811815

92-H

May 1, 1980

Mr. Lou Holme
R.R. #1, Boundary Road
Keremeos, B.C.

Prop. Sub.

Dear Lou,

Re: Tannally Industries Ltd.

I have tried to reach you several times by phone, unsuccessfully, regarding the above eight placer claims in the Princeton area. As we discussed on your visit to Vancouver, Cyprus Anvil is not interested in this prospect due to the potential scale of the operation. I have shopped around for some prospective partners in this venture and would suggest the following contacts to you.

Dupont of Canada Exploration
#102 - 1550 Alberni Street
Vancouver, B.C.
V6G 1A5

Please contact either Mr. Chris Gunn or the Exploration Manager, Mr. Dave Barr, at 684-9264.

An alternative might be:

C. M. Oliver & Co. Ltd.
750 West Pender Street
Vancouver, B.C.

Contacts for financial support there would include Mr. Lal Gondi or Mr. Ken Ralfs at 684-9211. I know both Gondi and Ralfs personally and believe they would be in a position to provide either direct financial support through C. M. Oliver, by way of an underwriting, or would at least have additional contacts that you might pursue on behalf of your partners.

Another potential lead is Mr. Bert Reeve of:

Cordilleran Engineering
#1418 - 355 Burrard Street
Vancouver, B.C.
V6C 2G8
Telephone: 681-8381

... 2

The fourth and final lead in this matter is:

Sawyer Consultants Ltd.
#1 - 425 Howe Street
Vancouver, B.C.
V6C 2A9

The contact there is Mr. Paul Sawyer, 684-5433.

Additionally, I might suggest that you post a notice or request for joint venture partners on the Tannally land package at Princeton with the B.C. and Yukon Chamber of Mines. I have talked to the Manager, Mr. Rick Higgs, and his sidekick, Sanford Woodside, and they both indicate that this is an acceptable practice and a lot of junior outfits do this. I would suggest you reach either Higgs or Woodside at:

B.C. and Yukon Chamber of Mines
840 West Hastings Street
Vancouver, B.C.
V6C 1C8
Telephone: 681-5328

The notice that you forward to them should document such things as a legal description of the claims, their geographic location, the type of deal being sought and the capital level required, etc., etc.

Lou, I am sorry I have not gotten back to you sooner. I have tried, I reiterate, to contact you several times. This is the best I can do and I wish you all the success in the world in developing something around Princeton.

Best regards to Maureen and, of course, yourself.

Yours truly,

CYPRUS ANVIL MINING CORPORATION

D. S. Jennings
Chief Geologist

DSJ/ck

Lou Holme
RR1 Boundary Rd.
Keremeos, B.C.
499-2415

Tannally Industries Ltd.
8 placer clms, Princeton area, Similkameen R.

---

B.C. and Yukon Chamber of Mines
840 W. Hastings
Vancouver, B.C.
V6C 1C8
681-5328

Post notice - 8 placer claims Princeton area avail for immed option; capital sought for near term devel.

---

Dupont of Canada Exploration
#702 - 1550 Alberni St
Vancouver, B.C.
V6G 1A5
Dave Barr
Chris Gunn
684-9264

---

C.M. Oliver & Co. Ltd.
750 W. Pender
Vancouver, B.C.
Lal Gondi
Ken Ralfs
684-9211

---

Cordilleran Engineering
#1418 - 355 Burrard
Vancouver, B.C.
Bert Reeve
681-8381

Sawyer Consultants Inc. Paul Sawyer 684-5433
#1 - 425 Howe St.
Vancouver, B.C.
V6C 2A9

493-024-2404-4937

Sn

1980

$250,000 - chopper / dirt baggers / multi-elem 8-10 4

Recce / geochem

2 assocs. < Bolivia geol - Turnover
Metcalf

gold in 1981 - A Troup 521-2502

RR1 Boundary Rd
Keremeos
499-2415

Tannally — Lou Holmes — 941-4602

8 pl clms Princeton, Similkameen R

72% for sale / retain 28%

Retain mgmt / or involvement

120-130,000 buy out of other partners

$10/yd × 250×10⁶ yds

Shallow, virgin gravel benches

6 partners, 10,000 shs, 4,000 issued; leaves
Grey cr

Bert Reeve 684 9211

Dupont - Dave Barr 299-6998

Potential Developing Properties

★ 1) Cirque 4) Amril Range
2) Tulameen
3) Torrens

## Tulameen

★ Location –

★ Type of deposit –

Size – 12MT × $10^6$ unknown

Potential Operation – ~~Mining~~

- Type - pit
- Size - # of employees 50-60 / 480,000 /yr.
- Product - Sub-bit steam coal / tpd. clean 40% 9,500
- Infrastructure - P T C

Transport - rail CP → Port Moody via Cachucks.

- Terminal - PM or Van.

## Torrens

★ Location

★ Type of deposit

Size 250 - 300 × $10^6$ 50 : 50 open pit hyd - U/G

Potential Operation ~~Mining~~

- Type
- Size
- Product
- Infrastructure

Transportation

## Steps to Production (Timing)

1) Calorific value low 9500 BTU
2) Price - world $27-30 cost
$38-40 needed
3) Trans. $10.50 / tonne & escalating

Potential Market

1) Excell. feed for rotary cement kilns right ash content / fusing charact / lo S 5%
2) ~~Ancillary~~ blend for thermal plants
3) Thermal plant – Valley Cu
4) BC cement plants – gas wash. / ore.
5) Lack of reserves i.e. only 12-13 yrs
6) 1982-83 @ earliest

## Exploration (AFS)

Carmacks
Braeburn
Indian R.

## Steps to Production (Timing)

Reclamation .25 – .5 × $10^6$

Open pit mining not normally allowed

Environ. delicate area

As def. holding

As & when damaged

Met coal but prob. value as thermal coal

Leases to 1991

Dalta Smelting & Refining
2200 Shell Rd.
ph-273-2721 Richmond B.C.
V6X 2P1

TANNALLY INDUSTRIES LTD.
P.O. BOX 1358,
PRINCETON, B.C.
VOX 1WO

# PROSPECTUS
of

Placer Mining and Placer Concentrate Refining Project
Concerning Recovery of Valuable Metals

March 1, 1979.

PLEASE DISREGARD ALL REFERENCE TO
REFINERY SYSTEMS

TABLE OF CONTENTS

# TABLE OF EXHIBITS



"SEE EXHIBIT FOLDER"

# TANNALLY INDUSTRIES LTD.

## CAPITAL REQUIREMENT

| NOTE # | ITEM | SUPPLIER | AMOUNT |
|---|---|---|---|
| 1 | Backhoe c/w spare bucket | Finning Tractor | $278,015.00* |
| 2 | Classifier c/w waste conveyor, hopper & elect. panel | C. & C. Logging | 15,000.00* |
| | 950 Cat Loader c/w log grapple | C. & C. Logging | 28,000.00* |
| 3 | Model 8032 Keene Dredge c/w diving equipment | Keene Industries | 6,180.00 |
| 4 | 6" Pump c/w Waukesha Motor | T. Hatton, Coalmont | 1,200.00 |
| 5 | Vehicles: 1 - ¾ton 4x4 GMC | Galpin Motors | 8,291.00 |
| 6 | 1 = ½ton P.U. GMC | " " | 6,550.00 |
| 7 | Welding Equipment | O.K. Welders | 1,813.25* |
| 8 | Upgrading contract of equipment | C. Huey Services | 11,887.00 |
| 9 | Test Screen & Coarse extraction equipment | Gilson Screen | 10,996.80* |
| 10 | Dryer (est.) | C. Huey Services | 4,000.00* |
| 11 | Pulverizer-Classifier (est.) | | 13,000.00* |
| 12 | Extraction furnace complete | Delta Refinery | 850.00* |
| 13 | Power to site | West Kootenay Power | 13,800.00 |
| 14 | Buildings - Mobile | | 30,000.00* |
| 15 | Buildings - Stationary | | 64,800.00 |
| 16 | Tanks/Station (Fuel) (est.) (2) | Imperial Esso | 2,000.00 |
| 17 | Final Separation Lab (est.) | Kevex & Nelmaco | 63,292.80* |
| 18 | Office Equipment | See reference | 7,222.45* |
| 19 | Diesel Generator | Finning Tractor | 25,000.00* |
| 20 | Plasma Units | Metco | 209,041.60* |
| 24 | Feed Equipment (Dryer) | C. Huey Services | 6,000.00 |
| 25 | Pulverizer & Feed (est.) | | 15,000.00* |
| 26 | Cone Crusher (est.) | | 25,000.00* |
| | | | $846,939.90 |
| | Add 5% tax | | 42,347.00 |
| | | | $889,286.90 |
| | Add 4% Freight on items marked * ($726,231.90) | | 29,049.28 |
| | | | $918,336.18 |
| | Construction labour (est.) Miscell. | $20,000.00 | |
| | Start-up cost: | | |
| 21 | Insurance $14,878.00 | | |
| | Salaries & labour (90 days) 75,075.00 (11 pers. @ $15./hr. aver. | 89,953.00 | |
| 23 | Stenvold Property | 200,000.00 | 309,953.00 |
| | | | $1,228,289.18 |
| | 10% Contingencies | | 122,828.92 |
| | | | $1,351,118.10 |

## 4. COARSE VALUE EXTRACTION

Concentrate in dredge and sluices will be removed hourly during C-C processing. A suitable vehicle (Qu. 5) will transport the concentrate to the value extraction systems. A suitable wet classifier will collect 3/8" minus mesh sizes and feed them onto 1 only 5x10 Deister table (Qu. 17) where all free visible material will be extracted. Oversize from 3/8" minus classifier will be examined and stored for future crushing and pulverizing to refinery use specifications. Remaining concentrate from Deister tables will be trained into a drier, beginning material flow to refinery.

## 5. FLOW OF REFINERY MATERIAL

The outfeed from the Deister tables will be into a drier. (Qu. 24 & 10) It is felt by the author that an explanation of the drier system is necessary at this point in the description.

a) The refinery causes an exhaust of a large amount of heat which can easily be routed to provide the necessary heat input required for the drying process.

The pulverizer will reduce all dry concentrate to 200 minus mesh size and flow directly into the feed hopper for the apparatus (Ex. J & K) used, to free maximum gold and platinoids and other metals from their compounds or alloys and collect these metals in their pure elemental form.

## GENERAL COMMENTS

I - Advantages of this mining method are:

1) In step land reclamation.
2) No large volume use of fresh water (water is re-used).
3) No sediment pollution of streams.
4) Dump plate for excavated gravel at operator eye level or lower.
5) Large volume input easily accommodated.
6) No requirement for continuous manual control or continuous adjustment of feed or concentrator monitors.
7) Miniature in size compared to all known comparable volume placer systems.
8) Easy, low cost maintenance.
9) Good economy, high return to cost ratio per cubic yard processed.

II - Advantages of this method of refining are:

1) Pollution free (no dust, chemical or noxious gases released to environment).
2) Noise levels easily accommodated with W.C.B. specified noise suppressor work gear.
3) Portable.
4) Diminutive in size compared to refinery systems with same value return.
5) Dependable.
6) Low cost maintenance.
7) Very little fresh water required (2000 gal. initial recirculated).
8) All energy input used to maximun.
9) Low established cost.
10) High return to cost ratio in process.

## 6. COSTS OF OPERATION

From inplace gravel at mine site through to pure, finished, marketable Values.

| | | Item Total/Day | Combined Total/D |
|---|---|---|---|
| (A) EXCAVATION 150 days/yr. | 1) BACKHOE OPERATOR WAGE (Ex.G) 7 hr./day x $15./hr. | 105.00 | |
| | 2) FUEL COSTS (Ex.F) 6 GPH x 7 hr. x $.75/gal. | 31.50 | |
| | 3) GREASE MAINTENANCE | 6.50 | $823.40 |
| | 4) PREVENTIVE MAINTENANCE $5.90 oil & air/oil filters | 12.50 | |
| | 5) DEPRECIATION BACKHOE (Qu.1) $303,592. cost x 1/3 / 150 days | 667.90 | |
| (B) CLASSIFYING 150 days/yr. (Qu. 2,8,4,19 | 1) 6" PUMP FOR SCRUBBING ON CLASSIFIER | | |
| | a) Gas - 6 GPH x 7 hr. x $.95/gal (Ex.F) | 39.90 | |
| | b) Daily maint. (30 hr. application) 30 x 1½ gal. oil x $3.25/gal. + 1000 filters / 7 | 4.50 | |
| | c) Depreciation $1260. cost x 1/3 / 150 days | 2.77 | $190.22 |
| | 2) DEPRECIATION CLASSIFIER (Qu. 2 & 8) $2861. cost x 1/3 / 150 days | 63.49 | |
| | 3) DIESEL ELECTRIC PLANT | | |
| | a) Fuel 20 gal./day x $.75 | 15.00 | |
| | b) Maintenance | 4.50 | |
| | c) Depreciation $27300. x 1/3 / 150 days | 60.06 | |
| (C) DREDGE (Qu.3) | 1) GAS 2 only 16 HP @ 2 GPH 2 only x 2 GPH x 7 hr. x $.95/gal. (Ex.F) | 26.60 | |
| | 2) MAINTENANCE (25 hrs.) ½ qt. oil x 2 motors x $4.25/gal. / 25/7 | 1.19 | $42.07 |
| | 3) DEPRECIATION $6489. cost x 1/3 / 150 days | 14.28 | |

## 6. COSTS OF OPERATION (Cont'd.)

| | | Item Total/Day | Combined Total/Day |
|---|---|---|---|
| (D) TRACTOR LOADER 150 days/yr. (Equ. 2) | 1) FUEL 69 gal./day x $.75/gal. (Ex.F) | 51.75 | $140.42 |
| | 2) GREASE | 11.00 | |
| | 3) PREVENTIVE MAINTENANCE | 10.40 | |
| | 4) DEPRECIATION $30,576. cost x 1/3 / 150 days | 67.27 | |
| (E) LABOUR 150 days/yr. | 1) LABOUR 5 men x 7 hr. x $15./hr. (Ex.G) | 525.00 | $525.00 |
| (F) MINING COSTS 150 days/yr. | 1) MINING COST PER DAY | 1,721.11 | |
| | *2) MINING COST PER CU. YD./DAY $1721.11/day / 1000 cu. yd./day | 1.72 cu. yd. | |
| | 3) MINING COST PER HOUR $1721.11/day / 7 days | 245.87/hr. | |
| | 4) MINING COST PER YEAR 150 days x $1721.11/day | 258,166.50/yr. | |
| (G) CLEAN-UP TRANSPORT FROM SLUICES SECONDARY CLASSIFICATION EXTRACTION VISIBLE 150 days/yr. (Equ. 5 & 17) | 1) GAS CONSUMPTION VEHICLES (2) 20 GPD x $.95 (Ex.F) | 19.00 | $400.61 |
| | a) VEHICLE MAINTENANCE | 10.00 | |
| | b) DEPRECIATION $15,583. cost x 1/3 / 150 days | 34.28 | |
| | 2) DEISTER DEPRECIATION $10,148. cost x 1/3 / 150 days | 22.33 | |
| | 3) LABOUR (Ex.G) 3 men x 7 hr. x $15./hr. | 315.00 | |

*1) COST PER CU. YD. WITH EXTRACTION COSTS OF VALUABLE VISIBLE $\frac{\$400.61/day}{1000 \text{ cu. yd.}}$ + *$1.72/cu. yd. mining = $2.12 cu. yd.

## 6. COSTS OF OPERATION (Cont'd.)

(I) REFINERY 250 days/yr. (Qu. 24 & 25)

| | Item Total/Day |
|---|---|
| 1) FEED FROM DEISTER & DRIER (Qu.24) | |
| a) Depreciation $6300. cost x 1/3 / 250 days | $8.32 |
| 2) MAINTENANCE DRIER/FEEDS | $5.00 |
| 3) FEED & PULVERIZER DEPRECIATION (Qu.25) $15,750. cost x 1/3 / 250 days | 20.79 |
| 4) MAINTENANCE PULVERIZER 2 disc's x$100./day | 200.00 |
| 5) DEPRECIATION REFINERY/SYSTEMS (Qu.20) $228,273. cost x 1/3 / 250 days | 301.32 |
| 6) LABOUR (Ex. G) 5 men x 7 hr. x $15./hr. | 525.00 |
| 7) MAINTENANCE REFINERY (every 25 hr.) | |
| a) 4 electrodes x $186. / 25 hr. / 7 hr. day | 208.32 |
| b) 4 Nozzles x $35. | 140.00 |
| 8) ELECTRICAL ENERGY | |
| Actual proof $38.10/ton x 4 ton/day | 152.40 |
| House power | 10.00 |
| 9) NITROGEN (Ex. Q) | |
| Cost $1.05 cu. ft. @ 70 PSI | |
| Use per gun/hr = 300 cu. ft. | |
| Cost per day 300 cu. ft. x 4 guns x $1.05/cu.ft. x 7 hr. | 88.20 |
| Cost per rental of tank/day | 18.18 |
| 10) HYDROGREN (Ex.Q) $2000./min. x 12 mo. / 250 days | 96.00 |
| 11) LAB & PURIFICATION & MEASUREMENT ACTUAL VALUES RECOVERED (Qu. 17, 9 & 12) | |
| a) Depreciation $71,900. cost x 1/3 / 250 days | 94.91 |
| b) Process, materials | 120.00 |
| c) Labour 4 men x 7 hrs. x $15./hr. | 420.00 |

(J) COSTS REFINERY

| | |
|---|---|
| TOTAL COST/DAY REFINERY | = $2,408.44 |
| TOTAL COST/MONTH REFINERY $2408.44 x 22 days | = $52,985.68 |
| TOTAL COST/YEAR REFINERY $2408.44 x 250 days | = $602,110.00 |

## 6. COSTS OF OPERATION (Cont'd.)

(K)

MINING COSTS TO RETURN 150 days/yr.

AS PER ASSAYS BONDAR-CLEGG A28-76, March 3, 1978. (Ex. Li)
Free values in concentrate.

Average Au. = $\frac{9.43}{6}$ or 1.571 oz. troy/ton

Average Pt. = $\frac{3.08}{6}$ or .513 oz. troy/ton

It is estimated that 100 cu. yd. in place gravel will yield 1 ton of concentrate of equal quality to that submitted to Bondar-Clegg for assay of free values.

Placer operation will yield $\frac{1000 \text{ cu. yd./day}}{100 \text{ cu. yd./ton}}$ or 10 ton/day.

Using assay average
Gross Au. return daily = 1.571 oz. x 10 ton = 15.71 oz. Au/d
Gross Pt. return daily = .513 oz. x 10 ton = 5.13 oz. Pt./da

(Ex.E)
Au. worth = U.S. $247.00 Cdn. $291.46 (Current)
Pt. worth = U.S. $325.00 Cdn. $383.50

Gross worth Au. = 15.71 oz. x $291.46/oz. = $4,578.84
Gross worth Pt. = 5.13 oz. x $383.50/oz. = $1,967.36
* Gross worth TOTAL $6,546.20
Gross inplace gravel/cu. yd. = $6.5462

** Net profit per day = Mine gross - Mine cost
= $6546.20/day - $1721.11/day
= $4,825.09/day

*** Net profit per year = 150 days x $4825.09/day = $723,763.50/yr.

Average net worth/cu. yd. = $\frac{\$723,763.50}{150 \text{ days} \times 1000 \text{ cu. yd./day}}$ = $4.825

(L)

REFINERY COSTS TO RETURN

a) RECOVERY FROM REFINERY BASED ON 4 tons/day
*Average from 7 assays
6 from Bondar-Clegg #A27-1164, Dec. 22, 1977 (Ex. Lii)
1 from Similkameen Mines Dec. 12, 1977 (Ex. N)

3.195 Au. troy oz./ton 2.35 Pt. troy oz./ton
using $291.46/oz. Au. & $383.50/oz. Pt.

4 TONS (x 3.195 Au./ton x $291.46 + 2.35 Pt./ton x $383.5
= $7,329.72/day
Profit/day = $7329.72/return - $2408.44/cost = $4,921.28
Cost/year = $602,110.00
* Profit/year = 250 days x $4921.28 = $1,230,320.00

(M) Executive Salaries 3 x $30,000. = $90,000.00

## 6. COSTS OF OPERATION (Cont'd.)

(N)

COSTS & PROFIT

Annual Gross Revenue = $981,930.00 + $1,832,430.00
= $2,814,360.00

Annual Cost = Mining cost + Refining cost + Salaries
= $258,166.50 + $602,110.00 + $90,000.00
= $950,276.50

Net Profit = Gross Revenue - Cost
= $2,814,360.00 - $950,276.50 = $1,864,083.50

## 7. INITIAL OPERATION

Production will commence with Lease #PML 2130 on D.L. 2049 K.D.Y.D. with permission granted by Newmont Mines Ltd. (owner's of real estate) re: Letter dated Jan. 26, 1978. (Ex. M)

Location of refinery will be on Mine site. 3 phase 480 volt electrical power is readily available.

Total cubic yards mineable at this location is 750,000.

Duration of initial operation while mining at the rate of 1000 cu. yd. for 150 days per year is 5 years.

100 cu. yd. of inplace placer gravel will yield 1 ton of refinery material and mining operation will produce 10 tons per day for 150 days or 1500 tons per year.

The refinery will require 4 tons per day for 250 days of the year or 1000 tons per year. A surplus of refinery stock of 500 tons is expected after the first year of operation. At the end of the first year, consideration will be given to enlarging the refinery.

## 8. SAMPLING OF INITIAL PRODUCTION PROPERTY

A track mounted backhoe with digging depth of 23 feet was used to dig random holes on the property.

Depth of hole #1 = 18 feet
Depth of hole #2 = 17 feet
Depth of hole #3 = 14 feet
Depth of hole #4 = 18 feet  Holes located as per Exhibit O.
Depth of hole #5 = 20 feet
Depth of hole #6 = 11 feet
Depth of hole #7 = 12 feet

Average depth of holes = $\frac{110}{7}$ = 15.59 feet

320 lbs. of gravel was concentrated from each of holes numbered 1, 2, 3, 4 & 5, and 1280 lbs. was concentrated from hole #6. Hole #7 was not tested.

80 lbs. was taken from surface of holes numbered 1, 2, 3, 4 & 5.
160 lbs. was taken approx. ½ depth of holes numbered 1, 2, 3, 4 & 5.
80 lbs. was taken from base layer and gravels attached of holes numbered 1,2, 3, 4 & 5.

320 lbs. was taken from surface of hole numbered 6.
640 lbs. was taken approx. ½ depth of hole numbered 6.
320 lbs. was taken from base layer with gravels attached of hole numbered 6.

Total concentrate from each hole was mixed with itself and put in a separate container.

Concentrating was accomplished with a 3" suction dredge located in a large well at the river's edge. Samples were gathered and measured in 5 gal. round tubs - each containing 80 lbs.

Mr. J. McCue and Mr. A. Kornze (Ex.P), of Princeton, B.C., Geologists, witnessed the sampling procedure.

One sample of concentrate from each hole tested was forwarded to Bondar-Clegg & Co. Ltd., 1500 Pemberton, North Vancouver, B.C., for assay. (Ex. Lii)

## 9. PROVEN DURATION OF PROJECT

Lease #1186 - 200,000 cu. yd.
Lease #2130 - 538,000 cu. yd.
Lease #2129 - 750,000 cu. yd.

Total 1,488,000 cu. yd. ÷ 150 day/yr. @ 1000 cu. yd./day = 9.92 yrs.

There is five remaining leases controlled by Tannally Industries Ltd. that are not proven for metal worth or cubic yard mining yield. These leases are numbered:-

Lease # 637
Lease # 638
Lease # 912
Lease #1064
Lease #1091