NORTHERN TERRITORY EVAPORITES

PARTNERSHIP
EMILY ENTERPRISES PTY LTD
A.C.N 009 641 927
NORVALE PTY LTD
A.C.N 009 645 372

PO Box 1165
Alice Springs NT 0871
Telephone: (08) 895 34290
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EXPLORATION REPORT FOR PERIOD
JULY 1998 TO JUNE 1999

MINERAL RESOURCES

Gypsum Resources

Gypsum Samples:- Continuing sampling and analysis as part of the exploratory work has continued, concentrating particularly on the Eldunda old airstrip valley, some 3kms south of the Eldunda homestead, and covering an area of 4 kms x 2 kms.
Top grade gypsum has been analysed by Dept. Primary Industries and Fisheries, Berrimah Farm NT and also by Australian Laboratories, interstate.
Sampling has proven gypsum of high quality is available for agriculture and horticulture and is particularly for the Katherine and Darwin area. Some trialing and analysis has taken place by DPI&F and growers in the Ti-Tree area, in the southern region of the Northern Territory. See attached analysis.
Gypsum in the Eldunda area, particularly within RO 1319 AS 162 is very extensive with the quality varying.
The trialing confirms that Eldunda gypsum can have a sustainable QA to that quantity permitted by Dept. Mines & Energy. This quantity is 2000 tonnes for specifically testing within the agricultural and horticultural areas of the Northern Territory.
Planned testing and sampling continues in the Eldunda Gypsum old airstrip region over an area of 8sq. kms. Further testing continues some 20 kms west of the Eldunda Homestead. Some lesser sampling has taken place for comparison to the north of AS 162- this is not to be continued.

The NT Dept of Mines and Energy Darwin Head Office continued to advise and encourage continued exploration of the EL despite the negative approach of the NT Land Councils to the future of the Northern Territory mining scene. Native Title has been, to the present time, a stumbling block to many initiatives such as testing, trialing and the ultimate successful production of the product.
After further discussion on this problem, in the periods 1999-2000 and 2000-2001 the partners of Northern Territory Evaporites will make application for an extension of an Authorisation for the purpose of extracting gypsum from AS 162.
Interest within the Northern Territory remains high for Eldunda Gypsum in spite of the difficulties in dealing with Native Title.

At the present, because of record rainfall in the Eldunda region (some 600 ml. Where our annual rainfall is in the vicinity of 150-250 mls) testing activity has had to cease temporarily due to heavy flooding. There is no record of such a magnitude of surface water for at least 80 yrs. From Warburton period, 1920.
This is considered to be a temporary setback, having in mind that future dry and drought years will return.
1. **Summary:- 1998-1999**
   (a) Sample analysis continues
   (b) A licence to extract will be initiated.
   (c) NT consumers now recognise Eldunda Gypsum as desirable for industry use.
   (d) Interstate gypsum production still controls the NT industry requirements, for as yet NTE gypsum cannot be marketed.
   (e) **Expenditure to date**
       1. Analysis of product DPI & F analysis of gypsum – FOC $320.00
       10. Exploration & Survey vehicles, equipment, wages etc (not capital outlay) $3500.00
       3. Photography, photo-copy, sample freight $350.00
       4. Travel. Darwin $800. Katherine $140. $940.00
       5. Meals $450.00
       6. Taxis, hire car. Darwin and Katherine (appointments at Govt, 2 Field Days with JME partners, at Darwin & Katherine) $850.00
       7. Airfare: Darwin & Katherine x 2. $480. X 2. $960.00
       2 Field days, NT Govt appts. With JME Darwin JME (QLD) part fare 2 x $200 $400.00
       8. Administration. Plus phone and Fax. $8000.00
       9. Licence fees. $1000.00
       10. Transport, exploration trenches, road construction, plant, machinery, (not contract) $6200.00
       
       **Total** 22,970.00

**PROPOSED EXPENDITURE FOR NTE FOR 1999-2000**

**A. GYPSUM**

1. Continued trialing of gypsum at quarry site, (Eldunda gypsum valley.) Surveying sample analysis for quality and quantity.
2. Upgrading access road from Stuart Highway, Eldunda Station to EL gypsum site.
3. Apply for extension of an Authority of gypsum Extraction Licence on RO1319AS162.
4. Because of recent flooding, resurveying and sampling of gypsum flooded areas including flood damaged access to site.
5. To consider requirement to fence extraction licence perimeter.
6. To consider any environmental damage to site due to flooding, and carry out repairs as necessary.
7. Replace or rehabilitate damage to site equipment.

The estimated cost of general administration, ie office expenses, wages, transport and vehicle expenses, extension of further survey requirements $18,000 to $35,000.
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EXPLORATION REPORT FOR PERIOD
JULY 1998 TO JUNE 1999

MINERAL RESOURCES – EXPLORATION

Brine Field Activity – Sodium Sulphate

A further field survey in July 1998 covering the Calatta / Karinga region west to Needle Bush lake confirmed the prospectiveness of this general region. Being one of the three major sites suitable for Brine resource investigation by water drilling to shallow depths. The purpose of this survey being to prepare for a future water drilling exploration of known Brine fields of suitable type for Sodium Sulphate extraction. This region also offers an opportunity to consider siting of a production plant within 10 kilometre range of Lasseter highway near existing station access roads.

Research and Data scoping

Other suitable sites occur approximately 100 kilometre further west near Curtain Springs within 5 Kilometres of Lasseter highway are very prospective. Previous drilling records indicate that the Calatta region has free flowing Brines of suitable type at depths of approximately 10 metres, which may be traceable to strategic future pumping stations, much closer to Lasseter highway.

Market Considerations

Market research indications are that demand for quality Sodium Sulphate has a strong local and international growth pattern. This is backed mainly by Japan in its woodchip, pulp and paper industries, which show rapid expansion in Malaysia and neighbouring areas, extending to Australia and New Zealand markets showing high demand for Sodium Sulphate. Glass manufacturing readily accepts product at 98.5% purity with no other mineral content other than Sodium. Other uses are in wallboard and building materials, fibreglass and detergent chemicals.

Processing

The initial trial undertaken at lake 64 in May 1997 has shown that by implementing better practices and flow controls, with proper isolation ponds and engineering, production of Mirabilite is reasonably straight forward. Product drying and grading to Sodium Sulphate requirement is evolving in associated industries applications. To increase the scale of production, engineering experience and large conditioning ponds at depth, with well compacted associated drainage pans, to maintain quality control, is our
current known method of production. However production techniques are improving and undertakings such as spray crystallising, is being perfected at collection sites, with simple product drying techniques and gradings to customer requirements into container requisites is now best practice methods, yet to be attempted in Australia. (but being undertaken overseas)

There is no doubt that modern technology is capable of short cutting our existing methods of production and improving plant and equipment life by utilisation of fibreglass materials in this corrosive environment.

COSTS FOR PERIOD
JULY 1998 TO JUNE 1999

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Exploration and Survey – Brine water locations Authority 162</td>
<td>$1200.00</td>
</tr>
<tr>
<td>Research and scoping of data bank.</td>
<td>$1000.00</td>
</tr>
<tr>
<td>Product analysis (Brine product)</td>
<td>$220.00</td>
</tr>
<tr>
<td>Reporting production and photocopying</td>
<td>$500.00</td>
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<tr>
<td>Laboratory experimentation (Brines)</td>
<td>$400.00</td>
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<tr>
<td>Administration for term</td>
<td>$8000.00</td>
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</tbody>
</table>

$11,320.00

COMMITMENT FOR YEAR COMMENCING 19/6/2000

Brine Resources

1. Undertake exploration water drilling and trenching to conduct a resource pump test site evaluation of Brine extraction from site (to be selected)
2. Engage hydrological and geochemistry control expertise to determine resource capability and trial ponding production of mirabilite at selected site.
3. To evaluate results for industry application and process product to Sodium Sulphate specification.
4. To seek current market requirements and plan container requirement for product.
5. To seek forward sample orders from industry for trial.
6. To trial Sodium Sulphate product in various industry situations.
7. To consult department regarding industry establishment for commercial application.
8. To apply for Extraction licences and deal with Native Title and issues

Remarks – Plans are in hand to complete agreements for engagement of consultants and contractors to begin exploration by September 2000 subject to departmental approval to proceed.

Plans are proposed to update market assessment and value of product now.

Plans are proposed to have product evaluated by industry during 2001/2002 year.

Proposal to seek industrial support and buy out of project.

Proposed Expenditure for year 2000/2001

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Exploration and evaluation report</td>
<td>$150,000</td>
</tr>
<tr>
<td>Documentation and report to industry</td>
<td>$20,000</td>
</tr>
<tr>
<td>Administration, travel accommodation</td>
<td>$20,000</td>
</tr>
<tr>
<td>Sundry Expenditure</td>
<td>$10,000</td>
</tr>
<tr>
<td></td>
<td>$200,000</td>
</tr>
</tbody>
</table>
Hq. Mary Szwedziuk,
Exploration Assessment Geologist,
Geological Survey Division
Department of Mines and Energy,
Northern Territory.

Dear Hq. Mary Szwedziuk,

I enclose a locality map for Griquatown occurrences on Erldunda Claim on AG162.

I apologize for not having enclosed it on the initial report forwarded to you.

This request for the locality map for sent to Mr. Ian Buder
PO Box 1185 Alice Springs. For further information correspondence
relating to Northern Territory evaporites would you please
direct it to Mr. B. Kilgariff
Northern Territory Evaporites for
it about address

Regard. — Bern 3.5.80. P. Kilgariff