

**Environmental Impact Classification**  
**Pursuant to Section 98 of the *Petroleum and Geothermal Energy Act 2000***

**Drilling Activities in PELs 81 and 253, Officer Basin**

**7 October 2010**

**INTRODUCTION**

Pursuant to section 98 of the *Petroleum and Geothermal Energy Act 2000* (the Act) the Minister must classify the regulated activities covered by a prepared Environmental Impact Report (EIR) as either of low, medium or high environmental impact.

The classification must be made on the basis of:

- The prepared EIR;
- Criteria established for classifying the level of environmental impact of regulated activities, a copy of which is found on the PIRSA Petroleum and Geothermal Group (PIRSA) web page:  
[http://www.pir.sa.gov.au/\\_data/assets/pdf\\_file/0008/27728/sigactv6.pdf](http://www.pir.sa.gov.au/_data/assets/pdf_file/0008/27728/sigactv6.pdf); and
- Comment received from relevant Government departments in accordance with established administrative arrangements between these departments and PIRSA.

This document summarises the classification made by PIRSA on Rodinia Oil Corp' proposed Drilling Activities in PELs 81 and 253, Officer Basin. This classification is based on information provided in the original EIR prepared by Rodinia Oil Corp and RPS Consulting.

**SUMMARY OF CLASSIFICATION**

- 1) From an analysis of the environmental significance of the events and potential impacts associated with the proposed activities against the classification criteria referred to above (assessment provided as Attachment 1), these regulated activities have been classified as **low environmental impact**.
- 2) The majority of events associated with the proposed Drilling Activities in PELs 81 and 253, Officer Basin were assessed to be of low environmental significance. This is due to the fact that appropriate management measures will be implemented by Rodinia Oil Corp to avoid or mitigate any potential environmental consequences.
- 3) For a low environmental impact classification, PIRSA is required to consult with Department of Environment and Natural Resources (DENR) and the Environment Protection Authority (EPA) in accordance with the administrative arrangement dated 11 November 2005 and 21 November 2005 respectively.
- 4) Comments received from DENR and EPA on 23 July 2010 and 21 July 2010 respectively, agreed with the low environmental impact classification.

Pursuant to delegated powers, I hereby classify this regulated activity as **low environmental impact**.



**Elinor Alexander**

A/Director Petroleum & Geothermal  
Delegate of the Minister for Mineral Resources Development

Environmental Significance Assessment																	
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PROJECT:		Rodinia Oil Corp															
DATE:		22/06/2010															
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EIR REF	TYPE OF IMPACT	EVENT(S)	POTENTIAL CONSEQUENCES	PREDICTABILITY						MANAGEABILITY						Comments	Environmental significance
				SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS		
<b>Natural Environment Impacts</b>																	
<b>Soil Impacts</b>																	
Table 1&2, 5.3, 6.1, 6.2, 6.3, 6.6		Earthmoving activities during preparation of drill pad, mud sump, flare pit, water sump, access tracks, camp sites, and borrow pits	Soil erosion; Soil inversion; Soil compaction; Disturbance to soil structure	H	H	M	M	H	2	No	Med	Short	Confined		3	Wellsites will be located and orientated so as to take into account natural drainage patterns and vegetation and to avoid significant cut and fill. Proposed sites will be inspected to make an assessment of potential issues and to determine the best location and orientation of the wellsite, access tracks, campsite and any borrow pits. Locations requiring steep cuts or fills will be avoided. Cleared topsoil and vegetation will be stockpiled adjacent to the wellsite/camp site/borrow pit and separately from fill removed from sumps or pits. Borrow material will be sourced locally, preferably from existing borrow pits. In areas with gibber pavement, borrow pits will be located in areas which are relatively flat, and low to avoid future erosion. Access roads, borrow pits, well leases and campsites are to be restored and rehabilitated to attain the highest achievable Goal Attainment Scaling (GAS) rating, as defined in the SEO.	Low
Table 1&2, 4.3,5.3, 5.3.4, 6.1, 6.2, 6.3		Vegetation clearance for well site, camp, access tracks and borrow pits	Soil erosion	H	H	M	M	H	2	No	Low	Med	Confined		3	The vegetation in PELs 81 and 253 is dominated by woodlands of mallee ( <i>Eucalyptus</i> spp.) and Mulga ( <i>Acacia aneura</i> complex) with an understorey of short-lived tussock grasses and herbs, spinifex hummock grasses ( <i>Triodia</i> spp.) or shrubs. Clearance of vegetation will be restricted to the minimum necessary and the removal of more significant vegetation will be avoided wherever possible (e.g. large trees). Borrow pits will preferably be located in areas which are naturally devoid of vegetation. Campsites will be located adjacent to existing tracks or roads, utilising areas with sparse vegetation, on well drained land.	Low
5.3, 6.2, 6.4, 6.6		Vehicle movement during construction, drilling and monitoring activities	Soil erosion; Soil compaction; Wheel tracks	H	H	M	M	H	2	No	Med	Med	Small		3	Existing roads and tracks will be utilised as far as is practicable to avoid creation of parallel and multiple access tracks. Road and track establishment will be rationalised with other users where possible (e.g. mineral explorers). Track width will be restricted to the minimum necessary (typically this will be less than 6 m, except on bends where safety considerations will determine width). On some surfaces (e.g. gibber pavement) tracks will be rolled in preference to grading to reduce the risk of erosion. All vehicles will be required to remain on designated roads/access tracks/parking areas. Where practicable materials will be transported to and from wellsites in bulk. Access roads, borrow pits, well leases and campsites are to be restored and rehabilitated to attain the highest achievable Goal Attainment Scaling (GAS) rating, as defined in the SEO.	Low
5.3.5, 6.4		Blowout or kick during drilling; Equipment or tubular failure	Soil contamination	H	M	M	H	H	2	No	Low				1	Blowouts are not common. There are considerable safety measures to avoid a drilling blowout including guidelines, procedures, safety practices, design considerations, well control equipment and certification of trained individuals in drilling. Blowout prevention precautions/well control equipment in place in accordance with defined procedures and appropriate to the expected downhole conditions.	Low
5.3.5, 6.4, 6.7		Disposal of drilling and completion fluids to flare pits during well testing and clean-up; Disposal of drill cuttings and muds	Soil contamination	H	H	M	H	H	2	No	Low				1	All drill cuttings, muds and drill fluids will be contained within designated mud sumps with adequate freeboard at the completion of operations to allow for a 1m cover of clean fill. Constituents of drilling muds are generally non-toxic or have a low effective chronic toxicity at the concentrations present in the drilling mud.	Low
5.3.7, 6.3, 6.4		Explosion or fire during drilling	Soil contamination	H	M	M	H	H	2	No	Low				1	Unplanned emissions of hydrocarbons, hydrogen sulphide, over-pressured fluids, from the well, including blowout, can cause significant environmental damage by fire. Blowout prevention precautions/well control equipment in place in accordance with defined procedures and appropriate to the expected downhole conditions. Where they are required, flare pits will have suitable fire break around the perimeter.	Low
5.3.7, 6.5		Spills and leaks associated with drilling operations, storage or transport of oil, fuels and chemicals, storage of drilling and completion fluids, refuelling operations and use of high pressure hydraulic systems	Soil contamination	H	H	H	H	H	2	No	Low				1	All fuel, oil and chemicals will be stored and handled in accordance with relevant standards including AS 1940 and EPA guideline 050/07 Bunding and Spill Management. Hazardous materials will be transported and disposed in accordance with appropriate standards and legislative requirements, including the Australian Dangerous Goods Code. Appropriate spill response equipment and MSDS will be available on site for all fuels and chemicals used on site.	Low
5.3.6		Disposal of domestic and chemical waste; Sewage treatment	Soil contamination	H	H	H	H	H	1	No	Low				1	Domestic wastes (e.g. food waste, paper, plastics, cans and glass will be stored on site in secure bins or skips. Recyclable materials will be transported to a licensed waste disposal facility. Markers and litter will not be left in the work area after completion. Camp wastewater will be disposed of in accordance with the <i>Public and Environmental Health (Waste Control) Regulations 1995</i> . The wastewater disposal system will either comply with the <i>Standard for the Construction, Installation and Operation of Septic Tank Systems</i> in SA or be operated to the satisfaction of the Health Department.	Low
<b>Groundwater Impacts</b>																	

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5.3.5		Drilling fluids in down hole environment	Contamination of freshwater aquifers	H	M	M	H	H	2	No	Low					1	Drilling fluids in the down hole environment have the potential to invade freshwater aquifers and cause contamination. Constituents of drilling muds are generally non-toxic or have a low effective chronic toxicity at the concentrations present in the drilling mud. Detailed study has shown that although this is an area of concern, drilling fluid impact is not a major component of potential down hole problems.	Low
5.3.6		Disposal of drilling fluids, cuttings and frac gels into unlined sumps	Contamination of shallow aquifers	H	H	M	H	H	2	No	Low					1	The risk of shallow groundwater contamination associated with the disposal of drilling fluids, cuttings and other fluids associated with completion activities to the unlined earthen drilling sump is considered low. This is due to the low toxicity associated with additives.	Low
5.3.7, 6.5		Spills and leaks associated with drilling operations, storage or transport of oil, fuels and chemicals, storage of drilling and completion fluids, refuelling operations and use of high pressure hydraulic systems	Groundwater contamination	H	H	M	M	H	2	No	Low					1	All fuel, oil and chemicals will be stored and handled in accordance with relevant standards including AS 1940 and EPA guideline 080/07 Bunding and Spill Management. Hazardous materials will be transported and disposed in accordance with appropriate standards and legislative requirements, including the Australian Dangerous Goods Code. Appropriate spill response equipment and MSDS will be available on site for all fuels and chemicals used on site.	Low
6.4		Insufficient plugging between aquifers	Uncontrolled release of water/hydrocarbon to surface; Crossflow between aquifers	H	M	M	H	H	2	No	Low					1	Isolation barriers will be set in place to ensure that crossflow, contamination or pressure reduction does not occur. There will be no provision for cross-flow behind casing between aquifers, and between aquifers and hydrocarbon reservoirs unless approved by DWLBC.	Low
5.3.5, 6.4		Blowout or kick during drilling; Equipment or tubular failure; Down hole problems; Casing or cement failure	Crossflow; Aquifer contamination; Reduction in aquifer pressure	H	M	M	H	H	2	No	Low					1	The chance of a blowout in completion activities is considerably less because the well is cased. Casing design carried out to meet worst case expected loads and environmental conditions determined for the specific geology intercepted by the well. Details of work to be performed are set out in the Drilling Program. Casing set in accordance with design parameters and cemented in accordance with the Drilling Program.	Low
3.5.1		Aquifer use for water supply during drilling	Depletion of local shallow and deep aquifers	H	M	M	H	H	2	No	Low	Short	Confined			3	The amount of water required for drilling operations depends principally upon the depth of the well that is being drilled. Water use for drilling of a 3000 m deep petroleum well would typically range from 290 to 385 KL depending on casing diameter. Water for drilling operations may be sourced from existing artesian and sub-artesian bores. Alternatively, it may be obtained from a new bore drilled under the <i>Natural Resources Management Act 2004</i> . Supply bores for a drill site will be chosen on the basis of minimising impacts on other users of the bores.	Low
5.3.5		Loss of radioactive source down hole	Groundwater contamination	H	M	M	H	H	2	No	Low					1	Wells are open hole logged after drilling, the neutron and density-gamma ray logging tools emit radiation into the formation and a receiver picks up the signal which is interpreted to relate what the characteristics of the formation are. If the tool is lost down hole, it is retrieved immediately in most cases. However, if it is not possible to retrieve the tool it is cemented in the hole to isolate it from adjacent formations.	Low
Table 1&2, 6.1, 6.3, 6.6		Earthmoving activities during preparation of access tracks, campsites, borrow pits and well lease	Disturbance of natural drainage lines	H	H	M	H	H	2	No	Low					1	Well sites will be located and orientated so as to take into account natural drainage patterns and vegetation, and to avoid significant cut and fill. Proposed sites will be inspected to make an assessment of potential issues and to determine the best location and orientation of the well site, access tracks, campsite and any borrow pits. Access roads, borrow pits, well leases and campsites are to be restored and rehabilitated to attain the highest achievable Goal Attainment Scaling (GAS) rating, as defined in the SEO.	Low
6.3		Disposal of drilling fluids, cuttings and frac gels into unlined sumps	Surface water contamination	H	H	M	H	H	2	No	Low					1	Sumps will be of sufficient size to contain mud discharges and shall be located so as not to impede or pollute surface drainage. Sumps will also be of sufficient depth to have adequate freeboard at the completion of operations.	Low
5.3.7, 6.5		Spills and leaks associated with drilling operations, storage or transport of oil, fuels and chemicals, storage of drilling and completion fluids, refuelling operations and use of high pressure hydraulic systems	Surface water contamination	H	H	H	H	H	1	No	Low					1	All fuel, oil and chemicals will be stored and handled in accordance with relevant standards including AS 1940 and EPA guideline 050/07 Bunding and Spill Management. Hazardous materials will be transported and disposed in accordance with appropriate standards and legislative requirements, including the Australian Dangerous Goods Code. Appropriate spill response equipment and MSDS will be available on site for all fuels and chemicals used on site.	Low
Table 1&2, 5.3.4, 6.2, 6.3		Vegetation clearance for well site, camp, access tracks and borrow pits	Siltation and destabilisation of natural drainage lines	H	M	M	H	H	2	No	Low	Short	Confined			3	Vegetation clearance can result in siltation of natural drainage lines and watercourses, destabilisation of creek crossing or watercourses. Clearance of vegetation will be restricted to the minimum necessary and the removal of more significant vegetation (e.g. large trees) will be avoided wherever possible. Well sites will be located and orientated so as to take into account natural drainage patterns.	Low
Table 1&2, 6.2		Construction of access tracks across watercourses	Impede natural water flows	H	M	H	H	H	2	No	Low					1	Any watercourse crossing will be constructed so as to maintain water flows (e.g. culverts may be installed).	Low

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5.3.6		Disposal of domestic and chemical waste; Sewage treatment	Surface water contamination	H	H	H	H	H	1	Yes						1	Domestic wastes (e.g., food waste, paper, plastics, cans and glass) will be stored on site in secure bins or skips. Recyclable materials will be transported to a licensed waste disposal facility. Markers and litter will not be left in the work area after completion. Camp wastewater will be disposed of in accordance with the <i>Public and Environmental Health (Waste Control) Regulations 1995</i> . The wastewater disposal system will either comply with the <i>Standard for the Construction, Installation and Operation of Septic Tank Systems</i> in SA or be operated to the satisfaction of the Health Department.	Low
5.3.4, 6.4		Blowout or kick during drilling; Equipment or tubular failure; Down hole problems; Casing or cement failure	Surface water contamination	H	M	M	H	H	2	No	Low					1	The primary hazard associated with down hole activities is a blowout, which would result in loss of containment of oil, gas, condensate, produced water and drilling fluids. Blowouts are not common. There are considerable safety measures to avoid drilling blowout including guidelines, procedures, safety practices, design considerations, well control equipment and certification of trained individuals in drilling.	Low
4.4, 6.4		Spills and leaks released during high rainfall event.	Surface water contamination	H	H	M	H	H	2	No	Low					1	The Officer Basin occurs in an area of low rainfall and high evaporation. Surface water (ephemeral and permanent) is virtually non-existent. Well heads shall be shut in and chemicals removed prior to flood events.	Low
<b>Vegetation Impacts</b>																		
Table 1&2, 5.3.4, 6.2, 6.3		Vegetation clearance for well site, camp, access tracks and borrow pits	Loss of vegetation and habitat	H	M	M	H	H	2	No	Med	Short	Confined			3	During the preparation of well sites and access tracks, particular care will be taken to minimise the clearance of vegetation in heavily wooded areas. Campsites will be located as far as possible in naturally sparse or clear areas in which campsite establishment does not require significant disturbance to vegetation. Clearance of vegetation will be restricted to the minimum necessary and the removal of more significant vegetation (e.g. large trees) will be avoided wherever possible. Borrow pits will preferably be located in areas which are naturally devoid of vegetation, especially the removal of trees and larger shrubs, which will be avoided wherever possible or minimised.	Low
6.2, 6.3, 6.4		Vehicle movement during construction, drilling and monitoring activities	Introduction and spread of weeds	H	M	M	H	H	2	No	Low					1	Earthmoving equipment that is not free of potential weed sources (e.g. soil or plant material) will be cleaned before starting work at the site. Vehicles and equipment involved in drilling operations will be inspected and assessed for the risk of spreading weed material and, if required, cleaned prior to entering the licence area. Vehicles or equipment will be washed down if they pose a significant risk of weed introduction or spread (e.g. they have been in contact with soil in a known area of weed infestation). Any weed outbreaks at the well site or access will be controlled, in consultation with appropriate personnel (e.g. landholder, NRM Board officers).	Low
5.3.7, 6.5		Spills and leaks associated with drilling operations and handling and storage of hazardous substances including oil, fuel, chemicals, drilling fluids and production water	Loss of vegetation and habitat	H	H	H	H	H	1	No	Low					1	Spills or leaks can result in the contamination of soil or water, which in turn may lead to impacts on vegetation. All fuel, oil and chemicals will be stored and handled in accordance with relevant standards, including AS 1940 and EPA guideline 080/07 Bunding and Spill Management. Hazardous materials will be transported and disposed of in accordance with appropriate standards and legislative requirements, including the Australian Dangerous Goods Code and EPA guidelines and licensing requirements. Appropriate spill response equipment will be available on site.	Low
5.3.5, 6.3, 6.4		Explosion or fire during drilling	Loss of vegetation and habitat	H	M	M	H	H	2	No	Low					1	The primary hazard associated with down hole activities is a blowout, which could possibly cause an explosion or fire. There are considerable safety measures to avoid drilling blowouts including guidelines, procedures, safety practices, design considerations, well control equipment and certification of trained individuals in drilling. Impermeable flare pit, flare tanks, separators, supervision and the use of accepted industry standards/ good practice are all in place during well blowdown and initial production testing. Where they are required, flare pits will have suitable fire break around the perimeter.	Low
<b>Fauna Impacts</b>																		
5.3.7		Spills and leaks associated with drilling operations and handling and storage of hazardous substances including oil, fuel, chemicals, drilling fluids and production water	Disturbance to fauna	H	H	H	H	H	1	No	Low					1	Spills or leaks can result in the contamination of soil or water, which in turn may lead to impacts on fauna. All fuel, oil and chemicals will be stored and handled in accordance with relevant standards, including AS 1940 and EPA guideline 080/07 Bunding and Spill Management. Hazardous materials will be transported and disposed of in accordance with appropriate standards and legislative requirements, including the Australian Dangerous Goods Code and EPA guidelines and licensing requirements. Appropriate spill response equipment will be available on site.	Low
Table 1&2, 5.3.4, 6.2, 6.3		Vegetation clearance for well site, camp, access tracks and borrow pits	Loss of fauna habitat	H	M	M	H	H	2	No	Med	Short	Confined			3	During the preparation of well sites and access tracks, particular care will be taken to minimise the clearance of vegetation in heavily wooded areas. Campsites will be located as far as possible in naturally sparse or clear areas in which campsite establishment does not require significant disturbance to vegetation. Clearance of vegetation will be restricted to the minimum necessary and the removal of more significant vegetation (e.g. large trees) will be avoided wherever possible.	Low

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5.3.5, 6.3, 6.4		Explosion or fire during drilling	Loss of fauna habitat	H	M	M	H	H	2	No	Low					1	The primary hazard associated with down hole activities is a blowout, which could possibly cause an explosion or fire. There are considerable safety measures to avoid drilling blowouts including guidelines, procedures, safety practices, design considerations, well control equipment and certification of trained individuals in drilling. Impermeable flare pit, flare tanks, separators, supervision and the use of accepted industry standards/ good practice are all in place during well blowdown and initial production testing. Where they are required, flare pits will have suitable fire break around the perimeter.	Low
5.3.2, 3.4.1		Construction/ operation of water storage areas such as borrow pits, mud sumps, turkey nests and camp facilities	Attraction and disturbance to wildlife and increased abundance of feral animals	M	H	M	M	H	2	No	Low					1	Borrow pits in some locations also provide an alternative water source which may result in the redistribution or increase in abundance of feral animals such as camels. Fencing the drilling mud sump immediately following the completion of drilling to prevent or discourage feral animal and wildlife access. Pumping any additional water from turkey's nest into the mud sump and removing the turkey's nest liner.	Low
3.5.2		Food waste associated with camp facilities	Attraction and disturbance to wildlife	H	H	H	H	H	1	Yes						1	The presence of waste attracts wildlife, for example crows, black kites and dingoes. Litter may also be scattered by the wind and scavenging wildlife. Storage methods will take these issues into account to avoid litter scattering and impacts on wildlife.	Low
5.3.3		Vehicle movement during construction, drilling and monitoring activities	Collision with or disturbance to wildlife	M	H	M	H	H	2	No	Low					1	The Eyre Highway carries a relatively high level of heavy vehicle traffic. The additional traffic on major roads due to petroleum exploration is not likely to be significant. Use of minor roads and tracks requires careful management (e.g. appropriate speed limits).	Low
<b>Sensitive Area Impacts</b>																		
Table 1&2, 5.3.1, 6.1		Damage to salt lakes	Ecological damage and disturbance	H	H	H	H	H	1	Yes						1	Well sites will not be constructed on sensitive areas such as salt lakes. Salt lakes are avoided under almost all circumstances as they are very difficult to rehabilitate once disturbed and are therefore likely to be scarred by any activity on their surface.	Low
<b>Air Impacts</b>																		
3.2.1		Gas flaring during initial production testing	Atmospheric pollution	H	H	H	H	H	1	No	Low					1	Initial production testing is short term, typically less than 10 days. Gas is typically flared during initial production testing of gas wells.	Low
5.3.7, 6.7		Explosion or fire during drilling	Atmospheric pollution	H	M	M	H	H	2	No	Low					1	Spills or leaks may occur as a result of the failure of equipment or human error. Unplanned emissions of hydrocarbons, hydrogen sulfide, over-pressured fluids, from the well, including blowout, can cause significant environmental damage by fire. Appropriate management measures can and will be implemented during planning and conduct of operations to ensure that these hazards do not result in significant environmental risks. All operational equipment will be inspected and maintained in accordance with industry accepted standards and product operational requirements.	Low
<b>Social Environment</b>																		
<b>Community Resource Impacts</b>																		
5.3.8		Vehicle movement during construction, drilling and monitoring activities	Damage to community infrastructure	H	H	M	H	H	2	No	Low					1	Close liaison will be carried out with Maralinga Tjarutja during the planning and conduct of drilling operations, to ensure that disturbance is minimised. Appropriate access routes to drill sites will be chosen in consultation with Maralinga Tjarutja and any deterioration of roads and tracks as a result of drilling related traffic is rectified.	Low
Table 1&2, 6.6		Construction relating to access tracks, well lease, campsites and borrow pits	Visual Impact	M	M	H	H	H	2	No	Low					1	To minimise the environmental impact of the reinstatement of well sites, access tracks, camps and borrow pits are to be restored and rehabilitated to attain the highest achievable Goal Attainment Scaling (GAS) rating, as defined in the SEO.	Low
3.5.1		Water supply for domestic use and drilling activities	Reduction of fresh water to local community	M	H	M	M	H	2	Yes						1	Water will be required for both domestic and industrial purposes for drilling and well operations. The quality of the water required is dependent upon the intended use. Potable water will be required to supply kitchen and ablutions facilities on the drill site and at the camp. The source of the potable water will depend on the well location, but may be sourced from the water supply of a nearby town or settlement and transported to site in a bulk water tanker. The amount of water required for drilling operations depends principally upon the depth of the well that is being drilled. Water use for drilling of a 3000 m deep petroleum well would typically range from 290 to 385 KL depending on casing diameter. Water for drilling operations may be sourced from existing artesian and sub-artesian bores. Alternatively, it may be obtained from a new bore drilled under the <i>Natural Resources Management Act 2004</i> . Supply bores for a drill site will be chosen on the basis of minimising impacts on other users of the bores.	Low
<b>Cultural &amp; Heritage Impacts</b>																		
4.5.1, 6.4		Vehicle movement during construction, drilling and monitoring activities	Impact and/or damage to cultural/heritage sites	M	H	M	H	H	2	No	Low					1	The Maralinga Tjarutja Lands are rich in sites of both archaeological and spiritual significance. All vehicles will be required to remain on designated roads and access track or parking areas. All personnel working in the area must be made aware of the requirements of the Aboriginal Heritage Act 1988 as well as the obligations required of OBEPL and its contractors under the land access and production agreement for petroleum exploration and production between OBEPL and Maralinga Tjarutja	Low

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3.1, 4.5.1, 6.1		Earthmoving activities during preparation of drill pad, mud sump, flare pit, water sump, access tracks, camp sites and borrow pits	Impact and/or damage to cultural/heritage sites	M	H	M	H	H	2	No	Low					1	The Maralinga Tjarutja Lands are rich in sites of both archaeological and spiritual significance. All personnel working in the area must be made aware of the requirements of the Aboriginal Heritage Act 1988 as well as the obligations required of OBEPL and its contractors under the land access and production agreement for petroleum exploration and production between OBEPL and Maralinga Tjarutja. This agreement contains specific requirements for the protection of cultural heritage, including the undertaking of heritage clearance surveys by Maralinga Tjarutja before any ground disturbing activity occurs. It is planned that road construction (and well lease preparation) would be carried out by Maralinga Tjarutja.	Low
<b>Community Health &amp; Safety</b>																		
5.3.3		Vehicle movement during construction, drilling and monitoring activities	Vehicle accidents, disturbance to local road users	M	H	M	H	H	2	No	Low					1	The Eyre Highway carries a relatively high level of heavy vehicle traffic. The additional traffic on major roads due to petroleum exploration is not likely to be significant. Use of minor roads and tracks requires careful management (e.g. planning of routes and observance of appropriate speed limits, use of signage where appropriate) in order to minimise the risk and potential disturbance to other road users and landowners.	Low
5.3.6		Disposal of domestic and chemical waste; Sewage treatment	Risk to human health	H	H	H	H	H	1	Yes						1	Domestic wastes (e.g., food waste, paper, plastics, cans and glass will be stored on site in secure bins or skips. Recyclable materials will be transported to a licensed waste disposal facility. Markers and litter will not be left in the work area after completion. Camp wastewater will be disposed of in accordance with the <i>Public and Environmental Health (Waste Control) Regulations 1995</i> . The wastewater disposal system will either comply with the <i>Standard for the Construction, Installation and Operation of Septic Tank Systems</i> in SA or be operated to the satisfaction of the Health Department.	Low
5.3.3, 6.4		Dust generation from heavy vehicle movement to and from well site (e.g. trucks, bulldozers, drill rigs and supply trucks).	Disturbance to local road users	M	M	H	H	H	2	No	Low					1	The movement of heavy vehicles (e.g. trucks, bulldozers, drill rigs, supply trucks) to and from a well site can lead to generation of dust. Vehicles, especially trucks, also have the potential to cause a hazard to other road users. Rig moves for an oil and gas drilling rig typically involve 30-40 trailer loads for the rig and camp plus additional loads for supply and equipment. These moves are infrequent (approximately once per month) and are usually staged over several days. Vehicles will travel at slow speed in the vicinity of residents and settlements. Where appropriate, temporary signage will be erected on access tracks at the intersections with public roads.	Low
<b>Existing Land Use Impacts</b>																		
Table 1&2, 5.3.8		Operational and construction activities relating to exploration drilling	Disturbance to Traditional owners land use activities	H	H	M	H	H	2	Yes						1	Close liaison will be carried out with Maralinga Tjarutja during the planning and conduct of drilling operations, to ensure that disturbance is minimised. Appropriate access routes to drill sites will be chosen in consultation with Maralinga Tjarutja and any deterioration of roads and tracks as a result of drilling related traffic is rectified.	Low
4.6.4		Operational and construction activities relating to exploration drilling	Disturbance to Woomera Prohibited Area activities	H	M	M	M	L	4	Yes						1	The eastern portion of PEL 81 lies within the Woomera Prohibited Area. There is limited defence activity across most of this area, but entry to the Prohibited Area (except on main road corridors) requires permission from the Commonwealth Department of Defence, in accordance with Regulation 35 of the <i>Defence Force Regulations 1952</i> .	Low