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# OFFICER BASIN ENERGY PTY LTD

## PELs 81 and 253 Statement of Environmental Objectives: Geophysical Operations in the Officer Basin, South Australia



*Surveying in the Officer Basin*

**JANUARY 2009**

Prepared by:  
Officer Basin Energy Pty Ltd  
262-266 Pirie Street  
Adelaide 5000  
+61 8 82235088

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## **1 SUMMARY**

A Statement of Environmental Objectives (SEO) was prepared and approved in September 2007 for geophysical operations in Petroleum Exploration Licences (PELs) 81 and 253 in the South Australian sector of the Officer Basin (Officer Basin Energy Pty Ltd 2007b). In light of experiences gained from recent operations conducted under that SEO, it has been deemed necessary to review this document. This has mainly been determined as a result of some defined conditions of the 2007 SEO being operationally impractical in the Officer Basin and a number of components needing clarification.

Therefore, this revision of the SEO has been prepared by Officer Basin Energy Pty Ltd (OBEPL) in accordance with the requirements of Section 99 of the South Australian *Petroleum Act 2000* (the Act) and Sections 12 and 13 of the South Australian *Petroleum Regulations 2000* (the Regulations). Appropriate SEOs were consulted in the preparation of this document, most notably those recently prepared by the Department of Primary Industries & Resources SA, Santos and RPS Ecos, as well as the original 2007 Officer Basin Energy SEO.

This revised document retains objectives and conditions based on information identified in the original Environmental Impact Report (EIR) (Officer Basin Energy Pty Ltd 2007a). Any two-dimensional seismic operations conducted in the Officer Basin area of the Great Victoria Desert on lands over which the Maralinga Tjarutja (MT) People hold title may be covered by this SEO.

This SEO has been developed by OBEPL and has been subjected to an appropriate consultation process. A list of environmental objectives to be achieved in undertaking geophysical operations is contained within this SEO. A description of the possible assessment methods for evaluating the level of achievement of these objectives is provided. Other possible assessment methods are also listed and explained.

As primary stakeholder, the MT have provided insight into the key issues that underpin the environmental objectives. The MT have also provided comment on the preferred method for assessing OBEPL's level of achievement with the environmental objectives.

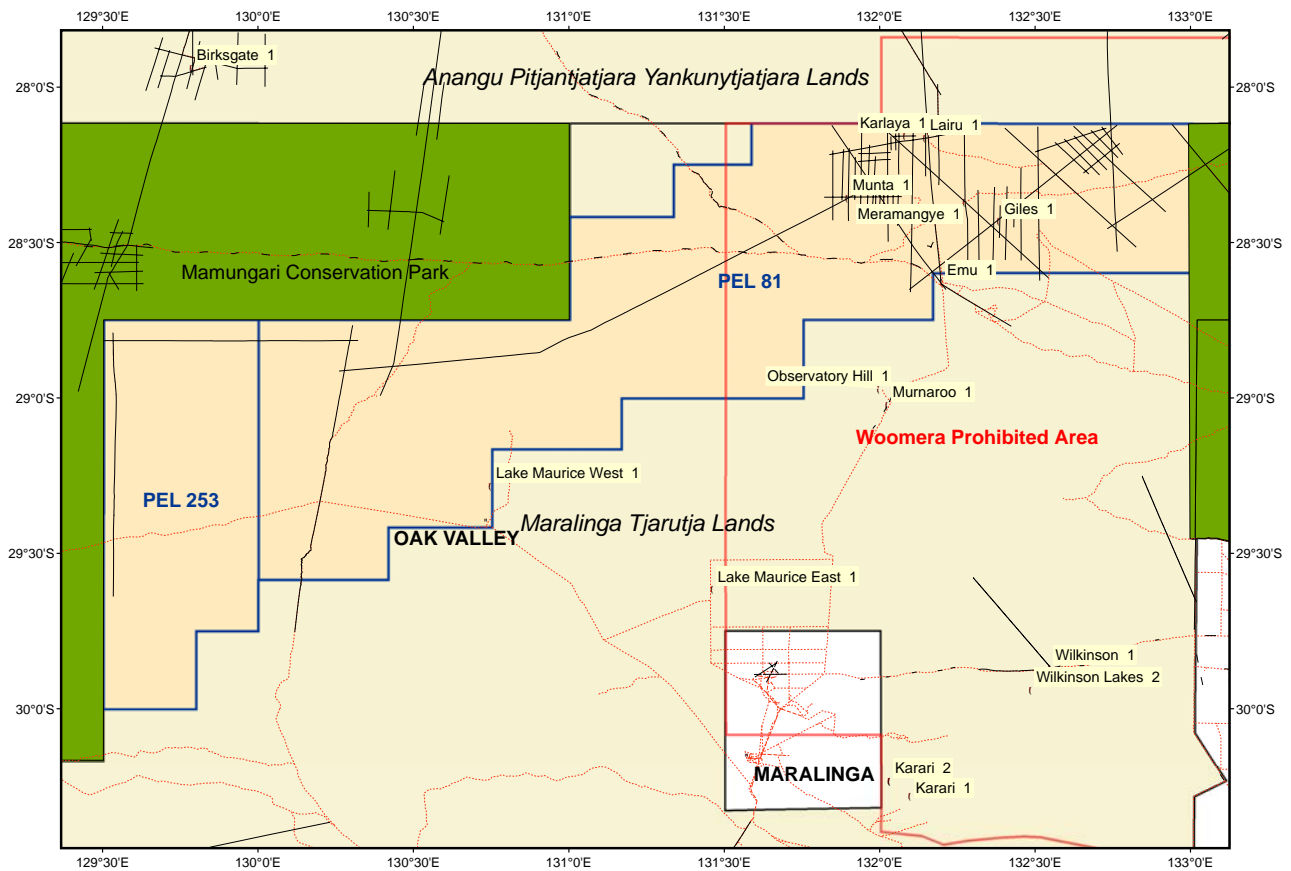
Conditions of access have been negotiated between OBEPL and MT. These are contained within the Land Access and Production Agreement for Petroleum Exploration signed by the MT and OBEPL on June 19<sup>th</sup> 2007. If any of the conditions of this agreement are breached, it will also be deemed to be a breach of this SEO. This is an active commitment made by OBEPL and is a regulatory stipulation of the Department of Primary Industries and Resources SA (PIRSA).

## **2 INTRODUCTION**

This SEO lists and explains the environmental objectives for geophysical operations to be conducted by OBEPL in PELs 81 & 253 in the Officer Basin area of South Australia. The Officer Basin is a sedimentary basin of north western South Australia and eastern West Australia, with one third (~176,000 km<sup>2</sup>) of the total area in South Australia. The Great Victoria Desert is the most notable land system in the Officer Basin region. The SEO outlines how primary stakeholders with an interest in the area can measure the achievement of these objectives. Other interest groups may also use such methods.

## 2.1 Scope

This SEO covers geophysical operations exclusively within PELs 81 and 253. This can be seen in Figure 1.



**Figure 1 OBEPL licence areas, western South Australia (PIRSA 2007).**

There are no parks or reserves in the licence area itself, although the Mamungari Conservation Park (MCP) borders PELs 81 and 253 to the west and north. The Tallaringa Conservation Park adjoins the eastern border of PEL 81. No petroleum exploration operations are currently allowed in the MCP. The MCP was formerly referred to as the 'Unnamed Conservation Park' and may appear so on older maps. OBEPL will ensure that these parks are not inadvertently encroached upon.

The eastern portion of PEL 81 is located within the Woomera Prohibited Area (WPA) (see Figure 1). The Australian Department of Defence, who administers the WPA, need to be notified prior to activities commencing to gain access permits into and/or through this area.

Vegetation removal resulting from line preparation as discussed in this SEO is exempt from controls under Regulation 5 of the *Native Vegetation Act 1991*, subject to undertaking the SEO assessment and approval process as defined under the *Petroleum Act 2000*. South Australian and Commonwealth legislation pertinent to this SEO are indicated in Appendix 3 of the EIR.

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Activities associated with OBEPL's geophysical field operations that are covered by this SEO and are described in the companion EIR are:

- seismic line and access track preparation (starts after cultural heritage clearance has been completed);
- seismic line surveying;
- recording of two dimensional seismic data;
- campsites and associated activities;
- uphole drilling, logging and rehabilitation (during or after recording phase, as and when required);
- monitoring and auditing of selected locations (before and after line preparation and after restoration), and
- seismic line, access track and campsite restoration where required (after completion of recording and uphole drilling/logging).

## **2.2 Definition**

According to Section 4(1) of the Act, 'environment' is defined to include:

- (a) land, air, water (including both surface and underground water), organisms and ecosystems; and
- (b) buildings, structures and cultural artefacts; and
- (c) productive capacity or potential; and
- (d) the external manifestations of social and economic life; and
- (e) the amenity of an area.

The environmental objectives outlined in this document aim to incorporate all of these aspects for the protection of all aspects of this wide-scoping definition.

## **3 ENVIRONMENTAL OBJECTIVES**

The core objectives of the *Petroleum Act 2000* are to:

- minimise and mitigate the environmental harm that may arise from activities associated with geophysical exploration operations; and
- protect the public from direct or indirect risks associated with activities regulated under the Act.

The philosophy that underpins the setting of environmental aims and objectives when conducting geophysical explorations is to perform such activities in an ecologically sustainable and socially acceptable manner. This conforms to the 'National Strategy for Ecologically Sustainable Development' (Ecologically Sustainable Development Steering Committee 1992).

The key to achieving ecologically sustainable development (ESD) in geophysical exploration is to adhere to the 'National Strategy for the Conservation of Australia's Biological Diversity' (Australian and New Zealand Environment and Conservation Council 1996), which prescribes the goal of protecting biodiversity and maintaining ecological processes and systems.

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### **3.1 Environmental Objectives for the Officer Basin**

The environmental objectives associated with geophysical operations in the Officer Basin and strategies to achieve them have a high degree of similarity to those for other arid areas of South Australia. These environmental objectives and suggested mitigation strategies have been developed in consideration with:

- the South Australian Cooper Basin Operators' SEO: geophysical (Santos 2006c);
- the SEO for seismic operations in the Cooper and Eromanga Basins, SA (Cockshell 1998);
- the Arckaringa Basin Geophysical Operations SEO (RPS Ecos 2007), and
- consultation with the MT on expectations and desired outcomes.

OBEPL has recognised the analogous operations and potential impacts, as well as similar land systems, between the Cooper and Officer Basins. As a result, the environmental objectives of the 2006 Cooper Basin SEO for geophysical operations form the basis of the environmental objectives for geophysical activities of the Officer Basin.

The environmental objectives for geophysical operations in the Officer Basin are listed below.

1. OBEPL and its contractors will avoid disturbance to sites of MT cultural and heritage significance.
2. OBEPL and its contractors will minimise disturbance to the MT and any infrastructure.
3. OBEPL and its contractors will minimise disturbance to native vegetation and native fauna.
4. OBEPL and its contractors will minimise land disturbance.
5. OBEPL and its contractors will minimise the visual impact of operations.
6. OBEPL and its contractors will minimise litter and pollution.
7. OBEPL and its contractors will remediate and rehabilitate operational areas to agreed standards.

These environmental objectives are further expanded in Appendix 1. Assessment criteria and a guide as to how objectives may be achieved are provided in this appendix.

In keeping with these environmental objectives, OBEPL will maintain and enhance partnerships with the stakeholder community as well as adhere to the principles of ESD. Adherence to the principles of ESD will ensure the avoidance of long term significant adverse impact(s) on biological diversity, cultural components of the environment, groundwater and other land uses.

Cockshell (1998) grouped the environmental objectives to be achieved during seismic operations into three main categories: "planning/procedures, management of temporary impacts and avoidance of long-term impacts." OBEPL will use this tripartite subdivision to help manage adherence to its environmental objectives.

OBEPL will also consult PIRSA to make use of its experience in conducting seismic operations in the arid regions of South Australia in order to minimise the environmental impacts of such seismic operations. The environmental objectives also include the learning gained from the numerous studies and research projects relating to environmental impacts of seismic operations undertaken in other parts of the State.

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Environmentally sensitive areas around the numerous playa lakebeds in the operations area will be entirely off limits to vehicle operations, as are the conservation parks should seismic lines need to be located near such a reserve. Similarly, aboriginal sacred lands/areas are 'no-go' zones. OBEPL will stress the importance of this rule at all induction sessions and "tool box" meetings.

## **4 ASSESSMENT METHODOLOGY**

This section outlines the processes, procedures and techniques to be used in assessing the degree of success in complying with the environmental objectives outlined above. This assessment framework is applied only to the acquisition of seismic data and associated activities identified in Section 2.1 in PELs 81 and 253 in the South Australian Officer Basin.

### **4.1 Assessment Methods**

The criteria for measuring the degree of compliance in terms of the seven listed environmental objectives can use a number of formats and methodologies. Operators, regulators, primary stakeholders and others may wish to use a selection of the assessment options identified in the following sections to assess the achievement of the objectives contained in this document. Information relevant to each environmental objective is shown in Appendix 1.

The use of some of these assessment methods is a requirement of PIRSA, and is annotated when applicable. External to these requirements, OBEPL are also required to conduct further assessments and reporting as stipulated under the land access agreement between the company and the MT.

#### **4.1.1 Defined Conditions**

To assist in achieving the environmental objectives (as listed in Section 3.1) specific defined conditions are imposed. These are based on knowledge that particular activities will lead to long-term environmental impacts.

OBEPL are obliged to meet the defined conditions as specified in Appendix 1 (under 'Assessment Criteria'). Further defined criteria may also be placed on survey activities as part of PIRSA's approval conditions. The licensee and all contractors must follow all defined conditions.

The defined criteria are specific rules that OBEPL must achieve. An assessment of the level to which these rules were met will be completed as part of OBEPL's survey audit.

#### **4.1.2 Goal Attainment Scaling**

Goal Attainment Scaling (GAS) is a tool that uses a series of pre-determined and unambiguous criteria to assess the level of achievement of specific expectations of objectives. The system provides a method for assessing the degree of impact on a range of environments and is particularly useful in measuring achievement of set environmental objectives relating to disturbances to natural vegetation, soil, other land uses and other changes in community amenity value.

GAS has been used to assess the level of environmental impact of petroleum exploration activities since 1996. PIRSA actively uses GAS scoring for their ongoing regulatory assessment requirements. It is a widely accepted, effective and practical environmental management tool. The South Australian petroleum exploration industry also uses GAS to assess their operations and ongoing rehabilitation and recovery of previous activities.

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In order to be consistent with the monitoring system that PIRSA operates throughout South Australia, PIRSA has provided GAS criteria for use in the Officer Basin (see Appendix 2). The criteria have been modified from its original form as published in the South Australian Cooper Basin Operators SEO: geophysical operations (2006c) to reflect the subtle differences in environment and operations in the Officer Basin.

PIRSA acknowledges that the GAS system provided, has had limited testing conducted in the Officer Basin to date. The current criteria, along with any future refinements, will provide a sound assessment methodology.

#### **4.1.3 Photomonitoring (Environmental Monitoring Points)**

Establishing environmental monitoring points (EMPs) is a long established method for monitoring and assessing the recovery of impacts resulting from geophysical operations in South Australia. This assessment method uses photographic monitoring, where specific locations are pegged, photographed and logged pre- and post- operations to provide an indication of initial impact. Following this, the site is revisited and photographed to establish the effectiveness of mitigation strategies and assess the overall recovery of that site with time.

The EMP process involves the placing of a marker at sites (including a name and detail plate) that are accurately geo-referenced. Sufficient EMP sites should be installed to ensure all applicable land systems are represented in the assessment. When taking photographs of the seismic lines, the frame centre bearing will be recorded. Photographs will be taken at key points, and OBEPL should seek to record photographs at the following stages:

1. the location immediately before line is prepared;
2. the same site after preparation;
3. after all operations have ceased (including rehabilitation);
4. 1 year after, and
5. as required thereafter to verify that appropriate recovery is occurring.

Due to the remote location of the survey, aerial video-monitoring is another method that is appropriate for assessment of compliance. This is a system used by PIRSA.

Officer Basin Energy (OBE) has established an innovative ground-based photo database with associated environmental parameters.

#### **4.1.4 Industry Standards**

Where appropriate to planned operations, OBEPL may nominate to use an accepted industry standard or procedure to guide their activities and/or assessments. The APPEA Principals of Conduct (APPEA 2003) and APPEA Code of Environmental Practice (APPEA 1996) are examples of these.

OBEPL may nominate the use of standards and procedures as part of the activity application and operator capability submissions (under Regulation 16(2)). Therefore, the use of any industry standards and procedures may provide a further means of assessment of operations.

#### **4.1.5 Stakeholder Meetings**

Periodic liaison with the MT community or representatives may assist in identifying any issues of importance to the community.

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#### **4.1.6 Other Surveys and Monitoring**

Conducting surveys or establishing monitoring programs (which may include ecological, social, cultural or other scientific studies on specific subjects) may be implemented to assist in the assessment of compliance with this SEO.

Other techniques may exist or could be developed in the future, which may be beneficial. Further assessment methods may also be created under the direction or request of MT.

Details of these other studies will be made available to PIRSA as appropriate.

### **5 OPERATIONAL REPORTING**

OBEPL will carry out appropriate environmental reporting, environmental audits and assessments that will be provided to PIRSA and the MT as per regulatory requirements and as required under its agreement on land access with the MT respectively.

#### **5.1 OBEPL auditing**

OBEPL will undertake an assessment of all lines prior to determining the extent of rehabilitation that will be required. This assessment will provide the basis for which judgements will be made on the scope and methods of rehabilitation, given MT and PIRSA expectations. The assessment may be discussed with PIRSA as appropriate. Completion of OBEPL's rehabilitation program will define the completion of all survey operations. Auditing of the environmental outcomes of the survey against the SEO is appropriate at this stage.

Prior to the commencement of, or during a geophysical survey, OBEPL will nominate a representative sample of lines (inclusive of all land systems) to be audited against the environmental objectives. Sample sites easily accessible from existing tracks will form prime target sites. Other sites may be selected away from existing tracks on a random basis. These sites will also need to reflect a representative sampling of all land units. The geophysical survey crew is to be made aware that a sample of lines will be audited but the precise lines will not be made known.

OBEPL personnel will audit the nominated lines for compliance with the environmental objectives within the period of the survey and any shortfall will be made good before the survey is completed. An audit report will be prepared and submitted to PIRSA within two months after the completion of all survey operations (i.e. after any rehabilitation). The audit report shall contain the following information:

- the line assessments conducted;
- the results of the environmental monitoring point (photomonitoring) program;
- details of the proposed photomonitoring reassessments;
- results of GAS audits;
- other line assessments;
- reporting and discussion of incidents, and
- a report on compliance with regulatory requirements, licence conditions, the SEO and any activity approval.

The audit report will be referenced in the OBEPL's annual report to PIRSA. This annual report requires a statement on compliance of operations with the SA *Petroleum Act 2000*, Regulations, this SEO and any conditions of approval for survey operations.

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## **5.2 Government auditing**

PIRSA may undertake random audits of geophysical surveys, both in the field and in the office, using any of the assessment techniques discussed above. The aim of these audits is to ascertain the level of compliance with the environmental objectives and any other conditions as well as to test the veracity of the licensee's annual report on compliance.

PIRSA's selection of sites to be audited will be random to ensure vigilance on behalf of the operator and contractors. The more environmentally sensitive land units would be amongst the most likely sites for PIRSA audits. If deemed necessary, PIRSA will advise of any other matter that would require redress in addition to that which has been initiated through the operator's field procedures and/or adopted environmental management system.

A summary of the results of PIRSA's audits will be included as part of PIRSA's reporting on environmental management of petroleum operations in SA and will be made public in PIRSA's Annual Report.

Third parties may also undertake audits of the field outcomes of company geophysical operations. The audits may be commissioned by PIRSA, or the licensee, or by any independent parties. If these audit findings are to be compared to those of the OBEPL and/or PIRSA, the same assessment criteria ideally should be used.

## **5.3 Maralinga Tjarutja Requirements**

The land access agreement between OBEPL and the MT requires that copies of all environmental reporting and auditing be sent to them and to PIRSA.

## **6 HEALTH, SAFETY AND WELFARE**

Petroleum Regulation 12(2) requires an SEO to identify events that could lead to a serious or reportable incident within the meaning of Section 85 of the *Petroleum Act 2000*.

### **6.1 Degree of Incidents (definitions)**

Under Section 85 of the Act, incidents pertaining to geophysical operations are either serious or reportable as follows:

#### **6.1.1 Serious Incidents**

- A person is seriously injured or killed.
- An imminent risk to public health or safety.
- Serious environmental damage occurs or an imminent risk of serious environmental damage arises.
- Any disturbance to sites of cultural or heritage significance to Maralinga Tjarutja.
- Initiation of wildfire where an imminent risk to public safety arises.
- Removal of rare, vulnerable or endangered flora and fauna species without appropriate permits and approvals.

#### **6.1.2 Reportable Incidents**

- Verified complaint from a landowner as a result of operations
- Any introduction of exotic species (pest, weed, animal or pathogen).
- A spill or leak outside of a containment area.
- Uncontrolled flows to the surface from shallow drilling operations (upholes).
- Initiation of any unplanned fire that is not considered a serious incident.
- Any recorded '-2' under the GAS system of this SEO.

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## **6.2 Reporting requirements**

Incidents of a serious nature will be investigated and immediately reported to PIRSA, relevant law enforcement officials, MT and the Department for Environment and Heritage (DEH) officials for the area where appropriate.

Incidents of a reportable nature will be documented and regularly reported to the appropriate State agency and copies will be forwarded to PIRSA (each calendar quarter as a minimum) and the MT administrative office (Ceduna).

Details will be kept of all incidents and will be made available to authorities when requested. A field record of incidents will also be kept.

## **7 DOCUMENT REVISION**

This document will be subject to review within five years of its date of gazettal as per the requirements set out in Regulation 14 under the *Petroleum Act 2000*.

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## APPENDICES

### Appendix 1 Environmental Objectives and Assessment Criteria

| Environmental Objective   | Assessment Criteria  | Guide To How Objectives Can Be Achieved  | Comments   |
|---|--|--|--|
| <p><b>Objective 1:</b><br/> <b>OBEPL and its contractors will avoid disturbance to sites of MT cultural and heritage significance</b></p> | <p>No disturbance to Aboriginal heritage sites or other sites of cultural significance.</p> <p>As per the OBE/MT agreement, appropriately trained and experienced cultural/heritage advisors have scouted proposed survey line locations and access tracks. Identified sites are flagged off.</p> <p>As per the OBE/MT agreement, the crew is appropriately trained to identify, respond to and report unmarked heritage sites.</p>  | <p>During line clearance/preparation or any other field activity, all identified sites are to be flagged and subsequently avoided.</p> <p>The operator has a mechanism in place to appropriately and promptly report and respond to any sites discovered during survey operations.</p> <p>All identified sites are reported using an Environmental Report Forms (ERFs).</p> <p>All ERFs relating to Aboriginal sites are forwarded to the MT.</p> <p>Documents and/or reports of scouting for cultural/heritage are available for audit.</p>   | <p>The aim of this objective is to ensure that any sites of Aboriginal cultural and heritage significance are identified and protected.</p> <p>Sites of non-indigenous heritage are to be avoided also.</p> <p><b>Note:</b> With the negotiated deed in place, provisions include that appropriately trained and experienced cultural/heritage advisors will carry out a Work Area Clearance (WAC) and produce a report for sites of cultural and heritage significance before commencement of line preparation. Any discrepancy between the deed and this guideline will result in the deed taking precedence.</p> <p>PIRSA acknowledges that line clearance equipment (LCE) operators from the Maralinga Tjarutja community may not need training. However, training will still need to be provided for any external contractors used. Non indigenous people working for Maralinga Tjarutja (MT) will undertake appropriate training.</p>  |
| <p><b>Objective 2:</b><br/> <b>OBEPL and its contractors will minimise disturbance to the MT and any infrastructure.</b></p>              | <p>No reasonable concerns raised by the MT are left unresolved.</p> <p>No MT facilities have been disturbed during field operations without prior written permission.</p> <p>If any of the conditions of the OBE/MT agreement are breached, it will also be deemed to be a breach of this SEO provided those conditions relate to environmental matters.</p> <p>The attainment of '0', '+1' or '+2' GAS score for 'disturbance to infrastructure' as listed in Appendix 2.</p> | <p>The MT are notified prior to the commencement of survey activities.</p> <p>Inductions for all employees and contractors cover cultural, conservation and legislative issues.</p> <p>Periodic meetings with the MT community are organised to identify any potential or unresolved issues and other community land uses.</p> <p>Operations in wet weather are avoided (see comments).</p> <p>Damage to tracks is avoided.</p> <p>Any tracks damaged by OBEPL's operations will be repaired to its previous condition.</p> <p>Any artesian flows are to be immediately plugged and monitored to ensure effectiveness of plug(s).</p> <p>Any gates are left in the condition in which they were found (i.e. open/closed).</p> <p>Seismic sources are not to operate within 30 m of any facility.</p> | <p>Communication and the establishment of good relations with the community are fundamental to minimising disturbance as much as practicably possible.</p> <p>The PIRSA publication "Liaison guidelines for landholders and petroleum explorers in South Australia" is a recommended reference to ensure good liaison with landowners.</p> <p>Access to land is a key factor for a long-term sustainable petroleum industry. Community support is vital for the petroleum industry to access land and hence realise the resources beneath the land. It is imperative that the industry establishes and maintains good relations with the landowner/occupier. This is particularly relevant for future operations in the MT lands.</p> <p>Wet weather operations are permissible where such operations do not cause significant degradation of lines/access tracks (for example, rutting and/or compaction). PIRSA acknowledges that certain vehicular movements may be required for OH&amp;S issues in such conditions and may result in line/access track degradation. OBE will use its reasonable endeavours to limit such movement.</p> |

| Environmental Objective  | Assessment Criteria   | Guide To How Objectives Can Be Achieved  | Comments   |
|--|---|--|--|
| <p><b>Objective 3:<br/>OBEPL and its contractors will minimise disturbance to native vegetation and native fauna</b></p> | <p>Removal of mature trees should occur only when unavoidable, and when weaving, detours or other mitigation strategies do not afford practical access.</p> <p>OBEPL shall ensure that any MT requirements are met regarding any trees of cultural significance.</p> <p>Weaving to avoid vegetation impact is used throughout the survey where it is practical to do so (see comment).</p> <p>Campsites are located, wherever possible, in naturally clear or previously disturbed areas, and are prepared to the minimum standard and size required for the survey camp in consultation with the camp provider.</p> <p>No offline driving is evident (see comments).</p> <p>No domestic camp animals are permitted.</p> <p>Weeds, pathogens or feral animals are not introduced into, or spread in, operational areas.</p> <p>As a minimum, all vehicles are inspected and assessed for the risk of transferring any new species into the survey area.</p> <p>Fire fighting equipment is readily available and sufficient personnel trained.</p> <p>The attainment of '0', '+1' or '+2' GAS score for 'impact on vegetation' as listed in Appendix 2.</p> <p>When applicable, the attainment of '0', '+1' or '+2' GAS score for 'campsites' as listed in Appendix 2.</p> | <p>Flora and/or fauna surveys may be undertaken prior to or in association with any proposed field activities.</p> <p>Conservation needs of particular species are considered in the planning stage of operations.</p> <p>The personnel who are part of the line preparation crew will be provided advice on sensitive flora and fauna species and communities and other community land uses, as required.</p> <p>Modern preparation techniques are used to clear vegetation while line width is as narrow as possible.</p> <p>Native vegetation clearance is minimised</p> <p>Significant flora is weaved around wherever possible to minimise disturbance.</p> <p>Rootstock is left intact, wherever possible.</p> <p>Records of vegetation clearance/habitat disturbance are kept and available for auditing.</p> <p>Vehicle access to survey lines is to be via existing access tracks or pre-existing survey lines, except where they have rehabilitated. Other temporary access tracks may be utilised where such use is likely to result in less environmental impact than other options.</p> <p>Campsites are established in locations adjacent to existing lines/access tracks.</p> <p>Safety concerns of the crew should be considered when preparing a campsite area but balanced with the need to minimise vegetation impact.</p> <p>All vehicles and equipment are inspected for potential to spread 'new species' into the survey area. Where deemed necessary, vehicles will be cleaned prior to entry into the survey area or when leaving any weed-infected areas within the survey area.</p> <p><b><u>Fire Danger Season Restrictions &amp; Education</u></b></p> <p>Fire education is included as part of the induction.</p> <p><b><u>Waste management</u></b></p> <p>Covered bins are provided for the collection and storage of wastes.</p> <p>Wastes are segregated, burnt or transported to an approved disposal facility for recycling or burial in accordance with approved procedures as agreed with the MT.</p> | <p>Primary risks to native fauna include clearing of habitat and obstruction of movement through prepared areas.</p> <p>Current survey line and access track preparation techniques have been shown by a number of studies to have an insignificant impact on wildlife habitat and minimal impact on vegetation. This is due to the small and confined area of impact of survey lines and the rate of recovery of most vegetation types and surface morphology.</p> <p>The aim of this objective is to also maximise the potential for vegetation regrowth.</p> <p>Potential impacts of waste on vegetation and fauna may be mitigated by actions implemented to address Objective 6.</p> <p>Offline driving is considered to be any offline trafficking, including the formation of any shortcuts, unnecessary access tracks, cross-country tracking (bush bashing) or 'flowering' of intersection corners, for example. The only 'offline' driving that should be required is:</p> <ul style="list-style-type: none"> <li>• for the temporary parking of operational and ancillary vehicles.</li> <li>• for vehicles to veer off the prepared line sufficiently only to allow the safe passage of another vehicle (no bypass lanes should be cut along seismic lines).</li> </ul> <p>Weaving at the bases or flanks of sand dunes is unlikely to be practical for vehicle access over dunes.</p> <p>Exaggerated weaving is likely to be impractical, with sharp bends leading to unwarranted soil banking. This leads to an unwarranted safety risk and impeded operational efficiency.</p> <p>Line widths criteria are referenced in GAS chart under Disturbance to Land Surface.</p> |

| Environmental Objective   | Assessment Criteria   | Guide To How Objectives Can Be Achieved   | Comments   |
|---|---|---|--|
| <p><b>Objective 4:<br/>OBEPL and its contractors will minimise land disturbance</b></p> | <p>The MT are consulted on line placement by OBEPL.</p> <p>No survey line or access track preparation is carried out on salt lakes, claypans or in wetland areas.</p> <p>Campsites are located, wherever possible, in naturally clear or previously disturbed areas, and are prepared to the minimum standard and size required for the survey camp in consultation with the camp provider.</p> <p>No spills are left untreated.</p> <p>There is no off-road driving or creation of shortcuts (see objective 3 comments).</p> <p>Whenever practicable, width of line is reduced by line clearance equipment operating with raised blades.</p> <p>Blading will occur only where necessary so as to minimise vehicle and tyre damage and to ensure safety of all personnel.</p> <p>The attainment of '0', '+1' or '+2' GAS score for 'Disturbance to land surface (dune, inter-dune corridors, limestone plains, gypcrete formations, salt lakes as appropriate)' as listed in Appendix 2.</p> <p>When applicable, the attainment of '0', '+1' or '+2' GAS score for 'campsites' as listed in Appendix 2.</p> <p>When applicable, the attainment of '0', '+1' or '+2' GAS score for 'uphole sites' as listed in Appendix 2.</p> | <p><b><u>Survey line and campsite preparation</u></b></p> <p>Survey lines and campsites have been appropriately located and prepared to minimise the disturbance to soil resources.</p> <p>Appropriately trained and experienced personnel scout the proposed survey lines, access tracks and campsites.</p> <p>Any requirement to traverse sensitive land systems or inundated areas, as well as the method of managing the impacts, is justified in accordance with contractor/company procedures. Any records are available for audit.</p> <p>Terrain, land system type and potential impacts are considered in the planning stage of operations.</p> <p>During line clearance, OBEPL uses industry best practice procedures.</p> <p>Operations in wet weather are not undertaken (see comments for objective 2).</p> <p>Survey line preparation statistics for equipment and operators are recorded and documented and will be made available for audit.</p> <p>Modern preparation techniques are used to minimise the height of dune cuts, while line width is as narrow as practicable.</p> <p>Post-survey rehabilitation is conducted where appropriate.</p> <p><b><u>Fuel and chemical storage and handling</u></b></p> <p>Bundling is used to contain fuels and hazardous materials to appropriate government standards, such as EPA guidelines.</p> <p>Within a campsite, no refuelling is to occur outside designated refuelling/servicing areas. Refuelling offsite (remotely on seismic lines) should be conducted with care and appropriate spill kits must be readily available.</p> <p>Spills or leaks of any kind are immediately reported and clean up actions initiated.</p> <p>Appropriate spill response equipment is available on site.</p> <p>Oil spills areas are ripped to an appropriate depth.</p> <p>Records of spill events and corrective actions are maintained in accordance with company procedures and are available for audit.</p> | <p>The main sources of disturbance to soils are survey line preparation, vehicle traffic along tracks and restoration activity.</p> <p>The impacts associated with soil disturbance can potentially include wind and water erosion, wheel rutting, soil compaction and dust generation.</p> <p>All bulk fuel stored and used should be under the control of qualified or trained personnel.</p> <p>Weaving at the bases or flanks of sand dunes is unlikely to be practical for vehicle access over dunes. Exaggerated weaving is likely to be impractical, with sharp bends leading to unwarranted soil banking. This leads to an unwarranted safety risk and impeded operational efficiency.</p> <p>It is recognised that sticks/stakes and tree branches on the line cause operational, safety and logistical difficulties. A balance is required between these imperatives and the need to minimise land disturbance.</p> <p>Line widths criteria are referenced in GAS chart under Disturbance to Land Surface.</p> |

| Environmental Objective   | Assessment Criteria   | Guide To How Objectives Can Be Achieved   | Comments  |
|---|---|---|---|
| <p><b>Objective 5:</b><br/> <b>OBEPL and its contractors will minimise the visual impact of operations.</b></p>                         | <p>The MT are consulted on the location of activities.<br/>           No 'gun-barrel straight' lines are prepared. Lines should weave at least every 200 metres through vegetation and other topographic features.<br/>           The attainment of '0', '+1' or '+2' GAS score for 'visual impact' as listed in Appendix 2.</p>  | <p>Proposed survey lines and campsites have been appropriately located and prepared to minimise the visual impact of operations and records are available for audit.<br/>           During line clearance, OBEPL uses industry best practice procedures.<br/>           Appropriate use of weaving, vegetation or landforms to disguise operations. Doglegs should be placed at all intersections with permanent or semi-permanent roads, access tracks as appropriate, and any seismic lines to remain open.<br/>           Offset sand dune crest cuts along the length of the survey line to minimise visibility.<br/>           Avoid extensive side cuts on dune flanks.<br/>           Avoid cutting sand dunes facing tourist access tracks, wherever possible.<br/>           Lessen visual impact of uphole cuttings, where they contrast with the surface, where appropriate.<br/>           Post-survey rehabilitation is conducted when required.<br/>           Potential impacts of waste and spills on visual amenity are mitigated by actions implemented to address Objective 6.</p> | <p>Fatchen &amp; Woodburn's (1997) study concluded that the major impacts of seismic and access track construction are predominantly visual rather than ecological.<br/>           If techniques to disguise their presence are not implemented, the visual impact of campsites and survey lines can be significant.<br/>           Preparation techniques and line placement for survey lines are key factors in determining visual impact.</p>  |
| <p><b>Objective 6:</b><br/> <b>OBEPL and its contractors will minimize litter and pollution.</b></p>                                    | <p>No survey or camp litter remains.<br/>           No more than 2 pin flags per km.<br/>           No spills are left untreated.<br/>           The attainment of '0', '+1' or '+2' GAS score for 'pollution or litter' as listed in Appendix 2.<br/>           When applicable, the attainment of '0', '+1' or '+2' GAS score for 'uphole sites' as listed in Appendix 2.</p> | <p><b><u>Waste management</u></b><br/>           Production of waste is minimised by purchasing biodegradable or recyclable materials where practical.<br/>           Covered bins are provided for the collection and storage of wastes.<br/>           Wastes are segregated and transported to an appropriate disposal facility for recycling or burial in accordance with approved procedures as agreed with the MT.<br/>           All pin flags and stakes are removed from seismic lines after the survey has been completed.<br/>           Campsite wastewater will be managed with an appropriate treatment and discharging system.</p> <p><b><u>Fuel and chemical storage and handling</u></b><br/>           Refer to objective 4.</p>  | <p>Waste reduction requires continual improvements in purchasing, efficiency of use and reuse. Due to the distances involved, the cost of recycling a large range of products may be prohibitive. However, continual review of recycling options is required to ensure that improvements are implemented as far as practical.<br/>           Campsites require the provision of systems for the management of sewage wastes, which must be managed in accordance with the <i>Public and Environmental Health (Waste Control) Regulations 1995</i>. Chemically degraded toilet waste is transported from camp and may be disposed of on-site (well away from watercourses or infrastructure) when in remote areas.</p> |
| <p><b>Objective 7:</b><br/> <b>OBEPL and its contractors will remediate and rehabilitate operational areas to agreed standards.</b></p> | <p>All areas are rehabilitated as soon as practical, either during or after the conclusion of survey operations.</p>  | <p>Rehabilitation is planned in consultation with the MT and PIRSA.</p>   |   |

## Appendix 2 Goal Attainment Scaling Criteria for Assessing Seismic Lines on Completion of Survey

| LAND SYSTEM              | MEASURE<br>Associated goals <sup>(g)</sup>            | SCORE  |  |   |   |  |
|--------------------------|---|--|--|---|---|--|
|                          |   | +2 <sup>(c &amp; e)</sup>  | +1 <sup>(c &amp; e)</sup>  | 0 <sup>(c,d &amp; e &amp; l)</sup>  | -1 <sup>(b,d &amp; e)</sup>   | -2 <sup>(b, d &amp; e)</sup>   |
| Non land system specific | <b>Visual impact</b><br>(Obj 5, 7)                    | <ul style="list-style-type: none"> <li>No evidence of survey operations.</li> </ul>                  | <ul style="list-style-type: none"> <li>Only wheel tracks are evident.</li> <li>Line weaves to significantly impair line of sight.</li> </ul> | <ul style="list-style-type: none"> <li>Established roads and tracks have been reshouldered</li> <li>Doglegs and visual screens (where applicable) have been placed at established roads and tracks.</li> <li>First 40 metres of line have been disguised and are not conducive to third party access.</li> <li>Line follows route that is most conducive to access by utilising naturally clear areas through vegetation.</li> <li>Line weaves through vegetated areas every 200m or less.</li> <li>Dune cuts are offset from the line of sight.</li> </ul> | <ul style="list-style-type: none"> <li>No doglegs or visual screens (where applicable) at established roads or tracks.</li> <li>Straight sections of line are 200m to 400 m long.</li> <li>No weaving in swales</li> <li>Dune cuts are not offset from line of sight.</li> </ul>                                | <ul style="list-style-type: none"> <li>Line is clearly evident and dominates the landscape.</li> <li>Straight segments of line lengths &gt;400m long.</li> </ul>   |
|                          | <b>Disturbance to infrastructure</b><br>(Obj 1, 2, 7) | <ul style="list-style-type: none"> <li>No impact to any infrastructure.</li> </ul>                   |  | <ul style="list-style-type: none"> <li>Any impact to infrastructure has been reported and reinstated or repaired.</li> </ul>  | <ul style="list-style-type: none"> <li>Repair to damaged infrastructure is incomplete or inappropriate.</li> <li>Damage has not been reported.</li> </ul>   | <ul style="list-style-type: none"> <li>Damage to any infrastructure has been left un-repaired.</li> <li>Damage has not been reported.</li> </ul>   |
|                          | <b>Pollution or litter</b><br>(Obj 6)                 | <ul style="list-style-type: none"> <li>No pollution or litter.</li> </ul>                            | <ul style="list-style-type: none"> <li>No evidence of water or oil pollution</li> <li>Maximum of 1 pin flag/km.</li> </ul>                   | <ul style="list-style-type: none"> <li>Wastewater and vehicle oil spills have been managed appropriately.</li> <li>Maximum of 2 pin flags/km.</li> <li>No other litter.</li> </ul>  | <ul style="list-style-type: none"> <li>Vehicle oil spills have not been adequately remedied.</li> <li>Maximum of 9 pin flags/km.</li> <li>Maximum of 4 items of other litter/km.</li> </ul>   | <ul style="list-style-type: none"> <li>Extensive oil spills (e.g. &gt; 20L) have not been adequately remedied.</li> <li>Ten or more pin flags/km.</li> <li>Five or more items or other litter/km.</li> </ul>   |
|                          | <b>Campsites</b><br>(Obj 3, 4, 5, 6, 7)               | <ul style="list-style-type: none"> <li>No evidence of campsite.</li> </ul>                           | <ul style="list-style-type: none"> <li>Some evidence of campsite.</li> </ul>   | <ul style="list-style-type: none"> <li>Compacted areas ripped.</li> <li>Only grasses, herbs, small shrubs etc are removed if necessary.</li> <li>Vegetation is respread.</li> <li>Campsite located in naturally clear areas where possible.</li> <li>No obvious litter remaining on site.</li> </ul>  | <ul style="list-style-type: none"> <li>Top soil removed is respread over campsite.</li> <li>Obvious litter remaining on site.</li> <li>Areas of compaction and wheel rutting not ripped.</li> <li>Wastewater forms ponds or extensive boggy ground.</li> <li>Area of campsite unnecessarily cleared.</li> </ul> | <ul style="list-style-type: none"> <li>Extensive vegetation clearance has occurred.</li> <li>Area cleared for campsite exceeds that required.</li> <li>Topsoil and vegetation has been left in mounds to side of camp site.</li> <li>Extensive litter remaining on site.</li> <li>Extensive wastewater ponding.</li> </ul> |
|                          | <b>Uphole sites</b><br>(Obj 3, 4, 5, 6, 7)            | <ul style="list-style-type: none"> <li>No evidence of upholes.</li> </ul>                            | <ul style="list-style-type: none"> <li>No evidence of cuttings.</li> <li>Some evidence of operations.</li> </ul>                             | <ul style="list-style-type: none"> <li>Cuttings are evident but dispersed around the hole.</li> <li>No subsidence.</li> <li>Hole has been plugged.</li> </ul>   | <ul style="list-style-type: none"> <li>Cuttings form mound.</li> <li>Subsidence is evident.</li> <li>Cuttings markedly discoloured compared to ground surface.</li> </ul>   | <ul style="list-style-type: none"> <li>Hole is open.</li> <li>Hole is flowing water.</li> </ul>  |
|                          | <b>Impact on vegetation</b><br>(Obj 3, 5, 6)          | <ul style="list-style-type: none"> <li>No evidence of impact to vegetation<sup>(h)</sup>.</li> </ul> | <ul style="list-style-type: none"> <li>No evidence of removal of vegetation<sup>(h)</sup>.</li> </ul>  | <ul style="list-style-type: none"> <li>Vegetation<sup>(h)</sup> removed only where necessary.</li> <li>Naturally clear corridors have been utilised.</li> <li>Mature Trees<sup>(i)</sup> or Priority Trees<sup>(i)</sup> have been removed where no other practicable option available.</li> </ul>  | <ul style="list-style-type: none"> <li>Vegetation<sup>(h)</sup> has been removed unnecessarily.</li> </ul>  | <ul style="list-style-type: none"> <li>Mature Trees<sup>(i)</sup> and Priority Trees<sup>(i)</sup> have been removed where other practicable option available.</li> </ul>  |

|   |   |   |  |  |   |   |
|---|---|---|--|--|---|---|
| Dunes   | <b>Disturbance to land surface</b><br>(Obj 1, 3, 4 & 5)   | <ul style="list-style-type: none"> <li>No evidence of survey line.</li> </ul> | <ul style="list-style-type: none"> <li>Dune cuts are &lt; 0.5 m deep.</li> </ul>   | <ul style="list-style-type: none"> <li>Dune cuts are 0.5m– 2.0m deep.</li> <li>Side cuts in dunes &lt; 1.0m.</li> <li>Sand is stacked appropriately on dune.</li> <li>Ground surface is cut only when necessary.</li> </ul>  | <ul style="list-style-type: none"> <li>Dune cuts are 2.0m– 3.0m deep.</li> <li>Side cuts in dunes &gt;1.0m.</li> <li>Off line trafficking is evident.</li> <li>Ground surface has been cut unnecessarily.</li> </ul>  | <ul style="list-style-type: none"> <li>Dune cuts are &gt;3.0m deep.</li> <li>Deep rutting from wet weather operations has occurred.</li> </ul>  |
| Inter-dune Corridors<br>- Swales & Sand<br>Plains | <b>Disturbance to land surface</b><br>(Obj 3, 4, 5, 6, 7) | <ul style="list-style-type: none"> <li>No evidence of survey line.</li> </ul> | <ul style="list-style-type: none"> <li>Only wheel tracks are evident.</li> </ul>   | <ul style="list-style-type: none"> <li>Windrows<sup>(d)</sup> are generally &lt; 0.3m and not continuous, but may sporadically peak to 0.5m.</li> <li>Line Width<sup>(e)</sup> is 4.5m<sup>(k)</sup></li> </ul>  | <ul style="list-style-type: none"> <li>Windrows<sup>(d)</sup> are consistently 0.3m high.</li> <li>Off line trafficking is evident.</li> <li>Minor ramping of sand onto swale.</li> <li>Ground surface has been cut unnecessarily.</li> <li>Line Width<sup>(e)</sup> is between 4.5m and 6.0m.</li> </ul> | <ul style="list-style-type: none"> <li>Extensive ramping of sand onto swale.</li> <li>Windrows<sup>(d)</sup> in swales are continuous.</li> <li>Windrows<sup>(d)</sup> are consistently &gt;0.3m.</li> <li>Deep rutting from wet weather operations has occurred.</li> <li>Line Width<sup>(e)</sup> is &gt;6.0m.</li> </ul> |
| Limestone<br>plains                               | <b>Disturbance to land surface</b><br>(Obj 3, 4, 5, 6, 7) | <ul style="list-style-type: none"> <li>No evidence of survey line.</li> </ul> | <ul style="list-style-type: none"> <li>Only wheel tracks are evident.</li> </ul>   | <ul style="list-style-type: none"> <li>Line Width<sup>(e)</sup> is 4.5m<sup>(k)</sup> or less.</li> <li>Line has been walked.</li> <li>No blade work has occurred unless roughness of ground is not conducive for access.</li> <li>No windrows.</li> </ul>             | <ul style="list-style-type: none"> <li>Line Width<sup>(e)</sup> is between 4.5m and 6.0m.</li> <li>Off line trafficking is evident.</li> <li>Extensive wheel ruts exist.</li> </ul>   | <ul style="list-style-type: none"> <li>Line Width is &gt;6.0m.</li> <li>Blading of stony surfaces has occurred.</li> <li>Windrows<sup>(f)</sup> unnecessarily exist.</li> <li>Extensive bulldust formation.</li> </ul>  |
| Gypcrete<br>Formations,<br>including Kopi         | <b>Disturbance to land surface</b><br>(Obj 3, 4, 5, 6, 7) | <ul style="list-style-type: none"> <li>No evidence of survey line.</li> </ul> | <ul style="list-style-type: none"> <li>Only wheel tracks are evident.</li> </ul>   | <ul style="list-style-type: none"> <li>Gypcrete avoided where possible.</li> <li>Vehicle load has been spread across broader area to prevent cutting of the surface structure.</li> <li>Line has been walked.</li> <li>No blade work.</li> <li>No windrows.</li> </ul> | <ul style="list-style-type: none"> <li>Extensive wheel ruts exist.</li> </ul>   | <ul style="list-style-type: none"> <li>Insufficient vehicle track offset so as to cause significant breakage of surface structure.</li> <li>Blading of surface has occurred.</li> <li>Windrows<sup>(f)</sup> exist.</li> <li>Extensive bulldust formation.</li> </ul>   |
| Salt lake   | <b>Disturbance to land surface</b><br>(Obj 3, 4, 5, 6, 7) | <ul style="list-style-type: none"> <li>No evidence of survey line.</li> </ul> | <ul style="list-style-type: none"> <li>No evidence of shot holes.</li> <li>Little evidence of foot trafficking.</li> </ul> | <ul style="list-style-type: none"> <li>Only footprints are evident.</li> <li>No significant evidence of shot holes.</li> </ul>   | <ul style="list-style-type: none"> <li>Wheel tracks exist and are &lt;0.2m deep.</li> <li>Minor evidence of shot holes.</li> <li>Line preparation has occurred.</li> </ul>  | <ul style="list-style-type: none"> <li>Wheel tracks are &gt;0.2m deep.</li> <li>Bog holes are evident.</li> <li>Dominant evidence of shot holes (e.g. cratering, blow out, discolouration).</li> </ul>  |

- (a) If any criterion (dot point) within a -1 or -2 cell occurs then a score of -1 or -2 will be allocated for that GAS measure.
- (b) For 0, +1 and +2 cells all relevant criteria (dot point) within a cell must be satisfied to score at that level.
- (c) Some criteria at -2 levels may also be subject to defined conditions but are included in this table to ensure that they are clearly identified.
- (d) All vertical measures are to be measured from normal ground surface.
- (e) *Line Width* means the shortest distance in meters between the lowest points of the insides of opposite windrows.
- (f) Windrows, in this context, also covers the mounding of stones and earth through the action of wheel trafficking and associated dispersal of stones and earth away from the wheel tracks.
- (g) Relevant environmental objectives.
- (h) *Vegetation* means all vegetation that is not a Priority Tree or a Mature Tree but does not include rootstock.
- (i) *Mature Tree* means any tree by virtue of its height or width is greater than any other tree in its near vicinity.
- (j) *Priority Tree* means any tree, or species of tree, that has known cultural or ecological significance, or has significance by virtue of its location or distribution.
- (k) Although Line Width as defined at (e) is specified as 4.5 metres, it is recognised by PIRSA that further field trials are required to validate the distance and that a GAS allocation will be considered (and negotiated with the Operator) on the basis of the of the nature of the land system.
- (l) It is noted that Occupation Health and Safety issues for personnel in the field is or primary importance and it is further noted that a negative GAS score should not be allocated where it can be shown that for the safety of personnel in the circumstances, actions were taken that would otherwise be characterised by an allocation of a negative GAS score.

## APPENDIX 3 SEO REVIEW CONSULTATION REPONSES

| Consulted Agency | Page Reference | Comment   | Editor's Response  |
|------------------|----------------|---|--|
| DWLBC            | General        | <i>All chemicals must be stored appropriately (i.e. in lined, bunded areas). Bunded areas must have freeboard to hold a 1 in 100 year, 24-hour rainfall event.</i>  | The small amount of hazardous substances used on crew including chemicals for cleaning, electrical & plumbing repairs, etc are stored in a lockable cabinet as required by Australian Standards. Oil drums, assorted lubricants & coolants are stored on pallet bunds in designated 'Restricted Access Areas' conforming with the standard. Bulk diesel fuel is stored in tanks mounted on trailers or trucks that are not required to be bunded when stationary and kept a safe distance (200m) from vehicle traffic and accommodation facilities.  |
|                  |                | <i>The area of the lease is contained within the Alinytjara Wilurara Natural Resources Management Board (NRM Board) area and, as such, PIRSA Petroleum must take into consideration issues raised within the Alinytjara Wilurara Initial Natural Resources Management Plan (INRM Plan).</i>                                   | While OBE has not made any formal submissions to the NRM with respect to it's operation, it notes that the NRM may have a role in the management of the natural resources within OBE's PELs.<br><br>We note, however, that we have extensively consulted the Maralinga Tjarutja (MT) People with respect to our operations within the area. Jeffrey Queama is on the NRM board and has been involved in many consultations and meetings.<br><br>Furthermore, we understand that Chris Dodd is the relevant NRM board supervisor at Oak Valley. Mr Dodd has also been intimately involved in and is aware of the operations of OBE.<br><br>We are happy to make a presentation to the NRM board in the future, even if there is no legal requirement for us to do so. |
|                  |                | <i>It is understood that that PIRSA Petroleum consults the NRM Board only on medium impact activities or higher, because exploration involves almost no environmental impact. However, if a discovery is made and further testing is required, it is understood that PIRSA Petroleum will consult the relevant NRM Board.</i> | PIRSA Petroleum will consult NRM in future SEO consultation process as directed by their administrative arrangements and activity impact classifications.  |

|  |  |  |                                     |
|--|--|--|-------------------------------------|
|  |  | <i>Although there is no Water Allocation Plan (WAP) relevant to this area, matters of water management, relevant soil conservation plans, relevant animal and plant control board plans, are all contained in the current Alinytjara Wilurara INRM Plan. The EIR and SEO appear to be consistent with the INRM Plan.</i> | Noted. No changes deemed necessary. |
|--|--|--|-------------------------------------|

|            |         |  |                                     |
|------------|---------|--|-------------------------------------|
| <b>DEH</b> | General | The objectives and assessment criteria are considered suitable for reporting on appropriate management of key impacts identified within the EIR. | Noted. No changes deemed necessary. |
|------------|---------|--|-------------------------------------|

|                            |         |   |                                     |
|----------------------------|---------|---|-------------------------------------|
| <b>Native Veg. Council</b> | General | <i>It is considered that the assessment and goal attainment scaling criteria adequately address concerns regarding minimising impacts on native vegetation.</i> | Noted. No changes deemed necessary. |
|----------------------------|---------|---|-------------------------------------|

|  |                      |  |   |
|--|----------------------|--|---|
|  | Page 12, Objective 3 | <i>Project planning should include a review for state listed species. Only Commonwealth databases were searched for species of conservation significance. These databases only include state listed species of conservation significance which also have a listing under the EPBC Act.</i> | This issue is to be covered on a project-by-project basis. No changes deemed necessary. |
|--|----------------------|--|---|

|            |         |   |                                     |
|------------|---------|---|-------------------------------------|
| <b>EPA</b> | General | <i>The environment Protection Authority has no additional comments to those provided on the 13 August 2007. [2007original SEO consultation]</i> | Noted. No changes deemed necessary. |
|------------|---------|---|-------------------------------------|

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|---------------------------|--|----------------------|--|
| <b>Maralinga Tjarutja</b> |  | No comment received. |  |
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