

APPENDIX 'H'

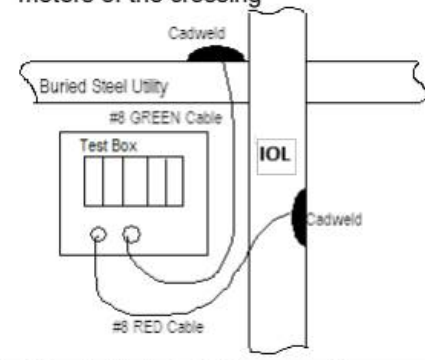
IMPERIAL OIL PIPELINE REQUIREMENTS

TERMS and CONDITIONS:

Imperial Oil Inspector will review the applicable terms for this consent agreement with the on-site supervisor prior to start of work.

1. Prior to any operation within 30.0m of the pipeline (the restricted zone) or any other Grantor's Facility, an Imperial Oil inspector will issue a "Controlled Area Access Permit" on site. The Imperial Oil inspector is required on site for all work within the restricted zone. Inspection services are available during normal business hours Monday to Friday (07:30 – 16:00), excluding travel time. NOTE: scheduling an Imperial Oil inspector requires advance notification (1-3 weeks) to ensure availability.	
2. Where required, Ground Disturbance Training is required for <u>all</u> crew foremen engaged in planning / performing excavation within ROW as required by regulations.	
3. Grantee will insure a one call has been placed prior of start of work. Crossing Inspector will verify physical locates have been completed within the approved workspace.	
4. All hydro-vacing shall be done at the sole cost of the Grantee. Each hydro-vac location shall remain open until inspected by the Imperial Oil field representative.	
5. Grantee shall adhere to the following requirement for hydro excavation as per CSA Z662-23 when working around the Grantor's Facility. The maximum water pressure of the wand tip will exert no more than 1500 psi as a maximum to ensure no Facility coating damage takes place, further, the maximum water temperature will be no more than 40 degrees Celsius. The hydro excavation wand tip must be either a rotating or oscillating style when delivering the water for hydro excavation purposes.	
6. Adequate supports and shoring, as approved by the Inspector, must be provided if over 7m - 5m (as per safe excavation PDM) of pipeline is exposed.	
7. Drawings provided to contractors shall contain the following note in bold letters: Warning High Pressure Oil Pipeline Contact Imperial Oil for inspections 3 weeks before commencement of work.	
8. A highly visible temporary fence, securely affixed, must be erected to restrict access to the pipeline and easement wherever: I. An open excavation is on the right-of-way or exposes the pipeline, II. Equipment will be working in the vicinity of the pipeline, III. Precautions are appropriate to protect the public and pipeline.	
9. The Imperial Oil right-of-way must not be used for the transportation, storing or staging of heavy equipment or the storage of spoil piles without the prior consent of Imperial Oil.	
10. Temporary spoil piles are only allowed on the right-of-way in cases where absolutely no other alternative is available, and the piles will be there no longer than 2 - 3 weeks with Imperial Oil approval. Spoil piles must be pushed onto the pipeline and pulled from off the pipelines. Equipment must work from off of the pipeline rather than above it.	
11. Equipment over ¾ ton crossing the pipeline must use a single point of crossing at a 90° angle with a minimum cover of 1.2m, or such greater depth of cover or adequate mechanical protection necessary to mitigate the stress on the pipeline. Use of an Air Bridge, or Bridge Block (to negate the need for a Stress Analysis) is required. All terms to be met unless otherwise agreed to.	
12. Excavation machinery shall not be placed on top of the pipeline unless no other alternative is available, in which case the above condition for equipment crossing shall apply. In all cases it is the Grantee's responsibility to prove the adequacy of depth of cover or mechanical protection to avoid putting stress on the pipeline.	
13. During directional boring operations, inspection holes will be hand exposed/hydro-vaced at the discretion of the on-site Imperial Oil representative.	
14. Dragline equipment shall not operate within 6m of the pipeline.	

15. The pipeline or cable crossing shall be so constructed that it conforms to CSA C22.3 No.6, and CSA-Z662 Oil & Gas pipeline systems.	
16. All railway crossings shall be laid in accordance with the approval and conditions set by the Canadian Transport Act, and C.S.A. Standard Z662-23.	
17. The angle of crossing by railways, highways, or utilities shall be as close as possible to 90 degrees, but not less than 45 degrees in any case.	
18. Aerial warning devices shall be installed on overhead power lines at the crossing point to facilitate safe aerial patrol of the pipeline.	
19. New facilities being installed should take the lower position with a separation of 1 meter unless otherwise agreed. New facilities installed over the existing Imperial Oil facility, or within an existing Imperial Oil right of way will be permitted with the condition that Imperial Oil will have full access to their Easement, and/or Facility at all times. Grantee will remove, disconnect their facility if required for access purposes.	
20. Permanent visible warning signs / utility markers must be placed and maintained within 3m of the point of crossing.	
21. The traveled surface of all Surface Crossings will conform to CSA-Z662 pipeline regulation 4.8. The traveled surface must be at least 1.2m (4') above the top of the pipeline or casing pipe. The ground surface elsewhere in the road right-of-way must be at least 0.8m above the top of the pipeline or casing pipe. Non typical Stress calculations will be done at the Grantees expense. Extension of casing, and relocation of vents is done at Grantees expense under direct supervision and approval of the Grantor.	
22. All costs for mechanical protection or pipeline support requirements specified in this Agreement are at the sole cost of the Grantee.	
23. Cable(s) to be placed in PVC (or equivalent) conduit within Imperial Oil pipeline easement(s). Warning ribbon to be placed 0.3 meters above the cables inside our right-of-ways.	
24. Multiple underground cables must be placed in a concrete or rigid conduit for the full width of the right-of-way, or for a distance of 7.5m (25') on either side of the pipeline.	
25. Conduit duct structures must be self-supporting when exposed for a 3m span.	
26. No splices, joints or other connections shall be made to cables within the pipeline right-of-way.	
27. Due to the brittle nature of the coating on the pipeline, there will not be any use of vibrating compaction within the Imperial Oil right-of-way and/or within 3m of the pipeline. Static rolling is allowed provided that the cover over the pipeline is sufficient to support the weight of the roller.	
28. Depth of cover must be restored in accordance with CSA Z662 schedule. An envelope at least 30 cm (12") thick of sand or other such clean fill acceptable to the inspector must be hand compacted around the pipeline, or an acceptable rock shield material must be used to provide cushioning in rocky or coarse and abrasive soils. Back-fill must be supervised by an Imperial Oil Representative.	
29. All subgrade material shall be of sufficient strength to safely withstand the design loading conditions and resist the transmission of stress to the pipeline.	
30. As required and based on the stress load calculations, provisions to maintain acceptable stress loads on the pipeline will be recommended and must be followed diligently.	
31. Minimum clearances from the pipeline to: i. Ditch Bottoms.....80 cm (30") ii. Culverts (conductive drain tiles).....30 cm (12") iii. Fence posts, piles, concrete supports shall be kept at least 1.5m (5') away from the pipeline	
32. Planting of trees and shrubs is not allowed on any Imperial Oil right-of-way.	
33. Appurtenances and other support fittings e.g. poles, anchors, sheds, manholes, valves etc., are to be located outside the pipeline right-of-way.	
34. Plastic gas lines and PVC ducts must have a layer of concrete paving stones placed above them at the crossing to guard against possible probing bar damage.	

35. Metallic installations will be required to provide connections from the utility and the pipeline in accordance with the specifications provided/approved by facility owner, and carried to a suitable test point, provided neither line has test leads within 150 meters of the crossing 	
36. All metallic installations must be wrapped with a non-conductive insulating material for a minimum distance of 8m on either side of the pipeline.	
37. In order to mitigate potential conductive & inductive coupling due to adjacent high voltage power lines. In all cases the Grantee is responsible for determining and applying appropriate procedures. Consideration should be given to the following while exposing Imperial Oil facilities: • Proper PPE will be required at all times including but not limited to CSA Z195 approved work boots with the ohms symbol, 1000v rated (class O) work gloves, rubber mats. • Personnel/Operators must stand on properly bonded non-slip grounding mats at all times while exposing the facility. • An equipotential zone must be established around the work area. • Equipment must be barricaded so no personnel outside the equipotential zone can come in contact with equipment in the zone. Equipment must be surrounded with Non slip conductive mats, mats must be bonded • The Equipotential zone must be clearly marked, mats and warning signs must be posted to advise that all personnel entering or exiting must step on the mat to reduce step voltage. Rubber mats must be clean and dry. • All excavation hydro-vac equipment must be bonded with an appropriate grounding system. • Any unnecessary equipment must be kept clear of the equipotential zone. • All Hydro-vac wands and suction tubes must have rubberized tips to ensure no metal contact with the facility unless properly bonded to the facility. Where equipment, workers may come in direct contact with the pipeline, appropriate procedures must be adopted prior to start of work.	
38. Noise attenuation walls shall have a removable section over the entire width of the pipeline easement to allow access to the pipeline.	
39. Wherever possible, parking areas should leave a green strip over the pipeline right-of-way to allow access to the buried pipeline without disturbing the pavement.	
40. If, in order to access its pipeline, Imperial Oil is forced to break the driving or parking surface placed by the Applicant, it shall be the Applicant's responsibility and cost to repair the surface.	
41. Imperial Oil does not assume any liability for inconvenience or loss of income due to obstructions created while accessing the pipelines below any parking or driving surface. Imperial Oil will consult with the party owning or operating the surface, EXCEPT IN AN EMERGENCY, prior to undertaking any excavations in the traveled surface area.	
42. The crossing party should use methods other than blasting on the right-of- way, unless impossible. No blasting within 5 feet of the pipeline, in any event.	
43. Maximum amplitude of vibration:	

- Explosives: 0.152 mm [0.006 in.] - Repeated mechanical impacts: 0.076 mm [0.003 in.] - Maximum peak particle velocity: 50 mm/sec [2 in/sec], measured at the ground surface above the pipeline at the point nearest the blast site. - Delays shall be designed to prevent cumulative readings.	
44. Impact protection: - The pipeline must be protected from fly rock and impacts from hoe-rams, drills and other machinery. - All blasts must use matting or other safeguards. - Exposed pipeline must be banded with minimum 2" X 4" planking and may have a maximum unsupported span of no more than 7m.	
45. Vibration and blasting supervision: - The crossing party shall notify Imperial Oil of any blasting within 300m of the pipeline. - The crossing party shall retain the services of a registered professional engineer, licensed in the Province, to be on site to monitor and control all blasting activities within 60m of the pipeline. - The crossing party shall provide Imperial Oil with a written copy of their plans for blasting within 60m, or hoe ramming within 6m, of the Imperial Oil pipeline, at least 2 weeks prior to the operations in that zone, for review by Imperial Oil and its blasting consultant, and to allow planning for a reduction in operating pressure of the pipeline. - Imperial Oil may retain an independent blasting consultant, at the expense of the crossing party, to monitor and approve any blasting within 60m of the pipeline. - No blasting shall take place within 60m of the pipeline until Imperial Oil's Inspector or consultant gives approval to each shot. - Representative readings shall be taken at the start of pile driving or hoe ramming operations delivering more than 10,000 foot-pounds of energy on impact within 6m of the pipeline.	
46. Blasting close to the pipeline should be arranged to be completed within a single day, if possible.	
47. Prior to any blasts within the 60 m zone, or pile driving within 6 m of the pipeline, Imperial Oil or its consultant shall be supplied with a copy of seismograph testifying that the vibration limitations listed above have not been exceeded at the pipeline by any previous blasts or impacts.	
48. Where applicable as per local regulations, a charge will be levied to cover inspection and equipment costs if the inspector is required to remain at the site for a cumulative total of more than 3 days	
49. Final approval for Crossing to be at the discretion of the Imperial Oil Field Inspector, or the Onsite Imperial Oil Representative	

Kindly acknowledge acceptance of this agreement by signing and returning one copy. Grantee's Field Representative must *review scope of work with Grantor's field representative and initial applicable Terms & Conditions within Schedule "C" prior to the start of work. No activity is to take place within the restricted zone until a fully executed copy is on site and an Imperial Oil pipeline inspector has issued a "Controlled Area Access Agreement ("Permit" not agreement)" for the activities.*

Thank you very much for your notice and cooperation with the continued safe operation of our pipeline system.