



Phase I Environmental Site Assessment

Strategic et al Cameron E-07

UWI:300/E07/6010-11730/0

August 2022

Alvarez & Marsal Canada Inc.

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Project: 21NT0301

EXECUTIVE SUMMARY

EnviroSearch Ltd. (EnviroSearch) was commissioned by Alvarez and Marsal Canada Inc. (A&M) to conduct a Phase I Environmental Site Assessment (ESA) for the site of the suspended vertical well, UWI 300/E07/6010-11730/0 (E-07) formerly operated by Strategic Oil and Gas, located in the Cameron Hills area of the Northwest Territories (herein referred to as the 'site' or 'on-site').

The purpose of the Phase I ESA was to identify any actual or potential sources of environmental risk or liability at the site and adjacent properties that may have resulted from past or present land uses, construction activities, site management, or operations.

The E-07 well, drilled by Paramount Resources, was spudded on March 14, 2006, and rig released on March 26, 2006. The well was drilled to a total depth of 1,457 metres and completed in the Slave Point Formation but not tied in for production.

Notification of drilling waste disposal documentation was not available for this well. The daily construction and restoration report indicates the sump was constructed on-site. It is assumed that the drilling mud was disposed of on-site by mix/bury/cover method as per AER directive 50: Drilling Waste Management. A drilling mud summary was available for the E-07 well. The well was drilled with gel-chemical drilling fluids. Four drill stem tests (DSTs) were completed at the time of drilling, two over the Muskeg (Keg River) Formation, one over the Sulphur Point Formation, and one over the Slave Point Formation.

Drilling mud was evaluated based on Alberta Energy Regulator (AER) drilling waste disposal compliance using Compliance Option 2. AER Compliance Option 2 requirements were not satisfied with respect to NaOH Equivalency.

No spills or complaints were identified for this well location.

The Phase I ESA conducted on the E-07 wellsite indicated no evidence of potential environmental impacts. However, due to non-compliance with drilling waste disposal calculations, a Phase II ESA is recommended.

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1.0 INTRODUCTION

EnviroSearch Ltd. (EnviroSearch) was retained by Alvarez and Marsal Canada Inc. (A&M), who were appointed by the Court of Queen's Bench of Alberta as Receiver of all Strategic Oil and Gas Ltd.'s (SOG) assets in the Northwest Territories (NWT), to conduct a Phase I Environmental Site Assessment (ESA) at the site of the suspended vertical well, UWI 300/E07/6010-11730/0 (E-07), formerly operated by SOG, located in the Cameron Hills area of the NWT (herein referred to as the 'site' or 'on-site').

This report summarizes the findings of the assessment conducted by EnviroSearch. The site location map, topographic and surrounding terrain map, well site aerial photograph, site photographs, and supporting documents follow in the Appendices.

1.1 Objectives

The objectives of the Phase I ESA were to identify any areas of environmental concern (AEC) or areas of potential environmental concern (APEC) resulting from past or present land uses, construction activities, management, or operations on the site and/or immediately adjacent properties and determine if any additional assessment is necessary.

The following sections provide a description of the site and summarize the information collected during the historical records review, company file review, and APECs identified, if any, during the Phase I ESA.

1.2 Scope of Work

To meet the objectives, the following scope of work was completed:

- A review of published information on surficial and bedrock geology, hydrology and hydrogeological conditions in the vicinity of the site;
- A review of available site and neighbouring site records related to historical and current land use, environmental permits, and government notifications/approvals consisting of:
 - Relevant company files;
 - Canada Energy Regulator (CER) regulatory database search;
 - Natural Resources Canada (NRCan) database search;
 - Department of Environment and Natural Resources (ENR), Government of the Northwest Territories;
 - Office of the Regulator of Oil and Gas operations (OROGO) public registry search;
 - Mackenzie Valley Land and Water Board (MVLWB) public registry document search; and
- Preparation of a report that incorporates all the findings associated with the Phase I ESA and recommendations for the completion of additional work, as necessary.

1.2.1 Guidance Documents

Reference was made to Federal and Provincial legislation, regulations, and industry standards to develop the objectives, scope, rationale and protocols contained within this report. These documents were as follows:

- Government of the Northwest Territories Environmental Protection Act, (Government of the Northwest Territories, 1988);

- Canadian Standards Association Z768-01 Phase I Environmental Assessment Standard”, 2001 reaffirmed 2016 (Canadian Standards Association, 2001);
- “Alberta Environmental Site Assessment Standard”, March 2016 (Alberta Environment and Parks, 2016);
- Alberta Environment “2010 Reclamation Criteria for Wellsites and Associated Facilities Application Guidelines”, July 2013 (Alberta Environment, 2013); and
- Alberta Environment “Phase 1 Environmental Site Assessment Guideline for Upstream Oil and Gas sites, April 2001 (Alberta Environment, 2001).

1.2.2 Limitations

Every effort has been made to conduct this Phase I ESA within the context of the scope, timing and objectives agreed upon by EnviroSearch and A&M.

The Phase I ESA does not involve the selection or implementation of any measuring, intrusive sampling, or remediation activities. Only documents available from publicly available databases and those supplied by the client were used to prepare this report. There is no certainty as to the completeness or accuracy of the information supplied.

2.0 SITE DESCRIPTION

2.1 Site Location

The site is located in the Cameron Hills field at UWI 300/E07/6010-11730/0. The Cameron Hills project area is located in the South Slave Region of the NWT, the site is approximately 124 kilometres south-southwest of Hay River, NWT (**Figure 1**). The site is situated on Territorial land. The current surrounding land use is forested natural land in all directions (**Figure 2**). There are no residences near the well centre. There are no domestic or industrial use water wells near the well centre. The closest surface water body is the Cameron River approximately 430 metres south-southwest of the site.

According to the survey plan, the site is 110 metres x 110 metres, and covers 1.21 hectares (**Appendix 1**). The survey plan also includes an 8 metre x 1676 metre (1.341 ha) access road. The lease is accessed via this road from the south of the site. A topographical map of the site and surrounding terrain is included in **Figure 2**.

3.0 ENVIRONMENTAL SETTING

3.1 Topography and Drainage

Topographic relief at the site is level to slightly undulating. The ground surface elevation is approximately 697 metres above sea level (masl) at the site. The general area slopes south-southeast towards the Cameron River (Toporama mapping tool, 2022).

3.2 Ecoregion and Climate

The Cameron Hills area is located within the Taiga Plains Ecological Region of the NWT, which is characterized by short, cool summers and long, cold winters. The site lies near the border of the Cameron Plateau Low Subarctic Subregion and the Cameron Upland High Boreal Subregion. Rolling to hummocky glacial till is typically seen in the plateau subregion, while wet, level to gently sloping terrain is more typical for the upland subregion. Peat plateaus, veneer bogs, and fens can be found in both subregions; rainfall

amounts are higher here than in the surrounding lowland terrain (Environment and Natural Resources NWT, 2009).

3.3 Soils

Organic Cryosols are the dominant soil type in wetlands, while acidic, fine-textured Brunisols are the main upland soil type. Gleysols and gleyed subgroups of other soil types are typical of sloping tills where peat is not present (Environment and Natural Resources NWT, 2009). Permafrost overlaps the project area, and has been characterized as being discontinuous and sporadic, indicating that 10-50% of the Cameron Hills may be underlain with permafrost. It is confined in the project area to thick, poorly drained, organic bogs. Bogs were estimated to have moderate potential for permafrost, moraine, and fens with low potential, and glaciofluvial/ fluvial deposit as having negligible potential.

3.4 Geology and Hydrogeology

3.4.1 Surficial Deposits

Surficial materials consist of bedrock, glacial drift, and postglacial sediment. The rock outcropping in the Cameron Hills area consists exclusively of undifferentiated shale, sandstone, and siltstone comprising the Fort St. John Group. Glacial deposits consist mostly of moraine (till) deposited during the Wisconsin advance. Organic veneers or blankets are dominant on level to gently sloping areas. Post-glacial deposits include stream and river alluvial material, commonly in the form of fans, particularly along the plateau margins or as point-bars in the streams and the Cameron River (Environment and Natural Resources NWT, 2009).

3.4.2 Bedrock Deposits

Bedrock deposits in the Cameron Hills area include Cretaceous siltstones and mudstones of the Shaftesbury Formation and mudstones of the Loon River Formation (Environment and Natural Resources NWT, 2009). These bedrock deposits are expected to have relatively low permeability and not contain significant aquifers except in localized isolated sandstone bodies (Smerdon, 2020).

3.4.3 Regional Hydrology and Present Groundwater Use

The Cameron Hills area lies in the Western Great Slave Lake Outlet sub-basin, which is part of the Mackenzie River Basin, Canada's largest river basin (NWT, Government of the, 2022). Deeply incised gullies mark the headwaters of tributaries to the Kakisa and Cameron Rivers. The Cameron River is the largest river in the project area. Wetlands and small, shallow lakes are common.

There were no domestic use or industrial use water wells identified in the project area.

4.0 RECORDS REVIEW

All records and documents reviewed as part of the Phase I ESA are described below.

4.1 Historical Ownership

Paramount Resources started developing oil and gas in the Cameron Hills area around 1979. SOG acquired the Cameron Hills Gathering System and Facilities from Paramount Resources Ltd. in February 2013. Production was suspended at Cameron Hills in February 2015 due to economic conditions. On January 28, 2020, A&M was appointed receiver for all SOG's assets in the NWT.

4.2 Regulatory Searches

Regulatory body databases, including OROGO, ENR, and CER, were investigated to determine if there were any spills, complaints, authorizations, or enforcement actions at this location.

4.2.1 *Canada Energy Regulator (CER)*

A search of the Canada Energy Regulator (CER) Regulatory Database (REGDOCS) was conducted in June 2022 (Canada Energy Regulator, 2022). REGDOCS is a regulatory database for all activities and transactions conducted at the CER, and includes recent fillings, recent decisions, CER reports and active hearings. REGDOCS contained no documentation relating to the site.

The CER's Safety and Environment Division keeps track of compliance and enforcement. A search of the compliance database, which includes compliance letters, warning letters, and inspection orders, was conducted in June 2022 (CER Safety and Environment, 2022). A search of the compliance and enforcement reports did not return any results for this site.

4.2.2 *Office of the Regulator of Oil and Gas Operations (OROGO)*

OROGO came into existence in 2015, taking over resource management in the NWT from the NEB. OROGO regulates oil and gas operations in the NWT, outside of federal areas and the Inuvialuit Settlement Region, for the primary purposes of ensuring safety, environmental protection, and conservation of oil and gas resources.

A search of the Public Registry for OROGO, which contains all documents relating to oil and gas operations in the NWT, including well approvals, incident and near-miss reports, production, and environmental reports, was conducted in June 2022. Documents relating to SOG were reviewed and no new data, with respect to the site, was obtained.

4.2.3 *Mackenzie Valley Land and Water Board (MVLWB)*

The MVLWB is a regulatory authority that originates from Part 4 of the Mackenzie Valley Resource Management Act. The MVLWB administer land use permits and water licences. Their Public Registry which contains items such as application for land use permits, documents related to environmental reports, and spill reports. A search of the public registry was conducted in June 2022, no new data was obtained for the site and there were no environmental concerns.

4.2.4 *Environment and Natural Resources (ENR) Spill Database*

The ENR is a division of the Government of the NWT that works to promote and support the sustainable use and development of natural resources and to protect, conserve, and enhance the NWT's environment for the social and economic benefit of all residents. The ENR keeps a database of all reported spills in the NWT.

A search of the ENR Spill Database in June 2022 returned no records.

4.3 Drilling Records and Disposal Information

The E-07 well was drilled by Paramount Resources between March 14 and March 26, 2006, to a total depth of 1,457 metres. The well was completed in the Slave Point Formation but not tied in for production.

Notification of drilling waste disposal documentation was not available for this well. The daily construction and restoration report, from the well file, indicates the sump was constructed on-site, therefore, it is assumed that the drilling mud was disposed of on-site by mix/bury/cover method as per AER directive 50: Drilling Waste Management. A drilling mud summary was available for the E-07 well. The well was drilled

with gel-chemical drilling fluids.

Four drill stem tests (DSTs) were completed at the time of drilling, two over the Muskeg (Keg River) Formation, one over the Sulphur Point Formation, and one over the Slave Point Formation.

DSTs #1 over the Muskeg (Keg River) Formation recovered 75 metres of gasified drilling fluid cut with inhibitor and 40 metres of gasified brackish drilling fluid cut with inhibitor. DSTs #2 (Muskeg), #3 (Sulphur Point) and #4 (Slave Point) were run together on the same trip in the hole. The three DSTs combined recovered 20m of scrubber mixed with drilling fluid and gas and 119 meters of gasified black drilling fluid with inhibitor and gas pockets.

Drilling mud data was reviewed based on the AER drilling waste disposal compliance. AER Compliance Option 2 was used because sump location could not be confirmed. Drilling waste disposal did not satisfy the AER Compliance Option 2 requirements for salt calculations. Based on the drilling mud additives and fluid recovery from DSTs, the drilling waste from E-07 had an NaOH equivalent sacks per metre of 0.07913, this value must be less than 0.035 for wells drilled after October 1996. All documentation regarding drilling waste disposal and compliance is included in **Appendix 3**.

4.4 Company Records

The following is a summary of the well file review:

4.4.1 Underground storage tanks, vessels, pipelines, and other subsurface structures.

No construction or operations sketches indicating underground storage tanks, vessels, pipelines, or other subsurface structures were identified in the historical file review.

4.4.2 Historical records of spills, releases, and accidents

No spill, release or accident documentation was identified during the well file review.

4.4.3 Previous environmental audits and impact assessments, geotechnical investigations, and environmental monitoring reports

NEB and OROGO well inspection reports from 2009, 2010, 2011, 2016 and 2018 indicated no issues at the site.

No previous environmental impact assessments, geotechnical investigations, or environmental monitoring reports were identified.

4.5 Aerial Photographs

Historical aerial photographs were not reviewed as part of this assessment.

5.0 SITE VISIT

A visual assessment of the site and surrounding lands was not conducted as part of the assessment due to access limitations pertaining to the remoteness of the site. A site photolog was compiled using photos from previous site visits and assessments (**Appendix 2**).

6.0 SITE INTERVIEWS

Interviews are typically conducted to corroborate and augment the information gathered in the records review and the site visit. Questions asked during interviews pertain to current and past activities and events that may affect the environmental condition of the site.

An interview with, Kurt Hewitt, the field foreman for Cameron Hills, was conducted on August 4, 2022, by phone. A summary of the interview can be found in **Appendix 2**.

7.0 SUMMARY OF FINDINGS

The E-07 well, drilled by Paramount Resources, was spudded on March 14, 2006, and rig released on March 26, 2006. The well was drilled to a total depth of 1,457 metres and completed in the Slave Point Formation but not tied in for production.

Notification of drilling waste disposal documentation was not available for this well. The daily construction and restoration report indicates the sump was constructed on-site, therefore, it is assumed that the drilling mud was disposed of on-site by mix/bury/cover method as per AER directive 50: Drilling Waste Management. A drilling mud summary was available for the E-07 well. The well was drilled with gel-chemical drilling fluids. Four drill stem tests (DSTs) were completed at the time of drilling, two over the Muskeg (Keg River) Formation, one over the Sulphur Point Formation, and one over the Slave Point Formation.

Drilling mud was evaluated based on Alberta Energy Regulator (AER) drilling waste disposal compliance using Compliance Option 2. AER Compliance Option 2 requirements were not satisfied with respect to NaOH Equivalency.

No spills or complaints were identified for this well location.

8.0 CONCLUSION AND RECOMMENDATIONS

The Phase I ESA conducted on the E-07 wellsite has indicated no evidence of areas of potential environmental concern. However, due to non-compliance with drilling waste disposal calculations, a Phase II ESA is recommended.



Submitted on behalf of
EnviroSearch Ltd.

A handwritten signature in black ink, appearing to read "Liese McLaren".

Liese McLaren, P. Geo. (AB)
Senior Geologist

Reviewed/Authorized by

A handwritten signature in black ink, appearing to read "M Ferguson".

Margot Ferguson, P. Geoph.
President

9.0 REFERENCES

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10.0 DISCLAIMER

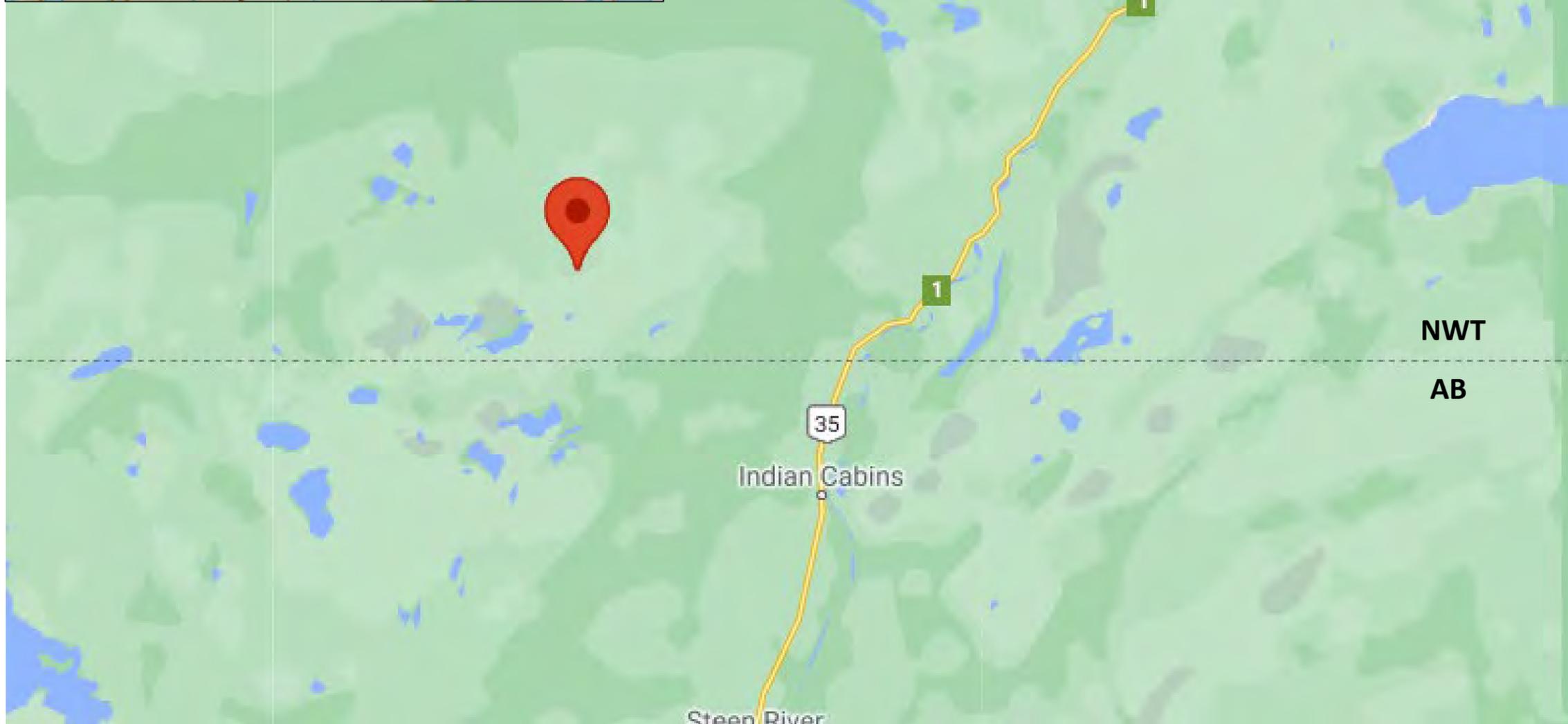
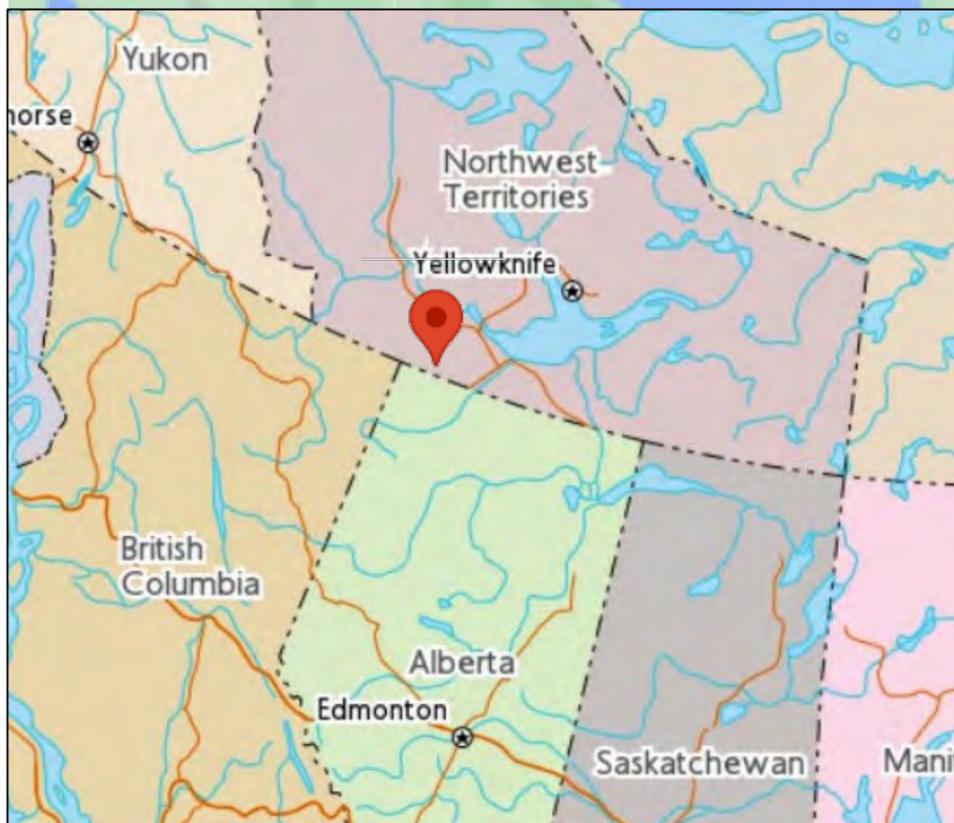
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FIGURES



LEGEND:

 Site Location



PROJECT NO.	DRAWING DATE	DRAWN BY	REVIEWED BY
21NT0301	June 2022	LM	MF

TITLE:
SITE LOCATION

LOCATION:
*Phase I ESA
300E076010117300 (E-07)
Cameron Hills, NWT*

DRAWING REFERENCE(S):
1. Topographic photograph obtained from Toporama
2. Coordinates: NAD83 UTM Zone 12

	<p>FIGURE: 1</p>
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LEGEND:

 Site Location



Scale: 1:50,000

PROJECT NO.	DRAWING DATE	DRAWN BY	REVIEWED BY
21NT0301	June 2022	LM	MF

TITLE: **TOPOGRAPHY AND SURROUNDING TERRAIN**

LOCATION: *Phase I ESA
E-07
Cameron Hills, NWT*

DRAWING REFERENCE(S):
 1. Topographic photograph obtained from Toporama
 2. Coordinates: NAD83 UTM Zone 12

 envirosearch	FIGURE: <h1>2</h1>
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WELL SITE AERIAL PHOTO



Phase I ESA

E-07

Cameron Hills, NWT

DRAWING REFERENCE(S):

1. Aerial Photograph obtained from Environmental Inspection Report Sept 12, 2020 Government of the Northwest Territories File: MV2013A0010



FIGURE:

3



APPENDIX 1

Survey Plan

APPENDIX 2

Site Photograph Log & Interview(s)

Client: Alvarez and Marsal Canada Inc. (NWT Receiver on behalf of Strategic)	Project Name: Phase I ESA
Project #: 21NT0301	Project Location: Cameron Hills, NWT

Photograph ID: 1	
Location: E-07	
Date: 19-Sep-19	
Comments: Photograph from GNWT 2019 Environmental Inspection Report Aerial view of wellsite in 2019 Well is suspended and not tied in for production. Site is vegetated with no concerns.	

Photograph ID: 2	
Location: E-07	
Date: 21-Sep-20	
Comments: Photograph from GNWT 2020 Environmental Inspection Report Aerial view of wellsite in 2020 Vegetation becoming well established making it difficult to find a safe landing spot. No other pictures of the site were available.	

Interview for Well Location E-07

Date of interview: August 4, 2022

Interview conducted by Liese McLaren (EnviroSearch Ltd.)

Name of person interviewed: Kurt Hewitt

Phone No.: 1 (780) 830-8303

1. How long have you been familiar with this lease?
6 years
2. Are you aware of any historical complaints regarding site management/operations?
No
3. Any knowledge of backfilled and/or previously remediated drilling sumps and pits?
No
4. Any knowledge of waste management or waste disposal?
No
5. Any knowledge of underground storage tanks or pipelines?
No underground tanks; no pipelines
6. Any potential sources of contamination observed? If so, please list location, characteristics, and extent of unproductive land (e.g., salt, sterilant or hydrocarbon damaged soil).
No
7. Any knowledge of past spills and clean up procedures implemented?
No
8. Any vegetation control conducted?
Yes, routine vegetation control for Heli landing and access
9. Any other comments or concerns related to this well site?
Windssocks at wellhead are maintained

APPENDIX 3

Drilling Waste Documentation

Compliance Option 2 Drilling Waste Disposal Assessment Checklist



Compliance Option 2 - Drilling Waste Disposal Assessment Checklist

If any response to the checklist questions leads to a Phase 2 ESA requirement or there is insufficient information to complete the Compliance Option Two Checklist, a Phase 2 ESA must be conducted in accordance with Compliance Option Three.

1. General Disposal and Drilling Fluid Information:

The well licensee should be able to review various sources of information pertaining to the drilling activities on-site. Many information sources, other than the *Notification of Drilling Waste Disposal*, *Drilling Waste Management Disposal Form*, or *Drilling Waste Pipeline Disposal Form* can be reviewed for information relating to the drilling waste disposal and drilling fluid systems. These can include Tour Reports, daily drilling records, well files, and contractor invoices.

1.0 Well Information: Unique Identifier (UI) E-07
 Spud Date March 14, 2006
 Well Depth 1457 metres

1.1 Disposal Method (if known)*: Unknown; assume mix/bury/cover

* If waste was disposed at an AER or ESRD approved facility, list supporting documentation under Reference Documents.

1.2 Disposal Location (if known)**: Unknown; assume on-site

** If checklist indicates that a Phase 2 ESA (Compliance Option Three) is required, it must be undertaken at the disposal location. If the disposal location is unknown, the Phase 2 ESA must be undertaken at the wellsite.

For the purpose of this form: if the disposal method and/or location remains unknown after all available information sources have been checked, the drilling waste disposal location is assumed to be on-site.

	Yes	No
1.3 Were there other drilling waste disposal events on the site (e.g. wellbore re-entry or another well drilled, using fluids containing drilling fluid additives)? If yes, were the disposal areas separate from one another?	<input type="checkbox"/> <input type="checkbox"/> Drilling waste information must be evaluated for each disposal.	<input checked="" type="checkbox"/> <input type="checkbox"/> Drilling waste information must be evaluated by combining the drilling fluid additives and well depths. If drilling waste information is missing or incomplete for one or both wells, a Phase 2 (Compliance Option Three) is required.

	Yes	No
<p>1.4 Was a remote site used?</p> <p>If, Yes, is the remote site included in this reclamation application?</p> <p>If not included, is the remote site a multi-well disposal location?</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> In Comments section, indicate which well the remote site will be tied to for the purposes of reclamation	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Single well remote disposal site must be included with reclamation certificate application, unless it already has received a Reclamation Certificate.
<p>1.5 Has the well licensee reviewed the Daily Drilling Records and other available drilling documentation?</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Phase 2 required
<p>1.6 Can it be determined from the available records what type of drilling fluid system was used?</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Phase 2 required
<p>1.7 Were water-based drilling fluids used for all sections (i.e., gel chemical drilling fluid systems)?</p> <p>If No, is there evidence that demonstrates the non-water based wastes were disposed of in a manner consistent with <i>Directive 50</i> (1996 version for disposals before November 1, 2012 or 2012 version for disposals on or after November 1, 2012) or <i>Directive 58</i> (i.e., appropriately approved waste management facility)?</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> Phase 2 required
<p>1.8 Is a mud list available?</p> <p>If Yes, can all the additives on the mud list be identified and described?</p> <p>Record the additives and their description (e.g., chrome-free lignosulfonate, aldehyde-based bactericide, etc.) on the attached form.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> Phase 2 required <input type="checkbox"/> Phase 2 required

	Yes	No
<p>2.2 Was the well a horizontal oil well?</p> <p>If Yes, is there evidence that wastes were disposed of in a manner consistent with <i>Directive 50</i> (1996 version for disposals before November 1, 2012 or 2012 version for disposals on or after November 1, 2012) or <i>Directive 58</i> (i.e., approved waste management facility)?</p>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required
<p>2.3 Was the well drilled using under-balanced techniques?</p> <p>If Yes, is there information/documentation available to demonstrate that the drilling wastes were disposed of in a manner consistent with <i>Directive 50</i> (1996 version for disposals before November 1, 2012 or 2012 version for disposals on or after November 1, 2012) or <i>Directive 58</i> (i.e., approved waste management facility)?</p>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required
<p>2.4 Was hydrocarbon added to the drilling fluid?</p> <p>If Yes, was the hydrocarbon contaminated drilling waste disposed of in a manner consistent with <i>Directive 50</i> (1996 version for disposals before November 1, 2012 or 2012 version for disposals on or after November 1, 2012) or <i>Directive 58</i> (i.e., approved waste management facility)?</p>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required

3. Metals (Trace Elements) Management

	Yes	No
<p>3.1 Was the disposal completed before November 1, 2012?</p>	<input checked="" type="checkbox"/> Complete questions 3.2 to 3.5	<input type="checkbox"/> Go to question 3.6
<p>3.2 Was barite added to the drilling fluid?</p> <p>If Yes, did it meet the requirements specified in the attached metal calculation table?</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Show calculation on attached form	<input type="checkbox"/> <input type="checkbox"/> Phase 2 required

	Yes	No
<p>3.3 Was zinc carbonate added to the drilling fluid?</p> <p>If Yes, did it meet the requirements specified in the attached metal calculation table?</p>	<input type="checkbox"/> <input type="checkbox"/> Show calculation on attached form	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required
<p>3.4 Were chrome-based thinners added to the drilling fluid?</p> <p>If Yes, did it meet the requirements specified in the attached metal calculation table?</p>	<input type="checkbox"/> <input type="checkbox"/> Show calculation on attached form	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required
<p>3.5 Were any other additives used that would have triggered testing for metals under Section 3 or 5 of <i>Directive 50 (1996 version)</i>?</p> <p>If Yes, are waste analytical data and application rates (land treatment, landspreading) or maximum application (mix-bury-cover) available?</p> <p>If above data are available, did the application rate or maximum application meet <i>Directive 50</i> requirements?</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required <input type="checkbox"/> Phase 2 required
<p>3.6 Did metal concentrations in the waste trigger a requirement for post-disposal sampling?</p> <p>If yes, did all post-disposal samples meet the soil metal endpoints specified in Section 3 of <i>Directive 50 (2012 version)</i>?</p>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required

4. Salinity Management

	Yes	No
4.1 Does the water-based drilling waste meet the requirements specified in the attached Salt Calculation Table?	<input type="checkbox"/> Show calculation on attached form	<input checked="" type="checkbox"/> Phase 2 required
4.2 Was a salt zone encountered during drilling? If Yes, is there evidence that demonstrates the drilling wastes were disposed of in a manner consistent with <i>Directive 50</i> (1996 version for disposals before November 1, 2012 or 2012 version for disposals on or after November 1, 2012) or <i>Directive 58</i> (i.e., appropriately approved waste management facility)?	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> Phase 2 required

Metal Calculations for Compliance Options One and Two

Note: Different default mix ratios are provided depending on whether the well was drilled before or after October 22, 1996. The 1996 version of *Guide 50, Drilling Waste Management*, which was issued by the Energy Resources Conservation Board on this date, increased the minimum mix ratio requirement from 1:1 to 3:1.

Barite:

Directions: Fill in the number of sacks and adjust for sack weight if different than 40 kg. Enter the Well Depth in metres. The spreadsheet will calculate the number of sacks per metre. This value must be less than or equal to **0.22**. If the value exceeds the objective, a Phase 2 ESA (Compliance Option 3) must be conducted.

Total Number of Sacks (40 kg/sack*)		Well Depth (m)		Mix Ratio**		Sacks per Metre
24	÷	1457	÷	1	=	0.016472

* Sack weight may be adjusted by dividing the number of sacks by 40 and multiplying by the actual sack weight in kilograms. This value should be entered as the number of sacks

** Enter the number of parts of soil mixed with one part of waste. For example, for a 3:1 mix ratio (3 parts soil to 1 part waste) enter "3". If this value is not known, enter 1 for wells drilled before October 22 1996, or 3 for wells drilled on or after this date.

Zinc Carbonate:
Alternative 1:

If waste zinc, mix ratio and waste dry bulk density data are available use the following calculator to estimate post-disposal zinc concentration.

Directions: Enter the total zinc concentration in mg/kg measured in the waste, the Waste Dry Bulk Density in kg/m³, and Mix Ratio in the appropriate cells. The spreadsheet will calculate the post-disposal zinc concentration. This value must be less than or equal to **200 mg/kg**. If the value exceeds this objective, a Phase 2 ESA (Compliance Option 3) must be conducted.

Waste Zinc Concentration (mg/kg)		Waste Dry Bulk Density* (kg/m ³)		Mix Ratio**					Post-Disposal Zn Concentration (mg/kg)	
	x		÷		÷	1500	+	70	=	#DIV/0!

* Waste Dry Bulk Density = (Waste Specific Gravity – 1) x 1600

** Enter the number of parts of soil mixed with one part of waste. For example, for a 3:1 mix ratio (3 parts soil to 1 part waste) enter "3". If this value is not known, enter 1 for wells drilled before October 22 1996, or 3 for wells drilled on or after this date.

Alternative 2:

If the above data is not available use the following equation to calculate the number of sacks of zinc carbonate added per meter drilled.

Directions: Fill in the number of sacks and adjust for sack weight if different than 25 kg. Enter the Well Depth in metres. The spreadsheet will calculate the number of sacks per metre. This value must be less than or equal to **0.00650**. If the value exceeds the objective, a Phase 2 ESA (Compliance Option 3) must be conducted.

Total Number of Sacks (25 kg/sack*)		Well Depth (m)		Mix Ratio**		Sacks per Metre
	÷		÷		=	#DIV/0!

* Sack weight may be adjusted by dividing the number of sacks by 25 and multiplying by the actual sack weight in kilograms. This value should be entered as the number of sacks.

** Enter the number of parts of soil mixed with one part of waste. For example, for a 3:1 mix ratio (3 parts soil to 1 part waste) enter "3". If this value is not known, enter 1 for wells drilled before October 22 1996, or 3 for wells drilled on or after this date.

0.016

= Required Field

Alternative 2

If the volume of drilling waste is not known, use the following calculator to determine the NaOH Equivalent Sacks per metre of well depth. This value must be less than **0.0260** for wells drilled before October 22 1996, or **0.0350** for wells drilled on or after this date. If the value exceeds the target, a Phase 2 ESA (Compliance Option 3) must be conducted.

Directions: Fill in the number of sacks and adjust for sack weight if different than 25 kg. Enter the Well Depth in metres. The spreadsheet will calculate the NaOH Equivalent Sacks per Metre.

Additive	Number of sacks (25 kg/sack*)		NaOH Equivalency Factor		NaOH Equivalent Sacks	
Caustic Soda	9	X	1.00	=	9	
Soda Ash	75	X	0.75	=	56.25	
Sodium Chloride		X	0.68	=	0	
Sodium Bicarbonate		X	0.95	=	0	
Sodium Silicate		X	1.37	=	0	
Sodium acid pyrophosphate (SAPP)	2	X	0.22	=	0.44	
Calcium Chloride		X	0.72	=	0	
Calcium Nitrate		X	0.34	=	0	
Envirofloc	82	X	0.41	=	33.62	
Gypsum**		X	0.59	=	0	
Lime**		X	1.08	=	0	
** Max = 0.02 x well depth (m)						
Potassium chloride		X	0.54	=	0	
Potassium sulphate		X	0.46	=	0	
Caustic potash		X	0.71	=	0	
Potassium formate		X	0.47	=	0	
Potassium silicate		X	0.32	=	0	
Potassium nitrate		X	0.40	=	0	
Diammonium phosphate		X	0.63	=	0	
Ammonium nitrate		X	0.57	=	0	
Ammonium sulphate		X	0.61	=	0	
Drill Stem Test Returns	23.52	X	0.68	=	15.9936	
Total NaOH Equivalent Sacks					=	115.3036
Well Depth (m)					÷	1457
NaOH Equivalent Sacks per Metre					=	0.07913768

* Sack weight may be adjusted by dividing the number of sacks by 25 and multiplying by the actual sack weight in kilograms. This value should be entered as the number of sacks.

** Note: Up to 0.02 sacks of gypsum and lime per metre of well depth should be counted with other salt additives. Because of the limited solubility of gypsum and lime, sacks in excess of this value need not be counted.

= Required Field

Drill Stem Test Return Calculations for Compliance Option Two
Salinity:

Note: Either the resistivity or the chloride calculation must be completed. It is not necessary to complete both calculations. Resistivity data should be used when available. If resistivity is not available, the chloride calculation should be used. If the volume is specified but neither chloride nor resistivity is available, use the default concentration in the chloride calculation. If no volume is available, a Phase 2 (Compliance Option 3) is required.

Alternative 1: Resistivity

Directions: Enter the drill stem diameter for the drill stem test (DST) section in millimeters, the length of the DST return (including mud returns) in metres and the resistivity of the DST fluid in ohms.

The spreadsheet will calculate the equivalent number of sacks. This value must be entered in the salt calculation in the cell labelled "Drill Stem Test Returns".

Inner Diameter of Pipe (mm)	Length of Drill Stem Test Return (m)	Volume of Returns (m ³)				Resistivity (Ohms)*		Number of Sacks
		0	x	0.28	÷		=	#DIV/0!
		0	x	0.28	÷		=	#DIV/0!
		0	x	0.28	÷		=	#DIV/0!
		0	x	0.28	÷		=	#DIV/0!
		0	x	0.28	÷		=	#DIV/0!
		0	x	0.28	÷		=	#DIV/0!
Total number of sacks							=	0

* Resistivity values from formation water databases or adjacent wells are currently not acceptable.

Alternative 2: Chloride

Directions: Enter the drill stem diameter for the drill stem test (DST) section in millimeters, the length of the DST return (including mud returns) in metres and the chloride concentration of the DST fluid in mg/L.

The spreadsheet will calculate the equivalent number of sacks. This value must be entered in the salt calculation in the cell labelled "Drill Stem Test Returns".

Inner Diameter of Pipe (mm)	Length of Drill Stem Test Return (m)	Volume of Returns (m ³)*		Chloride Concentration* (mg/L)				Number of Sacks
57	115	0.293303475	x	215,000	÷	7600	=	8.29740094
57	211	0.538148115	x	215,000	÷	7600	=	15.2239269
		0	x		÷	7600	=	0
		0	x		÷	7600	=	0
		0	x		÷	7600	=	0
		0	x		÷	7600	=	0
Total number of sacks							=	23.5213279

*If chloride concentration is not specified, use 215,000 mg/L. Chloride concentrations from formation water databases or adjacent wells are currently not acceptable.

23.52 = Required Field



APPENDIX 4

Relevant Search Documentation

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$92,481
CUM. COST: \$511,398
DAILY MUD: \$1,839
CUM MUD: \$4,887
DAYS FROM SPUD: 2.77

DAY: 5 **REP DATE:** MAR 17/06 **STATUS** 06:00 NIPPLE UP BOP's
DEPTH: 427 **PROG.** 36 **KB:** 701.40 **GL:** 697.40 **MACP:** 3037
SURVEYS: 425M - 0.5

MUD TYPE: GEL CHEM **WT:** 1120 **VISC:** 96 **WL:** **FC:** **PH:** 8.5
ADDITIVES: GEL 15 SX SAWDUST 25 SX DESCO 2 SX ALKAPAM 2 SX ENVIROFLOC 18 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1A	2138	311	VAREL	CHO4JMRS	1.9x31x12.	427	427	34.75		2-7000	150-200

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	117	1.463	7000	25	21	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & BIT SUB	197		1.16
2 DC's & X/O	204		19.37
6 DC's & X/O SUB	152		72.39
10 DC's	121		112.34
6 HWDP & X/O	121		57.47
16 DP	121		155.72
KELLY			8.55
TOTAL			427.00

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	1.25
SURVEY:	0.25	WOC:	4.00
PRESSURE TEST:		RUN CSG:	3.75
DRILL:	2.50	DST:	
DRILL OUT:		TRIP:	5.75
CIRCULATE:	2.50	L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	0.75	CIRC DOW	1.00
WELD ON BOWL	1.50		
TOTAL HOURS:	24.00		

REMARKS

RAN 35 JTS OF 219.1 MM, 35.71 KG/M, ST&C TPCO CASING.
LANDED AT 427.00 MKB. **TOTAL LENGTH** 427.31 METERS.
CEMENTED WITH 37 TONNES 0:1:0 "G" + 1.5% CALCIUM
PLUG DOWN AT 18:00 HRS. ON AR 16/01 WITH 1.5 M3 CEMENT RETURNS.

00:01 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR PREVENTER, CLOSE IN 30 SEC).
 00:30 DRILL 311MM SURFACE HOLE AND SURVEY TO 427 MKB. 03:00 CIRC AND COND MUD.
 03:30 WIPER TRIP (STRAP OUT, DIFF + 0.23M, KELLY UP AND REAM FROM 70M TO 90M, 1 M OF FILL). 07:00
 CIRC AND COND MUD. 07:45 HOIST TO RUN SURFACE CASING (LAY DOWN 2 X 203MM DC's).
 10:30 SAFETY MEETING W/TOTAL DEPTH POWER TONGS AND RIG CREW, RIG TO AND TALLEY, DRIFT,
 LUBRICATE, PICK UP AND RUN 35 JOINTS OF 219.1MM, 35.71KG/M SURFACE CASING. THE CASING IS EQUIPPED
 WITH A FLOAT SHOE, FLOAT COLLAR ONE JOINT UP AND EIGHT CENTRALIZERS. TAGGED BOTTOM WITH
 CASING AT 427 MKB. 0.50M OF FILL ON BOTTOM (CIRC CASING THREW MUD RING FROM 70M TO 90M). 15:30
 CIRC AND COND MUD. 17:00 SAFETY MEETING WITH SANJEL CEMENTERS AND RIG CREW. CEMENT
 SURFACE CASING. 18:30 W. O.CEMENT (SAFETY MEETING AND NIPPLE DOWN DIVERTER). 22:30 CUT OFF
 DIVERTER FLANGE AND CASING WELD ON CASING. OWI
FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07

UNIQUE I.D. 300E076010117300

LOCATION: E-07

WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL

CELLULAR #: 403-927-2335

SPUD DATE: MAR 14/06 05:45

R.R. DATE:

CONTRACTOR: PD 129

A.F.E. #: 05N610059 EST. T.D 1485

DAILY COST: \$61,018

CUM. COST: \$433,269

DAILY MUD: \$1,165

CUM MUD: \$3,048

DAYS FROM SPUD: 1.77

DAY: 4 REP DATE: MAR 16/06 STATUS 06:00 WIPER TRIP AT 427 M

DEPTH: 391 PROG. 322 KB: 701.40 GL: 697.40 MACP:

SURVEYS: 96M - 0.75 124M - 0.25 152M - 0.5 180M - 0.75 217M - 0.75 265M - 0.75

391M - 0.25

MUD TYPE: GEL CHEM WT: 1190 VISC: 51 WL: FC: PH: 8.5

ADDITIVES: GEL 60 SX SAWDUST 45 SX SAPP 1 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1A	213832	311	VAREL	CHO4JMRS	.9x3 1X12.	IN	391	32.25		5-7000	200

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	117	1.463	6490	25	21	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & BIT SUB	197		1.16
2 DC's & X/O	204		19.37
6 DC's & X/O SUB	152		72.39
10 DC's	121		112.34
6 HWDP & X/O	121		57.47
12 DP	121		116.81
KELLY			12.35
TOTAL			391.89

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	2.75	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	19.75	DST:	
DRILL OUT:		TRIP:	
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:		CTB:	
SAFETY MEETING	0.75		

TOTAL HOURS: 24.00

REMARKS

- 00:01 - 00:30 RIG SERVICE AND SAFETY MEETING.
- 00:30 - 08:00 DRILL 311MM SURFACE HOLE AND SURVEY (OUT OF THE SAND AND GRAVEL AT 70 M).
- 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 30 SEC TO CLOSE).
- 08:30 - 16:00 DRILL 311MM SURFACE HOLE AND SURVEY.
- 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 31 SEC TO CLOSE).
- 16:30 - 23:59 DRILL 311MM SURFACE HOLE AND SURVEY.

TEMP. - 24 , OVER CAST AND EAST WIND.
SATELLITE PHONE # 403-927-2335

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$48,859
CUM. COST: \$374,134
DAILY MUD: \$1,883
CUM MUD: \$1,883
DAYS FROM SPUD: 0.77

DAY: 3 **REP DATE:** MAR 15/06 **STATUS** 06:00 DRILL 311MM SURFACE HOLE@142M
DEPTH: 69 **PROG.** 69 **KB:** 701.40 **GL:** 697.40 **MACP:**
SURVEYS: 33M - 0.25 69M - 0.25

MUD TYPE: GEL CHEM **WT:** 1090 **VISC:** 90 **WL:** **FC:** **PH:** 9
ADDITIVES: GEL 112 SX CAUSTIC 1 SX SAPP 1 SX SAWDUST 30 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1A	213832	311	VAREL	CHO4JMRS	1.9X3 1X12	IN	69	11.5		2,000	90

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DC	NOZZEL VEL
EMSCO	F-800	152	229	117	1.463	5600	25	22	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT	311		0.32
BIT SUB	197		0.84
2 DC's	204		18.80
X/O	158		0.57
4 DC	121		35.79
KELLY			13.11
TOTAL			69.43

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.50	CEMENT:	
SURVEY:	0.75	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	11.50	DST:	
DRILL OUT:		TRIP:	2.00
CIRCULATE:	1.50	L.D.D.S.:	
NIPPLE UP BOP:	3.00	REAM:	
SAFETY MEETING	1.25		
CLEAN OUT SAND	3.50		

REMARKS

00:01 - 03:00 FINISH NIPPLE UP DIVERTER AND FLARE LINES TO FLARE TANK (PRESSURE TEST DIVERTER AND HCR VALVE TO 758 KPA FOR 15 MIN. OK).
 03:00 - 05:00 HANDLE BHA.
 05:00 - 05:45 PRE-SPUD SAFETY MEETING AND DIVERTER DRILL (3 SEC TO OPEN HCR VALVE AND 30 SEC TO CLOSE ANNULAR PREVENTER).
 05:45 - 08:00 SPUD IN, DRILL 311 MM SURFACE HOLE AND SURVEY (PEA GRAVEL AND HEAVY SAND FROM 26M, MUD UP TO 80 VIS, DRILL ONE METER, WORK STUCK PIPE, RE-DRILL SAME METER).
 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING.
 08:30 - 09:30 LOSS CIRC (GRAVEL, RAISE VIS AND MIX LCM).
 09:30 - 16:00 DRILL TO 38 M.
 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING.
 16:30 - 20:30 CLEAN 400MM OF SAND OUT OF MUD TANK, SUCTION LINE, PUMP, CHANGE SHAKER SCREENS. ADD WATER AND MIX GEL.
 20:30 - 23:59 DRILL AHEAD TO 69 M AND SURVEY (SAND AND GRAVEL TO 60 M, DRILL AND RE-DRILL).
 SATELLITE PHONE # 403-927-2335 TEMP; - 26 , 50MM OF SNOW AND LIGHT NORTH WEST WIND.

TOTAL HOURS: 24.00

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: _____
R.R. DATE: _____
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$124,111
CUM. COST: \$328,192
DAILY MUD: _____
CUM MUD: _____
DAYS FROM SPUD: PS2

DAY: 2 **REP DATE:** MAR 14/06 **STATUS** 06:00 **DRILL** 311MM **SURFACE HOLE @ 20 M**
DEPTH: _____ **PROG.** _____ **KB:** 701.40 **GL:** 697.40 **MACP:** _____
SURVEYS: _____

MUD TYPE: _____ **WT:** _____ **VISC:** _____ **WL:** _____ **FC:** _____ **PH:** _____
ADDITIVES: _____

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229						

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
TOTAL			

TIME DISTRIBUTION

MORU: 12.75 **RIG REP:** _____
DRILL MH & RH: _____ **LOGGING:** _____
RIG SERVICE: _____ **CEMENT:** _____
SURVEY: _____ **WOC:** _____
PRESSURE TEST: _____ **RUN CSG:** _____
DRILL: _____ **DST:** _____
DRILL OUT: _____ **TRIP:** _____
CIRCULATE: _____ **L.D.D.S.:** _____
NIPPLE UP BOP: 2.75 **REAM:** _____
WELD BOWL: _____ **W.O. DAYL** 8.00
SAFETY MEETING 0.50
TOTAL HOURS: 24.00

REMARKS

00:01 - 08:00 W. O. DAYLIGHT.
 08:00 - 21:00 SAFETY MEETING, FINISH MOVING DRILLING RIG AND RENTALS TO NEW LOCATION. SPOT RIG AND RENTALS. WELD ON DIVERTOR FLANGE.
 21:00 - 23:59 SAFETY MEETING, NIPPLE UP DIVERTOR AND FLARE LINE TO FLARE TANK.

TEMP. - 27, LIGHT SNOW AND CALM.
 RIG MOVE WAS 8 KM AND COST WAS \$72,155
 SATELLITE PHONE # 403-927-2335

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: _____
R.R. DATE: _____
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$205,531
CUM. COST: \$205,531
DAILY MUD: _____
CUM MUD: _____
DAYS FROM SPUD: PS1

DAY: 1 **REP DATE:** MAR 13/06 **STATUS** 06:00 **W. O. DAYLIGHT**
DEPTH: _____ **PROG.** _____ **KB:** 701.40 **GL:** _____ **MACP:** _____
SURVEYS: _____

MUD TYPE: _____ **WT:** _____ **VISC:** _____ **WL:** _____ **FC:** _____ **PH:** _____
ADDITIVES: _____

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229						

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
TOTAL			

TIME DISTRIBUTION

MORU: 9.00 **RIG REP:** _____
DRILL MH & RH: _____ **LOGGING:** _____
RIG SERVICE: _____ **CEMENT:** _____
SURVEY: _____ **WOC:** _____
PRESSURE TEST: _____ **RUN CSG:** _____
DRILL: _____ **DST:** _____
DRILL OUT: _____ **TRIP:** _____
CIRCULATE: _____ **L.D.D.S.:** _____
NIPPLE UP BOP: _____ **REAM:** _____
W. O. DAYLIGHT 4.00

TOTAL HOURS: 13.00

REMARKS

11:00 - 20:00 SAFETY MEETING WITH ALNIGHT TRUCKERS AND RIG CREW. MOVE DRILLING RIG AND RENTALS TO NEW LOCATION E-07. (8 KM).
 20:00 - 23:59 SHUT DOWN FOR THE NIGHT.

ELEVATION 697.2 M + FILL 0.2 M = 697.4 M
 SATELLITE PHONE # 403-927-2335

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07

UNIQUE I.D. 300E076010117300

LOCATION: E-07

WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL

CELLULAR #: 403-927-2335

SPUD DATE: MAR 14/06 05:45

R.R. DATE:

CONTRACTOR: PD 129

A.F.E. #: 05N610059 EST. T.D 1485

DAILY COST: \$40,224

CUM. COST: \$967,419

DAILY MUD: \$125

CUM MUD: \$18,346

DAYS FROM SPUD: 11.77

DAY: 14 REP DATE: MAR 26/06 STATUS 06:00 LAY DOWN DRILL PIPE TO RUN CASING

DEPTH: 1457m TD PROG. KB: 701.40 GL: 697.40 MACP: 8201

SURVEYS:

MUD TYPE: GEL CHEM WT: 1090 VISC: 80 WL: 8 FC:1.5m PH: 10

ADDITIVES: SAWDUST 25 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
2	209095	200	RR	CH24MS	3 X 15.9						

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229						

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT	200		0.23
BIT SUB	152		0.96
X/O	151		0.81
12 DC's	121		112.34
JAR's	123		4.77
6 HWDP & X/O	121		57.47
131 DP	101		1273.02
KELLY			7.40
TOTAL			1457.00

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:		WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:		DST:	13.25
DRILL OUT:		TRIP:	8.75
CIRCULATE:	0.25	L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	1.00		

REMARKS

00:01 - 00:30 FINISH MAKING UP DST # 2.
 00:30 - 03:30 TRIP IN WITH DST # 2.
 03:30 - 05:15 SAFETY MEETING, HEAD UP BAKER INFLATE STRADDLE CLOSED CHAMBER REAL TIME TEST TOOL AND TEST DST # 2, FROM 1356M TO 1368M, MUSKEG FM.
 05:15 - 05:30 HOIST TO NEXT TEST POSITION.
 05:30 - 07:15 SAFETY MEETING, HEAD UP AND DST # 3, FROM 1337M TO 1349M, SULPHUR POINT FM.
 07:15 - 07:30 HOIST TO NEXT TEST POSITION.
 07:30 - 12:45 SAFETY MEETING, HEAD UP AND DST # 4 FROM 1267M TO 1279M, SLAVE POINT FM.
 12:45 - 18:15 SAFETY MEETING, 60 PPM H2S IN DRILL PIPE, MASK UP, TEAR OUT TEST MANIFOLD, TREAT INSIDE DP W/TECHNI-HIB 3169, HOIST FIRST FOUR STANDS, NO H2S, MASK DOWN, CONTINUE HOISTING TEST TOOL. AT 211M TAG FLUID, 20 PPM IN FM FLUID. MASK UP, TAKE FLUID SAMPLES, AT DC's REVERSE CIRC OUT GAS CUT MUD. FINISH HOISTING TEST TOOL. RECOVER RECORDERS.
 18:15 - 22:45 SERVICE AND LAY DOWN TEST TOOL.
 22:45 - 23:59 TRIP IN WELL W/BIT.
 TEMP, - 5 OVERCAST AND CALM.

TOTAL HOURS: 24.00

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07

UNIQUE I.D. 300E076010117300

LOCATION: E-07

WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL

CELLULAR #: 403-927-2335

SPUD DATE: MAR 14/06 05:45

R.R. DATE:

CONTRACTOR: PD 129

A.F.E. #: 05N610059 EST. T.D 1485

DAILY COST: \$39,995

CUM. COST: \$927,195

DAILY MUD: \$680

CUM MUD: \$17,571

DAYS FROM SPUD: 10.77

DAY: 13 REP DATE: MAR 25/06 STATUS 06:00 TEST DST # 3

DEPTH: 1457m TD PROG. KB: 701.40 GL: 697.40 MACP: 8201

SURVEYS:

MUD TYPE: GEL CHEM WT: 1090 VISC: 86 WL: 7.5 FC: 3 mr PH: 11.5

ADDITIVES: GEL 20 SX DRISPAC 1 SX SAWDUST 20 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
2	ER6045	200	RR	MJ310	3 X 12.7						

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	100	1.051	7500	47	41	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
TEST TOOL	172		22.29
12 DC's	121		112.25
6 HWDP	121		57.17
122 DP	101		1185.67
			8.14
TOTAL			1385.52

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:		WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:		DST:	10.50
DRILL OUT:		TRIP:	10.75
CIRCULATE:	1.00	L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	1.00		

TOTAL HOURS: 24.00

REMARKS

00:01 - 00:15 RIG SERVICE (FUNCTION ANNULAR, 13 SEC TO CLOSE).
 00:15 - 01:15 FINISH CIRC AND COND MUD.
 01:15 - 05:45 SAFETY MEETING AND HOIST BIT TO DST.
 05:45 - 08:00 SAFETY MEETING W/BAKER TESTERS AND RIG CREW. PICK UP AND MAKE UP TEST TOOL
 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION TEST PIPE RAMS, 2 SEC TO CLOSE).
 08:30 - 09:00 FINISH HANDLING TEST TOOL.
 09:00 - 12:30 TRIP IN WELL W/TEST TOOL (STRAP IN).
 12:30 - 18:30 SAFETY MEETING, HEAD UP BAKER INFLATE STRADDLE CLOSED CHAMBER REAL TIME TEST TOOL AND TEST DST # 1, FROM 1369M TO 1381M, MUSKEG FM, TIMES 10-60-60-104.
 18:30 - 21:30 HOIST DST # 1 TO RECOVER FM FLUID(115 MOFMUD&INHIBATOR)AND BOTTOMSAMPLER.
 21:30 - 23:15 RECOVER RECORDERS AND SERVICE TOOL.
 23:15 - 23:59 MAKE UP DST # 2.

RSPP; 2100 KPA @ 68 STROKES, 1457M.
 SATELLITE PHONE # 403-927-2335
 TEMP; - 5 , OVERCAST AND CALM.

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$68,911
CUM. COST: \$882,200
DAILY MUD: \$350
CUM MUD: \$16,891
DAYS FROM SPUD: 9.77

DAY: 12 **REP DATE:** MAR 24/06 **STATUS** 06:00 PICK UP BAKER TEST TOOL
DEPTH: 1457M TD PROG. **KB:** 701.40 **GL:** 697.40 **MACP:** 8243
SURVEYS:

MUD TYPE: GEL CHEM **WT:** 1080 **VISC:** 70 **WL:** 8 **FC:** 3 MM **PH:** 10
ADDITIVES: SAWDUST 15 SX GEL 15 SX CAUSTIC 1 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
2	ER6045	200	RR	MJ310	3 X 12.7						

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	92	0.967	6875	46	40	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & BIT SUB	152		1.33
X/O	152		0.81
6 DC's	121		56.61
JAR's & 6 DC's	123		60.72
6 HWDP	121		57.25
X/O	121		0.22
131 DP	101		1273.02
KELLY			7.04
TOTAL			1457.00

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	2.00
RIG SERVICE:	0.50	CEMENT:	
SURVEY:		WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:		DST:	
DRILL OUT:		TRIP:	14.00
CIRCULATE:	1.75	L.D.D.S.:	4.50
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	1.25		

REMARKS

RAN _____ **JTS OF** _____ **MM,**
LANDED AT _____ **MKB.** **TOTAL LENGTH** _____
CEMENTED WITH _____
PLUG DOWN AT _____ **HRS. ON** _____ **WITH** _____ **M3 CEMENT RETURNS.**
LOGS RUN
DISFL 427 **M TO** 1456.3 **M.** **CNL-DEN** 427 **M TO** 1456.3 **M.**
SONIC 427 **M TO** 1443.4 **M.** **MICRO** 1250.0 **M TO** 1445.9 **M.**

TOTAL HOURS: 24.00
KG/M, _____ **CASING.**
METERS. _____

00:01 FINISH LOGGING W/PRECISION ENERGY SERVICES. 06:30 SAFETY MEETING AND TRIP IN WELL W/BIT. 08:00 RIG SERVICE (FUNCTION PIPE RAMS, 2 SEC TO CLOSE). 08:15 FINISH TRIP IN WELL. 09:15 CIRC AND COND MUD. 10:30 SAFETY MEETING AND LAY DOWN DP TO 750 M. 14:00 HOIST PIPE THAT IS LEFT IN HOLE AND RACK IN DERRICK. 15:00 LAY DOWN 152 MM DC's. 16:00 RIG SERVICE AND SAFETY MEETING (FUNCTION HCR VALVE, 2 SEC TO OPEN). 16:30 TRIP IN WELL FROM DERRICK AND PICK UP DP TO GO TO BOTTOM. 23:30 - 23:59 CIRC AND COND MUD.
HOLE DRAG; ZERO. RSPP; 2100 KPA @ 68 STROKES, 1457 M. TEMP. - 15 , CLEAR AND CALM.
SATF I I T F P H O N E # 403-927-2335
FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$43,269
CUM. COST: \$813,289
DAILY MUD: \$1,709
CUM MUD: \$16,541
DAYS FROM SPUD: 8.77

DAY: 11 **REP DATE:** MAR 23/06 **STATUS** 06:00 **LOG W/PRECISION ENERGY SERVICES**
DEPTH: 1457M TD **PROG.** 18 **KB:** 701.40 **GL:** 697.40 **MACP:** 8201
SURVEYS: 1447M - 0.75

MUD TYPE: GEL CHEM **WT:** 1090 **VISC:** 90 **WL:** 8 **FC:** **PH:** 10
ADDITIVES: HUMULITE 1 SX DRISPAC 1 SX SAWDUST 20 SX GEL 57 SX BARITE 24 CAUSTIC 1 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	M06532	200	VAREL	MKS55	7 X 9.5	1457	1030	86.25	6-X-I	8,000	50-80

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	121	1.272	6650	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & STABILIZER	160		10.47
7 DC's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
121 DP	101		1193.84
KELLY			11.65
TOTAL			1457.00

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	4.25
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	0.50	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	6.75	DST:	
DRILL OUT:		TRIP:	6.75
CIRCULATE:	3.25	L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SLIP & CUT DRILL	1.25		
SAFETY MEETING	0.50		
TOTAL HOURS:	24.00		

REMARKS

RAN _____ **JTS OF** _____ **MM,** _____ **KG/M,** _____ **CASING.**
LANDED AT _____ **MKB.** **TOTAL LENGTH** _____ **METERS.**
CEMENTED WITH _____
PLUG DOWN AT _____ **HRS. ON** _____ **WITH** _____ **M3 CEMENT RETURNS.**
LOGS RUN
DISFL _____ **M TO** _____ **M.** **CNL-DEN** _____ **M TO** _____ **M.**
SONIC _____ **M TO** _____ **M.**

00:01 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 13 SEC TO CLOSE). 00:30 DRILL AHEAD TO 1457 MKB TD. 07:15 CIRC AND COND MUD. 08:00 RIG SERVICE AND SAFETY MEETING (FUNCTION PIPE RAMS, 2 SEC TO CLOSE). 08:30 CIRC AND COND MUD. 09:00 SURVEY 09:30 WIPPER TRIP. 12:45 CIRC AND COND MUD. 14:45 HOIST BIT TO LOG. 18:30 SLIP AND CUT DRILLING LINE. 19:45 SAFETY MEETING W/PRECISION ENERGY SERVICES AND RIG CREW, RIG TO AND LOG.
HOLE DRAG; 2 KdaN's UP AND DOWN. RSPG; 2300 KPA @ 68 STROKES, 1457M. TEMP. - 13CLEAR & CLAM COMPLETE RIG & CAMP INSPECTION DONE BY NEB RICHARD TURNER AND KAREN DUCKWORTH.

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07

UNIQUE I.D. 300E076010117300

LOCATION: E-07

WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL

CELLULAR #: 403-927-2335

SPUD DATE: MAR 14/06 05:45

R.R. DATE:

CONTRACTOR: PD 129

A.F.E. #: 05N610059 EST. T.D 1485

DAILY COST: \$38,199

CUM. COST: \$777,457

DAILY MUD: \$1,829

CUM MUD: \$14,832

DAYS FROM SPUD: 7.77

DAY: 10 REP DATE: MAR 22/06 STATUS 06:00 DRILLING AHEAD AT 1457M
DEPTH: 1439 PROG. 107 KB: 701.40 GL: 697.40 MACP: 8285
SURVEYS: 1351M - 1.00
HUMULITE 4 SX SAWDUST 20 SX
MUD TYPE: GEL CHEM WT: 1070 VISC: 48 WL: 8.5 FC: PH: 9.5
ADDITIVES: SODA ASH 42 SX GEL 12 SX CAUSTIC 1 SX DRISPAC 2 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	2426	200	VAREL	MKS55	7 X 9.5	IN	1012	79.5		8,000	60-100

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	121	1.272	6625	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & STABILIZER	160		10.47
7 DC's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
121 DP	101		1175.27
KELLY			12.35
TOTAL			1439.13

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	1.00	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	21.50	DST:	
DRILL OUT:		TRIP:	
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	0.75		

REMARKS

TOTAL HOURS: 24.00

00:01 - 00:30 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 13 SEC TO CLOSE).
 00:30 - 08:00 DRILL AHEAD AND SURVEY.
 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION PIPE RAMS, 2 SEC TO CLOSE).
 08:30 - 16:00 DRILL AHEAD.
 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING (FUNCTION HCR VALVE, 2 SEC TO OPEN).
 16:30 - 23:59 DRILL AHEAD.

HOLE DRAG; 2 KdaN'S UP AND DOWN.
 RSPG; 2200 KPA @ 68 STROKES, 1409 M.
 SATELLITE PHONE # 403-927-2335
 TEMP. - 4 , OVER CAST AND CALM

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$50,994
CUM. COST: \$739,258
DAILY MUD: \$3,974
CUM MUD: \$13,003
DAYS FROM SPUD: 6.77

DAY: 9 **REP DATE:** MAR 21/06 **STATUS** 06:00 **DRILLING AHEAD AT 1363 M**
DEPTH: 1332 **PROG. 213** **KB:** 701.40 **GL:** 697.40 **MACP:** 8369
SURVEYS: 1138M - 0.75 1206M - 0.75
MUD TYPE: SAWDUST 45 SX PRIMA SEAL 3 SX CELLOPHANE 10 SX
ADDITIVES: GEL CHEM **WT:** 1050 **VISC:** 51 **WL:** 9 **FC:** **PH:** 10.5
ADDITIVES: GEL 109 SX SODA ASH30 SX CAUSTIC 5 SX HUMULITE 7 SX DRISPAC 4 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	2426	200	VAREL	MKS55	7 X 9.5	IN	905	58		6-8000	55-110

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	120	1.261	6600	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & STABILIZER	160		10.47
7 DC's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
110 DP	101		1068.48
KELLY			12.35
TOTAL			1332.34

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	1.00	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	21.00	DST:	
DRILL OUT:		TRIP:	
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	1.25		

REMARKS

00:01 - 00:30 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 13 SEC TO CLOSE).
 00:30 - 08:00 DRILL AHEAD AND SURVEY.
 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION PIPE RAMS, 2 SEC TO CLOSE).
 08:30 - 16:00 DRILL AHEAD AND SURVEY.
 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING.
 16:30 - 23:45 DRILL AHEAD AND SURVEY.
 23:45 - 23:59 BOP DRILL (FUNCTION PIPE RAMS, WELL SECURED IN 98 SEC).

TOTAL HOURS: 24.00

HOLE DRAG; 2 KdaN's UP AND DOWN.
 RSPP; 2,100 KPA @ 68 STROKES, 1294 MKB
 SATELLITE PHONE # 403-927-2335
 TEMP. - 6 , CLEAR AND CALM AT 06:00.

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07

UNIQUE I.D. 300E076010117300

LOCATION: E-07

WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL

CELLULAR #: 403-927-2335

SPUD DATE: MAR 14/06 05:45

R.R. DATE:

CONTRACTOR: PD 129

A.F.E. #: 05N610059 EST. T.D 1485

DAILY COST: \$45,101

CUM. COST: \$688,264

DAILY MUD: \$1,455

CUM MUD: \$9,029

DAYS FROM SPUD: 5.77

DAY: 8 REP DATE: MAR 20/06 STATUS 06:00 DRILL AHEAD AT 1206 M

DEPTH: 1119 PROG. 320 KB: 701.40 GL: 697.40 MACP: 8495

SURVEYS: 827M - 0.25 876M - 0.75 924M - 0.25 1002M - 0.5 1070M - 0.5

MUD TYPE: FLOC WAT WT: 1020 VISC: 31 WL: FC: PH: 10

ADDITIVES: ALKAPAM 2 SX SAWDUST 45 SX ENVIROFLOC 16 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	2426	200	VAREL	MKS55	7 X 9.5	IN	692	37		6,000	100

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	130	1.366	5580	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & STABILIZER	160		10.47
7 DC's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
88 DP	101		855.46
KELLY			12.35
TOTAL			1119.32

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	3.00	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	18.00	DST:	
DRILL OUT:		TRIP:	1.50
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
SAFETY MEETING	0.75		

REMARKS

- 00:01 - 00:30 RIG SERVICE AND SAFETY MEETING (FUNCTION ANNULAR, 13 SEC TO CLOSE).
- 00:30 - 08:00 DRILL AHEAD AND SURVEY.
- 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION PIPE RAMS, 2 SEC TO CLOSE).
- 08:30 - 09:00 DRILL AHEAD TO 895 M (TIGHT HOLE ON CONNECTION).
- 09:00 - 10:30 WIPER TRIP 10 STANDS (HOLE IS NOT TIGHT).
- 10:30 - 16:00 DRILL AHEAD AND SURVEY.
- 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING (FUNCTION HCR VALVE, 2 SEC TO OPEN).
- 16:30 - 23:59 DRILL AHEAD AND SURVEY.

TOTAL HOURS: 24.00

CLOSE IN MUD SYSTEM @ 1100 M AND START MUD UP.
 RIG INSPECTION COMPLETED.
 HOLE DRAG; 2 KdaN's UP AND 1 KdaN's DOWN.
 RSPP; 1910 KPA AT 68 STROKES, 983 M.
 SAFETY MEETING WITH DAY AND NIGHT CREW (H2S)
 SATELLITE PHONE # 403-927-2335
 TEMP. - 10, CLEAR AND CALM.

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$40,661
CUM. COST: \$643,163
DAILY MUD: \$1,641
CUM MUD: \$7,574
DAYS FROM SPUD: 4.77

DAY: 7 **REP DATE:** MAR 19/06 **STATUS** 06:00 **DRILL 200 MM HOLE AT 866 M**
DEPTH: 799 **PROG. 372** **KB:** 701.40 **GL:** 697.40 **MACP:** 8537
SURVEYS: 516M - 0.75 682M - 0.5 730M - 0.75 779M - 0.5

MUD TYPE: FLOC WAT **WT:** 1010 **VISC:** 28 **WL:** **FC:** **PH:** 8.5
ADDITIVES: ALKAPAM 1 SX SAWDUST 90 SX SODA ASH 3 SX GEL 10 SX ENVIROFLOC 16 SX

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	2426	200	VAREL	MKS55	7 X 9.5	IN	372	19		5-7000	80-110

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	129	1.356	4690	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & STABILIZER	160		10.47
7 DC 's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
53 DP	101		515.38
KELLY			12.35
TOTAL			779.24

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.75	CEMENT:	
SURVEY:	2.25	WOC:	
PRESSURE TEST:		RUN CSG:	
DRILL:	19.00	DST:	
DRILL OUT:		TRIP:	
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:		REAM:	
LEAK OFF TEST	0.50	DRILL OUT	1.00
SAFETY MEETING	0.50		
TOTAL HOURS:	24.00		

REMARKS

00:01 - 00:15 RIG SERVICE (FUNCTION ANNULAR, 13 SEC TO CLOSE).
 00:15 - 01:15 DRILL OUT FLOAT COLLAR AND FLOAT SHOE (TAGGED CEMENT AT 411 M).
 01:15 - 01:30 DRILL 200 MM HOLE TO 438 MKB.
 01:30 - 02:00 LEAK-OFF TEST W/ RIANBOW PRESSURE TESTING (LEAK OFF GRADIENT 29.99 KPA/M).
 02:00 - 08:00 DRILL 200 MM HOLE TO 555 M AND SURVEY (MUD LOSSES; 489 M - 12 M3, 505 M - 8 M3).
 08:00 - 08:30 RIG SERVICE AND SAFETY MEETING (FUNCTION PIPE RAMS, 2 SEC TO CLOSE).
 08:30 - 16:00 DRILL 200 MM HOLE AND SURVEY.
 16:00 - 16:30 RIG SERVICE AND SAFETY MEETING.
 16:30 - 23:59 DRILL 200 MM HOLE AND SURVEY.

RSPP; 1220 KPA AT 68 STROKES, 662 M
 HOLE DRAG; 2 KdaN's UP and 1 KdaN's DOWN
 TEMP. - 24 , CLEAR AND CALM.

FINAL WELL STATUS:

PARAMOUNT RESOURCES LTD

DAILY DRILLING REPORT

PARA ET AL CAMERON E-07
UNIQUE I.D. 300E076010117300

LOCATION: E-07
WELL LICENCE 1125

SUPERVISOR: NEIL RUNDELL
CELLULAR #: 403-927-2335
SPUD DATE: MAR 14/06 05:45
R.R. DATE:
CONTRACTOR: PD 129
A.F.E. #: 05N610059 **EST. T.D** 1485

DAILY COST: \$46,485
CUM. COST: \$602,502
DAILY MUD:
CUM MUD: \$5,933
DAYS FROM SPUD: 3.77

DAY: 6 **REP DATE:** MAR 18/06 **STATUS** 06:00 **DRILL** 200 MM HOLE AT 505 M
DEPTH: 427 **PROG.** **KB:** 701.40 **GL:** 697.40 **MACP:** 8537
SURVEYS:

MUD TYPE: FLOC WAT **WT:** 1010 **VISC:** 28 **WL:** **FC:** **PH:** 8.5
ADDITIVES:

BIT	SERIAL #	SIZE	MFG	TYPE	JETS	OUT	RUN	HRS	TBG	WEIGHT	RPM
1	2426	200	VAREL	MKS55	7 X 9.5	IN					

PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZEL VEL
EMSCO	F-800	152	229	129	1.356	5240	99	56	

DRILLING ASSEMBLY

TOOL	OD	ID	LENGTH
BIT & TORSIONAL	160		2.67
1 DC & SATABALIZER	160		10.47
7 DC's	152		62.76
X/O & 6 DC's	122		57.42
JAR's & 6 DC's	123		60.72
6 HWDP & X/O SUB	102		57.47
12 DP			155.72
KELLY			12.35
TOTAL			419.58

TIME DISTRIBUTION

MORU:		RIG REP:	
DRILL MH & RH:		LOGGING:	
RIG SERVICE:	0.50	CEMENT:	
SURVEY:		WOC:	
PRESSURE TEST:	5.50	RUN CSG:	
DRILL:		DST:	
DRILL OUT:		TRIP:	2.25
CIRCULATE:		L.D.D.S.:	
NIPPLE UP BOP:	11.25	REAM:	
SAFETY MEETING	1.50	SLIP & CU	1.00
THAW KELLY	2.00		
TOTAL HOURS:	24.00		

REMARKS

00:01 FINISH WELDING ON BOWL AND PRESSURE TEST TO 7,000 KPA FOR 15 MIN. (OK). 00:15 SAFETY MEETING AND NIPPLE UP BOP's AND STUDDERED SOUR TRIM FLARE LINES.
 08:00 RIG SERVICE AND SAFETY MEETING. 08:30 FINISH NIPPLE UP (WALK HI-HOE TO LOCATION AND EXCAVATE NEW FLARE TANK POSITION. 12:00 SAFETY MEETING W/RAINBOW PRESSURE TESTING AND RIG CREW. PRESSURE TEST BLIND RAMS, KILL LINE VALVES, CHECK VALVE, CASING BOWL, HCR VALVE, KILL LINE VALVE AND CHOKE MANIFOLD. PRESSURE TEST PIPE RAMS, INSIDE BOP, STABBING VALVE TO 1,500KPA LOW AND 15,000KPA HIGH FOR 15 MIN. EACH. PRESSURE TEST HYDRIL, HCR VALVE, MANUAL CHOKE VALVE, UPPER AND LOWER KELLY COCK TO 1,500KPA LOW AND 12,000KPA HIGH FOR 15 MIN. EACH. PRESSURE TEST CASING TO 14,000KPA FOR 15 MIN. 18:15 HANDLE TOOLS AND TRIP IN WELL. 20:30 SLIP AND CUT DRILLING LINE. 21:30 PRE-DRILL OUT SAFETY MEETING AND BOP DRILL (WELL SECURED IN 180 SEC). 22:00 - 24:00 THAW KELLY. ACCUMULATOR CHECK; START PRESSURE 21,000 KPA, OPEN HCR, CLOSE ANNULAR PREVENTER AND PIPE RAMS, REMAINING PRESSURE 13,000 KPA, RECHARGED IN 78 SEC. PRE-CHARGE PRESSURE 6200 KPA. N2 BOTTLES; 14,700 KPA AND 13,300 KPA. CHECK MOTOR KILLS (OK). CHANGED PUMP LINERS TO 139.7 MM.

FINAL WELL STATUS:

DAILY CONSTRUCTION & RESTROATION REPORT

WELL NAME: Para Et AL Cameron E-07 60*10',117*30'

TYPE OF JOB: New lease

TICKET NUMBER: Rowe's Const #013688

CURRENT OPERATION: Digging sump.

116 MAINTENCE – roads, site EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
LABOUR, SLASHER, ECT					
FOREMAN w/TRUCK, ECT	Day		950.-		
OPERATOR TRAVEL w/TRUCK	1 x 48 + 1 x 200		248.-		
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D8K	12.5 x 200		2500.-		
CATS D6M	3 x 140		420.-		
CATS					
HOE 325 CAT	12.5 x 165		2062.50		
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER 55,000 L enviro fuel tank	Day		150.-		
OTHER Four head H2s monitors (4)	4 x 35		140.-		
OTHER VHF hand held (medic)	Day		40.-		
WEATHER: H -2 L-7 cloudy	DAILY		6510.50		
ROAD CONDITON:	CUMM	19,768.50	85,289.50		
REPORTED BY: Gary Barber	SUPERVISION – DAILY		1200	CUMM	15,600
MOBILE #: (780)-778-1567					

PARAMOUNT RESOURCES LTD

DATE: March 17/06
DAY: 24

DAILY CONSTRUCTION & RESTORATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059

TYPE OF JOB: New lease

PROJECT NUMBER: Rowe's Const #013730

CURRENT OPERATION: Cut sump spill pile out to make more room for flare tank.

EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
DOUB, SLASHER, ECT					
OPERMAN w/TRUCK, ECT					
OPERATOR TRAVEL w/TRUCK					
BUCKING - EQUIP. MATERIALS					
DISC. - CULVERTS, GEOGRIDS					
PERSISTENCE - CAMP					
ATS					
ATS					
ATS					
DOE 330 CAT	10 x 175		1750.-		
RADERS					
WATER TRUCK, PUMPS					
TV					
THER H2s monitors (1)	1 x 35		35.-		
THER					
THER					
WEATHER: H L	DAILY		1785.-		
ROAD CONDITION:	CUMM	21,958.-	90,959.50		
REPORTED BY: Gary Barber	SUPERVISION - DAILY			CUMM	18,000.-
MOBILE #: (780)-778-1567					

DAILY CONSTRUCTION & RESTROATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059

TYPE OF JOB: Clean Up

TICKET NUMBER: Rowe's Const # 013749

CURRENT OPERATION: Mixing sump 330 hoe cat push dirt to hoe for mixing.

116 MAINTENCE – roads, site	112 AIRSTRIP PREP	CONSTRUCTION		RESTORATIO	
		ROAD/103	SITE/104	SITE/108	ROAD
EQUIPMENT LIST	HOURS & RATES				
LABOUR, SLASHER, ECT					
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK					
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D6M	3x 140			420.-	
CATS					
CATS					
HOE 330 CAT	6 x 175			1050.-	
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER 55,000 L enviro fuel tank				150.-	
OTHER H2s monitors (3)	3 x 35			105.-	
OTHER					
WEATHER: H+3 L-19 sunny	DAILY			2675.-	
ROAD CONDITON:	CUMM			2675.-	
REPORTED BY: Gary Barber	SUPERVISION – DAILY 1200			CUMM	12
MOBILE #: (780)-778-1567					



DAILY CONSTRUCTION & RESTROATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059

TYPE OF JOB: Clean Up

TICKET NUMBER: Rowe's Const # 013750

CURRENT OPERATION: Mixing sump 330 hoe cat push dirt to hoe for mixing and start landscaping sit

116 MAINTENCE – roads, site EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
LABOUR, SLASHER, ECT					
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK	.5 x 48 + 1 x 200			224.-	
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D6M	3x 140			420.-	
CATS D7G	3 x 150			450.-	
CATS					
HOE 330 CAT	12.5 x 175			2187.50	
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER 55,000 L enviro fuel tank				150.-	
OTHER H2s monitors (3)	5 x 35			175.-	
OTHER					
WEATHER: H +8 L-9 sunny	DAILY			6436.50	
ROAD CONDITON:	CUMM			9111.50	
REPORTED BY: Gary Barber	SUPERVISION – DAILY 1200			CUMM	2400.-
MOBILE #: (780)-778-1567					

DM: PARAMOUNT CAMERON

PARAMOUNT RESOURCES LTD

DATE: April 3/06
DAY: 3**DAILY CONSTRUCTION & RESTORATION REPORT**

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059

TYPE OF JOB: Clean Up

TICKET NUMBER: Rowe's Const # 009386

CURRENT OPERATION: Mixing sump 330 hoe cat push dirt to hoe for mixing start landscaping site.
322 hoe pulling in burm.

116 MAINTENCE – roads, site EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
LABOUR, SLASHER, ECT					
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK	.5 x 48 + 1 x 200			224.-	
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D6M	8x 140			1120.-	
CATS D7G	8 x 150			1200.-	
HOE 322 CAT	3 x 145			322.-	
HOE 330 CAT	12 x 175			2100.-	
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER					
OTHER H2s monitors (6)	6 x 35			210.-	
OTHER					
WEATHER: H +6 L-3 sun/cloud	DAILY			6239.-	
ROAD CONDITON:	CUMM			15,350.-	
REPORTED BY: Gary Barber	SUPERVISION – DAILY 1200			CUMM	3600.-
MOBILE #: (780)-778-1567					

Apr. 05 2006 12:06PM P4

FAX NO.: 17808419436

FROM: PARAMOUNT CAMERON HILLS

DAILY CONSTRUCTION & RESTORATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059

TYPE OF JOB: Clean Up

TICKET NUMBER: Rowe's Const # 009389

CURRENT OPERATION: Finish mixing sump . Cats landscaping site.

116 MAINTENCE – roads, site EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
LABOUR, SLASHER, ECT					
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK	1.5 x 48 + 1 x 200			272.-	
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D6M	11 x 140			1549.-	
CATS D7G	11 x 150			1650.-	
HOE 322 CAT	11 x 145			1595.-	
HOE					
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER					
OTHER H2s monitors (5)	5 x 35			175.-	
OTHER					
WEATHER: H+7 L-15 sun/cloud	DAILY			6182.-	
ROAD CONDITON: Breaking up	CUMM			21,532.-	
REPORTED BY: Gary Barber	SUPERVISION – DAILY 1200			CUMM	48
MOBILE #: (780)-778-1567					

PARAMOUNT CAMERON HILLS

DAILY CONSTRUCTION & RESTROATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059
 TYPE OF JOB: Clean up
 TICKET NUMBER: Rowe's Const #009390
 CURRENT OPERATION: Capping sump and landscaping lease.

116 MAINTENCE – roads, site	112 AIRSTRIP PREP	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/100
EQUIPMENT LIST	HOURS & RATES				
LABOUR, SLASHER, ECT	12 x 48			576.-	
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK	2 x 48 + 2 x 200			496.-	
TRUCKING – EQUIP. MATERIALS					
MISC. – CULVERTS, GEOGRIDS					
SUBSISTENCE – CAMP					
CATS D7G	11 x 150			1650.-	
CATS D6M	11 x 140			1540.-	
CATS					
HOE 322 CAT	3 x 145			435.-	
GRADERS					
WATER TRUCK, PUMPS					
ATV					
OTHER H2s monitors	6 x 35			210.-	
OTHER					
OTHER					
WEATHER: H +9 L-7 sunny	DAILY			5857.-	
ROAD CONDITON:	CUMM			27,389.-	
REPORTED BY: Gary Barber	SUPERVISION – DAILY 1200			CUMM	6,000.
MOBILE #: (780)-778-1567					

DAILY CONSTRUCTION & RESTROATION REPORT

WELL NAME: Para Et Al Cameron E-07 60*10',117*30' AFE-05N-610059
 TYPE OF JOB: Clean up
 TICKET NUMBER: Rowe's Const #009391
 CURRENT OPERATION: Capping sump and landscaping lease.

EQUIPMENT LIST	112 AIRSTRIP PREP HOURS & RATES	CONSTRUCTION		RESTORATION	
		ROAD/103	SITE/104	SITE/108	ROAD/109
LABOUR, SLASHER, ECT	4 x 48			192.-	
FOREMAN w/TRUCK, ECT	Day			950.-	
OPERATOR TRAVEL w/TRUCK	1 x 200			200.-	
TRUCKING - EQUIP. MATERIALS					
MISC. - CULVERTS, GEOGRIDS					
SUBSISTENCE - CAMP					
CATS D7G	10 x 150			1500.-	
CATS D6M	10.5 x 140			1470.-	
DOE 330 CAT walk to hiway & demob	11 x 175 + 550			2475.-	
DOE 322 CAT	10 x 145			1450.-	
GRADERS					
WATER TRUCK, PUMPS					
TV					
OTHER					
OTHER					
OTHER					
WEATHER: H +9 L-5 cloud/rain	DAILY			8237.-	
ROAD CONDITON:	CUMM			35,626.-	
REPORTED BY: Gary Barber	SUPERVISION - DAILY 1200			CUMM	7,200.-
MOBILE #: (780)-778-1567					

Formation: Muskeg
 Interval - from: 1369.00 to: 1381.00 m

Recorder# 77242 at 1371.00 m

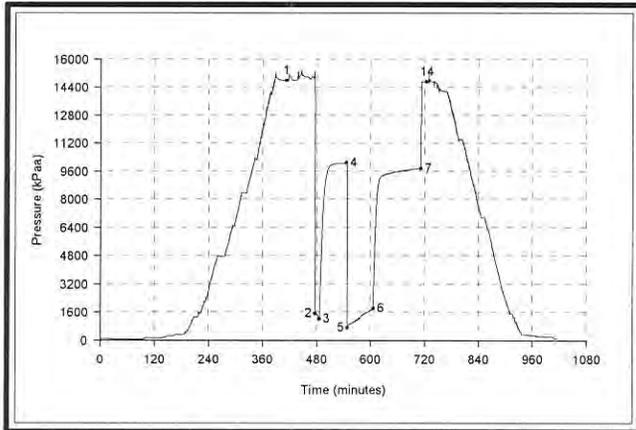
Test Date: 2006-03-23
 Test Type: Inflate Straddle
 Tester Name: John Sandford
 Drill Pipe O.D.: 101.00 mm
 Drill Collar I.D.: 57.00 mm
 Drill Collar Length: 112.25 m
 Hole Size: 200.00 mm

Blow Description:

Closed Chamber.

Remarks:

Mechanically successful test. Results suggest average permeability within the interval tested. Added 200 liters (82 meters) of inhibitor and water prior to starting the test. Minor plugging during the preflow - this did not affect the test validity. The final shut-in appears to be showing a change in permeability within the radius of investigation.



Maximum Btm Hole Temperature @ FSI: 53.8 C

		Pressure (kPaa)	Time (min)	Extrapolated Pressure (kPaa)
1	Initial Hydrostatic	14778		
2	Start of 1st Flow	1521		
3	End of 1st Flow	1214	9.5	
4	End of 1st Shut-in	10063	59.5	10132.1
5	Start of 2nd Flow	702		
6	End of 2nd Flow	1800	57.5	
7	End of 2nd Shut-in	9742	105.0	9994.0
14	Final Hydrostatic	14713		

Liquid Recovery of 115.00 m

Recovery	Description	Salinity
75.00 m	Gasified drilling fluid cut with inhibitor	10000
40.00 m	Gasified brackish drilling fluid cut with inhibitor	25000

Baker Oil Tools

Formation: Muskeg
 Interval - from: 1356.00 to: 1368.00 m

Recorder# 77242 at 1358.00 m

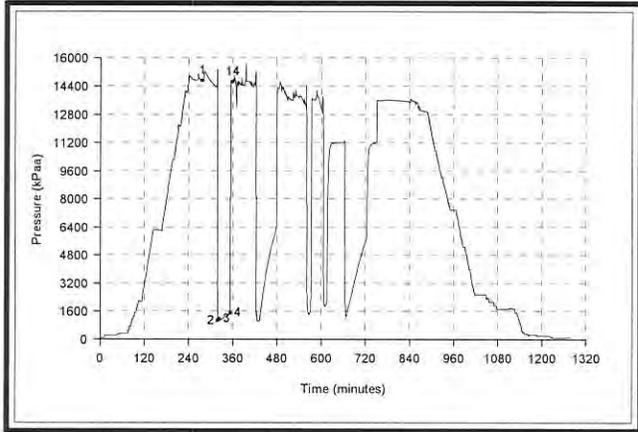
Test Date: 2006-03-23
 Test Type: inflate straddle
 Tester Name: John Sandford
 Drill Pipe O.D.: 101.00 mm
 Drill Collar I.D.: 57.00 mm
 Drill Collar Length: 112.25 m
 Hole Size: 200.00 mm

Blow Description:

Closed Chamber.

Remarks:

This is the first of three tests run on the same trip in the hole. Mechanically successful test. The available results suggest very low permeability within the interval tested. The test was cut short as requested. Added 160 liters (49 meters) of inhibitor and water prior to starting the test.



Maximum Btm Hole Temperature @ FSI: 53.6 C

		Pressure (kPaa)	Time (min)	Extrapolated Pressure (kPaa)
1	Initial Hydrostatic	14711		
2	Start of 1st Flow	1045		
3	End of 1st Flow	1162	4.5	
4	End of 1st Shut-in	1492	30.5	
14	Final Hydrostatic	14637		

Liquid Recovery of 211.00 m

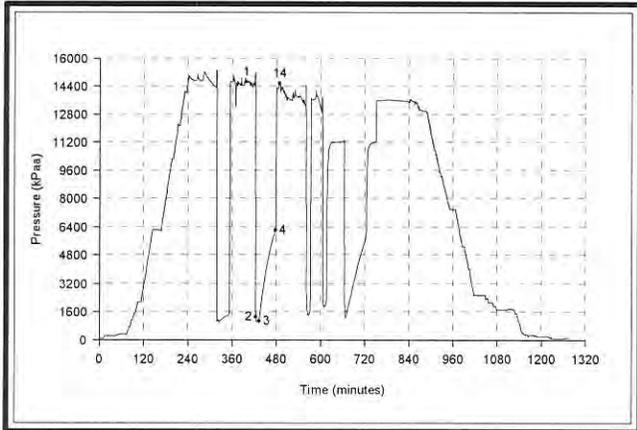
Test was reversed out.

Recovery	Description	Salinity
20.00 m	Scrubber mixed with drilling fluid and gas	
191.00 m	Gasified black drilling fluid with inhibitor and gas pockets	

Formation: Sulphur Point
 Interval - from: 1337.00 to: 1349.00 m

Recorder# 77242 at 1339.00 m

Test Date: 2006-03-23
 Test Type: inflate straddle
 Tester Name: John Sandford
 Drill Pipe O.D.: 101.00 mm
 Drill Collar I.D.: 57.00 mm
 Drill Collar Length: 112.25 m
 Hole Size: 200.00 mm



Blow Description:

Closed Chamber.

Remarks:

This is the second of three tests run on the same trip in the hole. Mechanically successful test. The available results suggest very low permeability within the interval tested. The test was cut short as requested. Added 160 liters (49 meters) of inhibitor and water prior to starting DST#2.

Maximum Btm Hole Temperature @ FSI: 52.3 C

	Pressure (kPaa)	Time (min)	Extrapolated Pressure (kPaa)
1 Initial Hydrostatic	14653		
2 Start of 1st Flow	1303		
3 End of 1st Flow	1067	10.0	
4 End of 1st Shut-in	6208	43.5	
14 Final Hydrostatic	14560		

Liquid Recovery of 211.00 m

Test was reversed out.

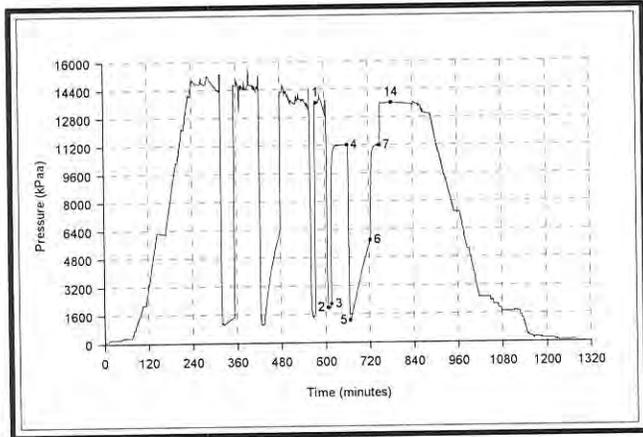
Recovery	Description	Salinity
20.00 m	Scrubber mixed with drilling fluid and gas	
191.00 m	Gasified black drilling fluid with inhibitor and gas pockets	

Baker Oil Tools

Formation: slave point
Interval - from: 1267.00 to: 1279.00 m

Recorder# 77242 at 1269.00 m

Test Date: 2006-03-25
Test Type: inflate straddle
Tester Name: John Sandford
Drill Pipe O.D.: 101.00 mm
Drill Collar I.D.: 57.00 mm
Drill Collar Length: 112.25 m
Hole Size: 200.00 mm



Blow Description:

Closed Chamber.

Remarks:

This is the third of three tests run on the same trip in the hole. The available results suggest average permeability within the interval tested. Lost the packer seat 26 minutes into the final shut-in. Lost the packer seat when opening the tool for the preflow. Repumped the packers and started over. Added 160 liters (49 meters) of inhibitor and water prior to starting the test.

Maximum Btm Hole Temperature @ FSI: 51.5 C

		Pressure (kPaa)	Time (min)	Extrapolated Pressure (kPaa)
1	Initial Hydrostatic	13640		
2	Start of 1st Flow	1979		
3	End of 1st Flow	2189	8.5	
4	End of 1st Shut-in	11209	45.5	11233.7
5	Start of 2nd Flow	1243		
6	End of 2nd Flow	5780	56.0	
7	End of 2nd Shut-in	11183	26.0	11280.4
14	Final Hydrostatic	13635		

Liquid Recovery of 211.00 m

Test was reversed out.

Recovery	Description	Salinity
20.00 m	Scrubber mixed with drilling fluid and gas	
191.00 m	Gasified black drilling fluid with inhibitor and gas pockets	



ENVIRONMENTAL INSPECTION REPORT

- C-74 was a producing oil well at time of shut-in in 2015.
- All chemicals and fuels were pumped from the storage tanks and hauled to Alberta for authorized disposal in 2019.
- The small amount of garbage located on the well site has been removed from site.
- The well is suspended and in compliance with the Downhole Well Suspension and Abandonment Guidelines and Interpretation Notes (OROGO). Well must be brought back into production or abandoned by March 31, 2025.
- No environmental concerns noted with C-74.

Well: C-75 Figure 26

Year Drilled: 1994

Coordinates: 60°04'03.54"N 117°29'19.07"W

Improvements: Christmas tree.

Status: Well is suspended and not tied in for production.

Comments:

- The well is suspended and in compliance with the Downhole Well Suspension and Abandonment Guidelines and Interpretation Notes (OROGO). Well must be brought into production or abandoned by March 31, 2025.
- No environmental concerns noted with C-75.

Well: D-49 Figure 27

Year Drilled: 2003

Coordinates: 60°08'10.57"N 117°39'02.23"W

Improvements: Well is tied in for production with pipeline.

Status: Well is tied in for production with pipeline. Production ceased at D-49 in 2013.

Comments:

- All production infrastructure remains on the well site.
- All chemicals and fuels were pumped from the storage tanks and hauled to Alberta for authorized disposal in 2019.
- The well is suspended and in compliance with the Downhole Well Suspension and Abandonment Guidelines and Interpretation Notes (OROGO). Well must be brought into production or abandoned by March 31, 2025.
- No environmental concerns noted with D-49.

Well: E-07 Figure 28

Year Drilled: 2006

Coordinates: 60°06'20.92"N 117°31'45.54"W

Improvements: Christmas tree.

Status: Well is suspended and not tied in for production.

Comments:

- Vegetation becoming well established. Inspectors note that it was difficult to find an upwind landing location for the helicopter.
- The well is suspended and in compliance with the Downhole Well Suspension and Abandonment Guidelines and Interpretation Notes (OROGO). Well must be brought into production or abandoned by January 31, 2023.

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- No environmental concerns noted with E-07.

Well: E-52 Figure 29

Year Drilled: 2010

Coordinates: 60°01'26.80"N 117°25'58.26"W

Improvements: No improvements.

Status: Well abandoned in 2012.

Comments:

- No environmental concerns noted with E-52.

Well: E-72 Figure 30

Year Drilled: 2007

Coordinates: 60°01'24.87"N 117°29'56.30"W

Improvements: Christmas tree.

Status: Well abandoned in 2019.

Comments:

- No environmental concerns noted with E-72.

Well: F-19 Figure 31

Year Drilled: 2004

Coordinates: 60°08'18.92"N 117°33'20.92"W

Improvements: No improvements.

Status: Well abandoned in 2012.

Comments:

- No environmental concerns noted with F-19.

Well: F-73/2F-73 Figures 32-33

Year Drilled: F-73 2004, 2F-73 2005

Coordinates: 60°02'22.99"N 117°29'33.36"W

Improvements: Christmas tree (2) and production facilities.

Status: Wells are tied in for production with pipeline. Production ceased at 2F-73 in 2008.

Production ceased at F-73 in 2005. Pump jack has been removed from F-73.

Comments:

- All production infrastructure remains on the well site.
- Vegetation becoming well established. Inspectors note that it was difficult to find an upwind landing location for the helicopter.
- All chemicals and fuels were pumped from the storage tanks and hauled to Alberta for authorized disposal in 2019.
- Both wells are suspended and in compliance with the Downhole Well Suspension and Abandonment Guidelines and Interpretation Notes (OROGO). Both wells must be brought back into production or abandoned by January 31, 2023.
- No environmental concerns noted with F-73/2F-73.

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ENVIRONMENTAL INSPECTION REPORT

- Aerial inspection. Anchors located near the Christmas tree were removed last season. Site appeared satisfactory and no environmental concerns were noted.

Well: D-49 Figures 37-40

Year Drilled: 2003

Coordinates: 60° 08' 10.57"N 117° 39' 02.23"W

Improvements: Well is tied in for production with pipeline.

Status: Well is tied in for production with pipeline. Production ceased at D-49 in 2013.

Comments:

- Slickline completed operations in February 2019. D-49 classified as suspended with tubing plug and packer – Abandonment Deadline 2025.
- All chemicals and fuels were pumped from the storage tanks last season and hauled to Alberta for authorized disposal.
- Length of pipeline and garbage were removed from the wellsite last season. No concerns noted with D-49.
- Ground has subsided at the pipeline riser. Remediation work can be completed when the well is abandoned.

Well: E-07 Figure 41

Year Drilled: 2006

Coordinates: 60° 06' 20.92"N 117° 31' 45.54"W

Improvements: Christmas tree.

Status: Well is suspended and not tied in for production.

Comments:

- Aerial inspection. Site appeared satisfactory and no environmental concerns were noted.

Well: E-52 Figures 42-43

Year Drilled: 2010

Coordinates: 60° 01' 26.80"N 117° 25' 58.26"W

Improvements: No improvements.

Status: Well abandoned in 2012.

Comments:

- Aerial inspection. Length of large-diameter steel cable located near the SW corner of the wellsite was removed last season. Site appeared satisfactory and no environmental concerns were noted.

Well: E-72 Figures 44-45

Year Drilled: 2007

Coordinates: 60° 01' 24.87"N 117° 29' 56.30"W

Improvements: Christmas tree.

Status: Well abandoned in 2019.

Comments:

- Well E-72 was abandoned in March 2019. Site appeared satisfactory and no environmental concerns were noted.
- The three lengths of pipe and garbage located on the wellsite were removed last season.

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APPENDIX 5

Professional Declaration

Professional Declaration for Phase I Environmental Site Assessment

Submit one Declaration for each report

- 1 This Declaration is made in conjunction with an application for a Phase I ESA (the "Application") made by
Alvarez & Marsal Canada Inc. (Applicant)
for the Well Site E-07 Cameron Hills, NWT (insert legal description).
- 2 I am a practicing professional member 79173 of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) which is a regulated professional organization (the "Professional Organization"). I have verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report (ESRD 2006).
- 3 As a member of the Professional Organization, I have the ability to sign off on work required for reclamation certificate applications as defined by the Alberta Energy Regulator and am authorized by the Applicant to prepare and submit the attached report or document, (the "Professional Report") listed below.
- 4 To the best of my knowledge and the best of my professional ability, recognizing the standard of care expected of a reasonable professional doing this work, it is my professional opinion that all the information contained in the Professional Report is accurate and complete, and contains all the relevant information for the purposes of this Application.
- 5 The results reported in the Professional Report are consistent with all current and applicable Provincial policy, criteria, standards and guidelines for the remediation or reclamation.
- 6 The Professional Report, including all attachments, data and supplemental information, were prepared by me, or under my direct supervision, or was prepared by a third party(ies) and has been reviewed and accepted by me; and was prepared in accordance with an appropriate quality assurance/quality control system that ensured qualified personnel properly gathered and evaluated all the information contained in and underlying the Professional Reports. All the information submitted is, to the best of my knowledge, true, accurate and complete.
- 7 I carry, or my employer: EnviroSearch Ltd.
(insert legal name of employer)
carries professional liability insurance (errors and omissions). This insurance will be maintained for the specified liability period, subject to insurance availability.

- 8 I am aware that it is an offence under section 227 of the Environmental Protection and Enhancement Act to provide false, misleading or inaccurate information and that there are significant fines for committing these offences, including the possibility of imprisonment. See below for the relevant sections.

Report Title: Phase I Environmental Site Assessment

Date: July 13, 2022

Name: Liese McLaren P.Geo.

Signature:



Note: If you wish to sign the form with an electronic signature you are bound with the same force as though you had a fixed signature on paper.

Registration/Member number: 79173

Section 227 of the Environmental Protection and Enhancement Act

Offences s. 227 A person who

- (a) knowingly provides false or misleading information pursuant to a requirement under this Act to provide information,
- (b) provides false or misleading information pursuant to a requirement under this Act to provide information

is guilty of an offence.

Penalties s. 228(1) A person who commits an offence referred to in section 60, 87, 108(1), 109(1) or 227(a), (d), (f) or (h) is liable to

- (a) in the case of an individual, to a fine or not more than \$100 000 or to imprisonment for a period of not more than 2 years or to both fine and imprisonment, or
- (b) in the case of a corporation, to a fine of not more than \$1 000 000.

(2) A person who commits an offence referred to in section 61, 67, 75, 76, 79, 88, 108(2), 109(2) 110(1) or (2), 111, 112, 137, 148, 149, 155, 157, 163, 169, 170, 173, 176, 188, 191, 192, 209, 227(b), (c), (e), (g), or (i) or 251 is liable.

- (a) in the case of an individual, to a fine or not more than \$50 000, or
- (b) in the case of a corporation, to a fine of not more than \$500 000.