
PWGSC Ontario
Region Project
Number R.059392.001

SPECIFICATION
TITLE SHEET

Section 00 00 00
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2013-09-10

PROJECT TITLE WIKWEMIKONG, ONTARIO
MANITOULIN ISLAND
OIL AND GAS WELL RE-ABANDONMENT

PROJECT NUMBER R.059392.001

PROJECT DATE 2013-09-10

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PART 1 - GENERAL

- 1.1 WORK COVERED BY CONTRACT DOCUMENTS
- .1 Re-abandonment of two (2) old, unproductive, shallow oil wells (approx. 225 m deep) located on different properties on the Wikwemikong Unceded Indian Reserve #26 on Manitoulin Island in Ontario. Contractor must be licenced to perform the work.
 - .2 Give priority to hiring local First Nation labour and equipment for any additional services.
 - .3 Meeting the specifications and other provisions of Section 11 of the Ontario Provincial Standards Version 2, dated January 2002.
- 1.2 MINIMUM STANDARDS
- .1 Execute work to meet or exceed:
 - .1 National Building Code of Canada 2010, National Fire Code of Canada 2010, Ontario Building Code 2006 and any other code of provincial or local application, including all amendments up to project date, provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.
 - .2 Rules and regulations of authorities having jurisdiction.
 - .3 Federal Fire Commissioner, No. 301, Standard for Construction Operations, and No. 302, Standard for Welding and Cutting, June 1982.
 - .4 Treasury Board of Canada Secretariat, Fire Protection Standard, April 1, 2010.
 - .5 Observe and enforce construction safety measures required by National Building Code 2010, Part 8 Safety Measures at Construction and Demolition Sites, Occupational Health and Safety Act and Regulations for Construction Projects, Revised Statutes of Ontario 1990, Chapter O.1 as amended, O. Reg. 213/91 as amended by O. Reg. 631/94, O. Reg. 143/99, O. Reg. 571/99, O. Reg. 145/00, O. Reg. 527/00, R.R.O. 1990, Reg. 834, O. Reg. 278/05 (Asbestos), Workplace Safety and Insurance Board and municipal statutes and authorities.
 - .6 Environmental Protection Act, O. Reg. 102/94 and O. Reg. 103/94.
 - .7 Indian Oil and Gas Act R.S.C. 1985 c. 1-7
 - .8 Oil, Gas, and Salt Resources Act, R.S.O. 2002.

- 1.2 MINIMUM STANDARDS (Cont'd) .1 (Cont'd)
.9 Ont. Regulation 245/97, Exploration, Drilling and Production
- 1.3 CONTRACT METHOD .1 Construct Work under combined price Contract.
- 1.4 COST BREAKDOWN .1 Within 48 hours of notification of acceptance of bid furnish a cost breakdown by Section aggregating contract price.
.2 Show separately cost of equipment purchased exempt from Ontario Retail Sales Tax under your Ontario Sales Tax licence number.
.3 Within 48 hours of acceptance of bid submit a list of subcontractors.
- 1.5 AUTHORITIES HAVING JURISDICTION .1 The Federal Fire Commissioner is the sole authority having jurisdiction over this project with regards to fire standards.
.2 Be responsible for construction means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work, or as directed by the Departmental Representative.
- 1.6 TAXES .1 Pay applicable Federal, Provincial and Municipal taxes.
- 1.7 FEES, PERMITS, CERTIFICATES AND LETTERS .1 Provide authorities having jurisdiction with information requested.
.2 Pay fees and obtain certificates, permits and letters required.
.3 Furnish certificates, permits and letters when requested.
- 1.8 EXAMINATION .1 Examine existing conditions and determine conditions affecting work.
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- 1.9 PROJECT MEETINGS .1 The Contractor's Site Supervisor, Health and Safety Representative, and major subcontractors are required to attend a meeting prior to the start of plugging to discuss the Decommissioning Plan and related procedures. The Site Supervisor, Health and Safety Representative and major subcontractors are also required to attend progress meetings, which will be held on an as required basis, to discuss field observations, progress, any problems and resolution of any problems. Progress meetings will generally occur at the Project Site unless there is a need to meet at another location.
- 1.10 DOCUMENTS .1 Keep one copy of contract documents on the site.
- .2 Keep one copy of all relevant certificates, licences and permits on site during plugging operations or similar for inspection by Departmental Representative, AANDC staff or MNR inspectors.
- 1.11 ELECTRONIC SUBMITTALS .1 Submit number of hard copies specified for each type and format of submittal and also submit in electronic format as pdf files as directed by Departmental Representative.
- 1.12 CONTRACTOR'S AS-BUILT DRAWINGS AND SPECIFICATIONS .1 As work progresses, neatly record significant deviations from the Contractor's decommissioning plan and specifications using fine, red marker on full size white prints and specifications. Make the same changes on the electronic files.
- .2 Neatly print lettering and numbers in size to match original. Lines may be drawn free-hand but shall be neat and accurate. Add at each title block note: "AS BUILT". Also circle on List of documents each title and number of document marked with "AS-BUILT" information. Circle on Table of Contents each document number and title of specification sections marked with "AS-BUILT" information.
- .3 Departmental Representative will provide one electronic set of contract information and
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- 1.12 CONTRACTOR'S AS-BUILT DRAWINGS AND SPECIFICATIONS (Cont'd)
- .3 (Cont'd)
specifications for inclusion with as-built drawing and specification purposes.
.1 Specifications are in NMSEdit Professional.
.2 Amendments and addenda are in MS Word.
- .4 Record following significant deviations including but not limited to:
.1 Depths of various horizons of well, casings existing, down hole equipment, existing plugs, etc.
.2 Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvement.
.3 Field changes of dimension as approved by Departmental Representative.
.4 Other significant deviations which are concealed in construction and can not be identified by visual inspection.
.5 Alternative materials and systems installed replacing original materials and systems.
- .5 Turn one set, paper copy and electronic copy, of AS-BUILT drawings and specifications over to Departmental Representative on completion of work.
- .6 If project is completed without significant deviations from Contract drawings and specifications submit to Departmental Representative one set of drawings and specifications marked "AS-BUILT".
- 1.13 SITE QUALITY CONTROL SUBMITTALS
- .1 Maintain to date accurate daily record of work and hours performed including the following information, which shall be approved daily by the Departmental Representative and submit weekly reports signed by Site Supervisor (by twelve noon on Monday) to the Departmental Representative:
.1 Names of personnel indicating activities performed by each person and number of hours worked per day.
.2 Types and quantities of equipment used.
.3 Progress made (e.g., depth reached, materials received and consumed).
.4 Equipment removed.
.5 Site restoration or remediation conducted.
.6 Any problems encountered.
.7 Solutions to problems encountered.
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1.14 CONSTRUCTION
PHOTOGRAPHS

- .1 Provide one set of photos for each well illustrating each sequence of operation conducted and of any well plugging problems.
- .2 Submit electronic and hard copy of colour digital photography in jpg format, standard resolution.
- .3 Identification: name and number of project and date of exposure indicated.
- .4 Viewpoints and location of viewpoints determined by Departmental Representative.
- .5 Frequency: as directed by Departmental Representative.

1.15 ADDITIONAL
DRAWINGS

- .1 Departmental Representative may furnish additional drawings to clarify work.
- .2 Such drawings become part of Contract Documents.

1.16 PROTECTION

- .1 Protect existing trees and plants on site and adjacent properties as much as possible.
- .2 Cut down only trees approved by the Departmental Representative within or adjacent to a forested area.
- .3 Ensure that all Requirements of Law are duly complied with and that all reasonable precautions are taken to prevent forest fires or damage to trees and vegetation.

1.17 EXISTING
SERVICES

- .1 Obtain from local utility authorities their respective approval for any such changes to the utilities, and bear any applicable relocation or other charges to said utilities. Be responsible for any and all damage to such utilities and services to the extent such damage is caused by the negligent acts or omissions or wilful misconduct of the Contractor's staff or any of its subcontractors or any of their respective employees, officers, directors, agents, representatives or other personnel.
- .2 Establish location, protect and maintain existing utility lines.

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- 1.17 EXISTING SERVICES
(Cont'd)
- .3 Establish location of overhead utilities in the area of Well #2. Avoid interference with such utilities during Work.
- .4 Maintain existing services in occupied areas.
- 1.18 TEMPORARY FACILITIES AND SERVICES
- .1 Provide and maintain temporary facilities and services required to carry out work.
- .2 Provide portable sanitary facilities.
- .3 Remove temporary facilities and services on completion of work.
- 1.19 METRIC SIZED MATERIALS
- .1 SI metric units of measurement are used exclusively on the drawings and in the specifications for this project.
- .2 Claims for exemptions from use of metric sized products shall be in writing and fully substantiated with supportive documentation. Promptly submit application to Departmental Representative for consideration and ruling. Non-metric sized products may not be used unless Contractor's application has been approved in writing by the Departmental Representative.
- .3 Difficulties caused by the Contractor's lack of planning and effort to obtain modular metric sized products which are available on the Canadian market will not be considered sufficient reasons for claiming that they cannot be provided.
- .4 Claims for additional costs due to provision of specified modular metric sized products will not be considered.
- 1.20 CUTTING AND REMEDIAL WORK
- .1 Co-ordinate work to keep cutting and remedial work to a minimum.
- .2 Make good surfaces exposed or disturbed by work with material and finish to match existing adjoining surfaces. Include topsoil, seed and sod as indicated.
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1.21
DECOMMISSIONING
PLAN

- .1 Prepare and submit a Decommissioning Plan(s) (or Plan(s)), including a Site Preparation Plan and Access Drawing, based on the Project specific details to Departmental Representative and a copy to the Ministry of Natural Resources for review and comment/consultation prior to execution of any of the other Work.
 - .2 The Decommissioning Plan shall include the sequence of events, proposed access to the Site, evaluation of the Site for spills and contamination, preparation of the Site for decommissioning operations, notification of the nature, timing and safety implications of the Project, securing the Site, plugging the Well(s) (as described below), removal of production and surface equipment, and restoration of the Site to original or comparable conditions.
 - .3 A Band appointed First Nations Facilitator will arrange a site access agreement with the land owners for the contractor.
 - .4 Abide by site access agreement and arrangements made by the First Nations Facilitator with the landowner. Coordinate well abandonment operations with the First Nations representative who will notify the landowner and facilitate the Contractor to access the site at no charge to the Contractor.
 - .5 The Site Preparation Plan and Access Drawing shall show, the location of the Well, planned access route, fencing, signage, and any trees, buildings, roads, etc. in the vicinity of the Well and identify any anticipated environmental disturbance, and any mitigating measures.
 - .6 The Site Preparation Plan and Access Drawing shall include all aspects as detailed in the Access Agreement as provided by the Departmental Representative.
 - .7 The Site Preparation Plan shall include but not be limited to:
 - .1 A means for the control, diversion, and disposal (e.g. flaring) of gas escaping from the Well during all operations, including provisions for dealing with Sweet and Sour Gas.
 - .2 Personnel training, certification and procedures for monitoring, alarms, specialized breathing apparatus, public safety mitigation measures and emergency response.
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1.22 CO-ORDINATION .3
AND CO-OPERATION
(Cont'd)

(Cont'd)
owners for all involved with the project. The Facilitator shall also assist in the coordination and cooperation of others who are to oversee the work for the Band, and report to the Band on the aspects of the work and with any other First Nations individuals. Facilitator's services will be supplied at no cost to the Contractor.

.4 At the call of the Departmental Representative, assist the Departmental Representative in taking soil samples from the excavated areas.

.5 Execute work with minimum disturbance to occupants, public and normal use of site.

.6 Maintain access and exits.

.7 Where security has been reduced by work of contract, provide temporary means to maintain security.

.8 Establish necessary security and safety controls, including, but not limited to, fencing, warning signs, etc. Gate or barricade the access road to the Site during non-work periods to prevent unauthorized entry to work areas by any third parties, including without limitation, the Landowner or any of his/her invitees, workmen, employees or family, and to protect existing facilities and adjacent properties from damage. Prior to commencing any work, place in conspicuous locations, appropriate signage stating public access to the Site is prohibited and warning the public regarding the hazardous nature of the work on the Site.

1.23 SITE ACCESS .1

Do not enter unto the work site property until the First Nation Facilitator has authorized accessing the land.

.2 Establish appropriate access to the Well along a route and in a manner that minimizes damage to the environment and disturbance to the local residents, and is acceptable to the Facilitator.

.3 As directed by the Departmental Representative, abide by a recent Landowner's Access Agreement

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- 1.23 SITE ACCESS .3 (Cont'd)
(Cont'd)
- with the landowner of the site to complete the site work.
- .1 If a copy of the Landowner's Access Agreement is required by the Ministry as part of the Decommissioning Plan, consult with the First Nation Facilitator and the Departmental Representative.
- .2 The Landowner's Access Agreement may include:
- .1 Provisions whereby the Landowner agrees to the location, route, and scheduling, and other details of the Site access by the Contractor, and grants permission for the Contractor to enter his/her Lands to complete the Work;
- .2 Provisions whereby the Landowner agrees that all tools, equipment, and materials found at the Well Site, belong solely to the Landowner but the Contractor shall remove and dispose of them with the Landowner's permission;
- .3 Details of any disruption in land operations, impact on existing trees, crops, vegetation, etc.; the Contractor shall only remove these items as necessary to provide access or create a work area large enough for the Work to proceed;
- .4 Details of remediation activities such as the removal of old Well equipment, removal and disposal of contaminated soil, and of restoration activities such as replacing removed soil, reseeding grassed areas, restoration of access roads;
- .5 Details regarding any necessary relocation of tile drains, piping or any other subsurface utilities, or of overhead utilities as required for access;
- .6 Indemnification, in favour of the Landowner, against any loss or damages due to negligence or wilful misconduct on the part of the Contractor.
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- 1.24 ALTERATIONS TO .1 Remove and recycle or dispose of:
EXISTING SITE
- .1 Piping.
- .2 Restore to original grades.
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- 1.25 INSPECTION AND TESTING
- .1 When quality confirmation tests and inspections reveal that the final work is not to contract requirements, pay for tests and inspections required by Departmental Representative on corrected work.
 - .2 Designated AANDC staff and/or inspectors from the MNR may visit the Site during the plugging activities to ensure that all work is done according to the Requirements of Law, including those under the Oil, Gas and Salt Resources Act.
 - .3 Departmental Representative will undertake confirmatory sampling of soil contaminants during the excavation of the contaminated soil at no cost to the Contractor.
- 1.26 SCHEDULING
- .1 On award of contract submit bar chart construction schedule for work, indicating anticipated progress stages within time of completion. When schedule has been reviewed by the Departmental Representative take necessary measures to complete work within scheduled time. Do not change schedule without notifying Departmental Representative.
 - .2 Carry out work from 07:00 to 18:00 excluding Sundays and Statutory Holidays.
 - .3 Carry out noise generating work from 07:30 to 18:00
- 1.27 CLEANING
- .1 Maintain Project areas in a clean and orderly condition; free of waste materials, debris, and rubbish.
 - .2 Final cleaning:
 - .1 Remove temporary protection.
 - .2 Broom clean paved exterior surfaces, rake clean other exterior surfaces.
- 1.28 CONSTRUCTION & DEMOLITION WASTE
- .1 Submit proof that all waste is being disposed of at a licensed land fill site or waste transfer site. A copy of the disposal/waste transfer site's license and a letter verifying that said landfill site will accept the waste must be supplied to Departmental Representative prior to removal of waste from the site.
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- 1.29 DESIGNATED SUBSTANCES .1 Based on visual inspections, there are no "designated substances" as defined by the Occupational Health and Safety Act Revised Statutes of Ontario, 1990, Chapter 0.1 as amended, in the work area.
- 1.30 SPECIAL PROTECTION AND PRECAUTIONS .1 Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of material safety data sheets acceptable to HRSDC - Labour Program.
- .2 When the use of explosives is necessary for the execution of the Project, receive written approval from the Departmental Representative, exercise the utmost care and diligence not to endanger life or property. Duly comply with all Requirements of Law regarding the use of explosives. Be responsible for any and all losses and damages to persons, including without limitation injuries and death, and property arising in connection with the use of explosives.
- 1.31 POLLUTION CONTROL .1 Spills of deleterious substances:
.1 Immediately contain, limit spread and clean up in accordance with provincial regulatory requirements.
.2 Report immediately to Ontario Spills Action Centre: 1-800-268-6060.
.3 Further information on dangerous goods emergency cleanup and precautions including a list of companies performing this work can be obtained from the Transport Canada 24-hour number (613) 996-6666 collect.
- .2 If the Work or any part thereof is carried out in or about any wetland or body of water, including without limitation any stream, river or lake, undertake and maintain at its own expense and at all times, take such measures (including such measures as may be directed by the Ministry of Natural resources and the Departmental Representative) as may be necessary to control and contain fill materials, soil erosion, sedimentation and other harmful wastes resulting from its operations that could result in harm to or pollution of such wetlands or bodies of water.
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1.31 POLLUTION CONTROL
(Cont'd) .3 Where an old oil or gas well is being plugged within 100 m of a domestic use water well, samples of the water well may be obtained by others prior to plugging, immediately afterwards, and again, three months later at the expense of others. The purpose of the sampling is to determine if the oil or gas well was having any impact on the water well before the abandonment operations commenced and, if so, to assess whether the problem has been resolved or alleviated as a result of the abandonment operations.

1.32 OPSS AND OPSD .1 OPSS Ontario Provincial Standard Specifications and OPSD Ontario Provincial Standard Drawings quoted in these specifications are available online at <http://www.raqsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

1.1 REFERENCES

- .1 National Fire Code 2010 (NFC):
 - .1 NFC 2010, Division B, Part 5 Hazardous Processes and Operations, subsection 5.6.1.3 Fire Safety Plan.
- .2 Province of Ontario:
 - .1 Occupational Health and Safety Act Revised Statutes of Ontario 1990, Chapter O.1 as amended, and Regulations for Construction Projects, O. Reg. 213/91 as amended.
 - .2 O. Reg. 490/09, Designated Substances.
 - .3 Workplace Safety and Insurance Act, 1997.
 - .4 Municipal statutes and authorities.
- .3 Fire Commissioner of Canada (FCC):
 - .1 FC-301 Standard for Construction Operations, June 1982.
 - .2 FC-302 Standard for Welding and Cutting, June 1982.

Labour Program
Fire Protection Engineering Services
4900 Yonge Street 8th Floor
North York, Ontario M2N 6A8

and copies may be obtained from:

Human Resources and Social Development Canada
Labour Program
Fire Protection Engineering Services
Ottawa, Ontario K1A 0J2

1.2 SUBMITTALS

- .1 Make submittals in accordance with Section 01 11 01.
 - .2 Submit site-specific Health and Safety Plan:
Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 Results of site specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operations found in work plan.
 - .3 Measures and controls to be implemented to address identified safety hazards and risks.
 - .4 Provide a Fire Safety Plan, specific to the work location.
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- 1.2 SUBMITTALS (Cont'd)
- .2 (Cont'd)
 - .5 Contractor's and Sub-contractors' Safety Communication Plan.
 - .6 Contingency and Emergency Response Plan addressing standard operating procedures specific to the project site to be implemented during emergency situations.
 - .3 Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 5 days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental Representative within 3 days after receipt of comments from Departmental Representative.
 - .4 Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
 - .5 Submit names of personnel and alternates responsible for site safety and health.
 - .6 Submit records of Contractor's Health and Safety meetings when requested.
 - .7 Submit 2 copies of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative, weekly.
 - .8 Submit copies of orders, directions or reports issued by health and safety inspectors of the authorities having jurisdiction.
 - .9 Submit copies of incident and accident reports.
 - .10 Submit Material Safety Data Sheets (MSDS).
 - .11 Submit Workplace Safety and Insurance Board (WSIB)- Experience Rating Report.
- 1.3 FILING OF NOTICE
- .1 File Notice of Project with Provincial authorities prior to commencement of Work.
- 1.4 WORK PERMITS
- .1 Obtain any permits related to project prior to commencement of Work.
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1.5 SAFETY ASSESSMENT .1 Perform site specific safety hazard assessment related to project.

1.6 MEETINGS .1 Schedule and administer Health and Safety meeting with Departmental Representative prior to commencement of Work.

1.7 REGULATORY REQUIREMENTS .1 Comply with the Acts and regulations of the Province of Ontario.
.2 Comply with specified standards and regulations to ensure safe operations at site.

1.8 PROJECT/SITE CONDITIONS .1 Work at site will involve contact with:
.1 Crude Oil.
.2 Sweet or Sour Gases.

1.9 GENERAL REQUIREMENTS .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
.2 Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns either accepting or requesting improvements.
.3 Relief from or substitution for any portion or provision of minimum Health and Safety standards specified herein or reviewed site-specific Health and Safety Plan shall be submitted to Departmental Representative in writing.

1.10 COMPLIANCE REQUIREMENTS .1 Comply with Ontario Occupational Health and Safety Act, R.S.O. 1990 Chapter 0.1, as amended.

1.11 RESPONSIBILITY .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and

- 1.11 RESPONSIBILITY (Cont'd) .1 (Cont'd)
environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.
- .3 Where applicable the Contractor shall be designated "Constructor", as defined by Occupational Health and Safety Act for the Province of Ontario.
- 1.12 UNFORSEEN HAZARDS .1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, immediately stop work and advise Departmental Representative verbally and in writing.
- .2 Follow procedures in place for Employees Right to Refuse Work as specified in the Occupational Health and Safety Act for the Province of Ontario.
- 1.13 HEALTH AND SAFETY CO-ORDINATOR .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:
- .1 Have site-related working experience specific to activities associated with the work of this project.
- .2 Have working knowledge of occupational safety and health regulations.
- .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
- .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
- .5 Be on site during execution of Work.
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- 1.14 POSTING OF DOCUMENTS .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province of Ontario, and in consultation with Departmental Representative.
- .1 Contractor's Safety Policy.
 - .2 Constructor's Name.
 - .3 Notice of Project.
 - .4 Name, trade, and employer of Health and Safety Representative or Joint Health and Safety Committee members (if applicable).
 - .5 Ministry of Labour Orders and reports.
 - .6 Occupational Health and Safety Act and Regulations for Construction Projects for Province of Ontario.
 - .7 Address and phone number of nearest Ministry of Labour office.
 - .8 Material Safety Data Sheets.
 - .9 Written Emergency Response Plan.
 - .10 Site Specific Safety Plan.
 - .11 Valid certificate of first aider on duty.
 - .12 WSIB "In Case of Injury At Work" poster.
 - .13 Location of toilet and cleanup facilities.
- 1.15 CORRECTION OF NON-COMPLIANCE .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
 - .3 Departmental Representative may stop Work if non-compliance of health and safety regulations is not corrected.
- 1.16 BLASTING .1 Blasting or other use of explosives is not permitted.
- 1.17 WORK STOPPAGE .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.
- .2 Assign responsibility and obligation to Health and Safety Coordinator to stop or start Work when, at Health and Safety Coordinator's discretion, it is necessary or advisable for
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1.17 WORK STOPPAGE .2 (Cont'd)
(Cont'd) reasons of health or safety. Departmental
Representative may also stop Work for health and
safety considerations.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

- 1.1 DEFINITIONS
- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.
 - .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction.
- 1.2 REFERENCES
- .1 Oil, Gas and Salt Resources of Ontario, Provincial Operating Standards Version 2 dated January, 2002.
 - .2 U.S. Environmental Protection Agency (EPA)/Office of Water
 - .1 EPA 832/R-92-005-92, Storm Water Management for Construction Activities, Chapter 3.
 - .2 EPA General Construction Permit (GCP) 2012.
- 1.3 ACTION AND INFORMATIONAL SUBMITTALS
- .1 Submit in accordance with Section 01 33 00.
 - .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for plugging material and any other products to be used and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS MSDS.
 - .3 Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Departmental Representative.
 - .4 Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
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1.3 ACTION AND
INFORMATIONAL
SUBMITTALS
(Cont'd)

- .5 Address topics at level of detail commensurate with environmental issue and required construction tasks.
 - .6 Include in Environmental Protection Plan:
 - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
 - .3 Names and qualifications of persons responsible for training site personnel.
 - .4 Descriptions of environmental protection personnel training program.
 - .5 Erosion and sediment control plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations and EPA 832/R-92-005, Chapter 3.
 - .6 Drawings indicating locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
 - .7 Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather.
 - .1 Plans to include measures to minimize amount of material transported onto paved public roads by vehicles or runoff.
 - .8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use.
 - .1 Plan to include measures for marking limits of use areas and methods for protection of features to be preserved within authorized work areas.
 - .9 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
 - .11 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
 - .12 Contaminant Prevention Plan identifying potentially hazardous substances to be used on
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1.3 ACTION AND
INFORMATIONAL
SUBMITTALS
(Cont'd)

- .6 (Cont'd)
- .12 (Cont'd)
job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
- .13 Waste Water Management Plan identifying methods and procedures for management and or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, well drillings, disinfection water, hydrostatic test water, and water used in flushing of lines.
- .14 Historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands.
- .15 Pesticide treatment plan to be included and updated, as required.

1.4 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

1.5 DRAINAGE

- .1 Develop and submit erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations, EPA 832/R-92-005, Chapter 3 US EPA General Construction Permit.
- .2 Storm Water Pollution Prevention Plan (SWPPP) to be substituted for erosion and sediment control plan.
- .3 Provide temporary drainage and pumping required to keep excavations and site free from water.
- .4 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
- .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.
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- 1.6 SITE CLEARING AND PLANT PROTECTION
- .1 Protect trees and plants on site and adjacent properties as indicated.
 - .2 Protect trees and shrubs adjacent to construction work, storage areas and trucking lanes.
 - .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage.
 - .1 Avoid unnecessary traffic, dumping and storage of materials over root zones.
 - .4 Minimize stripping of topsoil and vegetation.
 - .5 Restrict tree removal to areas designated by Departmental Representative.
- 1.7 WORK ADJACENT TO WATERWAYS
- .1 Construction equipment to be operated on land only.
 - .2 Waterways to be kept free of excavated fill, waste material and debris.
 - .3 Design and construct temporary crossings to minimize erosion to waterways.
 - .4 Do not skid logs or construction materials across waterways.
 - .5 Avoid indicated spawning beds when constructing temporary crossings of waterways.
 - .6 Blasting is allowed only above water and 100 m minimum from indicated spawning beds.
- 1.8 POLLUTION CONTROL
- .1 Maintain temporary erosion and pollution control features installed under this Contract.
 - .2 Control emissions from equipment and plant in accordance with local authorities' emission requirements.
 - .3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.
 - .1 Provide temporary enclosures where directed by Departmental Representative.
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- 1.8 POLLUTION CONTROL
(Cont'd)
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
- 1.9 HISTORICAL/
ARCHAEOLOGICAL CONTROL
- .1 Assist in the preparation of a historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on project site: and identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in area are discovered during construction.
- .2 Assistance in the Plan shall include, but not be limited to: employing methods to assure protection of known or discovered resources and identify lines of communication between Contractor personnel and Departmental Representative.
- 1.10 NOTIFICATION
- .1 Departmental Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
.1 Take action only after receipt of written approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.
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PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 CLEANING .1 Progress Cleaning:
.1 Leave Work area clean at end of each day.
.2 Ensure public waterways, storm and sanitary
sewers remain free of waste and volatile
materials disposal.
.3 Final Cleaning: upon completion remove surplus
materials, rubbish, tools and equipment.
.4 Waste Management: separate waste materials for
reuse and recycling.
.1 Remove recycling containers and bins from
site and dispose of materials at appropriate
facility.

PART 1 - GENERAL

1.1 MEASUREMENT
PROCEDURES

- .1 Measure for on-site Site Supervisor services by the hour.
 - .2 Measure for on-site Rig Rate when actively used, including operating rig, and all necessary appurtances and crew to complete the work by the hour.
 - .3 Measure for on-site Standby Time by the hour.
 - .1 Refer to definition for description.
 - .4 Measure Well Logs by each well.
 - .5 Measure Cementing equipment by the hour.
 - .1 Rates shall only be charged when equipment is on-site and actively used. No charges may be submitted for equipment which is on the Project Site but idle.
 - .6 Measure the removal and disposal of non-hazardous Waste Fluid from inside of the piping and or well casing by the litre based on delivery receipts of fluid delivered to a licensed disposal facility.
 - .7 Measure the removal and disposal of non-hazardous Waste Solids from inside the casing by the tonne based on delivery receipts of solids delivered to a licensed disposal facility.
 - .1 Waste material is assumed to be non-hazardous. Where hazardous material is anticipated, Rates will be requested on a Project-specific basis.
 - .8 Measure the removal and disposal of non-hazardous Contaminated Soil from outside of the casing by the tonne based on delivery receipts of soil delivered to a licensed disposal facility.
 - .1 Contaminated Soil is assumed to be non-hazardous. Where hazardous material is anticipated, Rates will be requested on a Project-specific basis.
 - .9 Measure the supply, placement and compaction of clean backfill to required grade by the tonne based on weigh bills of material delivered to the site.
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1.1 MEASUREMENT
PROCEDURES
(Cont'd)

- .10 Measure the supply and installation of a 100 mm layer of topsoil over the backfilled excavated areas and backfilling ruts of setup areas by the m³.
- .11 Measure grass seed and fertilizer raked into topsoiled excavation and set-up areas by the m².
- .12 All of the services of the designated First Nations Facilitator, including facilitating access to the sites, negotiating access agreements with property owners, dealing with the property owners issues, restoration requirements, Band inspectors, Band staff, and any First Nation issues, will be arranged by others at no cost to the Contractor.

1.2 DEFINITIONS

- .1 Annular space: space between well casing and borehole wall.
- .2 Aquifer: part of formation or group of formations that is water bearing.
- .3 Authority: means any government authority, agency, body or department, whether federal, provincial or municipal, having or claiming jurisdiction over the Contract; and "Authorities" mean all such authorities, agencies, bodies and departments.
- .4 Consolidated formation: a geologic formation of bedrock.
- .5 Day: means any working day, Monday to Sunday inclusive, excluding statutory and other holidays, namely: New Year's Day; Good Friday; Easter Monday; Victoria Day; Canada Day; Civic Holiday; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day; Boxing Day and any other day which the Ministry of Natural Resources and Federal Government has elected to be closed for business.
- .6 Decommissioning Plan or 'Plan': means the document developed by the Contractor to outline its method for the provision of the Work requirements.
- .7 Drawdown: difference in elevation, between static level and pumping level.
- .8 First Nations Facilitator: The Band will designate an official local First Nations Band

1.2 DEFINITIONS
(Cont'd)

- .8 First Nations Facilitator:(Cont'd)
member to act as the facilitator for the contractor and all involved with the project in all activities involving all other First Nations people at no cost to the Contractor. This includes negotiating, communicating, arranging access with property owners and advising the property owner of the construction schedule, construction work restoration and dealing with Band inspectors.
- .9 Incident: means an event such as a spill, discharge, emission, release or escape of a material, pollutant, contaminant, deleterious substance or dangerous good as defined in the legislation referenced in Section 01 11 01.
- .10 Industry Standards: include, but are not limited to:
.1 The provision of any and all labour, supplies, equipment and other goods or services that are necessary and can reasonably be understood or inferred to be included within the scope of the Contract or customarily furnished by Persons providing Deliverables of the type provided hereunder in similar situations in Ontario and;
.2 Adherence to commonly accepted norms of ethical business practices, which shall include establishing, and ensuring adherence to, precautions to prevent its employees or agents from providing or offering gifts or hospitality of greater than nominal value to any person acting on behalf of or employed by Her Majesty the Queen in right of Ontario or Canada.
- .11 IOGC: Indian Oil and Gas Canada.
- .12 Landowner or 'Owner': means the owner of the Lands on which the Well or Work is situated.
- .13 Landowner's Access Agreement: means the agreement created by the others granting permission to the Contractor and others to enter the property of the Landowner for the purpose of providing the Work for this specific Project.
- .14 MNR: Ministry of Natural Resources.
- .15 Potable water: water that is safe for human consumption.
- .16 Sour Gas: means natural gas containing chemical impurities, notably hydrogen sulphide (H₂S) or
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1.2 DEFINITIONS
(Cont'd)

- .16 Sour Gas:(Cont'd)
other sulphur compounds that make it extremely harmful to breathe even in small amounts.
- .17 Standby Time: means but
- .1 Standby Time charges for the rig and crew will be allowed for delays incurred by Contractor in performing the work resulting from Departmental Representatives direction(s) to accommodate such events as Departmental Representative evaluations or consultations to resolve unforeseen complications.
 - .2 Standby Time does not include waiting time inherent in providing the work or due to equipment breakdowns, unavailability of personnel or other events within the reasonable control of the Contractor and does not include Force Majeure events.
 - .3 Where progress in clearing the Well bore, despite the best efforts of the Contractor, is slowed to less than 3 metres per hour, or if the Contractor requires special tools not reasonably contemplated at the outset of the work, the Contractor may discontinue work with the approval of the Departmental Representative. Perform the additional work to clean out or log the Well bore at the applicable Rates on a per hour basis.
 - .4 Charges for such additional work and Standby Time shall cease when instructed by the Departmental Representative to resume plugging and abandonment of the Well. The Departmental Representative shall, in their sole discretion, determine the nature and amount of any payments for such additional work and Standby Time.
- .18 Sweet Gas: means natural gas free of significant amounts of hydrogen sulphide (H₂S) when produced.
- .19 Term: means the period of time from the effective commencement date up to and including the later of the original Contract completion date, and may vary, depending on:
- .1 The expiry date of any extension to the Contract; or
 - .2 The expiry date of the last to expire term, including any extension thereof, of the Contract(s) between parties.
- .20 Unconsolidated formation: geologic formation of sand, gravel or other soil strata.
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1.2 DEFINITIONS
(Cont'd)

- .21 Well: means the well as defined by the Oil, Gas and Salt Resources Act located on the Lands or Site as more particularly identified and described in Appendices 2 and 3.
- .22 Well datum: top of outer casing or similar fixed point of well head with elevation tied to geodetic or suitable local datum.

1.3 SUBMITTALS

- .1 In accordance with Section 01 11 01.
- .2 Prior to the award of this Contract, the Contractor must provide the Departmental Representative with a copy of the well contractor and technician licenses, as may also be required by the MNR.
- .3 Submit the Decommissioning Plan including the detailed procedures for the proper investigation of, and abandonment of, each well bore to ensure the isolation of each hydrocarbon bearing formation and the protection of any aquifers. The procedures must include provision of daily operations reports and other progress reports to IOGC during the abandonment operations (NOTE that these reports will come to IOGC's petroleum geologist).
- .4 Submit a written schedule to the Departmental Representative forty-eight (48) hours prior to the start of plugging or restoration operations.
- .5 Submit photos as per Section 01 11 01 Clause 1.14.
- .6 During the plugging activities, submit reports at least weekly, in writing, to the Departmental Representative as to the progress of the Project and up-to-date totals of payment items.
- .7 On completion of Work, submit to Departmental Representative:
 - .1 Copies of all Project documents.
 - .2 Copies of inspection reports.
 - .3 Waste disposal information including waste volumes, description/characterization, disposal location and receipt(s) for disposal fees.
- .8 Within twenty (20) days after the completion of the plugging operations and all Deliverables, prepare and submit a plugging report to the MNR and Departmental Representative, in accordance with the Provincial Standards. The MNR will then

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- 1.3 SUBMITTALS .8 (Cont'd)
(Cont'd)
issue a Certificate of Completion to the contractor with a copy to the Departmental Representative.
- 1.4 QUALIFICATIONS .1 Well decommissioning work shall be undertaken by a licensed oil and gas well drilling contractor.
- .2 While Work is in progress, have a Site Supervisor on site who shall oversee the decommissioning operations, make Project decisions on behalf of the Contractor and communicate with the MNR.
- .1 The Site Supervisor must be a member of the Project team, and must have the authority to make decisions and be able to communicate effectively after consultation with the Departmental Representative. The Departmental Representative must be able, at all times, to contact the Site Supervisor by means of cellular or other telecommunications means.
- 1.5 WASTE MANAGEMENT AND DISPOSAL .1 Separate waste materials for reuse and recycling when possible.
- .2 Removal and proper disposal of all surface equipment at the Site, including, but not limited to, tanks, pipelines, production equipment, debris, etc in accordance with the Plan. Pipelines may be decommissioned in place with the prior written approval of the MNR. Where pipelines are left in place, they shall be flushed if possible, and, where they cannot be easily removed, cut at regular intervals and capped.
- .3 Divert unused plugging materials from landfill to local facility as approved by Departmental Representative.
- .4 Divert unused backfill materials from landfill to facility for reuse as approved by Departmental Representative.
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- 1.6 PROJECT CONDITIONS
- .1 The properties may or may not be occupied. Be considerate of the tenant and maintain access for the tenant.
 - .2 Overhead wires, structures, trees, etc. may restrict access to the work area.

- 1.7 WORK SCHEDULE
- .1 All wells must be abandoned.
 - .2 All landscape work including topsoiling and seeding/sodding work must be completed by the Contract completion date.

PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Oil Well abandonment plug material: to Oil, Gas, and Salt Resources Act, R.S.O. 1990 c.P.12.
 - .2 Clean sand fill material: to O. Reg. 347 and 153/04, under Part XV.1 of the Environmental Protection Act, table 1.
 - .3 Topsoil: Material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.
 - .4 Fertilizer: 8-32-16 raked into the topsoil at a rate of 350 kg per hectare.
 - .5 Grass seed: Certified Canada No. 1 Grade to Government of Canada, Seeds Regulations, 50% Kentucky Blue grass, 45% Creeping Red Fescue, 5% Norlea perennial rye; 75% germination, 97% purity applied at a rate of 100 kg per hectare. Water all restored areas until topsoil is saturated to a depth of 5 cm.
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PART 3 - EXECUTION

- 3.1 REVIEW OF AVAILABLE INFORMATION
- .1 Attached Appendices 2 and 3 provide a partial description of the wells to decommission.
 - .2 For sites where the well depth of wells is not known, Contractor will be paid for the actual hours to abandon the well as set out in the Contract unit price.
- 3.2 WELL PLUGGING
- .1 Perform all work in accordance with the specifications as listed in section 11 of the Ontario Provincial Standards Version 2 dated January 2002. Abandonment includes, but is not necessarily limited to:
 - .1 Preparation of a Decommissioning Plan for approval by PWGSC.
 - .2 Accessing the site.
 - .3 Clearing and grubbing
 - .4 Re-entering the well.
 - .5 Removal of tubing and casing wherever possible.
 - .6 Cleaning out of the casing.
 - .7 Filling the casing with cement to surface.
 - .8 Excavation of the area around the casing.
 - .9 Disposal of contaminated soil.
 - .10 Cutting off and removing the casing at least one metre below grade.
 - .11 Welding a metal cap on to the casing.
 - .12 Backfilling the excavation.
 - .13 Restoration of disturbed areas to condition acceptable to departmental representative.
 - .2 Control, divert, and dispose of Sweet or Sour Gas.
 - .3 Clean the casing of loose material and check to see if the Well is open to total depth. Maintain Well open and casing free of contaminating materials.
 - .4 Remove and properly dispose of any contaminated fluids, soil, or other substances and materials from the Site, and subsequent related clean-up. Only uncontaminated water may be wasted to the surface ground level as long as it does not cause erosion or siltation.
 - .1 All oily debris (e.g. rocks, wood, etc. contaminated with oil) and metal products produced as a result of this Project, or

3.2 WELL PLUGGING .4
(Cont'd)

(Cont'd)

.1 (Cont'd)

otherwise remaining, shall be removed from the Site and disposed of at the contractor's sole risk and responsibility according to all applicable legislation and Industry Standards. During plugging operations and prior to disposal, contaminated fluids are to be temporarily stored in suitable sealable containers prior to disposal. All material contaminated with oil, etc., that is removed from or around the Well, shall be temporarily contained or stockpiled on impermeable oil resistant tarps and covered, or stored in sealable drums or other suitable containers to prevent contamination of clean surrounding areas.

.5 Should the Contractor determine that conditions in the Well prevent plugging as originally planned, immediately inform Departmental Representative of the condition and the proposed alternative method of plugging. Obtain Departmental Representative's approval prior to proceeding with an alternative plugging and abandonment procedures.

.6 Well plugging in accordance with requirements of all federal, provincial and municipal legislation, including without limitation Provincial Standards, and Industry Standards, including without limitation running caliper, and gamma ray/neutron or other wireline logs, placing neat cement and bentonite grout plugs in abandoned Well, perforating and squeezing cement behind casing or removing casing entirely to achieve isolation of porous formations, and properly disposing of solid and fluid wastes, including those contaminated by hydrocarbons, salt, or other formation fluids.

3.3 SOIL EXCAVATION .1

As directed by the Departmental Representative, excavate and remove any visibly or otherwise apparently contaminated soil for proper waste disposal. Communicate with the Departmental Representative, daily, during excavation of visibly or otherwise apparently contaminated soil to discuss estimated volumes and costs of removal, to attain preapproval of any changes in the scope of work.

.2 The Departmental Representative must witness and approve the extent of excavation of

3.3 SOIL EXCAVATION .2
(Cont'd)

(Cont'd)
contaminated soil and the taking of soil samples to confirm that the perimeter and floor of the excavation is clean.

.3 Confirmatory soil sampling will be undertaken as directed and will be paid for by the Departmental Representative to ensure soil contaminants are removed.

.4 The excavation is not to be backfilled until acceptable soil test results from the floor and walls of the excavation are received. Anticipate that the test results will take at least 5 days. Assume that there may have to be two cycles of testing required. ie. Assume waiting 5 days for the first sample results to be received. If the result is negative, further excavation will be completed and a second round of sampling taken which will require a further 5 days to receive presumeably clean results.

.1 The confirmatory soil samples will be compared to CCME residential criteria for BTEX and Polyhydrocarbon fractions F1 - F4.

.5 Upon completion of excavation, cut the Well casing off at least one metre below grade and weld a steel plate on top of casing prior to backfill.

.6 Remove and properly dispose of any associated equipment such as concrete pads, visible pipelines, or other found materials during excavation.

3.4 BACKFILL,
TOPSOIL AND SEED

.1 Provide source of clean backfill and topsoil for inspection and preapproval.

.2 After soil excavation and acceptable test results, backfill the excavation with pre-approved backfill material.

.1 Place backfill in 150 mm layers compacted to 95% proctor density.

.3 Provide 100 mm cover of topsoil and seed at an application rate of 100 kg per hectare for Well #1B and Well #2, and rake smooth to match the surrounding grades, as directed by the Departmental Representative.

3.5 CLEAN UP

- .1 Contractor is responsible for ensuring that each property is left in equivalent or better condition upon completion of the Work at each property.
- .2 Remove all Well plugging tools, equipment, materials and debris.
- .3 Remove security fencing, warning signs, etc.
- .4 Break down, clean-up and demobilize.