



Canadian Petroleum Engineering Inc.

900, 600 6th Avenue SW
Calgary, Alberta T2P 0S5
(403) 263-0752 Fax (403) 233-0859

December 9, 2022

Pauline de Jong
Regulator
Office of the Regulator of Oil and Gas Operations
PO Box 1320
Yellowknife, NT, X1A 2L9

Re: Application for an Operations Authorization for the Abandonment of the Aurora College Training Well G-04

Dear Ms. De Jong:

Operations (OROGO) to complete an application for an Operations Authorization (OA). Aurora College has retained Canadian Petroleum Engineering Inc. will be managing the Well re-abandonment on behalf of Aurora College.

This letter will address the requirements per the OROGO Application Guidelines and Interpretation Notes for Well Suspensions and Abandonments.

1) Project Objective and Scope

The surface abandonment of the well will begin at the beginning of the last week of March, 2023. All of the abandonment operation will be completed during that week.

The first step in the abandonment to occur will be moving in an E-log truck and running a cement valuation log to determine the quality of cement and casing. It is anticipated that good cement will be present in the well as all casing strings were cemented full length once run and good cement returns at surface were observed while cementing each casing string.

Following the e-logging, a pressure truck will go to the location and the production casing will be pressure tested as per OROGO's Well Suspension and Abandonment Guidelines and Interpretation Notes. This will require the casing to be pressured up to 7000 kPa and held for 10 minutes with less than 10% leak off.

Cut and Cap:

A bulldozer and an excavator will be used to excavate around the casing to a depth of about two meters below ground level to provide access for cutting off the casing strings. The conductor casing, surface casing and production casing will be cut by a certified welder. Once the casing is cut, the wellhead and cut of casing will be removed using either the excavator or a picker truck. A vented cap will then be installed, and the cellar backfilled using the material on site that was previously excavated. The vented cap is installed onto the well to prevent any pressure from building up inside the well and to restrict access to the casings.

OROGO cut and cap requirements as referred to in the Well Suspension and Abandonment Guidelines and Interpretation Notes will be adhered to.

Signage Installation:

After completing the cut and cap, the abandoned well will be marked with a durable post and signage in accordance with OROGO's Well Suspension and Abandonment Guidelines and

Interpretation Notes and as shown in the figures below. The post will be installed 1 meter directly North of the abandoned well and is typically cemented in the ground. The sign will be installed at a 45-degree angle from the post.

Backfilling the Cellar:

After the signage has been installed, the cellar will be backfilled. This will be done with the original cellar material as it will still be on location. The backfilling will likely be done with a small skid steer or by using the excavator if it is still on site.

Site Monitoring:

The site will be monitored as required to assess if any further work is needed. Gas migration testing will be conducted during the summer months of 2023 to identify if any follow-up work is required.

2) Project Schedule

As discussed above, the fieldwork is planned to start March 27, 2023, and be completed by the end of March 2023. Gas Migration testing will be conducted in late July 2023 when the ground is not frozen. The late March 2023 execution relies on all the required permits and approvals to be obtained by March 24, 2023. A more detailed schedule can be found in the package attached to this letter.

3) Well Description

Aurora College drilled the Aurora Training Well G-04 to provide a training facility in the townsite of Inuvik that would be used for training of Northwest Territories residents in safe oilfield practices. Stakeholders from Inuvik, PITS, CAPP, Aurora College and Akita Drilling were in support of the test well. Aurora College approached stakeholders in the oil and gas industry and government and received wholehearted support from all groups.

The 400 meter well was spudded on July 30, 2001 and was completed on August 4, 2001. The drilling contractor was Akita Equitak based out of Inuvik. Akita Equitak was a joint venture between the Inuvialuit Regional Corporation and Akita Drilling Ltd. The drilling rig used was Akita Rig # 15, the rig was rated to drill to 2000 meters.

The well was drilled on a site located within the town boundaries of Inuvik on Lot # 1001, Quad 107 Bn LTO 1227. The lot was leased to Aurora College for a ten (10) year period by the Municipal Corporation of the town of Inuvik for the training facility.

Akita Rig #15 was moved onto the location on 7129/01 following the setting of a 406 mm refrigerated conductor to a depth of 16 meters. The conductor casing was cemented with good mud and cement returns throughout the job with cement to surface. The diverter was nipped up and pressure tested, as was the remainder of the well control equipment.

The refrigeration unit was run continuously until the 244 mm permafrost casing was set at 155 meters. No evidence of permafrost was seen, and the mud cooler was not run for the main section of the well.

The conductor shoe was drilled out with a 311 mm bit and the 311 mm surface hole was control drilled to 155 meters at a penetration rate of 15 m/hr. The permafrost protection string made up of 11 joints of Siderco 244 mm, 71.62 kg/m, DST 80 LT, BT&C casing was run to 155 meters and cemented with 13

tonnes of permafrost cement. The casing was rotated and reciprocated during cementing and good cement returns, approximately 0.5 m³, were circulated out at surface. The plug was bumped with 3000 kPa and the pressure held. The plug was down at 0522 on 8/1/01.

The BOP's were installed and the annular preventor pressure tested to 1400 and 10,000 kPa. The pipe rams, HCR, Choke manifold, Kelly cock, stabbing valve, and kill lines were all tested to 1400 kPa and 10,000 kPa high. All equipment tested with no bleed off seen.

The float collar and shoe were drilled out on 8/1/2001. A formation leak off test was not done due to the soft formation and 18 kPa/m was used for all well control calculations. The 216 mm hole was drilled from 155 meters to 340 meters without incident. At 340' meters, the penetration rate slowed from 10 meters/hr to approximately 5 to 6 meters /hr. Bit # 2 was tripped out at 349 meters and Bit # 3 run in. Bit # 3 drilled from 349 meters to 401 meters at 5.1 m/hr.

After total depth was reached at 401 meters, Schlumberger logged the open hole. One log run was made, and the following logs obtained from 401 m to 155 m: Temperature Log, Platform Express Array, Induction - SP, Platform Express Compensated Neutron- LithoDensity, and a caliper-cement volume log.

Following the log run, a wiper trip was made in preparation for running casing. Thirty (30) Joints of Siderco 178 mm, 47.62 kg/m, DST - 80 LT, BT&C casing was run to 397.5 meters. The casing was rotated and reciprocated while cementing and was cemented with 9 tonnes of permafrost cement with good cement returns to surface. The plug was bumped with 5000 kPa at 0930 on 8/4/01.

The rig was released at 1200 hours on 8/4/01 for use as the training facility. Aurora College in conjunction with PITS conducted 4 introductory courses for floor hands and 76 personnel from the Northwest Territories successfully completed the course. Akita Rig #15 was released by Aurora College on 8/25/01 at the completion of the floor hand training courses. The well was suspended with a FMC wellhead installed on the 178 mm casing to facilitate a service rig training course. The service rig training course started 08/30/01 and was completed 09/8/01.

4) Emergency Response

Emergency response will be managed utilizing an existing upstream operations Emergency Response Plan (ERP). The well abandonment team is well acquainted with the CPE ERP and can access established resources for responding to operational emergencies. The ERP sets forth the roles and responsibilities of the personnel involved in an emergency for a specific project, and outlines site specific contact information in the Emergency Response plan, e.g., local authorities, operations contacts). A copy of the emergency response plan is included as [Appendix B](#).

Detailed plans are provided as a package attached to this letter. We trust that the information provided meets your requirements. Should you have any questions or concerns, please feel free to contact me at (403) 813-0718 or (403) 263-0752 or lhammer@cpe.ab.ca

Sincerely,

Lorne Hammer
Director, CPE
Email: lhammer@cpe.ab.ca

APPLICATION FOR AN OPERATIONS AUTHORIZATION FOR THE ABANDONMENT OF THE AURORA COLLEGE TRAINING WELL G-04

1. COMPLETED AND SIGNED OA APPLICATION FORM

Version: June 8, 2020



APPLICATION FOR AN OPERATIONS AUTHORIZATION

INSTRUCTIONS:

Send one electronic copy of this form and supporting technical documentation by email to orogo@gov.nt.ca.
If you wish to communicate with OROGO in hard copy, please do so using the courier address found at www.orogo.gov.nt.ca.

APPLICATION

(Name of Operator)

Hereby applies for authorization under Section 10 of the *Oil and Gas Operations Act* and Part 2 of the *Oil and Gas Drilling and Production Regulations* using equipment and procedures described in the application.

Changes in equipment or procedures, outside the scope of this application, require approval in order that this authorization remains valid.

LicenceType Other Operating Licence No. NWT-OL-2014-019
Region Gwich'in Field

Anticipated date of commencement: March 27, 2023 Proposed Duration 0.25 months

Scope of Work

The surface abandonment of the well will begin at the beginning of the last week of March, 2023. All of the abandonment operation will be completed during that week.

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Cut and Cap:

A bulldozer and an excavator will be used to excavate around the casing to a depth of about two meters below ground level to provide access for cutting off the casing strings. The conductor casing, surface casing and production casing will be cut by a certified welder. Once the casing is cut, the wellhead and cut of casing will be removed using either the excavator or a picker truck. A vented cap will then be installed, and the cellar backfilled using the material on site that was previously excavated. The vented cap is installed onto the well to prevent any pressure from building up inside the well and to restrict access to the casings.

2. DECLARATION FORM



DECLARATION BY APPLICANT

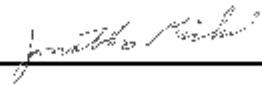
Applicant Aurora College

Title of Application Application for an Operations Authorization for the Abandonment of the Aurora College Training Well G-04

Pursuant to subsection 15(1) of the *Oil and Gas Operations Act*, the Applicant declares that in respect of the above-referenced Application:

- a) the equipment and installations that are to be used in the work or activity to be authorized are fit for the purposes for which they are to be used, the operating procedures relating to them are appropriate for those uses, and the personnel who are to be employed in connection with them are qualified and competent for their employment; and,
- b) the Applicant shall ensure, so long as the work or activity that is authorized continues, that the equipment and installations continue to be fit for the purposes for which they are used, the operating procedures continue to be appropriate for those uses, and the personnel continue to be so qualified and competent.

Dated this 7th day of December 2022 .

Signature of Responsible Officer 

Name and Title of Officer Jonathon Michel, Director

Please complete this declaration and enclose with the application to the Office of the Regulator of Oil and Gas Operations for an authorization under paragraph 10(1)(b) of the *Oil and Gas Operations Act*.

3.

CONFIRMATION OF BENEFITS PLAN APPROVAL/WAIVER

Aurora College is a vibrant northern college committed to excellence in education and research, Aurora College strives to demonstrate leadership in the delivery of relevant and meaningful education and research rooted in strong connections to Northern land, tradition, community, and people. Aurora College is a public college delivering adult and post-secondary education programs at three campuses and through a network of community learning centres. Aurora College offers a variety of programs designed to meet the labour market needs of the North while providing students with the support, skills and education required to achieve success in their chosen careers. Over the next four years, Aurora College is transforming into a polytechnic university to increase access to quality post-secondary education for NWT residents. With a presence in every NWT community there will be a place for everyone at the polytechnic university.

4. INFORMATION TO SUPPORT THE REGULATOR IN DETERMINING THE AMOUNT OF PROOF OF FINANCIAL RESPONSIBILITY REQUIRED FOR THE PROPOSED ACTIVITY

a. Worst Credible Case scenario

There are a number of small risks that could occur during the surface well abandonment operation. The most credible and likely situation would be a diesel fuel spill from one of the pieces of equipment on site. It would be limited to approximately 500 litres which would be the maximum size of a portable fuel tank mounted on a piece of construction equipment. The probability of a spill on site is very low. The spill volume of the spill is known. The consequences of the spill are minimal and mitigated by the frozen conditions which make containment and cleanup relatively easy. In the case of a 500 litre spill, the cost of cleanup (containing, clean up and loading and hauling of the impacted snow) would be approximately \$15, 000 with an additional \$10,000 for later monitoring and testing. The total cost in this scenario would not be more than \$25,000.

b. Worst Case scenario

The worst reasonable case scenario that could occur during the surface well abandonment would be similar to the worst credible case scenario described above. In this case however, the fuel spill from the portable fuel tank would cause a fire which could consume the vehicle with the fuel leak. Destruction of the vehicle would result in some melting of the snow on the location and require that a larger area be contained and cleaned up. Leakage or melting of some components of the vehicle would cause a more extensive cleanup as more soil would need to be removed and disposed of from the site. In this case, the cost of cleanup (containing, clean up and loading and hauling of the impacted snow) would be approximately \$40, 000 with an additional \$10,000 for later monitoring and testing. The total cost in this scenario would not be more than \$50,000.

5. DESCRIPTION OF SCOPE OF PROPOSED ACTIVITY

Summary of Planned Operations:

The surface abandonment of the well will begin at the beginning of the last week of March, 2023. All of the abandonment operation will be completed during that week.

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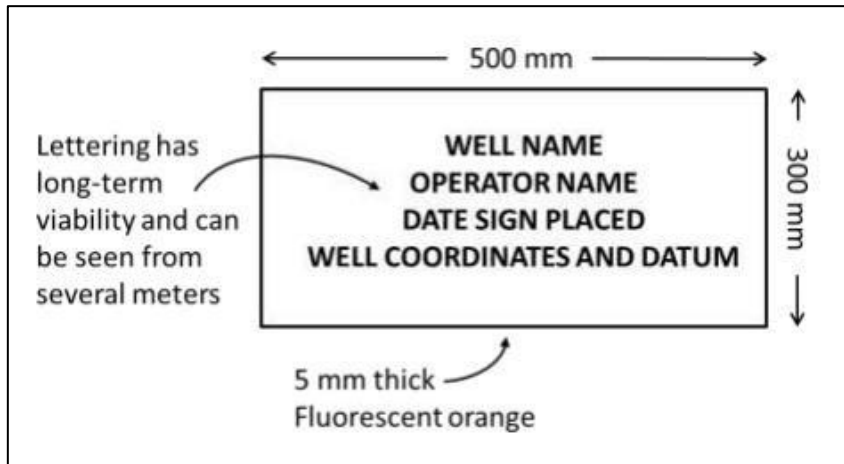
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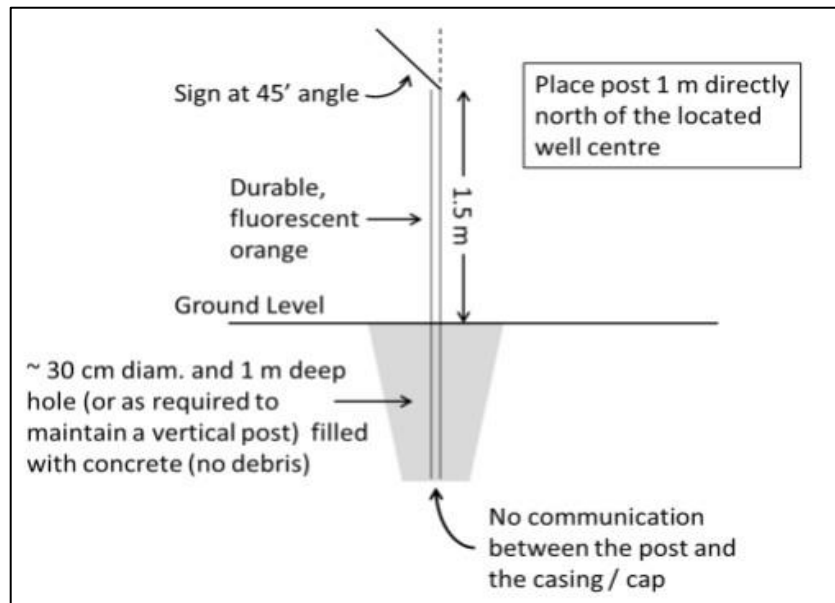
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Signage Installation:

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Sign Requirements



Post Requirements

Backfilling the Cellar:

After the signage has been installed, the cellar will be backfilled. This will be done with the original cellar material as it will still be on location. The backfilling will likely be done with a small skid steer or by using the excavator if it is still on site.

Site Monitoring:

The site will be monitored as required to assess if any further work is needed. Gas migration testing will be conducted during the summer months of 2023 to identify if any follow-up work is required.

6. EXECUTION PLAN AND SCHEDULE FOR CONDUCTING PROPOSED ACTIVITY

CANADIAN PETROLEUM ENGINEERING

AURORA TRAINING WELL G-04 ABANDONMENT PROGRAM

Date: December 7, 2022	AFE No: TBD
	AFE Amount:
Type of Program:	Routine Abandonment
Location:	Unit G-04 Grid Area 68 30 – 133 30

OBJECTIVE: SURFACE ABANDONMENT - CUT AND CAP

Aurora College drilled the Aurora Training Well G-04 to provide a training facility in the town site of Inuvik that would be used for training of Northwest Territories residents in safe oilfield practices. Stakeholders from Inuvik, PITS, CAPP, Aurora College and Akita Drilling were in support of the test well. Aurora College approached stakeholders in the oil and gas industry and government and received wholehearted support from all groups.

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Scope of Proposed Surface Abandonment Program

During the last week of March 2023, Contractor equipment will be moved onto the Aurora College Training Well G-04 location to conduct a routine surface abandonment of the well. The integrity of the existing

casing will be confirmed by running a cement evaluation log on wireline and pressure testing the casing as per OROGO's Well Suspension and Abandonment Guidelines and Interpretation Notes.

A bulldozer and an excavator will be used to excavate around the casing to a depth of about two meters below ground level to provide access for cutting off the casing strings. The conductor casing, surface casing and production casing will be cut by a certified welder. Once the casing is cut, the wellhead and cut of casing will be removed using either the excavator or a picker truck. A vented cap will then be installed, and the cellar backfilled using the material on site that was previously excavated. After completing the cut and cap operation, the abandoned well will be marked with a durable post and signage that meets the requirements of the OROGO Well Suspension and Abandonment Guidelines and Interpretation Notes. The signage will be located one meter north of the abandoned well and cemented in the ground.

Location Co-ordinates:

Latitude	68 ^o 23'25.9 N	Longitude	133 ^o 045' 42.7' N		
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Casing Design:

	Depth (m)	Size (mm)	Weight (kg/m)	Grade	Couplings
Surface	155	244.5	71.62	DST 80	BTC
Production	397.5	177.8	47.62	DST 80	BTC

Elevations:

TD	401.0 m KB	GL	20.21 m	PBTD	397.5 m KB
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Tubular Data:

	Production Casing	Work string	Tubing
Size OD (mm)	177.8	N/A	N/A
Weight (kg/m)	47.62		
Grade	DST 80		
Drift ID (mm)	151.6		
Capacity (m ³ /m)	0.0188		
Collapse (kPa)	59366		

Burst (kPa)	62469		
Joint Strength (daN)	35900		

Geological Horizons:

	<u>Subsea Depth (m)</u>	<u>Measured Depth</u>	<u>TVD. (m) (Est.)</u>
KB		25.3	
GL		20.2	
TD		401	
PBTD		397.5	
SURFACE CSG		155	
PRODUCTION		397.5	
PERFS (open)		N/A	
PERFS (abandoned)		N/A	

Note: MD & TVD are based on original KB elevation of 25.3 m.

PROGRAM

Cut and Cap Procedures

The abandonment and equipment removal procedure for Aurora College Training well G-04 is planned as follows:

1. Read and record SIP(s). Check and monitor LEL and H2S levels at wellhead and investigate for evidence of gas migration at surface. Examine surface casing vent for blow or suction. Record and report findings. If present, stop work and hold a safety meeting to review working procedures. If required, contact the Calgary office for further direction. Proceed with work only when conditions are able to be managed safely.

2. Move in e-line logging truck and rig up lubricator on top of wellhead. Pressure test lubricator with N₂. Run cement evaluation tool and log from plugged back total depth to surface. Rig out loggers.
3. Move in pressure test truck and rig into wellhead. Pressure test casing string to 7000 kPa and record all pressures. Hold pressure for 10 minutes. A successful pressure test will require that pressure declines less than 10% over the 10 minutes.
4. Move in 'B'-ticket welder, backhoe and steamer, if required. Depending on frozen ground conditions, a dozer may be required to assist in the excavation.
5. Remove all plugs and function test all wellhead valves to confirm there is no pressure built up in the wellhead or casing. Disassemble the SCV piping assembly and visually inspect that the vent is not plugged with cement or ice.
6. Review corporate ground disturbance package and policies with all on-site personnel prior to commencing excavation around the wellhead. Excavate a 6.0m x 2.5m bell hole around the wellhead ensuring that walls of the bell hole are properly sloped for safe entry and egress and to prevent sloughing in. Check and monitor LEL and H₂S levels and investigate for evidence of gas migration.
7. While exercising caution, weld cut a small hole about 30 cm below the surface casing bowl and investigate for trapped gas and fluids. Check and monitor LEL and H₂S levels. **With closed hooks and shackles, connect backhoe bucket to wellhead and pull into tension slightly more than the weight of the wellhead.**
8. Cut the conductor casing and remove as long a section as possible to expose the surface casing string.
9. Weld cut three (3) windows in the surface casing to access the innermost casing string ensuring that 50% of the circumferential metal remains to prevent possible collapse of the surface casing from the weight of the wellhead. While exercising caution, weld cut the innermost string.

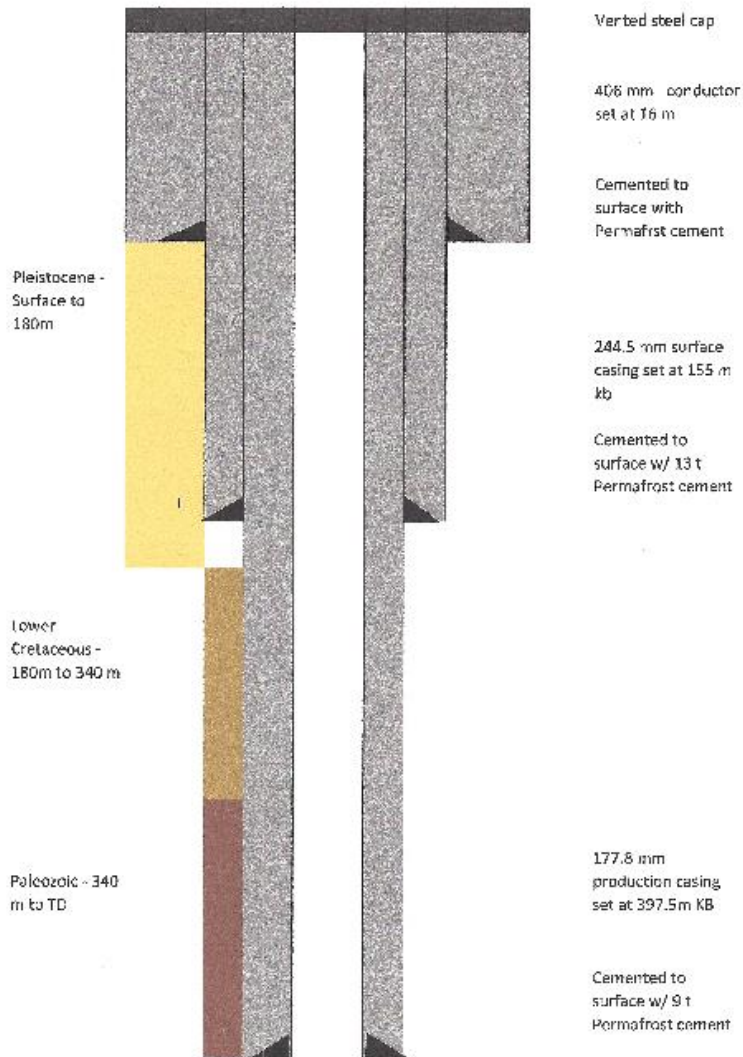
NOTE: Innermost string should not drop as it is cemented full length. Be aware that it could drop once completely cut. Do not place pry bars, hands or fingers in the windows.
10. Complete weld cut of the surface casing, lift and remove wellhead from bellhole with backhoe.
11. Cut off the casing strings so that the top of the cut and capped casings will be a minimum of 1.5 meters below the surveyed ground elevation

12. Fabricate the protective cap and slip-on collar (A wedding cake style cap is desired).
13. Dress the casing stubs. Install and seal weld a 12.7 mm steel plate “donut” and vent assembly over the surface casing and production casing annulus and install the previously fabricated steel plate and vent assembly over the inner most casing string.

NOTE: All seal welds are to be pre & post-heated to 300⁰C.

14. Install and weld the Protective Cap to the surface casing.
15. Install and weld a steel rod extension 2.5 metres long on to a plate. Weld a plate to the top of the rod at a 45 degree angle. Install the rod/plate assembly at a depth of 1 metre below ground level. The rod /plate is to be located 1 metre due north of the well center.
16. The rod/plate assembly is to extend to 1.5 metres above surface and the well location is to be weld inscribed on the steel plate. Document the cut and cap details on the Daily Report and take a digital photograph of the assembly.
17. Backfill and compact the excavation.
18. Clean up lease and rig out and release all services.

Wellbore After Cut and Cap Operation



Regulatory and Other

Well abandonment procedures and gas migration testing will comply with OROGO (NWT Office of the Oil and Gas Regulator Operations) Well Suspension and Abandonment Guidelines and Interpretation Notes and with Section 6 of the Oil and Gas Drilling and Production Regulations (OGDPR).

1. All safety practices followed by Canadian Petroleum Engineering must be adhered to while on the lease.
2. Ensure a copy of the CPE Emergency Response Plan is on lease at all times and has been reviewed by all personnel related to the supervision of the abandonment.

3. When recording shut in tubing and casing pressures at the wellhead, use either a recently calibrated test gauge or a deadweight measurement instrument.
4. Prior to moving equipment on location, take necessary steps to ensure the lease and access road are in acceptable condition.
5. Fax or email daily workover /completion reports to Lorne Hammer and Ron McCosh at (403) 233-0859, email lhammer@cpe.ab.ca

Safety

A safety meeting is to be held with all service company personnel prior to each job.

Wellsite supervisor must notify Contractors of known hazards of which Contractor(s) may be unaware. Wellsite supervisor must ensure that workers are aware of their responsibilities and duties under OH&S regulations and that the workers comply with regulations. All service companies supplying materials will review Material Safety Data Sheets at this meeting for all products supplied and maintain these Material Safety Data Sheets available for worker's examination on location in compliance with WHIMIS regulations. All safety meetings will be recorded on the CPE daily report and on the daily tour sheet.

ENGINEERING AND OPERATIONS CONTACTS

Position	Name	Telephone	Number	E-Mail
Project Manager	Lorne Hammer	Office	403-263-0752	lhammer@cpe.ab.ca
		Cellular		
Completions Superintendent	Ron McCosh	Office	403-263-0752	rmccosh@cpe.ab.ca
		Cellular		
Completions Supervisor	TBD	Cellular		
Aurora College	Jonathon Michel	Office	867-777-7878	Jmichel@auroracollege.nt.ca

EMERGENCY RESPONSE CONTACTS

Position	Name	Location	Telephone	Email
Orogo Executive Director	Ms. Pauline De Jong	Yellowknife	1(867) 767-9097	Pauline_DeJong@gov.nt.ca

Chief Safety Officer	Michael Martin	Yellowknife	1(867) 446-2235	Mike_Martin@gov.nt.ca
Inuvik Regional Hospital		Inuvik	1(867) 678-8000	
Inuvik RCMP		Inuvik	1(867)777-1111	GDIV_INUVIK_DETACHMENT@rcmp-grc.gc.ca
Inuvik Fire Department		Inuvik	1(867)777-2222	
OROGO Incident Report Line			1(867) 445-8551	
NWT Spill Reporting Line			1(867) 920-8130	
GNWT OH&S			1(867) 920-3888	

Aurora Training Well G-04 Abandonment Schedule

Activity	2022			2023				
	December	January	February	March	April	May	June	July
Submit OA Application	9							
Submit ACW Application	15							
Receive Approvals to proceed				24				
Well Abandonment Op'ns								
Cement Evaluation log				27				
Pressure test casing				27				
Excavate around wellhead				28				
Cut & Cap well				29				
Level well site				30				
Gas Migration Testing								24

Gas Migration Testing

Gas migration testing has to be conducted to ensure the safety of workers conducting the abandonment and to ensure that downhole problems do not exist with the well. Gas Migration testing can only take

place when ground is not frozen. Gas Migration testing for the Aurora College G-04 well will be conducted in late July 2023.

These procedures are based upon AER Directive 20 – Well Abandonment (Appendix 2 – Suggested Procedures for Gas migration Testing)

Testing is to be done only in frost-free months. Periods immediately after a rainfall must be avoided.

If less than full-scale readings are obtained, the soil horizon should be examined to ensure that readings are not the result of contaminated soils due to spills of diesel fuel, solvents, oil, etc. If contaminated soils are suspected, retesting is recommended.

Instrumentation should be calibrated regularly and checked daily when in use.

Sample testing points are to be selected to ensure that potential gas migration is detected.

Recommended Test Point Locations

- two within 30 cm of wellbore on opposite sides
- at 2 m intervals outward from the wellbore every 90° (a cross with the wellbore at centre) to a distance of 6 m

Recommended Equipment

- equipment capable of penetrating a minimum of 50 cm deep and a maximum of 64 millimetres (mm) in diameter
- calibrated explosion meter or other instrument capable of detecting hydrocarbon at 1 per cent lower explosive limit (LEL)
- equipment or material to seal hole at surface while soil gases are being evacuated from the soil through the instrument

Testing Procedures

- Perform instrument check (calibration, voltage, zero, etc.).
- Make a hole a minimum of 50 cm deep.
- Isolate the hole from atmospheric contaminations.
- Insert hose, wand, or other equipment a minimum of 30 cm into hole, maintaining a seal at surface to prevent atmospheric gas and soil gas mixing.
- Withdraw soil gas sample. The volume, rate, etc., will depend on the instrumentation being used. Ensure that a sufficient sample is removed to purge lines and instrumentation.

- Record observations.
- Purge instrument and lines

7. SAFETY PLAN

Introduction:

This safety plan is developed to meet the requirements of Section 8 of the Oil and Gas Drilling and Production Regulations of the Government of the Northwest Territories.

Operations Management System:

Canadian Petroleum Engineering (CPE) utilizes an Operations Management System (OMS) which defines the major sections of the OMS and our underlying principles and expectations. OMS establishes common expectations for addressing risks inherent in our operations and it is used to address all aspects that may impact personnel and process safety, security, health and environmental performance.

CPE conducts risk assessments to identify and address potential hazards using accurate information on our operations and regulatory requirements. Assessed risks are prioritized and managed as appropriate for the nature and magnitude of the risk. Decisions are clearly documented and followed up.

Managers and supervisors are expected to credibly demonstrate leadership and commitment for operations safety and all other activities.

CPE's OMS will be applied to this project. Application includes:

- Risk Assessment – a risk assessment will be prepared to ensure risks are identified and managed
- Design and Construction – detailed construction and well operations plans and programs will be developed
- Information and Documentation – execution records will be maintained and the final status of the well will be documented and filed
- Personnel and Training – training, competency, and safety of employees and subcontractors will be managed
- Operations and Maintenance – inspection and maintenance programs for equipment will be in place
- Third Party Services – suppliers that provide services to the project will be overseen to ensure they meet our operations management standards
- Incident Investigation – incidents will be reported, investigated, and lessons learned shared as appropriate
- Community Awareness and Emergency Preparedness – Community consultation will take place prior to execution as appropriate. Emergency preparedness and response plans will be in place.

Hazard Assessment:

Prior to the start of operations, pre-job hazard identification and inspections will be completed to identify any site-specific risks associated with the execution plan. As part of all work activities for this project, a Job Safety Analysis (JSA) process will be utilized at pre-job safety meetings to ensure worksite hazards are identified and controlled before the job starts.

Safety Risk Management:

General Work Management

Construction and drilling operations involve a number of personnel safety risks that must be managed and controlled. Work authorizations (e.g., work permits) will be used to manage any higher risk activities, including:

- Working at Heights
- Confined Space Entry
- Energy Isolation
- Hot Work
- Lifting and Rigging
- Excavating and Trenching

There are personnel safety risks whenever heavy equipment movement and operations take place. These risks can broadly be categorized as “Line of Fire” and will also be rigorously managed through controls such as:

- Use of pre-job meetings and pre-move meetings to review hazards and controls
- Vehicle walk-arounds and pre-use inspections
- Establishing exclusion zones around operating equipment
- Establishing no-go zones between equipment
- Use of dedicated spotters following IRP 12 for spotting heavy equipment
- Audible alarms, such as back-up alarms
- Where possible, barricaded wellhead area

CPE’s Upstream Safety Management System documents the company’s approach to managing a wide variety of safety risks in greater detail.

Well control

Loss of control of a well control resulting in a flow of hydrocarbons to surface can represent a serious risk to personnel safety and the environment. This scenario is not likely to occur on this project as the original abandoned well had no hydrocarbons present during the original drilling operation.

If a drilling or completions operation were required however, the personnel on site and equipment would be prepared to both prevent and mitigate the risk of an uncontrolled flow to surface as follows:

- Well control training of key rig personnel
- Compliance with Drilling and Blowout Prevention Requirements and Procedures, which is an industry-recognized best practice
- Blowout preventer equipment that is inspected, maintained, and regularly tested
- Regular well control drills with the crew while on location

Equipment Integrity:

The primary equipment for the proposed work activity consists of

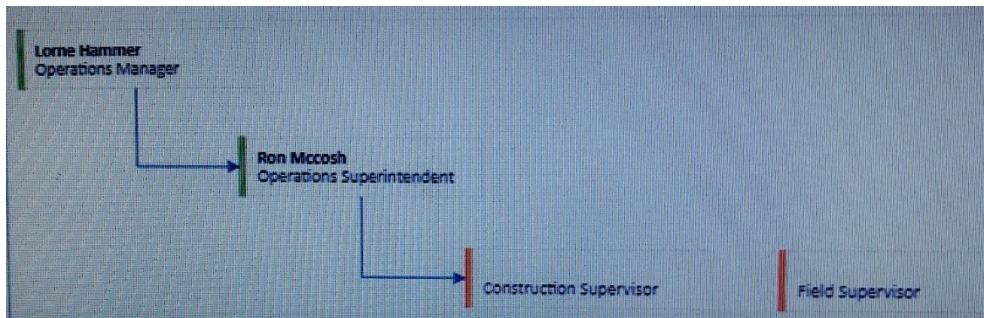
- Construction equipment, including
 - Bulldozer
 - Excavator
 - Pressure tester
 - Wireline Logging truck
 - Welder

All equipment used for this project will be inspected prior to mobilization. Special programs will be in place for the maintenance and inspection of any lifting equipment such as pickers or cranes, including lifting gear (e.g., slings and shackles) required to use said equipment. Daily pre-job inspections will be completed on heavy equipment prior to use. Safety critical equipment such as fall protection equipment

and fire extinguishers will be inspected regularly. Supervisors will contact the Inuvik hospital to ensure medical transport and EMS is available.

Organizational Structure:

All work activity will be the responsibility of CPE to manage and execute. Construction suppliers that will be needed to execute the program will be under contract with Aurora College and overseen by CPE representatives. The construction work will be managed by a construction or field supervisor who is directly accountable to the CPE Operations Superintendent who in turn reports to the Operations Manager. The responsibility for meeting the requirements of the safety plan rest with the Operations Superintendent.



Performance Management:

The various activities associated with this overall safety plan will be monitored and recorded during execution as follows:

- ✓ Work permits will be sampled and assessed for completeness
- ✓ Higher risk activities as noted above will have special forms and checklists to verify safety controls are in place for each task.
- ✓ Daily pre-use inspections for equipment will be completed and stored in appropriate daily logs
- ✓ Equipment maintenance history will be reviewed prior to mobilization to ensure it is current
- ✓ A hazard identification and behavioural observation program will be in place during operations, and the number of observations and hazards tracked as a measure of worker participation.
- ✓ Emergency response drills such as a vehicle accident, and muster drills will be recorded.

8. ENVIRONMENTAL PROTECTION PLAN

1. Introduction

Aurora College drilled the Aurora Training Well G-04 to provide a training facility in the town site of Inuvik that would be used for training of Northwest Territories residents in safe oilfield practices. Stakeholders from Inuvik, PITS, CAPP, Aurora College and Akita Drilling were in support of the test well. Aurora College approached stakeholders in the oil and gas industry and government and received wholehearted support from all groups.

The 400 meter well was spudded on July 30, 2001 and was completed on August 4, 2001

The drilling contractor was Akita Equetak based out of Inuvik. Akita Equetak was a joint venture between the Inuvialuit Regional Corporation and Akita Drilling Ltd. The drilling rig used was Akita Rig # 15, the rig was rated to drill to 2000 meters.

The well was drilled on a site located within the town boundaries of Inuvik on Lot # 1001, Quad 107 Bn LTO 1227. The lot was leased to Aurora College for a ten (10) year period by the Municipal Corporation of the town of Inuvik for the training facility.

Following several discussions between OROGO and Aurora College, Aurora College committed to submitting an Operations Authorization application by December 7th 2022 and submitting the ACW for the Aurora College G-04 well shortly thereafter. OROGO approved this commitment and OROGO gave direction for the abandonment of the well by March 31st, 2023.

This Environmental Protection Plan (EPP) is in accordance with Aurora College's and Canadian Petroleum Engineering's Environmental Standards and with Canadian Oil & Gas Drilling & Production Regulations.

1.1 Objective of the Environmental Protection Plan

This Environmental Protection plan is developed to meet the requirements of Section 9 of the Oil and Gas Drilling and Production Regulations of the Government of the Northwest Territories. This EPP is intended to outline the environmental management and protection practices currently followed by CPE. The EPP clarifies the actions and responsibilities of employees and contractors to meet the intent of CPE's Environmental Policy and manage the environmental requirements relating to this project.

This plan is to be reviewed prior to project start up.

1.2

Scope

This EPP applies to the Aurora College Training Well G-04 well and associated project activities including: construction, abandonment and post-abandonment (herein referred to as the Project).

2 CPE's Approach to Environmental Management

2.1 Operations Integrity Management System

CPE's Operations Management System (OMS) was developed in 1998 and has been subsequently reviewed and modified periodically. The OMS ensures that processes and procedures necessary to comply with the laws, regulations, and internal requirements related to Safety, Security, Health, and Environment (SSHE).

OMS is used in day-to-day work to develop common expectations that every CPE individual must fulfill to proactively manage risk. OMS is followed over the complete life cycle of a project. It provides a systematic, structured and disciplined approach to identify and manage risk, measure progress, and ensure management and personal accountability.

2.2 Environmental Management System

The purpose of the Environmental Management System is to enable CPE and its clients to conduct its operations in a manner that is compatible with the balanced environmental and economic needs of the communities in which it operates.

The Environmental Management System framework requires operations and development projects to identify how operations interact with the environment ('environmental aspects') and how that interaction is managed through measurement, stewardship, risk assessment, and risk mitigation.

Expectations related to the Environmental Management System include:

- ✓ Environmental Aspects are addressed and controlled, consistent with policy, regulatory requirements, and business plans.
- ✓ Applicable laws, regulations, permits, and other governmental requirements are anticipated and met, and the resulting operating requirements are documented and communicated to those affected. Compliance is periodically verified.
- ✓ Environmental performance, including emissions, discharges, and wastes, is tracked and stewarded to meet performance goals.
- ✓ Proper long-term shutdown or abandonment of facilities is planned and managed.

2.3 Environmental Aspects Assessment and Review

CPE also follows an Environmental Management Plan (EMP). The EMP is designed to identify environmental aspects and develop appropriate mitigations. The primary environmental aspects are air, land, vegetation, water, and wildlife. These aspects are managed through specific programs as identified through the EMP process.

The EMP is used to outline the environmental aspects, propose protective measures and assess programs or plans currently in place.

The environmental advisor and operations personnel identify the environmental aspects and conclude on appropriate mitigations on an annual basis. Aspects relevant for this project are discussed in Section 3.

3 Environmental Aspects, Protection Impact and Mitigation Measures

This section examines the physical-chemical environment that Imperial interacts with, in terms of air, climate and atmosphere, land, groundwater, soil, surface water, vegetation, and wildlife.

The following sections identify the principal interactions that Imperial has with its surrounding environment. For each environmental aspect that is listed, a brief description of what Imperial does to protect the environment is provided, including examples of recent initiatives. A summary table is given at the end of each section outlining the aspect, potential impacts of the interaction, and the protection and mitigation measures that are used to manage that interaction.

3.1 Air, Climate and Atmosphere

Environmental aspects related to air, climate and atmosphere are outlined in Table A.

Table A: Air and Atmosphere – Environmental Aspects, Potential Impact, Protection and Mitigation.

Environment	Potential Impact	Protection and Mitigation
Air, Climate and Atmosphere Aspects: Combustion Products from Equipment Engine Operations (Diesel and Gasoline)	Greenhouse gas emissions	<ul style="list-style-type: none"> · Optimize use of combustion equipment on-site.
Noise & Illumination Aspects: Noise and light from operations.	Wildlife and community disturbance	<ul style="list-style-type: none"> · Ensure good functioning order and proper maintenance of any machine. · Consider substitution of noisier machines with quieter when practical. · Consider installation of vibration damping materials to isolate equipment vibration. · When practical, limit traffic to hours where impact is minimal. · look for excessive light from light sources to outside of the lease. · Participate in public consultation prior to commencing work to identify sensitive areas and schedules.

3.2 Land and Vegetation

Environmental aspects relating to land are outlined in Table B.

Land and water management practices are stringently followed by CPE. CPE works to ensure protection of the land and water from design and construction to operation and ultimately, through to closure and site reclamation.

Traditional knowledge from elders and community members and other stakeholders is important. Traditional knowledge provides CPE with information about local fish and wildlife habitats and cultural sites on or near proposed operations.

Table B: Land Environmental Aspects, Protection and Mitigation.

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
Land Use, Footprint Aspects: Tree and bush clearing, construction, erosion control and reclamation.	Land, vegetation, and/or habitat disturbance	<ul style="list-style-type: none"> · No clearing during bird nesting season to avoid incubating eggs and nesting birds. · Clear only the area that is required and utilize flagging of site to ensure clearing of planned areas. · Share road access where possible. · Non salvageable material resulting from clearing will be stored for use as rollback and reclamation material.
Water Use Aspects: Water diversion and water use	Impacts to watercourses or fish/fish habitat	<ul style="list-style-type: none"> · Follow all requirements of issued licences for water diversion (location, flowrates and volume). · Follow DFO Code of Practice requirements for small intakes as approved during project review.

3.3 Groundwater and Soil

Spill prevention, reduction and effective clean-up are a priority for CPE. Spills can result from uncontrolled releases of crude oil, produced water and chemicals. Uncontrolled releases have the potential to affect land, surface water, and groundwater. CPE's policy is to manage all operations to prevent incidents. Preventative measures include spill awareness through training, learning from past incidents, upgrading key equipment, preventative maintenance, and carrying out both announced and random inspections.

Environmental aspects relating to groundwater and soil are outlined in Table C.

Table C: Groundwater and Soil – Environmental Aspects, Protection and Mitigation

Environmental Impact	Potential Impact	Protection and Mitigation Measures
Groundwater and Soil	Soil or groundwater impacts · Wildlife and vegetation impacts	Equipment is inspected to ensure there are no signs of spills or leaks and maintained in good operating condition · Have spill kit on site
Aspects Spills / leaks from equipment or operations		<ul style="list-style-type: none"> · Place spill trays where appropriate · operation is planned to take place during frozen conditions · Respond immediately to any releases · All spills, regardless of volume, will be documented and reported as appropriate

**3.4
Wildlife**

Minimal wildlife interaction or sightings are anticipated as the well location is within Inuvik’s developed industrial area. Nevertheless, any and all wildlife sightings or encounters will be documented.

Environmental aspects relating to wildlife are presented in Table D.

Table D: Wildlife - Environmental Aspects, Protection and Mitigation

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
<p>Wildlife</p> <p>Aspects: Potential for interaction with wildlife</p>	<p>Wildlife disturbance, interaction</p>	<ul style="list-style-type: none"> ∨ No clearing on sites during bird nesting season. ∨ Wildlife awareness and work place housekeeping is covered in site-specific orientation package. ∨ activities in the area are limited to ensure protection of wildlife. ∨ Keep distance from wildlife and adhere to speed limits. ∨ Identify potential wildlife interactions that may occur prior to starting job and document on Job Safety Analysis. ∨ Have appropriate mitigation measures in place prior to starting job. ∨ Report wildlife strikes and sightings to Environment and Regulatory Advisor. ∨ Follow speed limits when traveling on roads

**4.
Waste**

CPE will manage any waste generated from this project in accordance with the Government of Northwest Territories “Guideline for Hazardous Waste Management” and other guidance documents as required. Environmental Aspects relating to waste are present in Table E. CPE will incorporate waste elimination and waste minimization measures into the project design. CPE will ensure that waste is:

- ∨ characterized and classified properly.
- ∨ handled and stored in a manner that is protective of the environment.
- ∨ manifested (if required) accurately and completely.
- ∨ managed at facilities having the capabilities and approvals to do so.

Table E: Waste - Environmental Aspects, Protection and Mitigation

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
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<p>Waste</p> <p>Aspects: Improper disposal or segregation causing contamination or higher disposal costs.</p>	<ul style="list-style-type: none"> · Improper storage causing release and environmental impacts. · Incorrect segregation increases costs and reduces recycling. · Sending waste to an unapproved waste receiver 	<ul style="list-style-type: none"> · Store waste on-site in appropriate containers · Ensure segregation of wastes based on treatment / recycle / disposal method · Use only approved waste disposal facilities and transfer stations · Waste receiver use tracked and stewarded (manifests)
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9. INFORMATION OF PROPOSED FLARING AND VENTING OR BURNING OF OIL OR GAS

There is very little likelihood of any flaring or burning of gas or oil will be required during the routine surface abandonment of the Aurora College Training Well G-04. All indications during drilling were that no hydrocarbons of any type were present in the well.

The well was spudded in Pleistocene mudstone and shaley sediments. Lower Cretaceous age sediments were encountered at 180 m MD. The Lower Cretaceous is primarily shale with minor sandstone sediments. At 340 meters, Paleozoic shales were found with some sandstone and carbonate inclusions.

The Akita Rig 15 Pason gas detection system was used on this well to monitor background and drilled gas concentrations. Background gas varied from 0 to 1.0% over the drilling of the well.

No significant gas shows were encountered during the drilling of the well to TD of 401 meters KB. Neither trip gas nor connection gas was recorded while drilling.

10. CONTINGENCY PLAN (EMERGENCY RESPONSE PLAN)

1 Introduction

Aurora College drilled the Aurora Training Well G-04 to provide a training facility in the town site of Inuvik that would be used for training of Northwest Territories residents in safe oilfield practices. Stakeholders from Inuvik, PITS, CAPP, Aurora College and Akita Drilling were in support of the test well. Aurora College approached stakeholders in the oil and gas industry and government and received wholehearted support from all groups.

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The drilling contractor was Akita Equitak based out of Inuvik. Akita Equitak was a joint venture between the Inuvialuit Regional Corporation and Akita Drilling Ltd. The drilling rig used was Akita Rig # 15, the rig was rated to drill to 2000 meters.

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This plan is to be reviewed prior to project start up.

1.2 Scope

This EPP applies to the Aurora College Training Well G-04 well and associated project activities including: construction, abandonment and post-abandonment (herein referred to as the Project).

2 CPE's Approach to Environmental Management

2.1 Operations Integrity Management System

CPE's Operations Management System (OMS) was developed in 1998 and has been subsequently reviewed and modified periodically. The OMS ensures that processes and procedures necessary to comply with the laws, regulations, and internal requirements related to Safety, Security, Health, and Environment (SSHE).

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<p>Noise & Illumination</p> <p>Aspects: Noise and light from operations.</p>	Wildlife and community disturbance	<ul style="list-style-type: none"> · Ensure good functioning order and proper maintenance of any machine. · Consider substitution of noisier machines with quieter when practical. · Consider installation of vibration damping materials to isolate equipment vibration. · When practical, limit traffic to hours where impact is minimal. · look for excessive light from light sources to outside of the lease. · Participate in public consultation prior to commencing work to identify sensitive areas and schedules.

3.2 Land and Vegetation

Environmental aspects relating to land are outlined in Table B.

Land and water management practices are stringently followed by CPE. CPE works to ensure protection of the land and water from design and construction to operation and ultimately, through to closure and site reclamation.

Traditional knowledge from elders and community members and other stakeholders is important. Traditional knowledge provides CPE with information about local fish and wildlife habitats and cultural sites on or near proposed operations.

Table B: Land Environmental Aspects, Protection and Mitigation.

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
Land Use, Footprint Aspects: Tree and bush clearing, construction, erosion control and reclamation.	Land, vegetation, and/or habitat disturbance	<ul style="list-style-type: none"> ✓ No clearing during bird nesting season to avoid incubating eggs and nesting birds. ✓ Clear only the area that is required and utilize flagging of site to ensure clearing of planned areas. ✓ Share road access where possible. ✓ Non salvageable material resulting from clearing will be stored for use as rollback and reclamation material.
Water Use Aspects: Water diversion and water use	Impacts to watercourses or fish/fish habitat	<ul style="list-style-type: none"> ✓ Follow all requirements of issued licences for water diversion (location, flowrates and volume). ✓ Follow DFO Code of Practice requirements for small intakes as approved during project review.

3.3 Groundwater and Soil

Spill prevention, reduction and effective clean-up are a priority for CPE. Spills can result from uncontrolled releases of crude oil, produced water and chemicals. Uncontrolled releases have the potential to affect land, surface water, and groundwater. CPE's policy is to manage all operations to prevent incidents. Preventative measures include spill awareness through training, learning from past incidents, upgrading key equipment, preventative maintenance, and carrying out both announced and random inspections.

Environmental aspects relating to groundwater and soil are outlined in Table C.

Table C: Groundwater and Soil – Environmental Aspects, Protection and Mitigation

Environmental Impact	Potential Impact	Protection and Mitigation Measures
Groundwater and Soil	Soil or groundwater impacts <ul style="list-style-type: none"> ✓ Wildlife and vegetation impacts 	Equipment is inspected to ensure there are no signs of spills or leaks and maintained in good operating condition <ul style="list-style-type: none"> ✓ Have spill kit on site
Aspects Spills / leaks from equipment or operations		<ul style="list-style-type: none"> ✓ Place spill trays where appropriate ✓ operation is planned to take place during frozen conditions ✓ Respond immediately to any releases ✓ All spills, regardless of volume, will be documented and reported as appropriate

3.4 Wildlife

Minimal wildlife interaction or sightings are anticipated as the well location is within Inuvik's developed industrial area. Nevertheless, any and all wildlife sightings or encounters will be documented. Environmental aspects relating to wildlife are presented in Table D.

Table D: Wildlife - Environmental Aspects, Protection and Mitigation

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
Wildlife Aspects: Potential for interaction with wildlife	Wildlife disturbance, interaction	<ul style="list-style-type: none">∨ No clearing on sites during bird nesting season.∨ Wildlife awareness and work place housekeeping is covered in site-specific orientation package.∨ activities in the area are limited to ensure protection of wildlife.∨ Keep distance from wildlife and adhere to speed limits.∨ Identify potential wildlife interactions that may occur prior to starting job and document on Job Safety Analysis.∨ Have appropriate mitigation measures in place prior to starting job.∨ Report wildlife strikes and sightings to Environment and Regulatory Advisor.∨ Follow speed limits when traveling on roads

4. Waste

CPE will manage any waste generated from this project in accordance with the Government of Northwest Territories “Guideline for Hazardous Waste Management” and other guidance documents as required. Environmental Aspects relating to waste are present in Table E. CPE will incorporate waste elimination and waste minimization measures into the project design. CPE will ensure that waste is:

- characterized and classified properly.
- handled and stored in a manner that is protective of the environment.
- manifested (if required) accurately and completely.
- managed at facilities having the capabilities and approvals to do so.

Table E: Waste - Environmental Aspects, Protection and Mitigation

Environmental Aspect	Potential Impact	Protection and Mitigation Measures
Waste Aspects: Improper disposal or segregation causing contamination or higher disposal costs.	<ul style="list-style-type: none"> · Improper storage causing release and environmental impacts. · Incorrect segregation increases costs and reduces recycling. · Sending waste to an unapproved waste receiver 	<ul style="list-style-type: none"> · Store waste on-site in appropriate containers · Ensure segregation of wastes based on treatment / recycle / disposal method · Use only approved waste disposal facilities and transfer stations · Waste receiver use tracked and stewarded (manifests)

5. Treatment, Handling and Disposal of Waste Materials

As mentioned previously, CPE will ensure that waste is:

- characterized and classified properly;
- handled and stored in a manner that is protective of the environment;
- manifested (if required) accurately and completely; and
- managed at facilities having the capabilities and approvals to do so.

CPE will dispose of waste only at approved waste facilities. If any waste generated as a part of this program cannot be disposed of locally, this waste will be transported to Alberta or British Columbia for disposal at an approved location.

Some industrial waste is expected as a part of the well abandonment program. The following table summarizes the anticipated waste for the program as well as the estimated volumes (if available) and planned handling method.

Waste	Waste Stream	Estimated Volume (m3)	Planned Handling Method
Casing	Cut off consisting of: 406 mm conductor, 244.5 mm casing and 177.8 mm casing	10	Load on trailer, disposal off site
Wellhead	Used wellhead	2	Load on trailer, disposal off site

Water Base Fluid	Wellbore fluid and pressure test fluid	3	Store in 1 m3 totes, disposal off site
Garbage or Recyclables	Garbage, waste and recyclables	2	Collection in wildlife-proof containers as appropriate; off-site disposal/recycling
Other Waste	Empty containers/drums, rags, oiled waste, spill response materials (if used)	2	Collection in approved containers (segregate various wastes); off-site recycling/disposal

6 Water Use and Management

CPE will not apply to the Mackenzie Valley Water Board for a Type B water licence for this project. At this time, no water will be required for the abandonment project planned. It is possible that small amounts of water may be required for pressure testing however the water can be sourced from the domestic water supply in the town of Inuvik.

The following information on water use is provided to demonstrate that CPE and Aurora College follow best practices for water use when operating in northern areas.

6.1 Watercourse Crossings and Water Diversion

CPE ensures that measures are taken to avoid causing harm to fish and fish habitat as required by Fisheries and Oceans Canada (DFO). CPE maintains compliance under the *Fisheries Act* and implements responsible techniques when crossing streams and diverting water. CPE understands the two DFO codes of practice which are applicable to water diversion including:

- Interim code of practice: end-of-pipe fish protection screens for small water intakes in freshwater; and
- Interim code of practice: temporary stream crossings.

When undertaking a project, CPE identifies all watercourses and waterbodies in the area of the project work and consults the DFO Aquatic Species at Risk map identify what the fish species may be and if they may be a species of special concern.

6.2 Water Management

CPE recognizes the cumulative effects that water use can have and as a part of any project work, steps are taken at the program level to manage and track water usage. All actual usage and updates are submitted and maintained as per any issued approvals. CPE tracks both industrial and domestic water use in its programs. A table such as the following is used to identify what water quantities may be required in any project.

Activity Requiring Water	Estimated Water Use (m3)
<i>Industrial Water Use</i>	
Ice bridge	x
Ice road	x
Location	x
Drilling	x
Total Industrial Water	x
<i>Potable Water Use Estimate</i>	
Wellsite trailers	x
Camp	x
Rig boiler	x
Total Potable Water	x

7 Discharge Streams and Limits

Discharge streams for this project include:

- Waste (refer to Section 6 for estimated streams and quantities)
- Emissions
 - Gas/vapor should not occur during well abandonment activities.
 - Vehicles will also use gasoline and/or diesel. Examples of vehicle usage include: e-logging trucks (water, waste), dozer and excavator construction vehicles, and welding and miscellaneous vehicles.
 - Flaring operations will not occur during the well abandonment operation

8 Incident Management

CPE maintains an Emergency Response Plan (ERP) that establishes a structured and systematic process for responding to events or situations that pose, or could pose, a threat to the people, environment, or assets. The ERP provides guidelines and information to assist CPE in effectively responding to an emergency. The ERP is based on government laws and regulations and the Incident Command System (ICS). If required, support from other service providers and agencies will support the tactical response efforts in a tiered approach.

8.1 First Response

Once an incident occurs the severity of the situation will be immediately determined by operations. During the initial response, operations will attempt to prevent further escalation of the incident or situation.

8.1.1-Tiered Response to Incidents

Local incident management at the field level follows a tiered approach. A tiered approach provides the seamless escalation of response efforts. When an incident occurs that warrants a tactical response, incident management is initiated locally in the field by the on-site Emergency Response Team (ERT). The ERT may activate an Incident Management Team (IMT), typically from other CPE personnel or the client, to support the ERT when necessary. The IMT may activate the Emergency Support Group (ESG) to manage the strategic issues and/or support subject-matter expertise.

8.2 Notification and Reporting

Initial incident notification must be timely and include internal and (when appropriate or necessary) external notifications and communications. Incident notification requirements are based on an incident's severity. The ERP is considered an aid document for the incident notification process. CPE also refers to any reporting matrix provided by the regulator in the event that one exists.

9 Organizational Structure, Awareness and Training

All work will be the responsibility of CPE to manage and execute. Construction and service suppliers that will be needed to execute the program will be under contract with CPE and overseen by a CPE representative. The wellhead excavation and abandonment work will be managed by a field supervisor who is directly accountable to the CPE Operations Superintendent who in turn reports to the Operations Manager (see Safety Plan for organization chart). The responsibility for meeting the requirements of the environmental protection plan rest with the Operations Superintendent.

Orientation for all on-site staff will also be completed to ensure requirements are understood.

11. PROOF OF INSURANCE

Aurora College has requested Proof of Insurance for inclusion in this OA application. It will be immediately forwarded to OROGO when it is received from the Insurers.

12. PRELIMINARY SCREENING INFORMATION

The Gwitch'in Land and Water Board performed a preliminary screening report concerning the Aurora College Training Well G-04 following the requirements Sec 124.1 of The Mackenzie Valley Resource Management Act (MVRMA) and tabled their response on or about June 15, 2001.

The Gwitch'in Land and Water Board stated that:

“ In the Boards' opinion Aurora College (Aurora Campus) application for a water licence will not adversely harm the environment nor does it cause significant public concern. The amount of water used and the amount of sewage/gray water deposited is considered insignificant by the Board and does not require a licence. All known and potential impacts regarding the drill waste disposal sump can be mitigated through licence terms/conditions and compliance inspections. Set-up of a "Post-Closure Environmental Monitoring Program" on the sump will ensure the waste does not migrate off site.

13. ENGAGEMENT RECORD AND ENGAGEMENT PLAN OR SIMILAR INFORMATION

Aurora College is contacting the Town of Inuvik and the Gwitch'in Tribal Council to request time for consultations at the town council and Tribal council meetings to present the plans for the abandonment of the Aurora College G-04 Training Well. The College has not received feedback as yet on when the consultations can be conducted.

All information regarding community consultations will be presented to OROGO as it is received.

Aurora College appreciates any guidance that OROGO can provide on other consultations that would be valuable in support of its application

14. AUDITED FINANCIAL STATEMENTS OF THE MOST RECENT FISCAL YEAR END

Aurora College's Audited Financial Statement for the most recent Fiscal Year End can be found at https://www.2020-2021_AC-AnnualReport-FINAL_Feb_2122.pdf

15. QUARTERLY FINANCIAL STATEMENTS FOR THE MOST RECENT QUARTER

Aurora College does not prepare quarterly Financial Statements for distribution.

APPENDIX A – CPE HSE MANUAL

APPENDIX B – CPE EMERGENCY RESPONSE PLAN

Canadian Petroleum Engineering Inc. (CPE)

HSE Manual 2022

Prepared by

Canadian Petroleum Engineering Inc.
900, 600 6th Avenue S.W.
Calgary, Alberta, Canada T2P 0S5
Phone: (403) 263-0752
Fax: (403) 233-0859
E-Mail: cpe@cpe.ab.ca
<http://www.cpe.ab.ca>

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CPE Safety Policy

CPE is committed to promoting safety by selecting quality contractors, with proper training and equipment for the tasks to be undertaken, and always finding new ways to improve.

CPE management will ensure that all risks, which have been identified by on-site personnel, or during the course of any inspections, will be promptly and appropriately addressed.

All personnel at the worksite, at all levels, are responsible for safety. The health and safety of all workers and members of the public as well as environmental quality must be protected at all times.

CPE recognizes the three basic rights of workers outlined in the Canada Labour Code:

- The *Right to Know* about known or foreseeable workplace hazards through information, training and proper supervision.
- The *Right to Participate* in implementing health and safety policy through representation on a health and safety committee.
- The *Right to Refuse Dangerous Work* with reasonable cause and proper procedure.

CPE will operate in compliance with all local laws and regulations. These include:

- Alberta Occupational Health & Safety Regulations,
- Alberta WCB Standards,
- Canada Labour Code Part II, (RSC 1985 c. L-2)
- Canada Occupational Safety and Health Regulations (SOR/86-304)

All materials, equipment, parts, machinery, facilities, and processes used at the worksite, will meet or exceed government regulations and any other engineering standards prepared by the following institutes:

- Canadian Standards Association (CSA)
- American National Standards Institute (ANSI)
- American Petroleum Institute (API)
- Industry Minimum Standards (IMS)
- Canadian Association of Drilling Contractors (CAODC)
- Industry Recommended Practices (IRP)
- National Institute for Occupational Safety and Health (NIOSH)

Copies of all applicable regulations and codes will be available at the worksite at all times.

Contractor Safety Policy

CPE has responsibility for coordination of the industrial health and safety activities of the multiple contractors. In compliance with occupational health and safety regulations, CPE will insist on safe work performance throughout its operations, including all of the tasks carried out by contractors. CPE will ensure that:

- Prior to issuing a contract for services, CPE will review each prospective contractor's HSE policies to determine whether they meet the standards outlined in this document. The Contractor Evaluation Checklist in the Appendix of this document will be used. If the contractor's HSE work practices, equipment standards, and/or training requirements are found to be deficient, CPE will either select an alternate contractor, or will assume responsibility for ensuring that those work practices, equipment standards and training requirements are suitably upgraded before the contractor is allowed to begin work.
- Where two or more contractors operate at the same site, each contractor will be responsible for the health and safety of their respective workers, and their worker's compliance with all rules and regulations. CPE will verify that all contractors' workers have received the appropriate training and certification required for their duties.
- All contractors will be included in all relevant safety meetings. Contractors must comply with all government regulations and CPE safety standards and must ensure that their employees, and their sub-contractors, are competent and held to the same standards.
- CPE bid documents contain a section on safety so that CPE can give preference to selecting contractors with superior safety initiatives and an established history of safety.
- CPE will provide on the job leadership in safe work practices to all contractors and will ensure that all contractors are made aware of all potential hazards and safety expectations. CPE will ensure adequate safety communication with the contractors and will provide each of them with a copy of CPE's safety standards.
- CPE will regularly monitor contractor work practices in order to ensure that contractors continue to implement sound safety practices required by their own safety programs, CPE standards, and OHS regulations.
- CPE will follow-up on any noted contractor deficiencies and these will be included in the evaluation of the contractor's overall performance.

Environmental Policy and Standards

CPE is committed to protecting the environment in the vicinity of all of its operations and, in this regard, will do all of the following:

- Communicate the importance of environmental protection to all workers,
- Plan its activities to minimize land disturbance at worksites,
- Minimize energy use through efficient practices,
- Practice water conservation through proper management,
- Minimize waste through reduction, reuse, and recycling whenever possible,
- Protect water bodies from pollution through the use of careful work practices, suitable containers and effective barriers,
- Reduce air pollution and noise emissions through the use of modern well maintained equipment,
- Substitute harmful materials with less harmful ones whenever possible,
- Return the worksite to its natural state at the completion of the project,
- Meet or exceed all provincial and federal environmental standards.

CPE follows environmental protection procedures developed and/or sanctioned by the Canadian Association of Petroleum Producers. These can be accessed through:
<http://www.capp.ca/library/publications/environmentStewardship/Pages/default.aspx>

Employer Responsibilities

As Prime Contractor at the worksite, CPE has the obligation to:

- Ensure the health and safety of all personnel at the worksite,
- Ensure that all workers are aware of their rights and responsibilities under the OHS Act.

As Prime Contractor, CPE recognizes its responsibility to do all of the following:

- Understand all applicable health and safety requirements identified in applicable legislation, as well as its Client's HSE standards.
- Ensure that all workers on site are appropriately qualified and trained.
- Participate in key Safety Meetings.
- Ensure that all applicable safety requirements are being met.
- Ensure all incidents and including "close calls", are reported within 24 hours to the Client's Project Manager.
- Review all incidents and "close calls" and, develop appropriate corrective action plans.
- Implement Project Safety in accordance with:
 - The CPE policies described in this document,
 - All applicable legislation,
 - The Client's HSE standards.
- Continually monitor, trend, and analyze Project Safety Performance.
- Conduct formal site health and safety inspections and document the results.
- Promptly implement effective corrective measures whenever deficiencies have been identified.
- Lead and/or assist in incident prevention, investigations, analyses, and preparations of reports and summaries.
- Implement any newly issued Client or regulatory Safety Bulletins related to ongoing activities.
- Remain constantly vigilant for potential hazards through the Hazard Management Process.
- Maintain files of all applicable safety documentations, including incident reports, inspection reports, hazard identifications, remedial actions, etc.
- Conduct and document all Safety Meetings.
- Prepare a site-specific Emergency Response Plan and ensure that all personnel on site are familiar with it, and are aware of their responsibilities in carrying it out. The Emergency Response Plan will include provision for the evacuation of injured or ill workers to the nearest health care facility.
- Supply and maintain adequate First Aid equipment and ensure qualified First Aid coverage for all work crews.
- Ensure that adequate and redundant means of emergency communications are available to all personnel at all times.
- Implement the Emergency Response Plan if and when the need arises.
- Lead Safety Awareness by example.

HSE Responsibilities of Key Personnel

CPE Project Manager Responsibilities

As the senior CPE representative for the project, the Project Manager has the following HSE responsibilities:

- Develop and implement a comprehensive Safety Program,
- At the beginning of the project, identify all hazards that are specific to the project and ensure that these are considered during all project development decisions,
- Identify the basic environmental requirements with respect to community noise, discharges to air or water, and solid waste disposal,
- Communicate the corporate safety and environmental management philosophy, and specific targets, to the entire project team,
- Communicate the project objectives to the entire project team,
- Conduct regular work site visits,
- Conduct safety review of the completed facilities,
- Liaise with sub-contractors to ensure that they have appropriate safety programs in effect, and that all safety inspections are adequate,
- Ensure that prompt and appropriate medical attention is accessible at all times,
- Prepare a site specific emergency response plan.

Person In Charge (PIC) Responsibilities

As the senior CPE Inc. representative at the worksite, the Person In Charge (PIC) has the responsibility to:

- Keep an up to date record of all personnel on location,
- Participate in, and ensure the effectiveness of, all safety related meetings,
- Communicate safety and environmental management philosophy and specific targets to all onsite personnel,
- Identify any unusual exposures for physical loss or damage to property and personnel during drilling operations,
- Define and implement procedures for controlling and minimizing hazard losses during drilling,
- Conduct regular safety performance reviews and follow-up with necessary remedial action,
- Implement the HSE Plan outlined in this document in conjunction with the Client's HSE Plan,
- Implement the Emergency Response Plan.

CPE HSE Advisor Responsibilities

As the prime safety specialist on the project, the CPE HSE advisor will assist the PIC in all matters of safety. Specifically, he will:

- Review all contractor's safety plans,

- Liaise with contractors to ensure that appropriate safety measures are in effect and that safety inspections are adequate,
- Establish operational requirements with respect to community noise management, discharges to air or water and solid waste disposal,
- Communicate safety and environmental management philosophy and specific targets to onsite personnel,
- Conduct regular safety performance reviews and follow-up with necessary remedial actions,
- Ensure that all safety equipment is appropriate and well maintained,
- Develop and administer work permit procedures under the direction of the PIC,
- Conduct regular worksite inspections as required by the PIC.

Worker Responsibilities

Employees are responsible for knowing and following all safety procedures and reporting any existing or potential dangers or any problems associated with following established safety procedures.

Every worker is expected to participate actively in all health and safety matters and to:

- Check in and out with the PIC upon entering and leaving the location.
- Understand and follow all health and safety information provided in the orientation, safety meetings, and printed HSE materials provided,
- Refuse to carry out any work if he/she believes that doing so may be dangerous to himself/herself or to other workers,
- Take all reasonable care to protect the health and safety of himself/herself, other workers, the environment, and all equipment and facilities,
- Co-operate with his/her peers, supervisors and with CPE management for the purpose of protecting himself/herself, other workers, the environment, and company property,
- Take prompt action on site to control any existing safety risks that have been noticed,
- Point out, to the supervisor, any hazards to safety at the job site that have been noticed,
- Immediately report all injuries, accidents, “close calls”, and environmental damage to a supervisor,
- Recommend all “opportunities for improvement” to a supervisor.

Hazard Identification and Assessment

Overview

A Hazard is any situation with the potential to do injury or damage to people, property, or the environment.

A Close Call is an undesired event occurs, with no visible injury or damage, but which could have resulted in a loss had the circumstances been slightly different.

An Opportunity for Improvement refers to any change that can be implemented proactively, which reduces the likelihood of a hazardous situation developing.

Recognizing potential hazards and taking steps to control them is a major part of CPE's Safety Program. A formal hazard identification system has been developed, and implemented, and is completed through the following methods:

- Safety Meetings,
- Pre job Assessments,
- Hazard Identification & Reporting,
- Safety Inspections and Audits.

Project Kick-Off Safety Meeting

The PIC will hold a Project Kick-Off Safety Meeting with all personnel prior to the start of operations. The meeting will introduce all workers to:

- CPE safety policy and objectives,
- Worksite rules and discipline,
- Specific worksite hazards,
- Safe working procedures,
- Worker participation in safety initiatives,
- Emergency response plans, including:
 - Emergency alarms,
 - Assigned emergency duties, muster stations,
 - Evacuation procedures, etc.

Weekly Safety Meetings

The PIC will conduct a Weekly Safety Meeting within two days of the rig being occupied, and then after the completion of each Weekly Safety Inspection. The meeting agenda will include the following items:

- A review of the any safety issues arising over the previous week, including the results of any Job Safety Analyses,
- An overview of the results of the completed Safety Inspection,
- Discussions of the hazard identification process and workers' responsibility to participate,
- An opportunity to discuss any safety issues raised by workers,

- Explanation of the actions that are being taken to reduce or eliminate any identified risks,
- Identification of those personnel who will be responsible for ensuring that the risk reduction measures are implemented,
- Agreement on how the completion of the risk reduction measures will be confirmed.

All supervisory personnel will be required to attend the Weekly Safety Meeting and will be encouraged to actively participate in all agenda items. Minutes of the meeting will be recorded and kept in the PIC's files for review by CPE management and by the Client's HSE personnel.

Daily Safety Meetings

The CPE PIC will conduct a daily Project Safety Meeting with all supervisory personnel coming on shift. The meeting agenda will include:

- Updates of ongoing safety issues, including Emergency Response preparedness,
- An overview of the next tasks to be carried out,
- An opportunity for all workers to raise and discuss any safety issues,
- Identification of any risks that have been identified through Job Safety Analyses.

Pre-Job Safety Meetings

At the completion of the Daily Safety Meeting, and prior to the commencement of any new tasks, Pre-Job Safety Meetings will be held among the various work teams. These meetings will each include a Job Safety Analysis (JSA), applicable to each task, will be reviewed and signed off by all involved workers. Any involved worker arriving at the work site after a Pre-Job Safety Meeting has been held, will review the meeting minutes and sign-off on them.

Tailgate Safety Meetings

These meetings are informal reviews of safety procedures and will be held, as required, immediately prior to the commencement of hazardous tasks. Their purpose is to confirm the safe work procedures discussed in earlier Pre-Job Safety meetings and to address any outstanding issues with the work plan.

Job Safety Analyses (JSA's)

The Job Safety Analysis (JSA) is a key step of proactive risk management and is held prior to the commencement of every potentially hazardous work assignment. The analysis is conducted in a meeting of all persons who will be involved in a particular task, including the task supervisor. The work team is free to call on assistance and/or guidance from additional qualified personnel, including the HSE Advisor.

The objective of the Job Safety Analysis is to enable all involved workers to:

- Access and review any safety information associated with specific tasks,

- Identify and report any hazards associated with specific tasks,
- Estimate the likelihood and consequence of each hazard,
- Identify and recommend the options preventing or mitigating potential incidents,
- Implement recommendations for controlling and eliminating the hazards identified,
- Plan an appropriate response in the event of an emergency.

Prior to the commencement of any task, all workers assigned to the task will participate in a Job Safety Analysis, under the direction of their supervisor and/or HSE Advisor, that incorporates CPE's Job Safety Analysis (JSA) Procedures.

This is a process that ranks all identified hazards according to their respective probabilities of occurrence as well as the severity of their consequences.

CPE's criteria for severity of consequence are defined as follows:

- Catastrophic hazards could result in: death or serious injury to personnel, extensive or irreversible environmental damage, or a financial liability in excess of \$1,000,000.
- Critical hazards could result in: non-life threatening injury to personnel that may result in hospitalization, significant but reversible environmental damage, or a financial liability between \$100,000 and \$1,000,000.
- Marginal hazards could result in: injury to personnel that would not require hospitalization, readily reversible environmental damage, or financial liability between \$10,000 and \$100,000.
- Negligible hazards could not cause a lost time injury to personnel, but could cause minor and immediately reversible environmental damage, or financial liability of less than \$10,000.

CPE's criteria for probability of occurrence are defined as follows:

- Frequent hazards will occur immediately or within a very short period of exposure (80 to 100% probability of occurrence.) Example: Flying particles produced by a grinder.
- Probable hazards are likely to occur within a short interval (10 to 80% probability of occurrence.) Example: A short circuit caused by weak insulation on an electrical power cable.
- Possible hazards are not likely but have a significant probability. (1 to 10% chance of occurrence.) Example: Breakage of a tool or piece of equipment.
- Remote hazards are highly unlikely. Example: Leakage from a new sealed battery.

CPE's JSA procedures make use of the Probability of Occurrence and the Severity of Consequence of each identified hazard in order to derive a Risk Rank from 1 to 4 according to the following table.

Risk Ranking Matrix					
Probability of Occurrence	Frequent	3	2	1	1
	Probable	3	2	2	1
	Possible	4	3	2	2
	Remote	4	4	3	3
Use to evaluate all hazards for the purposes of hazard management		Negligible	Marginal	Critical	Catastrophic
		Severity of Consequence			

Risk Mitigation shall be applied to all identified hazards according to their Risk Ranking as follows:

- Risk Rank 1 hazards are completely unacceptable and will be reduced to a level of 3 or 4 before the work is allowed to proceed.
- Risk Rank 2 hazards are undesirable and will be reduced to a level of 3 or 4 before the work is allowed to proceed.
- Risk Rank 3 hazards are acceptable provided that specific risk management procedures are in place to reduce the risks to the lowest practicable level.
- Risk Rank 4 hazards are acceptable as is with little or no risk management required. In the event that a number of hazards have been identified, those which have the highest probability of occurrence, and most severe consequences, will be addressed first.

The three stages at which the identified hazards can be managed are as follows:

- Pre-contact – Risk is reduced or eliminated before the occurrence of an incident.
- Contact – The amount of loss during an incident is minimized.
- Post-Contact – Damage resulting from an incident is prevented from escalating further through isolation.

The JSA process will begin with documenting each identified hazard, along with its probability of occurrence, severity of consequence and risk rank according to the Risk Ranking Matrix above. If the Risk Rank is not acceptable, appropriate hazard management shall be applied in order to reduce the Risk Rank. The hazard shall then be re-evaluated in order to determine a new Risk Rank.

There are three main methods for managing hazards. All three are routinely practiced, but should normally be employed in the following order of decreasing preference:

- Design Based – Modify, replace, or add appropriate barriers (safeguards) around the hazardous item in order to eliminate or minimize the risk. Any modifications and/or safeguards must meet or exceed CSA standards.
- Procedure Based – Modify or replace existing procedures in order to eliminate or minimize the risk of exposure to the hazards that could not be eliminated by re-design.
- PPE Based – Add to, or improve, the personal protective equipment (PPE) worn by workers in order to isolate them from hazards that cannot be practically eliminated by the other means listed above.

The hazard management process shall continue for each identified hazard until its Risk Rank has been reduced to an acceptable level. The work supervisor shall use the JSA form found in the Appendix of this document under the heading Checklists and Forms for documenting each JSA process.

Inspections

CPE recognizes that both formal and informal work site inspections, and audits, are an important objective method for recognizing potential hazards. CPE also recognizes that inspections and audits require the full participation of all workers, supervisors and management, who must take responsibility for identifying and attempting to control the hazards with their work areas.

Safety Inspections will be made at appropriate intervals in order to prevent the development of unsafe working conditions and unsafe work procedures. They will be carried out in accordance with the standards set out by CAODC and the Alberta Occupational Health and Safety Act. The inspections will be fully documented on the inspection forms and checklists found in this document.

Contractor work site inspections are done in cooperation with the contractor and the client, and according to the standards set out by Canadian Petroleum Engineering Inc., government, and industry associations.

Formal inspections and audits will also be carried out internally by CPE.

In addition, external inspectors, such as insurance underwriter representatives or Workplace Health & Safety inspectors, may carry out formal inspections at varying frequencies, depending upon perceived risks and location. A copy of every completed external inspection and audit report form must be forwarded promptly to CPE management.

Supervisors have the responsibility for ensuring that inspections of equipment are conducted on a regular basis, as outlined in the associated guidelines (i.e. AER Guide 37). Inspections will include work site conditions, employee actions, and job procedures, in order to identify potential hazards and substandard conditions and practices. These inspections must be documented and include, but are not limited to the following:

- A Kick-Off Inspection will be carried out prior to the commencement of the first work on the project. The PIC will carry out a formal inspection of work site conditions in order to identify any potential hazards. A list of deficiencies will be prepared so that they can be addressed. No work will begin until the PIC has determined that it is safe to do so.
- Weekly Inspections of the worksite, worker practices, and job procedures will be carried out by the CPE HSE Advisor in order to identify potential hazards caused either by substandard conditions or unsafe practices. The results of the inspection will be reported on the Worksite Safety Plan Checklist found in the appendices of this document.
- Daily Informal Inspections will be carried out by the PIC. The PIC will document the time of the inspection, and the areas inspected, and will make note of any safety issues that were observed. He will document all actions that have been initiated to address any safety issues identified.

Hazard Identification & Reporting

Every worker has the opportunity and responsibility to promptly report any hazard that may have been overlooked by normal hazard identification procedures. All workers are encouraged to be vigilant for any safety issues and to bring them promptly to the attention of their immediate supervisor, or of the PIC.

All reported on-site hazards are recorded by the PIC and the information will include the date of the hazard identification, the individual reporting the hazard, a description of the type of hazard, a description of possible consequences, action to be taken to control the hazard and their expected date of completion, as well as the recommended follow up, including any subsequent inspections. This information will be used by the PIC to ensure that:

- All critical information on hazards is documented so that the appropriate follow-up steps can be taken.
- The effectiveness of the follow-up steps can be verified in order to ensure that the hazard has been eliminated.

General Safety Precautions

Hazard Elimination and Control

The PIC will ensure that all hazards are identified and controlled prior to the commencement of regular work and at practicable intervals thereafter as described in the OHS Code Part 2, Section 7 (Hazard Assessment). Hazards may be identified through inspections, audits, reports from workers, as well as by JSA's.

The PIC will ensure that hazards have been eliminated and/or reduced to acceptable levels prior to the commencement of work at the worksite. The hazard management process will continue throughout the period of the work in order to prevent the development of unsafe and unhealthy working conditions. The PIC will take particular

care to identify and control new hazards that can result from new or changing work processes, or from significant changes or alterations to the work site.

All hazard assessments and the methods employed for controlling the identified hazards will be documented and dated using the Hazard Identification form found in the Appendix of this document.

If emergency action is required to eliminate or control an identified hazard, the PIC will:

- Ensure that only competent workers are assigned to correct the condition,
- Minimize worker exposure to the hazard while it is being corrected.

Training

CPE requires that all PICs meet the training and experience levels recommended by the Petroleum Services Association of Canada (PSAC).

All workers will have completed training and must hold valid certificates for:

- H₂S
- Standard First Aid & CPR,
- WHIMS,
- TDG.

The PIC will review the types and dates of all worker training in order to ensure that their training has been provided by approved agencies, and that all workers are appropriately qualified for their tasks. The PIC will maintain an up to date file of all worker training records.

In addition to the above, all personnel on site must have participated in a site orientation, and are expected to have reviewed the Worker Safety Handbook, and to be familiar with it.

All workers who may be expected to perform specialized tasks must have valid certification which qualifies them for those tasks.

There will be no exceptions to the training policy without the specific, written, approval of the Drilling Manager or the Completions Manager.

Orientations

Signs, posted at the entry to the worksite, will direct all new personnel to the PIC where they will be signed in. The PIC will ensure that all new personnel are promptly given a worksite orientation that will include:

- An overview of the site layout,
- Introduction to key personnel,
- Locations of hazardous areas,
- PPE requirements,
- Safety Standards,

- Emergency Response overview, including first aid services, fire protection equipment, emergency escape routes and muster areas.

Limiting Site Access

No visitors will be allowed on the worksite without authorization.

Upon arrival at the worksite, all visitors must immediately receive a Safety Orientation.

Visitors must not move about the site without appropriate PPE, and an escort assigned by the PIC.

Working Alone

No worker at the worksite will be allowed to be Working Alone as described in Part 28 of the Alberta OHS code.

CPE Drug and Alcohol Policy

All personnel at CPE worksites are bound by CPE's policy of zero tolerance for drug and alcohol while on the job. Every employee and contractor shall abstain from alcohol for at least 10 hours prior to going on duty.

If any worker has reasonable cause to believe that any co-worker is not in compliance with this policy, he/she shall notify a supervisor and/or the PIC.

The PIC shall have the authority to prevent any worker who is suspected of not being in compliance with CPE's drug and alcohol policy, from mobilizing to the worksite, or to remove that worker from the worksite, until drug and/or alcohol testing can be completed.

If the PIC confirms that any employee or contractor is not in compliance with CPE's policy for zero tolerance of drugs and alcohol while on the job, then the PIC must report that occurrence to CPE management.

All CPE employees and contractors shall be advised of CPE's right to conduct post-incident testing for drug and alcohol should this be deemed necessary.

Lighting

The CPE PIC will ensure that:

- The worksite will be illuminated sufficiently to enable all work to be done safely,
- Light sources above working or walking surfaces will be protected against damage,
- Emergency lighting will be available in the event of failure of the normal lighting system and that emergency lighting will be sufficient to enable workers to:
 - Leave the work site safely,
 - Implement any emergency procedures required,
 - Restore normal lighting.

Workplace Housekeeping

The PIC will ensure that the following conditions prevail throughout the worksite in order to enhance safety:

- All hazardous sites will be clearly marked and access to hazardous sites will be restricted to those personnel who have the appropriate training for the hazard, and who have good reason to be present there.
- Floors, stairs and walkways will be kept clean and free of mud, oil, ice or other slippery substances.
- Doors and walkways will be kept clear and unobstructed.
- No person will be permitted in areas where reduced visibility, as a result of steam, smoke, or other airborne substances, can result in injury to the worker. All required precautions will be taken when correcting that situation.
- Adequate lighting will be provided, and maintained, in all work areas.
- All projecting nails, screws, and other sharp points will be removed from scrap or other exposed materials.
- Hand tools, power cables and portable equipment will be removed from the rig floor, stairs and parts of the derrick when not in use. All tools and equipment will be properly stored in designated storage sites.
- High platforms and access ladders will be provided with the appropriate protective barriers to reduce the chance of falls.
- Where guardrails are impractical, workers will wear an approved safety harness and line.
- All elevating devices will be properly maintained and maintenance records will be kept on site.
- Toe boards will be installed to reduce the chance of tools or other equipment falling from heights.
- Tools being used where workers are below the work platform will have safety lines attached.
- The worksite will be inspected daily and any spill, garbage, or litter will be cleaned up immediately and properly stored until disposal.
- First aid facilities will meet all requirements of the Occupational Health & Safety Regulations.
- All accidents and injuries will be reported to the onsite Supervisor and to the appropriate regulatory authorities.
- All toilets and washing facilities will meet Alberta OHS Code Part 24 (Toilets and Washing Facilities),
- Appropriate HSE information, bulletins and posters will be displayed at the worksite to provide visual reminders about the importance of good HSE practices.
- Where applicable, a Safety Committee will be appointed by the Supervisor for the purpose of advising management on worksite safety issues, and for providing all personnel with leadership in protecting health and safety. The Safety Committee will hold weekly meetings and keep minutes of these meetings.

Personal Behaviour Standards

Safety rules at the worksite apply to every employee, regardless of whether or not they are on duty. The following rules on personal behaviour are strictly enforced at all times because they impact the safety of all:

- Employees who may be a hazard to themselves, or others, because they show inattention to safety caused by lack of sleep, or some other cause, will be asked to leave the work site.
- The possession, or use, of intoxicating or mind-altering substances at the work site is forbidden.
- No employee will be allowed to work if he/she appears to be under the influence of mind-altering substances.
- Smoking is restricted to specially designated areas.
- Smoking in bed is forbidden.
- All gambling, irresponsible behaviour, or practical jokes, are forbidden.
- Any employee with a communicable disease will not be allowed to remain at the work site.
- Each employee will keep his/her locker clean and the locker will contain only the clothing or equipment needed for work.
- Adequate clothing is required when working in cold weather environments.
- Discrimination and/or any form of harassment will not be tolerated.

Workplace Violence

CPE promotes a safe and enjoyable workplace; and will not tolerate any violence between workers. The PIC will ensure that the standards in OHS Part 27 (Violence) are closely adhered to and that:

- Violence will be a regular topic in general Safety Meetings
- All workers are aware of CPE policy with regards to workplace violence,
- All workers are encouraged to promptly report any signs of violence, even if it does not involve them,
- All reports of violence are documented and promptly and fully investigated,
- Provide appropriate support to any victims, including assurance of no recriminations, and professional support if required,
- Any investigation of any incident involving violence will be conducted in the same way as the investigation of any potential hazard and will include appropriate procedures for risk assessment, risk control and opportunity for improvement.

The PIC will ensure that all workers are instructed in:

- How to recognize workplace violence,
- The CPE policy and procedures for minimizing or eliminating workplace violence,
- The appropriate responses to workplace violence, including obtaining assistance, and
- The Procedures for reporting, investigating and documenting incidents of workplace violence.

As stated in the OHS Code, Part 27, Section 392 (Response to Incidents), the PIC will advise all workers to consult a health professional of the worker's choice, for treatment or referral, if the workers:

- Report an injury or adverse symptom resulting from workplace violence, or
- Are exposed to workplace violence.

CPE will review any incident relating to personal behaviour standards and will take any disciplinary action that is appropriate towards the perpetrator. Depending on the circumstances, this may range from a warning, a suspension or dismissal from work, or reporting to the authorities.

In accordance with OHS Part 27 Subsection 329(1), CPE will keep on file, the report on the investigation of any incident of violence, for at least two years after the incident.



EMERGENCY RESPONSE PLAN

Aurora College Training Well G-04

Prepared by

*Canadian Petroleum Engineering Inc.
900, 600 – 6th Avenue S.W.
Calgary, Alberta, Canada T2P 0S5
Phone: (403) 263-0752
Fax: (403) 233-0859
E-Mail: cpe@cpe.ab.ca
<http://www.cpe.ab.ca>*

Emergency Response Plan: AC TW G-04
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Emergency Response Policy

Canadian Petroleum Engineering Inc. (CPE) Emergency Response Policy is to initiate immediate emergency response minimizing public and environmental exposure, and to protect all employees, contract personnel and assets.

In support of this policy, the following guidelines are identified:

1. Personnel and public safety are the primary concerns.
2. Notification of an emergency event concerning Spectra Energy Limited personnel and relevant third parties is mandatory.
3. Containment of the event is critical to limit injury and damages.
4. Emergency management responsibilities will be assigned prior to the event occurring, wherever possible.
5. All external communications will be channelled through Spectra Energy CCS Services Limited.
6. Effective response depends on all aspects of the Emergency Response Plan being current, therefore all employees are responsible for reporting any errors or omissions in this Plan to CPE's Emergency Response Coordinator.
7. All personnel at the worksite or associated field locations are to be aware of the Emergency Response Plan and understand their responsibilities.

For an emergency involving a third party, respond in a best efforts response with the procedures most appropriate to the event as described in this Emergency Response Plan.

For an emergency in which CPE has a legal obligation to respond, respond immediately in accordance with this Emergency Response Plan to the extent required by law.

For an emergency in which CPE has no legal duty to respond, but where public perception or the name of the Company is involved in any way, or a definite threat exists to people or the environment, and prompt response is not forthcoming from others, respond to the extent required to control and contain the emergency and eliminate danger to the public.

For an emergency in which CPE has no association to the emergency, respond when requested by government authority, the public, or industry, without prejudice.

Report all emergencies in accordance with the procedures set out in this manual.

How To Use This Manual

For any Production Facility Site emergency:

- If you are the Head Office Responder, refer to the sections in this manual identified by the **Head Office Response** and the **Emergency Contacts** tabs.
- If you are a Designated Field Responder, refer to the Sections in this manual identified by the **Emergency Contacts** and **Onsite Response** tabs, as well as the sections dealing with the specific type of emergency which is identified by the **Uncontrolled Gas Release, Fire/Explosion, Spills, and Injury & Fatality** tabs.

This plan focuses on activities and responsibilities of the Incident Commander at head office and the On-Scene Commander at the work site. These two key individuals must be in regular communication to organize and coordinate the response and recovery. They are responsible to delegate tasks in order to ensure each of the Emergency Response Plan steps assigned to them is completed.

The Emergency Response Plan requires the Head Office Responder and the Designated Field Responder to repeat various steps, as required, until the emergency situation has ended.

Organization And Emergency Contacts

An organization chart and list of emergency contacts has been provided in this manual under the **Emergency Contacts** tab.

Forms

A series of forms have been provided at the end of this manual under the **Forms** tab. These forms can be copied as many times as required. The forms are intended to help responders by ensuring that they:

- Obtain all appropriate information on the emergency.
- Are provided with access to key resources.
- Consider all reasonable options for their response.
- Implement the appropriate steps to manage the emergency.
- Have ready access to key information during the emergency.
- Prepare a comprehensive history of the entire event as it takes place.

In addition, information gathered by completing the appropriate Emergency Response forms, can help to ensure that:

- Appropriate measures can be taken to recover from the emergency.
- Any subsequent investigations have adequate facts available to them.
- A basis for improvement can be established.

Demobilizing And Debriefing

The section of the manual identified by the **Demobilizing & Debriefing** tab deals with the additional steps to be taken after the emergency has been brought under control.

Government Roles And Responsibilities

The section of the manual identified by the **Government Roles & Responsibilities** tab provides information on the mandates of various government agencies that can have an interest in any on-site emergency.

Communication Guidelines

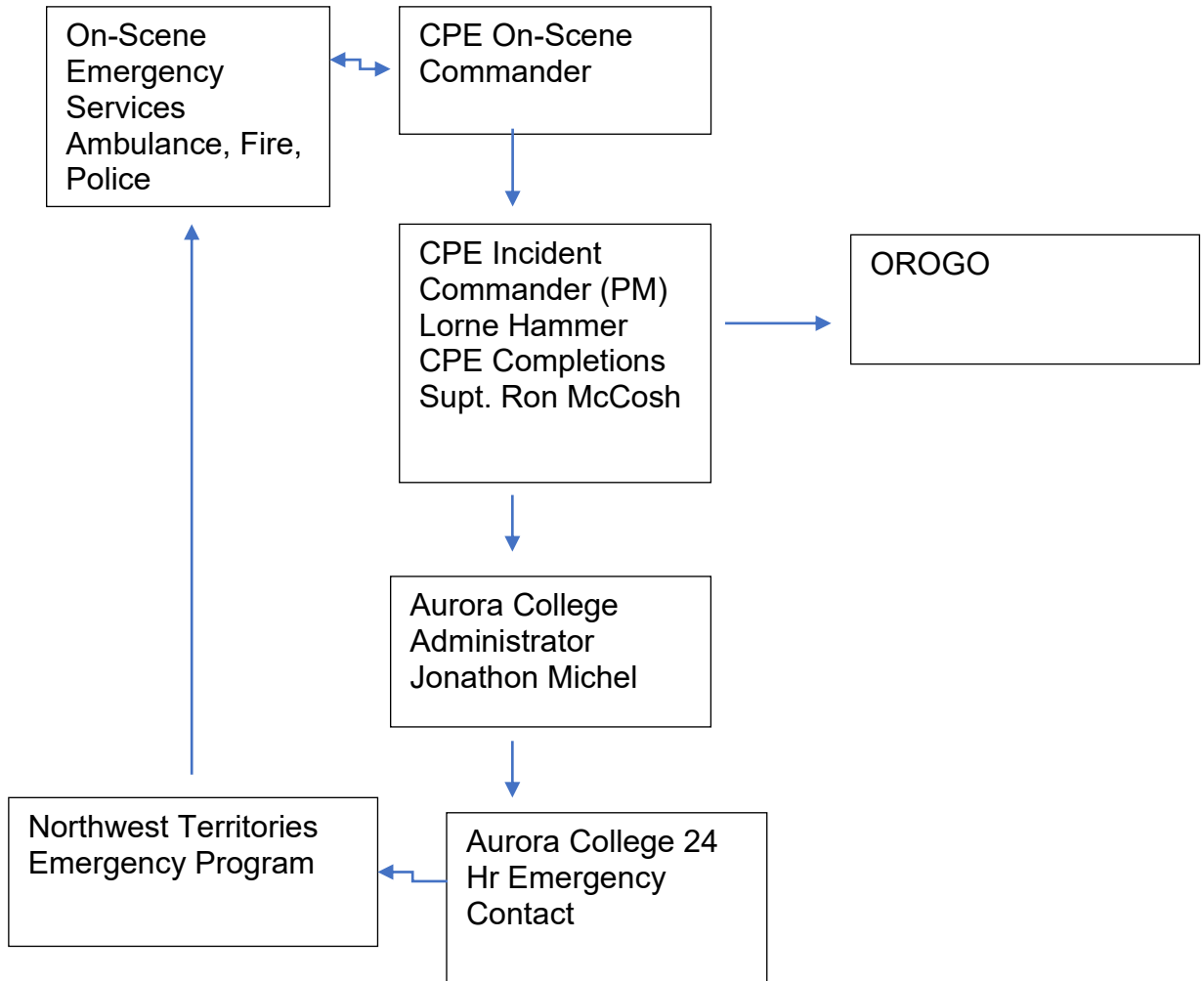
The section of the manual identified by the **Communication Guidelines** tab provides information on appropriate responses when dealing with news media and vendors. In all cases, dealing with news media must be left to the Spectra Energy CCS Services Limited.

Map

The section of the manual identified by the **Map** tab contains a local map that can provide a useful reference for planning and monitoring emergency responses.

Emergency Communications

For any emergency, all emergency responders should follow the communications protocol outlined in the chart below. Contact details are provided on the following page.



Emergency Contacts

ENGINEERING AND OPERATIONS CONTACTS

Position	Name	Telephone	Number	E-Mail
Project Manager	Lorne Hammer	Office	403-263-0752	lhammer@cpe.ab.ca
		Cellular		
Completions Superintendent	Ron McCosh	Office	403-263-0752	rmccosh@cpe.ab.ca
		Cellular		
Completions Supervisor	TBD	Cellular		
Aurora College	Jonathon Michel	Office	867-777-7878	Jmichel@auroracollege.nt.ca

EMERGENCY RESPONSE CONTACTS

Position	Name	Location	Telephone	Email
Orogo Executive Director	Ms. Pauline De Jong	Yellowknife	1(867) 767-9097	Pauline_DeJong@gov.nt.ca
Chief Safety Officer	Michael Martin	Yellowknife	1(867) 446-2235	Mike_Martin@gov.nt.ca
Inuvik		Inuvik	1(867) 678-	

Regional Hospital			8000	
Inuvik RCMP		Inuvik	1(867)777-1111	GDIV_INUVIK_DETACHMENT@rcmp-grc.gc.ca
Inuvik Fire Department		Inuvik	1(867)777-2222	
OROGO Incident Report Line			1(867) 445-8551	
NWT Spill Reporting Line			1(867) 920-8130	
GNWT OH&S			1(867) 920-3888	

Other Contacts

Onsite Response

Emergency First Response

Usually the first person on emergency scene will raise an alarm.

The On-Scene Commander will act to:

1. Protect all personnel by employing SCBA, respirator and gas detectors if required.
2. Evacuate personnel, if required, to a predetermined safe area or upwind alternate.
3. Locate all personnel; identify and assess all casualties.
4. Give first aid treatment as required. Do not move injured persons unless necessary to prevent further injury.
5. Contact appropriate emergency services: Ambulance, Hospital, Fire, RCMP. Refer to **Emergency Contacts** tab.
6. Establish an On-Scene Command Post.
7. Determine the location and condition of all on-site personnel.
8. Initiate emergency management using assigned teams. Ensure that all teams (minimum of 2 persons per team), entering hazardous area are properly equipped with all appropriate safety and detection equipment. As appropriate, refer to the specific procedures outlined under **Uncontrolled Gas Release, Fire/Explosion, Spills**, and **Injury & Fatality** tabs of this manual.
9. Evaluate the emergency and determine the appropriate Severity Level:

Level 1 – There is no immediate Public Hazard. No danger outside company property or right of way. Immediate control of the hazard/source is possible, there is no threat to the public, minimal environmental impact, little or no news media interest and the situation can be handled entirely by company personnel. As a precaution, a voluntary evacuation of sensitive residents maybe initiated.

Level 2 – There is a Potential Hazard to the Public. There is a potential for the emergency to extend beyond company property. OROGO and the RCMP must be contacted through the Northwest Territories Emergency Program. Refer to the **Emergency Contacts** tab. Although imminent control of the emergency is probable, there is some threat to public, moderate environmental impact and news media interest. Establish roadblocks and begin general evacuation procedures.

Level 3 – There is a Definite Public Hazard. There is an Uncontrolled Emergency, public safety is jeopardized, there is significant environmental impact, significant news media interest, immediate municipal and provincial government involvement and assistance is needed from outside parties. Complete evacuation procedures. Ignite an uncontrolled gas release if those criteria are met.

Continuing Emergency Management

After the First Response, the On-Scene Emergency Commander will continue with the emergency management:

1. Begin an Incident Log – Refer to **Forms** tab of this manual.
2. Notify Incident Commander at Head Office – Refer to **Emergency Contacts** tab.
3. Continuously monitor whereabouts and status of all on-site personnel.
4. Continue with Emergency Response as required for specific emergency. Refer to procedures outlined under **Uncontrolled Gas Release, Fire/Explosion, Spills, and Injury & Fatality** tabs of this manual.

Head Office Response

Phase 1 – Emergency Response

1. When a call advising an emergency has been received, record information on the incident and on any initial steps underway for stabilization and containment. Use the **First Response** form under the **Forms** tab of this manual while the caller is still on the phone.
2. Begin an Incident Log by documenting all of the following steps.
3. Assign the Incident Commander and establish a Company Emergency Operations Centre. The Incident Commander will coordinate activities through one central point and will have the following responsibilities:
 - Communication with field, government agencies, emergency response and support services,
 - Understand the level of complexity of the incident and apply appropriate logic to situation,
 - Update office and field personnel of current situation and estimated resolution timeframes,
 - Coordinate initial reporting and incident logging.
4. The Incident Commander will ensure an On-Scene Command Post (OSCP) has been established and confirm the On-Scene Commander.
5. The Incident Commander will confirm that the appropriate Emergency Level has been assigned:

Level 1 – There is no immediate Public Hazard. No danger outside company property or right of way. Immediate control of the hazard/source is possible, there is no threat to the public, minimal environmental impact, little or no news media interest and the situation can be handled entirely by company personnel. As a precaution, a voluntary evacuation of sensitive residents maybe initiated.

Level 2 – There is a Potential Hazard to the Public. There is a potential for the emergency to extend beyond company property. The BC Oil & Gas Commission and the RCMP must be contacted through the Provincial Emergency Program. Refer to the **Emergency Contacts** tab. Although imminent control of the emergency is probable, there is some threat to public, moderate environmental impact and news media interest. Establish roadblocks and begin general evacuation procedures.
6. **Level 3** – There is a Definite Public Hazard. There is an Uncontrolled Emergency, public safety is jeopardized, there is significant environmental impact, significant news media interest, immediate municipal and provincial government involvement and assistance is needed from outside parties. Complete evacuation procedures. Ignite an uncontrolled gas release if those criteria are met.

7. The Incident Commander will assemble the appropriate response team for the specific emergency. Ensure that the Aurora College Administrator, with decision authority, will be present at the Emergency Operations Centre (GEOC) if it is activated.
8. The Incident Commander will confirm that the appropriate emergency management procedures have been implemented. Refer to the procedures outlined under the **Onsite Response, Uncontrolled Gas Release, Fire/Explosion, Spills, and Injury & Fatality** tabs of this manual.
9. The Incident Commander will maintain communications with On-Scene Commander and provide all support required, including assistance with all communications, additional personnel, and obtaining emergency equipment and services.
10. The Incident Commander will ensure that all available information has been recorded (refer to the **Forms** tab of this manual) then contact and report to the lead regulatory agencies.
11. The lead agency can initiate a fan out of calls to all other government agencies as required.
12. The Incident Commander will update all relevant regulatory agencies and complete their paperwork based on the nature of incident.
13. The Incident Commander will contact owners and/or occupants. Inform them of the situation and how to contact the company. He will outline all assistance that CPE Inc. will provide to them.
14. CPE Inc. will contact the immediate family of any injured or deceased worker, using RCMP assistance as appropriate.
15. CPE Inc. will notify all personnel and vendors. Refer to the Communications Guidelines tab in this manual.

Phase 2 – Recovery Response

Information And Assessment

- The Incident Commander will assess damage to the worksite, including the time to repair and duration of outage.
- The Incident Commander will prepare an assessment report for CPE Project Managers. The report will outline the costs to clean up, repair, and replace equipment, and provide an estimated outage period. The report will describe potential legal and environmental liabilities, personnel issues, and regulatory concerns.
- Management will make a decision regarding continuation or shutdown on the basis of the damage report and on the available options.
- The Incident Commander will contact and meet with government agencies in order to agree on the next steps to be taken.

- The Incident Commander will meet with company legal counsel and outline the status of the recovery, as well as the company management decision to continue or suspend operations.
- Aurora College will issue an informational press release after conferring with the company legal counsel. Continuing Operation.

If the decision has been taken to continue operations, the CPE Project Manager will:

- Appoint a construction manager.
- Develop a reconstruction plan and tender to qualified contractors.
- Contact existing companies and contractors. Notify the companies and contractors working at the location of the decision to continue with operations. He will schedule their services and prepare a list of alternate companies or contractors in the event that primary contractors are unavailable or unwilling to continue.
- Advise regulatory agencies of the continuing operations and coordinate all permits and regulatory requirements for continuation.
- Contact leasehold to outline the plan for continuing operations.
- Order replacement equipment and supplies (if required).
- Monitor and manage the construction project.
- Prepare a schedule for restarting operations and ensure that the associated work complies with all regulations.
- Provide updates on progress to Aurora College who may issue new press releases.

Suspending Operations

If the decision has been taken to suspend operations, the CPE Project Manager will:

- Establish a cleanup team to restore the site to its original condition and coordinate the work with the appropriate regulatory agencies.
- Ensure that the leaseholder is informed of the suspension plan and schedule.
- Coordinate with company legal counsel to ensure settlement of any claims.
- Contact all contractors to advise of the decision to suspend operation and will ensure that all final costs and penalties are suitably resolved.
- Shut down operations on completion of the clean-up and ensure that all commitments and requirements have been met.
- Provide updates on progress to Aurora College who may issue a new press release advising of the completion of the work suspension.

Uncontrolled Gas Release

Note: There are local residents in the area who would have to be evacuated in the event of a gas release.

Management of an Uncontrolled Gas Release Emergency will begin with the steps outlined for all emergencies under the **Onsite Response** tab of this manual. The following additional items are specific to Uncontrolled Gas Release emergencies:

- Only those containment procedures that can be safely performed will be initiated. If there is doubt the situation can be safely stabilized, shutdown of the operation will be considered.
- The On-Scene Commander will assign a Gas Monitoring Crew with gas monitors in order to determine the location and concentration of the gas plume.
- The On-Scene Commander will establish an Emergency Zone from which all ignition sources and non-essential personnel will be excluded.
- In the event of ignition follow the emergency procedures outlined under the **Fire/Explosion** tab of this manual.
- If necessary, roadblocks will be set up where required and other area operators will be advised of the gas release. Refer to the **Maps** tab of this manual in order to identify appropriate locations for roadblocks. Advise the RCMP (refer to the **Emergency Contacts** tab of this manual) of the roadblocks to be set up.
- The On-Scene Commander will assemble the key information on the emergency using the **First Response** form found under the **Forms** tab of this manual.
- The On-Scene Commander will advise the Incident Commander of the emergency according to the communications outlined under the **Emergency Contacts** tab of this document and provide him with the information assembled in the **First Response** form.
- The On-Scene Commander will continuously monitor the progress with the containment procedures and will re-evaluate the Emergency Level and size of the Emergency Zone for the Uncontrolled Gas Release as required.
- The On-Scene Commander will maintain regular communications with the Incident Commander throughout the incident in order to keep him updated on containment efforts, and to advise him of any additional support required to control the emergency.
- The On-Scene Commander will monitor and report on the environmental impact of the gas release using the **Plume Tracking Form** and **Incident Log** found under the **Forms** tab of this manual.
- Once containment of the gas release has been achieved, the On-Scene Commander and the Incident Commander will follow the procedures outlined under the Demobilizing and Debriefing tab of this manual in order to close out the

incident.

Fire/Explosion

Management of a Fire and/or Explosion Emergency will begin with the steps outlined for all emergencies under the **Onsite Response** tab of this manual. The following additional items are specific to Fire and/or Explosion emergencies:

- Only those fire-fighting procedures that can be safely performed will be initiated. The On-Scene Commander will ensure that no person will attempt to fight a fire unless they have been trained, and are using the appropriate personal protective equipment and extinguishers.
- All personnel will stay clear of tank ends and will fight the fire from a maximum distance possible.
- Fire fighters will ensure that they do not allow ice to form on vents that might cause an increase in gas pressure.
- All personnel will evacuate the area if tank discolouration, venting, or any other signs, suggest a build up of tank pressure.
- The On-Scene Commander will monitor the risk of any toxic or hazardous materials that may be released as a result of the fire and/or explosion.
- If the On-Scene Commander determines that there is doubt that the fire can be controlled, it will be isolated and allowed to burn out.
- The On-Scene Commander will contact any emergency services that may be required (refer to the **Emergency Contacts** tab in this document).
- The On-Scene Commander will determine if the entire operation should be shut down in order to reduce the risk of an escalating fire and/or explosion.
- Isolating fuel, and/or removing the oxygen and/or cooling the fuel in the ignition area will be utilized in order to control fires.
- In addition to the above, the On-Scene Commander may take any or all of the following measures to bring the situation under control:
 - Shut off electrical power to nearby equipment
 - Shut off fuel supplies to heaters near or downwind of the fire
 - Dissipate static charges
 - Eliminating any re-ignition sources from the surrounding area
- If necessary, roadblocks will be set up where required and other area operators will be advised of the gas release. Refer to the **Maps** tab of this manual in order to identify appropriate locations for roadblocks. Advise the RCMP (refer to the **Emergency Contacts** tab of this manual) of any roadblocks to be set up.
- The On-Scene Commander will assemble the key information on the emergency using the **First Response** form found under the **Forms** tab of this manual.
- The On-Scene Commander will advise the Incident Commander of the emergency according to the communications outlined under the Emergency Contacts tab of

this document and provide him with the information assembled in the First Response form.

- The On-Scene Commander will continuously monitor the progress with the fire fighting and will re-evaluate the Emergency Level and the size of the Emergency Zone for the incident as required. For incidents that have the potential to affect the surrounding area, the On-Scene Commander will advise all relevant regional and provincial authorities referenced under the Emergency Contacts tab of this manual. At the request of the regulators, Transport Canada may decide to issue a Notice to Airmen, which advises of restrictions on the airspace near the Emergency Zone.
- The On-Scene Commander will maintain regular communications with the Incident Commander throughout the incident in order to keep him updated on containment efforts, and to advise him of any additional support required to control the emergency.
- The On-Scene Commander will monitor and report on the environmental impact of the fire and/or explosion using Incident Log found under the Forms tab of this manual.

Once the fire and/or explosion risk has been brought under control, the On-Scene Commander and the Incident Commander will follow the procedures outlined under the Demobilizing and Debriefing tab of this manual in order to close out the incident.

Spills

Management of a Toxic or Hazardous Chemical spill will begin with the steps outlined for all emergencies under the **Onsite Response** tab of this manual. The following additional items are specific to Toxic or Hazardous Chemical Spill emergencies:

- Only those containment procedures that can be safely performed will be initiated. If there is doubt the situation can be safely stabilized, shutdown of the operation may be required.
- Protection of life, environmentally sensitive areas, watercourses and recreational areas, shall be the first priorities.
- The On-Scene Commander will assign a team to determine the location, type and amount of any spilled materials.
- The On-Scene Commander will establish an Emergency Zone, isolating the area of spilled material, from which all non-essential personnel will be excluded.
- Any essential personnel entering the Emergency Zone will be first provided with detailed information on the exact nature of the Toxic or Hazardous Spill, including a listing of all materials spilled, the volume and locations of spilled material, and their respective WHMIS and MSDS properties.
- The On-Scene Commander will take all available measures to ensure that the spill is remains contained within the Emergency Zone.
- If necessary, roadblocks will be set up where required and other area operators will be advised of the gas release. Refer to the **Maps** tab of this manual in order to identify appropriate locations for roadblocks. Advise the RCMP (refer to the **Emergency Contacts** tab of this manual) of the roadblocks to be set up.
- Concurrently with, or immediately following, the spill containment procedures, the On-Scene Commander will initiate spill clean-up procedures that are consistent with the WHMIS and MSDS guidelines for clean-up.
- The On-Scene Commander will assemble the key information on the spill emergency using the **First Response** form found under the **Forms** tab of this manual.
- The On-Scene Commander will advise the Incident Commander of the emergency according to the communications outlined under the **Emergency Contacts** tab of this document and provide him with the information assembled in the **First Response** form.
- The On-Scene Commander will continuously monitor the progress with the spill isolation and clean up and will re-evaluate the Emergency Level and the size of the Emergency Zone for the incident as required. For incidents that have the potential to affect the surrounding area, the On-Scene Commander will advise all relevant regional and provincial authorities referenced under the **Emergency Contacts** tab of this manual. At the request of the regulators, Transport Canada

may decide to issue a Notice to Airmen, which advises of restrictions on the airspace near the Emergency Zone.

- The On-Scene Commander will maintain regular communications with the Incident Commander throughout the incident in order to keep him updated on containment and clean up efforts, and to advise him of any additional support required to control the emergency.
- The On-Scene Commander will monitor and report on the environmental impact of the spill using the **Incident Log** found under the **Forms** tab of this manual.
- Once the clean up of the spill is completed, the On-Scene Commander and the Incident Commander will follow the procedures outlined under the Demobilizing and Debriefing tab of this manual in order to close out the incident.

Injury/Fatality

Management of a Personal Injury or Fatality Emergency will begin with the steps outlined for all emergencies under the **Onsite Response** tab of this manual. The following additional items are specific to Personal Injuries and/or Fatalities:

- The On-Scene Commander will arrange for the appropriate emergency services: Ambulance, Hospital, Air Ambulance, and RCMP (refer to the Emergency Communications tab in this manual).
- Only a medical doctor can confirm a fatality and all casualties shall be considered alive until such confirmation.
- The On-Scene Commander will ensure that the accident site is not disturbed until it can be thoroughly investigated by the Medical Examiner and/or the RCMP.
- The On-Scene Commander will arrange for personnel to assist the RCMP or Medical Examiner in watching over the body of a deceased casualty.
- The On-Scene Commander will advise the Incident Commander of the nature of the Personal Injury and/or Fatality according to the communications outlined under the Emergency Contacts tab of this document and provide him with the information assembled in the First Response form.
- The On-Scene Commander will provide an immediate verbal report to WorkSafeBC (refer to the Emergency Contacts tab of this document) in the event of a serious injury or confirmed death.
- The On-Scene Commander will record the names of all witnesses and assemble the information for the Accident/Incident Report.
- The Incident Commander will contact the RCMP to coordinate notification of next-of-kin (refer to the Emergency Communications and Communications Guidelines tabs in this manual).
- The On-Scene Commander will make a record, and take into safekeeping, all of the possessions of all accident victims, and then turn these over to the RCMP or Medical Examiner.

Notification Of Next Of Kin

If a serious accident occurs it is most important that the next of kin of a seriously injured or deceased person be notified as soon as possible. If there is a fatality, only the RCMP can notify next of kin.

Demobilizing And Debriefing

Demobilization

CPE will coordinate all recovery efforts when the emergency has been brought under control. The type of activities could include:

- Dismantling of roadblocks.
- Recall of emergency monitoring personnel.
- Inspection emergency equipment in order to determine servicing and replacement requirements.
- Contacting all affected parties to inform them of the “emergency over” status.
- Complete all remedial work required in the event of any environmental damage incurred.
- Completion and assembly of all forms and documents prepared during, or after, the emergency.
- Provision of appropriate statements to the media via the Media Representative.
- Making arrangements for fair and timely compensation to all persons that have incurred a loss as a result of the emergency.

Post Incident Assessment

CPE will perform a post incident assessment in order to identify the root causes of the emergency, as well as the effectiveness of the subsequent emergency responses. The conclusions of the assessment will be used to provide a basis for continuous improvement and will be reviewed with Aurora College. The components of Post Incident Assessment will be as follows:

Post Incident Debriefing

A Post Incident Debriefing will be held for all Level 2 and Level 3 emergencies within 30 days after the incident has been brought under control. All parties that were involved or affected (government, public, company) will be invited to participate. The Post Incident Debriefing will concentrate on:

- The cause of the emergency incident
- Availability of adequate resources for response
- Effectiveness and timeliness of the emergency response
- Training level of the responding personnel
- Suitability of emergency response equipment

Post Incident Report

A Post Incident Report will be based on the Post Incident Briefing, as well as on all documentation prepared during and after the emergency incident. The Post Incident Report will be prepared and submitted to the lead government agency by the Incident Commander within 10 days of the debriefing. The Post Incident Report will include all of the following information:

- A full description of the incident.
- A full explanation of the cause of the incident.
- A detailed description of the emergency response measures.
- A detailed status report of completed and ongoing environmental recovery efforts.
- Recommendations for preventive measures to prevent future incidents.
- Changes made to the emergency response plan in order to improve future emergency responses, including availability of trained personnel and appropriate equipment.

Statutory Reporting Requirements

Written reports that are required under federal or provincial legislation are to contain only specific facts that describe the incident. The report should not express an opinion as to how the incident occurred or who was responsible. The report is compellable in a court of law in the event of litigation. In serious cases, the company's legal counsel should review the report prior to submission.

OROGO can request a single detailed report addressing the cause of the incident and the steps that were taken to:

- Control the emergency.
- Maintain public safety.
- Protect the environment.
- Prevent a similar incident

For Level 2 or Level 3 emergencies OROGO may request a "Post Incident Debriefing" with any local residents or affected public.

Workers Safety and Compensation Commission (wssc) requires a written report for all accidents having potential to cause serious injury as a result of:

- An uncontrolled explosion.
- Failure of a safety device on a hoist, hoist mechanism, or hoist rope.

- Collapse or upset of a crane.
- Collapse or failure of any structural load-bearing component of a building or structure under construction.
- Collapse or failure of a temporary support structure.
- An inrush of water, fire or explosion in an underground work area.
- Collapse or cave in of a trench, excavation wall, underground work place or stockpile.
- Accidental release of a hazardous substance.

Privileged Reports

A privileged report is not compellable in a court of law. It is prepared for the purpose of assisting the Legal Representative in any existing or contemplated litigation. CPE Management, in consultation with the Legal Representative will determine the need for a privileged report. Except reports made pursuant to a statute, no other written reports will be prepared unless directed by the Legal Representative.

Government Roles and Responsibilities

This section has been included within this Emergency Response Plan document as a reference for on-scene and head office responders in order to assist them with ensuring that the appropriate government agencies are notified of any emergency.

OROGO

- Provide a representative to the incident site (On-Site Command Post).
- Determine the extent of the immediate hazard and issue a Closure Order to keep the public and press out of the hazard area if the situation warrants.
- Monitor operations and mitigate activities within the hazard area.
- Implement the Government of Northwest Territories Emergency Program telephone fan-out to alert all affected departments (including OROGO), municipalities and other orders of government and industry.
- Coordinate reception plans for evacuation of the public with the affected municipalities,
- All other actions to protect NT public and property from the effects of sour gas.

WSSC

- Monitor the health and safety aspects of applicable occupations within the hazard area to ensure ongoing health and safety of all workers.

GNWT OH&S

- identify causes of incidents and gaps in the OHS Programing;
- to prevent similar incidents in the future;
- to fulfill any legal requirements;
- to determine the cost of an incident; and
- to determine compliance with the [NWT Safety Act](#) and [Occupational Health and Safety Regulations](#).

Fisheries and Oceans Canada

- Manage and assess activities relating to the protection of streams, water bodies and wildlife.

- ensure healthy and sustainable aquatic ecosystems through habitat protection and sound science.

Transport Canada

- Provide authorization and assistance for roadblocks on major provincial/federal roads.

Local Board of Health Unit

- Monitor the health effects of the incident ensuring appropriate data is collected.

R.C.M.P.

- Assist with roadblocks, traffic control, evacuation, and residence security.

Local Municipal Government/Regional District/First Nation

- Implement the district/municipal emergency plan and use any or all of the resources available to the municipality to protect the health, safety and welfare of the public.
- Provide authorization and assistance for roadblocks on district roads that necessary precautions are taken to protect the workers safety.

Communications Guidelines

In all cases, dealing with news media should be left to the Aurora College Public Affairs office.

The following information will assist Aurora College to comply with regulatory criteria for media communications. Being accurate and responsive to the media will ensure the company is seen as cooperative and will avoid misinterpretation.

All questions should be carefully considered when dealing with the media and reviewed prior to “going public” regarding any situation.

The Aurora College Public Affairs office will consider the following when providing media with information:

- Should a formal news conference be considered?
- If so, where and when should it be held?
- How will the various news media outlets be told?
- What are the deadlines that reporters are working against?
- How will follow-up information be provided?
- Is there a list of reporters or crews on the scene?
- How much access will be given to media to an incident site?
- What are the varying requirements of the different media (television, radio, newspapers, etc.)?
- How can the media be used to help with the emergency?
- How will uncooperative reporters be handled?

Do

- Confirm, in advance, Aurora College corporate information policy
- Designate a media representative who will be available and accessible at all times
- Have the major newsroom telephone and fax numbers on file for immediate reference
- Provide information in a straightforward accurate and up-to-date fashion
- Be consistent with all the different media representatives
- Act as quickly as possible if general public safety is involved
- For telephone interviews, ask if the conversation is being recorded

Do Not

- Be afraid to take charge of the situation
- Be intimidated by cameras and microphones
- Mislead the media
- Stage a situation for the benefit of the cameras
- Speculate on situations of which you are not certain
- Allow the media to jeopardize their safety or the safety of any other personnel
- Assume that reporters know your business, even if it is routine to you and your staff
- Assume that anything is “off the record”

Typical Media Information Requirements

- Name and emergency telephone number a contact person (24 hours)
- Nature and extent of the problem
- Any threat to public safety.
- Any risk to the environment
- Any requirement, and procedures, for an evacuation.
- Number of persons injured or involved in the incident
- Location of casualties
- Emergency response being implemented
- Access to the general area (if at all possible)
- Description of and directions to the incident site
- Timing of the next briefing.

Media Notification Regarding Injury Or Death

If it becomes necessary to provide media with information regarding casualties, ensure that proper notification of next of kin has been conducted prior to any information release (refer to the information provided under the **Injury/Fatality** tab of this manual). On-Scene staff and Operations management must ensure strict control over the non release of any incident information. Knowledge of the situation should be restricted to those at the site of the emergency and as required to ensure the safety of all personnel. Caution is advised in the use of mobiles and party line telephones for transmitting emergency information.

Example Note To Media

An (describe emergency event) occurred at the Aurora College (field name) site located at approximately (give direction and distance to the nearest major centre) at (date and time). A (subsequent event (if applicable) occurred. No one (or number of persons) was injured. Injured personnel are being treated at (provide name).

The production facility was (or was not) shut down and Canadian Petroleum Engineering Inc. is directing recovery operations on behalf of Spectra Energy.

A Control Centre has been established at (location) and monitoring of the situation and surrounding (describe) area is continuing.

The cause of the event has (or has not) been determined and the extent of damages is known (or not known) at this time.

The next update will be issued at (date and time).

For more information contact: (Name and number).

Signed: (Authorized signature of company officer)

Example Note To Staff

An (describe emergency event) occurred at Aurora College's (field name) site located at approximately (give direction and distance to the nearest major centre) at (date and time). A (subsequent event (if applicable) occurred. No one (or number of persons) was injured. Injured personnel are being treated at (provide name). Additional information will be provided to all staff as it becomes available.

The site was (or was not) shut down and Canadian Petroleum Engineering Inc. is directing recovery operations on behalf of Aurora College.

A Control Centre has been established at (location) and is manned by (names). Monitoring of the situation and surrounding (describe) area is continuing. The Control Centre is for emergency use only and inquiries for more information on this incident should be directed through (name).

The cause of the event has (or has not) been determined and the extent of damages is known (or not known) at this time. The incident is being investigated by (names).

We hope to be able to provide you with further information by (date and time).

Signed: (Authorized signature of company officer)

Example Note To Suppliers

This note is to inform you that our (name) facility has suffered a (describe emergency). The facility has (or has not) been shut down.

Current activities related to this project have (or have not) been suspended until approximately (date and time). Additional information will be provided to you by (name and number) as soon as it becomes available.

Thank you for your understanding and we regret any inconvenience caused by this incident. Should you wish to discuss this situation in more detail, please contact (name and number).

Signed: (Authorized signature of company official)

Map

Driving directions to the location:

APPLICATION FOR AN OPERATIONS AUTHORIZATION

INSTRUCTIONS:

Send one electronic copy of this form and supporting technical documentation by email to orogo@gov.nt.ca. If you wish to communicate with OROGO in hard copy, please do so using the courier address found at www.orogo.gov.nt.ca.

APPLICATION

(Name of Operator)

Hereby applies for authorization under Section 10 of the *Oil and Gas Operations Act* and Part 2 of the *Oil and Gas Drilling and Production Regulations* using equipment and procedures described in the application.

Changes in equipment or procedures, outside the scope of this application, require approval in order that this authorization remains valid.

LicenceType Other Operating Licence No. NWT-OL-2014-019
Region Gwich'in Field _____

Anticipated date of commencement: March 27, 2023 Proposed Duration 0.25 months

Scope of Work

The surface abandonment of the well will begin at the beginning of the last week of March, 2023. All of the abandonment operation will be completed during that week.

The first step in the abandonment to occur will be moving in an E-log truck and running a cement valuation log to determine the quality of cement and casing. It is anticipated that good cement will be present in the well as all casing strings were cemented full length once run and good cement returns at surface were observed while cementing each casing string.

Following the e-logging, a pressure truck will go to the location and the production casing will be pressure tested as per OROGO's Well Suspension and Abandonment Guidelines and Interpretation Notes. This will require the casing to be pressured up to 7000 kPa and held for 10 minutes with less than 10% leak off.

Cut and Cap:

A bulldozer and an excavator will be used to excavate around the casing to a depth of about two meters below ground level to provide access for cutting off the casing strings. The conductor casing, surface casing and production casing will be cut by a certified welder. Once the casing is cut, the wellhead and cut of casing will be removed using either the excavator or a picker truck. A vented cap will then be installed, and the cellar backfilled using the material on site that was previously excavated. The vented cap is installed onto the well to prevent any pressure from building up inside the well and to restrict access to the casings.

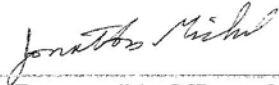
APPLICATION

OROGO cut and cap requirements as referred to in the Well Suspension and Abandonment Guidelines and Interpretation Notes will be adhered to.

Signage Installation:

After completing the cut and cap, the abandoned well will be marked with a durable post and signage in accordance with OROGO's Well Suspension and Abandonment Guidelines and Interpretation Notes. The post will be installed 1 meter directly North of the abandoned well and is typically cemented in the ground. The sign will be installed at a 45-degree angle from the post.

"I certify that the information provided on this form is true and correct"

Name	Jonathon Michel	Phone	(867) 777-7878
Title	Director	E-Mail	jmichel@auroracollege.nt.ca
Operator	Aurora College		
Signature	 Responsible Officer of Company	Date	December 9, 2022