



Origin Energy Resources Limited

Environmental Compliance Report Freshwater Point 1

September 2008



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1. Introduction

1.1 Project Overview

Origin Energy is the titleholder and operator of Exploration Permit EP413, situated within the Mid West Region of Western Australia (WA).

In accordance with the Department of Environment and Conservation (DEC) Approval (Ministerial Statement No. 763) and Department of Industry and Resources (DoIR) Approval (No. E0028/200801), Origin Energy commenced drilling of exploration well Freshwater Point 1 located approximately 40km south of Dongara within Beekeepers Nature Reserve.

Freshwater Point 1 (the Project) was unsuccessful in finding commercially viable petroleum hydrocarbons within the targeted formation and as such was plugged and abandoned. The drilling activities including site reinstatement and rehabilitation works were completed on 6 July 2008.

1.2 Purpose of this Report

Condition 5-1 and 5-2 of the Ministerial Statement requires Origin Energy to submit an environmental compliance report (ECR) within 3 months after completion of drilling. This ECR addresses each element the Freshwater Point 1 Audit Program (OEUP-W4000-PLN-ENV-001). The Audit Program was submitted to the DEC on the 16 May 2008.

This ECR specifically relates to the drilling and rehabilitation phase of the Project and has been generated to document the Project's compliance with:

- The DEC's approval conditions as provided in Ministerial Statement No. 763; and
- Demonstrate compliance with Origin Energy's environmental commitments detailed in the Environment Protection Statement (version 6) and associated Environmental Management Plans.

1.3 Structure of this Report

This ECR has been generated from scheduled internal and external audits undertaken in accordance with the Audit Program and approved Audit Table (OEUP-W4000-PLN-ENV-001) and is structured as follows:

- Section 2 Summary of Compliance with Ministerial Statement;
- Section 3 Summary of Compliance with Environment Protection Statement;
- Section 4 Non Compliance and Corrective Actions;
- Section 5 Conclusions.

2. Summary of Compliance with the Ministerial Statement

2.1 Overview

All conditions of the Ministerial Statement have been complied with during the drilling phase of the project. There are compliance requirements that continue throughout the rehabilitation phase and this will be reported in subsequent annual environmental compliance reports.

Details regarding non-compliances have been provided in Section 4.

A summary of compliance is presented in the approved Audit Table (Section 2) and EPS Audit Table (Section 3). Completion of these tables was based on evidence primarily collated and viewed during completion of the Construction, Drilling, Post Drilling and Completion Audits.

2.2 Environmental Supervision

In accordance with Condition 7.1 of the Ministerial Statement, Origin Energy ensured all phases of the Project were supervised by environmental personnel with relevant experience and qualifications.

A Senior Environmental Advisor was in at key stages of the Project (e.g. Project Start-up meeting with the civil contractor, Project Icebreaker Meeting held with all drilling and key Origin staff for this phase; handover from the drilling contractor to the reinstatement/rehabilitation contractor).

An Environmental Advisor was in attendance at the Project site during site preparation, drilling works and commencement of reinstatement/rehabilitation. This role was on a roster system, Origin Environmental Advisors and the on-site Health Safety and Environment (HSE) Advisor as appropriate to ensure continual coverage.

During the final stages of rehabilitation, the WA Operations Field Superintendent who is responsible for ensuring WA operations meet day to day HSE requirements undertook the role of Environmental Advisor.

The staff used to fulfil the role of Environmental Advisor were chosen as they were considered to have the necessary experience and qualification relevant to the specific activities being undertaken at the time.

Further, GW & AB Jackson Weed Hygiene Inspection Services was contracted to provide full time weed, hygiene and inspection services for the duration of the Project.

2.3 Audit Results

Audit Table

Project: Freshwater Point 1 Drilling Project within Petroleum exploration lease EP413

Ministerial Statement: 763

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:M1.1	Proposal Implementation	Implement the proposal as documented and described in schedule 1 subject to the conditions and procedures of the Ministerial Statement.		<ul style="list-style-type: none"> To implement the proposal as required Statement 763. 	Key project characteristics provided in Table 1 of Schedule 1 of the Ministerial Statement.	<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 1 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Overall	Throughout all phases of project.	Satisfactory.
763:M2.1	Environmental Management Commitment	Fulfil the environmental management commitment contained in schedule 2 of the Ministerial Statement.	<ul style="list-style-type: none"> Both existing reserve borrow pits shall be re-contoured, re-spread with topsoil and seeded with native species from the appropriate community. Rehabilitation shall be monitored for three years or until completion criteria are achieved. 	<ul style="list-style-type: none"> To provide a cover of indigenous plant species consistent with the vegetation immediately adjacent to the clearing. To provide a stable soil surface. To provide habitat for fauna and flora species. 	Rehabilitation Plan	<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 3 of ECR (Sep 08). 	<ul style="list-style-type: none"> Min for Env 		Post operation	Within 3 months following decommissioning.	In progress.
763:M3.1	Proponent Nomination and Contact Details	Origin Energy Resources Ltd for the time being nominated by the Minister for the Environment under sections 38(6) or 38(7) of the <i>Environmental Protection Act 1986</i> is responsible for the implementation of the proposal.	<ul style="list-style-type: none"> Implement appropriate company structure. 	<ul style="list-style-type: none"> To identify a responsible party for the implementation of the project. 		<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 1 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Overall		Complete.
763:M 3.2	Proponent Nomination and Contact Details	Notify the DEC of any change of the proponent name and address.		<ul style="list-style-type: none"> To allow for the serving of notices or other correspondence. 		<ul style="list-style-type: none"> Letter to DEC 	<ul style="list-style-type: none"> DEC 		Overall	Letter sent within 30 days of change of name and address.	Not required at this stage.
763:M4.1	Time Limit of Authorisation	Substantially commence proposal within five years after the date of the Ministerial Statement.	<ul style="list-style-type: none"> Commence work prior to March 2013. 	<ul style="list-style-type: none"> To provide a time limit on validity of authorisation. 		<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 1 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Overall	Substantially commence proposal by 10 March 2013.	Complete.
763:M 4.2	Time Limit of Authorisations	Provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before 10 March 2013.	<ul style="list-style-type: none"> Send letter to CEO of DEC outlining start date and project status. 	<ul style="list-style-type: none"> To demonstrate the proposal has substantially commenced prior to authorisation expiry. 		<ul style="list-style-type: none"> Letter to CEO, DEC Refer Letter dated 2-Oct-08 (ref: 8.12.01) 	<ul style="list-style-type: none"> DEC 		Overall	As soon as practicable following the commencement of the drilling program.	Complete.

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:M 5.1	Compliance Reporting	Submit to the CEO environmental compliance reports.	<p>The environmental compliance reports shall:</p> <ul style="list-style-type: none"> be endorsed by signature of the proponent's Executive Director or a person, approved in writing by the CEO, delegated to sign on behalf of the proponent's Executive Director; state whether the proponent has complied with each condition and procedure contained in the Ministerial Statement; provide verifiable evidence of compliance with each condition and procedure contained in the Ministerial Statement; state whether the proponent has complied with each key action contained in any environmental management plan or program required by the Ministerial Statement; provide verifiable evidence of conformance with each key action contained in any environmental management plan or program required by the Ministerial Statement; identify all non-compliances and non-conformances and describe the corrective and preventative actions taken in relation to each non compliance or non-conformance; and 	<ul style="list-style-type: none"> To submit to the CEO an environmental compliance report in an acceptable format and timeframe. 		<ul style="list-style-type: none"> Environmental Compliance Report <p>Environmental Compliance Report 2008, ECR (Sep08) (this report)</p>	<ul style="list-style-type: none"> DEC 		Overall	<p>Within three months after completion of drilling; and annually thereafter unless otherwise required.</p> <p>Reporting required until CEO determines that compliance responsibilities have been fulfilled.</p>	Satisfactory.

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
			<ul style="list-style-type: none"> review the effectiveness of all corrective and preventative actions taken. 								
763:M 5.2	Compliance Reporting	Prepare and submit an Audit Program in a format acceptable to the CEO.			DEC Proponent Guideline: Preparing an Audit Program	<ul style="list-style-type: none"> Audit Program Refer Document OEUP-W4000-PLN-ENV-001 (Rev 2). Submitted 22 May 2008. 	<ul style="list-style-type: none"> DEC 		Overall		Complete.
763:M 5.3	Compliance Reporting	Make the environmental compliance reports publicly available in a manner approved by the CEO.	<ul style="list-style-type: none"> Distribute free copies of the Report to the DEC library (2 copies, 1 hard copy, 1 cd copy); Local Government Authority (2 copies); JS Battye Library (2 copies); and Local public library (2 copies). Report available on Company Website. Advertise the availability of the Report in the public notices section of the local community newspaper. 	<ul style="list-style-type: none"> To make the environmental compliance reports publicly available. 		<ul style="list-style-type: none"> Copy of newspaper advertisement 	<ul style="list-style-type: none"> DEC 		Overall		In progress.
763:M 6.1	Rehabilitation Performance Bond	Lodge with the CEO prior to commencement of site preparation activities, an irrevocable Rehabilitation Performance Bond.	<ul style="list-style-type: none"> As nominated and approved by the CEO in his sole unfettered discretion to a cash value and in a form acceptable to the CEO for the amount of \$65,000. 	<ul style="list-style-type: none"> To provide security for the due and punctual observance and performance of the requirements of condition 9. 		<ul style="list-style-type: none"> CEO acceptance and acknowledgement of Rehabilitation Performance Bond Rehabilitation Bond submitted 31-Mar-08. 	<ul style="list-style-type: none"> DEC 	DoIR	Pre-operation	Prior to commencing site preparation activities.	Complete.
763:M 6.2	Rehabilitation Performance Bond	Furnish replacement or additional security for performance of obligations regarding rehabilitation under condition 9.	<ul style="list-style-type: none"> In such sum as the CEO shall nominate, in a form and upon terms and conditions approved by the CEO. 	<ul style="list-style-type: none"> To ensure adequate security held for performance of obligations regarding rehabilitation under condition 9. 		<ul style="list-style-type: none"> CEO acceptance and acknowledgement of replacement or additional Rehabilitation Bond 	<ul style="list-style-type: none"> DEC 	DoIR	Overall	Within 14 days after written request by the CEO.	Not required at this stage.
763:M 6.3	Rehabilitation Performance Bond	Refer Audit Code 763:M 6.2				<ul style="list-style-type: none"> See M6.2 	<ul style="list-style-type: none"> DEC 		Overall		In progress.



Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:M 7.1	Environmental Supervision	Ensure that all works are supervised by environmental personnel with experience and qualifications relevant to each phase of the proposal from initial site preparation to final decommissioning and relinquishment.	<p>The duties of environmental personnel shall include the following:</p> <ul style="list-style-type: none"> • supervising works to ensure best practice environmental performance; • ensuring that vegetation clearing, quarantine management and rehabilitation works are carried out to best practice standards and in accordance with approved management plans; • monitoring and preparing reports on matters of potential environmental concern; • liaising with relevant officers of the Department of Industry and Resources and the Department of Environment and Conservation; • communicating potential environmental problems to the project manager; • notifying appropriate government agencies of environmental problems; and • enhancing environmental knowledge of employees and contactors generally at the project site by means of talks, discussions, seminars, brochures, operational methods and training 	<ul style="list-style-type: none"> • To ensure all works are supervised by suitably experienced and qualified environmental personnel. 		<ul style="list-style-type: none"> • Environmental Compliance Reports <p>Refer Section 2.2 of ECR (Sep08).</p>	<ul style="list-style-type: none"> • Min for Env 		Overall		Satisfactory.

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:M 8.1	Weed and <i>Phytophthora cinnamomi</i> Management	Implement the Weed and <i>Phytophthora cinnamomi</i> Environmental Management Plan (November 2007) contained within the EPS.	<ul style="list-style-type: none"> Develop appropriate procedures. Make all employees aware of Plan, its content and applicable procedures. 	<ul style="list-style-type: none"> To ensure the proponent implements the approved Weed and <i>Phytophthora cinnamomi</i> EMP. 		<ul style="list-style-type: none"> Environmental Compliance Report <p>Refer Section 3 of ECR (Sep08).</p>	<ul style="list-style-type: none"> Min for Env 		Overall	Prior to commencement of site preparation works until requirements of condition 9-2 have been fulfilled.	Completed.
763:M 8.2	Weed and <i>Phytophthora cinnamomi</i> Management	Report to the Department of Environment and Conservation, any non-compliance with the Weed and <i>Phytophthora cinnamomi</i> Environmental Management Plan.	<p>This report shall include:</p> <ul style="list-style-type: none"> Time, date and location of incidents; and Management actions taken to mitigate/reduce the non-conformance of hygiene procedures. 	<ul style="list-style-type: none"> To report to the Department of Environment and Conservation, any non-compliance with the Weed and <i>Phytophthora</i> EMP. 		<ul style="list-style-type: none"> Environmental Compliance Report <p>Email to DEC dated 19-May-08. Refer Section 4 of ECR (Sep08).</p>	<ul style="list-style-type: none"> DEC 		Overall	From commencement of site preparation activities until requirements of condition 9-2 have been fulfilled.	Satisfactory.
763:M 8.3	Weed and <i>Phytophthora cinnamomi</i> Management	Clean all vehicles in accordance with the Weed and <i>Phytophthora cinnamomi</i> Management Plan.	<ul style="list-style-type: none"> All vehicles and footwear are to be cleaned at the hygiene station to a satisfactory standard. 	<ul style="list-style-type: none"> To prevent introduction of dieback (<i>P.cinnamomi</i>), introduction of weeds not previously recorded, and spread of existing weeds within the project area 	Weed Transfer Procedure OEUP-1000-PRO-ENV-025	<ul style="list-style-type: none"> Environmental Compliance Report 	<ul style="list-style-type: none"> Min for Env 		Overall		Satisfactory.
763:M 8.4: 1	Weed and <i>Phytophthora cinnamomi</i> Management	Revise the Weed and <i>Phytophthora cinnamomi</i> management plan to include an additional clean down point at the entrance to the borrow pit used for access construction.				<ul style="list-style-type: none"> Revised Weed and <i>Phytophthora cinnamomi</i> EMP <p>EMP revised 28-Mar-08 and provided as Appendix D1 of EPS.</p>	<ul style="list-style-type: none"> Min for Env 		Pre-operation	Prior to commencement of site preparation works.	Complete.
763:M 8.4: 2	Weed and <i>Phytophthora cinnamomi</i> Management	Use additional clean down point whenever a high rainfall event occurs during the site preparation phase of the project.	<ul style="list-style-type: none"> Incorporate action into Environmental Procedure. 			<ul style="list-style-type: none"> Environmental Compliance Report <p>Clean down point constructed and used on four occasions as a precaution during a rainfall event ,</p>	<ul style="list-style-type: none"> Min for Env 		Operation		Complete.
763:M 9.1: 1	Rehabilitation Management Plan	Implement the Rehabilitation Management Plan (November 2007) contained within the EPS.	<ul style="list-style-type: none"> Develop appropriate procedures. Make all employees aware of Plan, its content and applicable procedures. 	<ul style="list-style-type: none"> To ensure the proponent implements the approved Rehabilitation Management Plan. 		<ul style="list-style-type: none"> Environmental Compliance Report <p>Refer Section 3 of ECR (Sep08).</p>	<ul style="list-style-type: none"> Min for Env 		Overall	Until such time as the Minister for the Environment determines, on advice of the CEO, that the rehabilitation responsibilities have been fulfilled.	Satisfactory.

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:M 9.1:2	Rehabilitation Management Plan	Revise Rehabilitation Management Plan to include provision for update and review.	<ul style="list-style-type: none"> Incorporate appropriate section into the Plan. 	<ul style="list-style-type: none"> To provide a means for update and review of the Rehabilitation Management Plan. 		<ul style="list-style-type: none"> Rehabilitation Management Plan that includes provision for update and review. <p>The Rehabilitation Plan allows for the review and update in the form of an Annual Progress Report. The Progress Report will (amongst other items) document any recommendations made with respect to areas not meeting completion criteria. The Annual Progress Report will track progress and actions undertaken with respect to the recommendations. Therefore, the Annual Progress Report also acts as a record of review and update of the Rehabilitation Plan and as such no amendment to the Rehabilitation Plan is required at this stage.</p>	<ul style="list-style-type: none"> Min for Env 		Pre-operation	Prior to commencement of site preparation works.	Not required at this stage.
763:M9.1:3	Rehabilitation Management Plan	Update and review rehabilitation management plan as required.				<ul style="list-style-type: none"> Reviewed and updated rehabilitation management plan (if required) 	<ul style="list-style-type: none"> Min for Env 		Overall	If required.	Not required at this stage.
763:M 9.2	Rehabilitation Management Plan	Implement the rehabilitation management plan.				<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 3 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Overall	Until such time as the Minister for the Environment determines on advice of the CEO that the proponent's rehabilitation responsibilities have been fulfilled.	In progress.
763:P1.1	Existing Reserve Borrow Pits	Recontour, respread with topsoil and seed with native species from the appropriate community.		<ul style="list-style-type: none"> To provide a cover of indigenous plant species consistent with the vegetation immediately adjacent to the clearing and that provides for stabilisation of the soil surface and provision of habitat for fauna and flora species. 		<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 3 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Post operation	Prior to 30 April 2008 or within 3 months following decommissioning.	In progress.

Audit Code	Subject	Action	How	Objective	Criteria	Evidence	Requirements of	On Advice from	Phase	When / Where	Status ¹
763:P1.2	Existing Reserve Borrow Pits	Monitor rehabilitation for three years or until completion criteria are achieved.				<ul style="list-style-type: none"> Environmental Compliance Report Refer Section 3 of ECR (Sep08). 	<ul style="list-style-type: none"> Min for Env 		Post operation		In progress.

Notes:

1. The following terms are to be used to complete the "Status" column:

- Satisfactory: Action has been satisfactorily implemented during the Audit period
- In process: Action was in the process of being implemented during the audited period but does not yet fully satisfy the requirements of the Ministerial Statement
- Not required at this stage: Action was not required to be implemented during the Audit period.
- No longer relevant: Action was not completed during the audited period as the action is no longer relevant to the project.
- Completed: Action satisfactorily completed during the audited period.
- Cleared: Action is no longer required to be undertaken as approved in writing by the DEC.



3. Summary of Compliance with the Environment Protection Statement

3.1 Environment Protection Statement Commitments

No.	Commitment	Status of Compliance (Evidence)	Further Actions
Native vegetation			
1	The camp site will not require additional vegetation clearing.	Complied. Existing Pye Road Campsite was utilised instead of establishing new campsite south of Project. (DEC Approval Letter dated 29 April 2008)	Complete.
2	Clearing of mature trees along the access track will be avoided wherever possible. At the extents of the clearing areas, overhanging branches will be trimmed rather than removing whole trees or shrubs. Branch trimming will be undertaken only as necessary using chainsaws or handsaws and not excavators.	Complied. (Construction Audit Report 27-Apr-08)	Complete.
3	Rehabilitation of disturbed areas required for the drilling activities will be conducted in accordance with Appendix D3.	Complied. Drilling pad, access roads and borrow pits rehabilitated. (Completion Audit Report 2-Sep-08).	Action 3.1: Establish and undertake rehabilitation monitoring in spring 2009. Action 3.2: Undertake rehabilitation monitoring annually (or as otherwise recommended) until 2011 or until completion criteria met.
4	As an environmental offset, the Reserve Borrow Pit as shown in Figure 3.3 will be rehabilitated in accordance with Appendix D3.	Complied. (Completion Audit Report 2-Sep-08). NOTE: During site preparation activities, buried rubbish was uncovered within the Reserve Borrow Pit. Lenane Holdings Pty Ltd (site preparation contractor) agreed with the DEC during a site visit on the 16-Apr-08 that the uncovered rubbish could remain in situ. Origin received written confirmation from the 29-May-08 that the approach verbally agreed on site with Lenane Holdings.	Refer Actions for EPS Commitment 3.
5	All personnel will be inducted on the significance of the flora and fauna of the project area and the management measures put in place to ensure their protection.	Four incidents recorded where personnel accessed site without prior Environmental Induction. (Incident Report 2076, 2077, 2078 & 2079; Environmental Induction Item 10 & 13; Site Environmental Manual pages 11-13, 21-23; and Environmental Induction Register)	Complete.
6	Existing tracks will be used for access far as practicable to minimise clearing areas.	Complied. (Site Environmental Manual page 3 & 4)	Complete.
Fauna			
7	Waste materials will be stored in sealed receptacles to prevent fauna ingress.	Complied. (Daily Environmental Checklists – Construction & Drilling)	Complete.
8	Inductions will stress potential project impacts on native fauna how these will be managed.	Complied. (Environmental Induction Item 13; Site Environmental Manual pages 21-23)	Complete.
9	Site preparation activities will predominately be conducted during daylight hours only to avoid impacts to nocturnal species, also avoiding fauna movements at dawn and dusk.	Complied. (Daily Environmental Checklists - Construction)	Complete.
10	Fauna injuries or fatalities will be reported through the internal incident reporting system. All practicable measures to rehabilitate any injured animal found within the operations boundaries will be implemented.	No fauna injuries or fatalities occurred during Project. (Drilling Phase Audit Report 27-May-08) NOTE: Daily Environmental Checklist (2-Apr-08) noted that a lizard was found on the access track prior to commencement of works. Lizard had dropped its tail and was removed off access track into safe area.	Complete.
11	Rehabilitation of disturbed areas required for the drilling activities will be conducted in accordance with Appendix D3.	Complied. (Completion Audit Report 2-Sep-08)	Refer Actions for EPS Commitment 3.
Weed and <i>P.cinnamomi</i> Hygiene			
12	Weed control procedures will be established, preventing introducing or spreading weeds and pathogen in the project area.	Complied. (Site Environmental Manual page 18)	Complete.
13	The Reserve Borrow Pit will be sprayed for weeds in consultation with the DEC prior to undertaking any excavation of materials.	Complied. Weeds sprayed on 19 th March 2008 (Port Denison Lawn and Garden Care Letter; and Drilling Audit Report 27-May-08)	Complete.

No.	Commitment	Status of Compliance (Evidence)	Further Actions
14	Where weeds have been introduced or exacerbated due to the drilling activities undertaken, follow up weed control will be undertaken post construction for a minimum of two years	Complied. No weed infestations noted within disturbed areas associated with the Project. (Completion Audit Report 2-Sep-08) NOTE: The Completion Audit Report 2-Sep-08, however, recorded two weed infestations within the vicinity of the Project. Given the potential for weed encroachment to the Project's disturbed areas, the Report recommended that the two locations be sprayed in September 2008, with follow-up spray and re-inspection in winter 2009.	Action 14.1: Confirm recommendation for treatment of weeds outside of Project area acceptable to DEC. Action 14.2: If acceptable to DEC source appropriate contractor to undertake spraying of identified weed spraying in Sep-08. Action 14.3: Undertake follow up weed spraying and inspection in winter 2009. Action 14.4: Undertake follow up weed inspection in spring 2010.
15	All vehicles and equipment will adhere to the Weed and <i>P. cinnamomi</i> management plan, which incorporates: Hygiene Station (camp site) Inspection Point (Nature Reserve) Completed Origin hygiene declaration.	Two incidents recorded where personnel accessed site without completed hygiene declaration. (Incident Report 2076 & 2079) Refer to Section 4 of ECR Sep08 for further details.	Complete.
16	Vehicles will remain within designated cleared areas, access roads and tracks.	Complied. (Construction Audit Report 2-Sep-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08)	Complete.
17	Daily movements of vehicles will be planned to minimise transit between weed prone and weed free areas, also minimising vehicle movements where possible. This will include parking all vehicles on a designated marl pad at the camp site. The drilling crew will remain within the marked out designated areas within the vicinity of the lease pad.	Complied. (Construction Audit Report 24-Apr-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08)	Complete.
18	Access to the project area will only be allowed from Indian Ocean Drive via hygiene station/ inspection point identified on maps.	Complied. (Site Environmental Manual Figure 3.1)	Complete.
19	Inspection and clean down activities will be recorded at each hygiene station (camp site) and inspection point (Nature Reserve) in a hygiene logbook that is kept at the corresponding point. All personnel are responsible for correct use of the hygiene stations and maintenance of hygiene logbooks.	Complied. (Hygiene Station Vehicle Log Book Camp Site Volume 1 and 2; and Inspection Point Vehicle Log Book Nature Reserve)	Complete
20	Weed and <i>P. cinnamomi</i> hygiene management will be detailed to all employees prior to commencing work on the project as part of the environmental induction program.	Complied. (Environmental Induction Item 12; Site Environmental Manual pages 14-18)	Complete.
21	Weed and <i>P. cinnamomi</i> management will be carried out according to Appendix D1.	Complied. Refer EPS Commitments 12-21. NOTE: Given larger quantity of unsuitable material found at the designated Borrow Pit, site preparation material was required to be sourced from another existing borrow pit. Given this was beyond Origin's control this was not reported as an incident or non-conformance. The DEC was notified during site visit 16-April-08 of requirement to source Marl outside of main Borrow Pit (File note 8.12.01). No concerns / issues were raised by the DEC.	Refer to Actions for EPS Commitment 14.
Pollution Prevention			
22	All wastes will be adequately managed, handled, stored and disposed, including: Segregation of recyclable material. Putrescible wastes will be contained and regularly disposed to a licensed facility. Domestic sewage (black and grey water) will be temporarily stored in a sealed septic tank installed at the camp and drill site, operated as per the Contractor management procedures. The tanks and portaloos will be regularly emptied, as necessary, by a licensed liquid waste contractor.	Complied. (Daily Environmental Checklists – Construction & Drilling; Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08; Waste Log)	Complete.
23	Spill prevention and response procedures (prepared by the drilling contractor) will be adhered to. Refueling will be restricted to a small number of locations and will not occur within 50 m of a watercourse. In the event of a spill occurring, the spill response procedures will outline: Refueling locations. Spill response equipment and locations. Maintenance program of equipment. Spill response measures.	Complied. (Ensign Environmental Policy; Permit to work, Fuel transfer procedure)	Complete.

No.	Commitment	Status of Compliance (Evidence)	Further Actions
	Spill reporting procedures. Spill response training.		
24	The camp site, drill site and access track will be maintained free of litter.	Complied. (Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08)	Complete.
25	Refueling will be restricted to a small number of locations and will not occur within 50m of a watercourse. Non-return valves will be used.	Complied. (Drilling Audit Report 27-May-08 and Daily Environmental Checklists – Drilling) NOTE: Plant and equipment were re-fuelled using a trigger operated nozzle (i.e. an automatic shut off valve), in combination with a spill tray to capture any small drips.	Complete.
26	Equipment maintenance where necessary will only be undertaken at a designated area on the lease pad. Procedures for equipment maintenance will ensure the risks of spills are minimised. Spillages will be addressed using the Perth Basin specific spill response plan, prepared by the drilling Contractor.	Refer to EPS Commitment 23.	Complete.
27	Drill cuttings, consisting of broken rock and soil matter, will be stored in a designated compacted drilling sump. Following the completion of the drilling activities, the dried cuttings will be tested for hydrocarbons and heavy metals to confirm they do not pose an unacceptable risk to the environment left in situ.	Complied. (Drilling Audit Report 27-May-08; ALS Laboratory Group Certificate of Analysis 20-Jun-08; Waste Certificates) NOTE: A sample of the drilling mud was analysed by ALS Laboratory. Due to the drilling mud's elevated hydrocarbon content, it was not buried on site as per the EMP. Instead, the water from the drilling sump was pumped out and taken to Beharra Springs Evaporation Pond. The remaining mud was then transported off site and disposed of at the City of Geraldton-Greenough Council's Meru Landfill.	Complete.
28	Domestic wastes (food scraps, light paper, cardboard, putrescible and plastic waste), including waste produced by the workforce operating in the field, will be regularly collected according to contractor management procedures and disposed at a licensed facility. Wastes will be separated where possible for material recovery.	Complied. (Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08)	Complete.
29	Domestic sewage and grey water will be temporary stored in a buried septic tank system and operated as per the Contractor management procedures. The tank and portaloos will be pumped out as required and the waste transported to an appropriate waste management facility for disposal.	Complied. (Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08; Waste Log)	Complete.
30	Industrial wastes (wood, scrap steel and other metals, scrap tyres, rubber and synthetic materials, and other inert, mixed industrial wastes) will be collected according to Contractor management procedures and will be segregated for recycling where possible. A licensed Contractor will collect all wastes.	Complied. (Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08 and Post Drilling Audit Report 1-Jun-08)	Complete.
31	Hazardous materials will be clearly labelled and will be handled and stored in accordance with MSDS. Where necessary hazardous materials will be stored and banded as per the requirements of Australian Standard AS 1940 – 2004. Hazardous wastes will be collected and disposed of by a licensed contractor.	Complied. (Construction Audit Report 27-Apr-08; and Drilling Audit Report 27-May-08)	Complete.
32	Spill kits, bio-remedial products, drip trays and shovels will be readily available in the event of a hydrocarbon or chemical spillage. Workers will be trained in the use of the equipment. Where spillages are greater than 500 L or cover an area greater than 100 m ² they will be reported to the Regulatory Authority.	Complied. (Construction Audit Report 27-Apr-08, Drilling Audit Report 27-May-08; Ensign Training Register) Complied. No reportable spills occurred.	Complete.
33	A waste log will be kept detailing waste types, volumes and disposal methods. A hazardous materials registry will be maintained and MSDS will be available for all hazardous materials. A spill register will be maintained on site, which will record any spills including the date, nature of the spill, estimated volume and resolution action undertaken.	Waste Log kept via appropriate entries into the IDS online well reporting system . Hazardous Materials Registry (Drilling Audit Report 27-May-08) No spill register maintained. Spills recorded via the Origin Incident Management System (Incident Report 07/11752)	Complete.
Soil Conservation			
34	The drilling will be carried out during the dry period when the potential for soil compaction is at its lowest. Post-drilling inspections will determine if any soil compaction has occurred and recommend specific measures to address this and initiate active rehabilitation.	The Project was undertaken during the shoulder wet season (i.e. April & May 2008). To minimise potential impact of working within the shoulder wet season, Origin adopted a stop work policy during site preparation for periods of heavy rainfall. Complied. (Environmental Checklists – Post Drilling/Rehabilitation; and Completion Audit 2-Sep-08)	Complete.

No.	Commitment	Status of Compliance (Evidence)	Further Actions
35	The lease pad area, flare firebreak, access road and Reserve Borrow Pit will be cleared of vegetation and topsoil prior to undertaking construction activities. The cleared vegetation and topsoil will be stockpiled separately in the immediate vicinity of the area cleared, which will be used during rehabilitation of the areas.	Complied. (Construction Audit Report 27-Apr-08; Completion Audit Report 2-Sep-08)	Complete.
36	Vegetation will be re-established as soon as is practicable to stabilise the exposed soils in accordance with the Rehabilitation Plan (Appendix D3).	In progress. Photographic monitoring points established.	Refer to Actions for EPS Commitment 3.
Visual Amenity and Third Party Access			
37	The Reserve Borrow Pit will not be visible from public roads.	Complied.	Complete.
38	The access track to Freshwater Point 1 from Indian Ocean Drive will be via an existing access track into Beekeepers Nature Reserve.	Complied.	Complete.
39	Pending the outcome of the exploration activities, where the well is no longer required, the access track will be immediately rehabilitated.	Complied. (Completion Audit Report 2-Sep-08)	Refer to Actions for EPS Commitment 3.
40	Any apiary permit holders within the project area will be contacted regarding the proposed drilling activities to minimise interruptions. Currently no know permit holders have been identified.	Complied. No known permit holders identified.	Complete.
41	During drilling activities third party access to the wellhead will not be possible, due to the presence of the drilling drill and drilling crew.	Complied. (Drilling Audit Report 27-May-08)	Complete.
Air Quality and Noise			
42	The camp will be located at a sufficient distance from residences to minimise noise nuisance from traffic, generators or general noise.	Complied. (No noise complaints received from residences)	Complete.
43	Vehicle speeds on unsealed and work sites will be restricted.	Complied. (Drilling Audit Report 27-May-08; Post Drilling Audit Report 1-Jun-08)	Complete.
Bushfire Prevention and Control			
44	Vegetation around the flare pit will be cleared in accordance with the requirements of FESA, Shire of Irwin and the <i>Bush Fires Act 1954</i> .	Not required. As the well was unsuccessful no flaring was required as part of the Project.	Complete.
45	All personnel will attend a site induction that will include the fire prevention and management requirements of the drilling and associated activities for Freshwater Point 1.	Complied. (Site Specific HSE Induction Item 22; Environmental Induction Item 8; and Site Environmental Manual page 26)	Complete.
46	Personnel will be made aware of fire restrictions and fire weather information, including information on vehicle movement bans during daily toolbox meetings.	Complied. (Environmental Induction Item 8; Ensign Daily Pre-tour Meetings)	Complete.
47	Appropriate Drilling Contractor personnel will be trained in fire-fighting techniques and equipment/vehicle use and will man the fire fighting equipment as part of an Emergency Response Team (ERT).	Complied. (Site Specific HSE Induction Item 22; Environmental Induction Item 8; and Site Environmental Manual page 26) NOTE: No incidents relating to fire were raised during Project.	Complete.
48	No petrol vehicles will be used for the drilling and associated activities except for those activities associated with maintaining the camp.	Complied. (Drilling Audit Report 27-May-08)	Complete.
49	Personnel will inspect vehicles daily and remove vegetation build-up around the belly plates and exhaust systems of vehicles: At the hygiene station. As part of the Origin Hygiene Declaration.	Two incidents recorded where personnel accessed site without completed hygiene declaration. (Incident Report 2076 & 2079) Refer to Section 4 of ECR Sep08 for further details. Refer to Origin Weed Transfer Procedure OEUP-1000-PRO-ENV-025 for vehicle inspection and hygiene requirements.	Complete.
50	The Chief Bushfire Control Officer from the Shire of Irwin will conduct an inspection at mobilisation.	Not required. NOTE: Lenane Holdings Pty Ltd (site preparation contractor for the Project) contacted the Chief Bushfire Control Officer on 21-April-08 via telephone. The Chief Bushfire Control Officer advised that given the Project was being undertaken during low risk season, inspection was not necessary. Further, the Chief Bushfire Control Officer advised that reducing firebreak width from 150m to 20m would be suitable (confirmation via email 4-April-08).	Complete.
51	During flaring one operable fire unit of 600 L capacity to be on site at all times. This unit will be available for deploy as soon as being required.	Not required. As the well was unsuccessful, flaring was not required as part of the Project.	Complete.

No.	Commitment	Status of Compliance (Evidence)	Further Actions
52	There will be at least two trained fire unit operators in attendance while flaring at all times.	Not applicable. No flaring undertaken due to lack of gas.	Complete.
53	All fire-fighting equipment will be maintained in good working order, including full water levels, and all personnel will be trained in the use of this equipment and notified of nearby available sources of water.	Complied. (Drilling Audit Report 27-May-08)	Complete.
Rehabilitation			
54	Rehabilitation of disturbed areas will occur as soon as practicable after completion of the drilling activities. The extents of the rehabilitation program will depend on the outcome of the exploration activity.	Complied. (Completion Audit Report 2-Sep-08) NOTE: Well was deemed unsuccessful and abandoned. Therefore, the drilling pad, access roads and Reserve Borrow Pit were all subject to complete rehabilitation.	Complete. Refer to Actions for EPS Commitments 58 to 61 for ongoing rehabilitation and monitoring requirements.
55	On completion of the drilling activities, the camp site and all associated infrastructure and equipment at the drill site will be removed. All waste materials and litter will also be removed from the drill site and camp site.	Complied. (Post Drilling Audit Report 1-Jun-08)	Complete.
56	Vegetation will be re-established as soon as is practicable to stabilise the exposed soils of cleared areas in accordance with the Rehabilitation Plan (Appendix D3).	In progress. NOTE: The Completion Audit Report stated that given the time of year (i.e. winter) spreading of native seed over rehabilitated areas was inappropriate. Therefore, it was recommended that seed collected from local provenance keystone species should be spread over the project area by hand in March 2009.	Action 56.1: Spread seed collected from local provenance keystone species over the project area by hand in March 2009.
57	A post-drilling inspection will be carried out to determine if active rehabilitation is necessary including the identification of areas displaying symptoms of rutting or compaction.	Complied. (Completion Audit Report 2-Sep-08) NOTE: No evidence of compaction or symptoms of rutting noted. Refer to EPS Commitments 58 to 61 for further detail with respect to ongoing rehabilitation and monitoring requirements.	Complete.
58	Permanent monitoring plots will be established in key locations to allow for assessment of rehabilitation success against the completion criteria.	In progress. NOTE: The Completion Audit Report stated that given the time of year (i.e. winter) spreading of native seed over rehabilitated areas was inappropriate. Therefore, it was recommended that rehabilitation monitoring be established and undertaken in spring 2009. Permanent monitoring plots will be established at this time. The Completion Audit did document photographic monitoring undertaken at established reference points.	Action 58.1: Establish permanent monitoring plots during spring 2009.
59	Plots will be surveyed within six months following completion of the drilling activities and then annually for at least three years or until completion criteria are achieved.	In progress. Refer to EPS Commitment 58.	Refer Actions for EPS Commitment 3.
60	Monitoring will be conducted by a qualified botanist using a plot based assessment and will consider: Percentage cover and distribution of declared and environmental weeds. Total vegetation percentage cover. The presence of keystone flora species. Any evidence of erosion, soil compaction and disruptions to surface water drainage.	In progress. The Completion Audit Report stated: "All works associated with Reinstatement was completed in July 2008 with the exception of spreading native seed across the area designated for rehabilitation. The native seed is nominated to be spread in March 2009 prior to rain to promote cover of indigenous native species on the disturbed areas. This time of the season is likely to be far more favourable for germination than immediately following reinstatement. This is evident as very few native plant species had germinated at the time of the audit and this aspect of the rehabilitation monitoring commitments should not be assessed until spring 2009".	Action 60.1: Commence rehabilitation monitoring in spring 2009 which is to provide for a plot based assessment and consider rehabilitation completion criteria.
61	The results of monitoring will be reported annually together with recommendations for areas not meeting the completion criteria.	In progress. NOTE: Rehabilitation monitoring to be undertaken in spring 2009 in accordance with recommendation 1 of the Completion Audit Report.	Action 61.1: Submit an annual report for rehabilitation monitoring to the regulator. Action 61.2: Provide results from plot based assessment, and assessment against completion criteria in annual report.
Aboriginal heritage			
62	The relevant Native Title Claimants have been informed of the proposed well location and disturbance areas, No issues or concerns were raised.	No action required. Origin Energy will continue to liaise with Native Title Claimants with respect to its activities.	Complete.



No.	Commitment	Status of Compliance (Evidence)	Further Actions
63	In the event that potential Aboriginal heritage material is uncovered, management actions outlined in Section 9 will be applied.	Complied. No Aboriginal heritage material was identified during Project. (Daily Environmental Checklists – Construction)	Complete.
64	All personnel involved in the project will be inducted in Aboriginal Heritage management procedures and provided with information for identifying heritage artefacts so as to prevent unintentional damage.	Four incidents recorded where personnel accessed site without prior Environmental Induction. (Incident Report 2076, 2077, 2078 & 2079) Refer section 4 of ECR Sep08 for further details.	Complete.



4. Non Compliance and Corrective Actions

During the drilling phase of the Project, five environmental incidents were recorded. All corrective actions have been completed and each incident has been closed out. None of the incidents resulted in environmental harm.

Incident / Non Conformance Reference	Date	Description of Incident	Corrective Actions	Status
2076	10-Apr-08	Contractor arrived on site without induction and hygiene declaration.	Contractor removed off site. Advised contractor of obligations.	Closed out.
2077	6-May-08	Origin staff arrived on site without induction.	Origin staff inducted.	Closed out.
2078	6-May-08	Contractor arrived on site without induction.	Contractor advised of need to undertake induction prior to returning to site. Site supervisor to make all contractors aware of induction requirements prior to visiting site.	Closed out.
2079	8-May-08	Contractor arrived on site without induction and hygiene declaration.	Contractor removed off site.	Closed out.
07/11752	13-May-08	While attempting to cement surface casing, the cement dust sock failed resulting in 0.5tonne of cement dust spilt to ground.	Spill to be cleaned up and disposed in accordance with MSDS. Material was removed with drilling muds to Geraldton Meru Landfill.	Closed out.

5. Conclusions

The Freshwater Point 1 Project can be considered to be an environmental success. The Completion Audit Report (Woodman 2008) concluded “*the well completion was conducted to a high standard with all commitments for the project in compliance*”.

While five environmental incidents were recorded, Origin believes this to be procedural breaches only and have not resulted in environmental harm. Appropriate corrective actions were implemented and each incident closed out as detailed in section 4.

Specific environmental achievements for the Project included:

- Disturbance to native vegetation was minimised, with the amount of land cleared for flare firebreak being reduced from 150m to 20m width;
- Total area of disturbance for the Project was estimated less than 3ha i.e. more than half of the originally proposed 6.14ha;
- Volume of material extracted was minimised and substantially less than stated in the EPS;
- No incidents were reported relating to injuries or fatalities with respect to fauna;
- No evidence of erosion or soil compaction was noted during the Completion Audit;
- No evidence of introduction of weeds, pests and pathogens was noted in disturbed areas, with nearby previously disturbed areas being treated for weed infestations;
- No fire incidents were reported;
- Rehabilitation was undertaken on disturbed areas, including Reserve Borrow Pit and access roads;
- No evidence of any remaining contamination of land or water as a direct result of the proposed activities was noted; and
- No complaints were received from adjacent land users / residents.

6. Abbreviations, Acronyms and Definitions

Abbreviation / Term	Definition
CEO	Chief Executive Officer
DEC	Department of Environment and Conservation
DoIR	Department of Industry and Resources
ECR	Environmental Compliance Report
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
EPS	Environmental Protection Statement
HSE	Health, Safety and Environment
NA	Not Applicable
The Ministerial Statement	DEC Statement No. 763 issued on the 10 March 2008 for the Freshwater Point 1 Project.
The Project	Freshwater Point 1
The Proponent	Origin Energy Resources Limited
WA	Western Australia

7. References

Department of Environment and Conservation Ministerial Statement No. 763

Department of Industry and Resources (DoIR) Approval E0028/200801

Coffey Natural Systems Pty Ltd (November 2007). *Environmental Protection Statement: Freshwater Point 1, WA* (Document no. 08066_1_V6)

Environmental Protection Act 1986

Petroleum Act 1967

Department of Environment and Conservation (August 2007). *Compliance Monitoring and Reporting Guidelines for Proponents: Preparing an Audit Program*, Department of Environment and Conservation, Government of Western Australia.

Origin Energy Resources Limited (July 2008). *Environmental Audit Program - Freshwater Point 1* (Document no. OEUP-W4000-PLN-ENV-001)

Woodman Environmental Consulting (September 2008). *Reinstatement Completion Audit Report* (Document no.