NEWS UPDATE

17th February 2017

TELLUS RELEASES CHANDLER EIS FOR PUBLIC REVIEW

- **Environmental Impact Statement (EIS) document is now available for review by the public**
- **A six-week public consultation and feedback process has commenced**
- **The full EIS document is available on the NT EPA and Tellus Holdings websites**
- **Public submissions can be made via the Northern Territory Environmental Protection Authority**

Tellus Holdings Ltd ('Tellus') is pleased to announce that the draft Environmental Impact Statement (EIS) document for its proposed Chandler Facility has been reviewed for adequacy and released for public review by the Northern Territory Environmental Protection Authority (NT EPA). A six-week public consultation and feedback process commences on the 18th February and finishes on the 31st March, 2017. Submissions can be made to the NT EPA.

The Proposed Chandler Facility is located approximately 120 kilometres south of Alice Springs in the Northern Territory.

Tellus' proposal to develop a dual revenue business involves an underground rock salt mine and the use of the mine voids for the safe and secure storage of equipment and archives and the storage, recovery of valuable materials and the permanent isolation of mostly hazardous waste. We will be using environmentally sound management (ESM) principles that protect the environment and human health.

An EIS has been prepared by Tellus in accordance with the Northern Territory Government's procedures and has now been released for public review. The EIS document describes the proposal, examines the likely environmental effects and the proposed environmental management procedures associated with the proposed development.

Fig 1: Chandler EIS

The EIS is an important part of the environmental assessment process and the public review period is an opportunity for interested parties to review and comment on the proposal. Once the public review period has closed, Tellus will prepare a response to the public submissions, which will be considered by the NT EPA as it prepares its Assessment Report and recommendations on the project to the Minister for Environment.

The draft EIS is available for public review and comment from 18th February 2017 to the 31st March 2017. Copies of the EIS document may be viewed and downloaded from the NT EPA webpage **www.nt.gov.au/envirocomment** or from the Tellus webpage **www.tellusholdings.com.au**

Submissions regarding the Proposal can be emailed to **eia.ntepa@nt.gov.au** or posted to: Environmental Assessments, NT Environment Protection Authority, GPO Box 3675, Darwin NT 0801

Further project information is provided in Attachment A

A: Tellus Holdings Ltd, Suite 2, Level 10, 151 Castlereagh Street, Sydney, NSW, 2000
T: +61 2 8257 3395 | **F**: +61 2 8233 6199 | **E**: info@tellusholdings.com.au
W: Tellusholdings.com.au | **ABN**: 97 138 119 829

About Tellus Holdings:

Tellus Holdings Ltd ("Tellus") is an infrastructure development company in the business of creating economic, social and environmental value from waste, clay and salt resources. This dual revenue model involves mining the commodities kaolin clay and rock salt in thick dry remote beds which creates world's best practice geological repositories. The voids created by mining are then used to store equipment, archives or waste using a multi barrier system as part of an overall safety case. Tellus plans to permanently isolate hazardous waste using environmentally sound management (ESM) principles that protect the environment and human health. Tellus also supports the circular economy using long term storage by placing like-with-like materials for operational safety reasons and to create opportunities for the future recovery of valuable materials. Tellus' business model mirrors international solutions operating in the UK, Europe and North America. Tellus is developing the proposed Sandy Ridge facility in Western Australia (WA) and the proposed Chandler facility in the Northern Territory (NT) which has been awarded Major Project Status by the NT Government.

For further information:

Visit: www.tellusholdings.com.au or contact:

Duncan van der Merwe Managing Director Tel: +61 (0)2 8257 3395

ATTACHMENT A

Project development activities completed to date

Tellus has commenced detailed project development activities in accordance with a structured project development framework. These activities include technical and scientific site studies, environmental and regulatory approval applications, and feasibility studies that support the Environmental Impact Statement (EIS).

Technical and scientific site studies

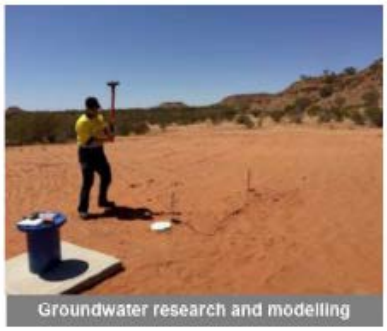
The EIS has been prepared to address key environmental factors and objectives set by the NT EPA. Tellus has completed a number of technical and scientific site studies that support the EIS, for example:

- A justification for the proposal
- Potential benefits of the proposal
- Geology and mineral resource assessments
- Results of detailed flora and fauna surveys
- Soils assessment.
- Groundwater and surface water studies
- Human health and safety assessment
- Cultural heritage surveys
- Closure and rehabilitation


Automatic Weather Station


Flora and Fauna Surveys


Groundwater drilling


Groundwater research and modelling


Soils and land use assessment

Hydrogeological modelling

Feasibility studies

- Desktop Study
- Scoping Study (FEL 1)
- Pre-Feasibility Study (FEL 2)
- Value Engineering Study

Geotechnical and engineering surveys

- JORC Measured Resource estimate of sodium chloride (NaCl) is 309 Mt[1]
- Wet processing pilot completed in the USA
- Dry processing pilot completed in Germany that refines 95.4% rock salt (NaCl) into 98.3% saleable grades[2]
- Reinterpreted 145 km of seismic and approximately 4,500m of wireline data
- Resource and mine planning drilling and sampling (2 holes, 1,937m)[3]
- Water investigations holes (8 holes, 2,009m)
- Site topographical survey and digital aerial photography
- Market development agreement (resulted in signed agreement with PT Damarco trading company)[4].

Independent Peer Reviews

Tellus used a number of independent subject matter experts to complete a formal independent value engineering step[5] and independent safety case assessment of the Facility.

The value engineering (VE) exercise was done by UGL Limited, with support from GHD and other industry experts covering mining, logistics, process design, construction and operations. Ten organisations provided 3,000 hours of independent input over four months for Tellus two connected projects.

Tellus also commissioned UK-based Quintessa and Atkins consultants to assess the design, operation and closure of the proposed Chandler Facility. The assessment provides confidence that, for the proposed categories of wastes and with appropriate facility design, there will be no significant risks arising from the Proposal in terms of environmental safety or risks to groundwater resources on a local or regional basis during post closure.

Community consultation

Tellus has engaged openly with stakeholders about its proposed Chandler proposal. Key stakeholders were offered the opportunity to provide feedback and raise issues during the development of the draft EIS.

- Tellus over the last five years has completed extensive briefings of individuals and groups within Federal, Territory and Local Government Departments and Authorities and the main political parties.
- Tellus has also consulted with non-government organisations, industry and business, landholders, traditional owners and potential customers.
- Tellus has also completed numerous briefings and consultations with local stakeholders and residents of the surrounding communities of Titjikala and Alice Springs.
- Further public consultations are planned in Titjikala, Alice Springs and Darwin in February and March 2017.

The focus of the consultation to date has been to explain the main outcomes of the detailed Environmental Impact Assessment (EIA) done for the proposal and to obtain feedback on key environmental and social benefits or concerns associated with the proposed project.

Managing Director of Tellus Mr Duncan van der Merwe commented “Tellus is a unique dual revenue business that is assisting in providing much needed infrastructure that can assist in cleaning up Australia of waste and at the same time create long term, green, sustainable, well paid jobs covering technical (engineering, chemistry,

1 http://www.tellusholdings.com/2016/pdf/2014/2014_Jul_02_Chandler_Maiden_JORC_Measured_Resource.pdf
2 http://www.tellusholdings.com/2016/pdf/2015/2015_Jun_16_Successful_Dry_and_Wet_Salt_Processing_Pilot.pdf
3 http://www.tellusholdings.com/2016/pdf/2014/2014_Jan_16_Chandler_Drilling_Successfully_Completed.pdf
4 http://www.tellusholdings.com/pdf/2016/media/2016_Feb_26_Tellus_Signs_Salt_Offtake_Distribution_Agreement.pdf
5 http://www.tellusholdings.com/pdf/2016/media/2016_Jun_2_Positive_Value_Engineering_Studies_Completed.pdf

science), commercial (sales, business) and operational skills. We are looking at investing over $676 million in regional Australia that will assist in diversifying the economy and with a policy of hiring and buying locally we also create hundreds of millions of dollars of business opportunities''.

What is the problem Tellus is trying to solve, the current situation and the Tellus solution

The **problem** that Tellus' proposed project is trying to solve is that Australia is one of the highest emitters of hazardous waste on a per capita basis and waste production in Australia has grown at six times population growth. Australia's large 900-million-ton legacy waste stockpile is increasing every year as does the risk profile and on top of that volume we also produce approximately six million tonnes per annum of new hazardous waste that is also growing in complexity and volume in line with population growth and increased industrialisation. There is a lack of sufficient infrastructure at a cost-effective price point that can deal with this volume, limited recovery of valuable materials and limited options for a permanent solution. Many producers resort to storing their waste in temporary solutions on site or with third parties that create increased risk, or they send their waste overseas as Australia has limited solutions.

The **current situation** is that the regulators and the community recognize that medium to high hazardous waste should be permanently isolated from the biosphere to remove the risk and protect the environment and people and where possible, valuable materials should be recovered and pushed back into the circular economy.

Tellus has developed a **solution** that solves the "protect" verse "recover dilemma". Tellus can store, recover or permanently isolate waste in a geological repository that is simple to use, cost effective and applies global best practice solutions.

What is a geological repository?

A geological repository is an underground storage or disposal facility of hazardous waste that relies on a thick, flat, dry, geologically stable and extensive natural geological barrier (salt bed) and man-made engineered barriers that form part of a multibarrier system as part of an overall safety case that are globally recognised for permanent isolation capabilities.

Tellus plans to permanently isolate hazardous waste that is generated due to our industrialized and modern lifestyle using environmentally sound management (ESM) principles that protect the environment and human health. Tellus also supports the circular economy using long term storage by placing like-with-like waste resource for operational safety reasons and to create opportunities for the future recovery of valuable materials at a proposed technology park on site. Tellus' business model mirrors international solutions operating in the UK, Europe and North America.

What is the difference between a well-engineered landfill and a geological repository?

The key difference between a well-engineered landfill and a geological repository is that a landfill only has man-made engineered barriers typically comprising an artificial or thin clay liner approximately 1.5m or less, that usually can only isolate hazardous waste for 10- 30 years before degradation of the liner creates a potential contamination risk (pollution plume). Whereas a geological repository with its engineered and natural barrier (best barrier of them all) is passively safe on a geological timescale. As a result, internationally, regulators are restricting landfill development and their use for most hazardous waste types and are moving towards geological repositories that can permanently isolate the waste and protect the environment and people's health.

What are the waste types accepted at Chandler?

Most industry sectors and households generate hazardous and intractable waste. For example:

- **Agriculture, forestry & fishing sector**- Pesticides, acid and alkaline chemicals and contaminated soils
- **Construction sector** –commercial and industrial building materials contaminated with waste like asbestos
- **Government sector** - Federal, State and Local Government responsibilities– e.g. Emergency Services for man-made disaster management like waste recovered from vehicle, train, ship and aeroplane accidents or natural disaster management like waste recovered from fires, floods, cyclones
- **Healthcare sector** - pharmaceuticals
- **Manufacturing sector (chemicals)** – Inorganic chemicals, acid and alkalines, organic solvents
- **Manufacturing sector (heavy industry)** - Plating and heat treatment, PCB's, acids, and alkalines, heavy metals, organic solvents
- **Mining & processing sector** – Acids, alkalines, Organic chemicals (arsenic and cyanide from gold industry), inorganic chemicals like spent pot liner from the aluminium industry)
- **Media, telecoms & technology sector** – E-waste, lead batteries
- **Oil and gas sector** – NORM scale, hydrocarbon sludges, mercury
- **Utilities - electricity and gas supply, water sector -** Inorganic chemicals
- **Utilities - waste management sector** (including household haz. waste) - Paints, resins, inks
- **Scientific & technical services sector** - Contaminated cupels, legacy chemistries

Almost everything in nature has some small amount of natural radioactivity and processing concentrates it. At Chandler the acceptance criteria identify NORM up to exemption level.

What are the waste types NOT accepted at Chandler?

Wastes that are gases, highly corrosive, highly oxidising, infectious or uncertified would not be accepted under any circumstances. Wastes that are liquids or sludges, explosive, flammable liquids or solids, self-combusting, generate a gas-air mixture which is toxic or explosive, biodegradable, tyres, could release free liquid or react with the host geology would not normally be accepted unless they could be stabilised, solidified or modified in such a way that they would not affect the operational or post closure safety of the proposed Chandler Facility.

Nuclear and uranium mining waste would not meet the Waste Acceptance Criteria (WAC) and, therefore, would not be stored at either the Chandler Facility or the Apirnta Facility. However almost everything in nature has some small amount of natural radioactivity and processing concentrates it. The proponent is planning to accept Naturally Occurring Radioactive Material (NORM) up to Exemption Level (EW) activity content, which is the lowest activity level on the waste classification scheme. The industries that generate NORM's are usually those that refine raw materials and have a waste by-product that is concentrated. This includes utilities such as water treatment plants, ceramic industry and resource sector refineries. Exempt waste contains such small concentrations of radionuclides that it does not require provisions for radiation protection, irrespective of whether the waste is disposed of in conventional landfills or recycled. Such material is exempt from regulatory control and does not require any further consideration from a regulatory control perspective.

The proposed Chandler Facility has not been nominated as a potential National Radioactive Waste Management Facility. No such nomination is planned and no such nomination would be accepted should it be made by any other party.

Key characteristics of the project

- The project life for planning purposes is 25 years, however the project life could be multi-generational
- A capacity up to 750,000 tonnes per annum (tpa) of salt product could be exported

- A capacity up to 400,000 tpa of waste storage, recovery or permanent isolation is being applied for (although average volumes are expected to be significantly less than this, eg year one 30,000 tonnes, average 340,000 tonnes per annum)
- Approximately 270 jobs would be created during the construction phase of Chandler, and approximately 180 full time equivalent direct jobs during the operation phase
- The Project will also provide training, employment and business opportunities for local and Aboriginal people during construction and operation
- Pending the receipt of regulatory approvals and finance, Tellus hopes to commence construction during the second half of 2018 and fully operational during the first half of 2022.