355	<.001	<35					
2	56	<.001	<35					
3	57	<.001	<35					
4	58	<.001	<35					
5	59	<.001	<35					
6	60	<.001	<35					
7	61	<.001	<35					
8	62	.003	105					
9	63	.002	70					
10	64	<.001	<35					
11	65	.001	35					
12	66	.001	35					
13	67	.001	35					
14	68	<.001	<35					
15	69	.001	35					
16	70	<.001	<35					
17	71	<.001	<35					
18	72	<.001	<35					
19	73	<.001	<35					
20	74	<.001	<35					
21	75	<.001	<35					
22	76	<.001	<35					
	77	<.001	<35					
24	DX 04378	.001	35					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

HOLE# 15428

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04379	<.001	<35				
2	80	.002	70				
3	81	.001	35				
4	DX 04382	<.001	<35				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15428

DATE: Nov 8/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04383	<.001	<35				
2	84	<.001	<35				
3	85	<.001	<35				
4	86	<.001	<35				
5	87	<.001	<35				
6	88	<.001	<35				
7	89	<.001	<35				
8	90	<.001	<35				
9	91	<.001	<35				
10	92	<.001	<35				
11	93	<.001	<35				
12	94	.048	1650				
13	95	<.001	<35				
14	96	<.001	<35				
15	97	<.001	<35				
16	98	<.001	<35				
17	99	<.001	<35				
18	DX 04400	<.001	<35				
19							
20							
21							
22							
23							
24							

Analytical Work at Royal Cole Mines Timmins Cob, Schwabach
 Core & Rejects Sound at Halling Property, Timmins, Sheet 16, 23 Issues

Direct Costs

Drilling 1007.75
 Casing 228.40
 Coring 404.75
 Tests 527.75
 cementing 100.00
 other 698.80

Assaying

57 x 10.0 = \$570.00

570.00

\$ 4,908.80 / 506' \$9.88/ft

DIST	ROCK QUALITY			ASSAY DATA			Sample Rejects Saved																	
	Recl	Pc	Pest	Rq	Re%	Split		Wtth	UPT	172B														
100.0																								
116.2																								
120.0																								
125.0																								
121.0																								
144.5																								
147.1																								
151.5																								
173.3																								

Sample Rejects Saved
 4402- 4404
 4409
 4446- 4457

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Hpi# 15429

DATE: Nov 4/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04401	.004	135				
2	02	.011	375				
3	03	.098	3360				
4	04	.008	275				
5	05	<.001	<35				
6	06	.005	170				
7	07	<.001	<35				
8	08	.001	35				
9	09	.086	2950				
10	10	.001	35				
11	11	<.001	<35				
12	12	<.001	<35				
13	13	.001	35				
14	14	.001	35				
15	15	.001	35				
16	16	.001	35				
17	17	.001	35				
18	18	.001	35				
19	19	.001	35				
20	20	.001	35				
21	21	<.001	<35				
22	22	.001	35				
23	23	.001	35				
24	DX 04424	<.001	<35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04425	<.001	<35				
2	26	<.001	<35				
3	27	<.001	<35				
4	DX 04428	<.001	<35				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Howe # 15429

DATE:

Nov 2/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04429	<.001	<35				
2	30	<.001	<35				
3	31	<.001	<35				
4	32	<.001	<35				
5	33	<.001	<35				
6	34	<.001	<35				
7	35	<.001	<35				
8	36	<.001	<35				
9	37	<.001	<35				
10	38	<.001	<35				
11	39	<.001	<35				
12	40	<.001	<35				
13	41	<.001	<35				
14	42	<.001	<35				
15	43	<.001	<35				
16	44	<.001	<35				
17	45	.002	70				
18	46	<.001	<35				
19	47	.002	70				
20	48	<.001	<35				
21	49	.014	480				
22	50	.020	685				
23	DX 04451	.014	480				
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

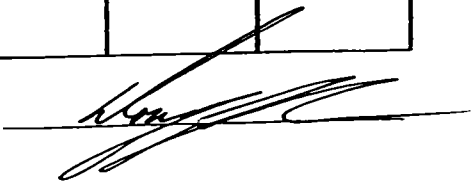
EXPLORATION 5600-1301

DATE: Nov 4/93

HOLE #15429

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04452	.015	515					
2	53	.001	35					
3	54	.001	35					
4	55	.001	35					
5	DX 04456	.001	35					
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

DIST	ROCK QUALITY			ASSAY DATA										
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	CPT	PPE				
112.0						4463	5.0		.001	35				
117.0						64	5.0		.001	35				
121.5						65	4.5		.001	35				
126.5						66	5.0		.002	70				
132.1						67	6.0		.194					
135.5						68	2.0		.015	32.0			0.167/126	
138.3						69	2.8		.127				0.168 20.5	0.107/31.0
139.1						70	0.8		.825					
142.0						71	2.9		.017	79.0				
144.5						72	2.5		.090	20.0				
147.0						73	3.2		.183					
148.5						74	2.5		.038	13.0				
152.5						75	4.0		.042	14.0				
157.5						4476	4.0		.003	10.5				

ROYAL OAK
MINES INC.

DIST	Id	ROCK DESCRIPTION					B/S J/F	MINERALS				SPL #	Width	T	COMMENTS 1	COMMENTS 2	
		Com	Gr	Text	Co	Alt		Num	CZ	B%	C%						D%
320.0		S	FG	Bed	61	QC	60h	B60						4683	3.0		1 ton 2045 slt. cp
326.0		B	FG	Bed	66	PC	60h	B65						4684	6.0		320.0 - veinling
														1	1		320.0 + 1'
														1	1		1.63 @ 302 - lat
336.0		S	FG	Bed	67	GY	GT	B65						4685	5.0		cut ribbed 2 gms
336.0		S	1	1	67	GY	GT	D65						4680	5.0		unpld slt. gshk
																	6. blocks
																	336.0 - oblong
																	rock with gl. sh.
																	very bleached gshk
																	is heavily bleached
																	8 gms. 2 v. v. v.
																	T.O. 340.5
349.5		M	FG	RNB	67	RK5	60h	B 35	3	3	3	3		4687	6.5		Veins generally @
																	349.5 @
																	range up to 3'
																	under blasting fire
																	veins (c. 2' - 3')
																	is bleached out. par
																	vs. 10' - 12' veins
																	useful. Libby's. =
																	50% vein. H. to
																	cont. ex. last vein @
																	3700
347.0		M	FG	bed	66	PC3	60h							4688	6.5		Narrow 1" slt. slt. @
358.0														4689	6.0		352.7

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

HOLE# 15430

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	<u>DX 04457</u>	<u>.001</u>	<u>35</u>					
2	<u>58</u>	<u>.042</u>	<u>1440</u>					
3	<u>59</u>	<u>.176</u>	<u>-</u>					
4	<u>60</u>	<u>.036</u>	<u>1230</u>					
5	<u>61</u>	<u>.059</u>	<u>2020</u>					
6	<u>62</u>	<u>.013</u>	<u>445</u>					
7	<u>63</u>	<u><.001</u>	<u><35</u>					
8	<u>64</u>	<u><.001</u>	<u><35</u>					
9	<u>65</u>	<u><.001</u>	<u><35</u>					
10	<u>66</u>	<u>.002</u>	<u>70</u>					
11	<u>67</u>	<u>.194</u>	<u>-</u>					
12	<u>68</u>	<u>.095</u>	<u>3260</u>					
13	<u>69</u>	<u>.127</u>	<u>-</u>					
14	<u>70</u>	<u>.428</u>	<u>-</u>					
15	<u>71</u>	<u>.077</u>	<u>2640</u>					
16	<u>72</u>	<u>.090</u>	<u>3090</u>					
17	<u>73</u>	<u>.183</u>	<u>-</u>					
18	<u>74</u>	<u>.038</u>	<u>1300</u>					
19	<u>75</u>	<u>.042</u>	<u>1440</u>					
20	<u>76</u>	<u>.003</u>	<u>105</u>					
21	<u>77</u>	<u>.003</u>	<u>105</u>					
22	<u>78</u>	<u><.001</u>	<u><35</u>					
23	<u>79</u>	<u><.001</u>	<u><35</u>					
24	<u>DX 04480</u>	<u><.001</u>	<u><35</u>					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 4/93

Hole #15430

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04481	.001	35				
2	82	<.001	<35				
3	83	<.001	<35				
4	DX 04484	<.001	<35				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15430

DATE: Nov 4/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04485	<.001	<35				
2	86	<.001	<35				
3	87	<.001	<35				
4	88	<.001	<35				
5	89	<.001	<35				
6	90	<.001	<35				
7	91	<.001	<35				
8	92	<.001	<35				
9	93	<.001	<35				
10	94	.011	375				
11	95	<.001	<35				
12	96	.002	70				
13	97	.051	1750				
14	98	<.001	<35				
15	DX 04499	.001	35				
16							
17							
18							
19							
20							
21							
22							
24							

DIST	Id	ROCK DESCRIPTION					STRUCT.		MINERALS					COMMENTS 1	COMMENTS 2					
		Com	Gr	Test	Co	Alt	Mem	B	A1	J	A2	G%	B%			C%	D%	E%	F%	Spl #
2250		M	FC	Red	Q			B25										4107	150	5
2200		M	FC					B25										4202	150	5
2250		M	FC					B25										2209	150	5
2300		M	FC					B30										2210	150	5
2345		M	FC					B25										2211	150	5
2400		M	FC					B30										2212	150	5
2440		M	FC					B30										2213	150	5
2470		M	FC					B30										2214	150	5
2525		M	FC					B30										2215	150	5
2546		M	FC					B30										2216	150	5
2565		M	FC					B30										2217	150	5
2577		M	FC					B30										2218	150	5
2570		M	FC					B30										2219	150	5
2610		M	FC					B30										2220	150	5
2650		M	FC					B30										2221	150	5
		M	FC					B30										2222	150	5
		M	FC					B30										2223	150	5
		M	FC					B30										2224	150	5
		M	FC					B30										2225	150	5
		M	FC					B30										2226	150	5
		M	FC					B30										2227	150	5
		M	FC					B30										2228	150	5
		M	FC					B30										2229	150	5
		M	FC					B30										2230	150	5
		M	FC					B30										2231	150	5
		M	FC					B30										2232	150	5
		M	FC					B30										2233	150	5
		M	FC					B30										2234	150	5
		M	FC					B30										2235	150	5
		M	FC					B30										2236	150	5
		M	FC					B30										2237	150	5
		M	FC					B30										2238	150	5
		M	FC					B30										2239	150	5
		M	FC					B30										2240	150	5
		M	FC					B30										2241	150	5
		M	FC					B30										2242	150	5
		M	FC					B30										2243	150	5
		M	FC					B30										2244	150	5
		M	FC					B30										2245	150	5
		M	FC					B30										2246	150	5
		M	FC					B30										2247	150	5
		M	FC					B30										2248	150	5
		M	FC					B30										2249	150	5
		M	FC					B30										2250	150	5
		M	FC					B30										2251	150	5
		M	FC					B30										2252	150	5
		M	FC					B30										2253	150	5
		M	FC					B30										2254	150	5
		M	FC					B30										2255	150	5
		M	FC					B30										2256	150	5
		M	FC					B30										2257	150	5
		M	FC					B30										2258	150	5
		M	FC					B30										2259	150	5
		M	FC					B30										2260	150	5
		M	FC					B30										2261	150	5
		M	FC					B30										2262	150	5
		M	FC					B30										2263	150	5
		M	FC					B30										2264	150	5
		M	FC					B30										2265	150	5
		M	FC					B30										2266	150	5
		M	FC					B30										2267	150	5
		M	FC					B30										2268	150	5
		M	FC					B30										2269	150	5
		M	FC					B30										2270	150	5
		M	FC					B30										2271	150	5
		M	FC					B30										2272	150	5
		M	FC					B30										2273	150	5
		M	FC					B30										2274	150	5
		M	FC					B30										2275	150	5
		M	FC					B30										2276	150	5
		M	FC					B30										2277	150	5
		M	FC					B30										2278	150	5
		M	FC					B30										2279	150	5
		M	FC					B30										2280	150	5
		M	FC					B30										2281	150	5
		M	FC					B30										2282	150	5
		M	FC					B30										2283	150	5
		M	FC					B30										2284	150	5
		M	FC					B30										2285	150	5
		M	FC					B30										2286	150	5
		M	FC					B30										2287	150	5
		M	FC					B30										2288	150	5
		M	FC					B30										2289	150	5
		M	FC					B30										2290	150	5
		M	FC					B30										2291	150	5
		M	FC					B30										2292	150	5
		M	FC					B30										2293	150	5
		M	FC					B30										2294	150	5
		M	FC					B30										2295	150	5
		M	FC					B30										2296	150	5
		M	FC					B30										2297	150	5
		M	FC					B30										2298	150	5
		M	FC	</																

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 12/93

Hole# 15480

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DXO 4783	.004	135				
2	84	.017	585				
3	85	.022	755				
4	4787	.010	340				
5	88	.073	2500				
6	89	.003	105				
7	90	.001	35				
8	91	.002	70				
9	92	.002	70				
10	93	.001	35				
11	94	.007	240				
12	95	.012	410				
13	96	<.001	<35				
14	97	.003	105				
15	98	<.001	<35				
16	99	.004	135				
17	4800	.001	35				
18	01	.009	310				
19	02	.001	35				
20	03	.003	105				
21	04	.049	1680				
22	05	.064	2190				
2	06	.001	35				
24	DX 04807	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 8/93

Hole # ?

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04811	<.001	<35					
2	12	<.001	<35					
3	13	.001	35					
4	14	<.001	<35					
5	15	<.001	<35					
6	16	<.001	<35					
7	17	<.001	<35					
8	18	<.001	<35					
9	19	<.001	<35					
10	20	<.001	<35					
11	21	<.001	<35					
12	22	<.001	<35					
13	23	<.001	<35					
14	24	<.001	<35					
15	25	<.001	<35					
16	26	<.001	<35					
17	27	<.001	<35					
18	28	<.001	<35					
19	29	<.001	<35					
20	30	<.001	<35					
21	31	.006	205					
22	32	<.001	<35					
	33	<.001	<35					
24	DX 04834	<.001	<35					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 27/93

Hoie #15480

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04808	<.001	<35				
2	09	<.001	<35				
3	DX 04810	.002	70				
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 12/93

HOLES # 15480

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DXO 4783	.004	135				
2	84	.017	585				
3	85	.022	755				
4	4787	.010	340				
5	88	.073	2500				
6	89	.003	105				
7	90	.001	35				
8	91	.002	70				
9	92	.002	70				
10	93	.001	35				
11	94	.007	240				
12	95	.012	410				
13	96	<.001	<35				
14	97	.003	105				
15	98	<.001	<35				
16	99	.004	135				
17	4800	.001	35				
18	01	.009	310				
19	02	.001	35				
20	03	.003	105				
21	04	.049	1680				
22	05	.064	2190				
23	06	.001	35				
24	DX 04807	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 8/93

HOLE#15481

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04520	<.001	435				
2	4751	<.001	435				
3	52	.002	70				
4	53	.028	960				
5	54	.005	170				
6	55	.003	105				
7	56	.003	105				
8	57	.001	35				
9	58	<.001	435				
10	59	.001	35				
11	60	.017	585				
12	61	.001	35				
13	62	.001	35				
14	63	<.001	435				
15	64	.002	70				
16	65	.001	35				
17	66	.002	70				
18	67	.015	515				
19	68	.018	615				
20	69	.157	-				
21	70	<.001	435				
22	71	<.001	435				
23	72	<.001	435				
24	DX 04773	<.001	435				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 8/93

HOLE# 15481

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04774	<.001	<35				
2	75	<.001	<35				
3	76	<.001	<35				
4	77	<.001	<35				
5	78	<.001	<35				
6	79	.055	1890				
7	80	.004	135				
8	81	<.001	<35				
9	82	<.001	<35				
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROCK QUALITY				ASSAY				DATA					
Recl	Pc	Pcal	Rq	Rc%	Spl #	Width	T	DMT	17-B				
179.2					4415	2.0		.010	340				
182.5					14	3.3		.003	240				
184.1					17	1.5		.026	810				
187.0					68	3.0		.030	1030				
192.0					69	5.5		.002	30	169.8 - 172.0		0.018 / 22.2'	
212.0					70	2.0		.001	25	177.2 - 187.0		0.018 / 9.9'	
217.2					71	1.5		.001	25				
245.0					72	2.2		.003	105				
250.0					73	0.1		.001	35				
272.0					74	2.2		.001	25				
300.5					495H	5.32		.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Hole # ~~15486~~ 13082

DATE: Nov 19/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04959	.032	1100				
2	60	.001	35				
3	61	.002	70				
4	62	<.001	<35				
5	63	.002	70				
6	64	.002	70				
7	65	.010	340				
8	66	.007	240				
9	67	.026	870				
10	68	.030	1030				
11	69	.002	70				
12	70	.001	35				
13	71	.001	35				
14	72	.003	105				
15	73	.001	35				
16	74	.001	35				
17	75	.001	35				
18	76	.002	70				
19	77	.010	340				
20	78	.014	480				
21	79	.001	35				
22	80	.001	35				
	81	.001	35				
24	DX 04982	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE # ~~15486~~ 15482

DATE: Nov 19/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX04983	.002	70					
2	DX04484	.001	35					
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 19/93

HOLE #15482

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04601	.003	105				
2	4985	.003	105				
3	86	.106	-				
4	87	.003	105				
5	88	.058	1990				
6	89	.032	1100				
7	90	.010	340				
8	91	.002	70				
9	92	.001	35				
10	93	.002	70				
11	94	.001	35				
12	95	.001	35				
13	96	.001	35				
14	97	.001	35				
15	98	.050	1710				
16	99	.105	-				
17	DX 05000	.007	240				
18							
19							
20							
21							
22							
24							

ROYAL OAK MINES INC.

MOCKLEURE DRILLING
 3 MC
 PAGE 1

PROJECT: HALLS V. 13
 5 8 3 100

LOGGED BY: M.E. RABO
 M.E. Rabo

STARTED 27/11/83
 FINISHED 28/11/83

DATE: 31/10/1983
 CAT
 Page 1 of 3

DRILL HOLE	NORTHING	EASTING	ELEVATION	LENGTH	OBI	OBE	INC	LEASE
5483	1180.26	7418.43	1082.93	650				

23906 400.5
 3050w 1225
 33

DIST	AZIM	DIP	DIST	DIP	AZIM	DIP	DIST	DIP	AZIM	DIP	DIST	DIP	AZIM	DIP
0	330	47	127	46	336	44	307	44	337	44	417	42	338	42
507	338	38	650	38	338									

23906 400.5
 3050w 1225
 33

DIST	Id	Com	Gr	Text	Co	Alt	Num
97.0							CAS
117.0							GWH
132.0							
133.5							
152.0							
172.0							
192.0							
212.0							
237.0							
252.0							
272.0							
283							GWH
297.5							GWH
298.5							GWH
297.0							CA
311.0							CA

23906 400.5
 3050w 1225
 33

DIST	SP#	Width	Depth	Remarks
490.6	200.0			
490.7	15.0			
490.8	1.5			
490.9	23.5			
491.0	20.0			
491.1	20.0			
491.2	20.0			
491.3	20.0			
491.4	20.0			
491.5	20.0			
491.6	6.0			
491.7	6.0			
491.8	6.0			
491.9	3.5			
492.0	1.0			

23906 400.5
 3050w 1225
 33

DIST	B/S	J/F	MINERALS	GANGUE	METALLIC
	B1A1	J1A2	DZ	BZ	EZ
			CZ	FZ	

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
97.0					
117.0					
132.0					
133.5					
152.0					
172.0					
192.0					
212.0					
237.0					
252.0					
272.0					
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	COMMENTS 1	COMMENTS 2
0.0 - 97.0	Overburden	
97.0 - 657.0	657.0 - 1000.0 / 1000.0 - 1196.0	
657.0 - 812.0	812.0 - 1000.0 / 1000.0 - 1196.0	
812.0 - 850.0	850.0 - 1000.0 / 1000.0 - 1196.0	
850.0 - 880.0	880.0 - 1000.0 / 1000.0 - 1196.0	
880.0 - 900.0	900.0 - 1000.0 / 1000.0 - 1196.0	
900.0 - 920.0	920.0 - 1000.0 / 1000.0 - 1196.0	
920.0 - 940.0	940.0 - 1000.0 / 1000.0 - 1196.0	
940.0 - 960.0	960.0 - 1000.0 / 1000.0 - 1196.0	
960.0 - 980.0	980.0 - 1000.0 / 1000.0 - 1196.0	
980.0 - 1000.0	1000.0 - 1000.0 / 1000.0 - 1196.0	

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

23906 400.5
 3050w 1225
 33

DIST	ROCK DESCRIPTION	STRUCT.	MINERALS	GANGUE	METALLIC
283					
297.5					
298.5					
297.0					
311.0					

DIST	ROCK QUALITY				ASSAY DATA							
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	OPT	TPB		
334.0						1921	26		.001	35		
357.0						22	20		.001	35		
377.0						23	20		.001	35		
397.0						24	20		.001	35		
417.0						25	20		.001	35		
427.0						26	20		.001	35		
437.0						27	20		.001	35		
447.0						28	15		.001	35		
457.0						29	16		.001	35		
467.0						30	20		.001	35		
477.0						31	24		.001	35		
487.5						32	4.5		.001	35		
527.0						33	5.5		.001	35		
534.0						34	7.0		.001	35		
538.0						35	4.0		.001	35		
540.2						36	2.2		.001	35		
546.0						37	5.8		.001	35		
551.0						38	5.0		.002	70		
556.5						39	5.5		.016	550		
560.5						40	4.0		.001	35		
567.5						41	3.0		.001	35		
567.2						42	3.7		.004	135		
570.5						43	2.3		.006	205		
574.0						44	3.5		.009	310		

DIST	Id	ROCK DESCRIPTION				STRUCT.		MINERALS				METALLIC		COMMENTS 1	COMMENTS 2		
		Com	Gr	Test	Co	Air	Norm	B	A	J	A2	CZ	BZ			CZ	BZ
575.7		M	FG	MTD	W	Sec	QB										strings cutting across beds @ high angle
577.0		M	FG	hms	GY	R4	Gwh										keovite crystallized wuggy looking
578.5		M	FG	Bed	GY	QC	GM										quartz veins - silty @ 70-80 ft
583.5																	carb. and small just kmily bed.
588.0																	Early (small) scale on lower cut with bedded gull (over cut has string bedded at 400 (beds))
602.0		M	FG	hms	GY												Thin veins @ 400 - 500 (likely dissep)
617.0																	1 small ribboned gtz - sec 6 stig
622.5		M	FG	hms	GY	QC	GM										Fig - Mar dissep @ 700 to 800
628.0		B	FG	hms	GY	QC	GM										One section veins @ 700 to 800
630.5		B	FG	hms	GY	QC	GM										3 veins @ 800 - much weaker
																	veins then steep striae above
																	Veins with gtz - sec 6 veins gult
																	"
																	617 - 650 (Rust) Veins / Faulted
																	Zone
																	2' left cut, V. black comp. irregular
																	amounts increased gtz to 628
																	Upper cut gauge zone - cemented with
																	lim - one angular gtz - 100's later
																	cut zone - shaded
																	middle of vein - shaded
																	Zone 8 - veins with 100's later
																	- drainage to the west to cap. gtz
																	Blocky gtz. Cut 25' - 30' later
																	Small fish blocky gtz - carb. veins
																	"
																	Upper gtz - 100's later
																	shaded out - 100's later
																	Stacking with 100's later

SPL #	Width	T
4965	1.7	S
4966	1.3	S
4967	2.5	S
4968	4.0	S
4969	4.5	S
4970	1.0	S
4971	1.0	S
4972	1.0	S
4973	1.0	S
4974	1.0	S
4975	1.0	S
4976	1.0	S
4977	1.0	S
4978	1.0	S
4979	1.0	S
4980	1.0	S
4981	1.0	S
4982	1.0	S
4983	1.0	S
4984	1.0	S
4985	1.0	S
4986	1.0	S
4987	1.0	S
4988	1.0	S
4989	1.0	S
4990	1.0	S
4991	1.0	S
4992	1.0	S
4993	1.0	S
4994	1.0	S
4995	1.0	S
4996	1.0	S
4997	1.0	S
4998	1.0	S
4999	1.0	S
5000	1.0	S

7-18

DIST	ROCK QUALITY			NU ASSAY DATA				Reject #	Reject #	Reject #	
	Recl	Pc	Pcs	Recl	Pc	Pcs	Original				
5157				2.185	2	1.34	1.43	3-12	3-3	1-18	1-96
						1.385		3-21		1-96	
								2-185			
								0.707			
5150				0.10	410						
515				0.25	190						
535				0.01	35						
5380				0.01	35						
620				0.01	35						
610				0.01	35						
625				0.01	35						
620				0.01	35						
630				0.02	10						
635				0.01	35						
645				0.01	35						
640				0.01	35						
650				0.03	445						

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 12/93

HOLE # 15483

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04906	<.001	<35				
2	07	<.001	<35				
3	08	<.001	<35				
4	09	<.001	<35				
5	10	<.001	<35				
6	11	<.001	<35				
7	12	<.001	<35				
8	13	<.001	<35				
9	14	<.001	<35				
10	15	<.001	<35				
11	16	.004	135				
12	17	.007	240				
13	18	.021	720				
14	19	.005	170				
15	20	.001	35				
16	21	<.001	<35				
17	22	.001	35				
18	23	<.001	<35				
19	24	<.001	<35				
20	25	<.001	<35				
21	26	<.001	<35				
22	27	<.001	<35				
	28	<.001	<35				
24	DX 04929	<.001	<35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 12/93

Hole #15483

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04930	<.001	<35				
2	31	<.001	<35				
3	32	<.001	<35				
4	DX 04933	<.001	<35				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLES# 15483

DATE: Nov 19/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				RA Au oz/ton
1	DX 04934	.001	35				
2	35	.001	35				
3	36	<.001	<35				
4	37	<.001	<35				
5	38	.002	70				
6	39	.016	550				
7	40	.001	35				
8	41	.001	35				
9	42	.004	135				
10	43	.006	205				
11	44	.009	310				
12	45	1.34	-				1.43
13	46	.090	3090				
14	47	.023	790				
15	48	<.001	<35				
16	49	<.001	<35				
17	50	<.001	<35				
18	51	<.001	<35				
19	52	<.001	<35				
20	53	<.001	<35				
21	54	.002	70				
22	55	<.001	<35				
23	56	<.001	<35				
24	DX 049 57	<.001	<35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE:

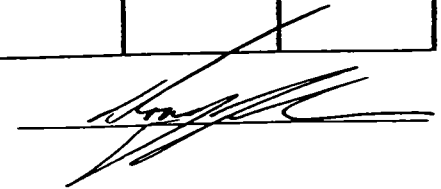
Nov 19/93

HOLE# 15483

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	<u>DX 04958</u>	<u>.013</u>	<u>445</u>					
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
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21								
22								
23								
24								

Lab16

Chief Chemist:



ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 23/93

RE ASSAYS FROM RETEST HOLE # 15483

	SAMPLE NUMBER	Au oz/ton	Au ppb	Au oz/ton				
1	DX 04945	3.12	-	3.30				
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 24/93

Re Assays from 2nd REJECT CUT Hole #15483

	SAMPLE NUMBER	Au oz/ton	Au ppb	Au oz/ton				
1	DX 04945	1.98		1.94				
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Analytical Work at Royal Oak Mines Jiminus Lab, Schumacher Ontario
 Core & Rejects saved at Hallinger Property, Sheet 16, 29 Boxes

Direct Costs

Drilling 82 @ 7.75 635.50
 casing 525 @ 7.75 4068.75
 tests 6 @ 75.0 450.00
 cement 100.00
 other 5754.25

Assaying
 68 x 10.00 - \$680.00

\$5,734.25 @ 650 \$913/FT

sample rejects saved

4865- 4869 Incl
 4886- 4897 Incl

DIST	ROCK QUALITY			ASSAY DATA			
	Recl	Pc	Pq/Re%	Spl #	Width	UXT	1712
82.7							
86.0				4838	3.3	1010	340
87.5				39	1.5	1006	205
89.5				40	2.0	1001	355
91.5				41	5.5	1001	35
110.0				42	13.0	1002	70
116.0				43	6.0	1007	10
120.3				44	4.3	1003	215
123.0				45	2.7	1005	140
132.0				46	14.0	1007	135
157.10				47	20.0	10014	355
162.50				48	5.5	10017	35
164.0				49	1.5	1003	105
167.0				50	3.0	1003	105
187.0				51	2.0	1003	105
213.5				52	26.5	1002	105
214.5				53	1.0	1017	70
220.2				4954	5.7	1002	70

DIST	ROCK QUALITY				ASSAY				DATA					
	Recl	Pc	Pcal	Rq	Re%	Spl #	Wath	IT	OPT	P2P3				
222.0						49	1.8		.001	35				
222.5						56	5.5		.001	35				
229.2						57	1.7		.001	35				
230.7						58	2.5		.001	35				
255.0						59	4.3		.001	35				
261.5						60	6.5		.001	35				
282.0						61	25.5		.002	70				
307.0						62	20.		.001	35				
327.0						63	20.		.001	35				
349.0						64	20.		.001	35				
351.0						65	4.0		.001	35				
355.5						66	4.5		.003	105				
358.6						67	3.1		.001	35				
262.0						68	3.4		.002	70				
372.0						69	5.0		.007	240				
377.0						4570	30.		.200	70				

DIST	ROCK QUALITY				Au				ASSAY				DATA										
	Recl	Pc	Peel	Rq	Re%	Spl #	Width	IT	OPT	P2B	P2B	Width	IT	OPT	P2B	P2B	Width	IT	OPT	P2B	P2B		
493.8						1488A	2.4		.001	35	35	2.4		.001	35	35	2.4		.001	35	35	2.4	
496.0						90	2.2		.001	35	35	2.2		.001	35	35	2.2		.001	35	35	2.2	
498.5						91	2.5		.001	35	35	2.5		.001	35	35	2.5		.001	35	35	2.5	
501.0						92	2.5		.001	35	35	2.5		.001	35	35	2.5		.001	35	35	2.5	
503.7						93	2.7		.001	240	240	2.7		.001	240	240	2.7		.001	240	240	2.7	
510.0						94	6.3		.001	135	135	6.3		.001	135	135	6.3		.001	135	135	6.3	
515.0						95	3.0		.001	35	35	3.0		.001	35	35	3.0		.001	35	35	3.0	
519.0						96	1.0		.008	245	245	1.0		.008	245	245	1.0		.008	245	245	1.0	
519.0						97	3.0		.043	1470	1470	3.0		.043	1470	1470	3.0		.043	1470	1470	3.0	
531.0						98	2.0		.001	35	35	2.0		.001	35	35	2.0		.001	35	35	2.0	
542.0						5688H	2.5		.001	35	35	2.5		.001	35	35	2.5		.001	35	35	2.5	
545.0						49100	3.0		.001	35	35	3.0		.001	35	35	3.0		.001	35	35	3.0	
548.0						01	3.0		.087	2980	2980	3.0		.087	2980	2980	3.0		.087	2980	2980	3.0	
548.0						02	2.0		.005	170	170	2.0		.005	170	170	2.0		.005	170	170	2.0	
549.3						03	2.3		.002	70	70	2.3		.002	70	70	2.3		.002	70	70	2.3	
549.0						04	4.7		.002	7000	7000	4.7		.002	7000	7000	4.7		.002	7000	7000	4.7	
607.0						5091H	0.50		.001	35	35	0.50		.001	35	35	0.50		.001	35	35	0.50	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 16/93

HOLE # 15484

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04838	.010	340				
2	39	.006	205				
3	40	<.001	<35				
4	41	<.001	<35				
5	42	.002	70				
6	43	.002	70				
7	44	.008	275				
8	45	.005	170				
9	46	<.001	<35				
10	47	<.001	<35				
11	48	<.001	<35				
12	49	.003	105				
13	50	.003	105				
14	51	.003	105				
15	52	.003	105				
16	53	.002	70				
17	54	.002	70				
18	55	.001	35				
19	56	.001	35				
20	57	.001	35				
21	58	<.001	<35				
22	59	.001	35				
23	60	.001	35				
24	DX 04861	.002	70				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE:

Nov 16/93

HOLE # 15484

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04862	.001	35					
2	63	.001	35					
3	64	.001	35					
4	DX 04865	.001	35					
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 19/93

HOLES #15484

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04866	.003	105				
2	67	.001	35				
3	68	.002	70				
4	69	.007	240				
5	70	.002	70				
6	71	<.001	135				
7	72	.001	35				
8	73	.002	70				
9	74	.001	35				
10	75	.001	35				
11	76	.001	35				
12	77	<.001	135				
13	78	.002	70				
14	79	<.001	135				
15	80	.001	35				
16	81	<.001	135				
17	82	.001	35				
18	83	<.001	135				
19	84	.002	70				
20	85	.003	105				
21	86	.002	70				
22	87	.002	70				
23	88	.006	205				
24	DX 048 89	<.001	135				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 19/93

HOLE# 15484

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04890	.001	35					
2	91	<.001	<35					
3	92	<.001	<35					
4	DX 04893	.007	240					
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								



ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 12/93

Hole # 15484

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04894	.004	135					
2	95	.001	35					
3	96	.008	275					
4	97	.043	1470					
5	98	.001	35					
6	99	.001	35					
7	4900	<.001	<35					
8	01	.087	2980					
9	02	.005	170					
10	03	.002	70					
11	04	.002	70					
12	DX 04905	<.001	<35					
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
24								

ROYAL OAK
MINES INC.

PROJECT: 1100m S. V. 0-5
SECTION: 69W 41N 0-5

Logged By: M. E. R. 66

Workzone Drilling started 1/11/93
Inc. Finished 2/11/93

Date: 3/11/1993
Page: 1 of 3

DRILL HOLE: 15485 NORTHING: 10945.43 EASTING: 7410.88 ELEVATION: 1032.53 LENGTH: 693.0 OBI: OBE: INC: LEASE:

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	COMMENTS 1	COMMENTS 2
0	330	80.0	107	334	47	207	334	45	397	336	54	107	330X
50.7	337	62	607	338	41	687	338	40					336

26 Grob 510.9
28 Row 102.1
34

Casing pulled, hole cemented

PKO

MINERALS

GANGUE

STRUCT.

ROCK DESCRIPTION

DIST

DIST	Com	Grs	Test	Co	Alt	Nom	GANGUE			MINERALS			STRUCT.	ROCK DESCRIPTION	COMMENTS 1	COMMENTS 2	
							A%	B%	C%	D%	E%	F%					
104.5	S	Fe	Red	GY		GWH											
107.0	M	Fe	Red	GY	QC	GWH											
132.0	M	Fe	Red	GY	QC	GWH											
139.8	CT	Fe	Red	GY	QC	GWH											
141.5	B	Fe	Red	GY	QC	GWH											
143.5	S	Fe	Red	GY	QC	GWH											
151.5	S	Fe	Red	GY	QC	GWH											

BQ Core

26 Grob 510.9
28 Row 102.1
34

Casing pulled, hole cemented

PKO

MINERALS

GANGUE

STRUCT.

ROCK DESCRIPTION

DIST

COMMENTS 1

COMMENTS 2

0.0 - 80.0 Overburden (Till. Recovered)

80.0 - 132.0 Gypsaceous / Slates Gypsaceous

V. Black gypsaceous / Slates with green? V. fine-grained

350m strike-slip fault. In water-poor, very @ high angle. In the east

129.0 - 236.0 Faulted / Slated Gypsaceous

Heavily faulted / slated gypsaceous - slates gypsaceous - 132.0. V. fine-grained. In the east

Each stage / blocks throughout - of high 3 distinct fault zones with local textures etc. - variable. In the east

Disseminated pyrite in numerous spots - large contact. In the east

Velvet. In the east

Highly cemented slates with fault zone

Mud zone @ 151.0 - 11 to beds - gtz

Each is cut by zone. G. 66. 50m. zone.

DIST	ROCK QUALITY				NU ASSAY DATA											
	Recl	Pc	Pcsl	Rq	Re%	Spl #	Width	HT	OPT	RPB						
547.0						4639	20.0		.001	335						
561.0						40	20.0		.001	335						
582.0						41	15.0		.001	335						
518.8						42	16.8		.001	335						
600.2						43	1.4		.001	335						
617.0						44	16.8		.001	335						
620.0						45	3.0		.008	310						
621.3						46	1.3		.020	-						
621.2																
624.5						47	3.2		.100	3430						
627.3						48	2.8		.003	105						
628.2						49	1.9		.021	4.0						
635.5						50	6.3		.004	135						
638.7						51	3.2		.004	135						
640.0						52	1.3		.020	1030						
644.0						53	4.0		.009	310						
649.0						54	2.0		.001	335						
653.0						4655	24.0		.004	135						

9175
45

9.2

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE # 15485

DATE: Nov 25/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04602	6.001	235				
2	03	6.001	235				
3	04	6.001	235				
4	05	6.001	235				
5	06	.001	35				
6	07	6.001	235				
7	08	6.001	235				
8	09	6.001	235				
9	10	6.001	235				
10	11	6.001	235				
-1	12	6.001	235				
12	13	6.001	235				
13	14	6.001	235				
14	15	6.001	235				
15	16	6.001	235				
16	17	6.001	235				
17	18	6.001	235				
18	19	6.001	235				
19	20	.005	170				
20	21	.001	35				
21	22	.003	105				
22	DX 046 23	.006	205				
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

15485

HALE # 15485

DATE: Nov 19/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04624	.001	35				
2	25	.001	35				
3	26	.003	105				
4	27	.002	70				
5	28	4.001	435				
6	29	.001	35				
7	30	.001	35				
8	31	.002	70				
9	32	.002	70				
10	33	.002	70				
11	34	.001	35				
12	35	4.001	435				
13	36	.001	35				
14	37	.001	35				
15	38	.001	35				
16	39	.001	35				
17	40	.001	35				
18	DX 04641	4.001	435				
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301
15485

DATE: Nov 19/93

HOLE# 15486

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04642	<.001	<35				
2	43	<.001	<35				
3	44	<.001	<35				
4	45	.009	310				
5	46	.250	-				
6	47	.100	3430				
7	48	.003	105				
8	49	.021	720				
9	50	.004	135				
10	51	.004	135				
11	52	.030	1030				
12	53	.009	310				
13	54	.001	35				
14	DX 04655	.004	135				
15							
16							
17							
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23							
24							

Indyltical Work at Royal Oak Mines Timmins Lab, Schumaker Ontario
 are stored at Hollinger Property, Timmins, Sheet 16 (4 sound rejects)

Direct Costs

Drilling:
 casing 94 @ 7.75 728.50
 primary 823 @ 7.75 4828.25
 cuts 7 @ 75 525.00
 cement 1328.95
 other casing 740.70

Assaying
 86 @ 10.00 - \$860.00

\$ 8270.70/717 \$11.54/FT

Sample rejects sound
 4659 - 4663 Incl.

DIST	ROCK QUALITY			ASSAY DATA						
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	IT	OPT	RFB
079										
1120										
0721										
1271										
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DIST	ROCK QUALITY			114 ASSAY DATA						
	Recl	Pc	Peel	Rq	Re%	Spl #	Width	T	OPT	PPB
147-0						46	15.0		.010	340
147-0						68	20.0		.001	35
217-0						70	20.0		.008	235
237-0						H	20.0		.004	135
257-0						72	18.0		.001	35
258-0						73	3.0		.001	35
215						74	13.5		.002	70
277-0						75	5.5		.005	DEL
297-0						76	20.0		.038	1300
318-0						77	21.0		.003	105
323-4						78	5.4		.002	70
324-2						79	0.8		.004	135
328-5						80	5.3		.001	35
331-0						81	4.5		.001	35
349-0						82	15.0		.004	135
353-2						83	14.5		.001	135
364-1						84	0.9		.003	105
370-7						85	6.6		.002	70
372-0						86	1.3		.001	135
383-4						87	1.4		.001	135
385-2						4688	1.8		.001	35

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15486

DATE: Nov 25/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04656	.009	310					
2	57	.008	275					
3	58	.002	70					
4	59	.002	70					
5	60	.208	-	X				
6	61	.002	70					
7	62	.009	310					
8	63	.029	995					
9	64	.009	310					
10	65	.003	105					
11	66	.001	35					
12	67	.004	135					
13	68	.010	340					
14	69	<.001	<35					
15	70	.008	275					
16	71	.004	135					
17	72	<.001	<35					
18	73	.001	35					
19	74	.002	70					
20	75	.005	170					
21	76	.038	1300					
22	77	.003	105					
	DX 04678	.002	70					
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 26/93

Hoie #15486

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	Dx 04679	.004	135				
2	80	.001	35				
3	81	.001	35				
4	82	.004	135				
5	83	.001	35				
6	84	.003	105				
7	85	.002	70				
8	86	.001	35				
9	87	.001	35				
10	88	.001	35				
11	89	.001	35				
12	90	.005	170				
13	91	<.001	<35				
14	92	<.001	<35				
15	93	.001	35				
16	94	.001	35				
17	95	<.001	<35				
18	96	.001	35				
19	97	.001	35				
20	98	<.001	<35				
21	99	<.001	<35				
22	4700	<.001	<35				
23	01	.001	35				
24	Dx 04702	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 26/93

Hole # 15486

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04703	.001	35				
2	04	.002	70				
3	05	<.001	<35				
4	06	.005	170				
5	07	<.001	<35				
6	08	<.001	<35				
7	09	<.001	<35				
8	10	.001	35				
9	11	.001	35				
10	12	.002	70				
11	13	<.001	<35				
12	14	.001	35				
13	15	.001	35				
14	16	.002	70				
15	17	<.001	<35				
16	18	<.001	<35				
17	19	<.001	<35				
18	20	<.001	<35				
19	21	<.001	<35				
20	22	<.001	<35				
21	23	<.001	<35				
22	24	.001	35				
	25	<.001	<35				
24	DX 04726	<.001	<35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Nov 26/93

HOLE # 15486

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 04727	.001	35					
2	28	<.001	<35					
3	DX 04729	<.001	<35					
4								
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ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

Home # 15486

DATE: Nov 26/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 04730	<.001	<35				
2	31	.001	35				
3	32	<.001	<35				
4	33	<.001	<35				
5	34	<.001	<35				
6	35	<.001	<35				
7	36	<.001	<35				
8	37	<.001	<35				
9	38	<.001	<35				
10	39	<.001	<35				
11	40	.001	35				
12	DX 04741	.001	35				
13							
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Starland 6/11/93
 Finished 6/11/93

PROJECT: H.G. (Low) S₂₄
 S-71-212-53

Logged By: M.F. Rabb
 M.F. Rabb

Date: 12/11/1993
 Page - 1 of 2

ROYAL OAK
 MINES INC.

DRILL HOLE: 1548.7
 NORTHING: 10893.14
 EASTING: 7323.68
 ELEVATION: 10935.24
 LENGTH: 733
 ORI: OBE
 INC: INC
 CAT: CAT
 LEASE: LEASE

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	150	40	137	149	44	207	150	43	307	153	42	607	154	41
507	156	40	607	157	40	707	156	40						

16906 3138
 8550w 3375
 01
 Casing Left in (102')

B.R. Core

DIST	ROCK DESCRIPTION			STRUCT.		GANGUE			METALLIC			COMMENTS 1	COMMENTS 2
	Com	Grb	Text	Co	All	Na	B%	C%	D%	EX	F%		
114.5	BK	Fg	Brd	GY	Grk	B70	130						Generally v. blocky core - possibly proximal to a fault - occasional weak s/z streaks at least one 2 sections of siliceous calc. Mostly givk with several distinct sections of s/z streaks. Faulty blocky core - s/z streak numerous with quartz. Core of unconsolidated s/z streaks @ 300 to core axis - minor v. sil. weathered p/z - mottled by green mica at core axis. Slaty givk - slaty beds show evidence of tectonic brecciation along minor fractures.
118.5	M	Fg	Brn	GY	AC	Grk	7						
133.2	S	Fg	Brd	GY	GM								
141.2	BK	Fg	MPX	GY	S/L	GM							
142.2	BK	Fg	MPX	GY	S/L	GM							
165.2	BK	Fg	Brd	GY	GC	GM							
172.9	BK	Fg	Brn	GY	GC	GM							

DIST	ROCK QUALITY				NUC ASSAY DATA			
	Recl	IpC	Pcal	Rq Re%	Spl #	Width	OPT	PPC
2010					4349	3.5	.001	35
2040					4150	3.5	.001	35
2045					3144	3.0	.001	35
2115					45	3.5	.001	35
2155					46	4.0	.001	35
2155					47	4.0	.001	35
2165					48	4.0	.001	35
2235					3149	4.0	.001	35

DIST	ROCK DESCRIPTION				STRUCT.		MINERALS				COMMENTS 1	COMMENTS 2	
	Com	Gr	Text	Co Alt	Min	B/A	J/A2	C%	B%	E%			F%
388.9	S	Fg	lom	M/Sr	↑								to mds of massive, to sericite in slope
389.7	1	1	Bed	GG/Sr	↑								@ 388.9 to 391.7 - 9' of contact with Sericite in slope
393.9	3	Fg	Bed	RT/Sr	CT								@ 391.7 to 393.9 - 2' of contact with Sericite in slope
407.5	3	Fg	Bed	GY/OC	CT								@ 393.9 to 407.5 - 13.6' of contact with Sericite in slope
422.0	M	Fg	Bed	GT/OC	CT								to mds of massive, to sericite in slope
437.7	SS	OC	Bed	OV/OC	CT								@ 407.5 to 437.7 - 30' of contact with Sericite in slope
440.9	S	Fg	Bed	OV/OC	CT								@ 437.7 to 440.9 - 3' of contact with Sericite in slope
443.9	S	Fg	Bed	OV/OC	CT								@ 440.9 to 443.9 - 3' of contact with Sericite in slope
449.5	S	Fg	Bed	OV/OC	CT								@ 443.9 to 449.5 - 5.6' of contact with Sericite in slope
451.7	S	Fg	Bed	OV/OC	CT								@ 449.5 to 451.7 - 2' of contact with Sericite in slope
453.3	SS	Fg	Bed	OV/OC	CT								@ 451.7 to 453.3 - 1.6' of contact with Sericite in slope
461.9	S	Fg	Bed	OV/OC	CT								@ 453.3 to 461.9 - 8.6' of contact with Sericite in slope
467.2	S	Fg	Bed	OV/OC	CT								@ 461.9 to 467.2 - 5.3' of contact with Sericite in slope

Spl #	Wash T	METALLIC			
		D%	E%	F%	
72224	2.0				
72225	1.7				
72226	5.3				
72227	22.5				
72228	4.5				
72229	15.7				
72230	2.3				
72231	3.9				
72232	6.5				
72233	2.2				
72234	3.8				
72235	5.5				
72236	6.2				

DIST	ROCK DESCRIPTION				STRUCT.		MINERALS				COMMENTS 1	COMMENTS 2	
	Com	Gr	Text	Co Alt	Min	B/A	J/A2	C%	B%	E%			F%
467.2	S	Fg	Bed	OV/OC	CT								@ 467.2 to 472.7 - 5.5' of contact with Sericite in slope
472.7	S	Fg	Bed	OV/OC	CT								@ 472.7 to 477.2 - 4.5' of contact with Sericite in slope
477.2	S	Fg	Bed	OV/OC	CT								@ 477.2 to 482.7 - 5.5' of contact with Sericite in slope
482.7	S	Fg	Bed	OV/OC	CT								@ 482.7 to 487.2 - 4.5' of contact with Sericite in slope
487.2	S	Fg	Bed	OV/OC	CT								@ 487.2 to 492.7 - 5.5' of contact with Sericite in slope
492.7	S	Fg	Bed	OV/OC	CT								@ 492.7 to 497.2 - 4.5' of contact with Sericite in slope
497.2	S	Fg	Bed	OV/OC	CT								@ 497.2 to 502.7 - 5.5' of contact with Sericite in slope
502.7	S	Fg	Bed	OV/OC	CT								@ 502.7 to 507.2 - 4.5' of contact with Sericite in slope
507.2	S	Fg	Bed	OV/OC	CT								@ 507.2 to 512.7 - 5.5' of contact with Sericite in slope
512.7	S	Fg	Bed	OV/OC	CT								@ 512.7 to 517.2 - 4.5' of contact with Sericite in slope
517.2	S	Fg	Bed	OV/OC	CT								@ 517.2 to 522.7 - 5.5' of contact with Sericite in slope
522.7	S	Fg	Bed	OV/OC	CT								@ 522.7 to 527.2 - 4.5' of contact with Sericite in slope
527.2	S	Fg	Bed	OV/OC	CT								@ 527.2 to 532.7 - 5.5' of contact with Sericite in slope
532.7	S	Fg	Bed	OV/OC	CT								@ 532.7 to 537.2 - 4.5' of contact with Sericite in slope
537.2	S	Fg	Bed	OV/OC	CT								@ 537.2 to 542.7 - 5.5' of contact with Sericite in slope
542.7	S	Fg	Bed	OV/OC	CT								@ 542.7 to 547.2 - 4.5' of contact with Sericite in slope
547.2	S	Fg	Bed	OV/OC	CT								@ 547.2 to 552.7 - 5.5' of contact with Sericite in slope
552.7	S	Fg	Bed	OV/OC	CT								@ 552.7 to 557.2 - 4.5' of contact with Sericite in slope
557.2	S	Fg	Bed	OV/OC	CT								@ 557.2 to 562.7 - 5.5' of contact with Sericite in slope
562.7	S	Fg	Bed	OV/OC	CT								@ 562.7 to 567.2 - 4.5' of contact with Sericite in slope
567.2	S	Fg	Bed	OV/OC	CT								@ 567.2 to 572.7 - 5.5' of contact with Sericite in slope
572.7	S	Fg	Bed	OV/OC	CT								@ 572.7 to 577.2 - 4.5' of contact with Sericite in slope
577.2	S	Fg	Bed	OV/OC	CT								@ 577.2 to 582.7 - 5.5' of contact with Sericite in slope
582.7	S	Fg	Bed	OV/OC	CT								@ 582.7 to 587.2 - 4.5' of contact with Sericite in slope
587.2	S	Fg	Bed	OV/OC	CT								@ 587.2 to 592.7 - 5.5' of contact with Sericite in slope
592.7	S	Fg	Bed	OV/OC	CT								@ 592.7 to 597.2 - 4.5' of contact with Sericite in slope
597.2	S	Fg	Bed	OV/OC	CT								@ 597.2 to 602.7 - 5.5' of contact with Sericite in slope
602.7	S	Fg	Bed	OV/OC	CT								@ 602.7 to 607.2 - 4.5' of contact with Sericite in slope
607.2	S	Fg	Bed	OV/OC	CT								@ 607.2 to 612.7 - 5.5' of contact with Sericite in slope
612.7	S	Fg	Bed	OV/OC	CT								@ 612.7 to 617.2 - 4.5' of contact with Sericite in slope
617.2	S	Fg	Bed	OV/OC	CT								@ 617.2 to 622.7 - 5.5' of contact with Sericite in slope
622.7	S	Fg	Bed	OV/OC	CT								@ 622.7 to 627.2 - 4.5' of contact with Sericite in slope
627.2	S	Fg	Bed	OV/OC	CT								@ 627.2 to 632.7 - 5.5' of contact with Sericite in slope
632.7	S	Fg	Bed	OV/OC	CT								@ 632.7 to 637.2 - 4.5' of contact with Sericite in slope
637.2	S	Fg	Bed	OV/OC	CT								@ 637.2 to 642.7 - 5.5' of contact with Sericite in slope
642.7	S	Fg	Bed	OV/OC	CT								@ 642.7 to 647.2 - 4.5' of contact with Sericite in slope
647.2	S	Fg	Bed	OV/OC	CT								@ 647.2 to 652.7 - 5.5' of contact with Sericite in slope
652.7	S	Fg	Bed	OV/OC	CT								@ 652.7 to 657.2 - 4.5' of contact with Sericite in slope
657.2	S	Fg	Bed	OV/OC	CT								@ 657.2 to 662.7 - 5.5' of contact with Sericite in slope
662.7	S	Fg	Bed	OV/OC	CT								@ 662.7 to 667.2 - 4.5' of contact with Sericite in slope
667.2	S	Fg	Bed	OV/OC	CT								@ 667.2 to 672.7 - 5.5' of contact with Sericite in slope
672.7	S	Fg	Bed	OV/OC	CT								@ 672.7 to 677.2 - 4.5' of contact with Sericite in slope
677.2	S	Fg	Bed	OV/OC	CT								@ 677.2 to 682.7 - 5.5' of contact with Sericite in slope
682.7	S	Fg	Bed	OV/OC	CT								@ 682.7 to 687.2 - 4.5' of contact with Sericite in slope
687.2	S	Fg	Bed	OV/OC	CT								@ 687.2 to 692.7 - 5.5' of contact with Sericite in slope
692.7	S	Fg	Bed	OV/OC	CT								@ 692.7 to 697.2 - 4.5' of contact with Sericite in slope
697.2	S	Fg	Bed	OV/OC	CT								@ 697.2 to 702.7 - 5.5' of contact with Sericite in slope
702.7	S	Fg	Bed	OV/OC	CT								@ 702.7 to 707.2 - 4.5' of contact with Sericite in slope
707.2	S	Fg	Bed	OV/OC	CT								@ 707.2 to 712.7 - 5.5' of contact with Sericite in slope
712.7	S	Fg	Bed	OV/OC	CT								@ 712.7 to 717.2 - 4.5' of contact with Sericite in slope
717.2	S	Fg	Bed	OV/OC	CT								@ 717.2 to 722.7 - 5.5' of contact with Sericite in slope
722.7	S	Fg	Bed	OV/OC	CT								@ 722.7 to 727.2 - 4.5' of contact with Sericite in slope
727.2	S	Fg	Bed	OV/OC	CT								@ 727.2 to 732.7 - 5.5' of contact with Sericite in slope
732.7	S	Fg	Bed	OV/OC	CT								@ 732.7 to 737.2 - 4.5' of contact with Sericite in slope
737.2	S	Fg	Bed	OV/OC	CT								@ 737.2 to 742.7 - 5.5' of contact with Sericite in slope
742.7	S	Fg	Bed	OV/OC	CT								@ 742.7 to 747.2 - 4.5' of contact with Sericite in slope
747.2	S	Fg	Bed	OV/OC	CT								@ 747.2 to 752.7 - 5.5' of contact with Sericite in slope
752.7	S	Fg	Bed	OV/OC	CT								@ 752.7 to 757.2 - 4.5' of contact with Sericite in slope
757.2	S	Fg	Bed	OV/OC	CT								@ 757.2 to 762.7 - 5.5' of contact with Sericite in slope
762.7	S	Fg	Bed	OV/OC	CT								@ 762.7 to 767.2 - 4.5' of contact with Sericite in slope
767.2	S	Fg	Bed	OV/OC	CT								@ 767.2 to 772.7 - 5.5' of contact with Sericite in slope
772.7	S	Fg	Bed	OV/OC	CT								@ 772.7 to 777.2 - 4.5' of contact with Sericite in slope
777.2	S	Fg	Bed	OV/OC	CT								@ 777.2 to 782.7 - 5.5' of contact with Sericite in slope
782.7	S	Fg	Bed	OV/OC	CT								@ 782.7 to 787.2 - 4.5' of contact with Sericite in slope
787.2	S	Fg	Bed	OV/OC	CT								@ 787.2 to 792.7 - 5.5' of contact with Sericite in slope
792.7	S	Fg	Bed	OV/OC	CT								@ 792.7 to 797.2 - 4.5' of contact with Sericite in slope
797.2	S	Fg	Bed	OV/OC	CT								@ 797.2 to 802.7 - 5.5' of contact with Sericite in slope
802.7	S	Fg	Bed	OV/OC	CT								@ 802.7 to 807.2 - 4.5' of contact with Sericite in slope
807.2	S	Fg	Bed	OV/OC	CT								@ 807.2 to 812.7 - 5.5' of contact with Sericite in slope
812.7	S	Fg	Bed	OV/OC	CT								@ 812.7 to 817.2 - 4.5' of contact with Sericite in slope
817.2	S	Fg	Bed	OV/OC	CT								@ 817.2 to 822.7 - 5.5' of contact with Sericite in slope
822.7	S	Fg	Bed	OV/OC	CT								@ 822.7 to 827.2 - 4.5' of contact with Sericite in slope
827.2	S	Fg	Bed	OV/OC	CT								@ 827.2 to 832.7 - 5.5' of contact with Sericite in slope
832.7	S	Fg	Bed	OV/OC	CT								@ 832.7 to 837.2 - 4.5' of contact with Sericite in slope
837.2	S	Fg	Bed	OV/OC	CT								@ 837.2 to 842.7 - 5.5' of contact with Sericite in slope
842.7	S	Fg	Bed	OV/OC	CT								@ 842.7 to 847.2 - 4.5' of contact with Sericite in slope
847.2	S	Fg	Bed	OV/OC	CT								@ 847.2 to 852.7 - 5.5' of contact with Sericite in slope
852.7	S	Fg	Bed	OV/OC	CT								@ 852.7 to 857.2 - 4.5' of contact with Sericite in slope
857.2	S	Fg	Bed	OV/OC	CT								@ 857.2 to 862.7 - 5.5' of contact with Sericite in slope
862.7	S	Fg	Bed	OV/OC	CT								

DIST	Id	ROCK DESCRIPTION				STRUCT. B/A, J/A2	MINERALS				METALLIC				Sp#	Wath	COMMENTS 1	COMMENTS 2
		Com	Gr	Test	Co Alt Mem		CZ	BZ	CZ	EZ	FZ	DZ	EZ	FZ				
4710		B	Fg	Shd	GT Ser Gwk	S70											Distinctive vnt - pale green - p7, heavily shaled contact v. variable. Foliation angles upper contact is v. sharp	
4765		SS	Fg	Shd	GT Ser Gwk	S50											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4792		SS	Fg	Shd	GT Ser Gwk												Block shaled (shard) - zone contact blocky Foliation 11-12 deg	
4867		S	Fg	Shd	GT Ser Gwk												Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4869		S	Fg	Shd	GT Ser Gwk												Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4886		SS	Fg	Shd	GT Ser Gwk	S75											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4900		M	Fg	Shd	GT Ser Gwk	S											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4923		M	Fg	Shd	GT Ser Gwk	S											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4935		M	Fg	Shd	GT Ser Gwk	S											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	
4962		M	Fg	Shd	GT Ser Gwk	S											Increasing amounts Lower contact grades v. Gz structure - gt v. fine contact p7, Foliation 11-12 deg + reddish mineral - soft	

DIST	ROCK QUALITY			ASSAY DATA												
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	DVT	PPB	PPB	PPB	PPB	PPB	PPB	PPB
4410						3237	3.8	.002	200	0.70						
4415						38	5.5	.003	105							
4412						39	2.7	.001	35							
4417						40	2.5	.001	35							
4410						41	2.3	.002	70							
4416						42	4.6	.002	70							
4410						43	1.4	.002	70							
4413						44	2.3	.001	35							
4415						45	1.2	.001	35							
4418						47	3.3	.001	35							

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	UPT	PYB
5000.0						72251	3.2	.001	35
5025						48	2.5	.001	35
5045						49	2.0	.001	35
5075						72250	6.0	.001	35
5115						72151	4.0	.004	1510
5203						52	2.8	.004	135
5225						53	2.2	.004	135
5246						54	3.1	.002	70
5286						55	4.0	.003	105
5318						56	3.2	.001	35
5333						57	1.5	.003	105
5377						58	4.4	.002	70
5410						59	3.3	.003	105
5420						72160	1.0	.002	70

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Dec 6/93

How: #15487

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	C-72165	<.001	<35				
2	66	<.001	<35				
3	67	<.001	<35				
4	68	<.001	<35				
5	69	.002	70				
6	70	.002	70				
7	71	<.001	<35				
8	72	.002	70				
9	73	.001	35				
10	74	<.001	<35				
11	72175	<.001	<35				
12	72751	<.001	<35				
13	52	<.001	<35				
14	53	.003	105				
15	54	<.001	<35				
16	55	.002	70				
17	56	.004	135				
18	57	<.001	<35				
19	58	.002	70				
20	59	.004	135				
21	C-72760	.004	135				
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE #15487

DATE: DEC 7/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	C-72246	.001	35					
2	47	.001	35					
3	48	.001	35					
4	49	.001	35					
5	C-72250	.001	35					
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Dec 7/93

Hole # 15487

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	C-72151	.044	1510				
2	52	.004	135				
3	53	.004	135				
4	54	.002	70				
5	55	.003	105				
6	56	.001	35				
7	57	.003	105				
8	58	.002	70				
9	59	.003	105				
10	60	.002	70				
11	61	.005	170				
12	62	.008	275				
13	63	.003	105				
14	72164	.002	70				
15	72236	.003	105				
16	37	.002	70				
17	38	.003	105				
18	39	.001	35				
19	40	.001	35				
20	41	.002	70				
21	42	.002	70				
22	43	.002	70				
23	44	<.001	<35				
24	C-72245	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: Dec 6/93

HOLE# 15487

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	C-72231	.001	35					
2	32	.001	35					
3	33	.001	35					
4	34	.001	35					
5	C-72235	.001	35					
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

How#15487

DATE: DEC 6/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	C-72207	.002	70				
2	08	.003	105				
3	09	.001	35				
4	10	.002	70				
5	11	.016	550				
6	12	.001	35				
7	13	.003	105				
8	14	.003	105				
9	15	.003	105				
10	16	.001	35				
11	17	.004	135				
12	18	.001	35				
13	19	.004	135				
14	20	.002	70				
15	21	.001	35				
16	22	.001	35				
17	23	.002	70				
18	24	.001	35				
19	25	.006	205				
20	26	.003	105				
21	27	.006	205				
22	28	.001	35				
	29	.001	35				
24	C-72230	.001	35				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

HOLE# 15487

DATE: Nov 26/93

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03144	<.001	<35				
2	45	<.001	<35				
3	46	<.001	<35				
4	47	<.001	<35				
5	48	<.001	<35				
6	49	<.001	<35				
7	03150	.006	205				
8	4742	<.001	<35				
9	43	<.001	<35				
10	44	<.001	<35				
11	45	<.001	<35				
12	46	<.001	<35				
13	47	<.001	<35				
14	48	<.001	<35				
15	49	<.001	<35				
16	DX 04750	<.001	<35				
17	C 72201	<.001	<35				
18	02	<.001	<35				
19	03	.004	135				
20	04	.003	105				
21	05	.001	35				
22	C 72206	<.001	<35				
23							
24							

DIST	Id	ROCK DESCRIPTION					STRUCT.			MINERALS						COMMENTS 1	COMMENTS 2				
		Com	Gr	Text	Co	Alt	Mem	B	A	J	A2	GANGUE		METALLIC							
												C%	B%	S%	F%	D%	E%	F%	Spl #	Width	T
399.8		B.	Fg	Red	Gy	OC	G:VH					QC							72786	0.5	3
377.0		M.	Fg	Red	Gy		G:VH												72786	16.2	6
377.0		I.																	72788	20.0	6
354.0		I.																	72788	17.0	6
354																					

COMMENTS 1	COMMENTS 2
1. 2' of 5/8" - 6/6" string ribbing	
Relatively homogeneous grey matrix to end of hole	
E.O.H.	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: DEC 7/93

Hole # ?

	SAMPLE NUMBER	Au oz/Ken	Au ppb				
1	C-77761	.001	35				
2	62	.001	35				
3	63	.001	35				
4	64	.001	35				
5	65	.001	35				
6	66	<.001	<35				
7	C-72767	.001	35				
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1301

DATE: DEC 9/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	C-72768	.010	340					
2	69	.004	135					
3	70	.009	310					
4	71	METALLICS ASSAY ON SEPARATE SHEET						
5	72	.003	105					
6	73	.002	70					
7	74	<.001	<35					
8	75	<.001	<35					
9	76	.002	70					
10	77	.002	70					
11	78	.001	35					
12	79	.030	1030					
13	80	.007	70					
14	81	<.001	<35					
15	82	<.001	<35					
16	83	.006	205					
17	84	<.001	<35					
18	85	<.001	<35					
19	86	.002	70					
20	C-72787	.003	105					
21								
22								
23								
24								

Lab16

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

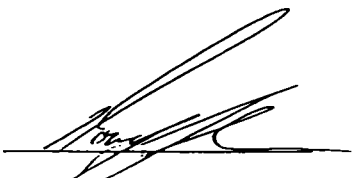
Metallics

DATE: DEC 3 93

5600-1301

SAMPLE NUMBER	Weight (g) + 80	Weight (g) - 80	Weight (g) Total	Au oz/t + 80	Au oz/t - 80	Au oz/t Final
C72771	Ø	127.51	127.51	Ø	344	344

Lab11

CHIEF ASSAYER: 

DIST	ROCK QUALITY				HUI ASSAY DATA				
	Recl	Pc	Pcal	Rq/Ra%	Spl #	Width	T	OPT	R/B
218.0					3468	2		004	135
210.5					3469	2.5		001	35
216.0					3469	5.5		006	7.5
218.0					3461	5		002	10
206.0					3462	5		002	10
212.0					3463	7		003	1.5
205.0					3464	3.5		001	35
202.0					3465	15.5		006	7.05
320.0					3466	18		005	1.70

DIST	ID	ROCK DESCRIPTION					Com	Gre	Fg	Ss	Sg	Grt	Mm	Mn	MINERALS				COMMENTS 1	COMMENTS 2
		Gr	Test	Co	Alt	Mem									G%	B%	C%	D%		
325.0		SS	Fg	hard	gy	dal	gmk								Py 15					Greenish grey wacke - w/ky ser. Fg. wh. in part. 1/2 in matrix.
331.0		SS	Fg	blk	gy	dal	gmk								Py 0.5					Blocky - N. gray wacke local flat jointing
336.0		SS	Fg	blk	gy	dal	gmk								Py 4					Greenish wacke w/ky ser. next to flat blk. wacke - DISF CORE
341.0		SS	Fg	blk	gy	dal	gmk								Py 15					Green wacke - strong ser. cfr. below on occasional flat jointing; matrix is w/ky ser. in part.
348.5		SS	Fg	hard	gy	dal	gmk								Py 4.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
350.0		SS	Fg	blk	gy	dal	gmk								Py 40					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
350.0		SS	Fg	blk	gy	dal	gmk								Py 30					Veining c. 9-25% to ser. in wacke fragments of wacke in veins
350.0		SS	Fg	blk	gy	dal	gmk								Py 2.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
350.0		SS	Fg	blk	gy	dal	gmk								Py 8.0					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
350.0		SS	Fg	blk	gy	dal	gmk								Py 2.5					Veining c. 9-25% to ser. in wacke fragments of wacke in veins
350.0		SS	Fg	blk	gy	dal	gmk								Py 10					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
350.0		SS	Fg	blk	gy	dal	gmk								Py 10					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins

DIST	ID	ROCK DESCRIPTION				Com	Gre	Fg	Ss	Sg	Grt	Mm	Mn	Mn	MINERALS				COMMENTS 1	COMMENTS 2
		Gr	Test	Co	Alt										Mem	G%	B%	C%		
346.7		SS	Fg	blk	gy	dal	gmk								Py 15					Greenish grey wacke - w/ky ser. Fg. wh. in part. 1/2 in matrix.
346.8		SS	Fg	blk	gy	dal	gmk								Py 0.5					Blocky - N. gray wacke local flat jointing
346.9		SS	Fg	blk	gy	dal	gmk								Py 4					Greenish wacke w/ky ser. next to flat blk. wacke - DISF CORE
347.0		SS	Fg	blk	gy	dal	gmk								Py 15					Green wacke - strong ser. cfr. below on occasional flat jointing; matrix is w/ky ser. in part.
347.1		SS	Fg	blk	gy	dal	gmk								Py 4.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.2		SS	Fg	blk	gy	dal	gmk								Py 40					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.3		SS	Fg	blk	gy	dal	gmk								Py 30					Veining c. 9-25% to ser. in wacke fragments of wacke in veins
347.4		SS	Fg	blk	gy	dal	gmk								Py 2.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.5		SS	Fg	blk	gy	dal	gmk								Py 8.0					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.6		SS	Fg	blk	gy	dal	gmk								Py 2.5					Veining c. 9-25% to ser. in wacke fragments of wacke in veins

DIST	ID	ROCK DESCRIPTION					Com	Gre	Fg	Ss	Sg	Grt	Mm	Mn	Mn	MINERALS				COMMENTS 1	COMMENTS 2
		Gr	Test	Co	Alt	Mem										G%	B%	C%	D%		
346.7		SS	Fg	hard	gy	dal	gmk									Py 15					Greenish grey wacke - w/ky ser. Fg. wh. in part. 1/2 in matrix.
346.8		SS	Fg	blk	gy	dal	gmk									Py 0.5					Blocky - N. gray wacke local flat jointing
346.9		SS	Fg	blk	gy	dal	gmk									Py 4					Greenish wacke w/ky ser. next to flat blk. wacke - DISF CORE
347.0		SS	Fg	blk	gy	dal	gmk									Py 15					Green wacke - strong ser. cfr. below on occasional flat jointing; matrix is w/ky ser. in part.
347.1		SS	Fg	blk	gy	dal	gmk									Py 4.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.2		SS	Fg	blk	gy	dal	gmk									Py 40					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.3		SS	Fg	blk	gy	dal	gmk									Py 30					Veining c. 9-25% to ser. in wacke fragments of wacke in veins
347.4		SS	Fg	blk	gy	dal	gmk									Py 2.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.5		SS	Fg	blk	gy	dal	gmk									Py 8.0					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.6		SS	Fg	blk	gy	dal	gmk									Py 2.5					Veining c. 9-25% to ser. in wacke fragments of wacke in veins

DIST	ID	ROCK DESCRIPTION					Com	Gre	Fg	Ss	Sg	Grt	Mm	Mn	Mn	MINERALS				COMMENTS 1	COMMENTS 2
		Gr	Test	Co	Alt	Mem										G%	B%	C%	D%		
346.7		SS	Fg	hard	gy	dal	gmk									Py 15					Greenish grey wacke - w/ky ser. Fg. wh. in part. 1/2 in matrix.
346.8		SS	Fg	blk	gy	dal	gmk									Py 0.5					Blocky - N. gray wacke local flat jointing
346.9		SS	Fg	blk	gy	dal	gmk									Py 4					Greenish wacke w/ky ser. next to flat blk. wacke - DISF CORE
347.0		SS	Fg	blk	gy	dal	gmk									Py 15					Green wacke - strong ser. cfr. below on occasional flat jointing; matrix is w/ky ser. in part.
347.1		SS	Fg	blk	gy	dal	gmk									Py 4.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.2		SS	Fg	blk	gy	dal	gmk									Py 40					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.3		SS	Fg	blk	gy	dal	gmk									Py 30					Veining c. 9-25% to ser. in wacke fragments of wacke in veins
347.4		SS	Fg	blk	gy	dal	gmk									Py 2.5					Blocky - Ser. in wacke, w/ky ser. next to blk. wacke veins. Ugly Py (cont) case in Ser. (cfr) - possible to bedding
347.5		SS	Fg	blk	gy	dal	gmk									Py 8.0					Wacke - mod. ser. ser. in wacke next to flat jointing / folded w/ky ser. veins
347.6		SS	Fg	blk	gy	dal	gmk									Py 2.5					Veining c. 9-25% to ser. in wacke fragments of wacke in veins

DIST	ROCK QUALITY			THU ASSAY DATA																
	Recl	Fc	Posl	Rq	Re%	Spl #	Width	T	DPT	PPB										
3250						3467	5		.020	685										
3310						3468	6		.024	135										
3400						3469	5		.022	105										
3410						3470	5		.032	1100										
3435						3471	25		.044	1510										
3460						3472	25		.166	-										
3500						3473	4		.165	-										
3515						3474	45		.122	-										
3560						3475	15		.032	1100										

.128 opt Au / 20.5 C
3435.564

DIST	ROCK QUALITY				ASSAY DATA					
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	HT	MTB
358.6						3476	2.6		0.07	240
361.0						3477	5.4		0.38	-
367.0						3478	3		0.04	135
371.0						3479	4		0.04	135
376.0						3480	3.5		0.03	105
380.0						3481	3.5		0.17	135
383.0						3482	3.9		0.11	85
387.0						3483	4		0.12	110

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPIRATION 5600-1302

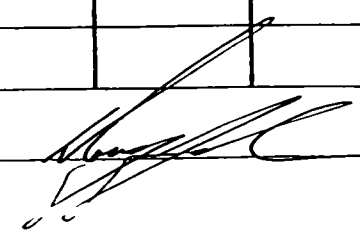
DATE: SEPT 17/93

HOLES #15444

	SAMPLE NUMBER	Au u2/ton	A4 ppb				
1	DXO 3439	.008	275				
2	40	.001	35				
3	41	.003	105				
4	42	.002	70				
5	43	.011	375				
6	44	.005	170				
7	45	.002	70				
8	46	.003	103				
9	47	.007	240				
10	48	.008	275				
11	49	.003	105				
12	50	.007	240				
13	51	.009	310				
14	52	.001	35				
15	53	.004	135				
16	54	.005	170				
17	55	.006	205				
18	56	.003	105				
19	57	.003	105				
20	58	.004	135				
21	59	.001	35				
22	60	.006	205				
23	61	.002	70				
24	DXO 34 62	.002	70				

Lab16 P. Conn

Chief Chemist:



ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

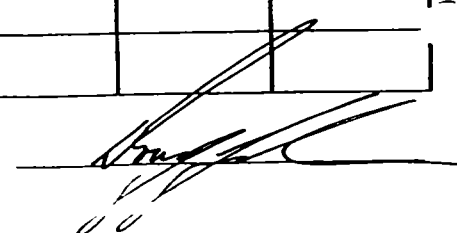
EXPLORATION 5600-1302

DATE: SEPT 17/93

HOLE #15444

	SAMPLE NUMBER	Au oz/ton	Au ppb				
1	DX 03463	.003	105				
2	64	.001	35				
3	65	.006	205				
4	66	.005	170				
5	67	.020	685				
6	68	.004	135				
7	69	.003	105				
8	70	.032	1100				
9	71	.044	1510				
10	72	.166	-				
11	73	.165	-				
12	74	.162	-				
13	75	.032	1100				
14	76	.007	240				
15	77	.138	-				
16	78	.004	135				
17	79	.004	135				
18	80	.003	105				
19	81	.011	375				
20	82	.011	375				
21	DX 03483	.012	410				
22							
23							
24							

Lab16 P. Cano

Chief Chemist: 

DIST	ROCK QUALITY				Au ASSAY				DATA				
	Recl	Pc	Pcs1	Rq/Ro%	Spl #	Width	T	opt	Ppb				
11													
66					194	50		100%	175				
69					385	5		105	120				
77					386	8		105	120				
92					387	15		115	516				
104					788	12		106	225				
127					389	25		1010	156				
140					390	13		132	1100				

DIST	ID	ROCK DESCRIPTION					STRUCT.		MINERALS					COMMENTS 1	COMMENTS 2					
		Com	Gr	Text	Co	Alt	Mem	B	A, J, A2	GANGUE	METALLIC	Spl #	Width							
285-7		S	F6	MUR	BY	MUR	CRDS													
290		S	F6	MUR	BY	MUR	CRDS													
294		S	F6	MUR	BY	MUR	CRDS													
296		SS	F6	MUR	BY	MUR	CRDS													
301		S	F6	MUR	BY	MUR	CRDS													
306		S	F6	MUR	BY	MUR	CRDS													
311		SS	F6	MUR	BY	MUR	CRDS													
316		SS	F6	MUR	BY	MUR	CRDS													
318		S	F6	MUR	BY	MUR	CRDS													
320-7		S	F6	MUR	BY	MUR	CRDS													
324-0		S	F6	MUR	BY	MUR	CRDS													
326-0		S	F6	MUR	BY	MUR	CRDS													
331-0		S	F6	MUR	BY	MUR	CRDS													

COMMENTS 1	COMMENTS 2
Can search for - BEDDING PLANES o.c. marked by slip C 75	
Fracture. Calcite. Bed Mod. tubular, calcite, in bed Py. near but margins. P2 in veins "natural veins"	
Py 25	
Py 35	
Py 45	
Py 50	
Py 55	
Py 60	
Py 65	
Py 70	
Py 75	
Py 80	
Py 85	
Py 90	
Py 95	
Py 100	
Py 105	
Py 110	
Py 115	
Py 120	
Py 125	
Py 130	
Py 135	
Py 140	
Py 145	
Py 150	
Py 155	
Py 160	
Py 165	
Py 170	
Py 175	
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Py 370	
Py 375	
Py 380	
Py 385	
Py 390	
Py 395	
Py 400	
Py 405	
Py 410	
Py 415	
Py 420	
Py 425	
Py 430	
Py 435	
Py 440	
Py 445	
Py 450	
Py 455	
Py 460	
Py 465	
Py 470	
Py 475	
Py 480	
Py 485	
Py 490	
Py 495	
Py 500	
Py 505	
Py 510	
Py 515	
Py 520	
Py 525	
Py 530	
Py 535	
Py 540	
Py 545	
Py 550	
Py 555	
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Py 605	
Py 610	
Py 615	
Py 620	
Py 625	
Py 630	
Py 635	
Py 640	
Py 645	
Py 650	
Py 655	
Py 660	
Py 665	
Py 670	
Py 675	
Py 680	
Py 685	
Py 690	
Py 695	
Py 700	
Py 705	
Py 710	
Py 715	
Py 720	
Py 725	
Py 730	
Py 735	
Py 740	
Py 745	
Py 750	
Py 755	
Py 760	
Py 765	
Py 770	
Py 775	
Py 780	
Py 785	
Py 790	
Py 795	
Py 800	
Py 805	
Py 810	
Py 815	
Py 820	
Py 825	
Py 830	
Py 835	
Py 840	
Py 845	
Py 850	
Py 855	
Py 860	
Py 865	
Py 870	
Py 875	
Py 880	
Py 885	
Py 890	
Py 895	
Py 900	
Py 905	
Py 910	
Py 915	
Py 920	
Py 925	
Py 930	
Py 935	
Py 940	
Py 945	
Py 950	
Py 955	
Py 960	
Py 965	
Py 970	
Py 975	
Py 980	
Py 985	
Py 990	
Py 995	
Py 1000	

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width T	gp+	lbs
2852						3502	4.7	1014	480
290						3503	4.3	1008	275
294						3504	4	1440	—
296						3505	2	1031	1060
301						3506	5	1007	250
306						3507	5	1069	2320
311						3508	5	103	1030
316						3509	5	1104	—
318						3510	2	1001	445
320.2						3511	2.7	119	—
324						3512	3.3	1031	2430
326						3513	2	1033	1130
331						3514	5	1085	2910

0.099 opt Au / 510 (210-311)

0.099 opt Au / 510 (210-311)

0.055 opt Au / 40.6 (356-396)

DIST	ROCK QUALITY			Au ASSAY DATA							
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	opt	pt	
336						3515	5		1053	1820	
341						3516	5		129	-	
344						3517	5		1024	895	
345						3518	2.5		1027	925	
349						3519	2.5		1002	820	
353						3520	2.5		1012	815	
356						3521	2.5		1009	830	
361						3522	5		1101	-	
366						3523	1		151	-	
371						3524	3		1026	825	
376						3525	2.5		1016	830	
381						3526	5		1002	78	
386						3527	5		1032	1100	
391						3528	5		1045	1540	
396						3529	5		1056	1920	
401						3530	5		1002	70	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: SEPT 29/93

Howe #15445

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX03484</i>	<i>.006</i>	<i>205</i>					
2	<i>85</i>	<i>.005</i>	<i>170</i>					
3	<i>86</i>	<i>.005</i>	<i>170</i>					
4	<i>87</i>	<i>.015</i>	<i>515</i>					
5	<i>88</i>	<i>.008</i>	<i>275</i>					
6	<i>89</i>	<i>.010</i>	<i>340</i>					
7	<i>90</i>	<i>.032</i>	<i>1100</i>					
8	<i>91</i>	<i>.121</i>	<i>-</i>					
9	<i>92</i>	<i>.003</i>	<i>105</i>					
10	<i>93</i>	<i>.002</i>	<i>70</i>					
11	<i>94</i>	<i>.003</i>	<i>105</i>					
12	<i>95</i>	<i>.003</i>	<i>105</i>					
13	<i>96</i>	<i>.003</i>	<i>105</i>					
14	<i>97</i>	<i>.002</i>	<i>70</i>					
15	<i>98</i>	<i>.005</i>	<i>170</i>					
16	<i>99</i>	<i>.003</i>	<i>105</i>					
17	<i>3500</i>	<i>.003</i>	<i>105</i>					
18	<i>01</i>	<i>.006</i>	<i>205</i>					
19	<i>02</i>	<i>.014</i>	<i>480</i>					
20	<i>03</i>	<i>.008</i>	<i>275</i>					
21	<i>04</i>	<i>.440</i>	<i>-</i>					
22	<i>05</i>	<i>.031</i>	<i>1060</i>					
23	<i>06</i>	<i>.007</i>	<i>240</i>					
24	<i>DX03507</i>	<i>.069</i>	<i>2370</i>					

Lab 21

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Sept 29/92

HL# 15445

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<i>DX 03508</i>	<i>.030</i>	<i>1030</i>				
2	<i>09</i>	<i>.104</i>	<i>-</i>				
3	<i>10</i>	<i>.013</i>	<i>445</i>				
4	<i>11</i>	<i>.190</i>	<i>-</i>				
5	<i>12</i>	<i>.071</i>	<i>2430</i>				
6	<i>13</i>	<i>.033</i>	<i>1130</i>				
7	<i>14</i>	<i>.085</i>	<i>2910</i>				
8	<i>DX 03515</i>	<i>.053</i>	<i>1820</i>				
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: SEPT 29/93

Lot # 15445

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<u>DXO 3516</u>	<u>.129</u>	<u>-</u>				
2	<u>17</u>	<u>.024</u>	<u>825</u>				
3	<u>18</u>	<u>.027</u>	<u>925</u>				
4	<u>19</u>	<u>.002</u>	<u>70</u>				
5	<u>20</u>	<u>.018</u>	<u>615</u>				
6	<u>21</u>	<u>.005</u>	<u>170</u>				
7	<u>22</u>	<u>.101</u>	<u>-</u>				
8	<u>23</u>	<u>.151</u>	<u>-</u>				
9	<u>24</u>	<u>.027</u>	<u>925</u>				
10	<u>25</u>	<u>.068</u>	<u>2330</u>				
11	<u>26</u>	<u>.002</u>	<u>70</u>				
12	<u>27</u>	<u>.032</u>	<u>1100</u>				
13	<u>28</u>	<u>.045</u>	<u>1540</u>				
14	<u>29</u>	<u>.056</u>	<u>1920</u>				
15	<u>30</u>	<u>.002</u>	<u>70</u>				
16	<u>31</u>	<u>.001</u>	<u>35</u>				
17	<u>32</u>	<u>.034</u>	<u>1170</u>				
18	<u>33</u>	<u>.004</u>	<u>135</u>				
19	<u>34</u>	<u>.004</u>	<u>135</u>				
20	<u>35</u>	<u>.031</u>	<u>1060</u>				
21	<u>36</u>	<u>.213</u>	<u>-</u>				
22	<u>37</u>	<u>.002</u>	<u>70</u>				
23	<u>DXO 3538</u>	<u>.001</u>	<u>35</u>				
24							

DIST	ROCK QUALITY			IN ASSAY DATA		
	Recl	Pcl	Pcsl	Rq	Rq1	Rq2
36						
37						
41						
44						
51						
56						
61						
66						
71						
74						
76						
81						
83						
11						
96						
101						
106						
111						
116						
121						
126						

DIST	ROCK QUALITY			IN ASSAY DATA		
	Recl	Pcl	Pcsl	Rq	Rq1	Rq2
36						
37						
41						
44						
51						
56						
61						
66						
71						
74						
76						
81						
83						
11						
96						
101						
106						
111						
116						
121						
126						

DIST	ROCK QUALITY				ASSAY DATA						
	Recl	Pc	Pcs1	Rq	Rq	Re%	Width	T	DPT	ppb	
131							5		072	2470	
132							5		011	325	
141							6		014	580	
142							4		006	275	
151							4		005	170	
156							5		011	375	
161							5		005	170	
163							2		003	275	
166							2		014	480	
171							5		029	915	
171							5		003	105	
181							5		018	615	
182							5		029	995	
191							4		006	205	
192							2.6		006	205	
194							6.1		014	480	
196							1.5		025		
201							5		053	1820	

} .088 opt Am / 6.5 @ 194.5-201

DIST	ID	ROCK DESCRIPTION				STRUCT.		MINERALS				METALLIC				Sp#	Width	COMMENTS 1	COMMENTS 2
		Com	Gr	Text	Co	Alt	Mem	B	A	J	A2	C%	M%	E%	F%				
206		S	FMG	MUSC	gls	TLCS													
211		S	FMG	MUSC	gls	TLCS													
216		S	FMG	MUSC	gls	TLCS													
221		S	FMG	MUSC	gls	TLCS													
226		SS					FSS												
229		SS																	
230		SS					V40												
233		S	FMG	MUSC	gls	TLCS													
236		S	FMG	MUSC	gls	TLCS													
241		S	FMG	MUSC	gls	TLCS													
246		S	FMG	MUSC	gls	TLCS													
251		SS					F60												
256		S	FMG	MUSC	gls	TLCS													
261		S	FMG	MUSC	gls	TLCS													
260		S	FMG	MUSC	gls	TLCS													
271		S	FMG	MUSC	gls	TLCS													
276		S	FMG	MUSC	gls	TLCS													
281		S	FMG	MUSC	gls	TLCS													
286		S	FMG	MUSC	gls	TLCS													
291		S	FMG	MUSC	gls	TLCS													
295		S	FMG	MUSC	gls	TLCS													
297		S	FMG	MUSC	gls	TLCS													
301		S	FMG	MUSC	gls	TLCS													
300		S	FMG	MUSC	gls	TLCS													
311		S	FMG	MUSC	gls	TLCS													
316		S	FMG	MUSC	gls	TLCS													
321		S	FMG	MUSC	gls	TLCS													
316		S	FMG	MUSC	gls	TLCS													
321		S	FMG	MUSC	gls	TLCS													

Sp#	Width	COMMENTS 1	COMMENTS 2
3581	3	Py 10	
3582	3	Py 10	
3583	1	Py 10	
3584	3	Py 10	
3585	3	Py 10	
3586	3	Py 10	
3587	3	Py 10	
3588	3	Py 10	
3589	3	Py 10	
3590	3	Py 10	
3591	3	Py 10	
3592	3	Py 10	
3593	3	Py 10	
3594	3	Py 10	
3595	3	Py 10	
3596	3	Py 10	
3597	4	Py 10	
3598	2.5	Py 10	
3599	3.5	Py 10	
3600	3	Py 10	
3601	3	Py 10	
3602	3	Py 10	
3603	3	Py 10	
3604	3	Py 10	
3605	3	Py 10	

DIST	ROCK QUALITY			ASSAY DATA						
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	ft	cc	ft
206						3517	5		.008	215
211						28	↓		.006	205
216						79	↓		.004	135
221						80	↓		.011	375
226						61	5		.005	215
229						82	3		.005	275
230						83	1		.005	170
233						254	3		.007	240
236						1515	3		.010	340
241						1516	5		.004	135
246						82	↓		.004	135
251						83	↓		.001	35
256						358	↓		.001	35
261						2570	5		.008	275
266						91	5		.003	105
271						92	↓		.001	35
276						93	↓		.001	35
281						94	↓		.003	105
286						95	↓		.001	35
291						96	↓		.004	135
295						97	4		.004	135
297.5						98	2.5		.011	375
301						3599	3.5		.002	70
306						3600	5		.003	105
311						10	↓		.001	35
316						20	↓		.001	105
321						30	↓		.001	75
326						40	↓		.006	205
331						405	↓		.003	105

ROCK QUALITY				ASSAY				DATA						
DIST	Recl	Pc	Pcs	IRq	Re%	Spl #	Width	T	Gr%	ppb				
336						3606	5		.001	35				
341						07	↓		.003	105				
346						08	↓		.005	170				
346						09	3.5		.005	170				
351						10	1.5		.014	2540				
353						11	2		.019	650				
356						12	3		.017	650				
358						13	2		.122					
361						14	3		.059	2020				
363						15	2		.108					
366						16	3		.322					
369.75						17	3.75		.345					
371						18	1.25		.074	2590				
375						19	1.5		.151	1240				
376						20	3.5		.207					
379						21	3		.227					
383						22	4		.168					
386						23	3		.082	2810				
388						24	2		.061	2090				
391						26.25	3		.054	1850				
396						36.26	5		.127					
399						27	3		.080	2140				
403						28	4		.105					
406						29	3		.042	1440				
409						30	3		.036	1250				
412						36.11	3		.033	1130				

ROCK QUALITY				ASSAY DATA													
Recl	Pc	Pcal	Rq	Re%	Spl #	Width	IT	OPT	App								
416					3632	4		.028	960								
419					37	3		.032	1100								
421					34	2		.015	3260								
422					33	2		.011	515								
426					36	3		.022	2160								
428					27	2.5		.016	415								
431					38	2.5		.025	1625								
435					29	4		.021	1740								
440					3640	5		.027	410								
443					41	3		.024	1135								
446					40	3		.021	70								
451					47	5		.022	135								
454					44	5		.004	135								
461					45	3		.022	710								
464					46	3		.025	1200								
467					47	3		.027	240								
471					3648	4		.021	3120								
476					49	5		.025	855								
478					50	2		.021	825								
481					51	3		.023	2880								
484					52	3		.023	1183								
486					53	2		.022									
488					54	2		.024									
489					55	1.5		.020	1020								
495					54	5.5		.022	755								
498					57	3		.011	505								
505					57	4.5		.024	135								
506					3655	3.5		.027	240								

0.102 opt Au / 85.5
 Cu 3995 - 12'

0.101 opt Au / 22.5
 Cu 467 - 484.5

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Sept 29/43

Ho. #15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<u>DX 03539</u>	<u>.024</u>	<u>825</u>					
2	<u>40</u>	<u>.006</u>	<u>205</u>					
3	<u>41</u>	<u>.002</u>	<u>70</u>					
4	<u>42</u>	<u><.001</u>	<u><35</u>					
5	<u>43</u>	<u><.001</u>	<u><35</u>					
6	<u>44</u>	<u>.007</u>	<u>240</u>					
7	<u>45</u>	<u>.014</u>	<u>480</u>					
8	<u>46</u>	<u>.005</u>	<u>170</u>					
9	<u>47</u>	<u>.007</u>	<u>240</u>					
0	<u>48</u>	<u>.003</u>	<u>105</u>					
11	<u>49</u>	<u>.004</u>	<u>135</u>					
12	<u>50</u>	<u>.002</u>	<u>70</u>					
13	<u>51</u>	<u>.026</u>	<u>890</u>					
14	<u>52</u>	<u>.002</u>	<u>70</u>					
15	<u>53</u>	<u>.020</u>	<u>685</u>					
16	<u>54</u>	<u>.006</u>	<u>205</u>					
17	<u>55</u>	<u>.021</u>	<u>770</u>					
18	<u>DX 03556</u>	<u>.001</u>	<u>135</u>					
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

Handwritten: Hole # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	DXO 3557	.007	240				
2	58	.017	585				
3	59	.072	2470				
4	60	.017	585				
5	61	.014	480				
6	62	.006	205				
7	63	.005	170				
8	64	.011	375				
9	65	.005	170				
10	66	.008	275				
11	67	.014	480				
12	68	.029	995				
13	69	.003	105				
14	70	.018	615				
15	71	.029	995				
16	72	.006	205				
17	73	.006	205				
18	74	.014	480				
19	75	.205	-				
20	76	.053	1820				
21	77	.008	275				
22	78	.006	205				
23	79	.004	135				
24	DXO 3580	.011	375				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

Hole # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<u>DXO 3581</u>	<u>.008</u>	<u>275</u>				
2	<u>82</u>	<u>.008</u>	<u>275</u>				
3	<u>83</u>	<u>.005</u>	<u>170</u>				
4	<u>84</u>	<u>.007</u>	<u>240</u>				
5	<u>85</u>	<u>.010</u>	<u>340</u>				
6	<u>86</u>	<u>.004</u>	<u>135</u>				
7	<u>87</u>	<u>.004</u>	<u>135</u>				
8	<u>88</u>	<u>.001</u>	<u>35</u>				
9	<u>89</u>	<u>.001</u>	<u>35</u>				
10	<u>90</u>	<u>.008</u>	<u>275</u>				
11	<u>91</u>	<u>.003</u>	<u>105</u>				
12	<u>92</u>	<u>.001</u>	<u>35</u>				
13	<u>93</u>	<u>.001</u>	<u>35</u>				
14	<u>94</u>	<u>.003</u>	<u>105</u>				
15	<u>95</u>	<u>.001</u>	<u>35</u>				
16	<u>96</u>	<u>.004</u>	<u>135</u>				
17	<u>97</u>	<u>.004</u>	<u>135</u>				
18	<u>98</u>	<u>.011</u>	<u>375</u>				
19	<u>99</u>	<u>.002</u>	<u>70</u>				
20	<u>3600</u>	<u>.003</u>	<u>105</u>				
21	<u>01</u>	<u>.001</u>	<u>35</u>				
22	<u>02</u>	<u>R/A</u>					
23	<u>03</u>	<u>.022</u>	<u>755</u>				
24	<u>DXO 3604</u>	<u>.006</u>	<u>205</u>				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

Hole # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	DXO 3605	.003	105					
2	06	.001	35					
3	07	.003	105					
4	08	.005	170					
5	09	.005	170					
6	10	.074	2540					
7	11	.019	650					
8	12	.019	650					
9	13	.122	-					
10	14	.059	2020					
11	15	.108	-					
12	16	.322	-					
13	17	.345	-					
14	18	.074	2540					
15	19	.039	1340					
16	20	.207	-					
17	21	.227	-					
18	22	.169	-					
19	23	.082	2810					
20	24	.061	2090					
21	25	.054	1850					
22	26	.122	-					
23	27	.080	2740					
24	DXO 3628	.105	-					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - FAMOUR

DATE: Oct 1/93

Box # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>Dxo 3629</i>	<i>.042</i>	<i>1440</i>					
2	<i>30</i>	<i>.036</i>	<i>1230</i>					
3	<i>31</i>	<i>.033</i>	<i>1130</i>					
4	<i>32</i>	<i>.028</i>	<i>960</i>					
5	<i>33</i>	<i>.032</i>	<i>1100</i>					
6	<i>34</i>	<i>.095</i>	<i>3260</i>					
7	<i>35</i>	<i>.011</i>	<i>375</i>					
8	<i>36</i>	<i>.063</i>	<i>2160</i>					
9	<i>37</i>	<i>.018</i>	<i>615</i>					
10	<i>38</i>	<i>.165</i>	<i>-</i>					
11	<i>39</i>	<i>.039</i>	<i>1340</i>					
12	<i>40</i>	<i>.012</i>	<i>410</i>					
13	<i>41</i>	<i>.004</i>	<i>135</i>					
14	<i>42</i>	<i>.001</i>	<i>35</i>					
15	<i>43</i>	<i>.002</i>	<i>70</i>					
16	<i>44</i>	<i>.004</i>	<i>135</i>					
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

hole # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<i>DXO 3645</i>	<i>.023</i>	<i>790</i>				
2	<i>46</i>	<i>.035</i>	<i>1200</i>				
3	<i>47</i>	<i>.007</i>	<i>240</i>				
4	<i>48</i>	<i>.091</i>	<i>3120</i>				
5	<i>49</i>	<i>.025</i>	<i>855</i>				
6	<i>50</i>	<i>.024</i>	<i>825</i>				
7	<i>51</i>	<i>.083</i>	<i>2850</i>				
8	<i>52</i>	<i>.183</i>	<i>-</i>				
9	<i>53</i>	<i>.262</i>	<i>-</i>				
10	<i>54</i>	<i>.187</i>	<i>-</i>				
11	<i>55</i>	<i>.030</i>	<i>1030</i>				
12	<i>56</i>	<i>.022</i>	<i>755</i>				
13	<i>57</i>	<i>.017</i>	<i>585</i>				
14	<i>58</i>	<i>.004</i>	<i>135</i>				
15	<i>59</i>	<i>.007</i>	<i>240</i>				
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 4/93

HOLE # 15446

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 03602</i>	<i>.003</i>	<i>105</i>					
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK
MINES INC.

PROJECT: MK TARGET
LOGGED BY: P. CADY

DATE: Sept 10, 1993
PAGE: 1 of 1

CAT: _____
INC: _____

DATE: Sept 10, 1993
PAGE: 1 of 1

DRILL HOLE: 15447 NORTHING: 14288.4165 EASTING: 116211.4834 ELEVATION: 10970.11 DIST: 457' 00" AZIM: 163 DIP: -59 LENGTH: 457' 00" OBE: _____ ORI: _____

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	COMMENTS 1	COMMENTS 2
0'	160	-59	360'	163	-59							Spaced every 100' to 150'	
70'	162	-59	440'	163	-58								
270'	161	-59											
470'	161	-59											

PURPOSE: To test permeability of Millstone Grit (MG) and to determine if it is fractured or not.

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	MINERALS									
									METALLIC									
									GANGUE			METALLIC						
									A%	B%	C%	D%	E%	F%				
360	163	-59																
390	163	-58																
41																		
47																		
11																		

DIST	Td	ROCK DESCRIPTION			STRUCT.						
		Com	Gr	Alt	B	A1/A2					
30											
360		S	FMC	MULT	6B	TLCS					
390		S	FMC	MULT	6B	TLCS					
41		S	FMC	MULT	6B	TLCS					
47		S	FMC	MULT	6B	TLCS					
11		S	FMC	MULT	6B	TLCS					
480		S	FMC	MULT	6B	TLCS					
490		S	FMC	MULT	6B	TLCS					
57.5		S	FMC	MULT	6B	TLCS					
55.0		S	FMC	MULT	6B	TLCS					
62.50		S	FMC	MULT	6B	TLCS					
71.5		S	FMC	MULT	6B	TLCS					
560		S	FMC	MULT	6B	TLCS					
101		S	FMC	MULT	6B	TLCS					

SP# width T

DIST	ROCK QUALITY			ASSAY DATA							
	Recl	Pc	Pssl	Rq	Re%	Spl #	Width	T	g AT	g AT	
1912						3666	212		.001	35	
						67	214		.003	105	
1916											
						68	254		.001	22	
1910											
1919						69	50		.001	35	
1960						70	50		.001	35	
1975						71	15		.001	35	
2010						72	35		.001	35	
2060						73	50		.001	35	
2110						74	50		.001	35	
2135						75	25		.001	35	
2150						76	15		.001	35	
2160						77	10		.001	35	
2210						78	50		.001	35	
2260						79	50		.001	35	
2310						80	50		.001	35	
2350						81	40		.001	35	
2310						82	26		.001	35	
2410						83	24		.002	10	
2460						84	50		.001	35	
2510						85	50		.001	35	
2540						86	50		.001	35	
2610						87	50		.001	35	
2680						88	50		.001	35	
2710						89	20		.001	35	
2760						90	30		.001	35	
						91	50		.001	35	

DIST	ROCK QUALITY			ASSAY DATA						
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	T	QNT	HPB
2985						92	2.5		0.11	375
2985						93	5.0		0.06	205
3010						94	3.5		0.02	10
3035						95	3.5		0.18	605
2930						96	2.5		0.03	105
3060						97	3.0		0.02	105
3110						98	2.0		0.02	105
3060						99	5.0		0.07	240
3110						200	5.0		0.09	310
3160						01	5.0		0.27	925
3210						02	5.0		0.05	235
3260						03	5.0		0.12	410
3310						04	5.0		0.15	170
3360						05	5.0		0.12	410
3315						06	3.5		0.14	
3410						307	1.5		0.20	685

ROCK QUALITY				ASSAY DATA					
Recl	Pc	Pcs1	Rq	Rq%	Spl #	Width	OPT	174	175
3130					3108	2.0	1914	480	
3140					071	3.0	070	2400	
3150					10	5.0	082	2520	
3160					11	5.0	082	2810	
3170					12	5.0	1013	1650	
3180					13	5.0	1007	130	
3190					14	10.0	1082	275	
3200					15	4.0	003	105	
3210					16	5.0	018	612	
3220					17	5.0	014	414	
3230					18	1.0	192		
3240					19	4.0	1020	2740	
3250					20	5.0	1032	1100	
3260					21	2.0	1011	375	
3270					22	1.5	1306		
3280					23	2.5	089	350	
3290					24	4.0	038	1260	
3300					25	4.0	063	2570	
3310					26	2.0	166		
3320					27	4.0	061	2570	
3330					28	2.0	1081	2880	
3340					29	3.0	1146		
3350					30	5.0	1005	170	
3360					31	5.0	1005	170	
3370					3132	11.0	1008	275	

0155 / 20.5 / 17
 17% Cu
 8.5% Fe

17% Cu, 8.5% Fe

DIST	Id	ROCK DESCRIPTION					STRUCT.			MINERALS						COMMENTS 1	COMMENTS 2			
		Com	Gre	Test	Co	Ait	Non	B	A1	J	A2	GANGUE		METALLIC						
												C%	B%	C%	O%	E%	F%	Spl #	Width	T
456		S	Fsh	bed	4L	sn	CHT	0	SD	N	30				Pq	0.5	0.0	70	3	
457		SS	u	u	u	u	u								Pq	0.3	0.5		5	
EqH																				

COMMENTS 1	COMMENTS 2
Mid. str. searching Approx. 5-10 ft. remaining beneath or full str. beds in f.g. blocks. Minor limonite on joint planes. Hole went through @ 457 because dullers pushed to 457. No leaving.	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 4/93

Hole #15447

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 03660</i>	<i>.001</i>	<i>35</i>					
2	<i>61</i>	<i>.001</i>	<i>35</i>					
3	<i>62</i>	<i>.001</i>	<i>35</i>					
4	<i>63</i>	<i>.016</i>	<i>590</i>					
5	<i>64</i>	<i>.027</i>	<i>925</i>					
6	<i>65</i>	<i>.003</i>	<i>105</i>					
7	<i>66</i>	<i>.001</i>	<i>35</i>					
8	<i>67</i>	<i>.003</i>	<i>105</i>					
9	<i>68</i>	<i><.001</i>	<i><35</i>					
10	<i>69</i>	<i><.001</i>	<i><35</i>					
11	<i>70</i>	<i><.001</i>	<i><35</i>					
12	<i>71</i>	<i><.001</i>	<i><35</i>					
13	<i>72</i>	<i><.001</i>	<i><35</i>					
14	<i>73</i>	<i><.001</i>	<i><35</i>					
15	<i>74</i>	<i><.001</i>	<i><35</i>					
16	<i>75</i>	<i><.001</i>	<i><35</i>					
17	<i>76</i>	<i><.001</i>	<i><35</i>					
18	<i>77</i>	<i><.001</i>	<i><35</i>					
19	<i>78</i>	<i><.001</i>	<i><35</i>					
20	<i>79</i>	<i><.001</i>	<i><35</i>					
21	<i>80</i>	<i><.001</i>	<i><35</i>					
22	<i>81</i>	<i><.001</i>	<i><35</i>					
23	<i>82</i>	<i>.001</i>	<i>35</i>					
24	<i>DX 03683</i>	<i>.002</i>	<i>70</i>					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 4/93

Hole #15447

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DXO.3684</i>	<i><.001</i>	<i><35</i>					
2	<i>85</i>	<i><.001</i>	<i><35</i>					
3	<i>86</i>	<i><.001</i>	<i><35</i>					
4	<i>87</i>	<i><.001</i>	<i><35</i>					
5	<i>88</i>	<i><.001</i>	<i><35</i>					
6	<i>89</i>	<i><.001</i>	<i><35</i>					
7	<i>90</i>	<i><.001</i>	<i><35</i>					
8	<i>DX 03691</i>	<i>.001</i>	<i>35</i>					
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

He# 15447

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	DXO 3692	.011	375				
2	93	.006	205				
3	94	.002	70				
4	95	.018	615				
5	96	.003	105				
6	97	.003	105				
7	98	.003	105				
8	99	.007	240				
9	3700	.009	310				
10	01	.027	925				
11	02	.025	855				
12	03	.012	410				
13	04	.005	170				
14	05	.012	410				
15	06	.114	-				
16	07	.020	685				
17	08	.014	480				
18	09	.070	2400				
19	10	.062	2130				
20	11	.082	2810				
21	12	.048	1650				
22	13	.002	70				
23	14	.008	275				
24	DXO 3715	.003	105				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

Hole # 15447

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	DX 03716	.018	615					
2	17	.012	410					
3	18	.192	-					
4	19	.080	2740					
5	20	.032	1100					
6	21	.011	375					
7	22	.306	-					
8	23	.089	3050					
9	24	.038	1300					
10	25	.068	2330					
11	26	.160	-					
12	27	.069	2370					
13	28	.084	2880					
14	29	.146	-					
15	30	.005	170					
16	31	.005	170					
17	32	.008	275					
18	33	.005	170					
19	DX 03734	.082	2810					
20								
21								
22								
23								
24								

DIST	ROCK DESCRIPTION				STRUCT.	MINERALS				Sp#	Width	T	COMMENTS 1	COMMENTS 2
	Com	Grb	Text	Co		Alt	Hom	B/S	J/F					
206	SS	FMG	hott	gy	fu	gn	QZ 65	ANK 10					Pg 15	white QZ in Tecton Also calcite - form QZ QZ C that only with anglen inclusions of Fish Coat Pk.
208	S	"	"	gy	fu	gn	QZ 80	ANK 5					Pg 15	Torquid, straight edged QZ mess. Fish, being out jars, low pass exhiben (Elongate) Diff. to dissem. calcite porphyroblasts Pg ss. calc. isubst. X-ht. sm. fish cells?
210	S	"	"	gy	fu	gn	QZ 15	ANK 7					Pg 10	QZ with inclusion inclusions Fish Coat Pk.
212	S	"	"	gy	fu	gn	QZ 25	ANK 10					Pg 15	Agglomerate (calc. f. cells) ultra-alkal. (calc. f. cells) Assembl. with inclusions of fau. silice + restricted mafic clasts (local among mafic chl/biot)
214	S	"	"	gy	fu	gn	QZ 15	ANK 5					Pg 5	Fish, often as halo used to transitional QZs. Clasts (mafic) > 2mm and local 1/2 x 1/2 pyrite Transverse, bridged QZ/epid veins Small local, rounded mafic frag.
216	S	"	"	gy	fu	gn	QZ 15	ANK 15					Pg 5	Calcic glass QZ (bordered) Fuchst seen after next to QZ
218	S	"	"	gy	fu	gn	QZ 5	ANK 0.5					Pg 10	ultra-alkal. mafic clasts At 305 - Calcite, fine, elongated, (10) 1/20 section Preferential mafic clasts, pg. 1000 (C. 2)
220	S	"	"	gy	fu	gn	QZ 10	ANK 5					Pg 10	Non-biotite mafic, minor, small, round, vein ss.
222	S	"	"	gy	fu	gn	QZ 25	ANK 2					Pg 2	Specified by calc. X-ht. (2) 1/2 overall composition Slightly unfocused by Sp. often with QZ, by it is clear than (7) is used.
224	S	"	"	gy	fu	gn	QZ 3	ANK 0.5					Pg 15	
226	S	"	"	gy	fu	gn	QZ 25	ANK 2					Pg 12	
228	S	"	"	gy	fu	gn	QZ 3	ANK 0.5					Pg 15	
230	S	"	"	gy	fu	gn	QZ 20	ANK 2					Pg 25	

DIST	ROCK QUALITY			ASSAY DATA					
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	T	1113
244.0						06	35	011	375
248.5						07	23	004	135
249.0						08	22	002	70
249.5						09	30	016	255
250.0						10	30	003	165
250.5						11	30	051	1410
251.0						12	30	002	165
251.5						13	20	001	35
252.0						14	30	002	70
252.5						15	50	002	70
253.0						16	45	020	685
253.5						17	20	049	1680
254.0						18	35	003	165
254.5						19	45	001	25
255.0						20	30	041	25
255.5						21	25	011	165
256.0						22	25	004	135
256.5						23	40	002	70
257.0						4024	70	007	240

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	T	Gr
2840						1025	2.0	0.41	1610
2840						26	3.0	0.02	10
2840						27	4.0	0.01	35
2840						28	2.0	0.01	35
2840						29	2.0	0.01	25
2840						30	2.0	0.01	25
2840						31	2.0	0.01	25
2840						32	2.0	0.01	25
2840						33	2.0	0.01	25
2840						34	2.0	0.01	25
2840						35	2.0	0.01	25
2840						36	2.0	0.01	25
2840						37	2.0	0.01	25
2840						38	2.0	0.01	25
2840						39	2.0	0.01	25
2840						40	2.0	0.01	25
2840						41	2.0	0.01	25
2840						42	2.0	0.01	25
2840						43	2.5	0.15	515
2840						44	3.5	0.35	135
2840						45	2.0	0.25	125
2840						46	2.0	0.25	125
2840						47	2.0	0.15	445
2840						48	4.0	0.41	1410
2840						49	2.0	0.02	30
2840						4050	2.0	0.19	1650

cut to 180 opt

0.11 opt Au / 11.5
 C 2475-259
 14% Au + 4% Ag

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

HOLE # 15448

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<u>DXO 4016</u>	<u>.020</u>	<u>685</u>				
2	<u>17</u>	<u>.049</u>	<u>1680</u>				
3	<u>18</u>	<u>.003</u>	<u>105</u>				
4	<u>19</u>	<u>.001</u>	<u>35</u>				
5	<u>20</u>	<u>.001</u>	<u>35</u>				
6	<u>21</u>	<u>.017</u>	<u>585</u>				
7	<u>22</u>	<u>.004</u>	<u>135</u>				
8	<u>23</u>	<u>.002</u>	<u>70</u>				
9	<u>24</u>	<u>.007</u>	<u>240</u>				
10	<u>25</u>	<u>.047</u>	<u>1610</u>				
11	<u>26</u>	<u>.002</u>	<u>70</u>				
12	<u>27</u>	<u>.001</u>	<u>35</u>				
13	<u>28</u>	<u>.001</u>	<u>35</u>				
14	<u>29</u>	<u>.001</u>	<u>35</u>				
15	<u>30</u>	<u>.001</u>	<u>35</u>				
16	<u>31</u>	<u>.001</u>	<u>35</u>				
17	<u>32</u>	<u>.001</u>	<u>35</u>				
18	<u>33</u>	<u>.001</u>	<u>35</u>				
19	<u>34</u>	<u>.001</u>	<u>35</u>				
20	<u>35</u>	<u>.002</u>	<u>70</u>				
21	<u>36</u>	<u>.001</u>	<u>35</u>				
22	<u>37</u>	<u>.049</u>	<u>1680</u>				
23	<u>38</u>	<u>.010</u>	<u>340</u>				
24	<u>DX 04039</u>	<u>.006</u>	<u>205</u>				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 1/93

Hole #15448

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	DX 04040	.002	70				
2	41	.014	480				
3	4043	.015	515				
4	44	.135	-				
5	45	.125	-				
6	46	.123	-				
7	47	.013	445				
8	48	.041	1410				
9	49	.002	70				
10	DXO 4050	.019	650				
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: OCT 4/93

HOLE # 15448

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	DX 03735	.004	135					
2	36	.008	275					
3	37	.005	170					
4	38	.001	35					
5	39	.001	35					
6	40	.001	35					
7	41	.001	35					
8	42	.001	35					
9	43	.001	35					
10	44	.001	35					
11	45	.001	35					
12	46	.001	35					
13	47	.001	35					
14	48	.002	70					
15	49	.002	70					
16	3750	.002	70					
17	4001	.001	35					
18	02	<.001	<35					
19	03	<.001	<35					
20	04	.003	105					
21	05	.002	70					
	06	.011	375					
23	07	.004	135					
24	DX 04008	.002	70					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: 02/4/93

HOLE # 15448

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	DXO 4009	.006	205					
2	10	.003	105					
3	11	.041	1410					
4	12	.003	105					
5	13	.001	35					
6	14	.002	70					
7	DXO 4015	.002	70					
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

HOUE#15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	<u>DX 02876</u>	<u>.001</u>	<u>35</u>				
2	<u>77</u>	<u>.001</u>	<u>35</u>				
3	<u>78</u>	<u><.001</u>	<u><35</u>				
4	<u>79</u>	<u><.001</u>	<u><35</u>				
5	<u>80</u>	<u><.001</u>	<u><35</u>				
6	<u>81</u>	<u>.002</u>	<u>70</u>				
7	<u>82</u>	<u><.001</u>	<u><35</u>				
8	<u>83</u>	<u>.007</u>	<u>240</u>				
9	<u>84</u>	<u>.028</u>	<u>960</u>				
10	<u>85</u>	<u>.065</u>	<u>2230</u>				
11	<u>86</u>	<u>.078</u>	<u>2630</u>				
12	<u>87</u>	<u>.086</u>	<u>2950</u>				
13	<u>88</u>	<u>.202</u>	<u>-</u>				
14	<u>89</u>	<u>.012</u>	<u>410</u>				
15	<u>90</u>	<u>.012</u>	<u>410</u>				
16	<u>91</u>	<u>.001</u>	<u>35</u>				
17	<u>92</u>	<u>.008</u>	<u>275</u>				
18	<u>93</u>	<u>.003</u>	<u>105</u>				
19	<u>94</u>	<u>.012</u>	<u>410</u>				
20	<u>95</u>	<u>.017</u>	<u>585</u>				
21	<u>96</u>	<u>.150</u>	<u>-</u>				
22	<u>97</u>	<u>.091</u>	<u>3120</u>				
23	<u>98</u>	<u>.047</u>	<u>1610</u>				
24	<u>DX 02899</u>	<u>.042</u>	<u>1440</u>				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

Handwritten: Hole # 15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>Dx0292</i>	<i>.054</i>	<i>1850</i>					
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 4/93

Hole # 15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm
1	DX 02801	<.001	<35				
2	02	.003	105				
3	03	.009	310				
4	04	.009	310				
5	05	<.001	<35				
6	06	<.001	<35				
7	07	<.001	<35				
8	08	.007	240				
9	09	<.001	<35				
10	10	<.001	<35				
11	11	.002	70				
12	12	.001	35				
13	13	<.001	<35				
14	14	.001	35				
15	15	.001	35				
16	16	.001	35				
17	17	.001	35				
18	18	<.001	<35				
19	19	.003	105				
20	20	.004	135				
21	21	<.001	<35				
22	22	.009	310				
23	23	.002	70				
24	DXO 2824	.009	310				

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: OCT 4/93

Hole #15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	DxO 2825	.004	135					
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

Hole # 15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 02901</i>	<i>.020</i>	<i>685</i>					
2	<i>02</i>	<i>.003</i>	<i>105</i>					
3	<i>03</i>	<i>.085</i>	<i>2910</i>					
4	<i>04</i>	<i>.011</i>	<i>375</i>					
5	<i>05</i>	<i>.088</i>	<i>3020</i>					
6	<i>06</i>	<i>.077</i>	<i>2640</i>					
7	<i>07</i>	<i>.183</i>	<i>-</i>					
8	<i>08</i>	<i>.031</i>	<i>1060</i>					
9	<i>09</i>	<i>.034</i>	<i>1170</i>					
10	<i>10</i>	<i>.131</i>	<i>-</i>					
11	<i>11</i>	<i>.174</i>	<i>-</i>					
12	<i>12</i>	<i>.031</i>	<i>1060</i>					
13	<i>13</i>	<i>.032</i>	<i>1100</i>					
14	<i>14</i>	<i>.102</i>	<i>-</i>					
15	<i>15</i>	<i>.016</i>	<i>550</i>					
16	<i>16</i>	<i>.173</i>	<i>-</i>					
17	<i>17</i>	<i>.045</i>	<i>1540</i>					
18	<i>18</i>	<i>.121</i>	<i>-</i>					
19	<i>19</i>	<i>.100</i>	<i>3430</i>					
20	<i>20</i>	<i>.083</i>	<i>2850</i>					
21	<i>21</i>	<i>.036</i>	<i>1230</i>					
22	<i>22</i>	<i>.105</i>	<i>-</i>					
23	<i>23</i>	<i>.050</i>	<i>1710</i>					
24	<i>DX 02424</i>	<i>.006</i>	<i>205</i>					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

HOLE # 15449

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 02925</i>	<i>.010</i>	<i>340</i>					
2	<i>26</i>	<i>.030</i>	<i>1030</i>					
3	<i>27</i>	<i>.073</i>	<i>2500</i>					
4	<i>28</i>	<i>.001</i>	<i>35</i>					
5	<i>DX 02929</i>	<i>.001</i>	<i>35</i>					
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

DIST	ROCK QUALITY			ASSAY			DATA			
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	IT	OPT	TYPE
10.0										
38.7						4105	28.7		001	35
						64	1.9		001	35
54.0						07	13.5		012	410
51.0						08	3.0		001	35
						01	1.7		002	102
131.0						10	15		001	35
144.0						11	15.0		001	35
117.0						12	1.0		002	40
121.0						13	14.0		002	155
110.0						14	1.4		001	35

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcs1	Rq	Re%	Spl #	Width	T	TYPE
1110						4115	5.0	.001	35
1170						16	5.0	.001	35
1210						11	5.0	.001	35
1240						18	5.0	.001	35
1110						14	5.0	.001	10
1160						20	5.0	.001	45
1990						21	3.0	.001	35
2015						22	4.5	.001	35
2040						23	4.5	.001	35
2110						24	5.0	.001	35
2160						25	5.0	.001	35
2210						26	5.0	.001	35
2240						27	5.0	.001	35
2290						28	3.0	.002	30
2320						29	3.0	.001	310
2360						30	4.0	.004	135
2380						31	3.0	.010	340
2425						32	3.5	.016	550
2445						33	2.0	.001	35
2410						34	2.5	.007	240
2500						35	3.0	.004	135
2525						36	3.5	.007	240
2570						37	2.5	.006	205
2605						38	4.5	.006	205
2715						39	1.0	.023	390
2660						40	4.5	.003	105
2710						41	5.0	.014	480
2730						42	2.0	.001	35
2760						4143	3.0	.001	35

} .006 opt Au / 9.6

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcsl	Rq	Spl #	Width	T	OPT	1112
2117					4144	15		.002	70
2118					45	15		.006	205
2119					46	20		.001	53
2120					47	15		.002	112
2121					48	35		.002	70
2122					49	54		.002	70
2123					50	36		.007	240
2124									
2125					51	30		.022	805
2126									
2127					52	30		.071	2430
2128					53	25		.034	1170
2129					54	20		.064	2180
2130					55	45		.025	855
2131					56	45		.174	
2132					57	40		.611	245
2133					58	30		.007	402
2134					59	25		.016	550
2135					60	44		.018	615
2136					61	26		.018	615
2137					4162	30		.112	

10-1-2000 Au / 1005
 @ 2000-2010

DIST	ID	ROCK DESCRIPTION				STRUCT.		MINERALS						COMMENTS 1	COMMENTS 2				
		Com	Gre	Test	Co	Alt	Hom	B/A	J/A	GANGUE			METALLIC						
													C%	B%	E%	F%	Spl #	Width	
337							V20												
340							R50												
342.5																			
347.0																			
351.0																			
356.0																			
357.5																			
360																			
365																			
367																			
369																			
371																			
375																			
377.5																			
381.5																			
386.0																			
391.0																			
395.0																			
401.0																			
406.0																			
411.0																			
416.0																			
418.5																			
421.0																			
426.0																			
431.0																			
436.0																			
441.0																			
444.0																			

1021 cps hrs / 56' Cr 331-386'

DIST	ROCK QUALITY			ASSAY DATA						
	Recl	Pc	Pcs1	Rq	R0%	Spl #	Width	Th	Gr%	PP%
337.0						4163	3.0		.022	155
340.0						416	3.0	.144		
343.5						417	2.5	.121		
344.0						416	1.5	.050	1210	
346.0						417	4.0	.087	1810	
347.0						418	5.0	.051	2570	
351.5						419	1.5	.054	1850	
360.0						420	2.5	.125		
365.0						421	3.0	.107	585	
367.0						422	2.0	.070	890	
370.0						423	2.0	.109		
371.0						424	3.0	.089	2880	
375.0						425	4.0	.090	0470	
377.5						426	2.5	.055	1850	
381.5						427	4.0	.095	3260	
384.0						428	4.5	.071	2430	
391.0						429	5.0	.017	585	
396.0						430	5.0	.021	720	
401.0						431	5.0	.003	105	
406.0						432	5.0	.008	275	
411.0						433	5.0	.004	135	
416.0						434	2.0	.002	70	
418.5						435	2.5	.002	70	
421.0						436	2.5	.001	35	
426.0						437	5.0	.001	35	
431.0						438	5.0	.001	35	
436.0						439	5.0	.001	35	
441.0						440	5.0	.001	35	
444.0						441	3.0	.005	170	

PAMOUR

WEST

PIT

DIST	Id	ROCK DESCRIPTION				STRUCT.			MINERALS									
		Com	Gr	Text	Co	Air	Mem	B	A	J	F	G	A	G	C	E	F	
40.5		S		FRAG	gr	TRC	MSL	JZS										
45.0		lg		PL	gr	GRS												
46.0		(S)		PL	gr	GRS												
47.0				PL														
54.5		B		PL	gr	SIL	GRS	NTS										
57.0		lg		PL		SIL		N70										
61.0		"		PL	gr	SIL	GRS	CZS										
65.0		"		PL	PL	SIL	GRS	V75										
68.0		"		"	"	"	"	CZS										
71.0		"		"	"	"	"	N70										
73.0		"		PL	"	"	"											
75.5		"		PL	GRS													
78.5		"		PL	SIL	"												
83.0		"		PL	SIL	"		C45										

SPI #	Width T	GANGUE				METALLIC												
		CZ	BZ	AK	IS	DZ	EZ	FZ	Py									
4199	3.5	QTZ 1.5	AK 1.2															
4200	2.5	QTZ 1.5	AK 1.5															
4201	3	QTZ 0.5	AK 0.5															
4202	5																	
4203	3.5	QTZ 2.5	AK 1.5															
4204	4.5	QTZ 1.5	AK 1.5															
4205	2																	
4206	4	QTZ 5	AK 1.0															
4207	3	QTZ 10	AK 3															
4208	3	"	AK 5															
4209	2	"	AK 1.2															
4210	2.5	"	AK 1.0															
4211	3	QTZ 5	AK 3															
4212	4.5	QTZ 10	AK 5															

DIST	Id	COMMENTS 1		COMMENTS 2	
		1	2	1	2
40.5		Assemblage - approx 25% lignitized with frachitic o.c. C20			
45.0		Basalt - grayish - green with pyrox. pillow C 50 local thin voids / fractures with dark chl/sept. probably Mg-Tho. limonite on part of base			
46.0		Basalt with pillow voids & chl. sept. color. / sept with developed basalt on mid-section			
47.0		Basalt with coarse, zits with part of vent planes			
54.5		Basalt - gray - buff due to bleaching of silic. Py occurs with chl or locally in chl/sept fractures. especially locally			
57.0		Basalt - speckled & delicately vesicle-like			
61.0		Basalt - pillowed - silic. - delicately			
65.0		Basalt to scratch cut / tank veins fill pillow chs on cut across pillows, base removed. Most to (vertical) near grill tank			
68.0		filled pillow vesicles C 57.5			
71.0		medium green - green - w/ky silic. D.C. washed by 25. silic (lignitized)			
73.0		Basalt - dk silic. - dkly looking fill			
75.5		Basalt - speckled with manganese			
78.5		At above - dkly more in cut / tank veins			
83.0		Basalt - silicified with delicate manganese speckling (15-20%)			
		w/ky silic. Basalt (fractured) - w/ky manganese speckling			
		Lignitized Basalt - vesicle / fract. pinning			
		w/ky silic. limonite with manganese speckling			
		Med. dk silic. & bleached (also vesicle)			
		At least 3 generations of tank veins, manganese speckling			

DIST	ROCK QUALITY				ASSAY DATA									
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	T	Av. wt	Aggb				
40.3						4199	3.3	5	.026	870				
43.0						4200	2.7	5	.001	35				
46.0						4201	3.0	5	.001	35				
51.0						4202	5.0	5	.001					
54.5						4203	3.5	5	.011	480				
59.0						4204	4.5	5	.017	585				
66.0						4205	2.0	5	.075	2570				
65.0						4206	4.0	5	.064	2190			59.0	- 71.0
68.0						4207	3.0	5	.017	585				
71.0						4208	3.0	5	.180					
73.0						4209	2.0	5	.024	875				
75.5						4210	2.5	5	.012	410				
78.5						4211	3.0	5	.022	255				
83.0						4212	4.5	5	.039	1340				

6.1. 672, 2.5. 1. P.J

DIST	Id	ROCK DESCRIPTION	Com	Gr	Text	Co	Alt	Mem	STRUCT.	MINERALS			COMMENTS 1	COMMENTS 2									
									B/S J/F	GANGUE			METALLIC										
									B	A	J	A2	CZ	B%	C%	D%	E%	F%	Spl #	Wth	I		
86		PL BL SIL BMS							C45 V65	QTZ 05	ANK 3								4213	3	5	Willy silic basalt - bleached to green	
87.5		PL G SIL U								QTZ 5	ANK 3								4214	3.5	5	Willy silic basalt - one patch of sil	
88.0		PL BL SIL U							FSU V60	QTZ 15	ANK 5								4215	3.5	5	bleached silic basalt - wide dark speckling. sil	
91.0		PL BL SIL U								QTZ 35	ANK 5								4216	3	5	Silic basalt with green bleached - lots of sil	
94.0		PL BL SIL U								QTZ 85	ANK A								4217	3	5	bleached - pale green. sil	
102		PL BL SIL BMS																					
106		PL BL SIL U								QTZ 25	ANK 3								4218	3	5	mod silic - w/mix	
110		PL BL SIL U								QTZ 15	ANK 5								4219	4	5	bleached silic basalt - local to	
115		PL BL SIL U								QTZ 10	ANK 15								4220	4	5	dark veins (gray + white)	
121		PL BL SIL U								QTZ 15	ANK 4								4221	5	5	mod silic (pale green)	
124		PL BL SIL U								QTZ 15	ANK 10								4222	3	5	pink departs by manganese	
127		PL BL SIL U								QTZ 30	ANK 10								4223	3	5	2 generations with sil veins (2:1 C:O)	
130		PL BL SIL U								QTZ 15	ANK 4								4224	3	5	manganese bleached by silic / sil, pink	
133		PL BL SIL U								QTZ 15	ANK 10								4225	3	5	disrupted by manganese - difficult to est	
139		PL BL SIL U								QTZ 5	ANK 5												
142		PL BL SIL U								QTZ 10	ANK 7								4226	3	5	silicite content - pale to light green	
146.5		PL BL SIL U								QTZ 15	ANK 6								4227	3	5	bleach (silic) pale - green - red next to sil	
147.0		PL BL SIL U								u 30	u 4								4228	3	5	local veins up to 70% silicite in veins + matrix	
		PL BL SIL U								QTZ 50	u 7								4229	3	5	2 generations vein sil	
		PL BL SIL U								QTZ 20	ANK 4												
		PL BL SIL U								QTZ 4	ANK 6												
		PL BL SIL U								QTZ 5	ANK 5												
		PL BL SIL U								QTZ 4	ANK 2												

COMMENTS 1	COMMENTS 2
Willy silic basalt - bleached to green	
Willy silic basalt - one patch of sil	
bleached silic basalt - wide dark speckling. sil	
Silic basalt with green bleached - lots of sil	
bleached - pale green. sil	
mod silic (pale green)	
pink departs by manganese	
2 generations with sil veins (2:1 C:O)	
manganese bleached by silic / sil, pink	
disrupted by manganese - difficult to est	
silicite content - pale to light green	
bleach (silic) pale - green - red next to sil	
local veins up to 70% silicite in veins + matrix	
2 generations vein sil	
2 generations vein sil	
5:1 QTZ + 50% silicite - local to	
veined inclusions	
mod silic basalt with pale green. sil	
fresh fault; dark speckling in sil	
matrix	
basalt - silic next to drilling grade zone	
pink (silic)	
Willy silic basalt	

DIST	ROCK QUALITY				ASSAY DATA						
	Recl	Pc	Pos	Rq	Ro%	Spl #	Wath	T	A _{total}	A _{off}	b
86.0						4213	3	S	.007	240	
87.5						4214	3.5	S	.002	70	
93.0						4215	3.5	S	.012	410	
96.0						4216	3	S	.001	35	
99.0						4217	3	S	.004	135	
102.0						4218	3	S	.003	105	
106.0						4219	4	S	1	1	
110.0						4220	4	S	.001	535	
115.0						21	5	S	.004	135	
120.0						22	3	S	.004	310	
121.0						23	3	S	.003	105	
124.0						24	3	S	.004	135	
127.0						4225	3	S	<.001	<35	
130.0						4226	3	S	<.001	<35	
133.0						27	3	S	1	1	
136.0						28	3	S	.002	70	
139.0						4229	3	S	.001	35	
142.0						4230	3	S	.002	70	
144.5						4231	2.5	S	<.001	<35	
147.0						4232	2.5	S	.002	70	

DIST	Id	ROCK DESCRIPTION					STRUCT.			MINERALS						COMMENTS 1	COMMENTS 2		
		Com	Gr	Text	Co	Alt	Mem	B	A1	A2	GANGUE		METALLIC						
											C%	B%	C%	D%	E%	F%	Spl #	Width	T
151		to	pl	gy	ch	lax					Py 3	Py 4		Py 3	Py 4		4233	4	2
152											Py 2	Py 4		Py 10	Py 3		4234	5	2
FOH																			

COMMENTS 1	COMMENTS 2
Silic next to QV's with blue green font and issue + lined fields 2011 As above	

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: OCT 7/93

HOLE # 15454

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	As ppm
1	<i>DX 04192</i>	<i>.011</i>	<i>375</i>					<i>260.</i>
2	<i>93</i>	<i>.001</i>	<i>35</i>					<i>367.</i>
3	<i>94</i>	<i>.041</i>	<i>1410</i>					<i>3200.</i>
4	<i>95</i>	<i>.042</i>	<i>3150</i>					<i>3600.</i>
5	<i>96</i>	<i>.073</i>	<i>2500</i>					<i>2600.</i>
6	<i>97</i>	<i>.041</i>	<i>1410</i>					<i>850.</i>
7	<i>98</i>	<i>.122</i>	<i>-</i>					<i>2400.</i>
8	<i>99</i>	<i>.026</i>	<i>890</i>					<i>2600.</i>
9	<i>4200</i>	<i>.001</i>	<i>35</i>					<i>153.</i>
	<i>01</i>	<i>.001</i>	<i>35</i>					<i>91.</i>
11	<i>02</i>	<i>.001</i>	<i>35</i>					<i>67.</i>
12	<i>03</i>	<i>.014</i>	<i>480</i>					<i>97.</i>
13	<i>04</i>	<i>.017</i>	<i>585</i>					<i>125.</i>
14	<i>05</i>	<i>.075</i>	<i>2570</i>					<i>134.</i>
15	<i>06</i>	<i>.064</i>	<i>2190</i>					<i>136.</i>
16	<i>07</i>	<i>.017</i>	<i>585</i>					<i>115.</i>
17	<i>08</i>	<i>.180</i>	<i>-</i>					<i>97.</i>
18	<i>09</i>	<i>.024</i>	<i>825</i>					<i>119.</i>
19	<i>10</i>	<i>.012</i>	<i>410</i>					<i>143.</i>
20	<i>11</i>	<i>.022</i>	<i>755</i>					<i>155.</i>
21	<i>12</i>	<i>.039</i>	<i>1340</i>					<i>75.</i>
22	<i>13</i>	<i>.007</i>	<i>240</i>					<i>46.</i>
23	<i>DX 04214</i>	<i>.002</i>	<i>70</i>					<i>147.</i>
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

HOLE#15454

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	As ppm
1	DX 04215	.012	410					21.
2	16	.001	35					13.
3	17	.004	135					5.
4	18	.003	105					4.
5	19	.003	105					3.
6	20	.001	35					11.
7	21	.004	135					31.
8	22	.009	310					73.
9	23	.003	105					30.
10	24	.004	135					200.
11	25	<.001	<35					15.
12	26	<.001	<35					23.
13	27	<.001	<35					11.
14	28	.002	70					7.
15	29	.001	35					4.
16	30	.002	70					9.
17	31	<.001	<35					11.
18	32	.002	70					10.
19	33	<.001	<35					15.
20	DX 04234	.006	205					46.
21								
22								
23								
24								

ROYAL OAK MINES INC. PROJECT: Cyfrondo Road - West of Site Logged By: P. Card DATE: 09/30/1993 Page 1 of 3

DRILL HOLE: 5455 NORTHING: 13265 EASTING: 14546 ELEVATION: 1556 LENGTH: 107 FOH: 88 OBI: _____ OBE: _____ INC: _____

DIST	AZIM	DIP	AZIM	DIP	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0												
100	162	-60.5					ASSAYS	100%		2		

DRILLED BY: DOMINIK (Timmins)
 SITED: HOLLINGER SITE (Timmins)

REMARKS: TO TEST OPEN PIT POTENTIAL WEST OF STREET
 Results: BEST: 032/3.0 @ 70-75'

DIST	Id	ROCK DESCRIPTION				STRUCT.	GANGUE			MINERALS			Spt #	Width	T	COMMENTS 1	COMMENTS 2	
		Com	Gr	Text	Co		All	Nom	B%	C%	D%	E%						F%
15'																		
15'		SS	Fls	frag	gy	ch	ASL											
20'																		
24'																		
26.0'		S		frag	gy	frag	ASL											
28.5'		SS																
32.0'		SS																
35.0'		SS		frag	gy	frag	ASL											
38.0'		SS		frag														
41.0'		"		"														
45.0'		SS		"														
46.0'																		

CASINGS PULLED
 AGGLOMERATE - Predominantly ch. / sh. / silt
 clasts - stratified, head-up slope
 Plus UTR dark with 50% fresh zils (U.S.)
 Also obs. dark / OR. boundary - 50% / 50%
 U.S. / 50%
 Obs. dark / OR. with 10% (S. / S. / S.)
 inc. clasts - local to fresh zils assoc.
 as above
 Fresh assoc. with 10% sh. / silt veins - local fresh
 zils in veins / matrix
 2' seam reported at 26' - broken -
 but 26' of core to this point (?)
 Laminated Agglom - local pitted + waxy
 local matrix fine-grained (U.S. = 50% + 50%)
 local fresh assoc.
 Silt. fresh, most to 26' f. matrix / vein
 Silt. At 24' 25' laminated fault slip
 which fresh. Lenses varying 25' fault slip
 Again - sh. / silt veins (fracture)
 with 50%
 Silt. / sh. / silt veins (U.S. / U.S. / U.S.)
 local lenses
 1' bit (core) reported

DIST	ROCK QUALITY			ASSAY DATA					
	Recl	Pc	Pcal	Rq	Re%	Spl #	Wath T	Avgeft	Avgepb
51.0						4245	5.0 S	<0.01	<55
56.0						4250	3.0 S	<0.01	<35
58.0						4247	4.0 S	0.07	760
63.0						4248	5.0 S	<0.01	<55
65.0						4249	1.0 S	<0.01	<35
65.0						2950	1.0 S	<0.01	<35
67.0						2951	2.0 S	<0.01	<35
70.0						2952	3.0 S	<0.01	<35
73.0						2953	3.0 S	0.32	1102
75.0						2954	2.0 S	<0.01	<35
77.0						2955	2.0 S	0.13	465
81.0						2956	4.0 S	0.06	205
85.0						2957	4.0 S	0.24	825
86.0						2958	3.0 S	0.26	850
90.0						2959	2.0 S	0.01	35
96.5						2960	1.5 S	0.08	325
97.0						2961	2.5 S	0.05	175

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

Howe # 15455

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 02951</i>	<i><.001</i>	<i><35</i>					
2	<i>52</i>	<i><.001</i>	<i><35</i>					
3	<i>53</i>	<i>.032</i>	<i>1100</i>					
4	<i>54</i>	<i><.001</i>	<i><35</i>					
5	<i>55</i>	<i>.013</i>	<i>445</i>					
6	<i>56</i>	<i>.006</i>	<i>205</i>					
7	<i>57</i>	<i>.024</i>	<i>825</i>					
8	<i>58</i>	<i>.026</i>	<i>890</i>					
9	<i>59</i>	<i>.001</i>	<i>35</i>					
10	<i>60</i>	<i>.008</i>	<i>275</i>					
11	<i>61</i>	<i>.005</i>	<i>175</i>					
12	<i>62</i>	<i>.002</i>	<i>70</i>					
13	<i>63</i>	<i><.001</i>	<i><35</i>					
14	<i>DX 02964</i>	<i><.001</i>	<i><35</i>					
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION - 1302 - PAMOUR

DATE: Oct 7/93

Howe #15455

	SAMPLE NUMBER	Au oz/ton	Au ppb	Cu ppm	Ni ppm	Pb ppm	Zn ppm	
1	<i>DX 04235</i>	<i>2.001</i>	<i><35</i>					
2	<i>36</i>	<i>2.001</i>	<i><35</i>					
3	<i>37</i>	<i>2.001</i>	<i><35</i>					
4	<i>38</i>	<i>2.001</i>	<i><35</i>					
5	<i>39</i>	<i>.005</i>	<i>170</i>					
6	<i>40</i>	<i>.005</i>	<i>170</i>					
7	<i>41</i>	<i>2.001</i>	<i><35</i>					
8	<i>42</i>	<i>.004</i>	<i>135</i>					
9	<i>43</i>	<i>2.001</i>	<i><35</i>					
10	<i>44</i>	<i>2.001</i>	<i><35</i>					
11	<i>45</i>	<i>2.001</i>	<i><35</i>					
12	<i>46</i>	<i>2.001</i>	<i><35</i>					
13	<i>47</i>	<i>.007</i>	<i>240</i>					
14	<i>48</i>	<i>2.001</i>	<i><35</i>					
15	<i>49</i>	<i>2.001</i>	<i><35</i>					
16	<i>DX 04250</i>	<i>2.001</i>	<i><35</i>					
17								
18								
19								
20								
21								
22								
23								
24								

HOYLE

SOUTH

2240

BLOCK

DIST	ROCK QUALITY				ASSAY DATA				
	Recl	Pc	Pcsi	RaRe%	Spl #	Width	T	apt	pps
425									
585					3553	10.5	6	.007	
745					3552	15.0	6	.001	
915					3551	17	6	.001	35
1125					3555	27	6	.001	35
1325					50	20	6	.004	35
1525					61	4.5	5	.008	235
ASSAY					62	2.0	8	.554	-
1625					63	4.5	5	.011	375
1825					64	2.5	5	.030	1030
1945					65	1.5	5	.075	2570
1835									
189					2265	1.5	5	.168	1590
1945					3330	5.5	5	.058	275

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1303

DATE: SEPT 14/43

Hole # 15442

	SAMPLE NUMBER	Au oz/ton	Au ppb					Re Assay Au oz/ton
1	DX 03351	.002	70					
2	52	.001	35					
3	53	.003	105					
4	54	.001	35					
5	55	.001	35					
6	56	.004	135					
7	57	.003	105					
8	58	.232	-					
9	59	.017	585					
10	60	.041	1410					
11	61	.008	275					
12	62	.554	-					.496
13	63	.011	375					
14	64	.030	1030					
15	65	.075	2570					
16	66	.025	855					
17	67	.024	825					
18	68	.167	-					
19	69	.058	1940					
20	70	.008	275					
21	71	.087	2980					
22	72	.002	70					
23	73	.015	515					
24	DX 033 74	.162	-					

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1303

DATE: SEPT 14/93

HOLE # 15442

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DXO 3375	.012	410					
2	76	.032	1100					
3	77	.007	240					
4	78	.002	70					
5	79	.029	995					
6	80	.023	790					
7	81	.024	825					
8	82	.006	205					
9	83	.019	650					
10	84	.015	515					
11	85	.002	70					
12	86	.003	105					
13	87	.060	2060					
14	DX 033 88	.020	685					
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

DIST	ROCK QUALITY				G.U. ASSAY DATA				
	Recl	Pc	Pcsl	Rq/Ro%	Spl #	Width	oz / rd	ppb	
126.0					3357	20.0	0.0015	135	
136.0					3358	10.0	0.004	135	
142.0					3359	6.0	0.010	340	
154.0					3400	12.0	0.005	130	
163.5					3401	9.5	0.013	545	
171.0					3402	7.5	0.001	135	
176.0					3403	5.0	0.017	175	
181.0					3404	5.0	0.018	615	
186.0					3405	5.0	0.003	105	
191.0					3406	5.0	0.002	170	
195.0					3407	4.0	0.040	150	

DIST	Id	ROCK DESCRIPTION				STRUCT.		MINERALS				Spl #	Wth	T	COMMENTS 1	COMMENTS 2	
		Com	Gr	Test	Co	Alt	Mem	B	A	J	A2						G%
225.8		S	fmg		64	2x	CGL										Conglomerate - very bit of fragment - local high Fe - thin
229.3		SS	fmg	2x	4x	2x	QZT										Shaly sandstone with quartzite matrix with thin bedded sandstone, splintered, medium argillite beds, disseminated, local argillite masses in matrix beds
230.5		SS	fmg	10x	4x	2x	QZT										Quartzite (folded) with thin sandstone matrix of argillite pebbles with po. (magnetite, magnetite); local po. halos, edge of ss
234.5		SS	fmg	2x	4x	2x	QZT										Quartzite matrix - yellow staining, scattered local argillite beds / darkened argillite bands
236.0		SS	fmg	bed	4x	2x	CGL										Conglomerate with 40% quartzite (ss) component or ss - washed, 1/2 239'
239.5																	folded QZT / FMG + argillite, rounded
242.0																	same - blue quartzite (ss) / with 1/2 - 3/4" argillite
246.0		S	fmg	bed	4x	2x	QZT										Scattered conglomerate
251.0		SS			4x	2x	CGL										Conglomerate with argillite quartzite component from 2415' - 2440' / po. argillite
255.0		S	fmg		4x	2x	CGL										Conglomerate - variety of clasts local green mica

DIST	ROCK QUALITY			AV ASSAY DATA						
	Recl	Pc	Pcal	Rq	Re%	Spl #	Width	IT	Oz/ton	PPS
225.8						3415	4.8	5	912	410
229.3						3416	3.5	5	1003	105
230.5						3417	1.2	5	364	-
234.5						3418	4.0	5	028	960
236.0						3419	1.5	5	426	-
239.5						3420	3.5	5	359	-
242.0						3421	2.5	5	173	-
246.0						3422	4.0	5	362	-
251.0						3423	5.0	5	071	2430
255.0						3424	4.0	5	047	1610

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

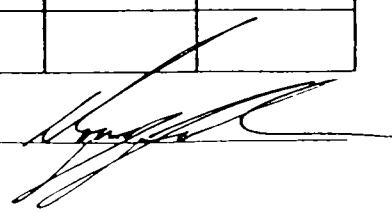
EXPLORATION 5600-1303

DATE: SEPT 16/93

Hole #15443

	SAMPLE NUMBER	A _u oz/ton	A _u ppb				
1	DX 0 3389	.003	105				
2	90	.004	135				
3	91	.005	170				
4	92	.002	70				
5	93	.011	375				
6	94	.005	170				
7	95	.003	105				
8	96	.003	105				
9	97	.001	35				
10	98	.004	135				
11	99	.010	340				
12	3400	.005	170				
13	01	.013	445				
14	02	.004	135				
15	03	.017	585				
16	04	.018	615				
17	05	.003	105				
18	06	.002	70				
19	07	.046	1580				
20	08	.004	135	6 0			
21	09	.008	275	3 0			
22	10	.045	1540	2 4			
23	11	.044	1510	3 6			
24	DX 03412	.003	105	2 5			

Lab16 P. Coad

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

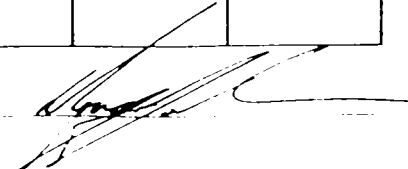
EXPLORATION 5000-1303

Hole #15443

DATE: SEPT 16/93

	SAMPLE NUMBER	Au oz/ton	Au ppb					
1	DX 03413	.010	340	5'				
2	14	.012	410	3.5				
3	15	.012	410	4 8				
4	16	.003	105	3 5				
5	17	.364	-	1 2	*			
6	18	.028	960	4 0				
7	19	.426	-	1 5	*			
8	20	.359	-	3 5	*			
9	21	.143	-	2 5	*			
10	22	.362	-	4 0	*			
11	23	.071	2430	5 0	*			
12	24	.047	1610	4 0	*			
13	25	.010	340	2 0				
14	26	.064	2190	3 0	*	.118	oz Au	51.7
15	27	.109	-	3 0	*			
16	28	.040	3090	3 0	*			
17	29	.024	135	5 0				
18	30	.102	-	5 0	*			
19	31	.153	-	5 0	*			
20	32	.010	340	5 0				
21	33	.044	1510	2 6				
22	34	.034	1170	4 6				
23	35	.023	790	4 0				
24	DX 03436	.001	35	4 5				

Lab16 P. Loto

Chief Chemist: 

ROYAL OAK ANALYTICAL LABORATORY

CERTIFICATE OF ANALYSIS

EXPLORATION 5600-1303

HOLE # 15443

DATE: SEPT 16/93

	SAMPLE NUMBER	A_{40} 0.3/600	A_{40} 170					
1	DX 03437	.003	105	55				
2	DX 03438	.005	170	500				
3								
4								
5								
6								
7								
8								
9								
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Lab 16 P. Com

Chief Chemist: _____

