Ridgeline
CANADA INC.

August 5, 2014

ALBERTA ENERGY REGULATOR
Suite 1000, 250 – 5th Street SW
Calgary, Alberta
T2P 0R4

RE: <u>Routine Application</u> for Reclamation Certificate on a wellsite and access road:
UWI: 100/13-14-041-28 W4/00
Surface Location: 13-14-041-28 W4M
Well Name: VESTA MORNSIDE 13-14-41-28
Licensee: Vesta Energy Ltd.
License: 337338
Lacombe County
Wellsite: 3.56 acres (120 x 120 metres)
Access Road: 0.57 acres (135 x 20 metres)
Cultivated Land

Please be advised that Vesta Energy Ltd. wishes to apply for a Reclamation Certificate on the above referenced land.

The application package includes:

- 2010 Reclamation Certificate Application Form
- Schedule One - Attachments
- Schedule Two - Phase 1 Environmental Site Assessment (ESA)
- Schedule Three - G50 Notification or Equivalent
- Schedule Four - Limited Phase 2 ESA
- Schedule Five - Detailed Site Assessment

The 100/13-14-041-28 W4/00 well was drilled between September 25, 2005 to October 5, 2005 to a total depth of 1,885 metres. There is no production associated with this well and it was surface abandoned on October 12, 2005. The wellsite is accessed from the west via an east-west running access road off of a high grade gravel road allowance. The landowners and Lacombe County have signed releases to retain the approach.

A Phase 1 ESA was completed on August 11, 2009 by S.N.L. Environmental Consulting Ltd. The disposal of 260 cubic metres of total gel chemical drilling waste on SW-25-041-28 W4M via landspray while drilling was documented in a report by VegTec Inc. dated September 25, 2005. Drilling waste disposal met Compliance Option 1 checklist requirements. The Phase 1 ESA identified a potential cement pit in the northwest corner of the wellsite. The assessors recommended a Phase 2 ESA to confirm a 1 metre cap was present over the cement pit.

A Limited Phase 2 ESA was conducted by S.N.L. Environmental Consulting on June 24, 2010. Boreholes were advanced to investigate potential impacts at well centre and to confirm a 1 metre cap over the cement pit. Analytical results indicated there were values greater than the applicable guidelines. The assessors determined that no cement pit could be identified on-site in the northwest corner.

Ridgeline
CANADA INC.

A Detailed Site Assessment was conducted by Ridgeline on July 3, 2014. The wellsite and adjacent land consist of a tame pasture field. The wellsite and access road passed all applicable 2010 Reclamation Criteria for Wellsites and Associated Facilities on Cultivated land.

The Reclamation Certificate Application, Acknowledgement of Information Disclosure and Complaint form will be hand delivered and signed by the current landowners, Tony and Kathy Kamlah, and Riser Developments Ltd., on August 7, 2014.

Should you have any questions or require additional copies of this report, please contact the undersigned at (403) 806-2380.

Respectfully,

RIDGELINE CANADA INC.

Marnie Hill.

Marnie Hill, B.Sc., P.Ag..
Project Manager

Wellsite Reclamation Certificate Application Form

2010 Reclamation Criteria for Wellsites and Associated Facilities

Alberta Energy Regulator

1.0 GENERAL INFORMATION

1.1 Company Information

Applicant Full Name*	Vesta Energy Ltd.

* Full Company Name that will appear on reclamation certificate

1.2 Alberta Energy Regulator Information

Is the applicant the AER licensee for the site?	Yes
AER Well or Facility name	VESTA MORNSIDE 13-14-41-28
AER Unique Well Identifier (UWI) or Facility Identifier(s)	100/13-14-041-28 W4/00
AER Licence No(s)	337338
Total land to be certified (in acres)	4.13

1.3 Site Identification and Physical Location

1.3.1 Location of Site	County/MD/ID/SA	Lacombe County	Alberta

1.3.2 Complete Surface Legal Land Description(s): lease, access road, facility, sump, camp site, etc

Add Row	Facility Description	Quarter	LSD	Section	Township	Range	Meridian
Delete	Wellsite	NW	13	14	41	28	4
Delete	Access Road	NW	13	14	41	28	4

☐ Additional legal land description attached

1.4 Site Jurisdictions

Check all that apply:

☐ Public Land, provide Crown Disposition numbers

Upon issuance of a Reclamation Certificate, do you want your public land disposition cancelled?

☒ Private Land

☐ Special Areas

☐ Parks and Protected Areas (i.e., Natural Areas, Ecological Reserves, Provincial Parks, Provincial Recreation Areas, Wildland Provincial Parks)

1.5 Activity Type

Check all that apply:

☐ Prepared Wellsite (not drilled)

☒ Drilled and Abandoned (D&A) Wellsite

☐ Oil Wellsite

☐ Sweet Gas Wellsite

☐ Sour Gas Wellsite

☐ Battery Site

☐ Disposal Well

☐ Other AER Facility (describe):

☐ Oilsands Exploration Program

☐ Coal Exploration Program

1.6 Associated Facilities and Infrastructure - *must be certified or have a signed Release from the landowner*

Check all that apply:

- ☐ No associated facilities tied to this Activity
- ☒ Access Road
- ☐ Temporary Access Road
- ☐ Borrow Site
- ☐ Campsite
- ☐ Remote Sump
- ☐ Log Deck/Storage
- ☐ Land Treatment Area(s)
- ☐ Other (describe):

1.7 Stakeholders

1.7.1 Applicant

Company	Vesta Energy Ltd.	Contact Person	Shane Imber
Mailing Address	410, 333 - 5 Avenue Calgary, Alberta T2P 3B6	Position	VP - Operations
		Phone No.	403-358-2518
		e-mail	simber@vestaenergy.com
		Fax No.	

1.7.2 Application Prepared By (Consultant)

Company	Ridgeline Canada Inc.	Contact Person	Marnie Hill
Mailing Address	8, 4608 - 62 Street Red Deer, Alberta T4N 6T3	Position	Project Manager
		Phone No.	403-342-2130
		e-mail	mhill@ridgelinecanada.com
		Fax No.	403-342-2005

1.7.3 Landowner(s)

Add Row	Names	Mailing Address	Phone Number
Delete	Tony Elmer and Kathy Mae Kamlah	RR3, Site 3, Box 4 Lacombe, Alberta T4L 2N3	403-782-4194
Delete	Riser Developments Ltd. Contact: Glenn Fraser	#1, 6784 - 65 Avenue Red Deer, Alberta T4P 1A5	403-318-3405

1.7.4 Occupants ☒ No Occupants

1.8 Criteria Category Used

☒ Cultivated	Construction Period	On or After May 1, 1994
☐ Peatlands	Construction Period	
☐ Native Grasslands		
Constructed **Before** January 1, 1993	Site Abandoned and/or Reclaimed	
Constructed from January 1, 1993 to April 30, 1994	Site Abandoned and/or Reclaimed	
Constructed **On or After** April 30, 1994	Site Abandoned and/or Reclaimed	

1.8 Criteria Category Used		
☐ Forested Lands		
Constructed **Before** April 30, 1994	Site Abandoned and/or Reclaimed	
Constructed from April 30, 1994 to June 1, 2007	Site Abandoned and/or Reclaimed	
Constructed **On or After** June 1, 2007	Site Abandoned and/or Reclaimed	
Have the criteria used to assess the site been changed or defaulted to another?		No

2.0 SITE INFORMATION

2.1 Overlapping Exemptions

Does this site require an overlap exemption?	No

2.2 End Land Use Change

Has the end land use for the site changed?	No

2.3 Additional Certificates

List all other certificates obtained for this site or any associated facilities?
i.e.: remote sump in connection with another wellsite, remediation certificate, etc.

☒ No other certificates issued

2.4 Non-Oilfield Waste

List any non-oilfield waste buried on site. (i.e. concrete. gravel, debris) ☒ No waste buried or unknown.

2.5 Facilities or Features to Remain in Place

Are any facilities or features to remain in place (e.g., access road, well pad, fences)?	Yes
If Yes, list what features remain: The approach, the 4 strand barb wire gate and perimeter fence	
Are facilities or features stable and non-hazardous?	Yes

Include releases from ALL registered landowners for ALL facilities / features or non-oilfield waste to remain in place.

3.0 PARTIAL RECLAMATION (PUBLIC LANDS ONLY) ☐ Partial Certificate Requested

4.0 CONTAMINATION INFORMATION

4.1 Environmental Site Assessment Work Completed - *check off all appropriate boxes*

- ☐ Phase 1 ESA not done since well was prepared, but not drilled.
- ☐ The Phase 1 ESA showed no contamination was likely present, so no Phase 2 ESA or remediation was completed.
- ☐ The Phase 1 ESA showed contamination was likely present so a Phase 2 ESA was completed.
- ☒ The Phase 1 ESA showed insufficient information to determine if contamination was likely present, so a Phase 2 ESA was completed.
- ☒ The Phase 2 ESA showed contamination was not present, or was within acceptable values*.
- ☐ The Phase 2 ESA showed contamination was present, so remediation was completed
- ☐ The site was known to be contaminated, so remediation was completed, and a Phase 1 ESA was completed.

*Acceptable values are identified in the Alberta Tier I and Tier 2 Soil and Groundwater Remediation Guidelines.

4.1.1 Confirmatory Sampling

Was confirmatory testing/sampling done following remediation?	No

If No, explain:
No contamination was identified during the intrusive sampling (SNL, 2010). See Schedule 4 for further details.

4.1.2 Subsoil Guidelines

Were subsoil guidelines used to address or remediate hydrocarbon contamination as per the *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (ESRD 2007, as amended)?

- ☒ No
- ☐ Yes, below 3 metres
- ☐ Yes, below 1.5 metres within 15 metres of the wellhead (Until June 30, 2007)
- ☐ Yes, below 1.5 metres within 5 metres of the wellhead (After June 30, 2007)

5.0 ROUTINE vs. NONROUTINE APPLICATIONS

If "Yes" is checked off in any of the following questions, this application will be processed as nonroutine and forwarded to an inspector for review prior to the issuance or refusal of a Reclamation Certificate, as warranted.

○ Yes	◉ No	Are there unresolved landowner complaints OR a complaint form submitted with this application? (Schedule 1)
○ Yes	◉ No	Were justifications, based on professional judgment, used to explain a "pass"?
☐ Yes	☐ No	If justification were used was it discussed with an inspector? If yes, indicate who and when.
		Inspector's Name: Date:
○ Yes	◉ No	Does the activity fall within a Park and/or Protected Areas (i.e., Natural Areas, Ecological Reserves, Provincial Parks, Provincial Recreation Areas, Wildland Provincial Parks)
○ Yes	◉ No	Was this site constructed before 1983, AND was it reclaimed using a management plan? (Schedule 5)
○ Yes	◉ No	Were subsoil criteria used to address or remediate hydrocarbon contamination?
		☐ Below 3 metres
		☐ Below 1.5 metres within 15 metres of the wellhead (Until June 30, 2007)
		☐ Below 1.5 metres within 5 metres of the wellhead (After July 1, 2007)
○ Yes	◉ No	Is this site a coal exploration well?
○ Yes	◉ No	Is this site a oil sands exploration well?
○ Yes	◉ No	Has a reclamation certificate application for this site been previously refused?
○ Yes	◉ No	Has a reclamation certificate for this site been issued and then cancelled?

☒ Routine ☐ Nonroutine

* red border indicates the question needs to be answered

* no border indicates the answer is calculated from a previous question.

6.0 PROFESSIONAL ASSURANCE

Professional members who signed off on the reclamation and remediation assessments.

Assessment	Date	Company	Professional's Name(s)	*Professional Designation(s) and Registration No(s).
Phase 1 ESA:	11-Aug-2009	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Drilling Waste Disposal / Compliance Option(s):	11-Aug-2009	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Phase 2 ESA - Site Investigation:	24-Jun-2010	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Remediation and Confirmatory Results:				
Landscape Assessment:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Vegetation Assessment:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Soil Assessment Level 1:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Soil Assessment Level 2:				
Other:				

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

7.0 APPLICANT DECLARATION

This Declaration must be signed by the Operator (consultant signatures are NOT acceptable)

I, Shane Imber of Vesta Energy Ltd. declare that,

This application was prepared and completed under my direction. Based on my inquiries of the person or persons who managed the application components required to complete this application the information is, to the best of my knowledge and belief, true, accurate and complete;

- We contacted the landowner/occupant and inquired about any outstanding concerns with the site and documented their response in the application;
- We conducted a detailed reclamation assessment (DSA) of the site and all requirements described in the appropriate reclamation certification criteria have been met;
- We have attached a copy of the Notification of Drilling Waste Disposal form or equivalent, the appropriate drilling waste compliance option Checklist, and/or Phase II Environmental Site Assessment that includes sampling of drilling waste disposal areas;
- We carried out a Phase 1, and/or Phase 2 Environmental Site Assessment (copy attached);
- An up to date Record of Site Condition has been submitted with Phase 2 Environmental Site Assessments;
- We identified and remediated all contamination resulting from the use of this site to meet Alberta Environment's requirements and there are no soil chemical or physical conditions that resulted from our use of this land that may adversely affect soil, vegetation or groundwater on or off the site described in this application package;
- We provided the landowner(s) a complete copy of this application package at least 30 days prior to making this submission.
- We included the listing of people who performed the reclamation and remediation assessments and their professional designation, if any. For any work completed after January 1, 2008, we included the AER Professional Declaration Form(s), completed and signed by the professional members who conducted or supervised the work;
- We understand that incomplete applications will not be accepted and we will have to reapply including the appropriate fee once the missing information has been added.

I also declare that, to the best of my knowledge, all of the information contained within this Application is accurate and includes a complete representation of all the information that is required to be submitted in the Application for a Reclamation Certificate. I am aware that it is an offence under section 227 of the Environmental Protection and Enhancement Act to provide false or misleading information and that there are significant fines for committing an offence of section 227, including the possibility of imprisonment, the relevant sections which read as follows:

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 of 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 of not more than $50 000, or

(b) in the case of a corporation, to a fine of not more than $500 000.

Shane Imber		VP Operations	Aug 5/14.
NAME	SIGNATURE	POSITION	DATE

8.0 APPLICATION SUBMISSION – Private

A complete application package **must** be submitted and include the following, in order:

- Cover letter
- Application form
- Schedules One through Five as applicable to the site location (see the following sections for the contents of each schedule).

In addition to the reclamation certificate application form, there are a number of additional documents that must be submitted with the application package. These documents must be in the same email as the application and attached as separate documents. The naming convention of these documents must be reflective of the appropriate schedule the document is a requirement of (i.e. Schedule 1, Schedule 2, Schedule 3, Schedule 4 and Schedule 5).

Attachments must be submitted as PDF files, no security applied to the file, electronic signature(s) and last modification(s) are in the file and use the option Reduce File Size.

Submission on Private Lands: The application must be submitted by e-mail to **RecRemCertApplications@aer.ca**, please indicate "Reclamation Application" in the subject of the e-mail.

8.0 APPLICATION SUBMISSION – Public

Electronic Submission of Reclamation Applications on Public Lands

As of **April 30, 2009**, on-line application submissions are mandatory, unless the AER's Closure and Liability Branch pre-approves a paper copy application. Applications are submitted through the Electronic Disposition System (EDS).

All application packages must be completed as outlined in the *Upstream Oil and Gas Reclamation Certificate Application Certificate Application Guidelines*. The application and enclosed schedules must be submitted in a zip file, with each schedule saved as a separate file. Note: electronic submission is for public `specified land' only.

Electronic Submission Procedure
GOA Username and Password
A username and password are required for online submissions. To request a Government of Alberta (GoA) username and password, download the User ID Request Form for EDS and PCS at

http://srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx

EDS Access and Navigation User Manual
A detailed EDS Access and Navigation User Manual has been created for all EDS applications, including Reclamation Application Submissions. The manual outlines the process for submission and fee payment.

There is also an EDS Frequently Asked Questions document on Reclamation Certificate Application Submissions to assist with the submission process.

http://srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx

Login to EDS
The web interface for reclamation certificate applications can be securely logged into at:

https://securexnet.env.gov.ab.ca/eds_login.html

To assist with managing file sizes, please do not submit the following as part of the reclamation application package:
~ Drilling /Tour Reports
~ Water well logs
~ Disposition Approval
~ Duplicate Schedules (extra pages)
~ Environmental Field Report
~ Land Standing Report

9.0 SCHEDULE ONE - Attachments

Please check off the appropriate boxes indicating which documents are included in the Schedule.

- ☒ Land Titles (private land only)
- ☐ Special Areas Board Search
- ☒ Survey Plan (4 copies for private lands; 1 copy for public lands; all copies to be outlined in yellow)
- ☒ Acknowledgement of Information Disclosure **OR**
- ☐ Proof the application package was sent to the landowner(s) (i.e., delivery receipt)
- ☐ Complaint Form (attach complaint form only when there is a landowner complaint)
- ☒ Releases - All landowners listed on title must sign all releases
- ☐ Overlapping Exemption (only required when the Operator of the overlapping activity is different from Operator submitting this application)
- ☐ Other Certificates
- ☐ Criteria Change Authorization*
- ☐ Land Use Change Documentation
- ☐ Other, describe
- ☐ Other, describe

*The *2010 Reclamation Criteria for Wellsites and Associated Facilities* (ESRD 2010) provides for justification when the reclamation criteria for the appropriate end land use cannot be achieved due to site-specific conditions.

10.0 SCHEDULE TWO - Phase 1 Environmental Site Assessment

☐ Phase 1 ESA not required and NOT submitted with this application

As of June 1, 2011 all Phase 1 ESA information must be entered on the Schedule Two form.
Please check off the appropriate boxes indicating which documents are attached.

☒ List of available aerial photographs from Air Photo Distribution

☒ Aerial or satellite photographs

☒ Site Visit Photos

☒ Construction and Operation Sketches

☒ AER Professional Declaration Form* – This must be signed for work completed after January 1, 2008.

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

10.0 PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

10.1 Previously Refused Applications and Cancelled Certificates

Has this site been previously refused or certified and the certificate cancelled?	No

10.2 Drilling Information

Add	Well name or UWI	Spud Date:	Final Drill Date:	Well Depth: (metres)
Delete	100/13-14-041-28 W4/00	25-Sept-2005	5-Oct-2005	1,885

10.2.1 Re-entry of a Well or Site Re-drilled

Is this site a re-entry?	No
Is the site re-drilled?	No

10.2.2 Drilling Waste Disposal Informatiom

Add Mud	Drilling Mud Type	Volume (m^3)	Disposal Method
Delete	Gel Chem	260	Landspray While Drilling

Add Row	Sump Type	Sump location, if remote	Disposal Location(s)
Delete	None		SW-25-041-28 W4M

Drilling Waste Compliance Option(s) used and attached to Schedule 3.	☒ Option 1 ☐ Option 2 ☐ Option 3
Has this site been used for drilling waste disposal more than once?	No

Provide details and location(s):
Drilling waste was disposed of via landspray while drilling off-site within SW-25-041-28 W4M. The drilling waste disposal satisfied Compliance Option 1.

10.3 Production, Storage, and Environmental Information

10.3.1 Current and/or Historical Information

Describe all historical and/or current infrastructure associated with the location (For example: tanks, pipeline, process skids, access roads etc.)

Access road. No production is associated with the well.

10.3.2 Flare Pits

Were there any associated flare pits during drilling or production?	No

10.3.3 Storage Tanks

Were there any storage tanks associated with the site?	Yes

If "Yes", list number, location, and capacity of the storage tanks

Add Row	Type of Tank	Content	Location(s)	Capacity (m^3)
Delete	Above ground tank	Flare Tank	East of well centre	
Delete	Above ground tank	Shale Tank	North of well centre	

Were any other underground structure, such as pipelines, removed?	N/A

10.3.4 Fluid Disposal		
How was fluid at producing wells, disposal wells, and/or battery sites shipped to/from the location?		
☒ N/A	☐ Piped from the site	☐ Trucked from the site
☐ Piped to the site	☐ Trucked to the site	☐ Disposed of on site

10.3.5 Other Facilities or Infrastructure
Describe any other waste storage, handling, chemical storage, buried pits, landfills, etc Cement pit located in the northwest corner

10.3.6 Spills and Releases	
Have there been any Spills/Releases/Complaints associated with the site?	No

10.3.7 Previous Environmental Site Assessments	
List any previous ESA's conducted?	☒ None or unknown

10.4 Phase 1 Environmental Site Assessment Site Visit				
Date:	28-Aug-2007	Assessor(s)	Wendy Weiss	
Surrounding land use	N: Pasture	S: Pasture	E: Pasture	W: Pasture
Topography:	Gently rolling			
Vegetation:	Hay mix; alfalfa, clover, brome, timothy			
Provide the proximity of receptors to the site. Fill in distances (m) for all that are within 300 metres of the site boundary.				
Residence: > 300 m	Water well: > 300 m	Surface waterbody (e.g., dugout, stream river):	Slough adjacent to north side of access road	
Were equipment or tanks present, or were there visual signs of former facilities?				No
What was observed? N/A				
Were there visual signs of open or potentially buried earthen pits?				No
What was observed? N/A				
Was there evidence of past spills (include cumulative releases, well centre impacts, salt tolerant vegetation, etc.)?				No
What was observed? N/A				
Was any adjacent land affected by operations on the site?				No
What was observed? N/A				
Was any vegetation stress apparent?				No
Details (location, evidence): N/A				
Does the site visit information conflict with specific file or the imagery review Information?				No
If YES, explain N/A				

10.4 Phase 1 Environmental Site Assessment Site Visit

10.5 Aerial and Satellite Imagery Review

Aerial or satellite photographs of the site are required. Scales such as 1:5000 or 1:7500 should be used to show detail.

Producing wells and batteries: one pre-disturbance; one post-disturbance; one photograph for every 2 to 3 year interval while the site was active.

Dry and abandoned wells: one photograph of the active site, if available, is required. If active site photographs are not available, photographs of the pre and post disturbance are required.

Sites with above ground facilities and/or spills: photos of the site before, during (if available), and after the spill cleanup or facility removal are required

Review Date: 18-Jul-2008			Reviewed by:Wendy Weiss	
Add	Photo Id:	Year	Scale:	Evidence of former infrastructure or areas of potential concern
Delete	4971-1998	1998	1:2,000	Pre-disturbance
Delete	AS 5408-175	2007	1:2,000	Reclamation completed. No areas of concern observed.

10.6 Interviews - Phase 1 Environmental Site Assessment

Provide details of Interviewee's Comments. Request information on previous complaints, former facilities, presence and details of spills, pits, waste storage/handling, and vegetation control, etc

Private Land: Have you performed a site visit in the presence of the landowner/occupant?	Yes
Public Land: Have you performed a site visit in the presence of the occupant?	

Date of site visit(s) 28-Aug-2007

Landowner Interviewed:	Date	Interviewed By:
Tony Kamlah	28-Aug-2007	Wendy Weiss

Landowner had no environmental concerns with the site. The lease was seeded in the fall of 2005 and mowed in 2006. He feels that location is holding water more so than prior to lease construction. He stated that the original drainage of the slough was by natural swale running from the slough, south across the lease into a drainage ditch.

Occupant Interview:	Date	Interviewed By:

Operator Interview:	Position:	Date	Interviewed By:

Additional Notes/Comments/Information
No Phase II ESA required according to the DWD checklist and calculations. An onsite cement pit is noted in the Notification of Drilling Waste Disposal forms, a Phase II ESA is required to confirm that 1 m is present over the cement pit area.

10.7 Conclusions and Recommendations
10.7.1 Did the Phase 1 ESA indicate that a Phase 2 ESA is required to evaluate the site for contamination?
◉ Yes ○ No further investigation required
If YES, attach Phase 2 ESA report (see Schedule 4)

11.0 SCHEDULE THREE - Drilling Waste Documentation

Please check off the appropriate boxes indicating which documents are included in this Schedule

☐ Not required because well not drilled or application is for other AER facility

☒ Guide 50 Notification Form (*Directive 050: Drilling Waste Management*, AER 1996) or form with equivalent information used for reporting under *Guide G-50: Drilling Waste Management* (AER 1993)

☒ Assessing Drilling Waste Disposal Areas: Compliance Option Checklist.

☒ Assessing Drilling Waste Disposal Areas: Compliance Option Calculations.

☒ AER Professional Declaration Form*

☐ Other, describe

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

12.0 SCHEDULE FOUR - Phase 2 Environmental Site Assessment

Please list all Environmental Site Assessment Reports included in this schedule. (e.g. Phase 2 environmental site assessments, site remediation reports, Phase 3 environmental site assessment reports)

☐ No ESA reports included

Delete Report	Report Title:	13-14-41-28 W4M - Potential Cement Pit Search	Report Date
☒ Attached	Record of Site Condition*		6-Jul-2010
☒ Attached	☐ Not required	AER Professional Declaration Form**	

Add Report

* On April 6, 2009, ESRD released a new version of the Record of Site Condition form. The 2009 version is required for any new information being submitted to the department and for any reports submitted between May 1, 2008 and April 6, 2009 without a Record of Site Condition form.

** This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

13.0 SCHEDULE FIVE - Reclamation Information

Please check off the appropriate boxes indicating which documents are included in this Schedule.

- ☒ Reclamation Information section completed (next pages)
- ☒ Landscape Assessment Tool
  - ☒ AER Professional Declaration Form for Landscape*
- ☒ Vegetation Assessment Tool (include Record of Observation Data sheets)
  - ☒ AER Professional Declaration Form for Vegetation*
- ☒ Soil Assessment Level 1 Tool (include Record of Observation Data sheets)
  - ☒ AER Professional Declaration Form for Level 1 Soil*
- ☐ Soil Assessment Level 2 Tool (include Record of Observation Data sheets)
  - ☐ AER Professional Declaration Form for Level 2 Soil*
- ☒ Site, Lease and Access Sketches
- ☒ Site Visit Photos
- ☐ Exemption Justification Form**
- ☐ Management Plan***
- ☐ Other

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

** The *2010 Reclamation Criteria for Wellsites and Associated Facilities* (ESRD 2010) provides for justification when the reclamation criteria for the appropriate end land use cannot be achieved due to site specific conditions.

*** A Management Plan can be used for sites constructed prior to 1983 that do not have sufficient soil salvaged to meet the *Reclamation Criteria for Wellsites and Associated Facilities - 1995 Update* (AENV 1995). The Management Plan must be agreed to by the landowner and the Inspector.

13.1 Reclamation Site Information

13.1.1 Dates

Survey Date:	Construction Date:	Abandonment Date:	Date Reclamation Completed	Date of Final Assessment	
				Soil:	Vegetation:
25-Jul-2005	25-Sept-2005	12-Oct-2005	Spring 2008	3-Jul-2014	3-Jul-2014

13.1.2 Global Positioning System (GPS) Coordinates

GPS Co-ordinates (list all decimal places):

Add	Description	Location	Datum Used (NAD 83)	Latitude:	Longitude
Delete	Well Centre	13-14-41-28 W4M	NAD 83	5824536	0300796

13.1.3 Pre-construction Assessment

Was a Pre-Construction Assessment done?	No

If Yes, provide the date and by whom	Date	Consultant

13.1.4 Access Road and Trails

Was soil salvaged on the access?

Yes | If No | ☐ Existing trail was used | ☐ Access was undisturbed

Was the access road developed?

Yes | If Yes, | ☒ Low Profile | ☐ High Profile | ☐ Pit Run | ☐ Crush

13.1.5 Seeding

Add Row	Seeding/Planting Date	Species mix list (if available)
Delete	Annual	Annual cultivation

13.1.6 Fertilizer ☒ Not Used

13.1.7 Herbicide(s) and Sterilant(s) - Used Pre & Post Reclamation ☒ Not Used

13.1.8 Soil Amendments and Additions ☐ Not Used

Were amendments accepted by the landowner:

Add	Amendment Type	Location of Application	Date of Application	Rate of Application	Remedial Action Taken	Incorporation Method
Delete	Recontour	Onsite	Spring 2008		Recontoured site to better match preconstruction drainage conditions.	

13.2 Interviews - Reclamation Information

Provide details of Interviewee's comments regarding satisfaction with remediation and reclamation work.

Private Land: Has the landowner/occupant been given the opportunity to provide comments?	Yes
Public Land: Has the occupant been given the opportunity to provide comments?	
Public Land: Have all disposition conditions been met?	

Date of site visit(s)	3-Jul-2014				
Interviews	Name	Date	Interviewed By	Comments	
Landowner:	Tony Kamlah	11-Jul-2014	Kristen Cockle, Ridgeline Canada Inc.	Mr. Kamlah confirmed that the drilling waste was disposed of off-site via LWD and had no knowledge of a cement pit being utilized on-site during drilling. He explained that following the initial reclamation he complained of more water ponding in the northwest corner than previous years. As a result, the site was recontoured in the Spring of 2008. Mr. Kamlah stated he is now satisfied with the soil, vegetation, landscape and all reclamation efforts at the site. As per the Land Title, on July 5, 2014, a 1/2 interest of the land was sold to Riser Developments Ltd. Mr. Glenn Fraser is a representative of Riser Developments and signed the release for the approach July 30, 2014, he did not know any history of the site.	
Occupant:					
Operator:					
Position:					

Additional Notes/Comments/Information:

13.3 Additional Site History/Comments/Clarification

The 100/13-14-041-28 W4/00 well was drilled between September 25, 2005 to October 5, 2005 to a total depth of 1,885 metres. There is no production associated with this well and it was surface abandoned on October 12, 2005. The wellsite is accessed from the west via an east-west running access road off of a high grade gravel road allowance. The landowners and Lacombe County have signed releases to retain the approach.

A Phase 1 ESA was completed on August 11, 2009 by S.N.L. Environmental Consulting Ltd. The disposal of 260 cubic metres of total gel chemical drilling waste on SW-25-041-28 W4M via landspray while drilling was documented in a report by VegTec Inc. dated September 25, 2005. Drilling waste disposal met Compliance Option 1 checklist requirements. The Phase 1 ESA identified a potential cement pit in the northwest corner of the wellsite. The assessors recommended a Phase 2 ESA to confirm a 1 metre cap was present over the cement pit.

A Limited Phase 2 ESA was conducted by S.N.L. Environmental Consulting on June 24, 2010. Boreholes were advanced to investigate potential impacts at well centre and to confirm a 1 metre cap over the cement pit. Analytical

results indicated there were values greater than the applicable guidelines. The assessors determined that no cement pit could be identified on-site in the northwest corner.

A Detailed Site Assessment was conducted by Ridgeline on July 3, 2014. The wellsite and adjacent land consist of a tame pasture field. The wellsite and access road passed all applicable 2010 Reclamation Criteria for Wellsites and Associated Facilities on Cultivated land.

Public Disclosure and Privacy Notification

The *Reclamation Certificate Application* form is a public record that is disclosed in accordance with section 35 of the *Environmental Protection and Enhancement Act*, *Disclosure of Information Regulation*, and *Ministerial Order 23/2004*. Reasonable efforts have been made to minimize collection of personal information where possible. Personal information on the form is collected under the authority of the *Environmental Protection and Enhancement Act* and is in compliance with section 33(c) of the *Freedom of Information and Protection of Privacy Act* (*FOIP*). Personal information collected on this form will be used by Alberta Energy Regulator for the purposes of administering its programs.

Accuracy of Information

The information in this document has been submitted by persons other than the AER. The AER cannot and does not warrant that the information in this document is current, accurate, complete, or free of errors. Persons accessing the information provided should not rely on it, and any reliance on the information provided is taken at the sole risk of the user. Users of this information are advised to conduct their own due diligence to satisfy themselves of the environmental condition of the property of interest.

Protect Form

Schedule 1

Land Title

LAND TITLE CERTIFICATE

S

LINC	SHORT LEGAL	TITLE NUMBER
0026 533 969	4;28;41;14;NW	142 131 916

LEGAL DESCRIPTION

MERIDIAN 4 RANGE 28 TOWNSHIP 41
SECTION 14
QUARTER NORTH WEST
CONTAINING 64.7 HECTARES(160 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

	HECTARES	(ACRES) MORE OR LESS
A) PLAN 9524452 SUBDIVISION	1.97	4.87

EXCEPTING THEREOUT ALL MINES AND MINERALS

ESTATE: FEE SIMPLE

MUNICIPALITY: LACOMBE COUNTY

REFERENCE NUMBER: 082 327 610

REGISTERED OWNER(S)

REGISTRATION	DATE(DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
142 131 916	07/05/2014	TRANSFER OF LAND	$1,000,000	$500,000

OWNERS

TONY ELMER KAMLAH

AND
KATHY MAE KAMLAH
BOTH OF:
RR 3, SITE 3, BOX 4
LACOMBE
ALBERTA T4L 2N3
AS JOINT TENANTS AS TO AN UNDIVIDED 1/2 INTEREST

RISER DEVELOPMENTS LTD.
OF 6784-65 AVE
RED DEER
ALBERTA T4P 1A5
AS TO AN UNDIVIDED 1/2 INTEREST

(CONTINUED)

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
762 013 151	23/01/1976	UTILITY RIGHT OF WAY GRANTEE - ATCO GAS AND PIPELINES LTD. 10035-105 ST EDMONTON ALBERTA T5J2V6 (DATA UPDATED BY: TRANSFER OF UTILITY RIGHT OF WAY 012027323)
952 048 977	23/02/1995	UTILITY RIGHT OF WAY GRANTEE - PENGROWTH CORPORATION. 2900,111-5TH AVENUE SW CALGARY ALBERTA T2P3Y6 (DATA UPDATED BY: CHANGE OF NAME 042186308) (DATA UPDATED BY: TRANSFER OF UTILITY RIGHT OF WAY 042562308)
952 296 164	03/11/1995	CAVEAT RE : RIGHT OF WAY AGREEMENT CAVEATOR - KEYERA ENERGY LTD. SUITE 600 SUN LIFE PLAZA WEST TOWER 144-4TH AVE SW CALGARY ALBERTA T1Y4R3 AGENT - NOEL SMYTH (DATA UPDATED BY: CHANGE OF ADDRESS 962340519) (DATA UPDATED BY: TRANSFER OF CAVEAT 022173267) (DATA UPDATED BY: TRANSFER OF CAVEAT 022363644) (DATA UPDATED BY: CHANGE OF NAME 122099981)
052 370 967	31/08/2005	CAVEAT RE : SURFACE LEASE UNDER 20 ACRES CAVEATOR - VESTA ENERGY LTD. 325, 300-5 AVE SW CALGARY ALBERTA T2P3C4 AGENT - CURTIS COOK (DATA UPDATED BY: CHANGE OF ADDRESS 062224814) (DATA UPDATED BY: TRANSFER OF CAVEAT 112194521)

TOTAL INSTRUMENTS: 004

(CONTINUED)

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED HEREIN THIS 9 DAY OF JULY, 2014 AT 10:22 A.M.

ORDER NUMBER: 26379645

CUSTOMER FILE NUMBER:

END OF CERTIFICATE

Schedule 1

Survey Plan

Plan Showing Location of Well Site and Access Road for

HIGHPINE MORNINGSIDE 13-14-41-28

IN L.S. 13 - Sec. 14 - Twp. 41 - Rge. 28 - W.4M.

LACOMBE COUNTY, ALBERTA

WELL SITE COORDINATE TABLE

Location	Local Coords	N.A.D. 1983 (A.T.S. VER. 2.6Q)			N.A.D. 1927 (A.T.S. VER. 2.6Q)	
		Geographical		U.T.M.(m)	Geographical	U.T.M.(m)
		Decimal Degree.	Degree Min. Sec.	C.M. = 111° W.	Degree Min. Sec.	C.M. = 111° W.
SURFACE	175.0 S. of N. 175.0 E. of W. BDY. OF SEC. 14	52.534415° N. Latitude 113.936478° W. Longitude	52°32'03.9" N. Latitude 113°56'11.3" W. Longitude	5 824 532.4 N. 300 841.2 E.	52°32'03.7" N. Latitude 113°56'07.7" W. Longitude	5 824 305.8 N. 300 902.3 E.

SKID INFORMATION

Location	Requested	Placed	Difference	Referred To Boundary of
SURFACE	175.0 S. of N. 175.0 E. of W.	175.0 S. of N. 175.0 E. of W.	000.0 000.0	Sec. 14 41-28-W.4M.

ELEVATION TABLE (GROUND) (m)

	Well Centre 912.0		
N.W. 911.1		N.E. 913.1	
S.W. 911.4		S.E. 911.7	

ASCM 171124

AREA TABLE

	Hectares	Acres
Well Site	1.440	3.56
Access Road	0.230	0.57
Total	1.670	4.13

OTHER SURFACE IMPACT CONSIDERATIONS

A	Atco Gas Co-op
B	

LEGEND

Survey Monument Found: ●

Iron Spike Placed: △ Found: ▲ Temporary point: ⊕

Wooden hub Placed: □ Found: ■ Portions referred to —△—

Distances are in metres and decimals thereof.

NOTES

The closest Urban Centre is Gull Lake 7.9km W. from Well Centre.
The closest Surface Development is 0.4km N from Well Centre.

The Proposed Well :	Yes	No
Is at least 1.5 km from an Urban Centre	☒	☐
Is outside any Potential Coal Development area	☒	☐
Is at least 5.0 km from a Lighted Aerodrome	☒	☐
Is at least 1.6km from an Unlighted Aerodrome	☒	☐
Is at least 100m from any Surface Improvements	☒	☐
Is at least 40m from any surveyed road	☒	☐
Is at least 100m from any water body	☒	☐
Is within Caribou Protection Area	☐	☒
Is located in an Enviromentally Sensitive Area as defined by Alberta Environment criteria	☐	
Requires Historical Resources Act clearance	☐	☒

OWNER(S)

1. Title Number: 962 034 422
   Thelma Hope Kamlah
   Tony Elmer Kamlah
   As Joint Tenants

LANDOWNER AGREEMENT

I/We agree to the location of the Wellsite / Access Road and have no objection to the E.U.B. issuing a licence for same.

Thelma Hope Kamlah _____ Date _____

Tony Elmer Kamlah _____ Date _____

FOR: HIGHPINE ENERGY LTD.

_____ _____

ALBERTA LAND SURVEYORS' ASSOCIATION
PERMIT NUMBER P152
THE CADASTRAL GROUP INC.

AFFIDAVIT

I, Iain Skinner, Alberta Land Surveyor, of The City of Calgary, Alberta, Certify that the survey represented by this plan is true and correct to the best of my knowledge, has been carried out in accordance with the Alberta Land Surveyors' Association Manual of Standard Practice, and was completed on the 25th day of July, AD 2005.

Iain Skinner A.L.S. _____ Witness

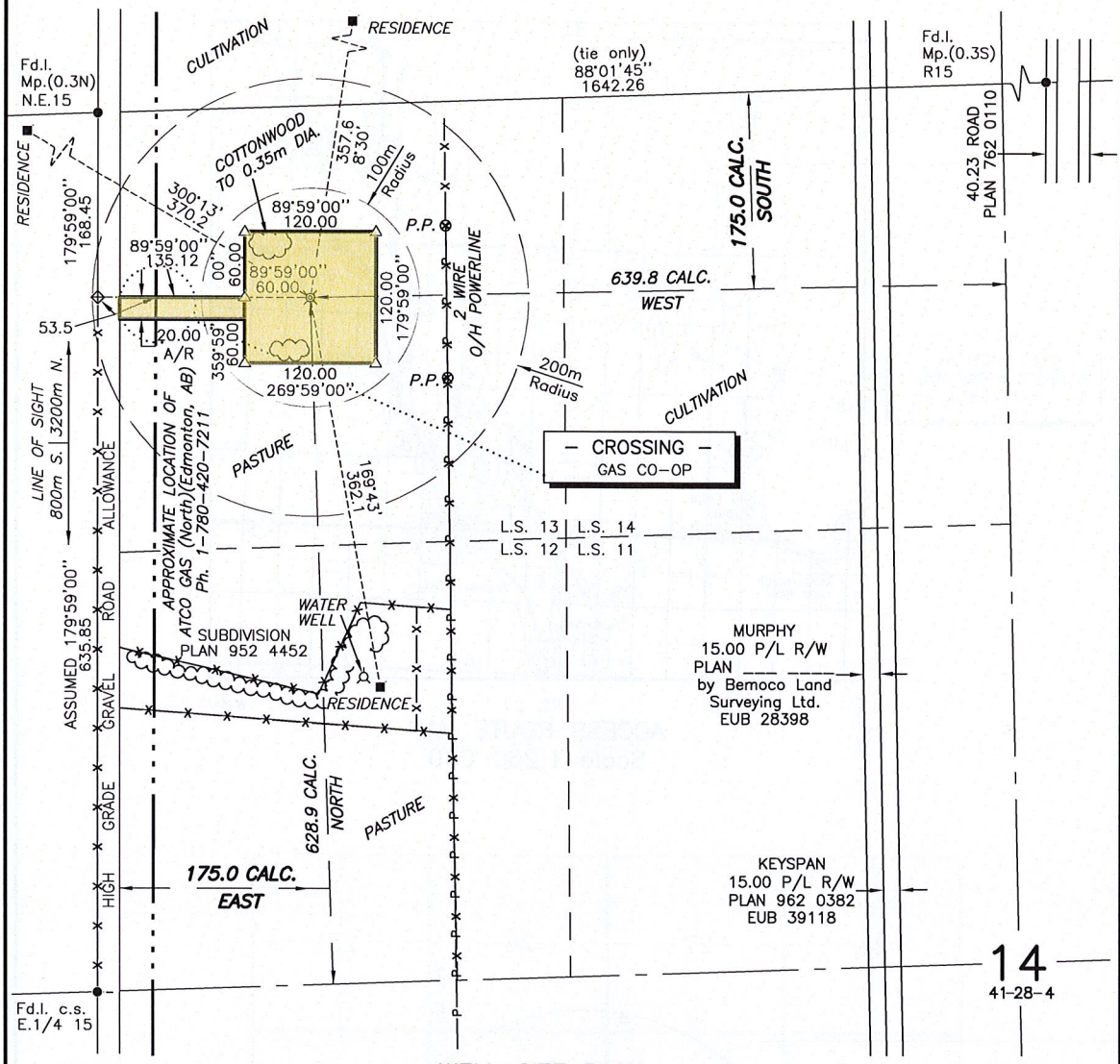
Rev.	Description	Job No.	Date	Checked	Drawn	AFE No. :
						REQ No. :
						Client File No. :

THE CADASTRAL GROUP INC.
400, 500-4th Avenue S.W., Calgary, AB. T2P 2V6
Ph.: (403) 263-8200 Fax: (403) 263-8210
Email: mailroom@cadastralgroup.ca

Box 2358 Slave Lake, AB. T0G 2A0
Ph.: (780) 849-5580 Fax: (780) 849-5221

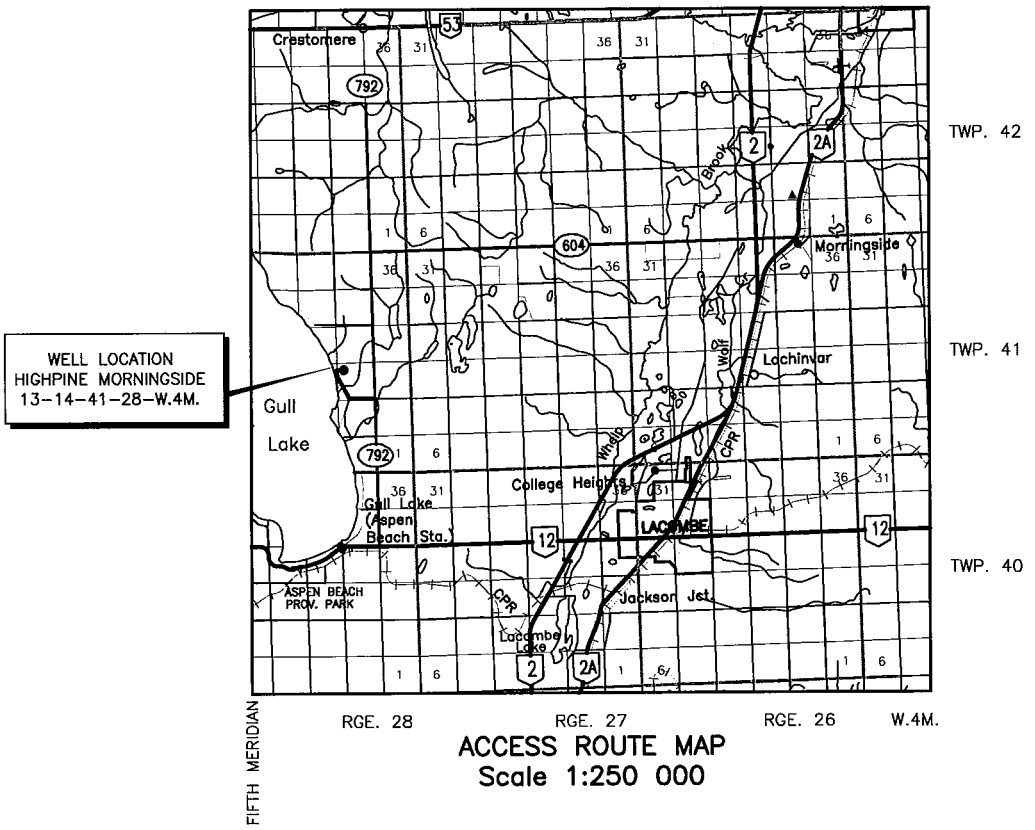
Drawn : WLG	Date : 2005-07-29
Checked : TJB	Job No. : 2917-05
Surveyed: BF	File No. : 2917W005
Layout: Layout	Page : 1 of 3

Rev. 0

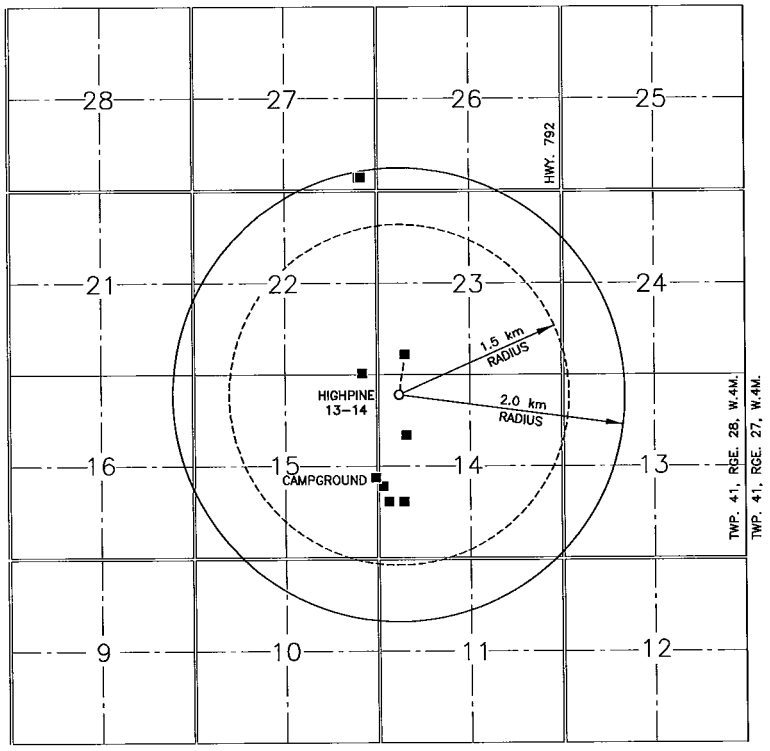


WELL SITE PLAN
Scale 1:5 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0 Rev.
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 2 of 3	FILE: 2917W005



ACCESS ROUTE MAP
Scale 1:250 000



PLAN SHOWING
Surface Developments within 2.0 km.
Surface Developments shown thus .....■
Scale: 1:50 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0 Rev.
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 3 of 3	FILE: 2917W005

Plan Showing Location of Well Site and Access Road for

HIGHPINE MORNINGSIDE 13-14-41-28

IN L.S. 13 - Sec. 14 - Twp. 41 - Rge. 28 - W.4M.

LACOMBE COUNTY, ALBERTA

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ELEVATION TABLE (GROUND) (m)

	Well Centre	912.0	
N.W.	911.1	N.E.	913.1
S.W.	911.4	S.E.	911.7

ASCM 171124

AREA TABLE

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B	

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Iron Spike Placed: △ Found: ▲ Temporary point: ⊕

Wooden hub Placed: □ Found: ■ Portions referred to —△—

Distances are in metres and decimals thereof.

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The closest Surface Development is 0.4km N from Well Centre.

The Proposed Well :	Yes	No
Is at least 1.5 km from an Urban Centre	☒	☐
Is outside any Potential Coal Development area	☒	☐
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Is at least 1.6km from an Unlighted Aerodrome	☒	☐
Is at least 100m from any Surface Improvements	☒	☐
Is at least 40m from any surveyed road	☒	☐
Is at least 100m from any water body	☒	☐
Is within Caribou Protection Area	☐	☒
Is located in an Enviromentally Sensitive Area as defined by Alberta Environment criteria	☐	
Requires Historical Resources Act clearance	☐	☒

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   Tony Elmer Kamlah
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FOR: HIGHPINE ENERGY LTD.

_____ _____

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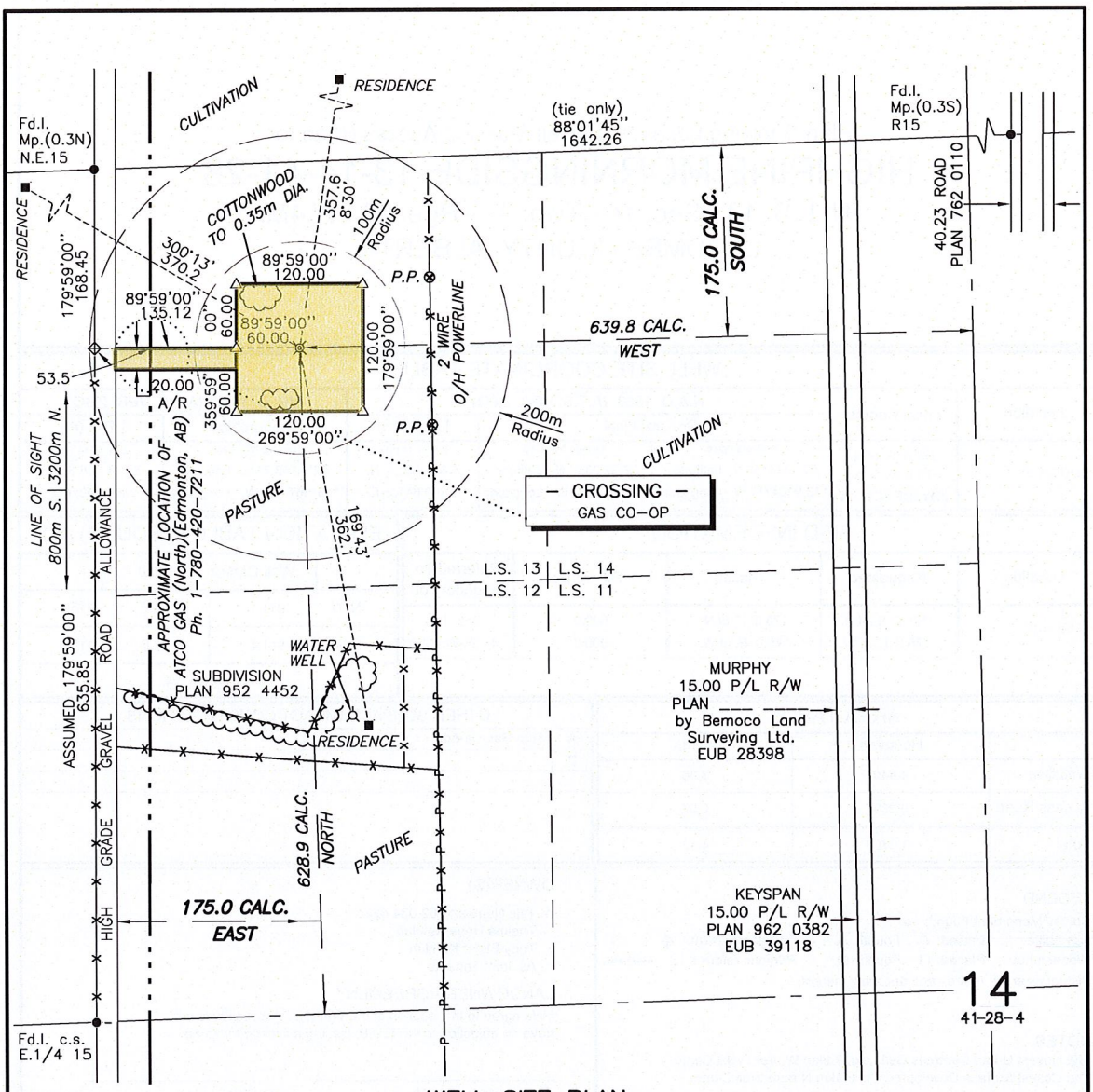
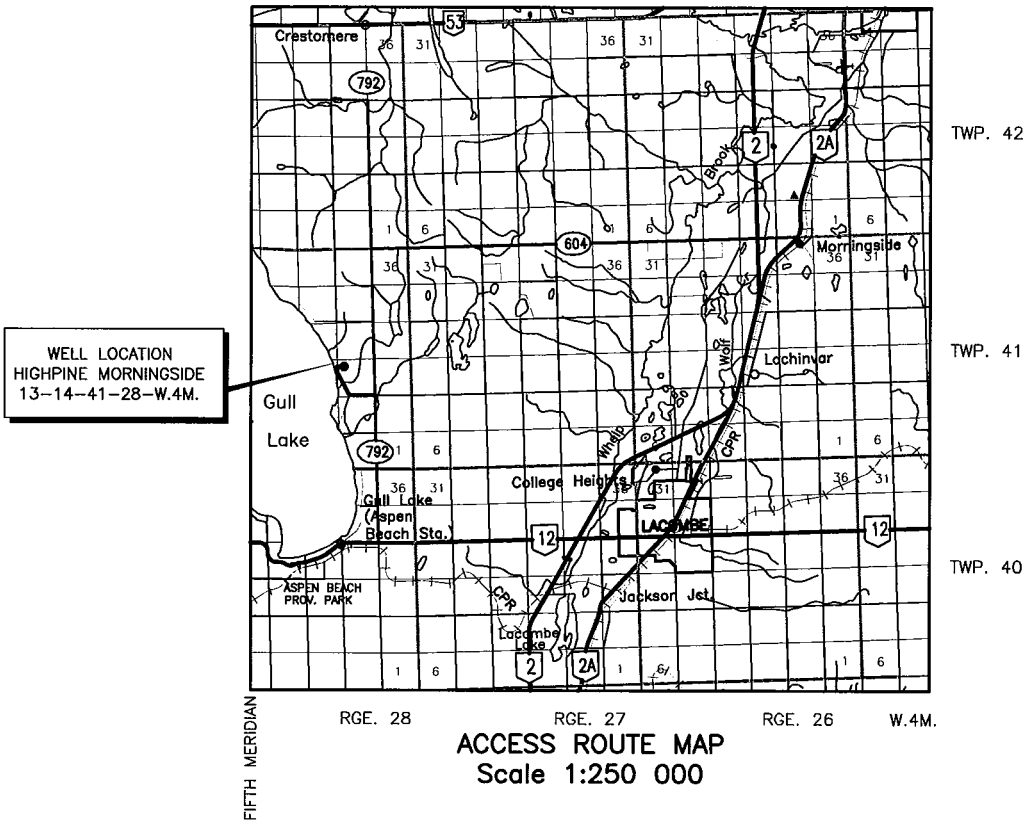
0 Rev.



WELL SITE PLAN
Scale 1:5 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 2 of 3	FILE: 2917W005 Rev.



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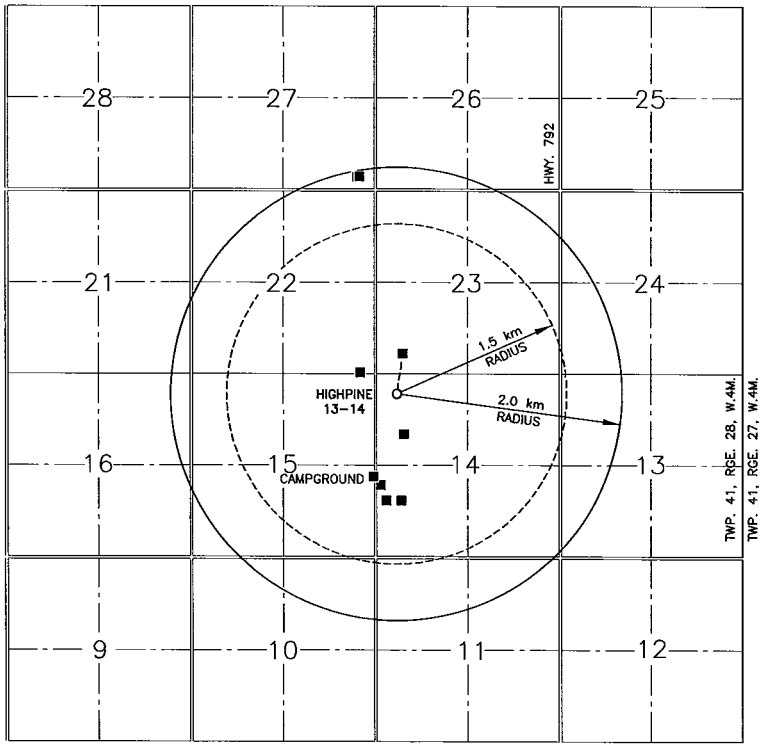

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Surface Developments within 2.0 km.
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HIGHPINE MORNINGSIDE 13-14-41-28			Page : 3 of 3	FILE: 2917W005

Plan Showing Location of Well Site and Access Road for

HIGHPINE MORNINGSIDE 13-14-41-28

IN L.S. 13 - Sec. 14 - Twp. 41 - Rge. 28 - W.4M.

LACOMBE COUNTY, ALBERTA

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Tony Elmer Kamlah _____ Date _____

FOR: HIGHPINE ENERGY LTD.

_____ _____

ALBERTA LAND SURVEYORS' ASSOCIATION
PERMIT NUMBER P152
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AFFIDAVIT

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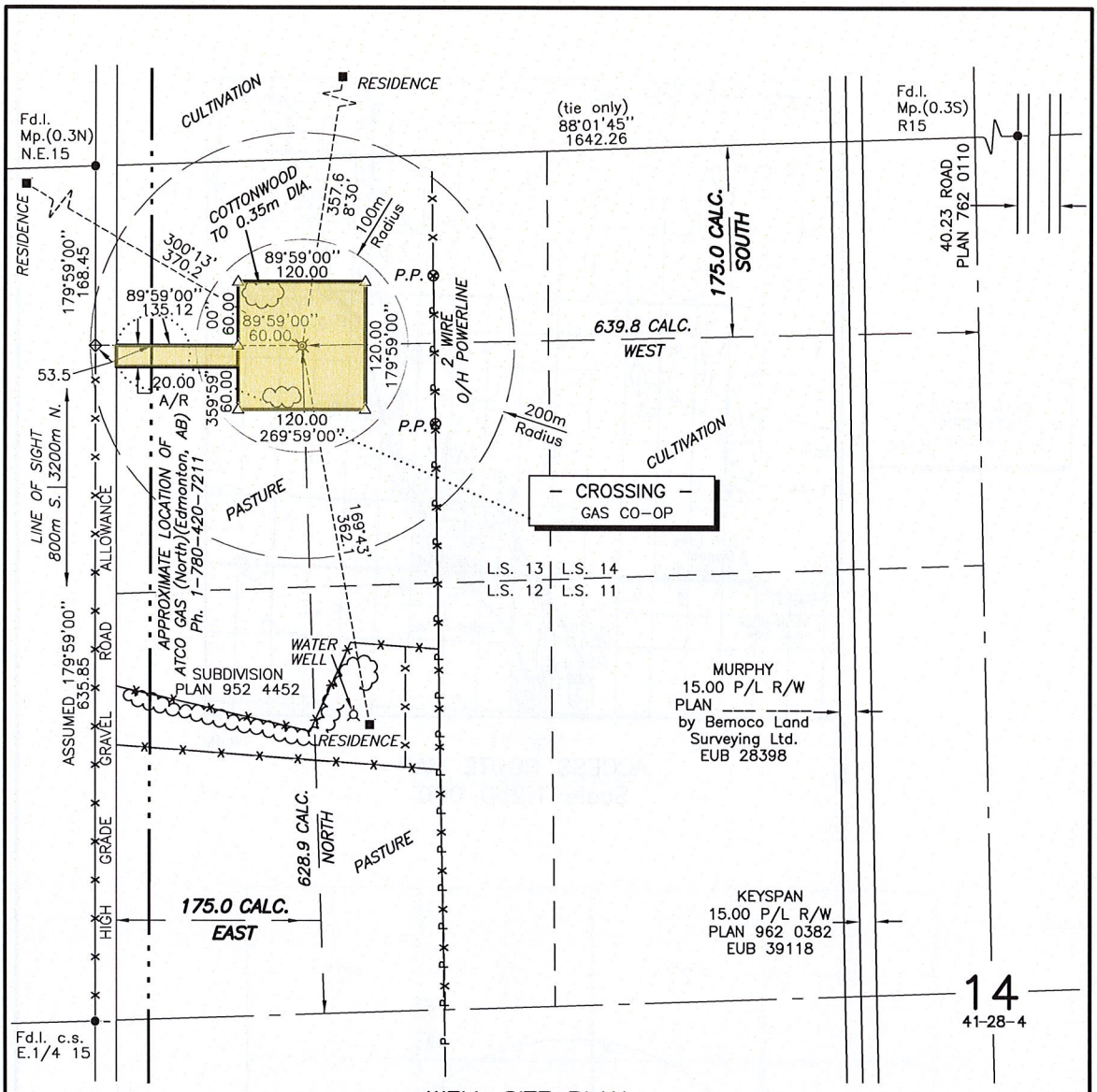

WELL SITE PLAN
Scale 1:5 000

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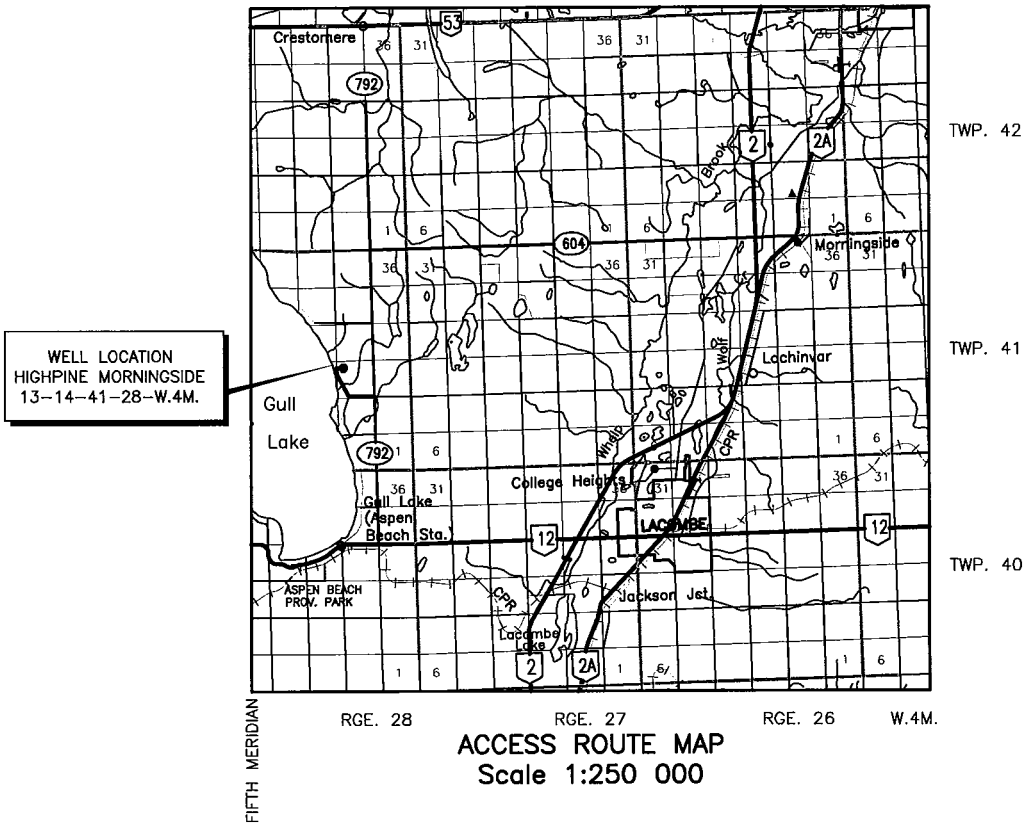
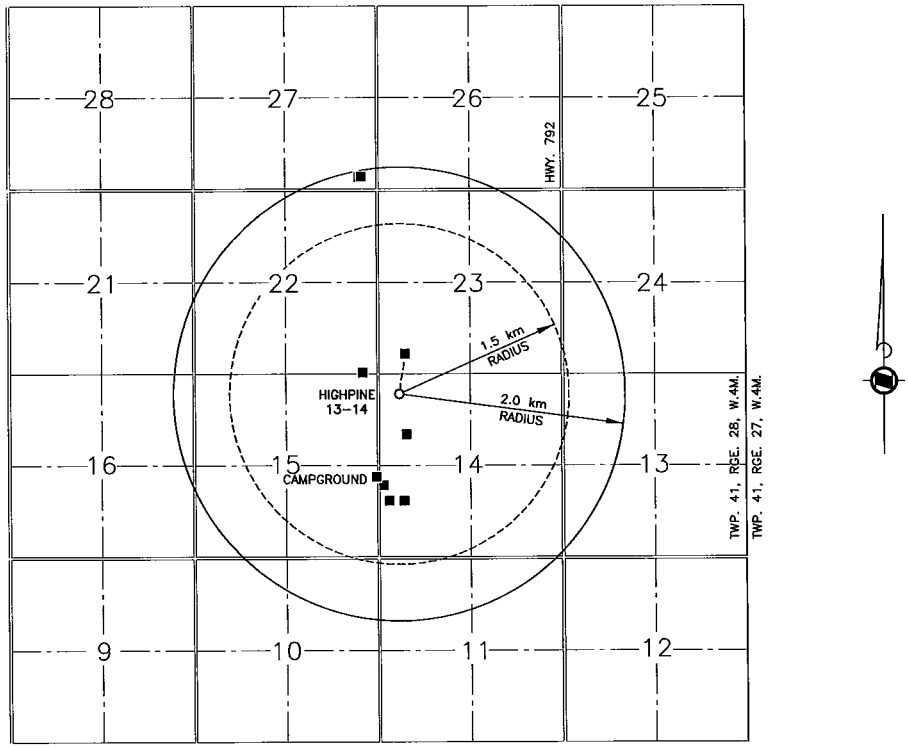
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 2 of 3	FILE: 2917W005



ACCESS ROUTE MAP
Scale 1:250 000



PLAN SHOWING
Surface Developments within 2.0 km.
Surface Developments shown thus .....■
Scale: 1:50 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 3 of 3	FILE: 2917W005	Rev.

Plan Showing Location of Well Site and Access Road for

HIGHPINE MORNINGSIDE 13-14-41-28

IN L.S. 13 - Sec. 14 - Twp. 41 - Rge. 28 - W.4M.

LACOMBE COUNTY, ALBERTA

WELL SITE COORDINATE TABLE

Location	Local Coords	N.A.D. 1983 (A.T.S. VER. 2.6Q)			N.A.D. 1927 (A.T.S. VER. 2.6Q)	
		Geographical		U.T.M.(m)	Geographical	U.T.M.(m)
		Decimal Degree.	Degree Min. Sec.	C.M. = 111° W.	Degree Min. Sec.	C.M. = 111° W.
SURFACE	175.0 S. of N. 175.0 E. of W. BDY. OF SEC. 14	52.534415° N. Latitude 113.936478° W. Longitude	52°32'03.9" N. Latitude 113°56'11.3" W. Longitude	5 824 532.4 N. 300 841.2 E.	52°32'03.7" N. Latitude 113°56'07.7" W. Longitude	5 824 305.8 N. 300 902.3 E.

SKID INFORMATION

Location	Requested	Placed	Difference	Referred To Boundary of
SURFACE	175.0 S. of N. 175.0 E. of W.	175.0 S. of N. 175.0 E. of W.	000.0 000.0	Sec. 14 41-28-W.4M.

ELEVATION TABLE (GROUND) (m)

	Well Centre 912.0		
N.W. 911.1		N.E. 913.1	
S.W. 911.4		S.E. 911.7	

ASCM 171124

AREA TABLE

	Hectares	Acres
Well Site	1.440	3.56
Access Road	0.230	0.57
Total	1.670	4.13

OTHER SURFACE IMPACT CONSIDERATIONS

A	Atco Gas Co-op
B	

LEGEND

Survey Monument Found: ●

Iron Spike Placed: △ Found: ▲ Temporary point: ⊕

Wooden hub Placed: □ Found: ■ Portions referred to —△—

Distances are in metres and decimals thereof.

NOTES

The closest Urban Centre is Gull Lake 7.9km W. from Well Centre.
The closest Surface Development is 0.4km N from Well Centre.

The Proposed Well :	Yes	No
Is at least 1.5 km from an Urban Centre	☒	☐
Is outside any Potential Coal Development area	☒	☐
Is at least 5.0 km from a Lighted Aerodrome	☒	☐
Is at least 1.6km from an Unlighted Aerodrome	☒	☐
Is at least 100m from any Surface Improvements	☒	☐
Is at least 40m from any surveyed road	☒	☐
Is at least 100m from any water body	☒	☐
Is within Caribou Protection Area	☐	☒
Is located in an Enviromentally Sensitive Area as defined by Alberta Environment criteria	☐	
Requires Historical Resources Act clearance	☐	☒

OWNER(S)

1. Title Number: 962 034 422
   Thelma Hope Kamlah
   Tony Elmer Kamlah
   As Joint Tenants

LANDOWNER AGREEMENT

I/We agree to the location of the Wellsite / Access Road and have no objection to the E.U.B. issuing a licence for same.

Thelma Hope Kamlah _____ Date _____

Tony Elmer Kamlah _____ Date _____

FOR: HIGHPINE ENERGY LTD.

_____ _____

ALBERTA LAND SURVEYORS' ASSOCIATION
PERMIT NUMBER P152
THE CADASTRAL GROUP INC.

AFFIDAVIT

I, Iain Skinner, Alberta Land Surveyor, of The City of Calgary, Alberta, Certify that the survey represented by this plan is true and correct to the best of my knowledge, has been carried out in accordance with the Alberta Land Surveyors' Association Manual of Standard Practice, and was completed on the 25th day of July, AD 2005.

Iain Skinner A.L.S. _____ Witness

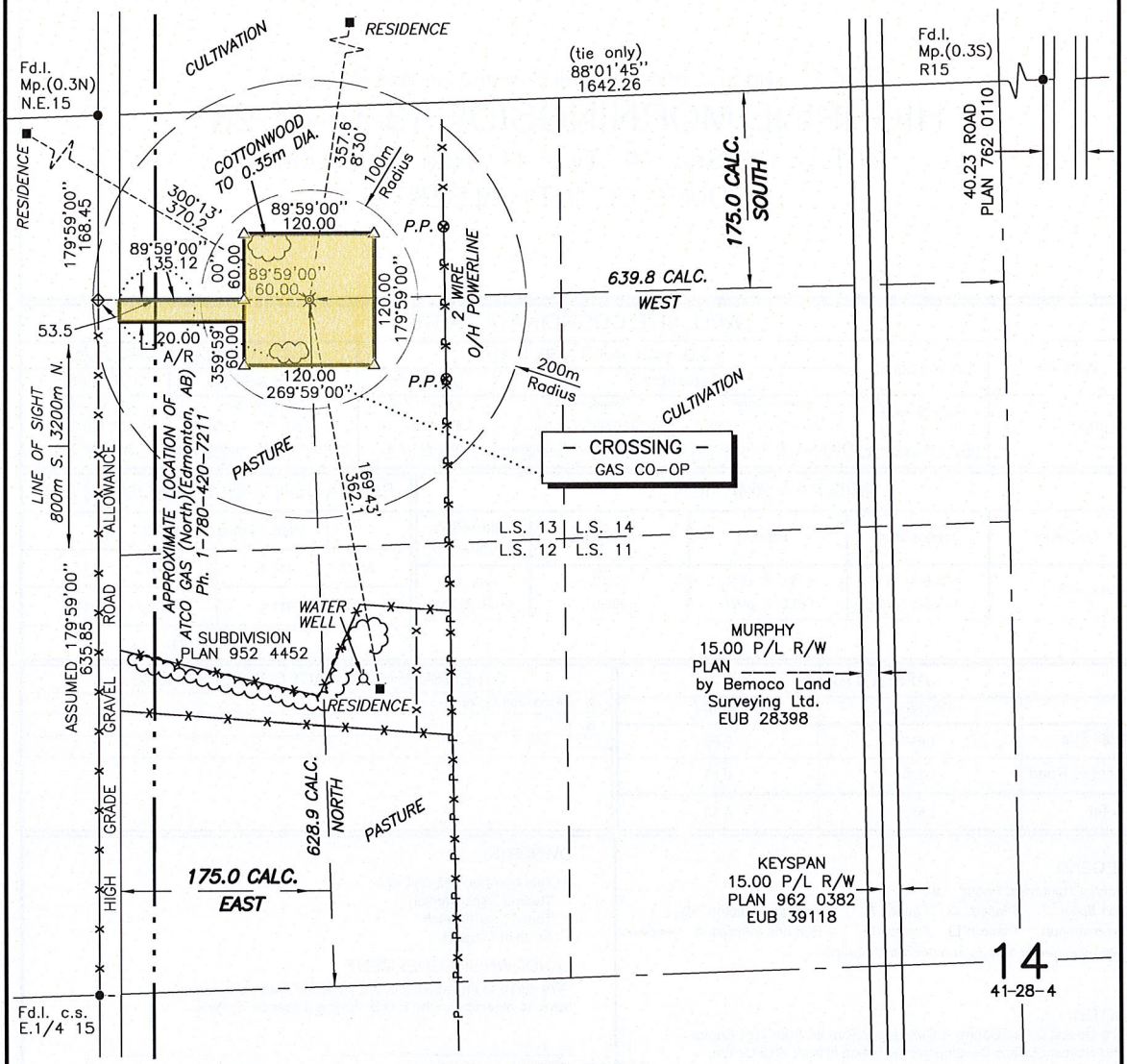
Rev.	Description	Job No.	Date	Checked	Drawn	AFE No. :
						REQ No. :
						Client File No. :

THE CADASTRAL GROUP INC.
400, 500-4th Avenue S.W.,
Calgary, AB. T2P 2V6
Ph.: (403) 263-8200 Fax: (403) 263-8210
Email: mailroom@cadastralgroup.ca

Box 2358
Slave Lake, AB. T0G 2A0
Ph.: (780) 849-5580 Fax: (780) 849-5221

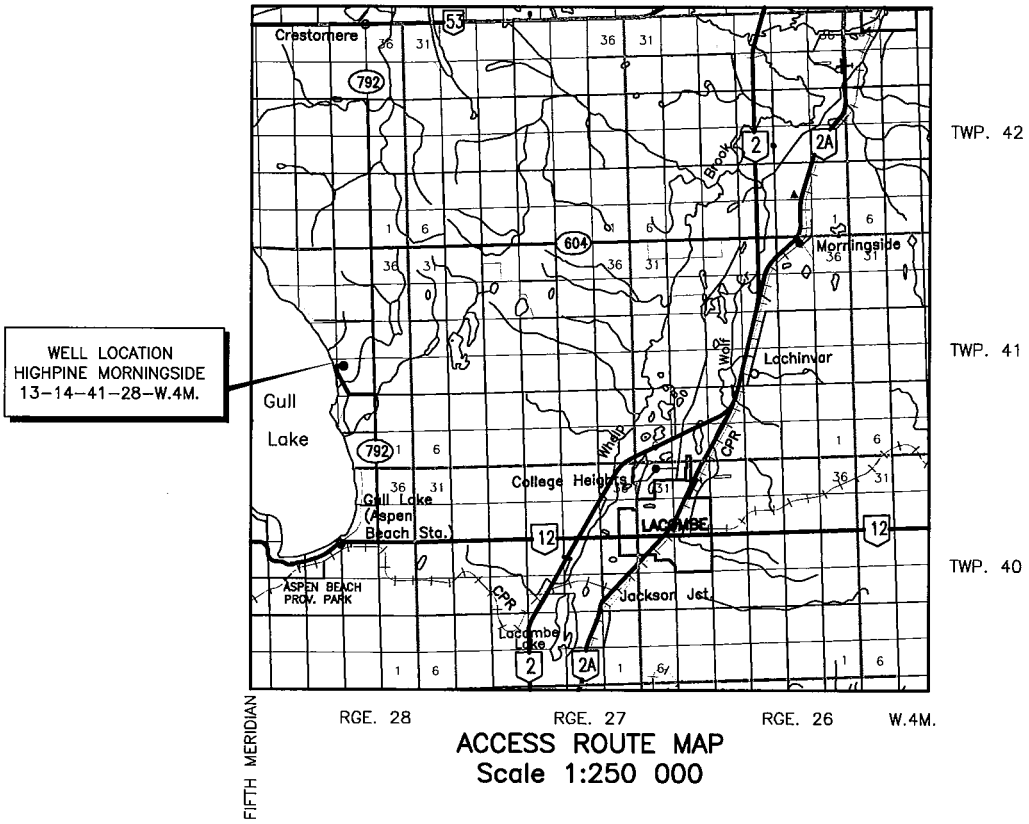
Drawn : WLG	Date : 2005-07-29
Checked : TJB	Job No. : 2917-05
Surveyed: BF	File No. : 2917W005
Layout: Layout	Page : 1 of 3

0 Rev.

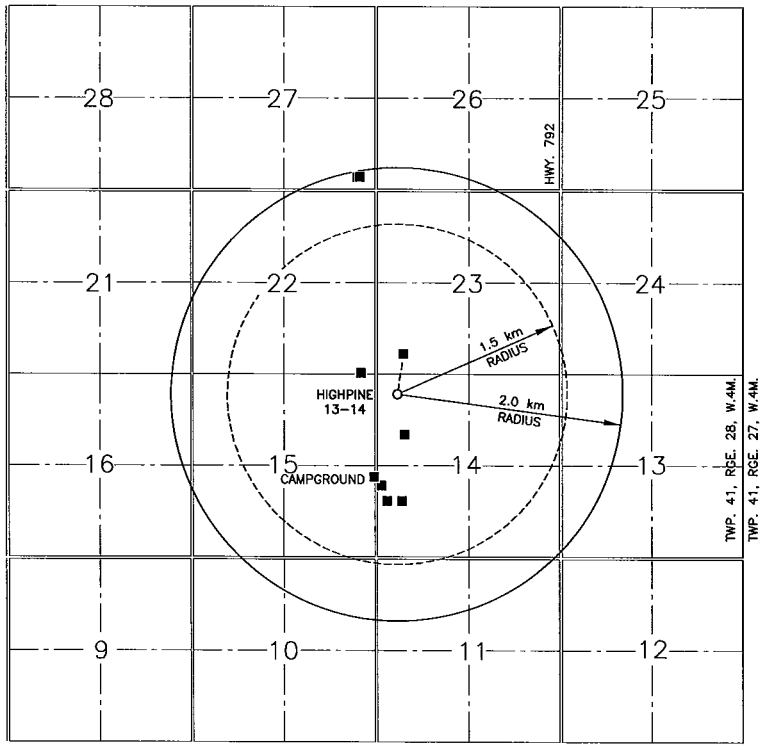


WELL SITE PLAN
Scale 1:5 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 2 of 3	FILE: 2917W005 Rev.



ACCESS ROUTE MAP
Scale 1:250 000



PLAN SHOWING
Surface Developments within 2.0 km.
Surface Developments shown thus .....■
Scale: 1:50 000

AFE No.	REQ No. :	Client File No. :	THE CADASTRAL GROUP INC.	0 Rev.
HIGHPINE MORNINGSIDE 13-14-41-28			Page : 3 of 3	FILE: 2917W005

Schedule 1

Releases

Ridgeline CANADA INC.

FACILITIES & FEATURES RELEASE

I/WE, Lacombe County (Title holder names(s)) of Lacombe, AB (Address),

in the Province of Alberta.

DO HEREBY REMISE, RELEASE AND FOREVER DISCHARGE Vesta Energy Ltd. (Client), its servants, agents, employees, contractors, successors and assigns of and from all manner of actions, causes of actions, suits, debts, claims and demands, both now and henceforth, claimed by, through or under me (us), or on my (our) behalf by my (our) heirs, executors, administrators or assigns, resulting from, or in any way connected with, all operations whatsoever of Vesta Energy Ltd. (Client) in respect of the following described lands and/or features:

the approach along the east side of Rge Rd 28-2 that is associated with Vesta Energy Ltd. wellsite & access road VESTA MORNSIDE 13-14-41-28, UWI: 100/13-14-041-28W4/00, License# 0337338.

I/We hereby covenant, promise and agree to and with the said company that I/We will indemnify and save harmless the said Company, its servants, agents, employees, contractors, successors and assigns from and against all loss, costs, actions, claims and demands whatsoever and of whatever nature which may be made, brought or claimed by any person whomsoever for, or in respect of, or arising out of, or incidental to the matters, or any of them herein before mentioned.

This release does not cover any damages that may be caused by any operations conducted by the Company on the above land after the date hereof.

ACCEPTED AND AGREED TO this 25th day of June, 2014, at Lacombe, in the Province of Alberta.

In the presence of:

Witness:
Print Name Marnie Hill (via email)

Owner: Jegou for James Pruden, Inspections Officer, Lacombe County
Print Name Diane Jegou for James Pruden, Inspections Officer Lacombe County

Owner (if applicable):
Print Name

Owner (if applicable):
Print Name

Ridgeline CANADA INC.

FACILITIES & FEATURES RELEASE

I/WE Tony Elmer Kamlah & Kathy Mae Kamlah of RR#3, Site 3, Box 4, Lacombe, AB T4L 2N3,
(Title holder names(s)) (Address)

in the Province of Alberta.

DO HEREBY REMISE, RELEASE AND FOREVER DISCHARGE Vesta Energy Ltd., its
(Client)
servants, agents, employees, contractors, successors and assigns of and from all manner of actions, causes of actions, suits, debts, claims and demands, both now and henceforth, claimed by, through or under me (us), or on my (our) behalf by my (our) heirs, executors, administrators or assigns, resulting from, or in any way connected with, all operations whatsoever of Vesta Energy Ltd. in
(Client)
respect of the following described lands and/or features:

the approach, and 4-strand barb wire gate along with the perimeter fence that is associated with Vesta Energy Ltd. wellsite & access road VESTA MORNSIDE 13-14-41-28, UWI: 100/13-14-041-28W4/00, License# 0337338.

I/We hereby covenant, promise and agree to and with the said company that I/We will indemnify and save harmless the said Company, its servants, agents, employees, contractors, successors and assigns from and against all loss, costs, actions, claims and demands whatsoever and of whatever nature which may be made, brought or claimed by any person whomsoever for, or in respect of, or arising out of, or incidental to the matters, or any of them herein before mentioned.

This release does not cover any damages that may be caused by any operations conducted by the Company on the above land after the date hereof.

ACCEPTED AND AGREED TO this 17 day of June, 2014,
at Red Deer, in the Province of Alberta.

In the presence of:

Marnie Hill
Witness:
Print Name Marnie Hill

Tony Kamlah
Owner:
Print Name Tony Kamlah

Owner (if applicable):
Print Name

Kathy Kamlah
Owner (if applicable):
Print Name Kathy Kamlah

Ridgeline CANADA INC.

FACILITIES & FEATURES RELEASE

I/WE, Glenn Fraser of Riser Developments Ltd. of 6784 65th Avenue Red Deer T4P 1A5,
(Title holder names(s)) (Address)

in the Province of Alberta.

DO HEREBY REMISE, RELEASE AND FOREVER DISCHARGE Vesta Energy Ltd., its
(Client)
servants, agents, employees, contractors, successors and assigns of and from all manner of actions, causes of actions, suits, debts, claims and demands, both now and henceforth, claimed by, through or under me (us), or on my (our) behalf by my (our) heirs, executors, administrators or assigns, resulting from, or in any way connected with, all operations whatsoever of Vesta Energy Ltd. in
(Client)
respect of the following described lands and/or features:

the approach along the east side of Rge Rd 28-2 that is associated with Vesta Energy Ltd. wellsite & access road VESTA MORNSIDE 13-14-41-28, UWI: 100/13-14-041-28W4/00, License# 0337338.

I/We hereby covenant, promise and agree to and with the said company that I/We will indemnify and save harmless the said Company, its servants, agents, employees, contractors, successors and assigns from and against all loss, costs, actions, claims and demands whatsoever and of whatever nature which may be made, brought or claimed by any person whomsoever for, or in respect of, or arising out of, or incidental to the matters, or any of them herein before mentioned.

This release does not cover any damages that may be caused by any operations conducted by the Company on the above land after the date hereof.

ACCEPTED AND AGREED TO this 30 day of July, 2014,
at Red Deer, in the Province of Alberta.

In the presence of:

Marnie Hill.
Witness:
Print Name Marnie Hill

Glenn Fraser of Riser Developments Ltd.
Signature of Owner:
Print Name

Schedule 1

Acknowledgement of Information Disclosure

Alberta Environment

Acknowledgement of Information Disclosure[1]
For Upstream Oil and Gas Facilities

Completing this Acknowledgement does not indicate any acceptance or responsibility by the landowner (or designate) for any work done on the land by either the oil and gas operator, consultants used by the operator or any other party.

This is an acknowledgement that the landowner (or designate) has been provided the opportunities described below.

The landowner (or designate) had an opportunity to discuss with the operator or designate:

- Remediation and reclamation activities planned for their land ☑ Yes ☐ No
- The results of remediation and reclamation work conducted on their land ☑ Yes ☐ No

The landowner (or designate), by signing this Acknowledgement, indicates that they have received copies of the application for reclamation certificate that will be submitted to Alberta Environment.

Wellsite
Type of Facility (wellsite, battery, pipeline, etc.)

100/13-14-041-28 W4/00
Legal Land Location

Vesta Energy Ltd.
Oil and Gas Operator or Designate (who provided the information)

Tony Bamber Kathy Lambert
Landowner

Designate[2]

Aug 7/14
Date

Date

Marnie Hill
Witness

Witness

[1] This is a voluntary action for the landowner (or designate). A landowner (or designate) has 30 calendar days to sign and return the form to the operator. If you have any questions, please call Wendy Jones, Alberta Environment, at (780) 427-7271.

[2] Complete attached Schedule A

Alberta Environment

Acknowledgement of Information Disclosure
Schedule A

Attach such applicable documentation which demonstrates the authority of the designate to deal with the operator, i.e., letter from registered landowner, power of attorney, lease documents or any other document which demonstrates such authority.

Wellsite Reclamation Certificate Application Form

2010 Reclamation Criteria for Wellsites and Associated Facilities

Alberta Energy Regulator

1.0 GENERAL INFORMATION

1.1 Company Information

Applicant Full Name*	Vesta Energy Ltd.

* Full Company Name that will appear on reclamation certificate

1.2 Alberta Energy Regulator Information

Is the applicant the AER licensee for the site?	Yes
AER Well or Facility name	VESTA MORNSIDE 13-14-41-28
AER Unique Well Identifier (UWI) or Facility Identifier(s)	100/13-14-041-28 W4/00
AER Licence No(s)	337338
Total land to be certified (in acres)	4.13

1.3 Site Identification and Physical Location

1.3.1 Location of Site	County/MD/ID/SA	Lacombe County	Alberta

1.3.2 Complete Surface Legal Land Description(s): lease, access road, facility, sump, camp site, etc

Add Row	Facility Description	Quarter	LSD	Section	Township	Range	Meridian
Delete	Wellsite	NW	13	14	41	28	4
Delete	Access Road	NW	13	14	41	28	4

☐ Additional legal land description attached

1.4 Site Jurisdictions

Check all that apply:

☐ Public Land, provide Crown Disposition numbers

Upon issuance of a Reclamation Certificate, do you want your public land disposition cancelled?

☒ Private Land

☐ Special Areas

☐ Parks and Protected Areas (i.e., Natural Areas, Ecological Reserves, Provincial Parks, Provincial Recreation Areas, Wildland Provincial Parks)

1.5 Activity Type

Check all that apply:

☐ Prepared Wellsite (not drilled)

☒ Drilled and Abandoned (D&A) Wellsite

☐ Oil Wellsite

☐ Sweet Gas Wellsite

☐ Sour Gas Wellsite

☐ Battery Site

☐ Disposal Well

☐ Other AER Facility (describe):

☐ Oilsands Exploration Program

☐ Coal Exploration Program

1.6 Associated Facilities and Infrastructure - *must be certified or have a signed Release from the landowner*

Check all that apply:

- ☐ No associated facilities tied to this Activity
- ☒ Access Road
- ☐ Temporary Access Road
- ☐ Borrow Site
- ☐ Campsite
- ☐ Remote Sump
- ☐ Log Deck/Storage
- ☐ Land Treatment Area(s)
- ☐ Other (describe):

1.7 Stakeholders

1.7.1 Applicant

Company	Vesta Energy Ltd.	Contact Person	Shane Imber
Mailing Address	410, 333 - 5 Avenue Calgary, Alberta T2P 3B6	Position	VP - Operations
		Phone No.	403-358-2518
		e-mail	simber@vestaenergy.com
		Fax No.	

1.7.2 Application Prepared By (Consultant)

Company	Ridgeline Canada Inc.	Contact Person	Marnie Hill
Mailing Address	8, 4608 - 62 Street Red Deer, Alberta T4N 6T3	Position	Project Manager
		Phone No.	403-342-2130
		e-mail	mhill@ridgelinecanada.com
		Fax No.	403-342-2005

1.7.3 Landowner(s)

Add Row	Names	Mailing Address	Phone Number
Delete	Tony Elmer and Kathy Mae Kamlah	RR3, Site 3, Box 4 Lacombe, Alberta T4L 2N3	403-782-4194
Delete	Riser Developments Ltd. Contact: Glenn Fraser	#1, 6784 - 65 Avenue Red Deer, Alberta T4P 1A5	403-318-3405

1.7.4 Occupants ☒ No Occupants

1.8 Criteria Category Used

☒ Cultivated	Construction Period	On or After May 1, 1994
☐ Peatlands	Construction Period	
☐ Native Grasslands		
Constructed **Before** January 1, 1993	Site Abandoned and/or Reclaimed	
Constructed from January 1, 1993 to April 30, 1994	Site Abandoned and/or Reclaimed	
Constructed **On or After** April 30, 1994	Site Abandoned and/or Reclaimed	

1.8 Criteria Category Used		
☐ Forested Lands		
Constructed **Before** April 30, 1994	Site Abandoned and/or Reclaimed	
Constructed from April 30, 1994 to June 1, 2007	Site Abandoned and/or Reclaimed	
Constructed **On or After** June 1, 2007	Site Abandoned and/or Reclaimed	
Have the criteria used to assess the site been changed or defaulted to another?		No

2.0 SITE INFORMATION

2.1 Overlapping Exemptions

Does this site require an overlap exemption?	No

2.2 End Land Use Change

Has the end land use for the site changed?	No

2.3 Additional Certificates

List all other certificates obtained for this site or any associated facilities? i.e.: remote sump in connection with another wellsite, remediation certificate, etc.	☒ No other certificates issued

2.4 Non-Oilfield Waste

List any non-oilfield waste buried on site. (i.e. concrete. gravel, debris)	☒ No waste buried or unknown.

2.5 Facilities or Features to Remain in Place

Are any facilities or features to remain in place (e.g., access road, well pad, fences)?	Yes
If Yes, list what features remain: The approach, the 4 strand barb wire gate and perimeter fence	
Are facilities or features stable and non-hazardous?	Yes
Include releases from ALL registered landowners for ALL facilities / features or non-oilfield waste to remain in place.	

3.0 PARTIAL RECLAMATION (PUBLIC LANDS ONLY) ☐ Partial Certificate Requested

4.0 CONTAMINATION INFORMATION

4.1 Environmental Site Assessment Work Completed - *check off all appropriate boxes*

- ☐ Phase 1 ESA not done since well was prepared, but not drilled.
- ☐ The Phase 1 ESA showed no contamination was likely present, so no Phase 2 ESA or remediation was completed.
- ☐ The Phase 1 ESA showed contamination was likely present so a Phase 2 ESA was completed.
- ☒ The Phase 1 ESA showed insufficient information to determine if contamination was likely present, so a Phase 2 ESA was completed.
- ☒ The Phase 2 ESA showed contamination was not present, or was within acceptable values*.
- ☐ The Phase 2 ESA showed contamination was present, so remediation was completed
- ☐ The site was known to be contaminated, so remediation was completed, and a Phase 1 ESA was completed.

*Acceptable values are identified in the Alberta Tier I and Tier 2 Soil and Groundwater Remediation Guidelines.

4.1.1 Confirmatory Sampling

Was confirmatory testing/sampling done following remediation?	No

If No, explain:
No contamination was identified during the intrusive sampling (SNL, 2010). See Schedule 4 for further details.

4.1.2 Subsoil Guidelines

Were subsoil guidelines used to address or remediate hydrocarbon contamination as per the *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (ESRD 2007, as amended)?

- ☒ No
- ☐ Yes, below 3 metres
- ☐ Yes, below 1.5 metres within 15 metres of the wellhead (Until June 30, 2007)
- ☐ Yes, below 1.5 metres within 5 metres of the wellhead (After June 30, 2007)

5.0 ROUTINE vs. NONROUTINE APPLICATIONS

If "Yes" is checked off in any of the following questions, this application will be processed as nonroutine and forwarded to an inspector for review prior to the issuance or refusal of a Reclamation Certificate, as warranted.

○ Yes ◉ No	Are there unresolved landowner complaints OR a complaint form submitted with this application? (Schedule 1)
○ Yes ◉ No	Were justifications, based on professional judgment, used to explain a "pass"?
☐ Yes ☐ No	If justification were used was it discussed with an inspector? If yes, indicate who and when.
	Inspector's Name: Date:
○ Yes ◉ No	Does the activity fall within a Park and/or Protected Areas (i.e., Natural Areas, Ecological Reserves, Provincial Parks, Provincial Recreation Areas, Wildland Provincial Parks)
○ Yes ◉ No	Was this site constructed before 1983, AND was it reclaimed using a management plan? (Schedule 5)
○ Yes ◉ No	Were subsoil criteria used to address or remediate hydrocarbon contamination?
	☐ Below 3 metres
	☐ Below 1.5 metres within 15 metres of the wellhead (Until June 30, 2007)
	☐ Below 1.5 metres within 5 metres of the wellhead (After July 1, 2007)
○ Yes ◉ No	Is this site a coal exploration well?
○ Yes ◉ No	Is this site a oil sands exploration well?
○ Yes ◉ No	Has a reclamation certificate application for this site been previously refused?
○ Yes ◉ No	Has a reclamation certificate for this site been issued and then cancelled?

☒ Routine ☐ Nonroutine

* red border indicates the question needs to be answered
* no border indicates the answer is calculated from a previous question.

6.0 PROFESSIONAL ASSURANCE

Professional members who signed off on the reclamation and remediation assessments.

Assessment	Date	Company	Professional's Name(s)	*Professional Designation(s) and Registration No(s).
Phase 1 ESA:	11-Aug-2009	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Drilling Waste Disposal / Compliance Option(s):	11-Aug-2009	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Phase 2 ESA - Site Investigation:	24-Jun-2010	S.N.L. Environmental Consulting Ltd.	Roger Saint-Fort, P.Ag.	Alberta Institute of Agrologists, P.Ag #3289
Remediation and Confirmatory Results:				
Landscape Assessment:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Vegetation Assessment:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Soil Assessment Level 1:	15-Jul-2014	Ridgeline Canada Inc.	Marnie Hill, P.Ag.	Alberta Institute of Agrologists, P.Ag #3639
Soil Assessment Level 2:				
Other:				

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

7.0 APPLICANT DECLARATION

This Declaration must be signed by the Operator (consultant signatures are NOT acceptable)

I, Shane Imber of Vesta Energy Ltd. declare that,

This application was prepared and completed under my direction. Based on my inquiries of the person or persons who managed the application components required to complete this application the information is, to the best of my knowledge and belief, true, accurate and complete;

- We contacted the landowner/occupant and inquired about any outstanding concerns with the site and documented their response in the application;
- We conducted a detailed reclamation assessment (DSA) of the site and all requirements described in the appropriate reclamation certification criteria have been met;
- We have attached a copy of the Notification of Drilling Waste Disposal form or equivalent, the appropriate drilling waste compliance option Checklist, and/or Phase II Environmental Site Assessment that includes sampling of drilling waste disposal areas;
- We carried out a Phase 1, and/or Phase 2 Environmental Site Assessment (copy attached);
- An up to date Record of Site Condition has been submitted with Phase 2 Environmental Site Assessments;
- We identified and remediated all contamination resulting from the use of this site to meet Alberta Environment's requirements and there are no soil chemical or physical conditions that resulted from our use of this land that may adversely affect soil, vegetation or groundwater on or off the site described in this application package;
- We provided the landowner(s) a complete copy of this application package at least 30 days prior to making this submission.
- We included the listing of people who performed the reclamation and remediation assessments and their professional designation, if any. For any work completed after January 1, 2008, we included the AER Professional Declaration Form(s), completed and signed by the professional members who conducted or supervised the work;
- We understand that incomplete applications will not be accepted and we will have to reapply including the appropriate fee once the missing information has been added.

I also declare that, to the best of my knowledge, all of the information contained within this Application is accurate and includes a complete representation of all the information that is required to be submitted in the Application for a Reclamation Certificate. I am aware that it is an offence under section 227 of the Environmental Protection and Enhancement Act to provide false or misleading information and that there are significant fines for committing an offence of section 227, including the possibility of imprisonment, the relevant sections which read as follows:

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

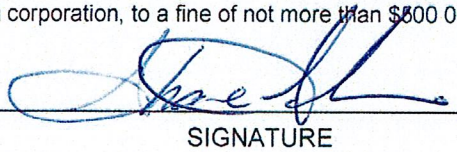
(a) in the case of an individual, to a fine of not more than $100 000 or to imprisonment for a period of not more than 2 years or to both fine and imprisonment, or

(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 of not more than $50 000, or

(b) in the case of a corporation, to a fine of not more than $500 000.

Shane Imber		VP Operations	AUG 5/14.
NAME	SIGNATURE	POSITION	DATE

8.0 APPLICATION SUBMISSION – Private

A complete application package **must** be submitted and include the following, in order:

- Cover letter
- Application form
- Schedules One through Five as applicable to the site location (see the following sections for the contents of each schedule).

In addition to the reclamation certificate application form, there are a number of additional documents that must be submitted with the application package. These documents must be in the same email as the application and attached as separate documents. The naming convention of these documents must be reflective of the appropriate schedule the document is a requirement of (i.e. Schedule 1, Schedule 2, Schedule 3, Schedule 4 and Schedule 5).

Attachments must be submitted as PDF files, no security applied to the file, electronic signature(s) and last modification(s) are in the file and use the option Reduce File Size.

Submission on Private Lands: The application must be submitted by e-mail to **RecRemCertApplications@aer.ca**, please indicate "Reclamation Application" in the subject of the e-mail.

8.0 APPLICATION SUBMISSION – Public

Electronic Submission of Reclamation Applications on Public Lands

As of **April 30, 2009**, on-line application submissions are mandatory, unless the AER's Closure and Liability Branch pre-approves a paper copy application. Applications are submitted through the Electronic Disposition System (EDS).

All application packages must be completed as outlined in the *Upstream Oil and Gas Reclamation Certificate Application Certificate Application Guidelines*. The application and enclosed schedules must be submitted in a zip file, with each schedule saved as a separate file. Note: electronic submission is for public `specified land' only.

Electronic Submission Procedure
GOA Username and Password
A username and password are required for online submissions. To request a Government of Alberta (GoA) username and password, download the User ID Request Form for EDS and PCS at

http://srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx

EDS Access and Navigation User Manual
A detailed EDS Access and Navigation User Manual has been created for all EDS applications, including Reclamation Application Submissions. The manual outlines the process for submission and fee payment.

There is also an EDS Frequently Asked Questions document on Reclamation Certificate Application Submissions to assist with the submission process.

http://srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx

Login to EDS
The web interface for reclamation certificate applications can be securely logged into at:

https://securexnet.env.gov.ab.ca/eds_login.html

To assist with managing file sizes, please do not submit the following as part of the reclamation application package:
~ Drilling /Tour Reports
~ Water well logs
~ Disposition Approval
~ Duplicate Schedules (extra pages)
~ Environmental Field Report
~ Land Standing Report

9.0 SCHEDULE ONE - Attachments

Please check off the appropriate boxes indicating which documents are included in the Schedule.

- ☒ Land Titles (private land only)
- ☐ Special Areas Board Search
- ☒ Survey Plan (4 copies for private lands; 1 copy for public lands; all copies to be outlined in yellow)
- ☒ Acknowledgement of Information Disclosure **OR**
- ☐ Proof the application package was sent to the landowner(s) (i.e., delivery receipt)
- ☐ Complaint Form (attach complaint form only when there is a landowner complaint)
- ☒ Releases - All landowners listed on title must sign all releases
- ☐ Overlapping Exemption (only required when the Operator of the overlapping activity is different from Operator submitting this application)
- ☐ Other Certificates
- ☐ Criteria Change Authorization*
- ☐ Land Use Change Documentation
- ☐ Other, describe
- ☐ Other, describe

*The *2010 Reclamation Criteria for Wellsites and Associated Facilities* (ESRD 2010) provides for justification when the reclamation criteria for the appropriate end land use cannot be achieved due to site-specific conditions.

10.0 SCHEDULE TWO - Phase 1 Environmental Site Assessment

☐ Phase 1 ESA not required and NOT submitted with this application

As of June 1, 2011 all Phase 1 ESA information must be entered on the Schedule Two form.
Please check off the appropriate boxes indicating which documents are attached.

☒ List of available aerial photographs from Air Photo Distribution

☒ Aerial or satellite photographs

☒ Site Visit Photos

☒ Construction and Operation Sketches

☒ AER Professional Declaration Form* – This must be signed for work completed after January 1, 2008.

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

10.0 PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

10.1 Previously Refused Applications and Cancelled Certificates

Has this site been previously refused or certified and the certificate cancelled?	No

10.2 Drilling Information

Add	Well name or UWI	Spud Date:	Final Drill Date:	Well Depth: (metres)
Delete	100/13-14-041-28 W4/00	25-Sept-2005	5-Oct-2005	1,885

10.2.1 Re-entry of a Well or Site Re-drilled

Is this site a re-entry?	No
Is the site re-drilled?	No

10.2.2 Drilling Waste Disposal Informatiom

Add Mud	Drilling Mud Type	Volume (m^3)	Disposal Method
Delete	Gel Chem	260	Landspray While Drilling

Add Row	Sump Type	Sump location, if remote	Disposal Location(s)
Delete	None		SW-25-041-28 W4M

Drilling Waste Compliance Option(s) used and attached to Schedule 3.	☒ Option 1 ☐ Option 2 ☐ Option 3
Has this site been used for drilling waste disposal more than once?	No

Provide details and location(s):
Drilling waste was disposed of via landspray while drilling off-site within SW-25-041-28 W4M. The drilling waste disposal satisfied Compliance Option 1.

10.3 Production, Storage, and Environmental Information

10.3.1 Current and/or Historical Information

Describe all historical and/or current infrastructure associated with the location (For example: tanks, pipeline, process skids, access roads etc.)

Access road. No production is associated with the well.

10.3.2 Flare Pits

Were there any associated flare pits during drilling or production?	No

10.3.3 Storage Tanks

Were there any storage tanks associated with the site?	Yes

If "Yes", list number, location, and capacity of the storage tanks

Add Row	Type of Tank	Content	Location(s)	Capacity (m^3)
Delete	Above ground tank	Flare Tank	East of well centre	
Delete	Above ground tank	Shale Tank	North of well centre	

Were any other underground structure, such as pipelines, removed?	N/A

10.3.4 Fluid Disposal		
How was fluid at producing wells, disposal wells, and/or battery sites shipped to/from the location?		
☒ N/A	☐ Piped from the site	☐ Trucked from the site
☐ Piped to the site	☐ Trucked to the site	☐ Disposed of on site

10.3.5 Other Facilities or Infrastructure	
Describe any other waste storage, handling, chemical storage, buried pits, landfills, etc Cement pit located in the northwest corner	
10.3.6 Spills and Releases	
Have there been any Spills/Releases/Complaints associated with the site?	No
10.3.7 Previous Environmental Site Assessments	
List any previous ESA's conducted?	☒ None or unknown

10.4 Phase 1 Environmental Site Assessment Site Visit				
Date:	28-Aug-2007	Assessor(s)	Wendy Weiss	
Surrounding land use	N: Pasture	S: Pasture	E: Pasture	W: Pasture
Topography:	Gently rolling			
Vegetation:	Hay mix; alfalfa, clover, brome, timothy			
Provide the proximity of receptors to the site. Fill in distances (m) for all that are within 300 metres of the site boundary.				
Residence: > 300 m	Water well: > 300 m	Surface waterbody (e.g., dugout, stream river):	Slough adjacent to north side of access road	
Were equipment or tanks present, or were there visual signs of former facilities?				No
What was observed? N/A				
Were there visual signs of open or potentially buried earthen pits?				No
What was observed? N/A				
Was there evidence of past spills (include cumulative releases, well centre impacts, salt tolerant vegetation, etc.)?				No
What was observed? N/A				
Was any adjacent land affected by operations on the site?				No
What was observed? N/A				
Was any vegetation stress apparent?				No
Details (location, evidence): N/A				
Does the site visit information conflict with specific file or the imagery review Information?				No
If YES, explain N/A				

10.4 Phase 1 Environmental Site Assessment Site Visit

10.5 Aerial and Satellite Imagery Review

Aerial or satellite photographs of the site are required. Scales such as 1:5000 or 1:7500 should be used to show detail.

Producing wells and batteries: one pre-disturbance; one post-disturbance; one photograph for every 2 to 3 year interval while the site was active.

Dry and abandoned wells: one photograph of the active site, if available, is required. If active site photographs are not available, photographs of the pre and post disturbance are required.

Sites with above ground facilities and/or spills: photos of the site before, during (if available), and after the spill cleanup or facility removal are required

Review Date: 18-Jul-2008			Reviewed by:Wendy Weiss	
Add	Photo Id:	Year	Scale:	Evidence of former infrastructure or areas of potential concern
Delete	4971-1998	1998	1:2,000	Pre-disturbance
Delete	AS 5408-175	2007	1:2,000	Reclamation completed. No areas of concern observed.

10.6 Interviews - Phase 1 Environmental Site Assessment

Provide details of Interviewee's Comments. Request information on previous complaints, former facilities, presence and details of spills, pits, waste storage/handling, and vegetation control, etc

Private Land: Have you performed a site visit in the presence of the landowner/occupant?	Yes
Public Land: Have you performed a site visit in the presence of the occupant?	

Date of site visit(s) 28-Aug-2007

Landowner Interviewed:	Date	Interviewed By:
Tony Kamlah	28-Aug-2007	Wendy Weiss

Landowner had no environmental concerns with the site. The lease was seeded in the fall of 2005 and mowed in 2006. He feels that location is holding water more so than prior to lease construction. He stated that the original drainage of the slough was by natural swale running from the slough, south across the lease into a drainage ditch.

Occupant Interview:	Date	Interviewed By:

Operator Interview:	Position:	Date	Interviewed By:

Additional Notes/Comments/Information
No Phase II ESA required according to the DWD checklist and calculations. An onsite cement pit is noted in the Notification of Drilling Waste Disposal forms, a Phase II ESA is required to confirm that 1 m is present over the cement pit area.

10.7 Conclusions and Recommendations
10.7.1 Did the Phase 1 ESA indicate that a Phase 2 ESA is required to evaluate the site for contamination?
(●) Yes ( ) No further investigation required
If YES, attach Phase 2 ESA report (see Schedule 4)

11.0 SCHEDULE THREE - Drilling Waste Documentation

Please check off the appropriate boxes indicating which documents are included in this Schedule

☐ Not required because well not drilled or application is for other AER facility

☒ Guide 50 Notification Form (*Directive 050: Drilling Waste Management*, AER 1996) or form with equivalent information used for reporting under *Guide G-50: Drilling Waste Management* (AER 1993)

☒ Assessing Drilling Waste Disposal Areas: Compliance Option Checklist.

☒ Assessing Drilling Waste Disposal Areas: Compliance Option Calculations.

☒ AER Professional Declaration Form*

☐ Other, describe

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

12.0 SCHEDULE FOUR - Phase 2 Environmental Site Assessment

Please list all Environmental Site Assessment Reports included in this schedule. (e.g. Phase 2 environmental site assessments, site remediation reports, Phase 3 environmental site assessment reports)

☐ No ESA reports included

Delete Report	Report Title:	13-14-41-28 W4M - Potential Cement Pit Search	Report Date
☒ Attached	Record of Site Condition*		6-Jul-2010
☒ Attached	☐ Not required	AER Professional Declaration Form**	

Add Report

* On April 6, 2009, ESRD released a new version of the Record of Site Condition form. The 2009 version is required for any new information being submitted to the department and for any reports submitted between May 1, 2008 and April 6, 2009 without a Record of Site Condition form.

** This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

13.0 SCHEDULE FIVE - Reclamation Information

Please check off the appropriate boxes indicating which documents are included in this Schedule.

- ☒ Reclamation Information section completed (next pages)
- ☒ Landscape Assessment Tool
  - ☒ AER Professional Declaration Form for Landscape*
- ☒ Vegetation Assessment Tool (include Record of Observation Data sheets)
  - ☒ AER Professional Declaration Form for Vegetation*
- ☒ Soil Assessment Level 1 Tool (include Record of Observation Data sheets)
  - ☒ AER Professional Declaration Form for Level 1 Soil*
- ☐ Soil Assessment Level 2 Tool (include Record of Observation Data sheets)
  - ☐ AER Professional Declaration Form for Level 2 Soil*
- ☒ Site, Lease and Access Sketches
- ☒ Site Visit Photos
- ☐ Exemption Justification Form**
- ☐ Management Plan***
- ☐ Other

* This form must be signed for work completed after January 1, 2008. The AER will refuse any reclamation certificate applications that do not strictly adhere to ESRD's professional declaration requirements, outlined in Fact Sheet (R&R/10-01).

** The *2010 Reclamation Criteria for Wellsites and Associated Facilities* (ESRD 2010) provides for justification when the reclamation criteria for the appropriate end land use cannot be achieved due to site specific conditions.

*** A Management Plan can be used for sites constructed prior to 1983 that do not have sufficient soil salvaged to meet the *Reclamation Criteria for Wellsites and Associated Facilities - 1995 Update* (AENV 1995). The Management Plan must be agreed to by the landowner and the Inspector.

13.1 Reclamation Site Information

13.1.1 Dates

Survey Date:	Construction Date:	Abandonment Date:	Date Reclamation Completed	Date of Final Assessment	
				Soil:	Vegetation:
25-Jul-2005	25-Sept-2005	12-Oct-2005	Spring 2008	3-Jul-2014	3-Jul-2014

13.1.2 Global Positioning System (GPS) Coordinates

GPS Co-ordinates (list all decimal places):

Add	Description	Location	Datum Used (NAD 83)	Latitude:	Longitude
Delete	Well Centre	13-14-41-28 W4M	NAD 83	5824536	0300796

13.1.3 Pre-construction Assessment

Was a Pre-Construction Assessment done?		No
If Yes, provide the date and by whom	Date	Consultant

13.1.4 Access Road and Trails

Was soil salvaged on the access?

Yes | If No | ☐ Existing trail was used | ☐ Access was undisturbed

Was the access road developed?

Yes | If Yes, | ☒ Low Profile | ☐ High Profile | ☐ Pit Run | ☐ Crush

13.1.5 Seeding

Add Row	Seeding/Planting Date	Species mix list (if available)
Delete	Annual	Annual cultivation

13.1.6 Fertilizer ☒ Not Used

13.1.7 Herbicide(s) and Sterilant(s) - Used Pre & Post Reclamation ☒ Not Used

13.1.8 Soil Amendments and Additions ☐ Not Used

Were amendments accepted by the landowner:

Add	Amendment Type	Location of Application	Date of Application	Rate of Application	Remedial Action Taken	Incorporation Method
Delete	Recontour	Onsite	Spring 2008		Recontoured site to better match preconstruction drainage conditions.	

13.2 Interviews - Reclamation Information

Provide details of Interviewee's comments regarding satisfaction with remediation and reclamation work.

Private Land: Has the landowner/occupant been given the opportunity to provide comments?	Yes
Public Land: Has the occupant been given the opportunity to provide comments?	
Public Land: Have all disposition conditions been met?	

Date of site visit(s)	3-Jul-2014				
Interviews	Name	Date	Interviewed By	Comments	
Landowner:	Tony Kamlah	11-Jul-2014	Kristen Cockle, Ridgeline Canada Inc.	Mr. Kamlah confirmed that the drilling waste was disposed of off-site via LWD and had no knowledge of a cement pit being utilized on-site during drilling. He explained that following the initial reclamation he complained of more water ponding in the northwest corner than previous years. As a result, the site was recontoured in the Spring of 2008. Mr. Kamlah stated he is now satisfied with the soil, vegetation, landscape and all reclamation efforts at the site. As per the Land Title, on July 5, 2014, a 1/2 interest of the land was sold to Riser Developments Ltd. Mr. Glenn Fraser is a representative of Riser Developments and signed the release for the approach July 30, 2014, he did not know any history of the site.	
Occupant:					
Operator:					
Position:					

Additional Notes/Comments/Information:

13.3 Additional Site History/Comments/Clarification

The 100/13-14-041-28 W4/00 well was drilled between September 25, 2005 to October 5, 2005 to a total depth of 1,885 metres. There is no production associated with this well and it was surface abandoned on October 12, 2005. The wellsite is accessed from the west via an east-west running access road off of a high grade gravel road allowance. The landowners and Lacombe County have signed releases to retain the approach.

A Phase 1 ESA was completed on August 11, 2009 by S.N.L. Environmental Consulting Ltd. The disposal of 260 cubic metres of total gel chemical drilling waste on SW-25-041-28 W4M via landspray while drilling was documented in a report by VegTec Inc. dated September 25, 2005. Drilling waste disposal met Compliance Option 1 checklist requirements. The Phase 1 ESA identified a potential cement pit in the northwest corner of the wellsite. The assessors recommended a Phase 2 ESA to confirm a 1 metre cap was present over the cement pit.

A Limited Phase 2 ESA was conducted by S.N.L. Environmental Consulting on June 24, 2010. Boreholes were advanced to investigate potential impacts at well centre and to confirm a 1 metre cap over the cement pit. Analytical

results indicated there were values greater than the applicable guidelines. The assessors determined that no cement pit could be identified on-site in the northwest corner.

A Detailed Site Assessment was conducted by Ridgeline on July 3, 2014. The wellsite and adjacent land consist of a tame pasture field. The wellsite and access road passed all applicable 2010 Reclamation Criteria for Wellsites and Associated Facilities on Cultivated land.

Public Disclosure and Privacy Notification

The *Reclamation Certificate Application* form is a public record that is disclosed in accordance with section 35 of the *Environmental Protection and Enhancement Act*, *Disclosure of Information Regulation*, and *Ministerial Order 23/2004*. Reasonable efforts have been made to minimize collection of personal information where possible. Personal information on the form is collected under the authority of the *Environmental Protection and Enhancement Act* and is in compliance with section 33(c) of the *Freedom of Information and Protection of Privacy Act* (*FOIP*). Personal information collected on this form will be used by Alberta Energy Regulator for the purposes of administering its programs.

Accuracy of Information

The information in this document has been submitted by persons other than the AER. The AER cannot and does not warrant that the information in this document is current, accurate, complete, or free of errors. Persons accessing the information provided should not rely on it, and any reliance on the information provided is taken at the sole risk of the user. Users of this information are advised to conduct their own due diligence to satisfy themselves of the environmental condition of the property of interest.

Protect Form

Schedule 2

Phase 1 Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT
AT
00/13-14-041-28 W4/0

PREPARED FOR:

HIGHPINE OIL & GAS LTD.

PREPARED BY:

S.N.L. ENVIRONMENTAL CONSULTING LTD

JUNE 2009

Schedule Two
Phase 1 Environmental Site Assessment

Please check off the appropriate boxes indicating which documents are included or sections completed in this Schedule.

Following sections completed:

- ☒ A – Drilling Information (Checklists and calculation tables from the guideline, *Assessing Drilling Waste Disposal Areas: Compliance Options for Reclamation Certification* should be attached to Schedule 3.
- ☒ B – Production/Storage & Environmental Information
- ☒ C – Phase 1 Environmental Site Assessment: Site Visit
- ☒ D – Aerial/Satellite Review
- ☒ E – Interviews
- ☒ F – Conclusions and Recommendations
- ☒ G - Declaration
- ☒ Construction and Operation Sketches

Attach the following:

- ☒ Phase 1 Environmental Site Assessment: Site Visit Photos
- ☒ Aerial or satellite photographs
- ☒ List of available aerial photographs from Air Photo Distribution
- ☒ AENV Professional Declaration Form – This form must be signed for work completed after January 1, 2008

OR

- ☐ Phase 1 Environmental Site Assessment form (AENV 2002)* including all of the above information.
- ☐ Phase 1 Environmental Site Assessment; Site Visit Photos
- ☐ Aerial or satellite photographs
- ☐ List of available aerial photographs from Air Photo Distribution
- ☐ AENV Professional Declaration Form - This form must be signed for work completed after January 1, 2008
- ☐ _____

* A Phase 1 Environmental Site Assessment (ESA) completed prior to November 1, 2007 can be submitted using the Phase 1 ESA form (AENV 2002). Ensure that all information required on the new Phase 1 ESA form (AENV 2007) is included.

PHASE 1 Environmental Site Assessment

A. Drilling Information

1. Drilling date: Spud: September 25, 2005 and Rig Release: October 5, 2005
2. Well depth: 1885 m
3. Has this site been previously certified and the certificate cancelled? ☐ Yes ☒ No
   If Yes, provide details of work completed in the Detailed Site Assessment Report.
   If no work has been done, explain why. _____
4. Is this site a re-entry? ☐ Yes ☒ No
   If yes, has this site been previously certified? ☐ Yes ☐ No, If yes, Certificate No. _____
5. Drilling mud (type, volume): Gel-chem 260 m3
   Drilling waste disposal method: LWD
   Sump location: ☐ On-Lease ☐ Remote ☒ None
   Remote sump location: _____
   Disposal location (s): SW 25-41-28 W4M
6. Drilling Waste Compliance Option used and attached to Schedule 3 : ☒ Option 1 ☐ Option 2 ☐ Option 3
7. Has this site been used for drilling waste disposal more than once? ☐ Yes ☒ No ☐ Unknown
   Details: _____

B. Production/Storage & Environmental Information

1. Infrastructure associated with the location historical and/or current: (tanks, pipeline, process skids, access roads etc.)
   No production associated with the well. Access road.
2. Flare pits (drilling, production) ☐ Yes ☒ No ☐ Unknown **Details/Location:** _____
3. Storage tanks (☐ below or ☒ above ground) ☒ Yes ☐ No ☐ Unknown
   Number of tanks: 2
   Location: Flare tank east of well centre; shale tank north of well centre; both used from drilling of the well.
   Capacity: _____
4. Underground facilities removed (storage tanks, pipelines, etc.)?
   ☐ Yes ☐ No If No, explain _____ ☒ Not Applicable – No underground facilities at site.
5. How was fluid at producing wells, disposal wells, and/or battery sites shipped to/from the location? ☒ N/A
   Fluid piped ☐ to the site, Fluid piped ☐ from the site.
   Fluid trucked ☐ to the sit Fluid trucked ☐ from the site.
6. Other (waste storage/handling/chemical storage, buried pits, landfills etc.): _____
7. Spills/Releases/Complaints: ☐ Yes ☒ No ☐ Unknown **Date:** _____
   Reference or Incident #: _____
   Type: _____
   Product & Volume (Spilled & Recovered): _____
8. Have there been any previous ESAs conducted? ☐ Yes ☒ No (attach additional sheets as necessary)
   Consultant: _____
   Report Title: _____
   Report Date: _____
   Report Findings: _____

C. Phase 1 Site Visit

1. Date (m/d/y): August 28, 2007
2. Assessor: Wendy Weiss
3. Surrounding land use:

   N: Pasture S: Pasture E: Pasture W: Pasture
4. Topography: gently rolling
5. Vegetation: Hay mix; alfalfa, clover, brome, tiimothy
6. Proximity to (fill in distance to all that fall within 300 metres of this site):

   Residence: ____; Water well: ____; Surface waterbody (e.g., dugout, stream, river): slough adjacent to north side of access road.
7. Equipment or tankage present (or visual signs of former facilities): ☐ Yes ☒ No

   What was observed?:
8. Visual signs of open or potentially buried earthen pits: ☐ Yes ☒ No

   What was observed?:
9. Evidence of past spills (includes cumulative releases, well centre impacts, salt tolerant vegetation, etc.): ☐ Yes ☒ No

   What was observed?:
10. Adjacent land affected by operations on the site? ☐ Yes ☒ No

    What was observed?:
11. Vegetation stress apparent: ☐ Yes ☒ No

    Details (location, evidence):
12. Does site visit information conflict with specific file or the imagery review information: ☐ Yes ☒ No

    If YES, explain:

D. AERIAL/SATELLITE IMAGERY REVIEW

Photographs of the site in aerial, satellite or other media format are required. Scales such as 1:5000 or 1:7500 should be used to show detail.

Producing wells and batteries: one pre-disturbance; one post-disturbance; one photograph for every 2 to 3 year interval while the site was active.

Dry and abandoned wells: one photograph of the active site, if available, is required. If active site photographs are not available, photographs of the pre and post disturbance are required.

Sites with above ground facilities and/or spills: photos of the site before, during (if available), and after the spill cleanup or facility removal are required.

Review date: July 18, 2008

Reviewed by: Wendy Weiss

Photo ID: 4971-1998

Year: 1998 Scale: 1:30,000 enhanced to 1:2,000

Evidence of former infrastructure or areas of potential concern:

Pre-disturbance

Photo ID: AS 5408-175

Year: 2007 Scale: 1:40,000 enhanced to 1:2,000

Evidence of former infrastructure or areas of potential concern:

Reclamation completed. No areas of concern observed.

Photo ID:

Year: Scale:

Evidence of former infrastructure or areas of potential concern:

Photo ID:

Year: Scale:

Evidence of former infrastructure or areas of potential concern:

E. INTERVIEWS

1. Private Land: Have you performed a site visit in the presence of the landowner/occupant? ☒ Yes ☐ No

   Public Land: Have you performed a site visit in the presence of the occupant? ☐ Yes ☐ No

   Public Land: Have all disposition conditions been met? ☐ Yes ☐ No

   Date of site visit(s): August 28, 2007

Interviews

Details of Interviewee's Comments *(request information on previous complaints, former facilities, presence and details of spills, pits, waste storage/handling, and vegetation control, etc.)*

2. Landowner Interview: Date: August 28, 2007 Interviewed By: Wendy Weiss

   Landowner had no environmental concerns with the site. The lease was seeded in the fall of 2005 and mowed in 2006. He feels that location is holding water more so than prior to lease construction. He stated that the original drainage of the slough was by natural swale running from the slough, south across the lease into a drainage ditch.

3. Occupant Interview: Date: _____ Interviewed By: _____

4. Operator Interview: Date: _____ Interviewed By: _____

   Position: _____

Additional Notes / Comments / Information

No Phase II ESA required according to the DWD checklist and calculations. An onsite cement pit is noted in the Notification of Drilling Waste Disposal forms, a Phase II ESA is required to confirm that 1m of cap is present over the cement pit area.

F. CONCLUSIONS AND RECOMMENDATIONS

1. Phase 1 ESA information is sufficient to form a conclusion about contamination? ☐ Yes ☒ No

   If YES, go to Question 2

   If NO, indicate what follow up actions that will be taken to gain sufficient information (e.g., Phase 2 ESA)

   Type of investigation: An onsite cement pit is noted in the Notification of Drilling Waste Disposal forms, a Phase II ESA is required to confirm that 1m of cap is present over the cement pit area.

   Did this investigation indicate that contamination was present? ☐ Yes ☒ No

2. Phase 1 ESA showed contamination is likely present? ☐ Yes ☐ No

   If YES, indicate what follow-up work will be done on the site (e.g., Phase 2 ESA, remediation work):

   Details (type of investigation, date): _____

G. DECLARATION

I_____ of _____ certify that, to the best of my knowledge, all of the aforementioned information is accurate. This Phase 1 Environmental Site Assessment (ESA) was conducted on behalf of _____, for the above noted location. All the pertinent information gathered during the Phase 1 ESA has been provided within this report.

_____

NAME (signature) POSITION DATE

SITE SKETCHES

Site sketches documented:

☐ below ☒ on air photos or attached sketch ☐ both locations

CONSTRUCTION PHASE – Mandatory for any site constructed since 1994

See Attached Lease Diagram within the Drilling Waste Management Lease Report and LWD Notification. According to the site diagram the well was crowned North on the lease.

At a minimum, please indicate all of the following applicable information on both sketches:

Drainage/direction	
Wellhead	⊕ W/H
Berms	berm
Cut/fill	
Spoil	sp
Spills	spill
Trenches	tr
Access	ac
Topsoil Pile	tsp
Subsoil Pile	ssp
Sump	s
Flare Pit	fp
Tank Storage	
Teardrop	

OPERATIONS PHASE

No production or operations associated with well; D&A.

Schedule 2

List of Available Aerial Photographs from Air Photo Distribution

APRS Search Results

When ordering aerial photography there are two methods:

1. supply the roll and print/frame numbers (e.g. AS-5112-014) from the flight index maps, or
2. provide the Project Number(s) (e.g. 05-089) and either a more precise location within the section (e.g. Legal Sub-division, Quarter, street address or site diagram) or if appropriate the radius around the site in miles (e.g. 0.5 miles). This information is needed to determine the best possible photographs to cover the site.

User Information:

- Blue Underlined Project numbers (e.g. **92-159**) - click on the project number to download and view the flight index map(s) associated with that project. Index maps show photo centres/locations not the actual photographic image.
- "P" (in red) - identifies incomplete or partial coverage of the specified section. View the index map(s) to determine if second/third choices should be included with your request.
- "Tr" Projects (e.g. 06-078**Tr**) - in general projects with this suffix are of superior quality. For example, well-site details can usually be observed even at small scales (e.g. 1:60,000). Check "Comments" column for product availability.
- More detailed instructions on using the flight indices (a "Read Me" file) are included as part of the map download.

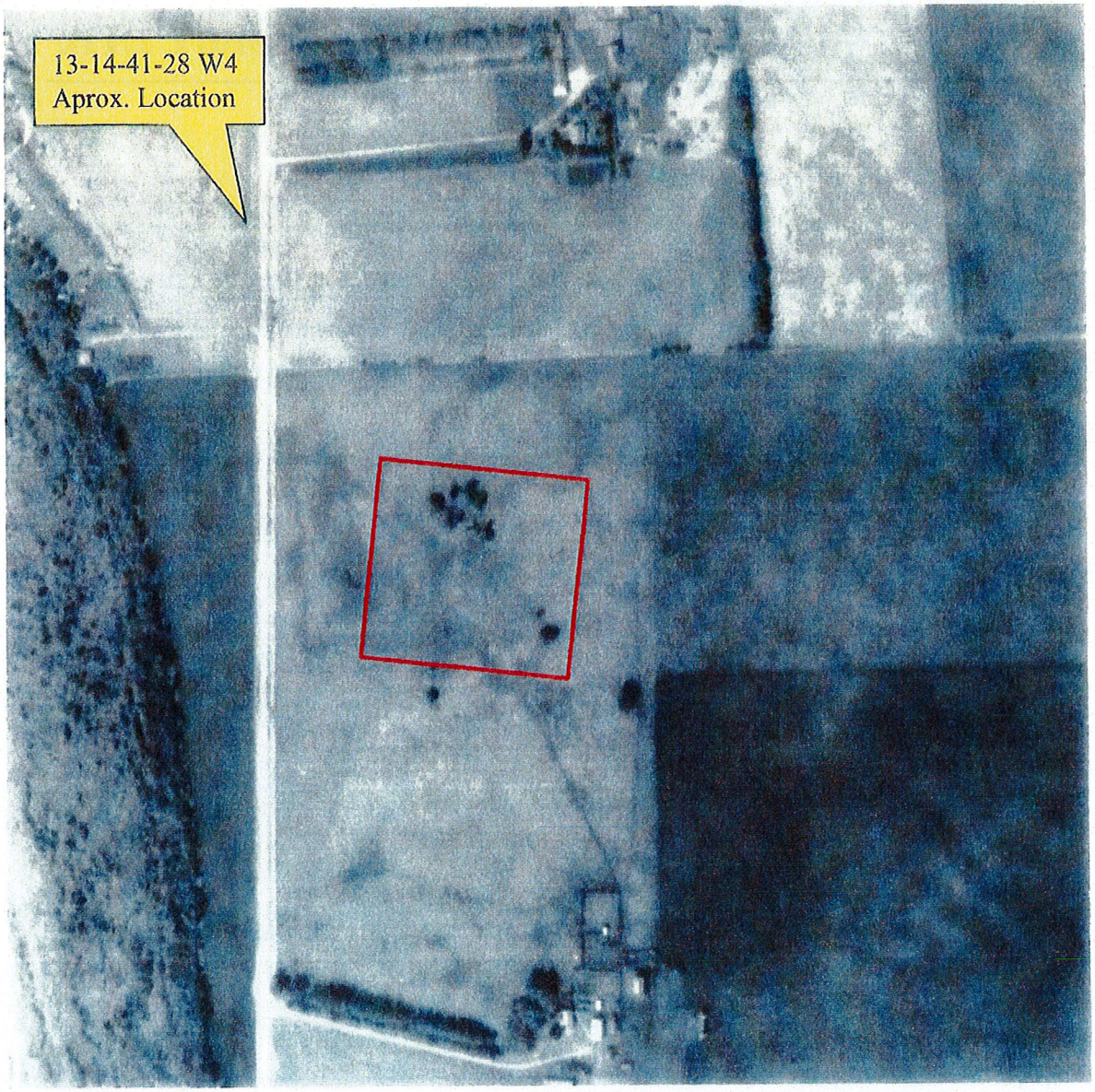
Legal Description (Sec. Twp. Rge. Meridian): 14 - 41 - 28 - 4

Project No.	Coverage (Partial/Complete)	Date	Scale (1:)	Emulsion	Comments
07-021 83Asw	C	2007-00-00	40000	B/W	Rolls: AS-5407,5408
98-097A 83A	C	1998-00-00	30000	B/W Agfa-50	
93-176	C	1993-00-00	30000	B/W PAN	
87-089	C	1987-00-00	30000	B/W PAN	
87-089 83A	C	1987-00-00	30000	B/W Pan-2405	
E84-028-14 P2	P	1984-07-17	50000	False Colour.*	Digital/Laser only - Roll: AS-3049
84-103 83A	C	1984-07-10	60000	B/W Pan-2402	- ext. into 73D
83-017	C	1983-04-22	30000	B/W Pan-2405	Gull Lake - Roll: AS-2695
83-018	C	1983-04-20	10000	B/W PAN-2405	Gull Lake
82-086 83A	C	1982-09-00	30000	B/W Pan-2405	
80-121 83A	C	1980-00-00	60000	B/W Pan-2405	
76-023A 83A	C	1976-10-15	31680	B/W Pan-2405	

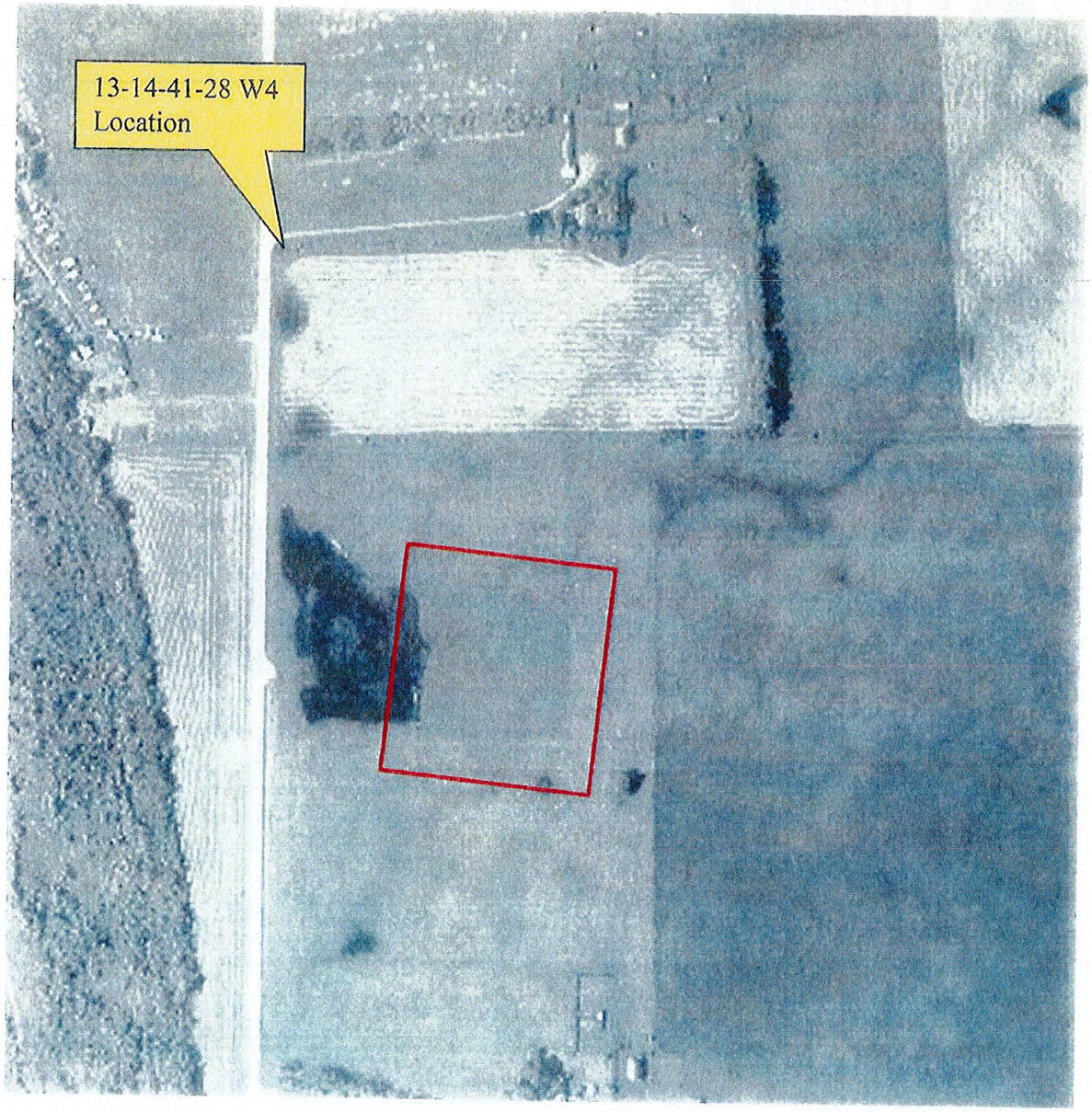
75-169	C	1975-00-00	31680	B/W DOUBLE	Rolls: AS-1439,1440
70-322 83A	C	1970-00-00	80000	B/W Pan-2405	Rolls: AS-1108,1109
69-028	C	1969-06-02	6000	PAN 2405	
69-167 83A	C	1969-00-00	31680	B/W.	
66-83A	C	1966-00-00	31680	B/W.	
62-83A	C	1962-00-00	31680	B/W.	
49-83A	C	1949-00-00	40000	B/W Super.	

Schedule 2

Aerial Photographs



CLIENT:		HIGHPINE OIL & GAS Ltd.		
LOCATION:		13-14-041-28-W4		
PHOTO ID:	YEAR:	ORIGINAL SCALE:	APPROXIMATE EFFECTIVE SCALE:	REVIEWED BY:
AS 4971-132	1998	1:30,000	1:2,000	Wendy Weiss



CLIENT:		HIGHPINE OIL & GAS Ltd.		
LOCATION:		13-14-041-28-W4		
PHOTO ID:	YEAR:	ORIGINAL SCALE:	APPROXIMATE EFFECTIVE SCALE:	REVIEWED BY:
AS 5408-175	2007	1:40,000	1:1,000	Wendy Weiss

Schedule 2

Site Visit Photographs

Photo 1: View looking north from well centre.

Photo 2: View looking east from well centre.

00/13-14-041-28W4/0	Operator: **HIGHPINE OIL & GAS LTD.**
	Reclamation Consultant: **S.N.L. Environmental Consulting Ltd.**
	Photo Date: August 28, 2007 — Page: 1 of 2

Photo 3: View looking south from well centre.

Photo 4: View looking west from well centre.

00/13-14-041-28W4/0	Operator: **HIGHPINE OIL & GAS LTD.**	
	Reclamation Consultant: **S.N.L. Environmental Consulting Ltd.**	
	Photo Date: August 28, 2007	Page: 2 of 2

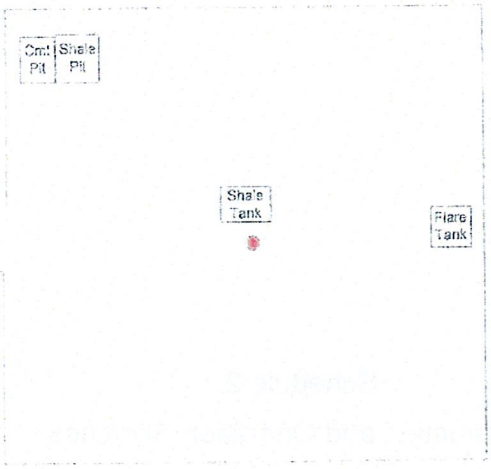
Schedule 2

Construction and Operation Sketches

WELL SITE DIAGRAM
LEASE DIAGRAM

Company: Highpine Oil And Gas Limited
Well Name & Location: Highpine Morningside 13-14-43-28 W4M

N



Veg Tec Inc.

Schedule 2

Professional Declaration

Alberta

Professional Declaration for Reclamation Certificate Applications

1. This Declaration is made in conjunction with an application for a reclamation certificate (the "Application") made by _____ (Applicant) for the following land(s): _____ (insert legal description).

2. I am a practicing professional member of the AIA, which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the *Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report* (AENV 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 Alberta Environment and am authorized by the Applicant to prepare and submit the attached report(s) or document(s), entitled (the "Professional Reports").

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(s) is accurate and complete, and contains all the relevant information for the purposes of this Application.

5. The results reported in the Professional Report(s) are consistent with all current and applicable Provincial policy, criteria, standards and guidelines for the remediation or reclamation.

6. The Professional Report(s), 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 (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.

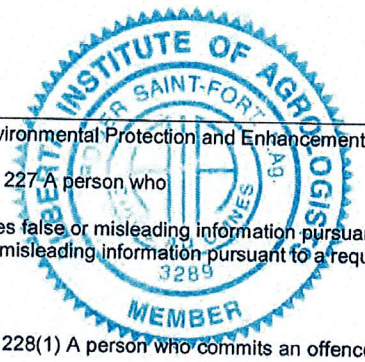
Date: August 11, 2009

Signature: _____

Registration/Member number: 3289

OR

Stamp/Seal:



Section 227 of the Environmental Protection and Enhancement Act

Offences s. 227 A person who

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

(c) 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
(d) 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.

(c) in the case of an individual, to a fine or not more than 450,000, or
(d) in the case of a corporation, to a fine of not more than $500,000.

Schedule 3

Guide 50 Notification Form or Equivalent

WF

Highpine Oil And Gas Limited

Highpine Morningside 13-14-41-28 W4M

Surface Location: 13-14-41-28 W4M

Drilling Fluids Disposal Report / Gel Chem

September 25, 2005

VegTec Inc

VegTec Inc.

WELL RECAP AND SUMMARY

OPERATOR	Highpine Oil And Gas Limited
WELL NAME AND LOCATION	Highpine Morningside 13-14-41-28 W4M
CONTRACTOR	Kinnell
RIG NUMBER	1
OPERATOR REPRESENTATIVE	Byron Christensen
CONTRACTOR TOOLPUSH	Steve Hann
ENVIRONMENTAL REPRESENTATIVE	Rick Jewers
SPUD DATE	September 25, 2005
SURFACE DRILL OUT DATE	September 27, 2005
DAYS TO TOTAL DEPTH	8
RIG RELEASE DATE	October 5, 2005
DAYS ON WELL	11

HOLE SIZE	INTERVAL	CASING SIZE	DEPTH SET @
251 mm	0m to 363m	219.6 mm	363m
159 mm	363m to 1877m	139.7 mm	1877m

USAGE

Hyperdrill	X	Gel	X
Alkapam		Kelzan XCD	
Barite	X	Lignite	X
Can Break		Lime	
Hec 10		Prima / Maxi Seal	
Poleflak		Newxan	X
Caustic Soda	X	SAPP	
Celloflake		Sawdust	
Defoamer		Soda Ash	X
Desco		Staflo	X
Detergent	X	Chem-Break EBS	
Drispac Reg.		K2	
Drispac SL		Starpak DP	
Enviroflo'	X	T 2001	

WELL SUMMARY

WELL NAME	Highpine Morningside 13-14-41-28 W4M
Surface Location	13-14-41-28 W4M
OPERATOR	Highpine Oil And Gas Limited
LICENSE	337338
AFE	30285-9310-349
RIG	Kinnell 1
DATE	October 5, 2005
TECHNICIAN	Rick Jewere

LEASE INFORMATION

Lessor	Tony and Thelma Kamlah
Address	RR#3, Site 3, Box 4, Lacombe, Alb., T4L2N3
Lease Cond	Dry
Access cond	Dry
Weather	Warm
On site cement pit	Yes
Shale pit	Pit / Tank
Fenced	No
CURRENT LAND USAGE	Grass

LEASE LAND DISPOSITION

Crown	
Private	X
Forest Green	
Forest White	
Special Areas	
Metis	
Reserve	

SPREADFIELD

Landowner	Tony and Thelma Kamlah
Address	RR#3, Site 3, Box 4, Lacombe, Alb., T4L2N3
Spread Fee to	Tony and Thelma Kamlah
Spread Fee	$ 1,000.00

Crown		ACCESS TO WATER	
Private	X	Loc	SW 25-41-28 W4M
Forest Green		Description	Slough
Forest White		Access	Ian Ross
Special Areas		Phone	403-782-2686
Metis			

Land Usage	Pasture
Spreadfield Loc	NW 13-41-28 W4M

EQUIPMENT

			Cost	Unit #	Invoice #
Vacuum Truck	Orion Vacuum Service	Billed direct to operator		n/a	n/a
Driver	Ivan Paulson				
Phone	780-706-5853				

Total Volume / WD	260
barrels	1632.8
Hectares Used	15
Acres Used	37.5
m³ Drilling Only	260
Spread Rate (m³/ha)	17.3

WELL INFORMATION

Drilling Consultant	Byron Christensen
Phone #	403-852-3953
Vegtec Technician	Rick Jewere
Technician's Invoice	337338
24 Hour On Site	
Dry Checks	
Per Section	5

REMARKS

Drilled, logged and plugged

Vegtec Inc.

Well License 0337588

VegTec Inc

Highpine Oil And Gas Limited

Highpine Morningside 13-14-41-28 W4M

Pre Landspray | LSD AREA CONTRACTED 150 Acres 60.0 ha | Average Soil Depths 10.0 cm

NW 13-41-28 W4M

Technician	Rob Jacobs	
PROPERTY	1	2
Sampling Date	22-Sep-05	22-Sep-05
Analysis Date	22-Sep-05	22-Sep-05
Density	1650 kg/m3	1650 kg/m3
Turbidity	1000	1000
EC @ 25 Deg. C	0.20	0.41
TDS	261 mg/L	287 mg/L
pH	8.5	8
Sample Temp	20	20
Total Hardness	43 mg/L	48 mg/L
Calcium	60 mg/L	64 mg/L
Magnesium	4 mg/L	4 mg/L
Sodium	29.0 mg/L	23.0 mg/L
Sample Temp	20	20
Chloride	110 mg/L	130 mg/L
SAR	0.9	0.8
Salt Content	182 mg/L	219 mg/L

PROPERTY	Pre
Sampling Date	22-Sep-05
Analysis Date	22-Sep-05
Density	1650 kg/m3
Turbidity	1000
EC @ 25 Deg. C	0.35 dS/m
TDS	235 mg/L
pH	8.25
Sample Temp	20
Total Hardness	50 mg/L
Calcium	52 mg/L
Magnesium	4 mg/L
Sodium	26.0 mg/L
Sample Temp	20
Chloride	120 mg/L
SAR	0.8
Salt Content	170 mg/L

Comments:

Well Name	Highpine Morningside 13-14-41-28 W4M	Drilling Company	Linnell
Operator Company	Highpine Oil And Gas Limited	Rig #	1
Operator Rep	Byron Christensen	Rig Manager	Steve Hem
		Well Lic #	0337538

Comprehensive Drilling Waste Data Sheet

Technician: Rick Jewers

Date	September 25, 2005	September 26, 2005	September 27, 2005	October 4, 2005
Assigned Volumes		50	100	150
Check	MAKE UP WATER	Surface	5	1
Depth		263m	368	1877
Fluid Type & or Activity	Water	Gel / Chem	Freezing Ahead	Cement Check
Viscosity	28	41	28	42
Density	1001	1040	1010	1060
Turbidity	Clear	Solid	Clear	Solid
Conductivity	0.55	1.62	5.7	5.60
Temperature	20.05	20.05	20	20
T Factor	1	1	1	1
Temp.corrected	1.00	20	20.00	20.00
TDS	371.00	1134	3990.00	9920.00
pH	6.50	11.00	9.00	9.00
Sample Temp	20.0	20.0	20.0	20.0
HOT EDTA using 1 ml	0.15	1.2	2.4	10.8
Total Hardness	75	580	980	52
Ca EDTA USING 1 ml	0.17	0.22	2.16	1.07
Ca in mg/L	68	88	864	28
Mg by Diff in mg/L	8		95	4
Sodium Reading	34	47	18	1700
Na Dilution	1	1	1	1
Sample Temp	20	20.00	20.0	20.0
Conc of Na	34	47	18	1701
Chlorides Pipet reading	0.13	3.15	0.2	0.34
Conc of K	0.1	0.1	0.1	0.1
Conc of SO4	0.1	0.1	0.1	0.1
Conc of Stable K	0.1	0.1		0.01
Conc of Cl	30	150	200	240
Nitrate N	0.001	0.001	0.001	0.001
Nitrate NO3				
Ammonia N	0.001	0.001	0.001	0.001
Ammonia NH3 N				
Ammonium NH4	0.0013	0.0015	0.0015	0.0013
SAR	1.53	1.38	0.16	79.89
Dry Bulk Wgt	1.6	64.2	16.1	96.4
TDS mg/kg dried solids	230860	17224	246928	89200
TDS mass in kg		35.2	396.6	491.1
TDS max rate in m3 ha	485.20	1625.8	435.6	476.2
TDS max rate Final	20	20	20	20
TDS kg/ha	7.42	22.13	79.32	75.55
K+ mg/kg dried solids	62.25	1.32	6.19	1.00
K+ mass in kg		0.00	0.01	0.01
K+ max rate in m3 ha	1099668.65	1126.3043.48	10857012.20	11404776.98
K+ max rate Final	20.00	20.00	20.00	20.00
K+ kg spread/ha	0.00	0.00	0.00	0.00
SO4 mg/kg in dried solids	62.25	1.32	6.19	1.00
SO4 mass in kg		0.00	0.01	0.01
SO4 max rate in m3 ha	899539.72	912111.80	895426.83	923584.91
SO4 max rate Final	20.00	20.00	20.00	20.00
SO4 kg spread/ha	0.002	0.002	0.002	0.002
Cl mg/kg in dried solids	808941.32	2278.30	12377.36	2400.00
Cl mass in kg		4.39	19.88	30.07
Cl max rate in m3 ha	3071.09	2726.09	2037.16	1745.24
B	20.00	20.00	20.00	20.00
Cl kg spread/ha	2.69	2.03	3.98	4.63
Na mg/kg in dried solids	21157	714	1114	17000
Na mass in kg		1.38	1.79	212.96
Na max rate in m3 ha	7327.97	54.29.30	1.917.86	152.00
Na max rate Final	20	20	20	20
Na kg spread/ha	0.7	0.9	0.4	3.28
Salt Content	274.5	347.5	550	396
MAX SPREAD RATE	20	20	20	20

VegTec Inc.

Well Lic # 0337336

Highpine Oil And Gas Limited
Highpine Morningside 13-14-41-28 W4M

Vac Truck Co.	Drive Vac and Service	LANDOWNER	Tony and Thelma Nardelli
Driver	Jean Paulsen	ADDRESS	RR#3, Site 3, Box 4, Lacombe, Alb., T4L 2N3
Phone	(780) 706-5853	PHONE	403-782-4194

DATE	LOADS	VOLUME (m3)	TAKEN FROM	SPREAD RATE	LOCATION	HECTARES USED
27-Sep-05	3	30	Pit & Tanks	17.33	Surface	1.7
28-Sep-05	4	40	Pit & Tanks	17.33	Disc	2.3
29-Sep-05	5	60	Pit & Tanks	17.33	Spot	3.5
30-Sep-05	4	40	Pit & Tanks	17.33	Disc	2.3
1-Oct-05	5	50	Pit & Tanks	17.33	Disc	2.9
4-Oct-05	4	40	Pit & Tanks	17.33	Disc	2.3
						15.0
TRUCK CAPACITY IN m3		10 m^3				

OBSERVATION	
CONDITIONS	Dry
ELEVATION TAKES	Yes
CEMENT PIT	Yes
SMALL PIT	Yes
SMALL SUMP	Tank

SPREADFIELD STATUS	
PRIVATE	X
PUBLIC	
CROWN	
GREEN	
WHITE	
METIS	

TOTAL LAND USED IN HECTARES	15.0
TOTAL VOLUME (m3)	260

SPREADFIELD	NW 13-41-28 W4M	Slope < 1%
AVAILABLE	150 Acre	Level

VegTech Inc

MAKE UP WATER INFORMATION	
Conductivity	0.53 dS/m
TDS	371.0
pH	6.5
Chlorides	130.0 mg/l
Sodium	54.0 mg/l
Total Hardness	76.0 mg/l
Calcium	68.0 mg/l
Magnesium	8.0 mg/l
SAR	1.04

WELL NAME	Highpine Morningside 13-14-41-28 W4M
OPERATOR	Highpine Oil And Gas Limited
Surface Location	13-14-41-28 W4M

WATER LSD	SW 25-41-28 W4M	Slough
CONTACT	Ian Ross	403-782-2686
HAULER	Mar Investments	780-975-0549

Hauled Between:	9/25/2005	10/5/2005

SECTION	# LOADS	BARRELS	m3	USAGE
Surface	5	502	80	Cmt / Mud / Wash
Main	7	703	112	Floc / Wash
ED / CMT	6	603	96	Mud / Wash
TOTALS	288			
Rigwash / Cement	28			

TRUCK CAPACITY IN m3	16
m3 HAULED FOR CEMENT / RIG WASH	28
BORAX	
To Dedicated Holding Pit	
TOTAL VOLUME SPREAD IN m3	260

WATER SOURCE LSD AND TYPE IE CREEK/DUGOUT ETC

SW 25-41-28 W4M

Slough

Water Diversion Permit #: 00224243-00-00

File #: SW-25-41-28 W4M

VegTec Inc.

DRILLING WASTE MANAGEMENT

Lease Report & LWD Notations

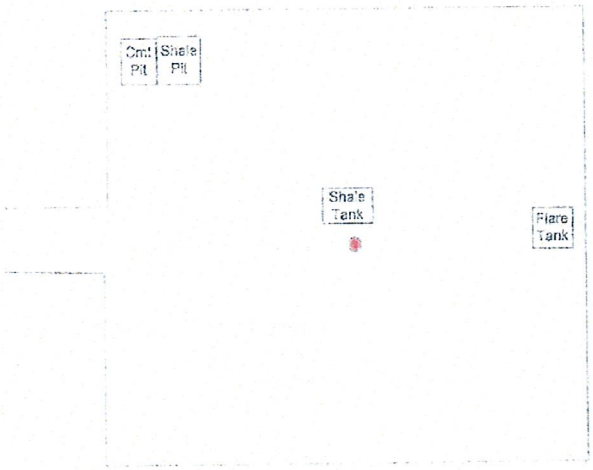
Company:	Highpine Oil And Gas Limited
Well Licence #:	0337335
Well Name & Location:	Highpine Morningside 13-14-41-28 W4M
Surface / Pad Location:	13-14-41-28 W4M
Location of Spreadfield:	NW 13-41-28 W4M
Condition of Lease:	Dry
Condition of Access:	Dry
Total Volume LWD (m3):	260 m3
Additional Comments:	Cement Isolated in Pit Drilled, logged and ran plugs.
Analysis Conducted:	During the Drilling of the Well. Receiving Soils Analyzed Prior to Landspray Operations.
Water Table:	Established in area by construction (>4m).
Cement Pit:	Cement 5.0 m3
Flare Pit:	Tank
Shale Pit:	Tank / Sloop Emptied
Drilling Waste Samples:	Surface, Prod, Main Hole As per EUB / ERCB LWD
*Note:	All samples are composites. All volumes include consideration for material loads.

VegTec Inc

WELL SITE DIAGRAM
LEASE DIAGRAM

Company: Highpine Oil And Gas Limited
Well Name & Location: Highpine Morningside 13-14-41-28 W4M

N



Veg Tec Inc.

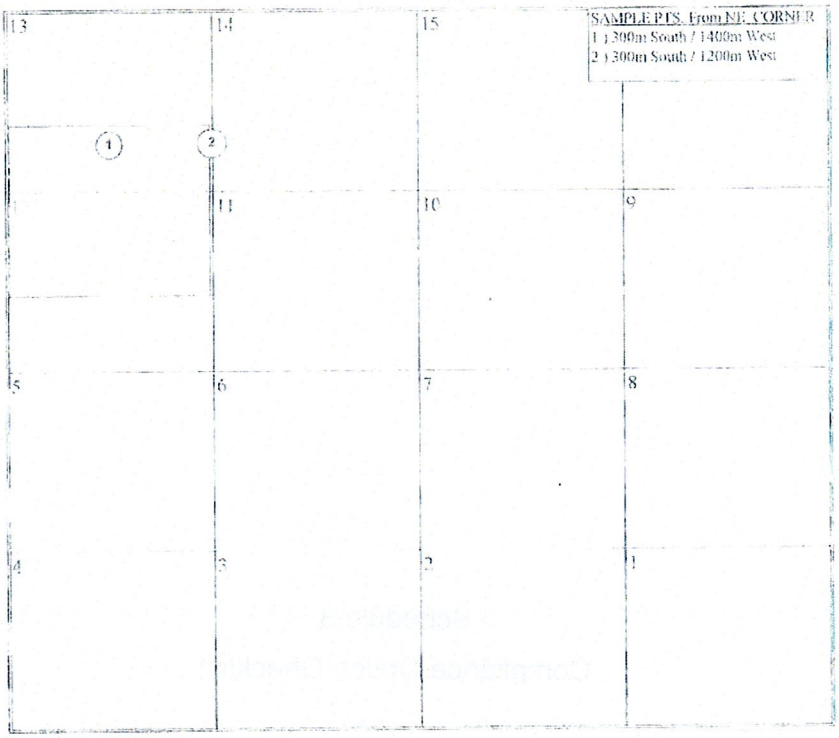
DRILLING MANAGEMENT SITE DIAGRAM
POST-LANDSPRAY WHILE DRILLING SKETCH

VegTec Inc.

Highpine Oil And Gas Limited
Highpine Morningside 13-14-41-28 W4M

License
0337338

N û



Landspray Location:
NW 13-41-28 W4M

Length of spread: 375 m
Width Adj. Estimate: 480 m
15.0

Soil Type: Sandy
Soil Usage: Pasture
Samples: 2 secs

Hectares used: 15.0
Slope: 1%
Water Bodies: No

Volume Spread: 260 m³
Spread Rate: 17.33 m³/Ha

OFFSITE DISPOSAL LOCATION - (REFERENCED FROM THE NORTH EAST CORNER OF THE SECTION)

WITHIN					Section	Township	Range	Meridian
NE corner	250 m	South	1300 m	West	13	41	28	4
SW corner	625 m	South	1600 m	West	13	41	28	4

Schedule 3

Compliance Option Checklist

Alberta
Environment

Compliance Option 1 - Drilling Waste Disposal Assessment Checklist

If any response to the checklist questions leads to a Phase 2 ESA requirement, an environmental site assessment must be conducted in accordance with Compliance Option Three. If insufficient information is available to allow completion of the Compliance Option One checklist, Compliance Option Two or a Phase 2 ESA must be completed.

1. General Disposal and Drilling Fluid Information:

If some or all of the drilling waste was managed on-site (on the wellsite) or at a landtreatment area or a remote sump, then the checklist must be completed. In some cases, the drilling waste may have been managed at a remote sump/site that is not linked to the wellsite and as such a separate reclamation certificate may have been or need to be applied for at that separate location. If the remote sump or land treatment area is linked to the wellsite, proceed with the checklist for the remote sump or land treatment area. Where remote sumps are associated with multiple disposals managed in separate cells complete one checklist per disposal. Otherwise, complete one checklist by combining the information from all notification forms.

Section 1.0 to 1.3 must be completed for all disposals. The remaining sections do not need to be completed for wastes disposed of by the following methods:

a) If drilling waste was managed at an EUB or AENV approved waste management facility, indicate this using the appropriate checkbox below and list the supporting documentation (e.g. waste manifests, truck tickets, invoices, Alberta Oilfield Waste Management Form) under Reference Documents.

b) If the waste was disposed at an off-site location by landspraying or landspray-while-drilling (LWD) and the *Notification of Drilling Waste Disposal* form indicates the disposal method and location.

The notification form will indicate the type of drilling fluid system used. Water-based drilling fluids can be described in numerous ways for example; gel chem, floc water, fresh water gel, gypsum water, nitrate gypsum water, etc.

1.0 Well Information:

Unique Identifier (UI)	00/13-14-041-28 W4/0
Spud Date	September 25, 2005
Well Depth	1885 m

1.1 Disposal Method (Check all that apply):

On-site
- ☐ Mix-bury-cover
- ☐ Landspread
- ☐ Land Treatment

Remote Site
- ☐ Mix-bury-cover
- ☐ Landspread
- ☐ Land Treament

☐ Other, specify: LWD on SW 25-41-28 W4M

Off-site
- ☒ Landspray-while-drilling
- ☐ Landspray
- ☐ Pumpoff
- ☐ Disposal on Licence of Occupation (Public Land only)

☐ Land Fill/Waste Management Facility

Alberta
Environment

	Yes	No
1.2 Was the well re-entered or another well drilled on the same site using fluids containing drilling fluid additives?	☐	☒
If yes, were the disposal areas separate from one another?	☐ Drilling waste information must be evaluated for each disposal	☐
If the disposal areas were not separate, is documentation available to show that a disposal plan was followed that was agreed to by the licensee and the regulator?	☐ Disposal plan and confirmatory information must be retained on file and provided to Alberta Environment upon request.	☐ Compliance Option Two or Three required
1.3 Were cuttings or solids disposed of on-site that were associated with off-site waste disposal by LWD or landspraying?	☐	☒
If Yes, is separate analytical information or unique notification available?	☐	☐
If separate information or notification is not available, is the known volume (include references in Reference Documents) or estimated volume of waste disposed of on-site less than 50 m^3?	☐	☐ Phase 2 required
If the volume of cuttings or solids disposed of on-site is unknown, estimate the volume using following calculation and enter the data and results at right*: $V_C = V_T - V_{OFF}$ Where: V_C = Volume of cuttings or solids on-site (m^3) V_{OFF} = Volume of cuttings or solids disposed of off-site (m^3) V_T = Total volume of cuttings or solids (m^3) and: $V_T = \left(\frac{WDm}{2000}\right)^2 \times 3.14 \times WDp \times 1.2$ Where: WDm = Well diameter (mm) WDp = Well Depth (m) * If different hole sections have different diameters, V_C may be calculated for each section separately. Provide the data and result for each section at right or as an attachment.	Enter data below: V_C = ___ (m) V_T = ___ (m) V_{OFF} = ___ (m^3) WDm = ___ (mm) WDp = ___ (m)	

Alberta
Environment

	Yes	No
1.4 Were water-based drilling fluids used (gel chemical drilling fluid system)?	☒	☐
If Yes, were all or part of the wastes disposed of on-site?	☐	☐
1.5 Was the drilling fluid described as an advanced gel chemical system such as the following: *potassium sulphate, potassium silicate, sodium silicate, or potassium formate*?	☐	☒
If Yes, were all or part of the wastes disposed of on-site?	☐	☐
If wastes were disposed of on-site, was the disposal done in compliance with an approval from the EUB?	☐ Approval and post-disposal sampling results must be retained on file and provided to Alberta Environment upon request.	☐ Compliance Option Two or Three Required
1.6 Is a mud list available and can all the additives on the mud list be identified and described? Record the additives and their description (e.g., chrome-free lignosulfonate, aldehyde-based bactericide, etc.) on the attached form.	☒	☐ Phase 2 required
1.7 For mix-bury-cover disposal, was calculated or measured post-disposal chloride concentration 800 mg/kg or less?	☐	☐ Phase 2 required
1.8 Was a remote site used?	☐	☒
If, Yes, is the remote site included in this reclamation application?	☐	☐
If not included, is the remote site a multi-well disposal location?	☐ In Comments section, indicate which well the remote site will be linked with for the purposes of reclamation	☐ Single well remote disposal site must be included with reclamation certificate application, unless it already has received a Reclamation Certificate.

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2. Hydrocarbon & Toxicity Management

If hydrocarbon based drilling fluids were used (i.e. diesel inverts, synthetic or mineral oil systems) or hydrocarbons were added to the drilling fluid or the well is an horizontal oil well then it must be demonstrated that the resulting drilling waste was handled appropriately as per *Directive 50* or *Directive 58*. In most cases, if hydrocarbons were added to the system or if the well was a horizontal oil well it is still possible to dispose of the resulting drilling waste on the location and remain within allowable disposal limits but hydrocarbon testing and toxicity testing must have been conducted and documented on the notification form.

	Yes	No
2.1 Were hydrocarbon-based drilling fluids used or were hydrocarbons added to the drilling fluid or was the well a horizontal oil well?	☐	☒
If Yes, is documentation available showing that the wastes were disposed of in a manner consistent with *Directive 50* (1996) or *Directive 58*?	☐	☐ Phase 2 required
2.2 If hydrocarbon was present, is the predicted post-disposal hydrocarbon concentration at or below the appropriate guideline? (subsoil: 0.1%, topsoil: 0.5%)?	☐	☐ Phase 2 required
2.3 Was a Microtox test required as indicated on the disposal notification form?	☐	☒
If Yes, did the waste pass the Microtox requirements as outlined in *Directive 50* (waste must pass either the original or charcoal Microtox)?	☐	☐
If the waste failed the Microtox test (i.e., Microtox EC50 (15) original and Microtox EC50 (15) charcoal treated, reading at 15 minutes < 75%) is there evidence that demonstrates the waste was treated to remove toxicity and retested or disposed of as per *Directive 58* (i.e., appropriately approved waste management facility)?	☐	☐ Phase 2 required

Alberta
Environment

3. Metals (Trace Elements) Management

Some drilling fluids contain trace metals and other toxic compounds. Metal-containing additives that have been or are being used include barite ($BaSO_4$), zinc carbonate ($ZnCO_3$), and chrome-based thinners. If these additives were used, the attached calculation tables must be completed and the results used to determine if a Phase 2 ESA is required.

	Yes	No
3.1 Was barite added to the drilling fluid?	☒	☐
If Yes, did it meet the requirements specified in the attached metal calculation table?	☒ Show calculation on attached form	☐ Phase 2 required
3.2 Was zinc carbonate added to the drilling fluid?	☐	☒
If Yes, did it meet the requirements specified in the attached metal calculation table?	☐ Show calculation on attached form	☐ Phase 2 required (Cadmium analysis will also be required.)
3.3 Were chrome-based thinners added to the drilling fluid?	☒	☐
If Yes, did it meet the requirements specified in the attached metal calculation table?	☒ Show calculation on attached form	☐ Phase 2 required
3.4 Were any other metals added that triggered testing required by Section 3 or 5 of *Directive 50*?	☐	☒
If Yes, are waste analytical data and application rates (land treatment, landspreading) or maximum application (mix-bury-cover) available?	☐	☐ Phase 2 required
If above data are available, did the application rate or maximum application meet *Directive 50* requirements?	☐	☐ Phase 2 required

Alberta
Environment

Mud Additives (Attach additional pages if necessary.)

Product Name	Amount Used (units)	Brief Description of Product
Drilling Detergent	7 pails	Surfactant
Bentonite	201 sacks	Clay mineral mud-viscosity control
Calcium Nitrate	38 sacks	Source of calcium-flocculant
Hyper-drill	15 sacks	Shale control inhibitor
Soda Ash	6 sacks	Sodium Carbonate-corrosion inhibitor dispersant
Caustic Soda	7 sacks	NaOH-alkalinity pH control
Humalite	4 sacks	Thinner, dispersant
Staflo	5 sacks	Filtrate reducer
Lignite	1 sacks	CMC polymer-contribute to viscosity, shale inhibitor
Poly-Xan	1 sacks	Viscosifier
Barite	20 sacks	Weighing material
Desco	20 sacks	Chrome based deflocculant

Reference Documents (List all source documents used in the completion of this checklist. Attach additional pages if necessary. Documents must be supplied to Alberta Environment, if requested.)

Tour Reports for 13-14-41-28 W5 from September 24 to October 5, 2005
CAPP mud lsit
Veg Tech Inc. Well Cap and Summary Report
Veg Tech Inc. Drilling Waste Management Lease Report and LWD Notification
www.abadadatagraphics.com EUB well file
Drilling Fluid Disposal Report

Comments (Please provide any additional comments relevant to the decision process within the checklist. Attach additional pages if necessary.)

Hydrocarbons and zinc carbonate were not added to the mud system. Chrome based thinners had been utilized during drilling and the number of sacks per meter of well depth, (0.00016) are less than the checklist requirement (0.02). Barite had been utilized during drilling and the number of sacks per meter of well depth, (0.0035) is less than the checklist requirement (0.070).

A Phase II ESA is not required for the Site according to the DWD

Schedule 3

Compliance Option Calculations

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 current *Guide 50, Drilling Waste Management,* which was issued by the Energy and Utilities 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 **0.070.** If the value exceeds the objective, a Phase 2 ESA must be conducted.

Total Number of Sacks (40 kg/sack*)		Well Depth (m)		Mix Ratio**		Sacks per Metre
20	÷	1885	÷	3	=	0.003537

* 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/m^3, and Mix Ratio in the appropriate cells. The spreadsheet will calculate the post-diposal zinc concentration. This value must be less than or equal to **200 mg/kg**. If the value exceeds this objective, a Phase 2 ESA 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 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.

= Required Field

Chromium-based Thinner:

Alternative 1:

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

Directions: Enter the Total Chromium 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 Chromium Concentration. If this value is greater than 64 mg/kg, a Phase 2 ESA is required.

Waste Chromium Concentration (mg/kg)		Waste Dry Bulk Density* (kg/m^3)		Mix Ratio						Post-Disposal Cr Concentration (mg/kg)
	x		÷		÷	1500	+	30	=	#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 chrome thinner added per meter drilled. If the number of sacks exceeds the limits below, a Phase 2 is required.

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 **0.020**. If the value exceeds the objective, a Phase 2 ESA must be conducted.

Total Number of Sacks (25 kg/sack*)		Well Depth (m)		Mix Ratio**		Sacks per Metre
9.08	÷	1885	÷	3	=	0.001606

* 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.

= Required Field

Schedule 3

Professional Declaration

Alberta

Professional Declaration for Reclamation Certificate Applications

1. This Declaration is made in conjunction with an application for a reclamation certificate (the "Application") made by _____ (Applicant) for the following land(s): _____ (insert legal description).

2. I am a practicing professional member of the AIA, which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the *Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report* (AENV 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 Alberta Environment and am authorized by the Applicant to prepare and submit the attached report(s) or document(s), entitled (the "Professional Reports").

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(s) is accurate and complete, and contains all the relevant information for the purposes of this Application.

5. The results reported in the Professional Report(s) are consistent with all current and applicable Provincial policy, criteria, standards and guidelines for the remediation or reclamation.

6. The Professional Report(s), 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 (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.

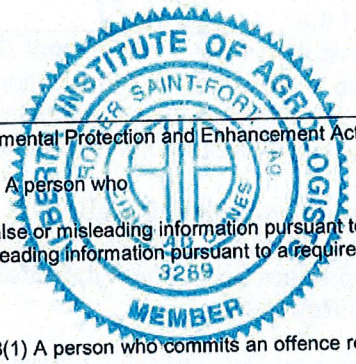
Date: August 11, 2009

Signature: _____

Registration/Member number: 3289

OR

Stamp/Seal:



Section 227 of the Environmental Protection and Enhancement Act

Offences s. 227 A person who

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

(c) 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
(d) 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.

(c) in the case of an individual, to a fine or not more than 450,000, or
(d) in the case of a corporation, to a fine of not more than $500,000.

Schedule 4

Limited Phase 2 Environmental Site Assessment

June 24, 2010

Daylight Energy Ltd.
Sun Life Plaza, West Tower
Suite 2100, 144 - 4th Avenue SW
Calgary, Alberta T2P 3N4

Attention: **Jeff Wilton, B.Sc.**
Manager, Construction & Environment

Dear Mr. Wilton:

Re: **13-14-41-28W4M – Potential Cement Pit Search**

SNL Environmental Consulting Ltd. (S.N.L) was retained by Daylight Energy Ltd. (Daylight) to conduct an intrusive investigation in order to ensure that 1 meter of sufficient cover is located over the potential cement pit area at the above referenced site (the "Site"). The investigation on the Site was conducted on September 18th 2009. This letter report documents the methods and findings of the intrusive investigation activities conducted to date by S.N.L. with the primary objective of locating the physical presence of the potential cement pit area.

Six boreholes (S09-01 through S09-06) were advanced at the Site (Appendix IV). One borehole (S09-C01) was advanced within the southwest portion of the Site to represent background soil condition. Two boreholes (S09-01 and S09-02) were advanced in the vicinity of well center. Soil samples were collected for detailed salinity, metals, hydrocarbon and soil grain size analysis. All analyzed parameters were below their respective regulatory guidelines (Alberta Environment. 2007a. Alberta Tier 1 Soil and Groundwater Remediation Guidelines) are outlined in Appendix III. Headspace field screening on the collected samples detected OVA hydrocarbon readings less then 100ppm; consequently, only one sample (the sample with the highest OVA reading) was selected for Alberta Tier 1 hydrocarbons. Three boreholes were advanced northwest of well center and one borehole was advanced east of well center as probable locations of a potential cement pit area (Appendix IV). The soil profiles of boreholes S09-03 through S09-06 were consistent with the background boreholes soil profile; consequently, no samples were collected for laboratory analysis. All collected samples were submitted to Access Analytical

Laboratories Inc. located in Calgary, Alberta for analyses.

Based on the results of the potential cement pit investigation, it can be inferred that no cement pit could be identified on the Site. Additionally, the results for all collected and analyzed parameters were determined to be below their respective regulatory guidelines.

Attached are the appendixes.

We trust this meets your current requirements. Should you have any questions or concerns please call the undersigned at 403.597.0804 or Lorne Bates at 403.352.1856.

Respectfully submitted,
S.N.L Environmental Consulting Ltd.

Nicole Johnson, B.App.Sc.
Environmental Consultant

Reviewed By:

Dr. Roger Saint Fort, P.Ag.
Environmental Scientist

Attachments:
Appendix I: Soil Assessment Methods
Appendix II: Soil Borehole Logs
Appendix III: Tables & Laboratory Data Report
Appendix IV: Site Sketch & Site Photos

S.N.L Environmental Consulting Ltd.
Unit I, 7882 Edgar Industrial Way, Red Deer, Alberta T4P 3R2 P: 403.352.1856 F: 403.358.3032 E: lorne.bates@snlconsulting.ca

APPENDIX I
SOIL ASSESSMENT METHODS

APPENDIX I: SOIL ASSESSMENT METHODS

All boreholes were advanced using a truck or track-mounted auger system. The solid stem augers used for sampling were six inches in diameter. The following sampling methodology was utilized for all soil sampling:

- Ensure all ground disturbance codes of practice have been adhered to;
- inspect drill rig augers for cleanliness and in good condition;
- drill rig operator is instructed were to begin drilling by site supervisor or designate;
- prior to obtaining a soil sample, sterile Nitrile/Latex gloves are donned;
- visual observations made regarding soil type/texture, structure, moisture content (depth to water table), etc. and logged in supervisors log book;
- discreet sample intervals identified on the drill auger i.e.) 0.5-0.75 m below ground surface;
- identified soil samples removed from auger using stainless steel soil knife and placed directly into laboratory provided zero headspace/Teflon lined (lid) jars for hydrocarbon samples and directly into laboratory supplied soil bags for organic vapour analysis (OVA), salinity and or total metals analyses;
- hydrocarbon sample jars placed directly on ice in cooler to preserve sample integrity;
- OVA sample bags placed in warm {(i.e.) truck} environment to ensure hydrocarbon volatilization and equalization;
- ensure OVA instrument has been recently calibrated and should be calibrated at the beginning of each work day or new site location;
- ensure methane response mode is disengaged on OVA instrument;
- place OVA probe in soil bag and wait until concentration has stabilized, record measurement in log book;
- sample bags packed on ice prior to shipment to certified laboratory fro analyses;
- once the soil auger has been logged and the samples removed, instruction to advance the borehole may be given to the drill operator from the supervisor;
- an effort is made to ensure vertical delineation of impacts while drilling i.e.) obtain a clean sample at the bottom of the drill depth for each borehole; and
- once the borehole is completed, instruction is given by the supervisor to backfill the borehole, bentonite chips are used to backfill each borehole.

APPENDIX II
SOIL BOREHOLE LOGS

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53446° W 113.93725°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-01**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.45	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1	0.5		35	S09-01 (0.0-0.2 m)	AU	BAG/JAR
0.45-1.5	Sand, light brown-grey, admixed with some clay, moderate moisture, very friable, Fe streaks, no HC's.		2						
			3	1.0					
			4			10	S09-01 (1.3-1.5 m)	AU	BAG/JAR
1.5-3.0	Sandy Clay, light brown, common sand pockets, coal flecks, Fe flecks, rocks, moist, friable, native/undisturbed, no HC's.		5	1.5					
			6						
			7	2.0		0	S09-01 (2.0-2.2 m)	AU	BAG/JAR
			8						
			9	2.5					
	End of borehole at 3.0 m. Backfilled with cuttings		10	3.0					
			11						
			12	3.5					
			13						
			14	4.0					
			15						
			16	4.5					
			17						
			18	5.0					
			19						
			20	5.5					
			21						
			22	6.0					
				6.5					
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53443° W 113.93724°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-02**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.5	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1	0.5		35	S09-02 (0.0-0.2 m)	AU	BAG/JAR
0.5-0.7	Transition zone, rocks present		2						
0.7-1.5	Silty clay, light brown-grey, admixed with some sand, large silt pockets, friable, moderate moisture, coarse fragments, no HC's.		3	1.0					
			4			15	S09-02 (1.3-1.5 m)	AU	BAG/JAR
1.5-3.0	Sandy Clay, light brown, common sand pockets, coal flecks, Fe flecks, rocks, moist, friable, native/undisturbed, no HC's.		5	1.5					
			6						
			7	2.0		0	S09-02 (2.0-2.2 m)	AU	BAG/JAR
			8						
			9	2.5					
	End of borehole at 3.0 m. Backfilled with cuttings		10	3.0					
			11						
			12	3.5					
			13						
			14	4.0					
			15						
			16	4.5					
			17						
			18	5.0					
			19						
			20	5.5					
			21						
			22	6.0					
				6.5					
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53448° W 113.93645°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-03**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.4	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1						
0.4-2.2	Silty clay, light brown-grey, admixed with some sand, large silt pockets, friable, moderate moisture, coarse fragments, no HC's.		2	0.5					
			3	1.0					
			4						
			5	1.5					
			6						
2.2-3.0	Sandy Clay, light brown, common sand pockets, coal flecks, Fe flecks, rocks, moist, friable, native/undisturbed, no HC's.		7	2.0			S09-02 (2.0-2.2 m)	AU	BAG/JAR
			8	2.5					
			9						
	End of borehole at 3.0 m. Backfilled with cuttings		10	3.0					
			11	3.5					
			12						
			13	4.0					
			14						
			15	4.5					
			16	5.0					
			17						
			18	5.5					
			19						
			20	6.0					
			21	6.5					
			22						
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53481° W 113.93785°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED B\ Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-04**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.5	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1	0.5					
0.5-0.8	CL, grey, friable, moderate moisture, white percipitates, no HC's.		2						
0.8-1.5	Clay - sandy clay, light brown-grey, friable, moist, coarse fragments, plastic, native/undisturbed, no HC's.		3	1.0					
	End of borehole at 1.5 m. Backfilled with cuttings		4						
			5	1.5					
			6						
			7	2.0					
			8						
			9	2.5					
			10						
			11	3.0					
			12						
			13	3.5					
			14						
			15	4.0					
			16						
			17	4.5					
			18						
			19	5.0					
			20						
			21	5.5					
			22						
				6.0					
				6.5					
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53483° W 113.93778°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-05**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.5	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1						
0.5-0.8	CL, grey, friable, moderate moisture, white percipitates, no HC's.		2	0.5					
0.8-1.5	Clay - sandy clay, light brown-grey, friable, moist, coarse fragments, plastic, native/undisturbed, no HC's.		3	1.0					
	End of borehole at 1.5 m. Backfilled with cuttings		4						
			5	1.5					
			6						
			7	2.0					
			8						
			9	2.5					
			10						
			11	3.0					
			12						
			13	3.5					
			14						
			15	4.0					
			16						
			17	4.5					
			18						
			19	5.0					
			20						
			21	5.5					
			22						
				6.0					
				6.5					
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53492° W 113.93773°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-06**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.5	Loam, dark brown-black, friable, moderate moisture, lots of roots, coarse fragments, admixed organic odor, no HC's.		1	0.5					
0.5-0.8	CL, grey, friable, moderate moisture, white percipitates, no HC's.		2						
0.8-1.5	Clay - sandy clay, light brown-grey, friable, moist, coarse fragments, plastic, native/undisturbed, no HC's.		3	1.0					
	End of borehole at 1.5 m. Backfilled with cuttings		4						
			5	1.5					
			6						
			7	2.0					
			8						
			9	2.5					
			10						
			11	3.0					
			12						
			13	3.5					
			14						
			15	4.0					
			16						
			17	4.5					
			18						
			19	5.0					
			20						
			21	5.5					
			22						
				6.0					
				6.5					
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

CLIENT **HIGHPINE** Project #: 13-14-41-28 W4M

PROJECT Assessment at 13-14-41-28 W4M

BOREHOLE LOCATION N 52.53452° W 113.93804°

DRILLER Git R Down Drilling DATE DRILLED September 18 2009

DRILLING SUPERVISED BY Nicole Johnson

DRILLING METHOD 4 inch solid stem auger

MONITORING WELL DATA
-PIPE: n/a
-SCREEN: n/a
-OTHER: n/a

BOREHOLE: **S09-C01**
ELEVATION:
DATUM: n/a
TOP OF CASING: n/a
MEASURING PT: n/a

MINOR COMPONENTS
AND 35%-50%
___Y 20%-35%
SOME 10%-20%
TRACE 1%-10%

Well Screen
Water level
Elev. m
year/month/day

Gas monitor screen
Vapour reading
year/month/day

Sample type
SS - Split Spoon Sample
WA - Wash Sample
AU - Auger Sample
CN - Continuous Sampler
RX - Rock Core
GS - Grab Sample

DEPTH (m)	Soil Description	Start Plot	Depth Scale (ft)	Depth Scale (m)	Monitoring Details EC (dS/m)	Monitoring Details OVA (ppm)	SAMPLE ID	SAMPLE TYPE	SAMPLE STORAGE
0.0-0.4	Loam, dark brown-black, friable, moderate moisture, lots of roots, organic odor, no HC's.					40	S09-C01 (0.0-0.2 m)	AU	BAG
0.4-0.7	CL, grey, friable, moderate moisture, white percipitates, no HC's.		1	0.5		15	S09-C01 (0.5-0.7 m)	AU	BAG
0.7-1.3	Clay - sandy clay, light brown-grey, friable, moist, coarse fragments, plastic, no HC's.		2						
			3	1.0		5	S09-C01 (1.0-1.2 m)	AU	BAG
1.3-1.6	Sand, light brown-grey, moist, friable, no HC's.		4			0	S09-C01 (1.3-1.5 m)	AU	BAG
1.6-3.8	Sandy Clay, light brown, gleyed, silt pockets, common sand pockets, coal flecks, Fe flecks, white percipitates, rocks, very moist, very friable,		5	1.5					
			6	2.0		0	S09-C01 (2.0-2.2 m)	AU	BAG
			7						
			8	2.5					
			9						
			10	3.0		0	S09-C01 (3.0-3.2 m)	AU	BAG
			11						
			12	3.5					
3.8-4.2	Silty clay, light brown-grey, large silt pockets, friable, moderate moisture-dry, common sand pockets, coarse fragments, no HC's.		13	4.0		5	S09-C01 (3.8-4.0 m)	AU	BAG
4.2-4.5	Clay till, dark brown, friable, tight, rocks, coal flecks, Fe flecks, coarse fragments, white percipitates, sand pockets, silt pieces, no HC's.		14			0	S09-C01 (4.3-4.5 m)	AU	BAG
			15	4.5					
	End of borehole at 4.5 m. Backfilled with cuttings		16						
			17	5.0					
			18	5.5					
			19						
			20	6.0					
			21	6.5					
			22						
				7.0					

PREPARED BY: Nicole Johnson CHECKED BY: Lorne Bates DATE PREPARED: February

APPENDIX III
LABORATORY DATA REPORTS

TABLE 1. SALINITY/SODICITY DATA FOR SOIL SAMPLES

Sample	Soil Depth (m)	Date	Saturation %	EC	pH - Saturated Paste	Sodium Adsorption Ratio	Calcium	Magnesium	Potassium	Sodium	Chloride	Sulphate
		(d-m-y)	(%)	(dS/m)	(units)	(ratio)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
AENV (2007) Tier I Remediation Guidelines				<2 (good) 2-4 (fair) 4-8 (poor) > 8 (unsuitable)	**6 - 8.5**	< 4 (good) 4-8 (fair) 8-12 (poor) > 12 (unsuitable)	---	---	---	---	---	---
S09-01	0.0-0.2	18-Sep-09	80.0	1.09	7.2	0.4	173	29	42	17	20.7	65
S09-03	2.0-2.2	18-Sep-09	50.0	0.52	7.6	1.2	27	6	3	19	7.5	39

NOTES:

ND denotes parameter not detected.

denotes value exceeds AENV Tier 1 Remediation Guidelines (2007): Agriculture/Natural End Land Use

TABLE 2. HYDROCARBON DATA FOR SOIL SAMPLES

			Physical Properties			Petroleum Hydrocarbons							
Sample	Soil Depth (m)	Date	Moisture	< 200 Mesh (< 0.075 mm)	> 200 Mesh (> 0.075 mm)	Benzene	Toluene	Ethylbenzene	Xylenes-total	F1 (C_6-C_{10})-BTEX	F2 ($C_{>10}$-C_{16})	F3 ($C_{>16}$-C_{34})	F4 ($C_{>34}$-C_{50})
		(d-m-y)	*(%W/W)*	*(%W/W)*	*(%W/W)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
AENV (2007) Tier I Remediation Guidelines Agricultural Area: Fine-grained			---	---	---	***0.046***	***0.52***	***0.11***	***15***	***210***	***150***	***1,300***	***5,600***
AENV (2007) Tier I Remediation Guidelines Agricultural Area: Course-grained			---	---	---	***0.073***	***0.49***	***0.21***	***12***	***24***	***130***	***300***	***2,800***
S09-01	0.0-0.2	18-Sep-09	12.5			<0.02	<0.02	<0.02	<0.02	<0.1	<10	59	94
S09-03	2.0-2.2	18-Sep-09	9.3			<0.02	<0.02	<0.02	<0.02	<0.1	<10	<10	<10

NOTES:

ND denotes parameter not detected.

--- denotes parameter not analysed or not applicable.

denotes value exceeds AENV Tier I Remediation Guidelines (2007): Agriculture Area Land Use

TABLE 3. REGULATED METAL AND INORGANIC DATA FOR SOIL SAMPLES

Sample	Soil Depth (m)	Date	Arsenic:T	Barium:T	Barium (Extractable)	Beryllium:T	Boron-Hot Water Soluble	Cadmium:T	Chromium (HEX):T	Chromium:T	Cobalt:T	Copper:T	Lead:T	Mercury:T	Molybdenum:T	Nickel:T	Selenium:T	Thallium:T	Vanadium:T	Zinc:T
		(d-m-y)	(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AENV (2007) Alberta Tier 1 Remediation Guidelines Agricultural Area: fine-grained			*17*	*750*		*5.0*	*2.0*	*1.4*	*0.4*	*64.0*	*20.0*	*63.0*	*70*	*6.6*	*4*	*50*	*1*	*1*	*130*	*200*
AENV (2007) Alberta Tier 1 Remediation Guidelines Agricultural Area: Coarse-grained			*17*	*750*		*5.0*	*2.0*	*1.4*	*0.4*	*64.0*	*20.0*	*63.0*	*70*	*6.6*	*4*	*50*	*1*	*1*	*130*	*200*
AENV (2007) Alberta Tier 1 Remediation Guidelines Natural Area: fine-grained			*17*	*750*		*5.0*	*2.0*	*3.8*	*0.4*	*64.0*	*20.0*	*63.0*	*70*	*12*	*4*	*50*	*1*	*1*	*130*	*200*
AENV (2007) Alberta Tier 1 Remediation Guidelines Natural Area: Coarse-grained			*17*	*750*	*3200*	*5.0*	*2.0*	*3.8*	*0.4*	*64.0*	*20.0*	*63.0*	*70*	*12*	*4*	*50*	*1*	*1*	*130*	*200*
S09-01	0.0-0.2	18-Sep-09	3.9	283	---	<0.6	1.7	0.3	---	12.2	5.2	12.5	7.3	<0.5	1	15.8	<0.5	<0.5	16.3	53.1
S09-03	2.0-2.2	18-Sep-09	5.7	243	---	<0.6	0.2	0.2	---	13.1	5.4	10.2	7.4	<0.5	1	16.9	<0.5	<0.5	15.7	32.4

NOTES:

--- denotes parameter not analysed or not applicable.

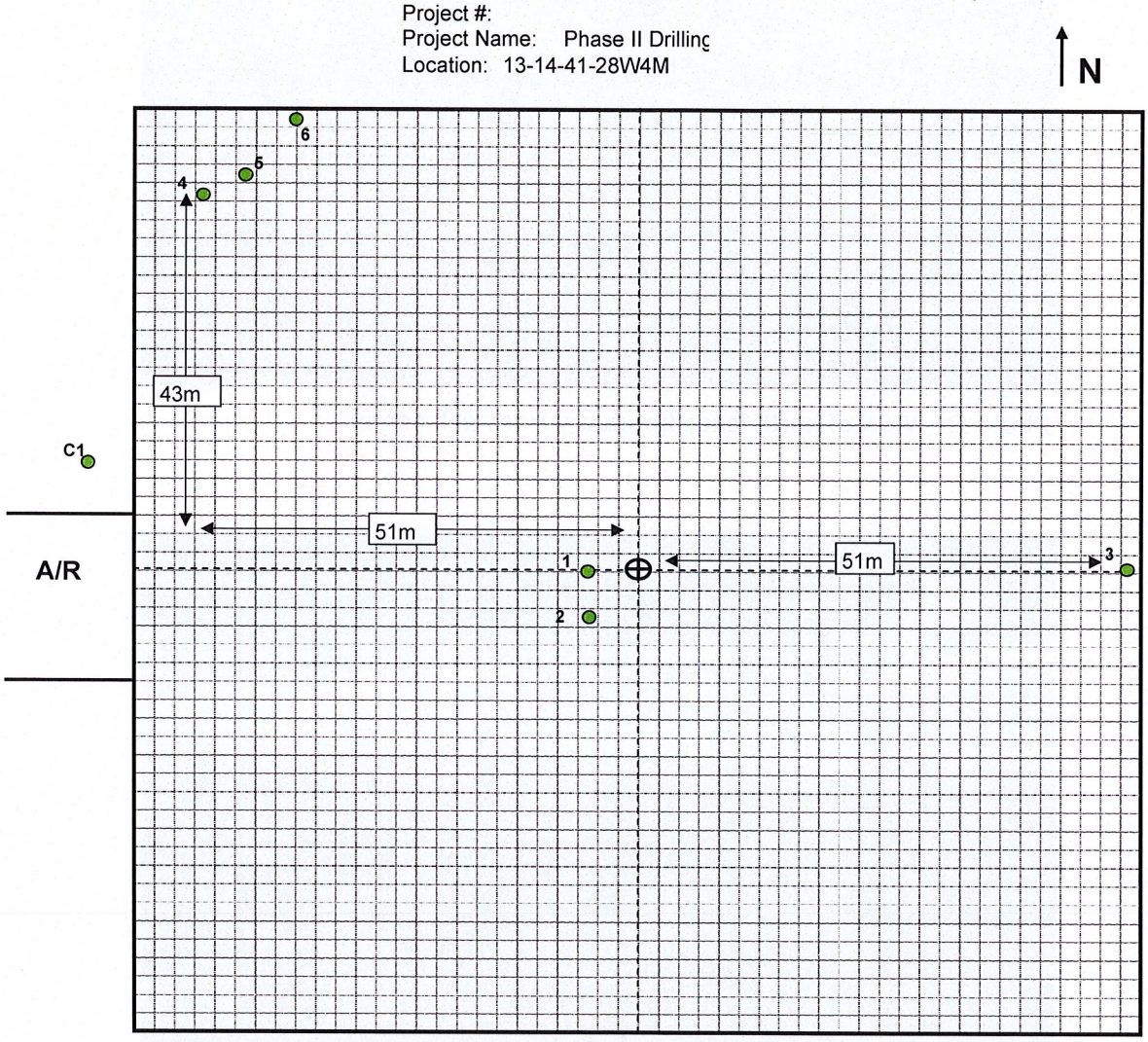
denotes value exceeds AENV Tier I Remediation Guidelines (2007): Agricultural Area Land Use for coarse-grained surface soils

APPENDIX IV
SITE SURVEY

Site Sketch

Client: HIGHPINE OIL & GAS LIMITED
Project #:
Project Name: Phase II Drilling
Location: 13-14-41-28W4M

Date: September 18 2009



LEGEND

- ⊕ = Well Center
- □ = 2m x 2m
- ● = Boreholes
- ↑ = Gradient Direction

Lease Dimentions
100m x 100m

Photo 1: View of north lease boundary from well center

Photo 2: View of east lease boundary from well center

13-14-41-28 W4M	Operator: **Highpine Oil & Gas Ltd.**
	Reclamation Consultant: **S.N.L. Environmental Consulting Ltd.**
	Photo Date: September 18 2009 — Page: 1 of 2

Photo 3: View of south lease boundary from well center

Photo 4: View of west lease boundary from well center

13-14-41-28 W4M	Operator: **Highpine Oil & Gas Ltd.**	
	Reclamation Consultant: **S.N.L. Environmental Consulting Ltd.**	
	Photo Date: September 18 2009	Page: 2 of 2

Professional Declaration for Reclamation Certificate Applications

1. This Declaration is made in conjunction with an application for a reclamation certificate (the "Application") made by _____ (Applicant) for the following land(s): _____ (insert legal description).

2. I am a practicing professional member of the _____, which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the *Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report* (AENV 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 Alberta Environment and am authorized by the Applicant to prepare and submit the attached report(s) or document(s), entitled Phase II Environmental Site Assessment.

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(s) is accurate and complete, and contains all the relevant information for the purposes of this Application.

5. The results reported in the Professional Report(s) are consistent with all current and applicable Provincial policy, criteria, standards and guidelines for the remediation or reclamation.

6. The Professional Report(s), 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 (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.

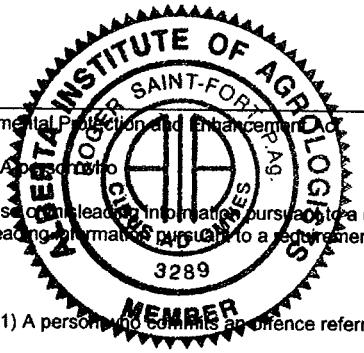
Date: July 6/2010

Signature:

Registration/Member number: 3289

OR

Stamp/Seal:



Section 227 of the Environmental Protection and Enhancement Act

Offences s. 227 A person who

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

(c) 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
(d) 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.

(c) in the case of an individual, to a fine or not more than 450,000, or
(d) in the case of a corporation, to a fine of not more than $500,000.

Record of Site Condition

Alberta Energy Regulator | Alberta Government

1 REPORT AND FORM INFORMATION

Title of report	13-14-41-28 W4M - Potential Cement Pit Search		
Report date (*dd-mon-yyyy*)	24-Jun-2010	Record of Site Condition (RSC) ID No.[Ψ]	

2 SITE IDENTIFICATION AND PHYSICAL LOCATION

2.1 Site name	VESTA MORNSIDE 13-14-41-28		
2.2 Address of site	100/13-14-041-28 W4/00		
	Municipality	Lacombe County	**Alberta**

2.3 Legal land description of site *(if multiple, list all.)*

Plan, Block, Lot (PBL)			Alberta Township System (ATS)					
Plan	Block	Lot	LSD	Quarter	Section	Township	Range	Meridian
			13	NW	14	41	28	4

3 STAKEHOLDERS

3.1 Operator

Company	Vesta Energy Ltd.	Contact person	Shane Imber
Mailing address	410, 333 - 5 Avenue Calgary, Alberta T2P 3B6	Position held	VP - Operations
		Business phone No.	403-358-2518
		Business fax No.	
		Business e-mail	simber@vestaenergy.com

3.2 Consultant ☐ Not applicable

Company	Ridgeline Canada Inc.	Contact person	Marnie Hill
Mailing address	**8, 4608 - 62 Street** **Red Deer, Alberta** **T4N 6T3**	Position held	Project Manager
		Business phone No.	403-342-2130
		Business fax No.	403-342-2005
		Business e-mail	mhill@ridgelinecanada.com

3.3 Landowner(s)

Land type	☒ Private ☐ Special Areas ☐ Parks and protected area ☐ Public *(if not private, provide Disposition No.: _____)*
Landowner(s)	☐ Same as operator ☐ Other

[Ψ]: Do not fill in. Reserved for internal administrative purposes only.

3.4 Occupant(s)			
Are there occupants at the site?	☐ Yes	☒ No	☐ To be determined (TBD)
Occupant(s)	☐ Same as operator	☐ Same as landowner	☐ Other
What is the type of occupancy?	☐ Apartment building	☐ Town house	☐ Single detached house
	☐ Agricultural	☐ Industrial	☐ Commercial
	☐ Other (*specify*) _____		

4 OPERATING STATUS

☐ Operating ☐ Suspended ☒ Abandoned ☐ Decommissioning in progress ☐ Closed
☐ Reclaimed (*provide Reclamation Certificate No.(s):* _____) ☐ Not applicable

5 TYPE OF ACTIVITY AND SITE

5.1 Petroleum Storage Tank Site ☐ Yes

5.1.1 ESRD file No.(s)		PTMAA site No.	

5.1.2 Types of activity

☐	Retail gas station	☐	Aviation fuelling station	☐	Bulk fuel	☐	Other *(specify):* _____

5.2 Upstream Oil and Gas Facility ☐ Yes

5.2.1 ESRD file No.(s)		AER approval No.(s)	337338

5.2.2 AER authorization type ☐ Approval ☒ License ☐ Permit ☐ Order ☐ Other (*specify*)_____

5.2.3 Types of activity

☒	Wellsite and associated facility	☐	Satellite	☐	Battery	☐	Pipeline
☐	Compressor and pumping station	☐	Other (*specify*): _____				

5.3 Approved Facility Under Environmental Protection and Enhancement Act (EPEA) ☐ Yes

5.3.1 ESRD approval No.(s)		AER approval No.(s)	

5.3.2 Types of approved activity

☐	Chemical manufacturing plant	☐	Enhanced recovery in-situ oil sands or heavy oil processing plant	☐	Fertilizer manufacturing plant	☐	Landfill
☐	Metal manufacturing plant	☐	Oil refinery	☐	Oilsands processing plant	☐	Oil production site
☐	Pesticide manufacturing plant	☐	Petrochemical manufacturing plant	☐	Pipeline	☐	Power plant
☐	Pulp and paper processing plant	☐	Sour gas processing plant	☐	Sulphur manufacturing or processing plant	☐	Waste management facility
☐	Wood treatment plant	☐	Other *(specify):* _____				

5.4 Facility Under EPEA Code of Practice							☐ Yes
5.4.1 ESRD registration No.(s)				AER registration No.(s)			
5.4.2 Type of Code of Practice							
☐	Asphalt paving plant	☐	Compressor and pumping station	☐	Concrete producing plant	☐	Landfill
☐	Pesticides	☐	Pipeline	☐	Land treatment of soils containing hydrocarbons	☐	Sand and gravel pit
☐	Small incinerator	☐	Sweet gas processing plant	☐	Other *(specify)*: _____		

5.5 Other Activity					☐ Yes
5.5.1 ESRD file No.(s)		Other site ID No.(s)		Authorized by	
5.5.2 Types of activity					
☐	Dry cleaning operation	☐	Highway maintenance yard	☐	Transportation
☐	Other *(specify)*: _____				

6 SITE CHARACTERIZATION

6.1 What Environmental Site Assessments (ESA) Have Been Conducted and Completed to Date?

☐ Phase I ESA

☒ Phase II ESA (*check all that apply.*)

☒ Initial intrusive sampling ☐ delineation completed ☐ post-remediation monitoring ☐ final confirmatory sampling

6.2 Contaminants of Potential Concern (COPC)

6.2.1 Does the site have any of the conditions that require the mandatory use of *Alberta Tier 2 Soil and Groundwater Remediation Guidelines* (ESRD, 2007 and updates)? *(check all that apply in Section 6.2.1.1.)*

☐ Yes ☒ No *(➔proceed to Section 6.2.2.)*

6.2.1.1 Identify any conditions that require the approaches of the Alberta Tier 2 guidelines. *(see Alberta Tier I Soil and Groundwater Remediation Guidelines (ESRD, 2007 and updates), for details.)*

☐	Contamination within 30 cm of building foundation	☐	Unusual building feature *(eg. earthen floor)*	☐	Contamination within 10 m distance of surface water body
☐	Fractured bedrock	☐	Potentially high hydraulic conductivity *(> 10^{-5} m/sec.)*	☐	Other (*see Alberta Tier 1 guidelines and specify*): _____

6.2.1.2 Did the Alberta Tier 2 approach lead to a soil or groundwater guideline that was lower than the corresponding Tier 1 guideline for the same contaminant(s)?

☐ Yes ☐ TBD ☐ No *(➔proceed to Section 6.2.2.)*

6.2.1.3 If you answered 'yes' or 'TBD' to Section 6.2.1.2, identify the group of contaminants for each COPC with a mandatory Tier 2 guideline that is lower than the corresponding Tier 1 guideline (*check all that apply, see Alberta Tier 1 guidelines, Tables 1-4 for detailed listing).*

☐	General and inorganic parameters	☐	Metals
☐	Hydrocarbons	☐	Halogenated aliphatics
☐	Chlorinated aromatics	☐	Pesticides
☐	Other organics	☐	Radionuclides
☐	Salt	☐	Other (*specify*): _____

6.2.1.4 Did any past or current ESA relevant to this investigation identify an exceedance of the mandatory Tier 2 guidelines referred to in Section 6.2.1.3 (e.g. Tier 2 guidelines that are lower than the corresponding Tier 1 guidelines)? ☐ Yes ☐ No ☐ TBD

6.2.1.5 If you answered 'yes' in Section 6.2.1.4, have all relevant COPC been remediated to meet the mandatory Tier 2 guidelines? ☐ Yes ☐ No

6.2.2. Did any past or current ESA relevant to this investigation identify a drilling waste disposal area?

☐ Yes ☒ No (*➔proceed to Section 6.2.3.*)

6.2.2.1 If a drilling waste disposal area was identified, did any past or current ESA identify non-compliance with the compliance options outlined in *Assessing Drilling Waste Disposal Areas: Compliance Options for Reclamation Certification* (AER, 2014), as amended?

☐ Yes ☐ No

6.2.2.2 If you answered 'yes' in Section 6.2.2.1, have all COPC been remediated to meet the compliance options outlined in *Assessing Drilling Waste Disposal Areas: Compliance Options for Reclamation Certification* (AER, 2014), as amended?

☐ Yes ☐ No

6.2.2.3 For any COPC that did not meet the compliance options in Assessing Drilling Waste Disposal Areas, identify the group of contaminants (*check of all that apply, see the Alberta Tier 1 guidelines, Tables 1-4 for detailed listing).*

☐	General and inorganic parameters	☐	Metals
☐	Hydrocarbons	☐	Halogenated aliphatics
☐	Chlorinated aromatics	☐	Pesticides
☐	Other organics	☐	Radionuclides
☐	Salt	☐	Other (*specify*): _____

6.2.3 For all areas and COPCs not assessed under Sections 6.2.1 or 6.2.2, did any ESA relevant to this investigation identify an exceedance over the Alberta Tier 1 guidelines?

☐ Yes ☒ No (*➔proceed to Section 6.3.)*

6.2.3.1 If you answered 'yes' in Section 6.2.3, have all COPC been remediated to meet the Alberta Tier 1 guidelines?

☐ Yes ☐ No ☐ TBD

6.2.3.2 For any COPC that exceeded Alberta Tier 1 guidelines in Section 6.2.3.1, identify the group of contaminants. (*check all that apply, see the Alberta Tier 1 guidelines, Tables 1-4 for detailed listing.)*

☐	General and inorganic parameters	☐	Metals
☐	Hydrocarbons	☐	Halogenated aliphatics
☐	Chlorinated aromatics	☐	Pesticides
☐	Other organics	☐	Radionuclides
☐	Salt	☐	Other (*specify*): _____

6.3 Status of Investigation

6.3.1 Identify soil and groundwater guidelines used to assess the COPCs that are the subject of this investigation *(check all that apply).*

- ☒ *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* – 2007 and updates,
  - ☒ Coarse grained ☒ Fine grained
- ☐ *Alberta Tier 2 Soil and Groundwater Remediation Guidelines* – 2007 and updates,
  - ☐ Pathway exclusion ☐ Guideline adjustment ☐ Site specific remediation objectives
- ☐ *Assessing Drilling Waste Disposal Areas: Compliance Options for Reclamation Certification* (AER, 2014), as amended
- ☐ Other (*specify*): _____

6.3.2 What land use classification(s) is used?

☐ Natural ☒ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify:*_____)

6.3.3 What is the outcome of the investigation? *(check one only.)*

- ☒ For all COPCs on-site and off-site, no exceedance has been found above any applicable soil and groundwater guidelines in any prior and current assessments.
- ☐ All contamination on-site and off-site has been completely remediated and meets the applicable soil and groundwater guidelines.
- ☐ One or more COPC still exceeds the applicable soil or groundwater guidelines.

6.3.4 How many contaminated areas are there currently at the site?

_____ ☒ None ☐ TBD

6.3.5 Are all contaminated areas and potential contaminated areas assessed during this investigation?

☒ Yes ☐ No

6.3.6 For all areas of potential environmental concern, list the dates when the contamination was discovered *(specify dd-mon-yyyy)*: **N/A;** _____

6.3.7 For all areas that have been identified in Section 6.3.4, have all substance releases been reported to ESRD?

☐ Yes ☐ No ☒ Not applicable

6.3.8 If the answer to Section 6.3.7 is 'yes', list all Incident No.(s) (*attach separate sheet if necessary*):

_____; _____ ☐ Not assigned

6.3.9 What is the approximate, cumulative amount of land area remaining exceeding applicable remediation guidelines? _____ (m^2) ☒ None ☐ TBD

6.3.10 Is there non-aqueous phase liquid (NAPL) product remaining on site? ☐ Yes ☒ No ☐ TBD

6.3.11 Is there non-aqueous phase liquid (NAPL) product remaining off site? ☐ Yes ☒ No ☐ TBD

6.3.12 What is the remediation status of the contaminated areas at site?

☒	No remediation required	☐	Site has exceedance but no remediation plan
☐	Remediation plan developed	☐	Active remediation
☐	Remediation completed	☐	Post remediation assessment completed
☐	Ongoing risk management plan – on-site	☐	Ongoing risk management plan – off-site
☐	Remediation Certificate issued for some area(s) *(provide Remediation Certificate No.(s):_____)*		
☐	Remediation Certificate cancelled for some area(s) *(provide Remediation Certificate No.(s):_____)*		

Direction for Completing the Remainder of the Form

Attach the analytical summary tables of the COPCs that are the subject of this investigation and still present at this site. A detailed listing of COPCs can be found with Tables 1-4 in *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (ESRD, 2007 and updates), as amended. Refer to the *RSC User's Guide* for detailed information on format and other requirements regarding the summary table.

For the remainder of the form, follow the directions below:

- If the COPCs on-site and off-site have never exceeded any applicable soil and groundwater guidelines in any prior and current assessments, ➔proceed to Section 8, or
- If the COPCs on-site and off-site have been completely remediated and meet the applicable soil and groundwater guidelines, ➔proceed to Section 8, or
- For all other circumstances, continue with Section 6.4.

6.4 Key Transport Factors for Existing COPCs

6.4.1 What is the horizontal distance to the nearest water well from the edge of the nearest contaminated area?

☐ 0-50 m ☐ 50-100 m ☐ 100-300 m ☐ 300-1000 m ☐ > 1000 m

6.4.2 What is the horizontal distance to the nearest surface water body from the edge of the contaminated area?

☐ ≤10 m ☐ 10-50 m ☐ 50-100 m ☐ 100-300 m ☐ 300-1000 m ☐ > 1000 m

6.4.3 Does delineation achieve closure above the groundwater water table that is nearest to the ground surface?

☐ Yes (➔ *go to Section 6.5.)* ☐ No ☐ TBD

6.4.4 Is the groundwater that is nearest the ground surface a domestic use aquifer (DUA) as defined in Alberta Tier 2 guidelines?

☐ Yes ☐ No ☐ TBD ☐ Not required (NR)

6.4.5 Is there a hydraulic barrier, as defined in Alberta Tier 2 guidelines, between the base of the contaminated area and the DUA?

☐ Yes ☐ No ☐ TBD ☐ NR

6.4.6 If you answered 'yes' to Section 6.4.5, provide the measured largest value of the hydraulic conductivity (as value ×10^{-7} m/sec.) for the 5.0 m vertical layer from the bottom of the contaminated zone.

_____(×10^{-7} m/sec.) ☐ TBD ☐ NR

6.5 On-site Characterization

6.5.1 What is the dominant soil texture that governs substance transport at the site?

☐ Coarse grained ☐ Fine grained ☐ TBD ☐ Not applicable (*must identify reason in Section 6.2.1.1.)*

6.5.2 What are the shallowest and deepest measured depths (meters below ground surface) of the water table at site?

Shallowest: _____ (m) Deepest: _____(m) ☐ TBD ☐ NR (*specify max. depth assessed*: _____(m))

6.5.3 What is the dominant horizontal direction of groundwater flow for the near surface water table?

(*N, NW, etc.:* _____) ☐ TBD ☐ NR

6.5.4 What is the existing land use classification?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify*) _____

6.5.5 What is the end land use classification?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify*) _____

6.5.6 Identify exposure pathways for which the applicable guidelines are exceeded on-site *(check all that apply).*			
☐	Vapour inhalation	☐	Soil ingestion
☐	Ingestion of potable water	☐	Soil dermal (skin) contact
☐	Fresh water aquatic life	☐	Soil contact for plants and invertebrates
☐	TBD	☐	Other *(specify)*: _____

6.6 Off-site Characterization

6.6.1 Are there COPCs off-site exceeding applicable soil or groundwater guidelines?

☐ No (➔ *if on-site contamination was reported, proceed to Section 7, otherwise, proceed to Section 8.)*
☐ Yes ☐ TBD

6.6.2 What is the current land use classification for any off-site area(s) identified in Section 6.6.1?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify*) _____

6.6.3 What is the end land use classification for any off-site area(s) identified in Section 6.6.1?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify*) _____

6.6.4 Is there any substance concentration under a road allowance exceeding the applicable soil or groundwater guidelines?

☐ Yes ☐ No (➔ *proceed to Section 6.6.6.)* ☐ TBD

6.6.5 What is the most sensitive land use classification adjacent to the road allowance?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (*specify*) _____

6.6.6 Identify exposure pathways for which the applicable guidelines are exceeded off-site *(check all that apply).*			
☐	Vapour inhalation	☐	Soil ingestion
☐	Ingestion of potable water	☐	Soil dermal (skin) contact
☐	Fresh water aquatic life	☐	Soil contact for plants and invertebrates
☐	TBD	☐	Other *(specify)*: _____

7 RISK MANAGEMENT PLAN (RMP)

7.1 What is the Plan for Contaminated Areas Still Remaining on and off the Site? *(check one only.)*

- ☐ Complete remediation (➔*proceed to Section 8).*
- ☐ Partial remediation with risk management for some residual contamination.
- ☐ Risk management for all remaining contamination.

7.2 Key Progress of RMP

7.2.1 If the site needs an on-going RMP, answer all the following questions that apply to the RMP.

☐ Yes	☐ No	Are contaminated areas completely delineated horizontally and vertically in soil?
☐ Yes	☐ No	Are contaminated areas completely delineated horizontally and vertically in groundwater?
☐ Yes	☐ No	Is source identified and completely delineated?
☐ Yes	☐ No	Is source migrating or has migrated off-site?
☐ Yes	☐ No	Is source left as is?
☐ Yes	☐ No	Is source partially removed and residual source being managed?
☐ Yes	☐ No	Is source controlled with physical or administrative methods?
☐ Yes	☐ No	Are all pathways of concern identified?
☐ Yes	☐ No	Have all relevant receptors been identified and protected?
☐ Yes	☐ No	Is there a monitoring program in place to verify RMP success?
☐ Yes	☐ No	Are there third parties related to this RMP? (*if the answer is 'no', skip the next question.*)
☐ Yes	☐ No	If there are third parties, have all of them accepted the RMP?
☐ Yes	☐ No	Is there a commitment from person(s) responsible to implement and monitor the RMP until final remediation guidelines are achieved?
☐ Yes	☐ No	Is there a contingency plan in place should the RMP fail?
☐ Yes	☐ No	Is the RMP implemented for the site?

Public Disclosure and Privacy Notification

The *Record of Site Condition* form is a public record that is disclosed in accordance with section 35 of the *Environmental Protection and Enhancement Act, Disclosure of Information Regulation*, and *Ministerial Order 23/2004*. Reasonable efforts have been made to minimize collection of personal information where possible. Personal information on the form is collected under the authority of section 12(c) and other provisions of the *Environmental Protection and Enhancement Act* and is in compliance with section 33(a) and 33(c) of the *Freedom of Information and Protection of Privacy Act* (FOIP). Personal information collected on this form will be used by Alberta Environment and Sustainable Resource Development (ESRD) or the Alberta Energy Regulator (AER), as the case may be, for the purposes of administering its programs.

Accuracy of Information

The information in this document has been submitted by persons other than ESRD or the AER. The Department, the Government of Alberta, and the AER cannot and do not warrant that the information in this document is current, accurate, complete, or free of errors. Persons accessing the information provided should not rely on it, and any reliance on the information provided is taken at the sole risk of the user. Users of this information are advised to conduct their own due diligence to satisfy themselves of the environmental condition of the property of interest.

8 DECLARATION

This *Record of Site Condition* form was prepared for the purpose of reporting on the state of environmental site conditions and, where applicable, for the purpose of remediation or reclamation, for:

VESTA MORNSIDE 13-14-41-28 (site name) (the "Site").

I, as the licensed operator or authorized representative, have reviewed all information that was used in preparation of this form and I am satisfied that it was prepared in a manner consistent with the Applicable Standard[1] together with any relevant additional guidance that is available from Alberta Environment and Sustainable Resource Development as of this date for conducting environmental site assessments.

Having conducted reasonable inquiries to obtain all relevant information, to my knowledge, the statements made in this form are true as of this date. I have disclosed all pertinent information of which I am aware concerning the historical and current environmental condition of the Site to the Director.

Any use which a third party, other than the Crown in right of Alberta or the AER, makes of this form, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. The undersigned accepts no responsibility for damages, if any, suffered by any third party, other than the Crown in right of Alberta and the AER, as a result of decisions made or actions based on this form. Any exclusions or disclaimers to the contrary contained in any attachment to this form are of no force or effect as against the Crown in right of Alberta and the AER.

Footnote [1]:

"Applicable Standard" means

a) for the purposes of upstream oil and gas sites,

   i) *2010 Reclamation Criteria for Wellsites and Associated Facilities Application Guidelines* (ESRD 2011),

   ii) CSA Standard Z769, *Phase II Environmental Site Assessment,* as amended, for any Phase II site assessment information used in preparation of this form on all upstream oil and gas sites not included in a) i);

b) for the purposes of all other sites, CSA Standard Z768, *Phase I Environmental Site Assessment,* as amended, for any Phase I site assessment information and with CSA Standard Z769, *Phase II Environmental Site Assessment,* as amended, for any Phase II site assessment information used in preparation of this form.

By signing below, I as the licensed operator or authorized representative, confirm the information provided herein is correct and complete, to the best of my knowledge and belief.

Name of operator	Name of authorized representative	Title of authorized representative (*e.g. officer, director*)	Signature	Date (*dd-mon-yyyy*)
Vesta Energy Ltd	Shane Imber	VP - Operations		05/05/2014

Schedule 5

Detailed Site Assessment

Ridgeline
CANADA INC.

VESTA ENERGY LTD.
DETAILED SITE ASSESSMENT
100/13-14-041-28 W4/00
VESTA MORNSIDE 13-14-41-28
LACOMBE COUNTY, ALBERTA
JULY 15, 2014

Prepared for:

VESTA ENERGY LTD.
410, 333 – 5 Avenue SW
Calgary, Alberta
T2P 3B6

Prepared by:

RIDGELINE CANADA INC.
101, 3016 - 19 Street NE
Calgary, Alberta
T2E 6Y9

Ridgeline
CANADA INC.

July 15, 2014

VESTA ENERGY LTD.
410, 333 – 5 AVENUE SW
CALGARY, ALBERTA
T2P 3B6

Attention: Shane Imber
VP Operations

Dear Shane Imber:

Re: DETAILED SITE ASSESSMENT
VESTA MORNSIDE 13-14-41-28
100/13-14-041-28 W4/00

Please find the attached Detailed Site Assessment (DSA) conducted for the VESTA MORNSIDE 13-14-41-28; 100/13-14-041-28 W4/00 wellsite located within 13-14-041-28 W4M. The DSA was conducted in compliance with the Government of Alberta (GoA) *2010 Reclamation Criteria for Wellsites and Associated Facilities for Cultivated Lands* (GoA, 2013) and includes a completed *Alberta Energy Regulator 2010 Assessment Tool and Record of Observation for Cultivated Lands* datasheet (AER, 2014).

- The current surrounding land use is classified as cultivated as described by ESRD (AENV, 2011);
- The well was drilled from September 25, 2005 to October 3, 2005 to a total depth of 1,885 m (Abacus, 2014);
- The well did not produce prior to surface abandonment on October 12, 2005 (Abacus, 2014);
- A DSA was conducted for the lease and access road on July 3, 2014;
- An approximately 2.5 m by 2.5 m patch of stinkweed *(Thlapsi arvense)* was identified in the northwest corner during the site visit. The landowner plans to convert land to golf course, therefore no control of stinkweed is required;
- The DSA was conducted in the presence of the landowner, who stated he was satisfied with soil, vegetation, landscape and all reclamation efforts at the site; and,
- The lease and access road satisfied all applicable DSA guidelines for cultivated lands with regard to landscape, soil and vegetation parameters.

Based on the DSA, the lease and access road meet all requirements for Government of Alberta reclamation criteria for cultivated lands with regard to landscape, soil and vegetation parameters (GoA, 2013). It is recommended to apply for a reclamation certificate for the lease and associated access road.

Respectfully,

RIDGELINE CANADA INC.

Marnie Hill

Marnie Hill, B.Sc., P.Ag.
Project Manager

Suite 101, 3016-19 Street NE, Calgary, Alberta, Canada T2E 6Y9 Tel: 403 806 2380 Fax: 403 806 2381

Appendix A
Background Information and Assessment Tool

Operator	ERCB Unique Well Identifier(s)	Disposition #		VERSION	VERSION #3.1
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A		CRITERIA	Cultivated Lands

Provincial Land Classification		Soil Information		Vegetation Information	
Area	White Area	Soil Order	Chernozemic	Natural Region	PK - Parkland Natural Region
Type	Private Land	Soil Great Group	Black Chernozem	Natural Sub-region	PK - Central Parkland
		Soil Series	TWEEDSMUIR	Ecosite	Red Deer

Landscape Assessment		***	Quarter	LSD	Section	Township	Ranger	Meridian
Assessor Name(s)	Date (mm/dd/yr)	Complete Surface Legal Land Location(s)	NW	13	14	41	28	W4
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14							

Soil Assessment			
Assessor Name(s)	Date (mm/dd/yr)	UTM Coordinates (NAD83)	12U
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14	Northing	5824536
		Easting	300796
		Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
		If other, describe	
		Assessment Approach	Whole Site
		Activity	Description
		Construction	Full Disturbance
		Reclamation	Full Disturbance
		Revegetation	Cultivated: Perennial Crop

Vegetation Assessment			
Assessor Name(s)	Date (mm/dd/yr)	Activity Dates	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14	Construction	07/29/05
		Revegetation	Spring 2008
		Recl. Complet. Date	Spring 2008

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS		
VERSION	VERSION #3.1	Drilled and Abandoned (D&A) Wellsite
CRITERIA	Cultivated Lands	Whole Site
		Cultivated: Perennial Crop

Did the site fail any of the Landscape Assessment questions below?	No, Site Passed
Did the site fail any of the Vegetation Assessment questions below?	No, Site Passed
Did the site fail any of the Level 1 Soil Assessment questions below?	No, Site Passed
Did the site fail any of the Level 2 Soil Assessment questions below?	Not Applicable
If the site failed either the Landscape, Vegetation, Level 1 Soil, or Level 2 Soil Assessments Is Professional Judgment being used to pass the site?	Not Applicable

If Yes, provide supporting documentation. This is now a Non-Routine Application and will be subject to additional review by the Government of Alberta (GoA). If no, site fails. Mitigate and Reassess.

If the site failed either the Landscape, Vegetation, Level 1 Soil, or Level 2 Soil Assessments Are portions exempt due to justification(s)?	Not Applicable

If Yes, provide supporting documentation. This is now a Non-Routine Application and will be subject to additional review by the Government of Alberta (GoA). If no, site fails. Mitigate and Reassess.

LANDSCAPE, SOIL, AND VEGETATION ASSESSMENT COMMENTS

COMMENTS: Based on the DSA, the lease and access road meet all requirements for Government of Alberta reclamation criteria for cultivated lands with regards to landscape, soil and vegetation parameters (GoA, 2013). It is recommended to apply for reclamation certificate application for the lease and access road.

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS		Drilled and Abandoned (D&A) Wellsite
VERSION	VERSION #3.1	Whole Site
CRITERIA	Cultivated Lands	Cultivated: Perennial Crop
LANDSCAPE ASSESSMENT		
DRAINAGE Is the surface water flow and onsite drainage (e.g., cross site flow, direction, dispersion, ponding, depressional storage) comparable to offsite?		Yes; Site Passes
DRAINAGE Have disturbed riparian areas on-site been restored (e.g., bank stability, shore stability, etc.) to conditions comparable to off-site?		Yes; Site Passes
EROSION Is soil erosion (e.g., rills and/or gullies) onsite comparable to offsite? (Based on a qualitative assessment of bare soil in relation to cover)		Yes; Site Passes
STABILITY Is any subsidence occurring onsite comparable to offsite?		Yes; Site Passes
BARE AREAS Is the amount, frequency, density of landscape scale bare areas onsite comparable with offsite?		Yes; Site Passes
OPERABILITY Are the macro-scale contours (30-100 m; width scale) assessed lease-wide onsite comparable to offsite?		Yes; Site Passes
DEBRIS Is the organic debris (e.g. Straw and wood) onsite consistent with offsite?		Yes; Site Passes
If No, can onsite be managed similar to offsite (i.e., in accordance with the Land Manager's operations)?		Not Applicable
DEBRIS Has industrial (including domestic) refuse been removed?		Yes; Site Passes
END OF LANDSCAPE ASSESSMENT		

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS			Drilled and Abandoned (D&A) Wellsite
VERSION	VERSION #3.1		Whole Site
CRITERIA	Cultivated Lands		Cultivated: Perennial Crop

VEGETATION ASSESSMENT APPLIES TO ALL CROPS		
CROP TYPE Is the seeded species onsite compatible with offsite? (Provide crop type grown in space provided).		Yes
	Onsite	Tame Pasture
	Offsite	Tame Pasture
If no, has the Landowner/Land Manager agreed to the crop seeded onsite?		Not Applicable
If no, can it be managed the same as offsite?		Not Applicable
CROP TYPE Where representative controls are available, is onsite comparable to the surrounding area?		Yes
CROP TYPE Is the agronomic practice (i.e., tillage, seeding, etc.) onsite comparable to offsite?		Not Applicable
CROP TYPE Is the row-spacing onsite comparable to offsite?		Not Applicable
CROP TYPE: Document the row-spacing (cm)	Onsite (cm): n/a	Offsite (cm): n/a
CROP TYPE Is the residue management onsite comparable to offsite?		Yes
GROWTH STAGE Is the growth stage on-site consistent with offsite?		Yes
GROWTH STAGE Was the assessment conducted during the Prime Assessment Stage?		Yes, Assessed at Prime Assessment Stage
GROWTH STAGE For small seeded crops, is the rating difference between onsite and offsite <2?		Not Applicable

If the crop has been removed this is not considered a prime assessment stage. Estimates of stubble health and density can be collected but a Vegetation Assessment at a different stage will need to be conducted the following year.

If the crop has not been removed this is still considered to be part of the prime assessment stage. Estimates of stubble health, plant height, and plant can be collected. A second Vegetation Assessment the following year is not required.

GROWTH STAGE Is the crop/seeding distribution and/or germination onsite consistent with offsite?	Yes
WEEDS Have prohibited noxious weeds been eliminated/destroyed as per the Weed Control Act or local requirements?	Not Applicable
WEEDS Have noxious weeds been controlled as per the Weed Control Act or local requirements?	Not Applicable
WEEDS Are the problem and/or volunteer weeds observed onsite consistent those observed offsite, and no special management is required?	Yes; Site Passes

VEGETATION ASSESSMENT CEREAL CROPS	
GROWTH STAGE Is the growth stage on-site consistent with offsite?	Not Applicable
PLANT HEIGHT Is the crop height onsite comparable with offsite?	Not Applicable
PLANT DENSITY Is the tiller density (or head producing stems) in each of the four (4) x 1 linear meter onsite comparable with offsite? Caveat Seeding rates must be comparable.	Not Applicable
PLANT DENSITY Is the tiller density (or head producing stems) per 0.50 square meters (Broadcast crops) onsite comparable with offsite? Caveat Seeding rates must be comparable.	Not Applicable
PLANT DENSITY If the crop has been swathed but the crop is present in the field, estimate yield. Is the stubble density onsite comparable to offsite?	Not Applicable
HEAD LENGTH Is the head/tuber length of the crop onsite comparable with offsite?	Not Applicable
HEAD WEIGHT Is the head weight measured onsite comparable with offsite? Assessors must collect enough to meet a minimum weight of 50-grams, and the same number of heads collected onsite as were collected offsite.	Not Applicable
PLANT HEALTH Is the plant health (i.e., disease-free, appropriate colour, exhibits vigour, good height, etc.) onsite consistent with offsite?	Not Applicable
HEAD HEALTH Is the head health (i.e., disease-free, appropriate colour, exhibits vigour, etc.) observed onsite consistent with offsite?	Not Applicable
SEED DEVELOPMENT Is the seed development observed onsite consistent with offsite?	Not Applicable

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS		Drilled and Abandoned (D&A) Wellsite
VERSION	VERSION #3.1	Whole Site
CRITERIA	Cultivated Lands	Cultivated: Perennial Crop
VEGETATION ASSESSMENT SMALL SEEDED CROPS		
GROWTH STAGE Is the growth stage on-site consistent with offsite?		Not Applicable
PLANT HEIGHT Is the crop height onsite comparable with offsite?		Not Applicable
PLANT DENSITY Is the plant density in each of the four (4) x 1 linear meter) onsite comparable with offsite? Caveat Seeding rates must be comparable.		Not Applicable
PLANT DENSITY Is the tiller density per 0.50 square meters (Broadcast crops) onsite comparable with offsite? Caveat Seeding rates must be comparable.		Not Applicable
PLANT DENSITY For oilseeds/pulses Is cover equal to or greater than 80% of control?		Not Applicable
PLANT DENSITY If the crop has been swathed but the crop is present in the field, estimate yield. Is the stubble density onsite comparable to offsite?		Not Applicable
PLANT HEALTH Is the plant health (i.e., disease-free, appropriate colour, exhibits vigour, good height, etc.) onsite consistent with offsite?		Not Applicable
POD HEALTH Is the pod health (i.e., disease-free, appropriate colour, exhibits vigour, etc.) observed onsite consistent with offsite?		Not Applicable
POD DENSITY For Oilseeds/Pulses Is pod density onsite comparable with offsite?		Not Applicable
SEED DEVELOPMENT Is the seed development observed onsite consistent with offsite?		Not Applicable
VEGETATION ASSESSMENT PULSE CROPS		
GROWTH STAGE Is the growth stage on-site consistent with offsite?		Not Applicable
PLANT HEIGHT Is the crop height onsite comparable with offsite?		Not Applicable
PLANT DENSITY Is the plant density in each of the four (4) x 1 linear meter) onsite comparable with offsite? Caveat Seeding rates must be comparable.		Not Applicable
PLANT DENSITY Is the tiller density per 0.50 square meters (Broadcast crops) onsite comparable with offsite? Caveat Seeding rates must be comparable.		Not Applicable
PLANT DENSITY Is cover equal to or greater than 80% of control?		Not Applicable
PLANT DENSITY If the crop has been swathed but the crop is present in the field, estimate yield. Is the stubble density onsite comparable to offsite?		Not Applicable
HEAD WEIGHT Is the pod weight measured onsite comparable with offsite? Assessors must collect enough to meet a minimum weight of 50-grams, and the same number of pods collected onsite as were collected offsite.		Not Applicable
PLANT HEALTH Is the plant health (i.e., disease-free, appropriate colour, exhibits vigour, good height, etc.) onsite consistent with offsite?		Not Applicable
POD HEALTH Is the pod health (i.e., disease-free, appropriate colour, exhibits vigour, etc.) observed onsite consistent with offsite?		Not Applicable
POD DENSITY Is pod density onsite comparable with offsite?		Not Applicable
SEED DEVELOPMENT Is the seed development observed onsite consistent with offsite?		Not Applicable

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS		Drilled and Abandoned (D&A) Wellsite
VERSION	VERSION #3.1	Whole Site
CRITERIA	Cultivated Lands	Cultivated: Perennial Crop
VEGETATION ASSESSMENT FORAGE CROPS		
GROWTH STAGE Is the growth stage on-site consistent with offsite?		Yes
PLANT HEIGHT Is the crop height onsite comparable with offsite?		Yes; Site Passes
PLANT DENSITY Is the % cover of live desireable plants onsite comparable with offsite?		Yes; Site Passes
PLANT DENSITY If the crop has been swathed but the crop is present in the field, estimate yield. Is the stubble density onsite comparable to offsite?		Not Applicable
PLANT HEALTH Is the plant health (i.e., disease-free, appropriate colour, exhibits vigour, good height, etc.) onsite consistent with offsite?		Yes; Site Passes
HEAD HEALTH (If applicable) Is the head health (i.e., disease-free, appropriate colour, exhibits vigour, etc.) observed onsite consistent with offsite?		Yes; Site Passes
SEED DEVELOPMENT (If applicable) Is the seed development observed onsite consistent with offsite?		Yes; Site Passes
LITTER QUALITY Is litter development observed onsite consistent with offsite?		Yes; Site Passes
LITTER PRODUCTION - UNDISTURBED AREA When compared to the control is the litter development in the Undisturbed Area on-site 65% or greater?		Yes; Site Passes
LITTER PRODUCTION - DISTURBED AREA When compared to the control is the litter development in the Disturbed Area on-site 15% or greater?		Yes; Site Passes
VEGETATION ASSESSMENT OTHER SPECIALTY CROPS		
GROWTH STAGE Is the growth stage on-site consistent with offsite?		Not Applicable
PLANT HEIGHT Is the crop height onsite comparable with offsite?		Not Applicable
PLANT DENSITY If another method was used to assess plant density Is the plant density (tiller count/ 4 x 1.0 linear meter; plants / m2) onsite comparable with offsite? Caveat Seeding rates must be comparable.		Not Applicable
PLANT DENSITY If the crop has been swathed but the crop is present in the field, estimate yield. Is the stubble density onsite comparable to offsite?		Not Applicable
PLANT HEALTH Is the plant health (i.e., disease-free, appropriate colour, exhibits vigour, good height, etc.) onsite consistent with offsite?		Not Applicable
HEAD/LEAF/POD/TUBER HEALTH Is the health (i.e., disease-free, appropriate colour, exhibits vigour, etc.) observed onsite consistent with offsite?		Not Applicable
SEED DEVELOPMENT Is the seed development observed onsite consistent with offsite?		Not Applicable
OTHER METHODS Is another method being used to assess productivity? If so, what is the method and measurable being used?		
	Measurable	
	Methodolgy description	
Is the measurable (identified above) onsite comparable with offsite? (Make sure to include units of measurement)		Not Applicable
OTHER METHODS Is another method being used to assess productivity? If so, what is the method and measurable being used?		
	Measurable	
	Methodolgy description	
Is the measurable (identified above) onsite comparable with offsite? (Make sure to include units of measurement)		Not Applicable
END OF VEGETATION ASSESSMENT		

SUMMARY OF THE LANDSCAPE, VEGETATION, AND SOIL ASSESSMENT RESULTS		Drilled and Abandoned (D&A) Wellsite
VERSION	VERSION #3.1	Whole Site
CRITERIA	Cultivated Lands	Cultivated: Perennial Crop
LEVEL 1 - SOIL ASSESSMENT		
SOIL - DISTURBANCE Is there evidence of soil disturbance?		Yes
SURFACE CHARACTERISTICS Has topsoil been adequately replaced as per topsoil depth requirements by construction date?		Yes; Site Passes
OPERABILITY Are the meso-scale contours (<10-30 m; width scale) ratings from each assessment site onsite comparable to offsite?		Yes; Site Passes
OPERABILITY Are micro-scale contours (<10 m; width scale) ratings from each assessment site onsite comparable to offsite?		Yes; Site Passes
OPERABILITY Is the operability onsite and offsite equally unaffected by gravel (Surface Stoniness; <2.5 cm)?		Yes; Site Passes
OPERABILITY Is the operability onsite and offsite equally unaffected (i.e., overall quantity, size and concentrations, etc.) by stone content (e.g., cobbles, stones and boulders; Stone Content; >2.5 cm)?		Yes; Site Passes
TOPSOIL COLOR Is on/offsite topsoil color comparable?		Yes; Site Passes
VERTICAL PROCESSES Is the topsoil texture onsite comparable to the topsoil texture offsite?		Yes; Site Passes
VERTICAL PROCESSES Is the subsoil texture onsite comparable to the subsoil texture offsite?		Yes; Site Passes
VERTICAL PROCESSES Is the topsoil consistence onsite comparable to the topsoil consistence offsite?		Yes; Site Passes
If not, is the topsoil structure onsite comparable to the topsoil structure offsite?		Not Applicable
VERTICAL PROCESSES Is the subsoil consistence onsite comparable to the subsoil structure offsite?		Yes; Site Passes
If not, is the subsoil structure onsite comparable to the subsoil structure offsite?		Not Applicable
ROOTING RESTRICTIONS Is there a restrictive layer (assess to 50 cm)?		No, Site Passes
If yes, is it consistent with offsite?		Not Applicable
If No, is the issue due to the presence of a compacted zone or disease?		Not Applicable
END OF LEVEL 1 SOIL ASSESSMENT		
LEVEL 2 - SOIL ASSESSMENT (OPTIONAL)		
TEXTURE - Topsoil Is topsoil particle size analysis (PSA) onsite comparable to topsoil PSA offsite?		Not Applicable
% Clay Is topsoil %-Clay onsite comparable to topsoil %-Clay offsite?		Not Applicable
TEXTURE - Subsoil Is subsoil particle size analysis (PSA) onsite comparable to subsoil PSA offsite?		Not Applicable
% Clay Is subsoil %-Clay onsite comparable to subsoil %-Clay offsite?		Not Applicable
ORGANIC CARBON - Topsoil Is topsoil organic carbon onsite comparable to topsoil organic carbon offsite?		Not Applicable
pH - Topsoil Is topsoil pH onsite comparable to topsoil pH offsite?		Not Applicable
pH - Subsoil Is subsoil pH onsite comparable to subsoil pH offsite?		Not Applicable
EC - Topsoil Is topsoil EC onsite comparable to topsoil EC offsite?		Not Applicable
EC - Subsoil Is subsoil EC onsite comparable to subsoil EC offsite?		Not Applicable
SAR - Topsoil Is topsoil SAR onsite comparable to topsoil SAR offsite?		Not Applicable
SAR - Subsoil Is subsoil SAR onsite comparable to subsoil SAR offsite?		Not Applicable
END OF LEVEL 2 ASSESSMENT		

Appendix B

Site Sketch

Operator	ERCB Unique Well Identifier(s):	Disposition #:
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

CRITERIA:	Cultivated Lands
Provincial Land Classification	
Area:	White Area
Type:	Private Land

Vegetation Information	
Natural Region:	PK - Parkland Natural Region
Natural Sub-region:	PK - Central Parkland
Ecosite:	Red Deer

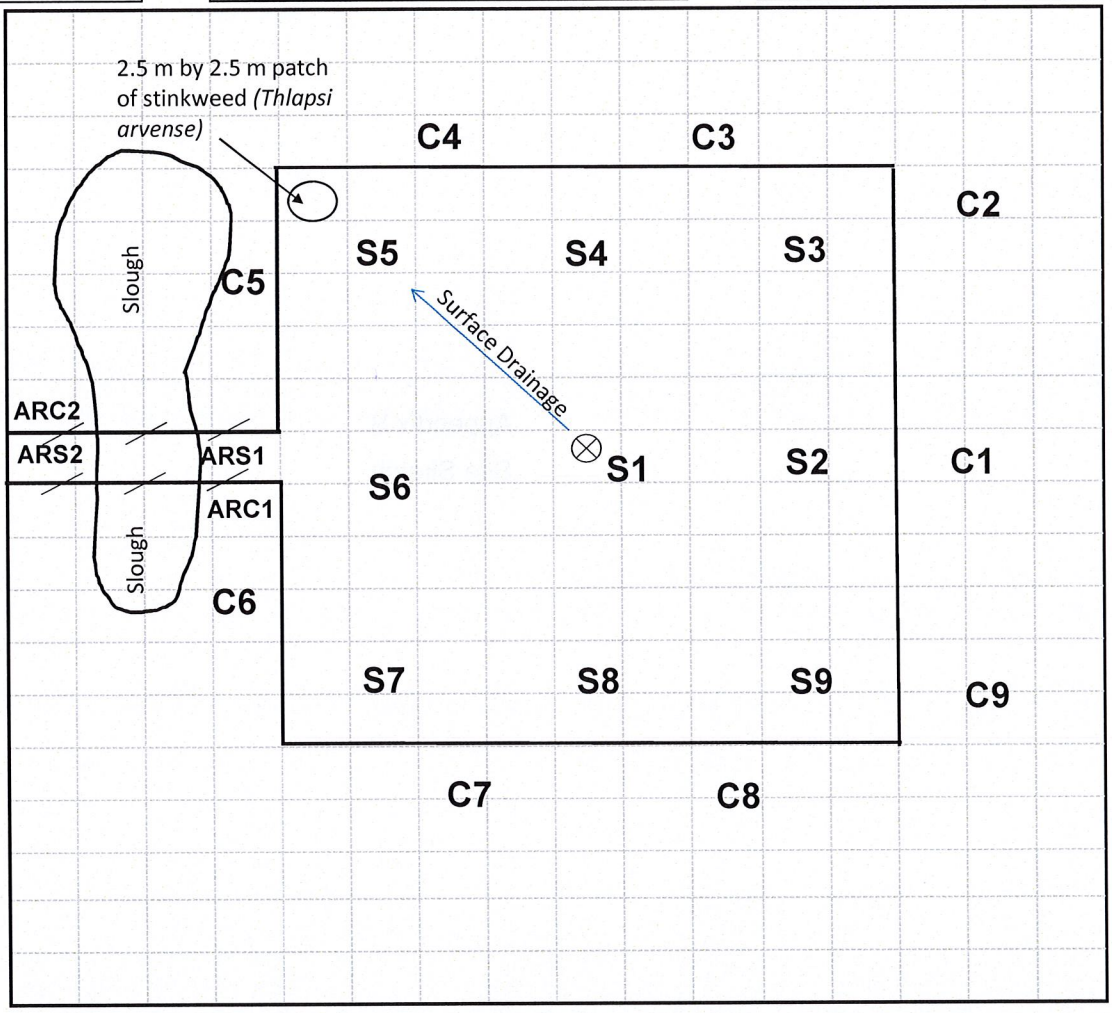
Soil Information	
Soil Order:	Chernozemic
Soil Great Group:	Black Chernozem
Soil Series:	TWEEDSMUIR

Legend:								
Drainage:	Access Road Boundary:	Lease Boundary:	Former Wellhead:	Trees / Brush:	Step Out:	Control Point:	Site Point:	
						C#	S#	

Abbreviations:	Landscape Criteria		Vegetation	Soil	
	E - Erosion	BA - Bare Areas	V# - Site Assessment Point	S# - Site Assessment Point	T - Texture
	C - Contour		VC - Control Point	SC - Control Point	G/S - Gravel / Stones
	ST - Stability	PD - Poor Drainage	W - Weeds	AD - Admixing	
	D - Debris		PH - Poor Health Areas	SPR - Soil Profile Restriction	

SITE SKETCH	Drilled and Abandoned (D&A) Wellsite	Describe other:		Version:	VERSION #3.1

Lease Area		
Length:	120	m
Width:	120	m
Area:	1.440	ha
Access:		
Length:	135	m
Width:	20	m
Area:	0.230	ha
Topography:		
Flat		
Typical Slopes:		
1-2 %		
Surrounding Land Use / Vegetation		
On-site:	Tame Pasture	
North:	Tame Pasture	
East:	Tame Pasture	
South:	Tame Pasture	
West:	Tame Pasture/Slough	



Comments:	The site sketch is not to scale. There was an approximately 2.5 m by 2.5 m patch of stinkweed *(Thlapsi arvense)* identified in the northwest corner. Landowner plans to remove hay and convert land to golf course, therefore no control of stinkweed is required. There is a slough located along the access road including offsite along the western edge which was identifed on the original survey plan.

Appendix C

Soil Assessment

OFFSITE ASSESSMENT

Operator	ERCB Unique Well Identifier(s)	Disposition #
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	Green Area
Type	Private Land

Soil Information	
Soil Order	Chernozemic
Soil Great Group	Black Chernozem
Soil Series	TWEEDSMUIR

Soil Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam. Date	Spring 2008

Site Point				Soil Measure.	Soil Ratings													Overall Rating Comparison:					NOTES:
						Site		Topsoil Quality							Subsoil Quality									
***	Step - out	Slope	Evidence of Soil Disturbance:	Topsoil Depth (cm)	Topsoil Depth	Contour		Surface Stoniness	Coarse Fragment Content	Color	Texture	Consistence	Structure	Rooting Restrictions	Texture	Consistence	Structure	Rooting Restrictions	Topsoil Depth	Site Rating	Topsoil Quality	Subsoil Quality	Overall Pass (P) / Fail (F)	
						Meso-	Micro-																	
				cm																				
OFFSITE																			C C	C C	C C	C C		
No. of Assessment Points				9	9	9	9	9	9	9	9	9	7	9	9	9	0	9						No stucture assessment was conducted for any subsoil sample point, as a result no average subsoil structure could be calculated.
Average Value				30	1.22	1.00	1.00	1.00	1.00	1.00	1.56	1.56	1.00	1.00	1.78	1.00	#DIV/0!	1.00						
% of Offsite Average				100%																				
Maximum Value				38	2	1	1	1	1	1	2	2	1	1	3	1	0	1	2	2	9	5		
85% of Offsite Average				26																				
Minimum Value (LCM)				19	1	1	1	1	1	1	1	1	1	1	1	1	0	1						
80% of LCM				15																				
Standard Deviation				6.7																				
Standard Error				2.2																				
No. of Points with Rating of: 1					7	9	9	9	9	9	4	4	7	9	4	9	0	9						
No. of Points with Rating of: 2					2	0	0	0	0	0	5	5	0	0	3	0	0	0						
No. of Points with Rating of: 3					0	0	0	0	0	0	0	0	0	0	2	0	0	0						
No. of Points with Rating of: 4					0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Allowable Rating Drop:																								
Maximum Rating - Offsite																								
Maximum Rating - Onsite																								
Rating Difference																								
Pass / Fail																								
Critical Value:																								
Onsite vs. Offsite: Pass / Fail																								

OFFSITE ASSESSMENT	Operator	ERCB Unique Well Identifier(s)	Disposition #
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	Green Area
Type	Private Land

Soil Information	
Soil Order	Chernozemic
Soil Great Group	Black Chernozem
Soil Series	TWEEDSMUIR

Soil Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam. Date	Spring 2008

Site Point				Soil Measure.	Soil Ratings														Overall Rating Comparison:										NOTES:
						Site		Topsoil Quality							Subsoil Quality															
***	Step - out	Slope	Evidence of Soil Disturbance:	Topsoil Depth (cm) cm	Topsoil Depth	Contour Meso-	Contour Micro-	Surface Stoniness	Coarse Fragment Content	Color	Texture	Consistence	Structure	Rooting Restrictions	Texture	Consistence	Structure	Rooting Restrictions	Topsoil Depth			Site Rating			Topsoil Quality			Subsoil Quality			Overall Pass (P) / Fail (F)	
OFFSITE																			C	C		C	C		C	C		C	C		
OFFSITE 1	Value:				35	1	1	1	1	1	1	1	1	1	1	1		1	1	2	P	2	2	P	6	9	P	3	5	P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)		None (1)	SCL (C2)	Sli. Hard (1-SD)	----------	None (1)													
OFFSITE 2	Value:				38	1	1	1	1	1	1	1	1	1	1	1		1	1	2	P	2	2	P	6	9	P	3	5	P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)		None (1)	SCL (C2)	Sli. Hard (1-SD)	----------	None (1)													
OFFSITE 3	Value:				34	1	1	1	1	1	1	2	2	1	1	1	1		1	1	2	P	2	2	P	9	9	P	3	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Mid	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SCL (C2)	Loose (1-SM)	----------	None (1)													
OFFSITE 4	Value:				34	1	1	1	1	1	1	2	1	1	1	1		1	1	2	P	2	2	P	8	9	P	3	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Mid	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SCL (C2)	Loose (1-SM)	----------	None (1)													
OFFSITE 5	Value:				31	1	1	1	1	1	1	2	2	1	1	3	1		1	1	2	P	2	2	P	9	9	P	5	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Mid	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SC (C3)	Firm (1-SM)	----------	None (1)													
OFFSITE 6	Value:				26	1	1	1	1	1	1	2	2	1	1	3	1		1	1	2	P	2	2	P	9	9	P	5	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Lower	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SC (C3)	Firm (1-SM)	----------	None (1)													
OFFSITE 7	Value:				19	2	1	1	1	1	1	2	2	1	1	2	1		1	2	2	P	2	2	P	9	9	P	4	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Upper	no		>LCM (2)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SCL (C2)	Loose (1-SM)	----------	None (1)													
OFFSITE 8	Value:				34	1	1	1	1	1	1	1	2	1	1	2	1		1	1	2	P	2	2	P	8	9	P	4	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Lower	no		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2-TD)	f. gr. (T1)	None (1)	SCL (C2)	Loose (1-SM)	----------	None (1)													
OFFSITE 9	Value:				21	2	1	1	1	1	1	1	1	1	1	2	1		1	2	2	P	2	2	P	7	9	P	4	5	P	P	No structure assessment for subsoil required due to rating category of 1 for Subsoil Consistence
	Obs.	No	Upper	No		>LCM (2)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	f. gr. (T1)	None (1)	SCL (C2)	Sli. Hard (1-SD)	----------	None (1)													

ONSITE ASSESSMENT	Operator	ERCB Unique Well Identifier(s)	Disposition #
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	Green Area
Type	Private Land

Soil Information	
Soil Order	Chernozemic
Soil Great Group	Black Chernozem
Soil Series	TWEEDSMUIR

Soil Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam. Compl.	Spring 2008

Site Point				Soil Measure.	Soil Ratings													Overall Rating Comparison:					NOTES:
						Site		Topsoil Quality							Subsoil Quality								
***	Step - out	Slope	Evidence of Soil Disturbance:	Topsoil Depth (cm)	Topsoil Depth	Contour		Surface Stoniness	Coarse Fragment Content	Color	Texture	Consistence	Structure	Rooting Restrictions	Texture	Consistence	Structure	Rooting Restrictions	Topsoil Depth	Site Rating	Topsoil Quality	Subsoil Quality	Overall Pass (P) / Fail (F)	
						Meso-	Micro-																	
				cm															S C	S C	S C	S C		
ONSITE																								
No. of Assessment Points				9	9	9	9	9	9	9	9	9	0	9	9	9	0	9	No stucture assessment was conducted for any topsoil or subsoil sample points, as a result no average for topsoil and subsoil structure could be calculated.					
Average Value				30	1	1	1	1	1	1	1	1	#DIV/0!	1	2	1	#DIV/0!	1						
% of Offsite Average				98%																				
Maximum Value				34	2	1	1	1	1	1	1	1	0	1	2	1	0	1	2	2	6	4		
Minimum Value				22	1	1	1	1	1	1	1	1	0	1	2	1	0	1	No stucture assessment was conducted for any topsoil or subsoil sample points, as a result no standard deviation or standard error for topsoil and subsoil structure could be calculated.					
Standard Deviation				3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!	0.0	0.0	0.0	#DIV/0!	0.0						
Standard Error				1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!	0.0	0.0	0.0	#DIV/0!	0.0						
No. of Points with Rating of: 1					8	9	9	9	9	9	9	9	0	9	0	9	0	9						
No. of Points with Rating of: 2					1	0	0	0	0	0	0	0	0	0	9	0	0	0						
No. of Points with Rating of: 3					0	0	0	0	0	0	0	0	0	0	0	0	0	0						
No. of Points with Rating of: 4					0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Allowable Rating Drop:					2	2	2	2	2	2	2	2	1	2	2	2	1	2	No onsite vs. offsite values could be calculated for topsoil or subsoil structure since no structure assessment was required at the onsite topsoil and subsoil assessment points.					
Maximum Rating - Offsite					2	1	1	1	1	1	2	2	1	1	3	1	0	1						
Maximum Rating - Onsite					2	1	1	1	1	1	1	1	0	1	2	1	0	1						
Rating Difference					0.00	0.00	0.00	0.00	0.00	0.00	-1.00	-1.00	-1.00	0.00	-1.00	0.00	0.00	0.00						
Pass / Fail					P	P	P	P	P	P	P	P	P	P	P	P	P	P						
Critical Value:				85%	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.15	0.30	0.30	0.30	0.30	0.30						
Onsite vs. Offsite:				98%	-0.11	0.00	0.00	0.00	0.00	0.00	-0.56	-0.56	#DIV/0!	0.00	0.22	0.00	#DIV/0!	0.00						
Pass / Fail				P	P	P	P	P	P	P	P	P	#DIV/0!	P	P	P	#DIV/0!	P						

ONSITE ASSESSMENT	Operator	ERCB Unique Well Identifier(s)	Disposition #
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	Green Area
Type	Private Land

Soil Information	
Soil Order	Chernozemic
Soil Great Group	Black Chernozem
Soil Series	TWEEDSMUIR

Soil Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam. Compl.	Spring 2008

Site Point				Soil Measure.	Soil Ratings														Overall Rating Comparison:					NOTES:
						Site		Topsoil Quality							Subsoil Quality									
***	Step - out	Slope	Evidence of Soil Disturbance:	Topsoil Depth (cm)	Topsoil Depth	Contour		Surface Stoniness	Coarse Fragment Content	Color	Texture	Consistence	Structure	Rooting Restrictions	Texture	Consistence	Structure	Rooting Restrictions	Topsoil Depth	Site Rating	Topsoil Quality	Subsoil Quality	Overall Pass (P) / Fail (F)	
				cm		Meso-	Micro-																	
ONSITE																			S C	S C	S C	S C		
ONSITE 1	Value:				32	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	SCL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 2	Value:				33	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Upper	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	SCL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 3	Value:				27	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	CL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 4	Value:				28	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	CL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 5	Value:				31	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	SCL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 6	Value:				31	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Lower	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	SCL (C2)	Firm (1-SM)	---------- --	None (1)						
ONSITE 7	Value:				22	2	1	1	1	1	1	1	1		1	2	1		1	2 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Lower	Yes		>LCM (2)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	SCL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 8	Value:				28	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Lower	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	CL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						
ONSITE 9	Value:				34	1	1	1	1	1	1	1	1		1	2	1		1	1 2 P	2 2 P	6 9 P	4 5 P	P	No structure assessment for topsoil or subsoil required due to rating category of 1 for Topsoil Consistence and Subsoil Consistence
	Obs.	No	Mid	Yes		>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	L (1)	Sli. Hard (1-TD)	---------- ----------	None (1)	CL (C2)	Sli. Hard (1-SD)	---------- --	None (1)						

ACCESS ROAD ASSESSMENT	Operator	ERCB Unique Well Identifier(s)	Disposition #
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	Green Area
Type	Private Land

Soil Information	
Soil Order	Chernozemic
Soil Great Group	Black Chernozem
Soil Series	TWEEDSMUIR

Soil Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	
Assessment Approach	Whole Site

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam. Date	Spring 2008

Site Point						Soil Measure.		Soil Ratings														Overall Rating Comparison:														NOTES:
***		Step - out	Slope	Evidence of Soil Disturbance:		Topsoil Depth (cm)		Topsoil Depth	Site		Topsoil Quality								Subsoil Quality				Topsoil Depth			Site Rating			Topsoil Quality			Subsoil Quality			Overall Pass (P) / Fail (F)	
									Contour		Surface Stoniness	Coarse Fragment Content	Color	Texture	Consistence	Structure	Rooting Restrictions	Texture	Consistence	Structure	Rooting Restrictions	S	C		S	C		S	C		S	C			
						cm	%		Meso-	Micro-																										
ONSITE 1	Value:				32	91.43	1	2	1	1	1	1	1	2	2	1	1	2	1		1	1	1	P	3	3	P	9	9	P	4	4	P	P	
	Obs.	No	Lower	No			>85% (1)	Oc. Pond. (2)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2 TM)	f. gr. (T1)	None (1)	CL (C2)	Loose (1-SM)	---------- ---------- ----	None (1)															Soils are saturated due to being located within a slough
OFFSITE 1	Value:				35	100	1	2	1	1	1	1	2	2	1	1	2	1		1															
	Obs.	No	Lower	No			>85% (1)	Oc. Pond. (2)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2 TM)	f. gr. (T1)	None (1)	CL (C2)	Loose (1-SM)	---------- ---------- ----	None (1)															Soils are saturated due to being located within a slough
ONSITE 2	Value:				28	96.55	1	1	1	2	1	1	2	2	1	1	2	1		1	1	1	P	2	2	P	10	9	P	4	4	P	P	
	Obs.	No	Upper	No			>85% (1)	No Pond. (1)	<5 cm (1)	Num. (2)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2 TM)	f. gr. (T1)	None (1)	CL (C2)	Loose (1-SM)	---------- ---------- ----	None (1)															Sample point adjacent to the approach which landowner and county have signed a release for
OFFSITE 2	Value:				29	100	1	1	1	1	1	1	2	2	1	1	2	1		1															
	Obs.	No	Upper	No			>85% (1)	No Pond. (1)	<5 cm (1)	None (1)	<3% Vol. (1)	Black (1)	CL (C2)	Loose (2 TM)	f. gr. (T1)	None (1)	CL (C2)	Loose (1-SM)	---------- ---------- ----	None (1)															

Appendix D

Vegetation Assessment

OFFSITE ASSESSMENT

Operator	ERCB Unique Well Identifier(s)	Disposition #
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	White Area
Type	Private Land

Vegetation Information	
Natural Region	PK - Parkland Natural Region
Natural Sub-region	PK - Central Parkland
Ecosite	Red Deer

Vegetation Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	**N/A**
Assessment Approach	Whole Site
Was area disturbed?	Yes

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam Compl.	Spring 2008

Site Point			Plant Measurements									Rating Categories											Rating Comparison:			
			% COVER (SR - GR - SL - SPECIES)									Crop Measurement Ratings				Growth Stage, Health, and Productivity Ratings				Weed Ratings						
***	Step - out	Slope	1 CP - 03 - 00 - PHLEPRA	2 CP - 03 - 00 - TRIFPRA	3 CP - 03 - 00 - TRIFREP	4 CP - 03 - 00 - DACTGLO	5 CP - 03 - 00 - FESTRUB	6 CP - 03 - 00 - BROMINE	7 CP - 03 - 00 - MEDISAT	Total Cover (%)	Plant Density Tame Pasture: 1 x 0.5 m2 area (#/m2)	Litter Quantity (lbs/ac)	%-Cover	Plant Density	Litter Quality	Litter Quantity	Seeding Distribution	Plant Health	Head Health	Seed Development	Prohibited Noxious	Noxious	Problem / Volunteer	Crop Measurements	Crop Growth Stage Observations	Weed Rating	Overall: Pass (P) / Fail (F)
OFFSITE																							C C	C C	C C	
No. of Assessment Points:										9		9	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00				
Average Value										96		30	477	1.11	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	2.00				
% of Offsite Average										100%		100%	100%															
Maximum Value										100		36	650	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	5		4		5		
85% of Offsite Average										81		26	405															
Minimum Value (LCM)										80		24	390	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00				
80% of LCM										64		19	312															
Standard Deviation										7.3		3.7	130.0															
Standard Error										2.4		1.3	43.3															
No. of Points with Rating of: 1														8	9	9	9	9	9	9	9	9	3	0				
No. of Points with Rating of: 2														1	0	0	0	0	0	0	0	0	6	9				
No. of Points with Rating of: 3														0	0	0	0	0	0	0	0	0	0	0				
No. of Points with Rating of: 4														0	0	0	0	0	0	0	0	0	0	0				
Allowable Rating Drop:																												
Maximum Rating - Offsite																												
Maximum Rating - Onsite																												
Rating Difference																												
Pass / Fail																												
Average Rating Critical Value:																												
Offsite vs. Onsite:																												
Pass / Fail																												

OFFSITE ASSESSMENT	Operator	ERCB Unique Well Identifier(s)	Disposition #	VERSION	VERSION #3.1
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A	CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	White Area
Type	Private Land

Vegetation Information	
Natural Region	PK - Parkland Natural Region
Natural Sub-region	PK - Central Parkland
Ecosite	Red Deer

Vegetation Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site
Was area disturbed?	Yes

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam Compl.	Spring 2008

Site Point			Plant Measurements										Rating Categories											Rating Comparison:			
			% COVER (SR - GR - SL - SPECIES)								Plant Density																
			1	2	3	4	5	6	7				Crop Measurement Ratings				Growth Stage, Health, and Productivity Ratings				Weed Ratings						
***	Step - out	Slope	CP - 03 - 00 - PHLEPRA	CP - 03 - 00 - TRIFPRA	CP - 03 - 00 - TRIFREP	CP - 03 - 00 - DACTGLO	CP - 03 - 00 - FESTRUB	CP - 03 - 00 - BROMINE	CP - 03 - 00 - MEDISAT	Total Cover (%)	Tame Pasture: 1 x 0.5 m2 area (#/m2)	Litter Quantity (lbs/ac)	%-Cover	Plant Density	Litter Quality	Litter Quantity	Seeding Distribution	Plant Health	Head Health	Seed Development	Prohibited Noxious	Noxious	Problem / Volunteer	Crop Measurements	Crop Growth Stage Observations	Weed Rating	Overall: Pass (P) / Fail (F)
OFFSITE																								C C	C C	C C	
OFFSITE 1	Value:		10	25	15		40	10		100		24	390	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
OFFSITE 2	Value:		10	20	10		20	40		100		31	390	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
OFFSITE 3	Value:		5	20	40		15	20		100		33	390	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
OFFSITE 4	Value:		15	20	40		10	15		100		31	390	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
OFFSITE 5	Value:		10	10	10	10	10	10	20	80		31	390	2	1	1	1	1	1	1	1	1	1	2	5 5 P	4 4 P	4 5 P	P
	Obs.	No	Mid											>LCM (2)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
OFFSITE 6	Value:		40	20	20	5	5			90		26	390	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
OFFSITE 7	Value:		20	10	20	10	20	15	5	100		28	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
OFFSITE 8	Value:		20	20	20	10	10	10		90		33	650	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
OFFSITE 9	Value:		10	20	20	20	10	20		100		36	650	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Upper											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				

ONSITE	Operator	ERCB Unique Well Identifier(s)	Disposition #	VERSION	VERSION #3.1
	Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A	CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	White Area
Type	Private Land

Vegetation Information	
Natural Region	PK - Parkland Natural Region
Natural Sub-region	PK - Central Parkland
Ecosite	Red Deer

Vegetation Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site
Was area disturbed?	Yes

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam Compl.	Spring 2008

Site Point			Plant Measurements									Rating Categories											Rating Comparison:			
			% COVER (SR - GR - SL - SPECIES)																							
			1	2	3	4	5	6	7			Crop Measurement Ratings				Growth Stage, Health, and Productivity Ratings				Weed Ratings						
***	Step - out	Slope	CP - 03 - 00 - PHLEPRA	CP - 03 - 00 - TRIPRA	CP - 03 - 00 - TRIREP	CP - 03 - 00 - DACTGLO	CP - 03 - 00 - FESTRUB	CP - 03 - 00 - BROMINE	CP - 03 - 00 - MEDISAT	Total Cover (%)	Plant Density: Tame Pasture: 1 x 0.5 m2 area (#/m2)	Litter Quantity (lbs/ac)	%-Cover	Plant Density	Litter Quality	Litter Quantity	Seeding Distribution	Plant Health	Head Health	Seed Development	Prohibited Noxious	Noxious	Problem / Volunteer	Crop Measurements	Crop Growth Stage Observations	Weed Rating	Overall: Pass (P) / Fail (F)
ONSITE																							S C	S C	S C	
No. of Assessment Points:										9	9	9	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00				
Average Value										99	28	563	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.22	2.00				
% of Offsite Average										104%	93%	118%															
Maximum Value										115	34	650	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2	5	4	
Minimum Value										90	23	390	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00				
Standard Deviation										6.8	3.9	130.0															
Standard Error										2.3	1.3	43.3															
No. of Points with Rating of: 1													9	9	9	9	9	9	9	9	9	7	0				
No. of Points with Rating of: 2													0	0	0	0	0	0	0	0	0	2	9				
No. of Points with Rating of: 3													0	0	0	0	0	0	0	0	0	0	0				
No. of Points with Rating of: 4													0	0	0	0	0	0	0	0	0	0	0				
Allowable Rating Drop:													2	2	2	2	2	2	2	2	2	2	2				
Maximum Rating - Offsite													2	1	1	1	1	1	1	1	1	2	2				
Maximum Rating - Onsite													1	1	1	1	1	1	1	1	1	2	2				
Rating Difference													-1	0	0	0	0	0	0	0	0	0	0				
Pass / Fail													P	P	P	P	P	P	P	P	P	P	P				
Average Rating Critical Value:										15%	85%	85%	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30		0.00	0.30				
Offsite vs. Onsite:										104%	93%	118%	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-0.45	0.00				
Pass / Fail										P	P	P	P	P	P	P	P	P	P	P	P	P	P				

ONSITE

Operator	ERCB Unique Well Identifier(s)	Disposition #
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	White Area
Type	Private Land

Vegetation Information	
Natural Region	PK - Parkland Natural Region
Natural Sub-region	PK - Central Parkland
Ecosite	Red Deer

Vegetation Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site
Was area disturbed?	Yes

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam Compl.	Spring 2008

Site Point				Plant Measurements										Rating Categories											Rating Comparison:			
				% COVER (SR - GR - SL - SPECIES)								Plant Density		Crop Measurement Ratings				Growth Stage, Health, and Productivity Ratings				Weed Ratings						
***	Step - out	Slope		1 CP - 03 - 00 - PHLEPRA	2 CP - 03 - 00 - TRIFPRA	3 CP - 03 - 00 - TRIFREP	4 CP - 03 - 00 - DACTGLO	5 CP - 03 - 00 - FESTRUB	6 CP - 03 - 00 - BROMINE	7 CP - 03 - 00 - MEDISAT	Total Cover (%)	Tame Pasture: 1 x 0.5 m2 area (#/m2)	Litter Quantity (lbs/ac)	%-Cover	Plant Density	Litter Quality	Litter Quantity	Seeding Distribution	Plant Health	Head Health	Seed Development	Prohibited Noxious	Noxious	Problem / Volunteer	Crop Measurements	Crop Growth Stage Observations	Weed Rating	Overall: Pass (P) / Fail (F)
ONSITE																								S C	S C	S C	
ONSITE 1	Value:			20	25	25	20	10			100	25	390	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
ONSITE 2	Value:			35	15	15	15	25	10		115	27	650	1	1	1	1	1	1	1	1	1	2	2	4 5 P	4 4 P	5 5 P	P
	Obs.	No	Upper											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	Few plants (2)	Few plants (2)				
ONSITE 3	Value:			10	25	25	20	10	5	5	100	24	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 4	Value:			30	10	20	25	10	5		100	23	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 5	Value:			40	5	20	10	10	10		95	28	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 6	Value:			10	30	10	10	30			90	31	390	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 7	Value:			20	10	20		15	20	10	95	34	390	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 8	Value:			20	20	20	10	10	20		100	32	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Lower											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				
ONSITE 9	Value:			10	20	30	30	5		5	100	31	650	1	1	1	1	1	1	1	1	1	1	2	4 5 P	4 4 P	4 5 P	P
	Obs.	No	Mid											>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	Few plants (2)				

ACCESS ROAD ASSESSMENT

Operator	ERCB Unique Well Identifier(s)	Disposition #
Vesta Energy Ltd.	100/13-14-041-28 W4/00	N/A

VERSION	VERSION #3.1
CRITERIA	Cultivated Lands

Provincial Land Classification	
Area	White Area
Type	Private Land

Vegetation Information	
Natural Region	PK - Parkland Natural Region
Natural Sub-region	PK - Central Parkland
Ecosite	Red Deer

Vegetation Assessment	
Assessor Name(s)	Date (mm/dd/yr)
Kim Stevenson, Dipl. & Evan Johnston, B.Sc.	07/03/14

Facility / Area Assessed	Drilled and Abandoned (D&A) Wellsite
If other, describe	N/A
Assessment Approach	Whole Site
Was area disturbed?	Yes

UTM Coordinates (NAD83)	
Northing	5824536
Easting	300796

Activity	Description
Construction	Full Disturbance
Reclamation	Full Disturbance
Revegetation	Cultivated: Perennial Crop

Activity Dates	Date (mm/dd/yr)
Construction	07/29/05
Revegetation	Spring 2008
Aband. / Reclam Compl.	Spring 2008

Site Point			Plant Measurements										Rating Categories											Rating Comparison:								
			% COVER (SR - GR - SL - SPECIES)												Crop Measurement Ratings				Growth Stage, Health, and Productivity Ratings				Weed Ratings										
***	Step - out	Slope	1 CP - 02 - 03 - JUNCSPP	2 CP - 04 - 04 - CARESPP	3 CP - 03 - 00 - DACTGLO	4 CP - 03 - 00 - BROMINE	5	6	7	Total Cover (%)	Plant Density Tame Pasture: 1 x 0.5 m2 area (#/m2)	Litter Quantity (lbs/ac)	% Cover	Plant Density	Litter Quality	Litter Production	Seeding Distribution	Plant Health	Head Health	Seed Development	Prohibited Noxious	Noxious	Problem / Volunteer	Crop Measurements			Crop Growth Stage Observations			Weed Rating			Overall: Pass (P) / Fail (F)
																								S	C		S	C		S	C	
ONSITE 1 Value:			30	30	20	20				100		24	390	1	1	1	1	1	1	1	1	1	1	4	4	P	4	4	P	3	3	P	P
ONSITE 1 Obs.	Yes / No*	Lower												>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	None (1)										
OFFSITE 1 Value:			25	30	25	20				100		27	390	1	1	1	1	1	1	1	1	1	1	1										
OFFSITE 1 Obs.	Yes / No*	Lower												>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	None (1)										
ONSITE 2 Value:			30	30	20	20				100		26	390	1	1	1	1	1	1	1	1	1	1	1	4	4	P	4	4	P	3	3	P	P
ONSITE 2 Obs.	Yes / No*	Upper												>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	None (1)										
OFFSITE 2 Value:			30	30	15	25				100		28	390	1	1	1	1	1	1	1	1	1	1	1										
OFFSITE 2 Obs.	Yes / No*	Upper												>85% (1)	>85% (1)	Class 1 (1)	Dist. >15% (1)	Unif. (1)	No Stress (1)	100% Full (1)	All Devel. (1)	None (1)	None (1)	None (1)										

Appendix E

Site Photographs

Cultivated Lands	PHOTOS	Version:	VERSION #3.1

PHOTO:	The lease from well centre facing north.
1	

PHOTO:	The lease from well centre facing east.
2	

Client:	Vesta Energy Ltd.	Date:	3-Jul-14

Prepared by:	Kim Stevenson, Dipl. and Evan Johnston, B.Sc.
	Ridgeline Canada Inc.

Ridgeline CANADA INC.

PHOTO:	The lease from well centre facing south.
3	

PHOTO:	The lease from well centre facing west.
4	

Client:	Vesta Energy Ltd.	Date:	3-Jul-14

Prepared by:	Kim Stevenson, Dipl. and Evan Johnston, B.Sc.
	Ridgeline Canada Inc.

Ridgeline CANADA INC.

PHOTO:	Soil profile at on-site assessment point S4.
5	

PHOTO:	Soil profile at on-site assessment point S7.
6	

Client:	Vesta Energy Ltd.	Date:	3-Jul-14

Prepared by:	Kim Stevenson, Dipl. and Evan Johnston, B.Sc.
	Ridgeline Canada Inc.

PHOTO:	Soil profile at off-site assessment point C3.
7	

PHOTO:	Soil profile at off-site assessment point C7.
8	

Client:	Vesta Energy Ltd.	Date:	3-Jul-14

Prepared by:	Kim Stevenson, Dipl. and Evan Johnston, B.Sc.
	Ridgeline Canada Inc.

Ridgeline CANADA INC.

PHOTO:	View of the 2.5 m by 2.5 m patch of stink weed in the northwest corner.
9	

PHOTO:	View of the slough running through the access road facing east (Photo taken June 10, 2014).
10	

PHOTO:	Facing east from the approach along the access road (Photo taken June 10, 2014).
11	

PHOTO:	The approach facing north from the approach toward the access road associated with another facility that was under construction at the time of the assessment.
12	

Ridgeline CANADA INC.

Appendix F

References, Limitations and Closure

REFERENCES

Abacus Datagraphics. July, 2014. *http://www.abacusdatagraphics.com.*

Government of Alberta (GoA). 2013. *2010 Reclamation Criteria for Wellsites and Associated Facilities for Cultivated Lands. July 2013.*

Alberta Energy Regulator (AER). 2014. *Assessment Tool and Record of Observation for Cultivated Lands. Version 3.1. April 2014.*

Ridgeline Canada Inc. (Ridgeline). 2013. *Standard Operating Procedures*. Calgary, Alberta.

Ridgeline. 2014. *Health, Safety and Environment Manual. Current COR No. 20120409-4501. Valid until April, 2015.*

LIMITATIONS

Ridgeline Canada Inc. confirms that it performed the assessment work as described in this report. This report is based on-site conditions and on information available to Ridgeline Canada Inc. at the time of the assessment, as described in this report. Ridgeline Canada Inc. has no obligation to update this report based on changes in conditions or new information arising after the date of the assessment. This report has been prepared for the exclusive use of Vesta Energy Ltd. Ridgeline Canada Inc. assures that it exercised reasonable due diligence in the collection of information but cannot guarantee the accuracy or validity of such information. This report is based on the assumptions set out in this report. Unless stated otherwise, Ridgeline Canada Inc. has not independently verified the accuracy of such assumptions and gives no assurance of the accuracy or validity of such assumptions. Information presented in this report was accumulated and interpreted exclusively for conducting the assessment work described in this report. Ridgeline Canada Inc. does not accept any liability for the use of this report for any purpose other than as stated.

CLOSURE

This report was prepared by Kristen Cockle, B.Sc., GIT, and reviewed by Marnie Hill, B.Sc., P.Ag. Ridgeline Canada Inc. would like to thank Vesta Energy Ltd. for the opportunity to conduct the work described in this report. Should you have any questions or require additional copies of the report, please do not hesitate to contact the undersigned.

Respectfully submitted,

RIDGELINE CANADA INC.

Kristen Cockle, B.Sc.,GIT
Hydrgeologist-In-Training

Marnie Hill, B.Sc., P.Ag.
Project Manager

Appendix G

Government of Alberta Professional Declaration

Alberta Energy Regulator

Professional Declaration for Reclamation Certificate Applications

Submit one Declaration for each report

1 This Declaration is made in conjunction with an application for a reclamation certificate (the"Application") made by

Vesta Energy Ltd. (Applicant)

for the following land(s): 100/13-14-041-28 W4/00 (insert legal description).

2 I am a practicing professional member [Registration/member number] 3639

of the Alberta Institute of Agrologists

which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years 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: Ridgeline Canada Inc.

(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: Detailed Site Assessment
VESTA MORNSIDE 13-14-41-28
100/13-14-041-28 W4/00

Date: July 15, 2014

Name: Marnie Hilll, B.Sc., P.Ag.

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: 3639

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.