



Technical Note

Progressive Reclamation

The content of this technical note comes from the Directive Number: SD 2010-02 of Alberta Sustainable Resource Development (2010).

Background

Progressive Reclamation and interim clean-up is a standard operating condition on all upstream oil and gas dispositions. This condition may be embedded in the Environmental Field Report (EFR), in Area Operating Agreements (AOA's) and in other dispositions under *Condition 127*, or other applicable past or future Conditions.

- *Condition 127*, which states: The holder shall reclaim all disturbed land surfaces within two growing seasons. Interim reclamation, including site and debris cleanup, slope stabilization, re-contouring with subsoil, and spreading of topsoil shall be done progressively and concurrently with operations.

This includes all disturbances associated with the site (log decks, campsites, borrow areas, remote sumps, access roads, etc). This also applies to prepared and/or built not drilled sites.

Context and Intent

Progressive Reclamation of Industrial Disturbances is a preferred component of Stewardship and a Best Management Practice to reduce the environmental footprint of industrial activities on public land.

The intent of Progressive Reclamation is to initiate “ecosystem re-establishment” on those portions of the industrial disturbance that are no longer necessary for the immediate operating requirements of the lease.

Progressive reclamation and interim clean-up ensures that reclamation material (soil, woody debris and the vegetative propagule bank) is best managed to ensure final reclamation objectives can be attained as efficiently as possible. Minimum Disturbance is the best case scenario, but in its absence, progressively returning the disturbance to a state of equivalent capability is expected.

Research has shown that stockpiling of topsoil for periods greater than eight months leads to dramatic reductions in seed and root viability. It also negatively affects the chemical, physical and biological properties of the soil. It is therefore considered a best management practice to minimize stockpiling of topsoil by redistributing salvaged topsoil within the lease.

Progressive reclamation performed on sites shall ensure that adequate volumes of reclamation material (soils, woody debris, etc.) are available for final production pad reclamation. This may involve storing and/or managing these materials in close proximity to the edge of the production pad, eliminating the need for full site re-disturbance at final reclamation.

Where progressive reclamation, as outlined above is not practical, interim clean-up, i.e. stockpiling of reclamation materials while ensuring other aspects of the progressive reclamation conditions are met, will be acceptable due to the following:

- further activities on the site (multi-well pads) if documented at planning stage
- large cut/fills that will require significant re-contouring to meet equivalent capability and can not be re-contoured in the interim due to safety hazards
- padded wetlands that will be restored to wetland status

For these types of situations, topsoil spreading will not be required but operators are to construct stable, non-erosive stockpiles with the maximum surface area possible to reduce soil and vegetative propagule degradation, and to control weeds and invasive species on these stockpiles.

Policy and Procedure

For sites constructed After June 1, 2008 the following applies:

1. The holder shall conduct progressive reclamation and interim clean-up as outlined in the terms and conditions, including built not drilled sites, for the wellsite and all associated disturbances (log decks, remote sumps, campsites, borrow sites, etc) of that disposition.

Progressive reclamation and interim clean-up includes site and debris clean-up, slope stabilization, subsoil and topsoil re-contouring and distribution and woody debris management including rollback.

2. Progressive reclamation and interim clean-up would occur at the production clean-up phase. This is considered the phase of post drill, post well service and construction of a teardrop.
3. Industry will submit a post construction report to the appropriate Alberta Sustainable Resource Development (ASRD) field office within six (6) months of completion of progressive reclamation and interim clean-up.

- The post construction report will include a sketch of the site, and documentation of the completed progressive reclamation and interim clean-up that has occurred on the disposition to satisfy *Condition 127* or other applicable past or future progressive reclamation condition and/or deviations agreed upon at the planning stage prior to approval.
4. Deviations from the standard operating condition must be rationalized by the disposition holder and will be reviewed and approved by ASRD at the time of the original application or thereafter through any amendments to the disposition. It is understood that:
- deviations are the exception to the rule
 - plausible deviations at the time of approval may include rationale for steep slopes, padded wetlands or multiwell pads. This shall be addressed through the approval planning process

For sites constructed Prior to June 1, 2008 the following applies:

A deviation from the above conditions is possible on **wellsites under production** where the following is demonstrated:

- the site is stable with no erosion
- there are no weed or refuse issues
- the site perimeter including salvaged soil piles have been rounded off and re-vegetated either through natural recovery or seeded cover crops
- all associated disturbances (log decks, remote sumps, campsites, borrow sites, etc) no longer required for well site production have been, or are being reclaimed.