INITIAL ADVICE STATEMENT
FERTILIZER PLANT
PICKANJINNIE

June 2001

Prepared for Queensland Fertilizer Assets Limited

by:

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1. INTRODUCTION

This Initial Advice Statement has been prepared to provide information to Advisory Agencies on a proposed Granular Urea, Anhydrous Ammonia and low density Ammonium Nitrate plant at Pickanjinnie, 8km west of Wallumbilla, in South East Queensland. The purpose of this Initial Advice Statement is to provide sufficient detail to enable the Advisory Agencies to have effective input into the Terms of Reference for an Environmental Impact Statement prepared pursuant to section 29B of the *State Development and Public Works Organisation Act 1971*. On 4 May 2001 the project was declared in the Queensland Government Gazette to be a Significant Project pursuant to this *Act.*

The project is currently in the feasibility phase and the Proponent is assessing the viability of the project which is dependent upon interrelated issues including:

- capitalisation of the project through share holding and debt raising;
- strategic alliances with industry markets;
- outcome of the Environmental Impact Assessment process;
- availability of infrastructure to support the project during the construction and operation stages of the project.

Should the project proceed, it will represent a capital investment of $A600M and generate employment for up to 500 people during construction and up to 150 people during the operational phase of the project. The permanent workforce will be comprised of approximately 15% skilled workers, and 85% unskilled workers who will be trained to fill the required duties. The Proponent is committed to employing local persons who can fulfill the duties required of the particular position.

A decision to proceed will be made after an assessment of the matters outlined above is undertaken and the results of the feasibility studies' assessment are submitted to the Proponent's Board and shareholders for consideration. As at June 2001, it is anticipated that this will occur in December 2001.

1.1 Background

This plant was originally envisaged as a specialist fertilizer plant producing around 130,000 tonnes per annum of Granular Urea and 40,000 tonnes per annum of low Anhydrous Ammonia. The Proponent commenced investigation into the plant 7 years ago but plans were delayed awaiting the availability of natural gas. Natural gas is now available via a heads of agreement that has been signed with Tipperary Oil and Gas (Australia) Pty Ltd for gas supply to the proposed plant.

Since the project's inception, market demand for Granular Urea and low density Ammonium Nitrate in Australia has risen. This increased demand has provided incentives to consider a larger plant and the Proponent is now proposing a specialised world class facility with the capacity to produce up to 360,000 tonnes per annum of Anhydrous Ammonia, 130,000 tonnes per annum Nitric Acid, 350,000 tonnes per

annum of Granular Urea, and 150,000 tonnes per annum of low density Ammonium Nitrate.

1.2 The Proponent

Queensland Fertilizer Assets Limited (QFAL) is an unlisted Australian public company. Its shareholders come from the cotton, cattle and grain growing industries of Queensland and Northern New South Wales as well as business community and investors from the community.

The Board of Directors for QFAL is comprised of:

- The Chairman, Mr H. J. Howes F.C.A. Mr Howes is a senior partner in one of the largest rural accounting firms in Queensland.
- Mr J. F. Babbitt, principal of Devco International Inc, a company which specialises in the development and operation of fertilizer plants. Mr Babbitt has been involved with the fertilizer and chemical industries for the past 43 years and is well known in the industry in the USA, Europe and South America.
- Mr I. P. Kennedy AO. Mr Kennedy is successful business man and pastoralist. He was awarded the Order of Australia in 1989 for services to the meat industry and is the Director of a number of companies involved in the meat industry.
- Mr. W. Peart CBE. Mr Peart is an agricultural scientist and is involves in many aspects of the cattle industry. He is a Member of many Boards and Director of a number of Companies involved in aspects of the cattle industry.

1.3 Scope of the Report

This Initial Advice Statement has been prepared pursuant to section 29B of the *State Development and Public Works Organization Act 1971*. It is intended to provide a general description of the proposed project, details pertaining to the existing environment of the proposed site and the potential impacts associated with the project in order to provide Advisory Agencies with a basis upon which to formulate Terms of Reference.

2. THE PROJECT

2.1 Location

The proposed site is located at Pickanjinnie in South East Queensland. The site is approximately 8 km west of Wallumbilla and approximately 34 km east of Roma, within the Shire of Bendemere. A general location map is provided in Figure 1.

2.2 Description of Project

The project is a Granular Urea, Anhydrous Ammonia and low density Ammonium Nitrate production facility. The plant will comprise 4 individual units capable of producing up to:

- 1,000 tonnes per day Anhydrous Ammonia Plant;
- 400 tonnes per day Nitric Acid Plant;
- 1,000 tonnes per day Granular Urea Plant; and
- 500 tonnes per day low density Ammonium Nitrate Plant**.**

In addition the plant will incorporate:

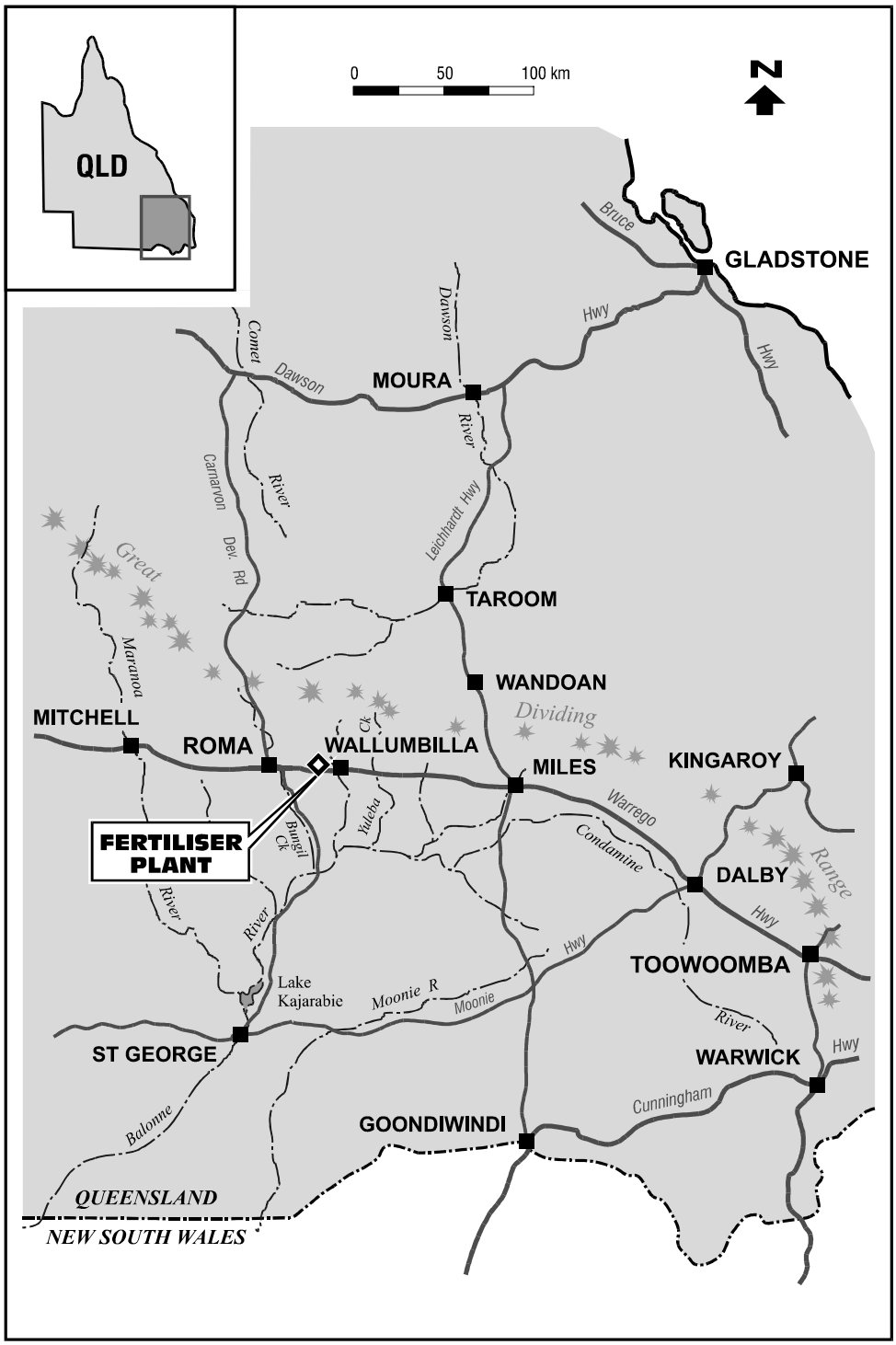
- 20,000 tonnes refrigerated Ammonia storage;
- 5,000 tonnes of Nitric Acid storage;
- 50,000 tonnes of bulk and bagged Granular Urea and Ammonium Nitrate storage;
- 95,000 LPM cooling tower;
- Standby boiler, electrical generator and fire water systems;
- Lined effluent treatment pond(s);
- Water and boiler feedwater treatment system; and
- Office building, maintenance shops, change rooms and first aid facilities.

Ammonia and nitric acid are intermediate products in the process and are consumed in the granular urea and low density ammonium nitrate production process..

Inputs to the plant will include:

- gas (see Infrastructure);
- water (see Infrastructure);
- power (see Infrastructure);
- air (nitrogen);
- mono and diethanolamine used in the ammonia plant for removal of carbon dioxide;
- formaldehyde - an additive in the urea process; and
- chemicals for water treatment - dependent on the quality of the water.

FIGURE 1 : **Locality Map for Pickanjinnie Fertilizer Plant**



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It is anticipated that the plant will occupy 4 hectares (10 acres) of the 200 hectare site and be situated approximately 0.5 km north of the Warrego Highway on existing Lot 208. The facilities will comprise an office building, maintenance shops, change rooms and first aid facilities. The tallest of these building will be the office building at approximately 6 metres in height. Plant structures on the site will not exceed 20 metres in height.

The plant will have a design life of 20 years, but, through preventative maintenance and capital improvement programs, the actual life of the plant could reach 40 to 50 years before technological obsolescence.

The plant will operate 24 hours per day. The number of days the plant will operate per annum, allowing for temporary shutdowns for minor repairs, electrical power failure and other unplanned emergencies, is given in Table 1. Every third year the plant will undergo routine inspection and planned maintenance which will reduce the number of operating days as set out in Table 1.

Table 1: Plant Operation

Plant Item	**Operating Days per annum**	**Operating Days per annum every 3rd year**
Ammonia Plant	350	340
Nitric Acid Plant	330	320
Ammonium Nitrate	330	320
Urea Plant	330	320

Markets for the plant output are being sourced along the entire eastern seaboard of Australia taking in major agricultural regions of Queensland, New South Wales and Victoria. It is anticipated that 30% of the product will be distributed in Queensland and 70% of the product being distributed to southern States.

The project represents generation of economic wealth to Queensland as its products will replace imports.

2.2.1 Infrastructure Requirements

The infrastructure requirements for the project are as follows:

Gas - maximum 13 petajoules per year of gas;

- Water - water resources for the project are 1,200 ML per year to be supplied by on-site water bores.

- Road and rail access - via Warrego Highway and Western Rail line; and

- Power - on-site electrical transformation with 25 MW capability.

A gas supply Heads of Agreement has been signed with Tipperary Oil and Gas (Australia) Pty Ltd. QFAL will construct a dedicated pipeline to transport gas from the Comet/Fairview coal seam gas production area to the plant and proposes a tie-in line be taken from the property to the Duke pipeline, located 400 metres to the north east of the proposed site. Discussions are continuing with the relevant personnel from the gas supply companies in respect of this proposal and with the relevant Government Agency personnel.

Approval procedures for the proposed pipeline would be undertaken pursuant to the *Petroleum Act*. A water allocation has been granted pursuant to the *Water Resources Act* by the Department of Natural Resources and Mines.

Ingress and egress to the site will be by way of a local government road which adjoins the site. Native Title has been extinguished in respect of this road.

The mode of transportation has not been finalised. Road, rail and sea transport, or a combination of these transport modes, are being considered. QFAL has obtained cost estimates from Queensland Rail, the Department of Main Roads, private transport companies and the Port of Brisbane in respect of the delivery of the product.. In May 2001, the Department of Main Roads provided QFAL with the Government's position on truck capacity criteria. QFAL will include the necessary maintenance costs associated with traffic movements on Local Government and State Government roads.

On site power requirements, under normal operating conditions will be fifteen megawatts (15 MW). Twenty five megawatts (25 MW) total capacity is needed to cover peak periods such as start up conditions. There is the possibility of additional energy being produced as a by-product of the process. This energy may be utilised on-site solely for the plant.

2.2.2 Technology

The project will utilise best practical available technology for resource optimisation and emissions and waste minimisation. The complex will incorporate plants with "Best Management Practices" meeting current requirements of the Queensland Environmental Protection Agency, as well as the requirements of the U.S. Environmental Protection Agency.

An agreement has been reached with Krupp Uhde GMBH of Dortmund, Germany for the design and construction of the various process elements of the facility.

2.3 Rationale

Queensland and New South Wales have become high users of imported nitrogen based fertilizers due to their climates which promote intensive cropping. Demand for Granular Urea and low density Ammonium Nitrate in the market place is high and the plant needs to be located so as to optimise production costs. The siting of a Granular Urea and low density Ammonium Nitrate plant adjacent to existing gas fields and within easy transport distance of the major farming communities of Queensland and New South Wales as well as the mining area, will generate economic wealth to Queensland, will stimulate regional development growth.

This project would represent the first major regional industrial development ever in the region.

2.4 Funding Sources

Funding of the project is under negotiation. At this stage it is anticipated that the project will have a minimum of 60% Australian equity and up to 40% foreign equity. The Proponent will comply with the Commonwealth's requirements in respect of the Foreign Investment Review Board.

2.5 Project Schedule

Key milestones for the project are:

February 2001	Heads of Agreement with Tipperary Oil & Gas (Australia) Pty Ltd
April 2001	Heads of Agreement with Markets
July 2001	Gas Agreement settled
July 2001	Draft Environmental Impact Statement available for public review
September 2001	Decision by Coordinator General
September 2001	Decision by Financiers
September 2001	Order Plant & commence engineering of infrastructure
September 2001	Finalise gas and marketing contracts
December 2001	Decision on Project
January 2002	Preparatory site works
March 2002	Plant construction
January 2004	Commence Operations.

3. EXISTING ENVIRONMENT

3.1 Land Tenure

The Proponent owns the site in freehold. Native Title has been extinguished. The Deeds of Grant of freehold title for the site were made as follows:

Lot 210	3 September 1897
Lot 209	3 February 1905
Lot 208	4 November 1897

3.2 Natural

The site is extensively cleared for cultivation and grazing.

The topography of Bendemere Shire varies from low range country in the north with the Great Dividing Range presenting numerous rocky outcrops in some areas, to flatter country in the south (DPI, 1971).

The soil of the proposed development site is type Ro4 (CSIRO soil unit) with dominant soils being . hard alkaline brown soils (Atlas of Australian Soils collated by K.H. Northcote).

The Shire of Bendemere lies within the catchment of the Balonne River. There are no permanent rivers within the Shire. The four main streams, Tchanning, Eaglehawk, Yuleba and Wallumbilla Creeks, are annual streams, only flowing after heavy rains.

Surface groundwater within the Shire is comprised primarily of shallow aquifers of little value to the agricultural and pastoral industry. The deeper Great Artesian Basin sediments are the primary source of reliable water supply in the Shire.

3.3 Social

Bendemere Shire has an area of 3,955 km^2 and a population of about 1,200 persons. The three main towns are Yuleba (population 300), Wallumbilla (300) and Jackson (30). The Shire is bounded to the north by Taroom Shire, to the east by Murilla Shire, to the south by Warroo Shire and to the west by Bungil Shire. The major urban centre of Roma, which is represented by the Roma Town Council, lies geographically within Bungil Shire.

3.4 Economic

The economic base of the Shire and the region is primarily agricultural, with beef cattle, sheep, croplands (wheat and other hard grains) and forestry (primarily Cypress Pine) represented. There is also activity associated with the Natural Gas industry in the Shire. The Queensland Gas Centre to Wallumbilla, Surat Gas Basin to Wallumbilla and the Wallumbilla to Gladstone Gas Pipelines all pass through the Shire. The Wallumbilla LPG Processing Plant is located 11 km south of Wallumbilla.

3.5 Cultural and Heritage

The traditional owners for the region are the Mandandanji and a cultural heritage assessmnt of the site has been undertaken.

4. POTENTIAL IMPACTS

4.1 Economic Environment

The Bendemere Shire community is, at this time, almost totally dependent on primary production and associated services for its viability. The recent droughts of the early 1990s have affected the region's prosperity quite severely. The plant will provide flow on effects as a result of employment opportunities at the plant which should provide a much needed boost to the region's economy.

The project will provide up to 150 permanent positions once the plant becomes operational. Whilst approximately 15% of positions in the plant will require skilled operators, every opportunity will be made to provide training opportunities for people with in the local community.

Detailed economic modelling of financial benefits and multiplier effects, as a result of the project, have not been prepared at this stage of the feasibility study.

4.2 Infrastructure

Negotiations have commenced with the infrastructure service providers viz., gas, water, electricity, telecommunications, road, rail. Cost estimates for the delivery of feedstock and for the distribution of products have been obtained.

4.3 Natural Environment

4.3.1 Air Emissions

The actual technologies for the plant have not been finalised but by-products of the production process are expected to be carbon dioxide, oxides of nitrogen and steam. Minimal releases to atmosphere are expected since the technologies under consideration have a high level of recycling associated with all by-products.

The production of urea and low density ammonium nitrate is undertaken in an enclosed system which captures all particulate matter and recycles it through the system.

The release of ammonia at sampling points, or leaking flanges and valves, may produce localised on-site odour but the plant is not expected to produce any detectable off-site odours.

4.3.2 Noise

Off-site noise is expected to be insignificant and on-site noise levels will meet all occupational health criteria, as covered by the relevant Government safety and environmental legislation. The project is expected to have a buffer zone of at least 1 km to the nearest residence.

4.3.3 Effluent

At this stage, the water system is expected to be a closed system with some water consumed in the process and minimal wastewater generation. Where excess effluent is produced, for example from the cooling towers and treatment of the water from the aquifer, then this will be treated on-site via evaporation ponds. The design philosophy of the plant is for nil off-site effluent discharges.

4.3.4 Waste

Minor quantities of solid waste will be produced (general domestic and industrial; spent catalysts) during the operational phase of the plant. Spent catalyst will generally be reactivated off-site for reuse and valuable components (eg platinum) will be recovered.

4.3.5 Further Research

Studies will be undertaken to verify the existing environmental and social conditions and to determine the potential impact of the project on the surrounding environment. This will include:

- Risk assessment;
- Air and noise modelling;
- Archaeological studies;
- Flora and Fauna assessment (desktop); and
- Visual impact.

As part of the overall feasibility study impact management strategies will be incorporated through the Terms of Reference (ToR) and Environmental Impact Statement (EIS).

5. CONCLUSION

QFAL are investigating the feasibility of a world class Granular Urea, Anhydrous Ammonia and low density Ammonium Nitrate Plant to be constructed at Pickanjinnie, in South East Queensland.

To enable the Proponent to be in a position to proceed immediately if the feasibility outcome is positive, the Environmental Impact Statement process pursuant to section 29B the *State Development and Public Works Organisation Act 1971* is to be conducted in parallel with the feasibility study.

Output volumes from the plant will be market driven but the Terms of Reference and the Environmental Impact Statement process will address the potential maximum output level of the plant.

The plant will provide up to 500 construction and up to 150 operational phase jobs. Whilst a number of operations phase staff will need to be sourced outside the area to meet the necessary skills for such a plant, training opportunities for the local community will be made available and the Proponent will comply with the Government's Local Industry Policy. The Proponent, the Bendemere Shire Council, the Department of Housing and the Roma Town Council are continuing discussions regarding the supply of accommodation for the workers, both during the construction period and the operation stage of the development. The outcome of these discussions is provided to the Coordinator General's office.

The siting of the plant adjacent to known gas fields and to major transport routes should make the plant cost competitive in a high demand market. Locating the plant in a predominantly agricultural area will provide opportunities to increase the economic diversity of the region, generate long term sustainable economic wealth for the State of Queensland, utilise infrastructure established by the State and will replace imports.