

	GROUND DISTURBANCE ALL-HSE-PRC-171	Retention Code: CG01 - CA
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1.0 Purpose

The purpose of this Ground Disturbance procedure (hereafter this Procedure) is to ensure that ground disturbance activities are performed in the safest practical manner possible, for the benefit of workers, the general public, and the environment. It applies to all sites that ConocoPhillips Canada owns or operates, including, but not limited to facilities, wells, pipelines, pipeline risers, and headers.

1.1. Overview

Ground disturbance is any activity that results in a disturbance of the earth, excluding the following:

- Agricultural cultivation to a depth less than 45 cm [forty-five centimetres].
- Routine, minor road maintenance.
- Hand digging to a depth of less than 30 cm [thirty centimetres], as long as it does not permanently remove cover over a buried facility.
- Use of Low Ground Pressure Equipment (I. e.: ATV / UTV / ARGO / HYDRO-TREK) to access remote (OIL SANDS) locations

Examples of ground disturbance include, but are not limited to the following:

- Augering
- Backfilling
- Blasting
- Clearing
- Digging
- Drilling
- Excavating
- Grading
- Land Leveling
- Pile Driving
- Plowing
- Top Soil Stripping
- Trenching
- Tunneling
- For NEB lines only: Crossing buried pipelines or other underground infrastructure at a location off the travelled portion of a public highway when carrying out activities. (Other than prelim surveys)
- Driving fence posts, bars, rods, anchors or pilings
- Conducting seismic operation
- For OIL SANDS ONLY – Crossing Buried Pipelines or other underground infra-structure off a portion of permanently graveled road, when carrying out activities

2.0 Hazards to Mitigate

Hazards include, but are not limited to, the following:

- Electrocutation/electric shock
- Fire/explosion/lower explosive limit (LEL) atmospheric conditions
- Toxic gases
- High-pressure jetting
- Hydrocarbon/chemical contamination
- Trespassing
- Oxygen-deficient atmosphere
- Cave-in and engulfment
- Equipment movement and contact
- Equipment damage
- Open excavations

3.0 Procedure-specific Qualifications, Roles and Responsibilities

3.1. Ground Disturbance Supervisor

- Any person (employee, consultant or contractor) whom CPC has deemed competent to supervise a ground disturbance and fully understand the Life Saving Rules requirements.
 - Must have received formal and recognized supervisor-specific training on the provisions of this Procedure.
 - Must be found competent by examination and be experienced with the type of excavation to be done.
 - For employees, competency is determined in accordance with CPC's HSE Competency Management Program (ALL-HSE-PGM-670).
- Conducts a formal hazard assessment and pre-job safety meeting.
- Completes and signs off on the Ground Disturbance Checklist/Permit.
- Ensures that all approvals and notifications are documented prior to starting the work.
- Coordinates all ground disturbance work.
- Supervises all ground disturbances directly.
- Remains on site to be available to others, as identified by the permit for excavations over 30 cm [thirty centimetres] deep in the proximity to underground facilities.

Note: Should the Ground Disturbance Supervisor need to leave the site for any reason during a critical ground disturbance activity, the activity must STOP until the Ground Disturbance Supervisor returns to the site.
- Ensures that the ground disturbance work is conducted in a safe manner and in accordance with all applicable legislation and safe operating and construction procedures.
 - Stops the work activity if there is a concern for personal injury, or damage to buried facilities.
 - Stops the work activities upon the discovery of a facility not previously located, or if contact between equipment and any buried facility occurs.
- Ensures that an updated record of changes to underground pipeline or utilities is documented and retained for use in future projects.

- Inspects and classifies excavation soil properly, to ensure proper awareness of and response to ground conditions.

Documents results of the Ground Disturbance Checklist/Permit at least daily, or more often as conditions dictate.

- Monitors the ground disturbance to ensure that proper sloping, benching or installation of temporary protective systems are in place.

3.2. Equipment Operator/Excavator

- Must be competent to operate the type of equipment used in the ground disturbance.
- Must be able to review and understand relevant construction drawings, as-built drawings, and area photographs.
- Has an understanding of the Life Saving Rules.
- Participates in the hazard assessment of the ground disturbance.
- Determines that the terms and conditions of the Ground Disturbance Checklist/Permit and hazard assessment are acceptable.
- Ensures that the workers understand that their identified responsibilities are understood.
- Verifies the location of the above- and below-grade facilities in the work area.
- Follows appropriate procedures for positive identification of buried facilities.
- Stops the ground disturbance work and reports to Ground Disturbance Supervisor immediately if any equipment comes in contact with new or existing above- or below-grade facilities.
- Appoints a dedicated spotter for all excavating done at a location more than 30 cm [thirty centimetres] below ground level that is in proximity to underground facilities, including clean-out, trim and backfill activities. i.e when the work takes place within the right-of-way (ROW) of a facility or within 5 m [five metres] of a facility when no ROW exists.
- Stops ground disturbance work if unable to see the Spotter, if a Spotter is being used.
- Maintains safe clearances at all times.
- Uses extreme caution when conducting mechanical excavation activities in areas containing buried facilities (for example, by limiting the size of the lift).
- Stops ground disturbance work and notifies the Ground Disturbance Supervisor if there is any concern for injury or damage to buried facilities.
- Stops the work, notifies the Ground Disturbance Supervisor, and evacuates the area if there is any contact between equipment and any buried facility.
- Stop the work and notifies the Ground Disturbance Supervisor upon discovery of a facility previously not located.

3.3. Spotter

- Must be competent concerning the following:
 - Life Saving Rules applicable to Ground Disturbance.
 - Surface staking and line locating practices.

- Estimating and calculating the outer perimeter boundaries of a proposed excavation or trench, based on depth, width, degree of slope, and soil type.
- Basic operator signaling.
- Must understand emergency contingency plans if an unplanned contact with a facility occurs.
- Must wear high-visibility apparel that meets applicable requirements and is distinguishable from other worker apparel.
- Participates in the hazard assessment of the ground disturbance.
- Checks the location of above- and below-grade facilities.
- Maintains safe clearances.
- Uses agreed-upon hand signals to provide direction to the Equipment Operator and to alert the operator of potential dangers, for example, contact with a buried facility.
- Stops the excavation activity if positive identification of the location of a buried facility has been lost.
- Remains at the excavation site during all mechanical excavation activity.
- Monitors any activity that takes place within 3 m [three metres] of an above- or below-grade facility.
- Possesses a signaling device (for example, an air horn or whistle) to alert the Equipment Operator of potential dangers (for example, contact with a facility) or to evacuate the excavation if needs should dictate.
- Stops the ground disturbance work, notifies the Ground Disturbance Supervisor, if there is any concern for injury or damage to buried facilities.
- Stops the ground disturbance work, immediately notifies the Ground Disturbance Supervisor, and evacuates the area if there is any contact between equipment and any buried facility.

4.0 Procedures

4.1. Planning for a Ground Disturbance

- When proposing to undertake a ground disturbance, take all reasonable precautions necessary to ascertain whether a facility exists before commencing any ground disturbance work, operation or activity.
- The person proposing to conduct a ground disturbance must discover any facilities that exist within the work area, search area, or controlled area.

4.2. Obtaining Approvals

Before a ground disturbance is undertaken, an approval is required, in either of the following situations:

- The work takes place within the right-of-way (ROW) of a facility.
- The work takes place within 5 m [five metres] of a pipeline / facility when no ROW exists.

An approval must be in writing. **Oral approvals are NOT acceptable.** The acceptable approvals are:

- **Crossing Agreement(s)** between the owner of the underground facility (hereafter “Facility Owner”) and the company conducting the ground disturbance.

- **Ground Disturbance Checklist/Permit** for situations in which the company is both the Facility Owner of the underground facility and the company conducting the ground disturbance.
- **Proximity Agreement** when working within 30 m [thirty metres] of another company's above- or below-ground facilities.

4.3. Providing Notification

- Notify the Facility Owner (or designee) of the work, search or controlled areas with the following information:
 - Nature/scope of the proposed ground disturbance, for example, location and purpose of the work and its extent.
 - Schedule of work, for example, the date work will commence and end.
- Notification must be received by the Facility Owner (or designee) a **minimum of 2 [two] working days and not more than 7 [seven] working days (not including Saturday, Sunday or statutory holidays)** before commencing with the ground disturbance.
- NEB notification must be received by the Facility Owner (or designee) a **minimum of 3 [three] working days [72 hours]** before the day on which a ground disturbance is planned to start (**not including Saturday, Sunday or statutory holidays**) before commencing with the ground disturbance. This notification is written in the crossing agreement/approval and normally demands that notification be completed within a specific period.
- Notification is most commonly performed through provincial One-Call services; however, if the Facility Owner does not subscribe to One-Call services, notification must still be performed according to the requirements as previously stated.

4.4. Receiving Notification and Execution

- A Facility Owner (or designee) of an underground facility who receives notification must provide any assistance that the party conducting the ground disturbance may reasonably require, to enable the latter to comply with the regulations.
- Upon being notified, the Facility Owner (or designee) must:
 - Provide any information regarding an underground facility in existence within the ground disturbance work area and within 30 m [thirty metres] of a search or controlled area.
 - Identify on the surface of the ground the alignment of the underground facility with clearly distinguishable warning signs and markers at adequate intervals. Markings must be at maximum intervals of 10 m along the pipeline or facility that are clearly visible and distinct from any other markings.
 - Provide, at no cost, the locating and marking required by regulation to the person conducting the ground disturbance.
 - Inspect the pipeline to ensure that the locating and marking has been properly carried out if it is performed by another party other than the Facility Owner (or designee). This must be done before the ground disturbance may start.
 - Carry out inspections necessary to maintain safety of the underground facility.

- The Facility Owner (or designee) of an underground facility may allow the person conducting the ground disturbance to locate and mark their facility; **however, the owner (or designee) must still inspect the facility and ensure the locating and marking were done properly.**
 - For NEB-regulated lines, the Pipeline Owner's locator must come out to the site to locate the pipe, mark it, and provide a locate report to the person who initiated the locate request.
- Conduct the ground disturbance activity as agreed to in the written consent provided by the facility owner.

4.5. Planning Requirements

The following describes how to prepare for ground disturbance operations. Projects being completed by the Remediation and Reclamation group must also follow Appendix D.

4.5.1. Documentation Requirements

- All required documentation **must** be in place before a crossing or ground disturbance occurs. These documents must be stored in the pipeline license file, production well file, reclamation well file, project file and/or QC file and be retained for at least two years or for the life of the line. (See Section 6 for document retention details)
- A copy of the Pipeline Excavation Inspection Form (WCG-MEC-FRM-2049) must also be forwarded to the local Asset Integrity Specialist.
- Documents to be retained upon completion of a crossing include, but are not limited to, the following:
 - Crossing Agreements.
 - Crossing Inspection Report (ALL-HSE-FRM-2036).
 - Ground Disturbance Checklist/Permit (ALL-HSE-FRM-2035) with Detailed Crossing Checklist (ALL-HSE-FRM-2037).
 - Pipeline Excavation Inspection Form (WCG-MEC-FRM-2049).
 - As-Built Crossing Form.

4.5.2. Searching Underground Facilities

- The controlled area must be searched on each side of an existing pipeline to locate underground facilities.

Note: The search area and the controlled area are often confused. The search area is used in a general context; the party proposing the ground disturbance must search 30 m [thirty metres]. The controlled area is in effect when a known pipeline exists. Whether the term "search area" or "controlled area" is used, the distance remains the same – a minimum of 30 m [thirty metres] from the centre of the pipeline.
- In the following cases, line locates for underground facilities may not be required, such as:
 - Areas where no ground disturbances have occurred in the past (for example, new construction of a well site in the Green Zone with no visible break in the tree cover and/or change in maturity to indicate that a ground disturbance has ever occurred).

- Returning to an abandoned site where no new activity or recent break in tree line has occurred or when previous data indicate that no underground facilities exist.
- Abandoned sites that have had no active underground facilities and that require only superficial, non-mechanical excavation such as hand digging or hand augering (for example, for environmental assessments or reclamation assessments).
- Tree planting is occurring using only hand equipment.
Note: Trees must not be planted within NEB-prescribed areas.
- In areas where all reasonable and practicable steps have been taken to ensure that no underground facilities exist, a risk-based approach may be undertaken with respect to line location and obtaining a service company to locate lines on behalf of CPC.
- Search for all underground facilities within the ground disturbance work area and 30 m [thirty metres] within the search or controlled area by reviewing the following records:
 - CPC Surface Land Department.
 - Survey plans.
 - Land titles search.
 - Provincial regulator records and township lines.
 - National Energy Board (NEB) records.
 - Land Owner for gas co-op line locations, etc.
 - One-Call systems – Check all jurisdictions.
 - Facility road signs.
 - Line locators' information.
 - Provincial regulator license requirements.
 - Crossing agreements.
 - Area operations personnel.
 - As-built drawings (in the case of plant or facility).
- In high-density areas, the process of accounting for all the lines in the area must be employed.
 - Identify any potential sources of underground structures (wells, headers, compressors, or electrical distribution, etc.)
 - Positively verify that none of the structures are within the excavation scope.

4.5.3. Crossing Agreements/Proximity Agreements

- Written consent must be obtained from the Pipeline Owner prior to crossing a pipeline with a vehicle or mobile equipment.
 - For NEB regulated pipeline/facility, consent is not required when
 - The crossing is for the purpose of an agricultural activity, and
 - The loaded axle weight and tire pressures of the vehicle or mobile equipment are within manufacturers approved limits and operations guidelines, and

- The point of crossing has not been subject of a notification by the company identifying the location as one where agricultural activity could impair the pipeline's safety or security.
- In Alberta, approval is not required for crossing pipeline / facility if:
 - the vehicle or equipment is used for farming operations,
 - the vehicle is an off-highway vehicle as defined in section 117(a)(iii) to (viii) of the Traffic Safety Act, or
 - the vehicle is a private passenger vehicle as defined in section 1(1) (jj) of the Traffic Safety Act and has a nominal chassis rating of not greater than 3/4 of a ton.
- Pipeline Owners providing consent must identify the site-specific locations of the pipeline when such crossings could impair the pipeline's safety or security. The Pipeline Owner must identify those locations and notify the affected persons in writing of those locations.
- Factors that may affect the safety of the pipelines and should be reviewed prior to conducting a crossing activity include:
 - Type of activities being conducted.
 - Type and size of the equipment.
 - Soil conditions.
 - Frequency of the crossing activity.
 - Pipeline system specifications and design.
 - Pipeline operating conditions.
 - Pipeline depth cover.
- The Ground Disturbance Supervisor must have the approval/crossing agreement available in their possession when a ground disturbance or crossing occurs within a ROW or within 5 m [five metres] of a pipeline (within 30 m [thirty metres] from the centre of the NEB-regulated pipeline) that is not in a ROW.
- Crossing agreements are considered legal documents; they must be thoroughly read and understood at the site level.

Caution: Crossing agreements do not allow for changes to be made at the site level. No course of dealings between the two parties may change the agreement unless it is in writing and signed by the same parties who signed the original agreement.
- A crossing agreement must contain the following critical information:
 - Placement of facilities within the ground disturbance area in relation to any existing facilities.
 - Proper support of exposed facilities.
 - Distances that must be maintained between underground facilities.
 - Notification time frames for underground facilities, if different from regulations.

- Distance that must be maintained from mechanical excavation equipment if different from regulations and hand-exposure zone requirements.
- Notification period required for an inspection prior to backfilling.
- A Crossing Inspection Report (ALL-HSE-FRM-2036) written and performed by every Facility Owner (or designee).

Note: This information must be noted on the permit/hazard assessment or communicated at the pre-job safety meeting to all involved workers.

- The following items are to be cross-referenced:
 - Pipeline Act and Regulations or regulations from other applicable governing bodies (for example, NEB regulations).
 - Crossing Agreement/Proximity Agreement.
 - Ground Disturbance regulations.
 - CPC Ground Disturbance Procedure.

Note: When a conflict between this Procedure, the crossing agreement and the regulations exists, the regulation or agreement with the most stringent standard takes precedence.

Note: In cases in which a company is conducting a ground disturbance within 5 m [five metres] of crossing their own facilities, a crossing agreement is not required.

4.5.4. Locating and Marking Underground Facilities

As per Section 4.5.2 (*Searching Underground Facilities*), locate all underground utilities within the 30-m [thirty-metre] search area.

Use the One-Call system. (**Note:** Not all companies are registered with One-Call.)

Alberta One-Call 1-800-242-3447 (requires 2 days notification)

BC One-Call 1-800-474-6886 (requires 3 days notification)

Note: One-Calls for NEB regulated facilities require 3 days notification.

- Ensure that all lines in the area are accounted for, by identifying any potential sources of underground structures (wells, headers, compressors, electrical distribution, etc.) and positively verifying that none of the structures are within the 30 m [thirty metres] of the search area.
- Underground facilities within an existing lease or facility must be located by two different line locators conducting independent sweeps.
 - On a pipeline right-of-way, when a survey contractor has marked existing facilities, a line locating contractor must be used to confirm the surveyor's locates.
 - A sweep of the entire length of the right-of-way should also be conducted by a line locator.
- All known pipelines and utilities, as noted on the plot plans/site drawings, maps, or facility searches that pass within the controlled area, must be located and staked, to indicate location alignment.

4.6. Field Requirements

4.6.1. Prior to Any Ground Disturbance

- The Ground Disturbance Supervisor or delegate **must** contact the provincial One-Call centre within at least **2 [two] working days** (Alberta), **3 [three] working days** (British Columbia) prior to work commencing, to check for additional crossings not identified by CPC.
 - Note:** For NEB regulated facility, the Facility Owner (or designee) a minimum of 3 [three] working days (72 hours) before the day at which a ground disturbance operation starts. (This does not include Saturday, Sunday or statutory holiday.)
- The facility owner must:
 - Respond to the ground disturbance request for consent from another company within 21 days (For NEB within 10 working days)
 - Provide reasons if refusing to provide the consent
 - Provide additional conditions before granting the consent, which may be extended or amended at any time during the activity
 - Perform the following within three working days from the receipt of a request to locate a facility:
 - Inform the person, in writing, safety practices to be followed while working near pipeline
 - Clearly mark the location of its underground facilities in the vicinity at maximum intervals of 10 m
 - Provide information explaining the significance of markings
 - Must inspect all exposed pipe prior to any backfilling

4.6.2. Pre-job Safety Meeting and Permit/Hazard Assessment

- Prior to conducting a ground disturbance, conduct a permit/hazard assessment that meets the following requirements:
 - Cover all job safety and procedural aspects and permit/crossing agreement requirements.
 - Identify existing facilities in the ground disturbance area.
 - Identify line sizes, operating pressures, and substances in lines (obtain MSDS for substances in lines).
 - Identify cables and conduits.
 - Communicate how lines are marked (see Appendix B).
 - Identify the exposure techniques for each facility.
 - Identify the distance that must be maintained by mechanical excavation equipment.
 - Identify cathodic protection requirements.
 - Ensure that a warning system is in effect when mobile equipment or workers are required to approach the excavation.

- Identify barricading and fencing requirements.
- Identify the need of sloping, benching or installing temporary protective systems to prevent caving of an excavation.
- Take precautions for hazards associated with water accumulation.
- Ensure that an excavation that a worker may enter is kept free of any accumulation of water that may pose a hazard to the worker.
- All persons directly involved in the job must attend the pre-job meeting. Ensure that any new crew members or any members not present at the pre-job meeting, such as replacements, have reviewed and signed the permit before entering the ground disturbance site.
 - Create and maintain the following records:
 - Meeting minutes (with signed attendance list).
 - Completed Ground Disturbance Checklist/Permit and hazard assessment.

4.6.3. Daylighting All Underground Facilities

- When a mechanical excavation is planned within 5 m [five metres] of an underground facility, the underground facility must be exposed for visible inspection.
 - Visible inspection allows for confirmation of facility location, its depth below the surface, and its characteristics, for example, diameter, construction materials, coating type, and condition.
- The Facility Owner (or their designee) must be contacted to arrange exposure or to confirm acceptable exposure methods.
 - Exposure methods include hand exposure and hydrovac services.
 - Before commencing any mechanical excavation, hand exposure must be done if the ground disturbance crosses or is carried out within 5 m [five metres] of an existing underground facility.
 - When exposing the underground facility, it must be done to an extent sufficient to identify the facility's size and direction. Excavation techniques for hand exposure have been developed using water or air jets. They have usually been accepted, although not all procedures may have specific regulatory approval.
 - Take care to evaluate the best method of hand exposure, taking into consideration damage to coatings and methods of soil disposal. Hydrovac is not suitable for some underground facilities, for example, fiber optic cable, telephone lines, or plastic pipelines.
- A CPC Ground Disturbance Supervisor must observe the exposure operations, to ensure the exposure is conducted with proper care for the safety of the workers and the integrity of the buried facility.
- Before excavating, daylight all existing underground facilities (including anode beds) in the proposed ground disturbance work area, at one or more points by hand exposure or hydrovac, and identify for depth, size and direction.

Important: Exercise caution when using hydrovac to locate cables or plastic pipes. Regulate probe pressure so as not to damage cable coatings or, in the case of wires, cause an electrical hazard.

- Once the underground facility has been hand exposed or hydrovaced, no mechanical excavation may be done within 1 m [one metre] (within 3 m [three metres] for NEB-regulated facilities), or the distance as specified in the crossing agreement, except as permitted in Section 4.5.4.6 of *Mechanical Excavation*.
- For NEB-regulated lines, no mechanical excavation may take place within 3 m [three metres] of the pipelines / facility unless the location of the pipeline has been determined by hand exposure or if the Facility Owner has confirmed the exact location of the pipe and has informed the person carrying out the excavation of that location.
 - The Facility Owner's representative must be present during all ground disturbance activities within 1 m [one metre] of the pipe.

Note: If a greater distance is stipulated in the crossing agreement, it must be followed.

- Once exposed, the underground facilities must be protected at all times to prevent damage from slough-in material or objects falling or being placed in the daylight hole.
- All daylight holes must be clearly marked to distinguish them from other excavations, for example, pile pilot holes.
- The Ground Disturbance Supervisor must determine an appropriate method to protect and identify the daylight holes for underground facility such as:
 - Placing a marked 2 x 4 standing in a hole next to the buried facility.
 - Covering holes with pipeline cones containing signage.
 - Covering holes with marked plywood.
 - Placing padding on the exposed section of pipe.
 - Combining methods mentioned above.
- When pile pilot holes have been drilled, **all** daylight holes must be fenced separately from other excavations.
- The method used to identify or protect daylight holes must be documented on the permit/hazard assessment and ground disturbance documents and communicated to everyone involved in the ground disturbance.

4.6.4. *Mechanical Excavation*

The following criteria must be followed for mechanical excavation:

Exception: If the ground disturbance and search area is declared free of underground facilities by the Ground Disturbance Supervisor, the ground disturbance may proceed without the presence of a Ground Disturbance Supervisor.

- Mechanical excavation may only be used up to the edge of the ROW or within 5 m [five metres] of the existing facility where there is no ROW, before using hand exposure or hydrovac to daylight the existing buried facility.

- Once the existing buried facility has been daylighted, mechanical excavation may be conducted closer than 5 m [five metres] but not closer than 1 m [one metre] (3 m [three metres] for NEB-regulated pipelines) to the buried facility.
- Within 5 m [five metres] of a buried facility, work must be done under the direct supervision of the CPC Ground Disturbance Supervisor.
- When mechanical excavation equipment is used and contacting an underground facility is possible, the CPC Ground Disturbance Supervisor must direct the Equipment Operator or Spotter, both of whom must be fully visible to the Equipment Operator at all times.
- Mechanical excavation equipment **may** be used closer than 1 m [one metre] but not closer than 30 cm [thirty centimetres] to an underground facility provided that:
 - The facility is an electrical cable and it has been grounded and isolated so that the disconnection is visible and the Facility Owner is notified of the operation before it begins,
OR
 - The facility is a pipeline that has been depressurized.
 - The excavation is always done under the direct visual supervision of the CPC Ground Disturbance Supervisor and the Facility Owner.

Note: If excavating a line segment that is to be abandoned and removed, excavation may be done closer than 30 cm [thirty centimetres], provided approval to do so has been obtained from the construction superintendent (hereafter “Construction Superintendent”).

Note: For NEB-regulated pipe lines, where the excavation crosses the pipe, the pipe must be at least 60 cm [sixty centimetres] deeper than the proposed excavation.

- If it is necessary to use mechanical excavation within 1 m [one metre] of a facility/ pipeline that is pressurized or an electrical cable that is energized, a documented risk assessment must be completed before excavation begins. **Note:** This process is not permitted when working near NEB-regulated pipelines.
 - The risk assessment must be completed by one of the following people in consultation with the construction inspector:
 - Construction Superintendent.
 - Operations leader.
 - Operations engineer (if a CPC line is involved).
 - Facility or project engineer.
 - Pipeline integrity coordinator (include whenever possible).
 - Well-site supervisor.
 - Use the Residual Risk Acceptance Form (ALL-HSE-FRM-2106) to determine the residual risk and appropriate level required to accept the residual risk.
 - A work-specific procedure must be written for the excavation that details special precautions to be taken to reduce the risk to people and equipment.

- If multiple excavations of live lines are involved with the same project or program and they are identical in scope, one risk assessment may be used to evaluate the entire program.
 - Should the scope change for a particular excavation, a separate assessment must be completed for that one.
- If a high-pressure pipeline is used to convey water (with the exception of water being used for oil and gas activities) or if the pipeline is being used to convey sewage, the hand excavation zone may be reduced to 1 m [one metre] wide on each side of the buried facility locate marks, if the employer obtains written approval from the Pipeline Owner of the high-pressure pipeline.

4.6.5. Angle Crossings

- Crossing of utilities, pipelines, or cables will usually be undertaken at an angle of approximately 90 degrees.
- In certain situations, it may be required to cross at angles smaller than 90 degrees. In this situation, the following process will apply:
 - Locate the centre line of the new pipeline or cable on the ROW.
 - Daylight the crossing point.
 - The existing pipeline or cable must be daylighted at two additional points. Lath and yellow survey tape must be placed directly above the existing pipeline or cable at 1-m [one-metre] intervals for the extent of the excavation.
 - Measure 1 m [one metre] on either side of the existing pipeline or cable and install lath and white ribbon at 1-m [one-metre] intervals parallel to the existing pipeline to cover the extent of the excavation.
 - The contractor **must not** use mechanical excavation equipment beyond the lath, except under the direct visual supervision of the Ground Disturbance Supervisor.

4.6.6. Trenches and Excavations

- Before a worker begins working in a trench that is more than 1.5 m [one point five metres] in depth (1.2 m [one point two metres] in BC) and is narrower than its depth, the Ground Disturbance Supervisor must ensure that workers are protected from cave-ins and sliding of excavation by proceeding as follows:
 - Cutting back the walls to reduce the remaining vertical height to less than 1.5 m [one point five metres] (1.2 m [one point two metres] in BC).
 - All excavations **must** be properly shored and back-sloped per provincial regulations.
 - The open side of an access route used by powered mobile equipment into an excavation has a barrier of sufficient height to prevent the powered mobile equipment from sliding or rolling into the excavation.
 - If a worker is required to enter a trench that is more than 1.5 m [one point five metres] in depth (1.2 m [one point two metres] in BC), a safe point of entry and exit (for example, ladders and ramps) must be located within 8 m [eight metres] of the worker.

- The excavation must be inspected by a competent person prior to entry.
- The excavation must be safely supported or sloped to the entry and exit location.
- If a ladder is used for entry/exit, it must extend 1 m [one metre] past the top of the trench.
- Perform atmospheric monitoring in excavations that are greater than 1.5 m [one point five metres] deep (1.2 m [one point two metres] in BC) and when a hazardous atmosphere possibly exists.
 - Treat these excavations as confined spaces and comply with the Confined Space Entry Code of Practice (ALL-HSE-PRC-165).

Note: The permit issuer will decide if the excavation is declared a confined space.

- When shoring or sloping is not practical, the Ground Disturbance Supervisor must ensure that temporary protective structures are installed, maintained and dismantled in accordance with the specifications of a professional engineer and that the structures are kept in place as long as workers are required to enter the trench or excavation.
- Freezing, grouting and/or stabilizing must be designed and approved by a professional engineer.
 - Adjacent foundations must be supported, as required.
 - Natural freezing of the soil is not acceptable as an alternative or partial alternative to the installation of temporary protective structures.
- Occupational Health and Safety (OH&S) regulations must be followed, to avoid danger of wall collapse.
 - Spoil piles must be at least 1 m [one metre] from the side of the excavation and have a slope of not more than 45 [forty-five] degrees.
 - Power line poles must be protected from cave-ins.
 - When ground disturbance work is done near an overhead power line, the work must be performed in a manner that does not reduce the original support provided for the power line poles.
- Equipment must not be closer to the edge of the trench than the vertical distance from the bottom of the trench to the same edge.
- If equipment or heavy objects must be closer, a professional engineer must approve additional support in the trench.

- When an excavation or trench contains more than one soil type, the soil must be classified as the soil type with the least stability.

4.6.7. Security of Trenches and Excavations

- Barricades must be installed to warn people of the dangers of an open trench and to reasonably protect co-workers, the public, livestock, and wildlife from falling into the excavation.

4.6.8. Backfilling and Inspections

- The CPC Ground Disturbance Supervisor must oversee a facility inspection prior to the conducting of a crossing or backfill – as described in the notes section of the permit/hazard assessment.
- Complete the Crossing Inspection Report (ALL-HSE-FRM-2036).
- Complete the Pipeline Excavation Inspection Form (WCG-MEC-FRM-2049) if the ground disturbance involves exposing an operating CPC pipeline.
- If any part of an underground facility is exposed, notify the Facility Owner (or their designee) at least 24 [twenty-four] hours prior to backfilling the underground facility.
- Upon being notified, the Facility Owner (or their designee) must inspect the exposed part of their underground facility to ensure that no damage has occurred.
- After a Facility Owner (or their designee) inspects their underground facility for damage, a written record must be made and retained for a minimum of ten years in the pipeline file.
 - It is common industry practice to take pictures of the disturbance and attach them to the Crossing Inspection Report.
- When a Facility Owner is not available to inspect their underground facility prior to backfilling, the Ground Disturbance Supervisor must be able to prove that all reasonable efforts have been made to procure an inspection before being backfilled.
- If a backfill occurs without a Facility Owner inspection, it is recommended that a backfill inspection be performed by a third party at the request of the party conducting the ground disturbance.
- Backfill material will normally consist of the spoil removed from the excavation during exposure operations, with the underground facility protected with appropriate construction materials, for example, rocks, to prevent damage to it.
- Refer to the specific procedures for backfilling in the repair and/or construction specifications and the Crossing Agreement.
- Underground electrical conduits must be covered according to the ConocoPhillips General Specifications and Electrical Code.
- All hydrovac test points must be properly backfilled, that is, be free of rocks, debris and contamination, with landowner (hereafter “Land Owner”) approval.

4.7. Contacting an Underground Facility

- If contact is made with an underground facility that results in any of the following, the ground disturbance must be **immediately terminated and** no further site work of any kind is permitted until approved by the CPC Construction Superintendent:
 - Puncture or crack in the facility.
 - Scratch, gouge, flattening or dent on the surface.
 - Damage to the protective coating or insulation.

- If contact has been made but no damage is evident, the facility must be inspected by a competent person for verification.
- The CPC Ground Disturbance Supervisor must immediately notify his CPC supervisor who will then notify the federal or provincial regulator and the Facility Owner (or their designee).
- If a line contact is suspected on any underground facility, but further excavation (including hand exposure) is required to determine if contact was made, the ground disturbance **must be immediately terminated before** additional excavation occurs.
 - If the contact point is a live line, evacuate all personnel to a safe location, even if no leak is detected.
 - In all cases, contact the CPC Construction Supervisor.
 - No additional site work of any kind may continue until approved by the CPC Construction Supervisor.
 - The CPC Construction Supervisor must notify provincial regulators, as required.
- When working near NEB-regulated lines, following must be reported to the NEB immediately:
 - Contact or damage.
 - Construction of a NEB- defined facility near the pipeline without consent of the Pipeline Owner or board authorization.
 - An activity causing a ground disturbance in the controlled area without consent of the Pipeline / Facility Owner or board authorization.
 - Crossing the pipeline with a vehicle or mobile equipment without the consent of the Pipeline Owner or without meeting the requirements for agricultural activities in section 4.5.3 above.
 - Work has been done in a manner that does not comply with the measures outlined in the NEB Pipe Line Damage Prevention Regulations – Authorizations; Ground disturbance work has been done in a manner that does not comply with the conditions of the pipeline company’s written consent.

Important: In case of contact with an underground facility, always follow the CPC Emergency Response Plan (ERP).

5.0 References

- Pipeline Act and Regulations.
- National Energy Board Pipe Line Damage Prevention Regulations - Authorizations.
- National Energy Board Pipe Line Damage Prevention Regulations – Obligations of Pipeline Companies.
- Alberta OH&S Code, Part 32 Excavating and Tunneling.
- British Columbia OH&S Code, Part 20 Construction, Excavation and Demolition.
- Confined Space Entry Code of Practice (ALL-HSE-PRC-165).

6.0 Document Retention

Records must be retained in accordance with ConocoPhillips' Document Retention Schedule.

Record	Owner	Classification	Retention
Meeting Minutes (with signed attendance list)	BU	AD03-CA	No longer than 7 years after project closure
Ground Disturbance Checklist/Permit (ALL-HSE-FRM-2035).	BU	HE13-CA	Expiration +10 years
Detailed Crossing Checklist (ALL-HSE-FRM-2037)	BU	HE13-CA	Expiration +10 years
Crossing Inspection Report (ALL-HSE-FRM-2036)	BU	HE13-CA	Expiration +10 years
Pipeline Excavation Inspection Form (WCG-MEC-FRM-2049) Note: This form is required whenever a ground disturbance results in the exposing of a buried portion of an in-service CPC pipeline	BU	HE13-CA	Expiration +10 years
Permit/Hazard Assessment Form (ALL-HSE-FRM-2105)	BU	HE13-CA	Expiration +10 years
Safety Review for Ground Disturbance Activity (ALL-HSE-FORM-2038)	BU	HE13-CA	Expiration +10 years
Crossing and Proximity Agreements	BU	EF 10-CA	Life of the pipeline + 6 Years
As built Crossing Form	BU	EF 10-CA	Life of the pipeline + 6 Years
NOTE: for NEB regulated pipelines: Record of all construction of facilities across, on, along or under a pipeline and all activities that can cause ground disturbance within the controlled area.	BU	EF 10-CA	Life of the pipeline + 6 Years

Appendix A – Summary of Ground Disturbance

Ground Disturbance Requirements for Facility Exposure, Identification, and Burial

General Recommendations: Within ConocoPhillips Canada's operations, the most common activities involving ground disturbances are ditching, building and maintaining roads and sites, installing piles, setting drilling or service rigs, setting anchors, and conducting reclamation and seismic activities. All preliminary research within the pipeline route/ROW or ground disturbance area must be undertaken prior to commencement of work (refer to Section 4.5.2 – Searching Underground Facilities for exceptions). This will include, at a minimum, consulting survey drawings, completing crossing agreements, using One-Call, searching land titles, obtaining road markers and line locators, and reviewing AER/OGC/NEB licenses and maps.

Step	Description	Additional Information
Plan activity	Identify the precise location of the work. Check records for the existence of underground facilities.	Review plot plans, site drawings and maps, conduct facility searches, to identify the location of any pipelines or utilities.
Visit site	ConocoPhillips representative – Be on site to coordinate all work and look for underground facility warning signs or marker posts.	During the site visit, look for underground facility warning signs or marker posts.
Obtain consent	Obtain Facility Owner’s written permission to conduct ground disturbance work.	<ul style="list-style-type: none"> • Proximity agreements. • Crossing agreements. • General information handouts. • Permits/Hazard assessments.
Make locate request	Call the One-Call centre or the Facility Owner (if no One-Call centre exists), to have the underground facility located. Locate, expose and identify all existing pipelines or facilities in the proposed ROW by hand or hydrovac before excavating.	<p>Alberta One-Call: 1-800-242-3447 (2 day’s notification)</p> <p>BC One-Call: 1-800-474-6886 (3 day’s notification)</p>
Assess	Review the line locate observations & compare to the ground disturbance package to ensure all facilities are identified. Locate and identify all underground facilities. Colour-code as per Canadian Standards Association (CSA) Standard C22.3 and American Public Works Association (APWA) standard. ConocoPhillips representative - Be on site when the underground facility is located. Know the meaning of the surface markers.	<ul style="list-style-type: none"> • Search for existing marker signs. • Search for visible signs of underground facilities. • Locate and mark overhead power lines. • Use electronic line location equipment. • Do not remove line markers. • Conduct second line locate if required. <p>Yellow: Gas, oil, petroleum and gaseous materials. Red: Electric power lines, cable, conduit and lighting cables. White: Limits of proposed excavation. Orange: Telephone, TV, communication, alarm and signal lines. Pink: Temporary survey marks. Blue: Potable water. Green: Sanitary sewers, storm sewers, culvert and drain lines. Purple: Irrigation, reclaimed water, or slurry lines or pipes.</p>

<p>Hand expose underground facility</p>	<p>Hand expose the underground facility or pipeline if work is done in the following locations:</p> <ul style="list-style-type: none"> • Within the right-of-way (ROW) of a facility. • Within 5 m of a facility when no ROW exists. 	<p>Must be done to a significant amount to ensure buried facilities remain visible.</p> <p>Once the underground facility has been hand exposed or hydrovaced, do no mechanical excavation within 1 m (within 3 m for NEB-regulated facilities), except as permitted in Section 4.5.4.6 – Mechanical Excavation.</p>
<p>Execute task</p>	<p>When a trench is narrower than its depth and more than 1.5 m deep (1.2 m in BC), protect workers from a cave-in.</p> <p>Barricade site and post warning signs, if the ditch line is left open.</p> <p>Always follow instructions of the facility company representative.</p> <p>CPC inspector or representative – Prior to backfilling, inspect all exposed piping for damage and repair.</p>	<p>Alberta OH&S Act – General Safety Regulations</p> <p>BC OHS Regulation – Construction, Excavation and Demolition.</p> <p>Protect exposed piping and cable from damage.</p> <p>Ensure licensee or permittee is on site for backfilling and excavating.</p>
<p>Notify Facility Owner or Pipeline Owner</p>	<p>When work is completed, notify Facility Owner or Pipeline Owner one working day (24 hours) before backfilling over an underground facility or pipeline respectively.</p>	

Appendix B – Supplementary Information for Conducting Ground Disturbances

Proper Locating of Underground Facilities

- All known facilities and utilities, as noted on the plot plans/site drawings, maps, or facility searches that pass within the controlled area, must be located and staked to indicate location alignment. Exceptions noted in Section 4.5.2 – Searching Underground Facilities.
- The line locating activities must be conducted by a competent person in the presence of a Ground disturbance supervisor, who is thoroughly familiar with the tasks and area, and has in their possession, if possible, a copy of the site drawing/plot plan (i.e. as-built maps) and understands line locator procedures.
- When blind searching, the area must be swept in four separate grid patterns (i.e. north ↔ south, east ↔ west, then angular) to ensure maximum detection capabilities. Otherwise, the more accurate method of direct connection or clamping must be used.
- The Ground disturbance supervisor person must ensure that the locator locates and marks (stakes) all known facilities and utilities on the plot/site plan that are within 30 m [thirty metres] of either side of the ground disturbance.
- It is essential that the locator:
 - Be trained and experienced in locating each type of underground facility.
 - Uses equipment that has regular maintenance and calibration logs (at a minimum, quarterly).
 - Performs a function test on a known facility prior to locating the unknown facilities.
- When locating, and marking company facilities, ensure that markings for the location of the facility extends off the CPC ROW on each side of the ROW to provide added assurance that live markings will remain visible. Markings must be at maximum intervals of 10 m [ten metres] along the pipe line or facility that are clearly visible and distinct from any other markings.

Facility Identification

- The Ground Disturbance Supervisor must ensure all underground facilities are properly identified, located and marked with flags, wherever possible, to show orientation prior to any crossing or ground disturbance. Exceptions noted in Section 4.5.2 (Searching Underground Facilities).
- A record of this information must be prepared and maintained by having the Ground Disturbance Supervisor complete the Ground Disturbance Checklist/Permit (ALL-HSE-FRM-2035). No ground disturbance may start until Sections 1 – 3 of this form are fully completed.
- The following color code must be used:

Yellow:	Gas, oil, petroleum and gaseous materials
Red:	Electric power lines, cable, conduit and lighting cables
White:	Limits of proposed excavation
Orange:	Telephone, TV, communication, alarm and signal lines
Pink:	Temporary survey marks
Blue:	Potable water
Green:	Sanitary sewers, storm sewers, culvert and drain lines
Purple:	Irrigation, reclaimed water, or slurry lines or pipes

Soil Classification

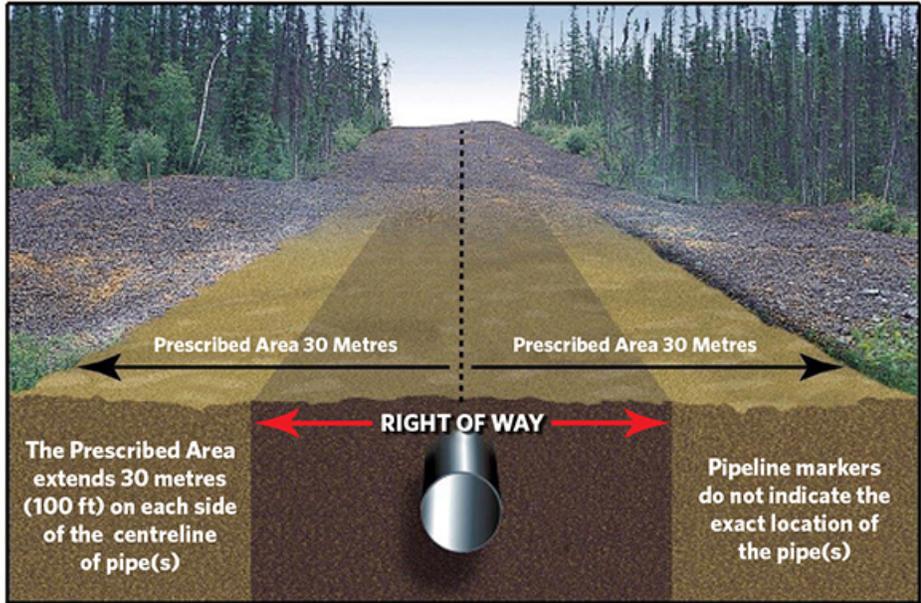
Hard and Compact	Likely to Crack or Crumble	Soft, Sandy or Loose
<p>Exhibits the following characteristics:</p> <ul style="list-style-type: none"> • hard in consistency and can be penetrated only with difficulty by a small, sharp object • very dense • appears to be dry • no signs of water seepage • is extremely difficult to excavate with hand tools • has not been excavated before 	<p>Has been excavated before but does not exhibit any of the characteristics of Soft, Sandy or Loose column.</p> <p>Exhibits the following characteristics:</p> <ul style="list-style-type: none"> • stiff in consistency and compacted • can be penetrated with moderate difficulty with a small, sharp object • moderately difficult to excavate with hand tools, • has a low to medium natural moisture content and a damp appearance after it is excavated • exhibits signs of surface cracking • exhibits signs of localized water seepage 	<p>Exhibits the following characteristics:</p> <ul style="list-style-type: none"> • firm to very soft in consistency, loose to very loose • easy to excavate with hand tools • solid in appearance but flows or becomes unstable when disturbed • runs easily into a well-defined conical pile when dry • appears to be wet • granular below the water table, unless water has been removed from it • exerts substantial hydraulic pressure when a support system is used

Site-specific Procedures

- Processing plants and battery sites are locations where special site-specific procedures easily apply.
- Procedures must be available to ensure safe excavation and/or trenching.
- They must be approved where applicable by the AER/NEB/OGC or other provincial regulatory agencies.
- These procedures may, by necessity, apply only to specific locations and will be used on that basis.
- Any special procedure created to address such circumstances must be approved by the AER/NEB/OGC/SER or other provincial regulatory agencies for use as an ongoing “generic” procedure if it is apparent the special procedure addresses issues outside the scope of general AER/NEB/OGC /or OH&S regulations.

Appendix C – Definitions

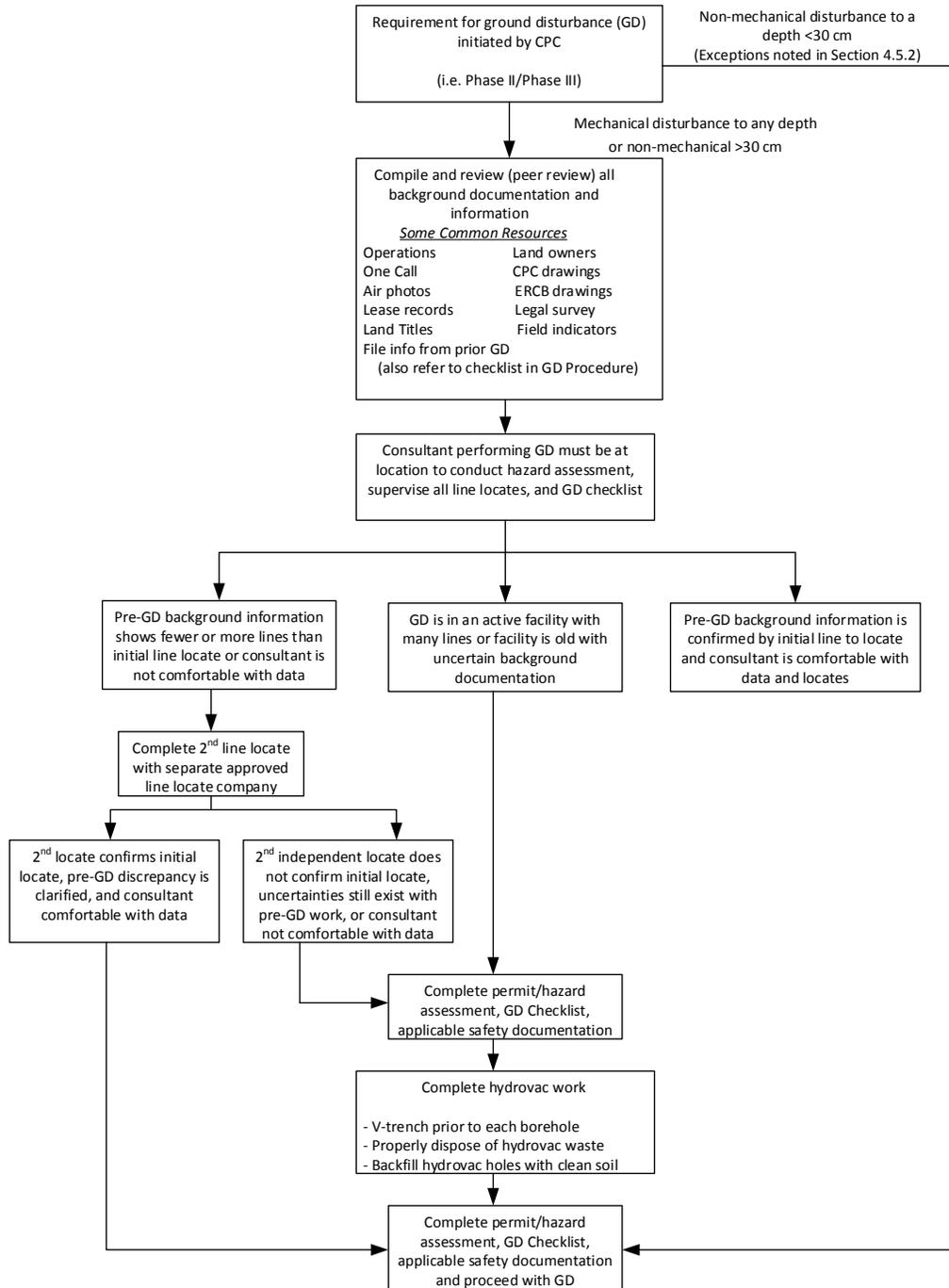
Terms that are important to understanding this Ground Disturbance Procedure are defined below:

Buried Facility	See Underground Facility
Competent Person	In relation to a worker, it means one adequately qualified, capable and suitably trained with sufficient experience to safely perform work that is the subject matter of the relevant provision of the regulation without or with only minimal supervision.
Controlled Area	<p>A strip of land 30 m [thirty metres] wide on each side of a pipeline or the distance from the centre of the pipeline to the edge of the ROW, whichever is wider. For NEB-regulated lines, controlled area is same as prescribed area.</p>  <p>Note: All the safe distances mentioned in this document is measured from the centre of the pipeline.</p>
Critical Ground Disturbance	Ground disturbances done by mechanical excavation within 5 m [five metres] of an underground facility.
Crossing Agreement	A written agreement made any time a ground disturbance takes place within a ROW or within 5 m [five metres] of a facility (30 m [thirty metres] for a NEB-regulated line) where there is no ROW; commonly used as the approval document and does not mean that an actual crossing is taking place.
Daylighting	A term used to describe the uncovering and exposing of underground facilities to daylight.
Excavation	Any dugout area of ground other than a tunnel, underground shaft or open pit mine.
Hand Exposure	Exposure of a buried pipeline by hand excavation methods (hydrovac is also acceptable).
Hydrovac	Hydrovac excavation is the use of a combination of high-pressure water and vacuum pumping to excavate various types of soils. This truck-mounted system is commonly used to locate buried infrastructure, for trenching and excavation.
High-Pressure Pipeline	A pipeline operating at a pressure of 8700 kPa or greater.
Land Owner	The person or company on whose name a certificate of title has been issued pursuant to the Land Titles Act or, if no certificate has been issued, the Crown or other body administering the land.

Non-critical Ground Disturbance	If an area has been deemed free of underground facilities as per a formal line locating process and hazard assessment, the ground disturbance is then deemed non-critical.
Notification	Every owner found within the ground disturbance area and the 30-m [thirty-metre] buffer zone must be notified of the nature and schedule of the ground disturbance.
Occupant	The person or company renting, leasing or otherwise occupying land owned by another party. The occupant must receive the same notification and consideration as the Land Owner.
Right-of-Way (ROW)	A private agreement between the Land Owner and licensee at the time of construction that grants use to the licensee as per ROW Agreement.
Search Area	Extends 30 m [thirty metres] from the edge of the work area. No ground disturbance takes place in the search area.
Spoil/Spoil Pile	Material excavated from an excavation, trench, tunnel or underground shaft.
Temporary Protective Structure	A structure or device designed to provide protection in an excavation, trench, tunnel or underground shaft from cave-ins, collapses or sliding/rolling materials and includes shoring, bracing, piles, planking or cages.
Trench	An elongated dugout area of ground the depth of which exceeds its width at the bottom.
Underground Facility	In general, a facility which is located below the surface ground that includes but is not limited to: <ul style="list-style-type: none"> • Facility used in the collection, storage, transmission or distribution of water, storm water, sewage, steam, natural gas, crude oil, petroleum products, chemicals or other substances. • Electronic, telephonic or telegraphic communications, cable TV, power line, conduits, fiber optics, ducts, cables, wires. • a fixed structure such as a cement piling, building foundation or underground tank, valves, manholes, a fence, a concrete conduit structure, a swimming pool, a retaining wall, a shed. • A highway, private road, lane, parking lot, walkway. • A railway. • A drainage or irrigation system, including dikes, ditches and culverts.
Visible Indicators	Any visible indication that another party has created a ground disturbance in the area.
Work Area	Defined by the scope of work and the physical geographical area that is being disturbed. Will change at each site, since no two ground disturbances are exactly the same.

Appendix D – Additional Requirements for Remediation and Reclamation

The following flowchart is to be followed by all remediation and reclamation contractors or consultants for all ground disturbance activities on remediation and reclamation projects. Consult local Operations staff for any further site-specific requirements. All remediation and reclamation consultants must have all pre-ground disturbance documentation peer reviewed prior to initiating a ground disturbance.



Appendix E – Summary of NEB Requirements

The NEB’s *Pipeline Damage Prevention Regulations – Authorizations (SOR 2016-124) and Obligations of Pipeline Companies (SOR 2016-133)*, sets out requirements regarding:

- Activities that may cause a ground disturbance within 30m of an NEB pipeline;
- construction of a facility near an NEB pipeline; and
- the operation of a vehicle or mobile equipment across an NEB pipeline.

Ground disturbance, construction and crossing as noted above are prohibited unless authorized through these regulations or a Board order.

Crossing

The following table provides you with an overview of requirements regarding proposed crossing of vehicle or mobile equipment across an NEB pipeline.

Party to Cross	Pipeline Company/Owner
<ul style="list-style-type: none"> • Complete a pipeline locate request see Section 3 (1) of the Authorizations regulation • Permitted crossings for agricultural activity*: <ul style="list-style-type: none"> ○ the loaded axle weight and tire pressures of the vehicle or mobile equipment are within the manufacturer’s approved limits and operating guidelines; and ○ the point of crossing has not been a subject of notification under Section 7 of the Obligations of Pipeline Companies regulation • For any other crossings, consent must be obtained from the pipeline company 	<ul style="list-style-type: none"> • Respond to requests for consent within 10 working days • When the crossing of vehicles or mobile equipment across a pipeline at specific locations, for the purposes of agricultural activity, could impair the pipeline’s safety or security the pipeline company must identify those locations and provide written notification to: <ul style="list-style-type: none"> ○ Landowners ○ Other persons engaged in agricultural activity (renters, lessee, service provider or employees)

*Agricultural activity as defined in section 13 (2) of the *Authorizations*

Ground Disturbance and Construction

The following table provides you with an overview of requirements regarding proposed construction and/or activities that may cause ground disturbance within 30m of an NEB pipeline.

Party to perform Ground Disturbance and/or Construction	Pipeline Company/Owner
<ul style="list-style-type: none"> ● Obtain pipeline company’s written consent for the proposed activity ● Complete a pipeline locate request see Section 3 (1) of the Authorizations regulation ● Conduct the activity as agreed to by the pipeline company ● Complete the activity within two years from the time of consent ● Do not perform mechanical excavation where there would be ground disturbance within 3m of the pipeline unless points i, ii, or iii in Section 3c apply ● Comply with instructions of the pipeline company’s field representative regarding procedures for pipeline safety and security ● If interference with or alternation of pipe becomes necessary, obtain the company’s consent and supervision ● Immediately notify the pipeline company of any contact with a pipe or its coating ● Notify the company at least 24 hours before back filling over a pipe 	<ul style="list-style-type: none"> ● Respond to requests for consent within 10 working days ● If the company refuses to provide consent, reasons for refusal must be provided ● Consent may be granted subject to additional conditions, which may be extended or amended at any time during the activity ● Within three working days from the receipt of a request to locate a pipe, the company must: <ul style="list-style-type: none"> ○ inform the person, in writing, safety practices to be followed while working near the pipeline ○ clearly mark the location of its pipes in the vicinity at maximum intervals of 10m ○ provide information explaining the significance of the markings ● Inspect all exposed pipe prior to any backfilling

Request for Consent

If you need to make a request for ConocoPhillips consent regarding ground disturbance, construction or crossing activity as noted above, please contact roaduse@conocophillips.com

Appendix F – Revision Record

Section	November 1, 2016	Previous Information	Change Assessment
All	Requirements from the National Energy Board Pipe Line Damage Prevention Regulations, enacted June 2016 incorporated throughout the document.		Med – lack of direction related to NEB requirements may lead to work being done out of compliance
1.1	Updated examples of activities considered ground disturbance including Oil Sands specific activities as well as exclusions from those specific requirements.	None	Med – lack of understand may lead to work being done out of compliance
4.4 4.6.1 App B	Added requirement for markings to be at maximum 10 m intervals along the located line or facility for all ground disturbance	The ground disturbance supervisor must ensure all underground facilities are properly identified, located and marked with flags, wherever possible, to show orientation prior to any crossing or ground disturbance.	Low – 10 m requirement adopted across CPC.
App E	Added NEB summary of requirements into Appendix E	None	Med – lack of understand may lead to work being done out of compliance
Section	March 13, 2015	Previous Information	Change Assessment
All	No new requirements – reworded/rearranged		low