

KERR ADDISON MINES LIMITED

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| W.S.R. |
| ✓ K.C.G. |
| ✓ J.H.S. |
| ✓ E.F. |
| R.D.S. |
| B.C.B. |
| ✓ P.M.K. |
| G.W.M. |
| R.O.M. |
| C.K.W. |
| J.B.S. |
| G.P.R. |
| K.F.L. |
| J.I.B. |
| E.C.I. |

MEMORANDUM:

August 28th, 1967.

TO: Mr. J. H. Stovel.

FROM: P. M. Kavanagh.

Activities and Data Re The Vangorda Region, Yukon.

On August 3rd in Whitehorse I paid a courtesy visit to Mr. James Smith, Commissioner of the Yukon. While talking confidentially about the Vangorda region he gave me to understand that Anvil had satisfied its three conditions necessary to go to production, i.e. satisfactory financing, concentrate sales contracts, and Government assistance in power, transportation, and townsite arrangements, etc. He stressed that Government plans were based solely on Anvil requirements, particularly the expansion of the Government's hydro power plant at Whitehorse, for which he stated that a definite expansion cost figure had been set. He mentioned that below the Minister of Indian Affairs and Northern Development, Arthur Laing, Digby Hunt was the senior official in Ottawa most involved in the Government's planning.

Later I visited Ken Thompson, a member of the Yukon Territorial Council, who had been our expeditor in the Yukon last year. He said that the Commissioner had told him earlier in the day that a Government announcement re Anvil production plans was imminent. He also mentioned that plans called for Anvil's Government-sponsored townsite to be close by Anvil's property rather than in a potential joint Kerr-Anvil location such as on the south side of the Pelly River in the vicinity of Blind or Vangorda Creeks.

That evening a great many Anvil and Parsons Engineering (Anvil's engineering consultants) personnel were pointed out to me, and I became very impressed with the apparent extent of Anvil's activities; there seemed little doubt that Anvil was proceeding to production.

Being of the opinion that whenever conditions would be such as to make Anvil's deposits ore, our deposits would be ore also, and concerned that a narrow Government outlook would be detrimental to everyone including ourselves, I phoned you early on August 4th to report my conversation with the Commissioner and Thompson, and to recommend that we contact Digby Hunt in Ottawa to ascertain the Government's intentions and to remind the Government of our potential capabilities. You agreed.

Continued . . .

Mr. J. H. Stovel

August 28th, 1967.

Later on August 4th while in Ross River I had a talk with Al Kulan, a director of Anvil. He provided the following information:

- Anvil is planning on production in late 1969 or 1970 at an initial rate of 5,500 tons per day, to be increased in time to 7,500 and more.
- power is to be provided initially from Whitehorse but later from a new hydro setup, possibly at the Five Finger Rapids near Carmacks.
- transportation initially is to be by truck to Whitehorse and rail to Skagway, but later might be by truck to Haines, Alaska, or a rail extension might be put in to the Vangorda region from Whitehorse.
- Parsons Engineering estimates that Anvil can break even with 7.4¢ zinc and lead (presumably American prices).
- an 8-year concentrate sales contract Anvil has made with the Japanese calls for purchases at prevailing prices but with a floor of 9.7¢ for both zinc and lead.
- Anvil is predicting an 11¢ price for both zinc and lead in the early 1970's.
- Anvil plans to build 300 homes in a Government-sponsored townsite on the south side of the Pelly River across from Vangorda Creek (this refuted Thompson's information), and to build a bridge across the Pelly River at Vangorda Creek and a road up Vangorda Creek to connect with its present one.
- Anvil expects union problems during the construction phase.

On my return to Whitehorse I flew over the Anvil property. A large construction camp has been built near the plant site which was being prepared by a lot of heavy earth-moving equipment. Although there was no activity on the deposit itself, I noticed the portal of the exploratory adit put in last year.

Upon my return to the office on August 9th I told you about my talk with Kulan and my flight over the Anvil property. You agreed with the recommendation I made that, in addition to contacting Ottawa, we have a complete feasibility study made of our Vangorda and Swim deposits.

Since you had not been able to get through to Digby Hunt in Ottawa, you instructed me to try to visit him. After finally contacting him in the evening I flew to Ottawa the following morning, August 10th, and spent several hours talking with the following senior personnel of the Resource and Economic Development Group of the Department of Indian Affairs and Northern Development:

Continued . . .

Mr. J. H. Stovel

August 28th, 1967.

A. D. Hunt, Director
G. H. Caldwell, Chief, Resource Management Division
(took him to lunch)
Dr. T. Wise, Chief, Economic Staff Group
B. J. Trevor, Head, Mining Section (saw him only briefly).

They imparted the following information:

- Anvil has virtually solved its three conditions necessary to go to production, although some more horse-trading with the Government has to be completed before an official announcement can be made.

- the Government feels strongly that it is entitled to be treated as a full active partner in Vangorda region developments because of its power, transportation, and serviced townsite - education - social services contributions. The Government considers that it has been given a copy of every report Anvil has received from its various consultants - engineering, metallurgical, etc., etc.

- concerning at least the early 1970's period, the Government has been planning solely on the basis of Anvil, being of the opinion that we had decided against production for some time. Hunt implied in a rather resentful way that his Group, in requesting large funds to support Anvil's early production decision, had met considerable reluctance from senior echelons of Government who were aware of the Noranda Group's hesitant attitude about the Vangorda region for the near-term.

- the Government will provide power at a cost. The Government intends to sell serviced lots in the townsite Kulan referred to (Hunt mentioned 65' x 100' lots at a cost of \$3,000 each but he didn't want to be held to those figures). The Government is freely providing the Ross River - Carmacks road, and will provide financial assistance for access roads.

- although the Government has recently awarded an \$85,000 contract to T. Inkledow and Associates of Vancouver to make a study of the Yukon's long-term power requirements, it plans to supply Anvil's initial requirements, and additional ones of New Imperial, by expanding the present 2-unit, 11.2 KW hydro plant in Whitehorse to 19 KW⁺ by adding a third unit (a third penstock was installed when the plant was originally built in the 1950's). There is a difference of opinion between Anvil and the Government re Anvil's initial 5,500 tpd power requirements; Parsons Engineering has advised Anvil that it requires 8.5 KW whereas the Government, based on its knowledge of Cominco's power situation at Pine Point for a similar tonnage rate, considers that 6 KW would be adequate. The solution may be that the Government will provide the difference at Anvil's total cost.

Continued . . .

Mr. J. H. Stovel

August 28th, 1967.

Before I left Toronto in the morning you had advised me through Ted Jacka of your off-the-cuff estimate of a 7-10,000 HP power requirement on our part for a 3,000 tpd operation. In Ottawa, without referring to the note I had made, I wrongly mentioned a 5-7,000 HP figure but corrected my mis-reporting of your estimate by phoning Hunt from the Toronto airport upon my return in the evening.

Hunt thought that to satisfy our power needs a fourth unit could be installed in the Whitehorse plant which would increase the plant's capacity to 24KW⁺.

- late in July the Government received the report on the Yukon's transportation requirements which it had commissioned from Travacon (Engineering) of Calgary, but asked Travacon to expand it particularly concerning Haines vs Skagway as a future main tidewater outlet.

No doubt based on the Travacon report, Hunt and Dr. Wise mentioned that with just an Anvil operation in the Vangorda region a railroad extension from Whitehorse was not even feasible with Government financial assistance, let alone on a completely privately-financed basis; however they said that if we were able to make a production decision in the near future then, although a privately-financed railroad extension would still not be feasible, one having Government assistance would definitely warrant serious consideration; in this respect Hunt cautioned me that if no decision to build a railroad extension could be made in the near-term Anvil would have to commit itself to a considerable purchase of truck equipment and would have to amortize it.

- the Government is initiating an economic study of the whole Yukon; Slim Monture is to handle the mining development section.

- the Government will probably have a town planning study made.

Hunt stressed that the Government would want to be satisfied about the justification of any long-term concentrate sales contracts which would prejudice a possible smelter in the Yukon. I gently reminded him that Anvil has made an 8-year concentrate sales contract, undoubtedly with the Government's awareness. He said that the Government would want an operating company to emphasize the training and employment of local people. Several times he and his associates mentioned that in the Government's opinion the Pine Point development has fallen short of fulfilling the Government's goals for northern development.

With reference to the purpose of my visit to Ottawa I said that although we had doubted that conditions would be such as to enable Anvil to proceed to production in the near-term, having become aware that Anvil is apparently proceeding to production without delay we have decided to make a thorough study of our own capabilities; we wanted the Government

continued . . .

Mr. J. H. Stovel.

August 28th, 1967.

to be aware of our current thinking and we also wanted to come up-to-date with the Government's intentions. Based on Anvil's reserves of 40 to 50 million tons and assuming that we have 15 million tons in our two deposits, I suggested that although we could not be in production for as long as Anvil, during those years that we could be in production we could probably be producing at at least 50% of Anvil's rate.

The following day, August 11th, I reported to you on my Ottawa visit before leaving on a 2-week vacation.



Paul M. Kavanagh
Vice-President - Exploration.

PMK:sw

cc: W. M. Sirola.

OB 4/5:7

Call to Joe from WH Aug 4/67

- phone calls from Al Oliver
- visit with Commissioner & then with Ken Thompson Aug 3.

re power - expand WH installations but only for Auvil's requirements - 10,000 tons a day (1,000 tons down the road/day)

- firm figures put on power installations costs & they only include Auvil requirements

- transp. sea rd to WH & then by rail at least for first years
- 1969 prod'n start up.

- said that ^{Auvil's} 3 conditions have been solved.

- suggested contacting Digby Hunt in Ottawa.
- Thompson:

- Commissioner had been there to be an Auvil announcement within the month

- Auvil hearing to be held at their property

Cus:

Cypress went up 7 bucks yesterday? (over)

- ~~not~~ ~~double~~ if we were in ~~order~~
it might be at 5,000 ~~ft~~^{tpd}
ie \$500,000 ~~ton~~^{yr} for 10 years
- that would be 50% of ~~Revenue~~.

ORIGINAL COPY. 19th BY J. C. PARKER

| | | | |
|----|-----|----|-----|
| TR | PK. | RL | FF. |
| | | | |
| | | | |
| | | | |

Visit to Ottawa Thurs. Aug. 10/67
 Harry Caldwell - Chief, Resources Management
 T. Inkledow & Assoc. Dir.
 of Van. \$85,000 +
 power study
 Clark J.O.S. (Joe)

Travacon (Eng) - Calgary based
 study of transp & best route to tide water
 report finished 2 weeks ago & then they
 were asked to expand - Heavies vs Skagway

housing - education - social services
 & welfare

Economic Study of whole Yukon
 Main Moisture - mines

- town planning study probability
 - suggestion writing as letter to Commission
 re our possible requirements

- got impression that a lot of bargaining
 has been going on between Amiel & Govt

- Heat indicated that if we were to
 say we were going it could well tip
 the scales in favor of a railroad ^{extension} w/ the
 Govt assistance. * - tries to then
 recently getting transp. study report.

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

| | | | |
|-----|-----|-----|--|
| TR. | UK. | FL. | |
| | | | |

- Gov't people have had tough ^{TR. UK. FL.} ^{to} ^{people.} ^{Gov't} over pessimistic attitude known by senior people.
- power provision by Gov't at a cost
- transit provided by Gov't which will
- 65'x100' sell lots "3,000 (serviced)
- cover cost of subdividing & servicing
- transportation - Ross R. - Carmaek road at no cost.
- assistance in access roads
- Gov't would be concerned about prod'n going away from possible smelter in the Yukon.

- re-employing & training local people
- WH plant - now 11.2 KW
- 3rd unit -> 19 KW + enough for Anvil + Mill + Arctic
- 4th unit -> 24 KW +

problem of Parsons telling Anvil that they will need more than Gov't thinks they need, based on Pine Pt experience

- Gov't has told Anvil that they can have the extra if they pay for it

Parsons says Anvil needs 8 1/2 KW

- Gov't claims they have been given every ~~of~~ Anvil report.
- they like this - in accord with wanting to be considered a partner

JUNE

1967

Talk With Kulay

7.4 & breakfast

15 4/67
Thur.

9.7 & floor

5500 tpd to start

16
Fri.

Jew Etzel

300 homes

17
Sat.

25000 HP - Annual requirement

Memo.

Annual
produce 11/9. P6-2a

File

af

7/5.18.

TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR OCTOBER, 1966.

SWIM LAKES "A" GROUP:

The drilling programme was stopped on the 13th because of freezing conditions. Holes A-35 and A-37 were completed, Hole A-34 had to be stopped at 404 feet because of mechanical difficulties, and Holes A-36 and A-38 were not completed.

All but two of the tent frame buildings were winterized by the use of additional rafters and tar paper. Sufficient fuel for 10,000 feet of drilling was delivered to the storage tank on the property. The G.M.C. truck was repaired in Whitehorse and returned to the property.

Hole A-35, drilled vertically 200 feet south of the 60° south-dipping Hole A-23, failed to intersect a wide good-grade section such as the 75 foot section of 8.4% Pb-Zn encountered between 125 and 200 footage in Hole A-23. The hole did however intersect a 20 foot section of massive sulphides between 233 and 253 footage assaying 1.4 oz. Ag. and 6.2% combined Pb-Zn, and another 63 foot section of massive sulphides at 363 to 426 footage, the 15 foot section of which between 406 and 421 footage assayed 1.2 oz. Ag. and 7.5% Pb-Zn.

Hole A-37, drilled vertically 200 feet southeast of vertical hole A-25, had core recovery difficulties in a 40 foot mineralized section from 73 to 113 footage but silver assays of sludge samples average 1.2 oz. Ag. over the 40 foot section suggesting from experience on the property that the section probably contains 6 - 8% combined lead-zinc. The hole intersected another 40 foot section of massive sulphides at 393 to 433 footage, the 30 foot section of which between 402 and 432 footage assays 1.8 oz. Ag. and 7.8% combined lead-zinc.

The following is a summary of the main mineralized sections in Holes A-35 and A-37:

| <u>Hole No.</u> | <u>Footage</u> | <u>Sample Length</u> <u>Feet</u> | <u>Silver</u> <u>oz.</u> | <u>Lead</u> <u>%</u> | <u>Zinc</u> <u>%</u> | <u>Copper</u> <u>%</u> | <u>Zinc</u> <u>oz.</u> |
|-----------------|----------------|-------------------------------------|-----------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| A-35 | 233.0-253.0 | 20 | 1.4 | 3.1 | 3.1 | | |
| | 312.0-314.3 | 2.3 | 1.6 | 3.6 | 7.0 | | |
| | 406.0-421.0 | 15 | 1.2 | 3.5 | 4.0 | | |
| A-37 | 73.0-113.0 | 40 | 1.2 | ? | ? | | |
| | 402.5-432.0 | 29.5 | 1.8 | 4.2 | 3.6 | | |

During the season some 30 holes totalling approximately 14,500 feet were drilled in the main gravity anomaly area at 200 foot centres over a 2,000 foot northwest-southeast length and 600 foot width. The programme largely delimited the anomaly area although some extension in several directions is considered likely. Although fill-in drilling at 100 foot centres would be required to confirm the attitude and grade of the mineralized zones, a rather incomplete interpretation made at month-end of the drilling results indicated a reserve of approximately 5,000,000 tons of 1.5 oz. silver and 9% combined lead-zinc with minor copper-gold values. Also indicated is a considerable additional tonnage of better than 6% combined lead-zinc.

KERR ADDISON MINES LIMITED
PROGRESS REPORT
 OF
EXPLORATION DEPARTMENT
AS AT OCTOBER 24, 1966

af 7/5.18.

The drilling programme on the uranium property of Quebec Mattagami Minerals Limited in the Espanola area, Ontario in which Kerr has an 80% interest is continuing to provide definitely encouraging results. The following is a summary of the drilling since the completion of Hole 66-7:

Hole 66-8: intersected 2 adjacent reefs in the No.2 zone at approximately 200 feet below the surface. The reefs assayed 1.0 and 2.2 lbs. U_3O_8 respectively over estimated 5 foot true widths. The hole had to be temporarily discontinued before reaching the No.3 zone because a larger drill was required to complete it.

Hole 66-9: obtained the following intersections:

| | <u>Estimated True</u> <u>Width Intersection</u> | <u>Depth of</u> <u>Intersection</u> | <u>Grade</u> <u>lbs. U_3O_8</u> |
|--------------------------|--|--|---|
| No.2 Zone | 5' | 550' | 2.8 |
| Intermediate Zone (No.4) | 9' | 1275' | 2.6 |
| No.3 Zone | 10' | 1400' | 2.4 |
| No.5 Zone | 5' | 2200' | 1.9 |

Hole 66-9A: this is a wedge off 66-9 designed to confirm the No.3, No.4, and No.5 zones intersected in 66-9. The hole presently appears to be approaching the No.5 zone and has already obtained the following two intersections which, although requiring further detailed interpretation, probably represent the No.4 and No.3 zones respectively; a 7 foot estimated true width of 1.7 lbs. U_3O_8 , and a 10 foot estimated true width of 3.0 lbs. U_3O_8 .

Hole 66-10: this hole obtained an estimated 5.2 foot true width intersection of 1.7 lbs. U_3O_8 at a depth of 1050 feet, correlatable with the 6.7 foot true width intersection of 2.1 lbs. U_3O_8 obtained at 400 feet of depth in hole 65-1 previously drilled directly above 66-10.

Hole 66-11: this hole was temporarily discontinued before reaching the No.3 zone because it had deviated to the extent that a larger drill was required to complete it.

A drilling programme has commenced on Kerr's large holdings in the area of the Quebec Mattagami property. The programme during the next several months is primarily designed to satisfy specific assessment work requirements at the same time providing important geological data, and will later test the presently considered most favourable parts of the holdings.

The drilling programme on the Swim Lakes "A" Group in the Vangorda region, Yukon, has been discontinued for this year. Some 30 holes totalling approximately 14,500 feet were drilled in the main gravity anomaly area at 200 foot centres over a 2,000 foot northwest-southeast length and

600 foot width. Before being suspended because of approaching winter the programme largely delimited the anomaly area although some extension in several directions is considered likely. Although interpretation of the results is not yet complete and fill-in drilling at 100 foot centres is required to confirm the attitude and grade of the mineralized zones, a reserve of approximately 5,000,000 tons of 1.5 oz. silver and 9% combined lead-zinc with minor copper and gold values is indicated. A considerable additional tonnage of better than 6% lead-zinc is also indicated.

The drilling programme on the Icon Syndicate's (Kerr 25%) Sullivan Group in O'Sullivan Township 30 miles northeast of Chibougamau has indicated that the Main Zone plus the No.3 Zone about one-half mile to the north contain approximately 500,000 tons of 3 to 4% copper most of which can be mined by open pit methods. A tentative agreement has been reached with Merrill Island Mining Corporation Limited concerning the mining and milling of the zones. The Icon Syndicate would provide all the financing required at bank interest (possibly \$1 million plus working capital), Merrill would provide their mill, and mining and contract haulage and milling supervision at basic cost plus a 50¢ per ton milled toll charge, Icon would receive all of its development and financing expenditures back first, then the profit would be split 90% to Icon - 10% to Merrill. Production is planned to commence next spring at a rate of 500 - 600 tons per day.

In the drilling programme in which Kerr is participating on the Silvermaque uranium property in the Elliot Lake area, hole 66-3, drilled 1,000 feet southeast of hole 66-1, has intersected 3 uraniferous sections at approximately 3,000 feet of depth as follows: 15.1 feet of 1.01 lbs. U₃O₈, 8.2 feet of 1.5 lbs, and 4.2 feet of 1 lb. Hole 66-2, 1,000 feet north of 66-1, is drilling.

Drilling is in progress in a project area in Manitoba and is planned for two properties in Saskatchewan, one in the Yukon, and one in Ontario. Drilling during the past several months in a project area in Quebec yielded disappointing results.

Paul M. Kavanagh

Paul M. Kavanagh
Chief Geologist - Exploration.

PMK:sw
Oct.25/66.

TAKEN FROM P.M. KAVANAGH'S MONTHLY REPORT FOR SEPTEMBER, 1966.

SWIM LAKES 'A' GROUP:

Holes A-27 to A-33 were completed, and holes A-34 to A-36 were drilling at month-end. Drilling completed by month-end in the 15,000 foot contract totalled approximately 14,000 feet.

A D-7 bulldozer under contract from Liard Construction did road repair work on the roads connecting the drilling area to camp and to the Pelly River crossing.

Hole A-27, drilled on a S30°W bearing and 60° dip 200 feet northwest of A-24, failed to encounter any mineralization of interest-- particularly any continuation of the high-grade section in A-24. This would indicate that the northwestern limit of the mineralized zones has been determined.

Hole A-28, drilled on a S30°W bearing and 60° dip 200 feet south-east of hole A-23 which had obtained a 75 foot massive sulphide 1.5 oz. Ag and section of 8.4% Pb-Zn between 125-200 before having to be abandoned at that depth, encountered a correlatable 90 foot section of almost massive sulphides between 165-255 within which the 18 foot section from 200-252 averages 1.7 Ag and 8.9% Pb-Zn. Another 5 foot section between 462 and 467 ran 0.8 oz. Ag and 8.1% Pb-Zn.

Hole A-29, drilled on a S30° bearing and 60° dip from the same set-up as vertical hole A-25, i.e. 200 feet southwest of the disappointing vertical hole A-16, encountered the same upper massive sulphide section as in A-25, but whereas that in A-25 is very low grade except for a 9 foot section assaying 1.8 oz. Ag and 8.3% Pb-Zn, the 55.5 foot section in A-29 between 130.5-186.0 averages 1.1 oz. Ag and 8.2% Pb-Zn, and the 26 foot section between 205 and 231 averages 1.7 oz. Ag and 9.0% Pb-Zn. In addition, in the overall section between 433 and 476 a 4 foot interval runs 1 oz. Ag, 11.5% Pb-Zn, and another 10 foot interval runs 2.1 oz. Ag and 8.8% Pb-Zn.

Hole A-30, drilled on a S30°W bearing and 60° dip 200 feet southeast of A-10 (i.e. 200 feet southwest of A-26), intersected between 380-483 the same almost massive sulphide section as A-10 intersected between 340-460. An overall 77 foot section in A-30 within the massive sulphide section averages 1.2 oz. Ag and 7.4% Pb-Zn; within that 77 foot section the 35 foot interval from 406-441 averages 1.4 oz. Ag, 9.7% Pb-Zn, and the 27 foot interval from 456-483 averages 1.2 oz. Ag, 8.2% Pb-Zn.

Hole A-31, drilled on a S30°W bearing and 60° dip 200 feet southwest of A-30 (i.e. 200 feet southeast of A-20) encountered almost massive sulphides from 135 to 245, and less than 50% sulphides to 350. The hole did not encounter the good section in A-30, but did intersect several 10 to 20 foot wide zones between 140 and 243 which run between 1 and 2 ozs. Ag and 7 to 9% Pb-Zn.

Hole A-32, drilled on a S30°W bearing and 60° dip 200 feet southwest of A-28, failed to intersect any significant mineralization whatsoever, particularly the high-grade section in A-28. This would indicate that the southwestern limit of the mineralized zones has been determined in this locality.

Hole A-33, drilled on a S30°W bearing and 60° dip 200 feet southeast of A-28 (i.e. 200 feet northwest of A-29), encountered a 20 foot massive sulphide section between 207-227 corresponding to the massive sulphide sections in A-28 and A-29 but the only high-grade in the section occurs in a 7 foot interval assaying 1.9 Ag, and 13.2% Pb-Zn. Deeper in the hole a 5 foot interval between 435-440 runs 1.4 Ag and 8.0% Pb-Zn.

The following is a summary of the main mineralized sections in Holes A-27 to A-33 inclusive:

| <u>Hole No.</u> | <u>Footage</u> | <u>Sample Length</u> <u>Feet</u> | <u>Silver</u> <u>oz</u> | <u>Lead</u> <u>%</u> | <u>Zinc</u> <u>%</u> | <u>Copper</u> <u>%</u> | <u>Gold</u> <u>oz</u> |
|-----------------|-------------------------|-------------------------------------|----------------------------|-------------------------|-------------------------|---------------------------|--------------------------|
| A-28 | 200.0- 252.0 | 32 | 1.7 | 3.3 | 5.6 | | |
| | 461.6-466.6 | 5 | 0.8 | 2.1 | 6.0 | | |
| A-29 | 130.5-186.0 | 55.5 | 1.1 | 4.7 | 3.5 | | |
| | 205.0-230.7 | 25.7 | 1.7 | 3.6 | 5.4 | | |
| | 433.2-437.1 | 3.9 | 1.0 | 3.4 | 8.1 | | |
| | 466.0-476.0 | 10 | 2.1 | 3.7 | 5.1 | | |
| A-30 | 406.0-441.0 | 35 | 1.4 | 4.4 | 5.3 | | |
| | 456.0-483.0 | 27 | 1.2 | 3.8 | 4.4 | | |
| | 406.0-483.0 | 77 | 1.2 | 3.4 | 4.0 | | |
| A-31 | 140.0-160.0 | 20 | 1.3 | 3.2 | 3.7 | | |
| | 175.0-195.0 | 20 | 1.6 | 3.3 | 4.5 | | |
| | 232.5-242.5 | 10 | 1.8 | 3.2 | 5.8 | | |
| A-33 | 207.0-214.0 | 7 | 1.9 | 5.8 | 7.4 | | |
| | 435.0-440.0 | 5 | 1.4 | 2.5 | 5.5 | | |

YUKON

AUGUST, 1966

SWIM LAKES "A" GROUP: **TAKEN FROM P.M.K.'S MONTHLY REPORT**

Holes A-23 to A-26 were completed during the month, and holes A-27 to A-29 were drilling at month-end. Drilling completed by month-end in the 15,000 foot contract totalled approximately 11,025 feet.

Delays were caused by several reasons. When the water supply pond became depleted an additional 2,000 feet of water line had to be laid to a much larger pond. Two of the drills ran into bad caving conditions. Parts for a broken-down machine were delayed in getting to the property by the impending rail strike.

A GMC carry-all truck, previously being rented, was purchased and a couple of trips were made in it from the property through to Whitehorse and back. A contract was given to Liard Construction to bulldozer-repair the roads connecting the drilling area to camp and to the Pelly River ferry crossing.

Additional soil sampling was done in the vicinity of the high-grade lead-zinc float found 500 feet west of camp, and soil samples were collected on 3 widely spaced lines between Baselines 1 and 3. Results of all the soil sampling were awaited at month-end.

Hole A-23, drilled on a S30° W bearing and 60° dip 200 feet ahead of A-6A, encountered at footage 125 the high-grade zone intersected by A-6A between footages 154 to 232 and was still drilling in it when it had to be abandoned at 200 because of bad caving conditions. As in A-6A core recovery in the mineralized section was almost zero because of the porous nature of the high-grade mineralization. Sludge samples were taken and gave an average grade over the 75 foot interval from 125 to 200 of 1.5 oz. Ag, and 8.4% Pb-Zn.

Hole A-24, drilled on a S30° W bearing and 60° dip 200 feet northwest of A-20, encountered almost massive sulphides over the 136 foot interval from 64 to 200, within which the 49 foot section from 152 to 201 averages 1.8 oz. Ag, and 8.5% Pb-Zn and corresponds with a 27 foot section of similar grade in A-20. The hole did not intersect thru narrow sections of +9% Pb-Zn encountered in the footage interval between 328 and 401 in A-20.

H Hole A-25, a vertical hole drilled 200 feet southwest of vertical hole A-16, encountered almost massive sulphides over the 85 foot interval from 115 to 200 and over the 40 foot interval from 318 to 358. The hole had to be abandoned at 368 feet because of bad caving. Except for the 9 foot section from 179 to 188 of 1.8 oz. Ag, and 8.3 % Pb-Zn, the rest of the massive sulphides in the hole are low-grade.

Hole A-26, drilled on a S30° W bearing and 60° dip 200 feet northwest of A-19, failed to intersect any of the favourable mineralized sections in A-19. The hole encountered a great deal of chloritic sericite schist probably indicating that the northwestern limit of the mineralization in this part of the overall zone occurs between A-19 and this hole.

The following is a summary of the main mineralized sections in Holes A-23 to A-26 inclusive:

| <u>Hole No.</u> | <u>Footage</u> | <u>Sample Length</u> <u>Feet</u> | <u>Silver</u> <u>Oz.</u> | <u>Lead</u> <u>%</u> | <u>Zinc</u> <u>%</u> | <u>Copper</u> <u>%</u> | <u>Gold</u> <u>Oz.</u> |
|-----------------|---------------------------------------|-------------------------------------|-----------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| A-23 | 125-200 (hole abandoned at 200) | 75 | 1.5 | 4.1 | 4.3 | .27 | .005 |
| A-24 | 151.7-200.5 | 48.3 | 1.8 | 3.7 | 4.8 | .16 | .005 |
| A-25 | 179.2-188 | 8.8 | 1.8 | 3.6 | 4.7 | .34 | .005 |

7/5.18.

Taken from P. M. Kavanagh's Monthly Report for July, 1966.

SWIM LAKES "A" GROUP:

Holes A-14 to A-22 inclusive were completed in the main anomaly area during the month. Drilling completed by month-end in the 15,000 foot contract totalled 8,804 feet. The drilling was indicated that the mineralized zones have a 20°-30° dip to the northeast, and that therefore the 60° dipping holes were cutting almost true width intersections. A 7,500 foot water line was laid to the drilling area from a pond located on line 7 West at baseline 4.

A piece of float assaying 20% combined lead-zinc was found several hundred feet west of the camp. The float was only slightly rounded but differed from the known mineralization on the property by being completely devoid of pyrite, pyrrhotite, and magnetite. Soil samples taken in the vicinity of the float yielded some anomalous values in lead, zinc, and copper.

The branch road from the Ross River - Carmacks road to the Pelly River across from Blind Creek was completed, and a Government ferry was installed on the Pelly. At month-end it was possible to drive a truck to within 5 miles of the property.

Hole A-14, drilled on a S30°W bearing and 60° dip 200 feet back of A-6A, did not encounter the high-grade zone intersected by A-6A between footages 154 to 232. It did however intersect a 14 foot zone of 7.8% Pb-Zn and an 8.4 foot one of 9.0% Pb-Zn between 425 and 465 which probably correspond to similar zones found in A-6A.

Hole A-15, drilled on a S30°W bearing and 60° dip 200 feet northwest of A-12, cut a mineralized zone from 300 to 355 which included a 9 foot section of 9.9% Pb-Zn which probably represents a narrowed-down end of the 78 foot section in A-12 which averaged 7.8% Pb-Zn.

Hole A-16, a vertical hole drilled 200 feet southeast of A-5, intersected only a 12 foot section averaging 7.5% Pb-Zn.

Hole A-17, drilled on a S30°W bearing and 60° dip 200 feet ahead of A-12, encountered almost massive sulphide mineralization over the wide interval from 180 to 355 but it was all unfortunately of very low-grade. It did however lend further support to the indications that the axis of the gravity anomaly lies to the southwest of its originally estimated position.

Hole A-18, drilled on a S30°W bearing and 60° dip 200 feet back of A-10, encountered only an 18 foot section of 7.2% Pb-Zn from 465 to 483, representing an extension of the mineralized sections in A-10.

Hole A-19, drilled on a S30°W bearing and 60° dip 200 feet north-west of A-17 a 30 foot massive sulphide zone at 83 to 113 feet which averages 8.7% Pb-Zn, and a 145 foot zone of semi-massive to massive sulphides containing a 20 foot thickness at 210 to 230 grading 8.1% Pb-Zn.

Hole A-20, drilled on a S30°W bearing and 60° dip 200 feet ahead of A-10, cut a 27 foot zone at 160-187 averaging 8.0% Pb-Zn which is not reflected in A-10, and another mineralized interval from 280 to 410 containing an 8.4 foot section of 7.6% Pb-Zn and a 5 foot section of 10.9% Pb-Zn, both of which correspond to mineralized sections in A-10.

Hole A-21, drilled on a S30°W bearing and 60° dip 200 feet back of A-12, failed to encounter any important mineralized section corresponding to the 78 foot one of 7.8% Pb-Zn in A-12.

Hole A-22, a vertical hole drilled 200 feet southeast of A-16, did not intersect any mineralization of interest, again lending support to the idea that the position of the gravity anomaly should be shifted to the southwest.

The following is a summary of the main mineralized sections in Hole A-14 to A-22 inclusive.

| <u>Hole No.</u> | <u>Footage</u> | <u>Sample Length</u> <u>Feet</u> | <u>Silver</u> <u>oz.</u> | <u>Lead</u> <u>%</u> | <u>Zinc</u> <u>%</u> | <u>Copper</u> <u>%</u> | <u>Gold</u> <u>oz.</u> |
|-----------------|----------------|-------------------------------------|-----------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| A-14 | 423.3-437.3 | 14 | 1.5 | 3.5 | 4.3 | .30 | .02 |
| | 455.0-463.4 | 8.4 | 2.0 | 3.7 | 5.3 | .15 | .02 |
| A-15 | 344.0-352.9 | 8.9 | 1.3 | 3.6 | 6.3 | .15 | .02 |
| | 334.0-352.9 | 18.9 | 0.7 | 2.3 | 4.5 | | |
| A-16 | 452.7-464.5 | 11.8 | 1.1 | 3.0 | 4.5 | .07 | .01 |
| A-18 | 465.0-483.0 | 18 | 0.6 | 2.2 | 5.0 | .15 | .01 |
| A-19 | 83.0-113.0 | 30 | 1.6 | 4.7 | 4.0 | | |
| | 210.0-230.0 | 20 | 1.1 | 3.2 | 4.9 | | |
| A-20 | 160.0-187.0 | 27 | 1.3 | 3.1 | 4.9 | | |
| | 328.6-337.0 | 8.4 | 1.2 | 2.6 | 5.0 | | |
| | 355.5-360.5 | 5 | 1.0 | 2.3 | 8.6 | | |

cc: W. M. Sirola
F. Chow.

KERR ADDISON MINES LIMITED

SUITE 1600 - 44 KING STREET WEST
TORONTO 1, ONTARIO
TELEPHONE 362-7111

MEMORANDUM:

August 1st, 1966.

TO: Mr. J. H. Stovel

FROM: P. M. Kavanagh.

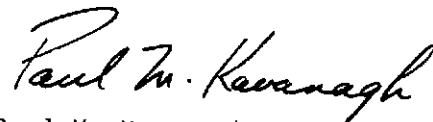
Progress Report on the Swim Lakes 'A' Group

Drilling on the Company's Swim Lakes 'A' property in the Pelly River region, Yukon is encountering mineralization similar both in character and grade to that on the Company's Vangorda property 6 miles to the northwest. An extensive sulphide mineralized zone contains substantial lenses averaging 8-10% lead-zinc with 1.5 - 2 ozs. of silver and low copper and gold values.

The drilling completed to date has been at 200 foot centres and has covered a northwest-southeast strike length of 1,800 feet, with extension of the mineralized zone still open to the northwest and possibly to the southeast.

The drilling to date has indicated that the axis of the gravity anomaly lies to the southwest of its originally estimated position. Drilling is presently testing the still open entire southwestern side of the mineralized zone. The width of the zone is so far indicated to be a minimum of 400 feet.

It is planned to drill off the mineralized zone at 200 foot centres, to be followed by closer spacing where required. Tonnage and grade estimates will be made upon completion of the drilling programme.



Paul M. Kavanagh
Chief Geologist - Exploration.

PMK:sw

~~George H. Stovola~~
~~Paul M. Kavanagh~~

TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR JUNE, 1966.

SWIM LAKES "A" GROUP:

By month-end Hole A-9, A-10, A-12, and A-13 were completed in the main anomaly area. Hole A-11, drilled to test the weak Zone 3 gravity anomaly east of the main anomaly, was also completed and did not intersect any mineralization. The weak anomaly appeared to be caused by relatively shallow overburden cover above quartz sericite schist country rock, as appeared to be the case with the weak Zone 4 and 5 gravity anomalies.

Drilling completed by month-end in the 15,000 foot contract totalled 4251 feet. Some slow-down was caused by the depletion of run-off water. To alleviate a critical run-off water shortage 5,000 feet of aluminum pipe were ordered for a pipe line from a lake on top of the hill behind the drilling area.

Hole A-9, drilled on a S30°W bearing and 60° dip 200 feet back of A-4, did not encounter the 480 foot continuous section of almost massive sulphides intersected by A-4. It did however cut two sections of almost massive sulphides, one at 69 - 93, the other at 400 - 474, and a section of 50- 75% sulphides at 515 - 575. Although the Pb-Zn mineralization was also not as strong as in A-4 the 5 foot section at 429 - 434 has +8% Pb-Zn, and the 14 foot section at 534 - 548 has 7% Pb-Zn.

Hole A-12, drilled on a S30°W bearing and 60° dip 200 feet north west of A-6A, did not encounter the high-grade (15% Pb-Zn) section cut by A-6A between 154 to 232 but it did intersect an equally wide section between 320 - 399 assaying 8% Pb-Zn within an overall section of 50 - 100% sulphides between 280 and 440.

Hole A-13, drilled on a S30°W bearing and 60° dip 200 feet back of A-13, did not encounter the wide sections of almost massive sulphides intersected between 170 and 500 in A-5, nor did it cut as much high-grade mineralization as A-5. However it did intersect a short section of barren massive sulphides at 180 - 195, a section of 25 - 25% barren sulphides at 190 - 310, and a 60 foot section of almost massive sulphides between 460 and 520 within which a 10 foot section runs 8.5% Pb-Zn and another 4.6 foot section runs 10% Pb-Zn.

Hole A-10, on a S30°W bearing and 60° dip, was the first hole drilled to test the Zone 2 gravity anomaly 1,000 feet west of the center of the main anomaly. It encountered sulphide-bearing quartz sericite schist almost continuously from 65 feet, with the 110 foot section between 340 and 450 consisting of almost massive sulphides, of which the 67 foot section between 356 and 423 averages almost 8% Pb-Zn.

The high grade section in A-10 plots slightly south of the interpreted peak position of the Zone 2 anomaly. That fact plus the disappointing results of A-9 and A-13 have tended to suggest that the main mineralization may trend south of the interpreted peak positions of the main and the Zone 2 gravity anomalies rather than trending north as has been thought.

The gravity work completed last month in the southwestern part of the property did not disclose any obviously significant anomalies but the terrain is rugged and terrain corrections may have been made inaccurately.

Assay averages of the main mineralized sections in holes completed this year to month-end are as follows:

| <u>Hole No.</u> | <u>Footage</u> | <u>Sample Length</u> <u>Feet</u> | <u>Silver</u> <u>Oz.</u> | <u>Lead</u> <u>%</u> | <u>Zinc</u> <u>%</u> | <u>Copper</u> <u>%</u> | <u>Gold</u> <u>Oz.</u> |
|-----------------|--------------------------|-------------------------------------|-----------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| A-6A | 154.0 - 232.0 | 78.0 | 2.5 | 7.8 | 7.2 | .16 | .01 |
| | 425.8 - 429.2 | 3.4 | 1.6 | 6.4 | 7.1 | | |
| | 465.5 - 474.2 | 8.7 | 1.5 | 5.5 | 5.5 | .21 | .01 |
| A-9 | 429.0 - 434.1 | 5.1 | 1.1 | 3.7 | 5.1 | .15 | .02 |
| | 534.5 - 547.7 | 13.2 | 1.1 | 2.4 | 3.6 | .15 | .01 |
| A-10 | 98.0 - 102.6 | 4.6 | <i>being 0.6 oz. Au</i> | 2.9 | 5.5 | | |
| | 356.2 - 393.0 | 26.8 | 2.1 | 3.1 | 5.4 | | |
| | 396.4 - 423.0 | 26.6 | 1.4 | 2.3 | 5.6 | | |
| | 356.2 - 423.0 | 66.8 | 1.6 | 2.4 | 4.9 | | |
| | 356.2 - 444.7 | 88.5 | 1.4 | 2.1 | 4.7 | | |
| A-12 | 320.5 - 399.0 | 78.5 | 1.2 | 3.8 | 4.0 | .18 | .01 |
| A-13 | 472.1 - 482.0 | 9.9 | 1.5 | 3.5 | 5.0 | .16 | .02 |
| | 510.2 - 514.8 | 4.6 | 1.6 | 4.6 | 5.2 | .22 | .04 |

} adjustments made Aug 4/66 by P.M.K.

cc: W. M. Sirola
F. Chow

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Y 5/18.

TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR MAY, 1966.

SWIM LAKES 'A' GROUP:

Holes A-7 and A-8 were completed, each to approximately 500 feet, on Zones 5 and 4 respectively and did not intersect any mineralization. The weak gravity anomalies in Zones 4 and 5 appeared to be caused by relatively shallow overburden above the usual quartz sericite schist country rock.

Hole A-6A, drilled almost in the same position as the incomplete hole A-6 was drilled late last summer and with the same S30°W bearing and 60° dip, encountered overburden to 84 feet, quartz sericite schist to 154 feet, massive sulphides containing high-grade lead-zinc to 242, low-grade sulphides in sericite schist to 360, low-grade massive sulphides to 426, high-grade massive sulphides to 429, a soft gouge zone to 432, bleached sericite schist to 466, high-grade massive sulphides to 474, and graphitic sericite schist to the hole bottom at 526. Assays were awaited at month-end.

At month-end Hole A-9, drilled on a S30°W bearing and 60° dip 200 feet back of A-4 which is 200 feet southeast of A-6A, was at 391 feet; Hole A-10, drilled on a S30°W bearing and 60° dip to test the smaller Zone 2 gravity anomaly 1000 feet west of the main anomaly, was at 47 feet; Hole A-11, a vertical hole testing the weak Zone 3 gravity anomaly in the central part of the property was at 173 feet; the set-up for Hole A-12, 200 feet northwest of A-6A was being prepared.

The field work of the gravity survey in the southwestern part of the property was almost completed.

Two small claim fractions staked between 4 outer claims of the 'A' group by surveyors under contract to Anvil were transferred to Kerr by Anvil.

Correspondence was had with A. Kulan's lawyer concerning Kulan's contention that he is entitled to a prospector's interest concerning the Swim Lakes 'A' Group.

cc: W. M. Sirola
F. Chow.

TAKEN FROM P.M. KAVANAGH'S MONTHLY REPORT FOR APRIL, 1966.

YUKON

SWIM LAKES 'A' GROUP:

The camp was opened by Fred Chow, an assistant, John Gable the Boyle Bros. superintendent, six drillers, and a cook early in second half of the month. By month-end the camp expansion construction was almost completed, and a drill was set up on the small gravity anomaly on line 13E in the eastern part of the property to which water was to be supplied from Swim Lake. Run-off water sufficient to operate drills on the main anomaly was not expected before the middle of May.

Two small fractions staked by surveyors under contract to Anvil between 4 outer claims of the property were to be transferred by Anvil to Kerr.

cc: F. Chow
W. M. Sirola.

TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR MARCH, 1966.

SWIM LAKES "A" GROUP:

Chow carried out a check E.M. survey over the "B" airborne magnetic anomaly in Swim Lakes and encountered additional anomalous indications.

cc: F. Chow
w. Sireca

Taken from P. M. Kavanagh's Monthly Report for December, 1965.

SWIM LAKES 'A' GROUP:

A press release was made on the 30th covering the drilling results obtained in the summer's abortive drilling programme.

Meetings were held with Dynasty principles in Toronto on the 8th and in Vancouver on the 16th at which, among other matters of mutual interest discussed, it was agreed to share road building costs this winter in the vicinity of our 'A' group.

Taken from P. M. Kavanagh's Monthly Report for November, 1965.

YUKON

SWIM LAKES "A" GROUP:

Upon receipt of a residual gravity interpretation from D. Crone it was decided to plan firmly on a 15,000 foot programme next season using 4 drills. After tenders were received Boyles Bros. were awarded the contract.

Kavanagh spoke by phone on the 12th to Mr. H. T. Mudd, president of Cyprus Mines Corporation, and expressed to Mr. Mudd Kerr's interest in the Vangorda region, suggesting that in the appropriate time it would probably be of mutual advantage to discuss matters of mutual interest in the continuing development of the region. Mr. Mudd received the call in a favourable way and expressed a desire to have such a discussion at an appropriate time, which he felt would be sometime in the future rather than at present while their programme was at a very early stage.

Taken from P. M. Kavanagh's Monthly Report for October, 1965.

YUKON

SWIM LAKES "A" GROUP:

Crone made an extremely encouraging residual gravity interpretation of the Bouguer gravity results obtained by the United Geophysical Company from this summer's gravity work.

Much consideration was given to many aspects of the major drilling programme to be carried out on the property commencing about May 1st, next year.

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TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR SEPTEMBER, 1965.

YUKON

SWIM LAKES "A" GROUP:

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| W.S.R. |
| K.C.G. |
| J.H.S. |
| E.F. |
| R.D.S. |
| B.C.B. |
| P.M.K. |
| G.W.M. |
| R.O.M. |
| C.K.W. |
| J.B.S. |
| G.P.R. |
| K.F.L. |
| J.L.B. |
| E.C.J. |

The diamond drilling programme was stopped on the 21st when it was decided not to tolerate any further the extremely slow drilling progress caused by the inferior equipment and crews of the contractor, Northern Diamond Drillers Limited. It was planned to bring a new drilling contractor equipment onto the property overland in late winter to be ready for recommencement of a full-fledged drilling programme approximately May 1st. Several major contractors were approached on a preliminary basis.

Hole A-5 was completed to a depth of 648 feet. Drilled approximately 200 feet east of A-4 on a S 44°W bearing and with a 60° dip it encountered overburden to 66 feet, oxidized quartz sericite schist from 66 to 83 feet, quartz sericite schist containing bands of massive pyrite to 171 feet, massive pyrite to 206, containing a zone of high lead-zinc mineralization at 185-193, quartz sericite schist containing bands of sulphides to 252, massive pyrite to 308 containing a zone of high lead-zinc mineralization at 276-320, quartz sericite schist to 448 containing several 5-10 foot bands of lead-zinc mineralization, massive pyrite to 488, quartz sericite schist to 496, graphitic schist to 560 with a zone of sericite schist at 522-539, and chlorite schist to the hole bottom at 648. Assay averages of the main mineralized sections in A-5 are as follows:

| <u>HOLE A-5</u> | <u>Footage</u> | <u>Sample Length</u> Feet | <u>Silver</u> oz. | <u>Lead</u> % | <u>Zinc</u> % | <u>Copper</u> % | <u>Gold</u> oz. |
|-----------------|----------------|------------------------------|----------------------|------------------|------------------|--------------------|--------------------|
| | 276.0-320.1 | 44.1 | 2.1 | 5.6 | 4.6 | .21 | .03 |
| | 356.4-367.8 | 11.4 | 1.4 | 5.1 | 4.1 | no assay yet | .02 |
| | 393.0-399.8 | 6.8 | 1.7 | 3.3 | 6.0 | no assays yet. | .06 |
| | 414.7-422.8 | 8.1 | 1.9 | 1.5 | 5.3 | .14 | .01 |
| | 488.0-495.5 | 7.5 | 2.1 | 1.5 | 5.6 | .22 | .01 |

Hole A-6, drilled approximately 200 feet west of A-4 on a S 32°W bearing and with a 60° dip, had to be stopped at 257.5 feet when the inadequate drilling equipment was unable to handle a bad section of ground. At the bottom the hole was still in high-grade mineralization which had started at 160 feet, and based on the section in Hole A-4 it could be expected that the mineralized section in A-5 would continue for another 200 feet. A-5 had encountered overburden to 79 feet, and oxidized sericite schist containing varying percentages of pyrite to 160 feet, when it intersected the well-mineralized section, which consists of moderate to high pyrite replacement in sericite schist, and containing appreciable lead-zinc mineralization. The 92.5 foot section from 160 to 252.5 (the last 5 feet of core were left in the hole) assays 2.0 oz. silver, 3.9% lead, and 5.8% zinc; copper and gold assays are not yet available. .12 Cu ; .03 Au

During the whole 1965 drilling programme only 1,818 feet were drilled. However, the drilling did show that the important gravity anomaly is caused by an important mineralized zone, and the 1966 drilling programme should be able to delineate it satisfactorily.

cc: W. M. Sirola
F. Chow

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- W.S.R.
- K.C.G.
- J.H.S.
- E.F.
- R.D.S.
- B.C.B.
- P.M.K. ✓
- G.W.M.
- R.O.M.
- C.K.W.
- J.B.S.
- G.P.R.
- K.F.L.
- J.L.B.
- (E.C.J.)

TAKEN FROM P. M. KAVANAGH'S MONTHLY REPORT FOR AUGUST, 1965.

YUKON

SWIM LAKES 'A' GROUP:

During the month Hole A-5 was advanced from 120 to 427 feet, and Hole A-6 was drilled from its collar to 220 feet, an overall total of just 527 feet of drilling for the month. The very slow progress of the planned 2-drill programme was caused by poor drilling equipment, heavy turn-over of low calibre drilling crews, and to some extent by caving ground. Although only intermittent assay results were available at month end, visual examination of the core indicated that important mineralization is present in A-5 in the following footage intervals: 275 - 320; 355 - 370; 385 - 400; and 415 - 425. Visual examination of the A-6 core indicated that important mineralization starts at approximately 160 feet and continues to the 220 hole bottom at month end.

Approximately 7 miles of detailed gravity surveying was carried out during the month. Preliminary interpretation indicates a small anomaly southwest of the northwest end of the important anomaly being drilled, all of which gives further support to a favourable folded environment being present. Also indicated is the possibility of a large mineralized zone occurring at some depth in the eastern part of the property - definitely a drilling target area.

Paul M. Kavanagh
 Chief Geologist - Exploration.

PMK:sw
 Sept. 15/65.

cc: W. M. Sirola
 F. Chow

ops Y/55
(New file)

TAKEN FROM P.M. KAVANAGH'S MONTHLY REPORT FOR JULY, 1965.

YUKON

W.S.R.
K.C.G.
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K.F.L.
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(E.C.)

SWIM LAKES "A" GROUP:

Hole A-4 was completed to a 552 foot depth on the 14th. Drilled on a S32°W bearing and with a 60° dip it encountered overburden to 51 feet, oxidized sericite schist with low pyrite and trace base metal content from 51 to 101 footage, pyritized sericite schist with occasional narrow bands with low base metal content from 101 to 193, 50% to almost 100% massive sulphides replacement of sericite schist from 193 to 472, a chloritic-talcosse contact zone from 427 to 476, and graphitic schist from 476 to the bottom at 552. Assay averages of the main mineralized section are as follows:

| Hole A-4 Footage | Sample Length Feet | Silver oz. | Lead % | Zinc % | Copper % | Au. oz. |
|------------------|--------------------|------------|--------|--------|----------|---------|
| 150.0 - 159.0 | 9 | 0.46 | 1.9 | 2.7 | 0.06 | Tr. |
| { 193.0 - 225.5 | 32.5 | 0.8 | 2.9 | 4.1 | 0.15 | |
| { 225.5 - 241.5 | 16 | 1.24 | 3.6 | 3.1 | 0.05 | |
| → 193.0 - 241.5 | 48.5 | 0.9 | 3.1 | 3.8 | 0.12 | |
| 193 - 237 | 44 | 1.1 | 3.5 | 4.2 | 0.13 | |
| 241.5 - 279.0 | 37.5 | 0.35 | 0.5 | 0.6 | 0.06 | |
| 279.0 - 314.0 | 35 | 1.50 | 1.0 | 5.2 | 0.16 | |
| 314.0 - 375.0 | 61 | 0.30 | 0.6 | 1.2 | 0.39 | |
| 375.0 - 395.0 | 20 | 1.07 | 4.5 | 4.3 | 0.21 | |
| 395.0 - 425.0 | 30 | 0.53 | 2.1 | 2.0 | 0.26 | |
| { 425.0 - 450.0 | 25 | 1.77 | 4.3 | 4.1 | 0.12 | 0.01 |
| { 450.0 - 472.0 | 22 | 1.45 | 1.3 | 4.3 | 0.24 | 0.02 |
| → 425.0 - 472.0 | 47 | 1.62 | 2.9 | 4.2 | 0.2 | 0.02 |
| → 375.0 - 472.0 | 97 | 1.16 | 3.1 | 3.5 | 0.22 | |

In addition a 1/2 foot wide band of massive sulphides in the graphitic schist 1 foot up from the bottom of the hole assayed 2.94 oz. silver, 6.2% lead, 10.5% zinc, trace copper, and 0.04 oz. gold.

In summary, it can be said that out of a total core length of 289 feet of almost massive sulphides, a total of 180 feet assayed in excess of 6% combined lead-zinc and 1 oz. of silver; the 180 foot core length represents a total true thickness of 90 feet.

The hole indicated that the cause of the gravity anomaly found in last summer's programme is mineralization of a similar character and grade to that of the Vangorda deposit 5 miles to the northwest. However, whereas the Vangorda deposit has a shallow northward dip, the 60° angle of the A-4 hole together with the generally 45° core angles it encountered, and the geophysical data all together suggest that the mineralization in this Swim Lake property occurrence has a dip of 60° - 75° to the north.

cc: Sewla
Chow

At mid-month when Hole A-4 was completed it was decided to expand the drilling programme and let a firm two-drill 5,000 foot contract. When it became evident that no big contractor could take on such a contract immediately it was decided to give the contract to Northern Diamond Drillers, the small contractor already on the property. That contractor advised that it was capable by way of crews and equipment to undertake the expanded programme. By the evening of the 22nd all the necessary crews, equipment, and fuel for a two-drill programme were on the property. Unfortunately however, almost from that date on, through a series of bad operating moves, breakages, and personnel problems it became clear that the small operator was not as capable as it had said it was of satisfactorily carrying out the expanded programme. By month end, Hole A-5 had only just been started by one machine, and Hole A-6 was only just about to be started by the other machine.

A group of 24 additional claims was staked on to the northeast side of our original 48 claim "A" group for additional protection.

During the last half of the month a tent camp on wooden floors and walls, and a wooden core shack were set up on the west shore of Swim Lake. Geologist Fred Chow of our Vancouver office staff was brought to the property as project supervisor. Ken Thompson, a member of the Yukon Territorial Council and formerly chief accountant of Proctor Construction Company which had just decided to sell its assets and go out of business, was engaged as our expeditor in Whitehorse.

Arrangements were made with the United Geophysical Company of Calgary to provide a surveyor and gravity instrument operator to carry out a detailed fill-in gravity survey mainly over the part of the property covered by the reconnaissance-type gravity survey carried out by that company last summer which had been successful in finding the important anomaly and also several other interesting indications, the latter being the main reason prompting the new fill-in work.

Kavanagh was in the Yukon from the 12th to 24th in connection with this programme.

Paul M. Kavanagh

Paul M. Kavanagh
Chief Geologist - Exploration.

Taken from P. M. Kavanagh's Monthly Report for June, 1965.

YUKON

SWIM LAKES 'A' GROUP:

A diamond drill, supplied by Northern Diamond Drilling, arrived on the property on the 3rd, and commenced drilling on the 6th. Drill Hole A-2, the first hole to be drilled this year - A1 being the hole drilled last year, was located approximately 900 feet south on line 65W from Base line #1. It was a 60° hole on a S32°W bearing and was designed to test the heart of the impressive gravity anomaly. With considerable difficulty the hole reached oxidized quartz sericite schist bedrock at 53 feet. Pyrite mineralization commenced at 78 feet and increased in percentage from thereon. From 191-240 the hole was in massive fine to very fine-grained pyrite containing recognizable galena, sphalerite, and chalcopyrite. At 240 a string of rods was accidentally dropped down the hole, couldn't be recovered, and the hole was abandoned. A good aquifer was hit at 183 feet.

Hole A-3 was collared vertically approximately 200 feet westerly from A-2, hit bedrock at 14 feet and penetrated graphitic and sericite schist to 88 feet. From 88-113 feet no core was recovered, the hole apparently having entered a large void, and word from the property was that the hole had to be abandoned.

Late in the month Hole A-4 was collared about 100 feet westerly from A-2 with the same 60° dip on a S32°W bearing as A-2, and at month-end the hole was at 25 feet in overburden.