

**Stormwater Management Plan – 304.c.(15)**

**Federal 298-13-1 Oil and Gas Location**

**Loc ID #315513**

**April 2022**



## INTRODUCTION

TEP Rocky Mountain LLC (“TEP”) has developed the following Stormwater Management Plan as required by the Colorado Oil and Gas Conservation Commission (“COGCC”) Rule 304.c.(15) describing the general practices and procedures TEP’s stormwater management program employs during the development of an Oil and Gas Location. Additionally, this plan provides site specific stormwater management control measures that will be employed during development of the Federal 298-13-1 pad to ensure compliance with COGCC, Colorado Department of Public Health and Environment, and Federal regulations.

TEP has developed a Field Wide Stormwater Management Plan (SWMP) in compliance with the CDPHE’s Colorado Discharge Permit System (CDPS) and to ensure conformance to the stormwater management standards under COGCC Rule 1002.f. The SWMP will identify possible pollutant sources that may contribute pollutants to stormwater, and identify Best Management Practices (BMPs) that, when implemented, will reduce, or eliminate any possible water quality impacts. TEP has also developed a field wide Post-Construction Stormwater Management Plan (PC-SWMP) as required by COGCC Rule 1002.f.(3) to ensure that Best Management Practices (BMPs) are implemented on all subject Oil and Gas Locations under its management where the Construction Stormwater permit issued by CDPHE has been terminated. The PC-SWMP identifies possible pollutant sources that may contribute pollutants to stormwater during the post-construction and reclamation phase of operations and describes BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, transport of pollutants offsite, or degradation of site conditions. Upon request by the COGCC or the director, TEP will provide the SWMP and / or PC-SWMP for review.

TEP is proposing to drill, complete, and operate sixteen (16) proposed natural gas wells from the existing Federal 298-13-1 pad located on Federal surface administered by the Bureau of Land Management. The Federal 298-13-1 pad is an existing Oil and Gas Location (COGCC Loc ID# 315513) with one (1) existing natural gas well producing from the underlying Federal Lease COC-0003453. The reconstructed and expanded Oil and Gas Location would be located on resource / rangeland within Lot 9, Lot 11, and Lot 12 of Section 13, Township 2 South, Range 98 West, 6th P.M., within Rio Blanco County, Colorado.

The Federal 298-13-1 pad would be reconstructed and expanded to accommodate the development of the sixteen (16) new proposed directional wells. The existing access road from Rio Blanco County Road 26 will be used to access the Oil and Gas Location. Development of the proposed wells on the Federal 298-13-1 pad would also require the construction of two (2) new pipelines, one to support gas gathering operations and the other to support transport of produced water. TEP will also utilize the existing Federal RGU 23-7-297 pad (COGCC Loc ID# 316408) as a support facility for development of the proposed wells on the Federal 298-13-1 pad.

*Development Phases:* Each phase of development requires the implementation and maintenance of both structural and non-structural stormwater management control measures used by TEP to effectively minimize site erosion and sediment transport. The following outlines the typical development phase which are described in greater detail below.

- 1) Pre-Construction Phase
- 2) Construction Phase (pad, road, and pipeline)
- 3) Interim Reclamation Phase
- 4) Final Reclamation Phase

Please see **Attachment A, Construction Layout**, and **Attachment B, Interim Reclamation Layout**, which depict preliminary site-specific stormwater control measures planned for installation at the Federal 298-13-1 pad during both initial construction and interim reclamation of the oil and gas location.

## **SUPPLEMENTAL SITE INFORMATION**

The Federal 298-13-1 pad is an existing 2.77-acre oil and gas location that would be reconstructed and expanded to a 7.52-acre footprint to support drilling and completion operations of the sixteen (16) proposed natural gas well. The long-term disturbance of the Federal 298-13-1 pad would be approximately 1.89-acres. Approximately 5.63-acres of the oil and gas location would be reclaimed following completion of well construction.

*Soils:* The National Resource Conservation Service (“NRCS”) identifies the dominate soil type within the proposed disturbance boundary of the Federal 298-13-1 pad as Redcreek-Rentsac. The Redcreek-Rentsac is described as Eolian deposits and/or residuum weathered from sandstone. This soil type has a very low available water capacity of about 1.7 inches, and a moderately low to moderately high capacity of the most limiting layer to transmit water, 0.06 to 0.20 inches per hour. The Redcreek-Rentsac is classified as hydrologic soil Group D - having a very slow infiltration rate when thoroughly wet. The typical soil profile is 0 to 5 inches: channery loam; 5 to 16 inches: unweathered bedrock.

The NRCS reports that this soil is classified, under the Uniform Soils Classification System, as clay sands / silty sands (SC-SM). This soil has a reported hydrologic group rating of D, having a very slow infiltration rate when thoroughly wet. The infiltration rate is listed as moderately low to moderately high ranging from 0.06 to 0.20 inches per hour. The NRCS lists the Flood Frequency Class for the facility location as “None”. “None” means that flooding is not probable, and the chance of flooding is nearly zero percent in any year.

NRCS reports that the Erosion factor K (whole soil) of 0.28 for the site, or moderately susceptible to erosion by water. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Stormwater BMPs will be implemented to control soil erosion.

*Vegetation Description:* The primary vegetation community within the project area is pinyon/juniper woodlands. A comprehensive list of common plant species within the project area can be found in the Biological Survey attached to the amended Form 2A. Since the existing Federal 298-13-1 pad is proposed for expansion, a pre-disturbance vegetation cover evaluation was completed to provide an assessment of vegetation cover at the site. A vegetation assessment was also completed for the reference area, which determined that percent cover for pre-disturbance conditions are approximately 30%. Please see the vegetation assessment included in the Biological Survey attached to the amended Form 2A for additional details.

*Weed Infestations:* WestWater Engineering (“WestWater”) conducted a biological survey in May 2021 which included a survey for weeds within the Ryan Gulch Phase 2 project area. The survey identified two (2) Colorado State listed noxious weed species within the survey area generally located near existing disturbance such as road, pads, and pipeline corridors. Please see the Biological Survey Report attached to the amended Form 2A for additional details regarding noxious weeds.

*Non-Stormwater Discharges:* Non-stormwater discharges are limited to application of freshwater along the existing access road and well pad. Excavation activities associated with the proposed activities are not expected to impact groundwater. Per the Sensitive Area Determination prepared by WestWater and attached

to the amended Form 2A, the depth to ground water at the Federal 298-13-1 is likely to be greater than 100 feet. However, any ground water encountered during excavation will be addressed in accordance with Federal and State regulations.

Receiving Waters: Black Sulphur Creek, a perennial stream which is located south of the oil and gas location approximately 4,900 feet, is the nearest perennial stream; however, this perennial stream is isolated by a topographic ridge line south of the Oil and Gas Location. An unnamed intermittent stream located approximately 2,711 feet northwest of the Oil and Gas Location is the nearest surface water feature downgradient of the Federal 298-13-1 pad. One (1) other unnamed intermittent drainage is located northeast of the oil and gas location but is topographically isolated by a ridgeline. Stormwater control measures described below will minimize the potential for impacts to surface water features.

## **STORMWATER MANAGEMENT CONTROL MEASURES**

Potential Pollution Sources and Locations: Stormwater management control measures will be implemented to minimize the potential for pollution. The following potential pollution sources have been identified as part of planned activities on the Federal 298-13-1 pad:

### *1) Transport of chemicals and materials, including loading and unloading operations*

Spill prevention during loading and unloading is outlined in TEP's Piceance Basin Spill Prevention and Response Plan ("SPRP") and Integrated Spill Prevention, Control, and Countermeasures ("SPCC") Plan. TEP complies with applicable DOT requirements when transporting chemicals and materials to oil and gas locations.

### *2) Vehicle/equipment fueling*

Equipment is only fueled in designated fueling areas. Proper storage and transport of fuels is described below.

### *3) Outdoor storage activities, including those for chemicals and additives*

Material or chemicals brought or produced on the Oil and Gas Location will be handled properly using good housekeeping practices. TEP's SPCC and SPRP plans address storage and handling procedures including guidelines for materials handling, storage container labeling, elevation, sealing, covering, securing, and secondary containment, as described below.

### *4) Produced water and drilling fluids storage*

Guidelines for storing produced water, drilling fluids, fuels, and chemicals include the following:

- All containers will be clearly labeled.
- Dry materials will be stored on pallets and covered when not in use to avoid contact with precipitation, stormwater, and wind.
- Potentially hazardous liquid materials in buckets, drums, or tanks will be stored within secondary containment, such as soil berms, steel containers or bermed visqueen, to capture accidental spills or leaks. Drums will be kept off the ground within secondary containment and stored under cover, if needed. The berms shall be constructed such that they are sufficiently impervious to prevent the material from being released beyond the confines of the containment system.
- Fuel tanks will be stored within secondary containment.
- Container lids will be securely fastened.

- In the event of a spill, procedures outlined in TEP's SPRP will be followed. Persons trained in handling spills will be available.
- Spill clean-up and containment materials (absorbent, shovels, etc.) will be readily accessible. Spills will be immediately cleaned up and contaminated materials will be properly stored on site until they can be disposed of in accordance with applicable regulations.
- Storage areas and containers will be monitored for leaks and repaired or replaced as necessary. Storage areas will be inspected regularly, and any minor spills or leaks will be cleaned up immediately.
- As necessary, covers and stormwater diversion structures will be utilized to minimize contact of precipitation and stormwater runoff with materials and wastes with potential to result in discharges causing pollution of surface waters.
- TEP's SPRP will be readily available at the field office as a reference to assist in responding to spills at locations where materials are stored or handled.
- Material Safety Data Sheets (MSDS) and product labels will be available as per TEP's Hazard Communications (HazCom) program.
- Employees will have proper training in materials handling, spill prevention and response.

#### *5) Outdoor processing activities and machinery*

A variety of operating equipment will be utilized at the Oil and Gas Location for production, storage and transmission purposes. Equipment is inspected regularly to ensure it is operating properly and that no fluid leaks or spills are evident. Any leaks or problems with equipment will be identified and repaired immediately. Leaked or spilled fluids will be cleaned up promptly in accordance with TEP's Spill Response Plan (SPRP).

Routine equipment maintenance will be performed on-site. Any waste product from maintenance will be containerized and transported off site for proper disposal or recycling. There will be no major equipment overhauls conducted on site. Equipment will be transported off site for major overhauls.

#### *6) Significant dust or particulate generating processes*

Dust generation may occur from site construction, vehicle traffic, and high winds. Dust suppression will be performed on an as needed basis to minimize the potential for fugitive dust. Please see the Dust Mitigation Plan attached to the amended Form 2A for specific details on dust suppression methods.

#### *7) Erosion and vehicle tracking from well pads, road surfaces, and pipelines;*

To prevent vehicle tracking, stabilized construction entrances may be utilized as necessary to prevent tracked mud and dust from leaving an area. The use of stabilized construction entrances removes mud and sediment from the vehicle's wheels and offsite transport of soil is reduced.

Control measures will be established during site construction to prevent erosion and transport of sediment off the Oil and Gas Location. Control measures will include structural items such as diversion ditches, wattles, straw bales, sediment traps, water bars, and matting, as well as non-structural items such as timing of ground disturbance activities and dust control measures. Guidelines regarding the selection, installation or implementation, and maintenance of control measures are detailed in TEP's Stormwater Manual.

#### *8) Waste disposal practices*

Proper waste handling practices will be implemented at the Oil and Gas Location. All materials no longer needed for operations will be removed from the site and re-used or disposed of properly. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at off-site, suitable facilities. Regular disposal for garbage, rubbish, construction wastes, and sanitary waste will be maintained during operations.

#### *9) Leaks and spills*

Leaks and spills will be handled according to TEP's SPCC Plan and SPRP. Appropriate TEP personnel are trained on the requirements of these plans during new hire training and then annually thereafter during employment. If a spill occurs, contractors are instructed to notify their TEP point of contact immediately. If the spill or leak can be safely stopped, employees or contractors should do so. The spill should be contained and resources for spill cleanup employed as described in the SPRP.

In case of a liquid leak or spill, such as produced water or hydrocarbon product, containment strategies will be implemented to control the release. Containment strategies include, but are not limited to, utilization of spill kits, creation of diversion ditches and containment berms, installation of check dams or headgates, and removal of free liquid by vacuum truck. Contaminated soils and materials will be land-farmed within bermed areas on-site or will be properly stored in sealed containers until removed for proper disposal.

In case of a dry material spill or leak, the affected soil will be land-farmed within bermed areas on-site, if appropriate, or removed and temporarily stored in a sealed container until removed for proper disposal. If a spill occurs, prompt cleanup is required to minimize any commingling of materials with stormwater runoff.

#### *10) Ground-disturbing maintenance activities.*

If ground disturbing maintenance activities are necessary, activities will be evaluated by TEP personnel to determine the following: first, whether the scope of activities merits returning to coverage under the CDPHE Construction Stormwater Permit, or if the activities can occur under the Post-Construction Stormwater Plan; and second, whether additional control measures need to be implemented to prevent erosion before, during, or after the maintenance activities. Control measures will be selected and implemented based on the guidelines provides in TEP's Stormwater Manual.

*Pollution Prevention:* Structural and non-structural control measures will be implemented at the Oil and Gas Location to control stormwater and sediment erosion. The following outlines the planned structural and non-structural control measures slated for use at the Oil and Gas Location:

- 1) Structural Control Measures:
  - a. Wattles
  - b. Culvert Inlet and Outlet Protection
- 2) Non-structural Control Measures:
  - a. Minimizing surface disturbance by utilization of off-site support facilities
  - b. Sediment Catchment Basins
  - c. Diversion Ditches
  - d. Surface Roughening
  - e. Seeding and Mulching
  - f. Proper scheduling of construction activities

Erosion Controls: The Oil and Gas Location and existing access road will be unpaved. To prevent erosion from unpaved surfaces, TEP will apply gravel in sufficient quantities to minimize erosion potential. Hydro-mulch will be applied to the cut and fill slopes of the oil and gas location and the associated stockpiles following site construction to minimize erosion potential. Once interim reclamation of the oil and gas location is complete, seed and mulch will be applied to the reclaimed cut and fill slopes.

Vehicle Tracking Control: Construction sites may use vehicle tracking controls to mitigate the transport of mud/sediment adhering to vehicle tires prior to leaving the site and entering the adjacent asphalt and/or public roadways, or areas where vehicle tracking occurs shall have measures in place that contain or filter flows in order to prevent the bypass of flows without treatment. If needed, access roads may be stabilized with base course or gravel to reduce erosion, and street sweeping will be utilized to remove tracked sediment on paved roads, when necessary.

Management of Waste Materials: Locations will be maintained in a clean and orderly fashion to minimize the potential for spills, leaks, stormwater contamination, and safety hazards. Housekeeping will consist of neat and orderly storage of materials and containerized fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at approved off-site disposal facilities.

Contractors and employees will maintain, as necessary, an equipment storage (lay down) or staging area for equipment and materials storage at each site. These areas will be maintained with good housekeeping and will be inspected regularly for spills, leaks, and potential contamination.

Construction trash and debris (i.e., non-hazardous solid waste) will be collected in containers and hauled off-site for disposal at an approved disposal facility. Sanitary waste will be containerized in portable toilets or other storage tanks with waste materials regularly pumped and transported off-site for disposal at approved facilities.

Drill cuttings will be managed on location within a bermed cuttings trench. Stormwater run-on that enters the cuttings trench will be pumped out and properly disposed. Drill cuttings will be sampled for compliance with COGCC Table 915-1 and will be buried on location within the cuttings trench / cut slope of the oil and gas location. Please see the Waste Management Plan attached to the amended Form 2A for additional details on drill cuttings management.

## **SITE-SPECIFIC CONSTRUCTION AND STORMWATER CONTROL MEASURES**

The Federal 298-13-1 pad would be reconstructed and expanded to accommodate the development of the sixteen (16) new proposed natural gas wells. Site-specific stormwater control measures are depicted on **Attachment A, Construction Layout Drawing**, and include diversion ditches, sediment basins, wattles, surface roughening, application of mulch, and application of gravel. Additional stormwater control measures may be considered during site construction. The existing access road from Rio Blanco County Road 26 will continue to be used to access the Oil and Gas Location. The existing access road / lease road is approximate 1.17 mile in length.

To support production operations on the Federal 298-13-1 pad, Bargath would install one (1) eight-inch (8") steel natural gas pipeline (approx. 485 feet) from the proposed separators on the Federal 298-13-1 pad to the existing sixteen-inch (16") natural gas pipeline operated by Bargath located within the existing pipeline Right-of-Way (ROW) adjacent to the Oil and Gas Location. The proposed tie-in point would be located on Federal surface. TEP would install one (1) six-inch (6") Coreline or FlexSteel water pipeline (approx. 65 feet) from the proposed tank battery on the Federal 298-13-1 pad to the tie-in point with an

existing six-inch (6") produced water pipeline located south of the Federal 298-13-1 pad. TEP would install several on-location flowlines to support onsite production operations.

The proposed off-location pipelines would be installed within a fifty-foot (50') pipeline ROW located on Federal surface administered by the Bureau of Land Management.

Prior to initial pad construction, TEP will have the proposed pad location and pipeline corridors staked for construction and will hold a pre-construction onsite with the excavation and stormwater contractors to review proposed site construction. TEP's stormwater management contractor will review the preliminary erosion control plan and determine if any additional control measures are needed. Any new control measures implemented because of this review or requested by the surface owner will be documented as required by Federal and/or state regulations.

TEP's stormwater contractor will then oversee the installation of stormwater control measures (i.e. wattles, straw bales, etc.) along the outer perimeter of the proposed disturbance boundary. TEP's construction contractor will then begin removal of existing vegetation within the disturbance footprint by hydro-axing or brush hogging the trees and larger brush within the project disturbance boundary. Stormwater control measures, such as sediment traps and diversion ditches, will then be installed along the perimeter of the site prior to pad excavation.

Topsoil horizon, or the top six inches (6") of soil within the pad disturbance footprint, will then be stripped and stockpiled along the northeast end of the Oil and Gas Location. Topsoil will be segregated from all other subsurface materials at the site and wattles will be placed around the perimeter of the stockpile to prevent migration of organic materials from the stockpile.

Excavation of the pad will then commence and will be constructed based on the **Attachment A, Construction Layout Drawing**. A perimeter berm will be constructed around the fill side of the pad location and around the cuttings trench. A drive over berm will be constructed at the pad entrance.

The proposed production equipment areas, and on-location flowlines will then be installed. Conductors may be installed during installation of production facilities if drilling operations are expected to commence within six (6) months of installation. Per COGCC Rule 406.e.(4), conductors for wells that have not been drilled within six (6) months of setting the conductor must be plugged per the guidelines outlined in the rule. The areas beneath the proposed rig footprint will be compacted to ensure stability of the rig during drilling operations. The pad working surface will be bladed level and graveled with a minimum of four inches (4") of three-quarter inch (3/4") surfacing materials imported from one or more local gravel pits. The cut and fill slopes, excess stockpile, and topsoil stockpile will be hydro-mulched following completion of pad construction to minimize the potential for site degradation during the initial drilling and well completion phase of the project.

Interim reclamation of the Oil and Gas Location will occur following completion of well construction. Stormwater control measures will be implemented during interim reclamation and will include diversion ditches, sediment traps, surfacing materials (as needed), and application of seed and mulch. Additional control measure may be implemented as needed to prevent off-site migration of sediment and pollutants. Stormwater control measure planned for interim reclamation are depicted on **Attachment B, Interim Reclamation Layout Drawing**.

## **STORMWATER MANAGEMENT PROGRAM**

Oil and gas operation generally require major ground disturbing activities which may include construction of oil and / or natural gas well pad, access roads, natural gas pipelines, produced water pipelines or off-



location flowlines, compressor stations, centralized exploration and production waste management facilities, compressor stations, and other support facilities. All construction activities will follow standard construction and engineering protocols and procedures, and the appropriate stormwater runoff, erosion, and sediment control measures (CMs) will be used to minimize the impact of earth ground disturbing activities. The following sections describe the relationship between the phases of construction and the implementation and maintenance of both structural and non-structural stormwater management control measures used by TEP to effectively minimize site erosion and sediment transport.

#### Pre-construction Phase

Preliminary site assessments are made for site planning and management (e.g., well pad dimensions, access roads, pipeline routes, etc.) and to determine needed site-specific control measures, pre-construction vegetative cover, existing drainages/outfalls, soil types, and other site-specific considerations prior to site excavation. These features are incorporated into site specific stormwater plans and are used to develop, implement, maintain, and update/revise the SWMP.

Prior to initial construction activities or ground disturbance, stormwater control measures shall be implemented at construction sites to control erosion (i.e., sequencing of construction activities, surface roughening, etc.) and sediment (i.e., stabilized construction entrances, temporary berms, diversion ditches, etc.), and to protect existing vegetation outside the perimeter of the construction site.

#### Construction Phase

Upon completion of pre-construction site assessments and related SWMP management (i.e., development, implementation, maintenance, updates/revisions), construction activities are scheduled or phased to control erosion and sediment and all potential pollutant sources at project sites, and to protect existing vegetation. Construction activities for the exploration and production of natural gas typically follow this general order of operation:

- 1) Installation of perimeter sediment control measures around the proposed site disturbance including material stockpiles to ensure adequate protection for surface waters and / or wetland areas adjacent to, or downgradient of the construction site (i.e. well pad, access road, pipeline corridor, utilities);
- 2) Preservation of existing vegetation adjacent to construction activities, or where feasible;
- 3) Clearing and grubbing of site vegetation;
- 4) Preserving topsoil by stripping and placing topsoil within designated areas along the perimeter of the construction site;
- 5) Site construction includes excavation of cut and fill slopes of the proposed access road and well pad, excavation of pipeline right-of-way, installation of utility lines and site facilities, and other ground disturbance activities;
- 6) Implementation of interior erosion and sediment control measures as described in the SWMP (i.e. diversion ditches, sediment traps, surface roughening, mulching, wattles, riprap, culverts, etc.);
- 7) Development of oil and natural gas wells through planned drilling and completion operations;
- 8) Installation and operation of production facilities (if not completed before D&C operations);
- 9) Stormwater control measure management and reporting, including daily or bi-weekly inspection depending on phase of construction.

#### Interim Reclamation

Disturbed areas affected by construction, drilling, completion, and/or production operations not required for long-term production operations will be temporarily stabilized after construction is complete. Interim reclamation will be initiated for areas of well pad surfaces, access roads, pipelines, etc. not needed for long-

term production operations. Surfaces required for the operation of production facilities will be maintained until wells are no longer productive (approximately 30 years). The following measures may be used for interim reclamation to control stormwater runoff, minimize erosion and the transport of sediment off-site, and to control site degradation:

- 1) Managing debris and waste materials (i.e., well completion and drilling materials, drill pipe, excess materials and equipment, etc.) in accordance with TEP guidelines and regulatory requirements;
- 2) Closing cuttings pits, trenches, and / or management areas per COGCC regulations and re-contouring the disturbances to eliminate the potential for stormwater ponding;
- 3) Grading the construction site to reduce the working pad surface to approximately one-quarter ( $\frac{1}{4}$ ) of an acre or the area required for long-term production operations;
- 4) Cross-ripping disturbed areas compacted by oil and gas operations which are no longer needed following completion of such operations to alleviate compaction;
- 5) Stabilizing unpaved access roads with base course or gravel to minimize erosion, and implementing permanent erosion control measures (e.g., permanent vegetation, erosion control blanket, retaining walls, etc.) for adjacent slopes or ditches;
- 6) Installing water bars and supplemental control measures on slopes greater than 20%, as needed;
- 7) Installing rock check dams, or equivalent structures, in drainage channels susceptible to erosion; and
- 8) Seeding ripped or harrowed ground disturbances with an appropriate seed mix and using stockpiled topsoil for areas of the site that will utilize vegetative final stabilization measures.
- 9) Monthly inspection schedule for < 70% pre-disturbance vegetation cover. Annual inspection schedule for  $\geq$  70% pre-disturbance vegetation cover.

When construction of well pads, pipelines, access roads, and other production facilities are complete interim reclamation activities will be initiated. Sites located on cropland will be reclaimed in accordance with COGCC regulations and private landowner requirements. All other sites will be reclaimed in the interim using measures described above, taking into consideration the natural landscape of the surrounding undisturbed area, disturbed surface slopes, and the proximity of the site to drainages and surface waters. Please see the Reclamation Plan attached to the amended Form 2A for further details on site reclamation.

#### Final Reclamation

TEP's final reclamation phase of construction aligns with industry and regulatory standards and regulations for reclaiming lands affected by oil and natural gas construction activities and operations. Structural and/or non-structural control measures will be implemented to effectively minimize erosion, sediment transport, and the release of other pollutants at the completion of final reclamation construction activities. Final reclamation of disturbed surfaces at sites may be accomplished with the following sequence of construction activities:

- 1) Plugging and abandoning of wells which are no longer producing;
- 2) Removal of any remaining production equipment, pipeline riser, and debris from the site, and backfilling remaining pits and boreholes used for production operations;
- 3) Recontouring the site to approximate pre-construction contours as practicable, per COGCC regulations, landowner agreements, or land management agency requirements;
- 4) Closing, grading, and re-contouring access roads, and removing culverts;
- 5) Alleviating compaction where necessary per COGCC requirements;
- 6) Replacing stockpiled topsoil over the site and preparing the surface for seeding by disking or ripping; and

- 7) Application of approved seed mix using appropriate application method (hydro-seed, drill seed, or broadcast seed, and covering with mulch to prevent sediment erosion and promoting growth of desirable vegetation.

Sediment and erosion control measures at the site will be maintained or modified as needed until final reclamation of disturbed areas has been completed. Site-specific maps shall be updated to reflect field conditions post-construction.

Restoration control measures, including vegetation, have been designed and will be installed as permanent features. When the surface of the land has been restored (as nearly as practicable) to its condition at the commencement of construction activities all temporary non-biodegradable CMs shall be removed from the site.

## **INSPECTION AND MAINTENANCE**

All TEP internal site inspections are conducted in accordance with State Permit regulations and represent the minimum inspection schedule for construction sites in the Piceance Fields (at least once every 14 calendar days). More frequent inspections are often conducted on active construction sites in accordance with project needs and communication with TEP's SWMP Administrator, Construction Superintendent, and onsite contractors. Internal inspections are conducted by a TEP appointed third party Qualified Stormwater Manager (QSM).

At a minimum, the following shall be evaluated during each inspection for evidence of, or the potential for, pollutants leaving construction site boundaries; entering a stormwater drainage system; or discharging to State waters:

- 1) construction site perimeter;
- 2) all disturbed areas;
- 3) designated haul routes;
- 4) material and waste storage areas exposed to precipitation;
- 5) locations where stormwater has the potential to discharge off-site; and
- 6) locations where vehicles exit the site.

All erosion and sediment control measures identified at the site are evaluated to ensure that they are maintained and operating correctly.

### **Inspection Requirements:**

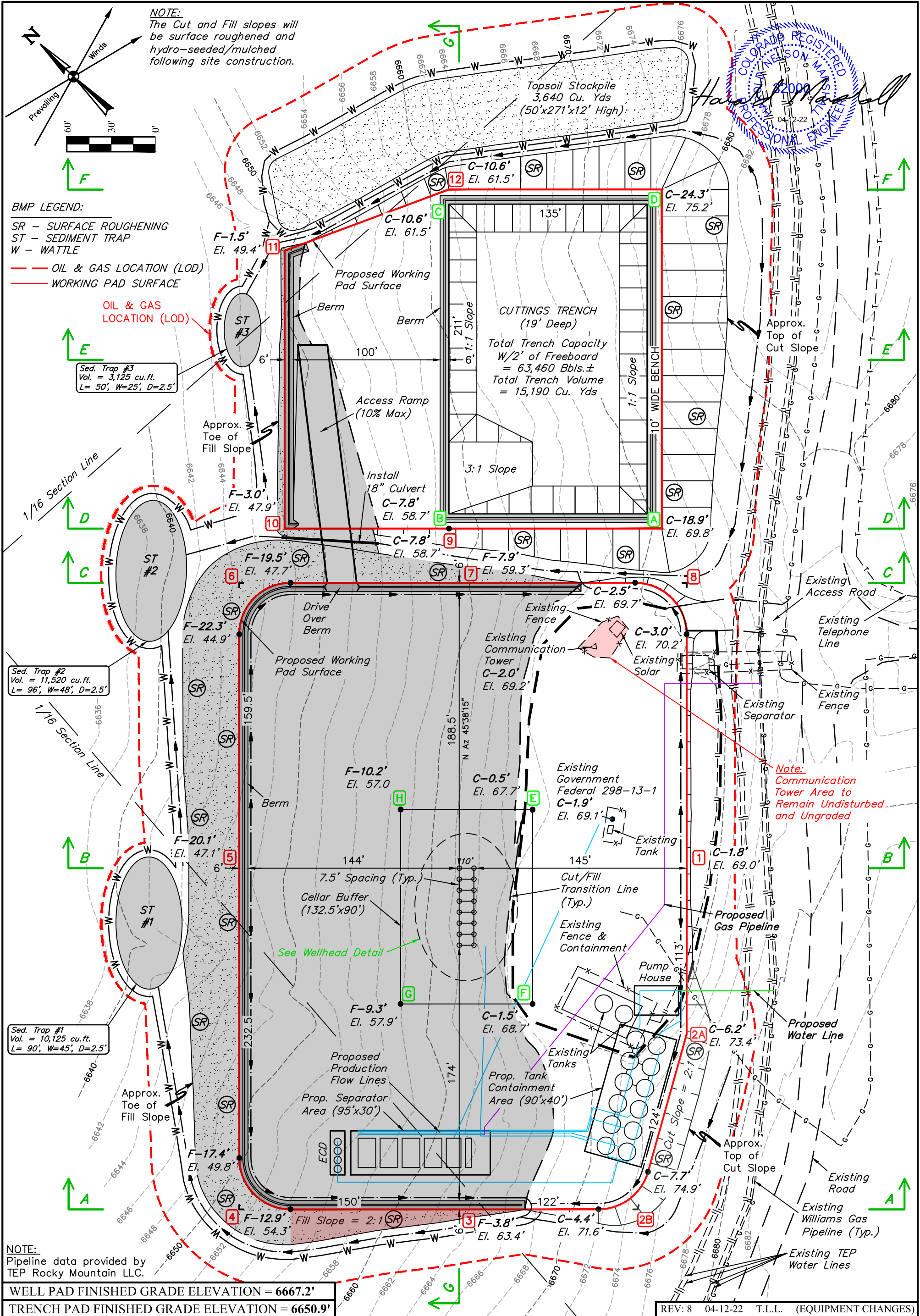
- 1) Visually verify whether all implemented control measures (CMs) are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
- 2) Determine if there are new potential sources of pollutants.
- 3) Assess the adequacy of CMs at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.
- 4) Identify all areas of non-compliance with the Permit requirements and, if necessary, implement corrective action/work order.

## **BEST MANAGEMENT PRACTICES**

The following Best Management Practices for stormwater management will be utilized during development of the oil and gas location:

- 1) Stormwater control measures will be in place during all phases of development (construction, drilling, completions, interim reclamation, and production) to control stormwater runoff in a manner that minimizes erosion, transportation of sediment offsite, and site degradation;
- 2) Stormwater control measures will include perimeter controls and site degradation control measures; these will include a minimum 1.5-foot compacted earthen perimeter berm around the entire working pad surface and around the cuttings trench located on the north side of well pad; topsoil will be stockpiled near the northeast end of the location within the disturbance area and segregated from all subsurface material; there will be a system of exterior diversion ditches around the entire oil and gas location; these diversion ditches will be fitted with rocked check dams and will tie into three (3) sediment catchment basins along the northwest edges of disturbance; site degradation control measures will include grading, slope stabilization (seeding, mulching, surface roughening of the topsoil stockpile), straw wattles along the toe of all fill slopes, and the use of gravel and road base materials for surfacing; wattles will be placed around the entire perimeter of the topsoil stockpile to minimize potential for loss of organic materials;
- 3) Outlet protection should be used when a conveyance discharges onto a disturbed area where there is potential for accelerated erosion due to concentrated flow;
- 4) TEP will conduct stormwater inspections immediately after storm event;
- 5) Bi-weekly inspection of the pad and stormwater control measures (berms, ditches, sediment basins), and the cuttings trench (berms and precipitation buildup); when necessary, precipitation within the cuttings trench will be pumped out and sent into the TEP proposed produced water management system for disposal;
- 6) Stream Crossing and Road Construction - TEP will ensure that control measures are designed, installed, and adequately sized in accordance with good engineering, hydrologic, and pollution control practices; and
- 7) Documentation / Stormwater Management Plan - if it is infeasible to install or repair a control measure immediately after discovering a deficiency, TEP will document and keep on record in the stormwater management plan: (a) a description of why it is infeasible to initiate the installation or repair immediately; and (b) a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.
- 8) A post-construction stormwater program will be developed for the facility as required per Rule 1002.f.(3). Stormwater control is also addressed under a field-wide Stormwater Management Plan.

**ATTACHMENT A**  
**FEDERAL 298-13-1 DRILL PAD**  
**CONSTRUCTION LAYOUT DRAWING**  
**PLAN VIEW & CROSS SECTION**



**NOTES:**

- Rounded corners shown at 35' radius. (except where noted).
- Construct diversion ditches as needed.
- Contours shown at 2' intervals.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted).
- Overall Working Pad Surface 427' x 305'.

**TEP Rocky Mountain LLC**

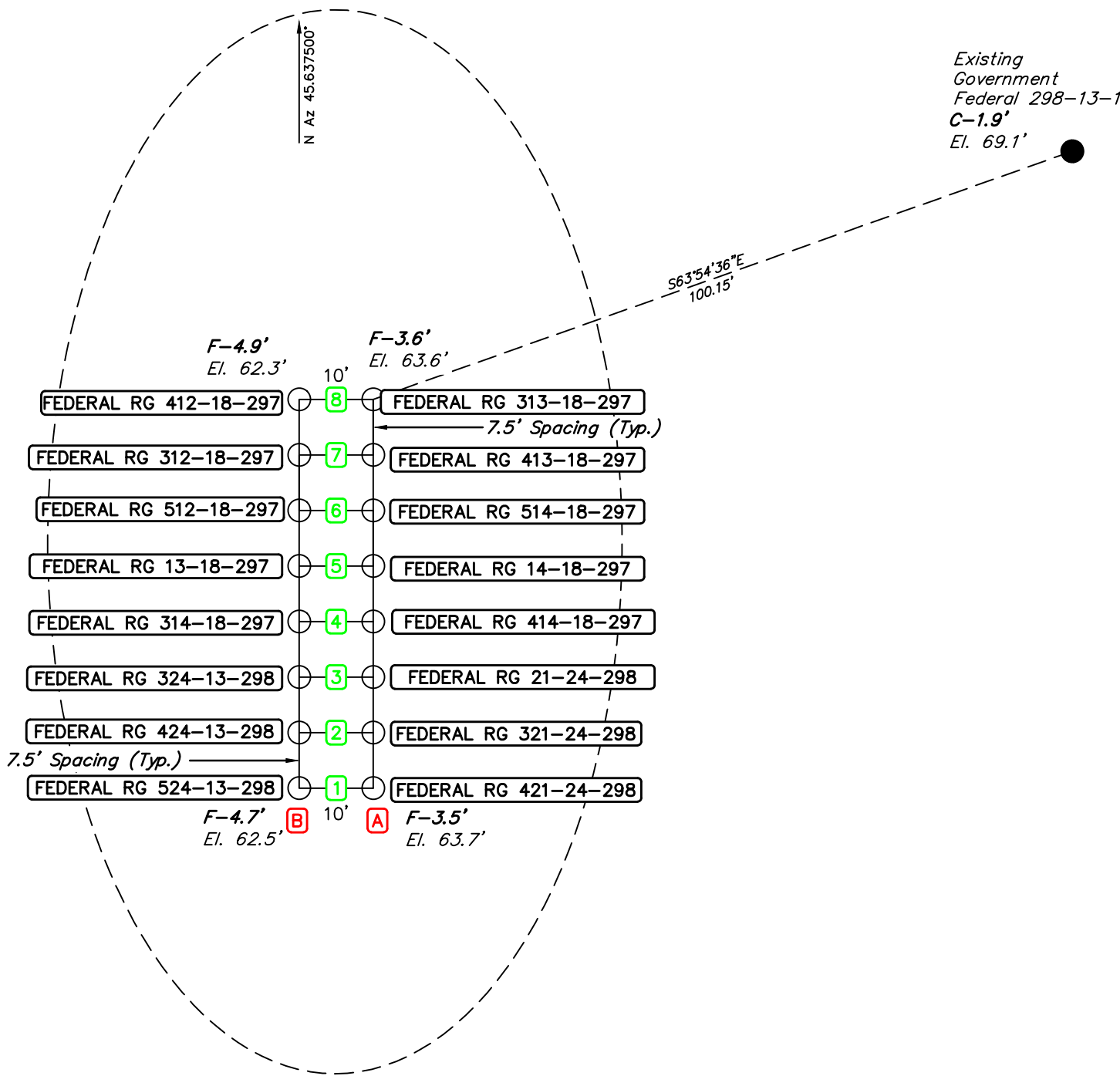
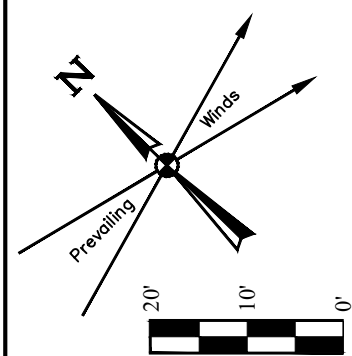
**FEDERAL 298-13-1 PAD**  
**LOTS 9, 11 & 12, SECTION 13, T2S, R98W, 6th P.M.**  
**RIO BLANCO COUNTY, COLORADO**

|                    |              |          |              |
|--------------------|--------------|----------|--------------|
| <b>SURVEYED BY</b> | BART HUNTING | 07-21-21 | <b>SCALE</b> |
| <b>DRAWN BY</b>    | M.D.         | 07-23-21 | 1" = 60'     |

**CONSTRUCTION LAYOUT - PLAN VIEW**

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**UINTEAH**  
ENGINEERING & LAND SURVEYING



REV: 7 02-22-22 M.D. (PAD & WELL NAME CHANGE)

TEP Rocky Mountain LLC

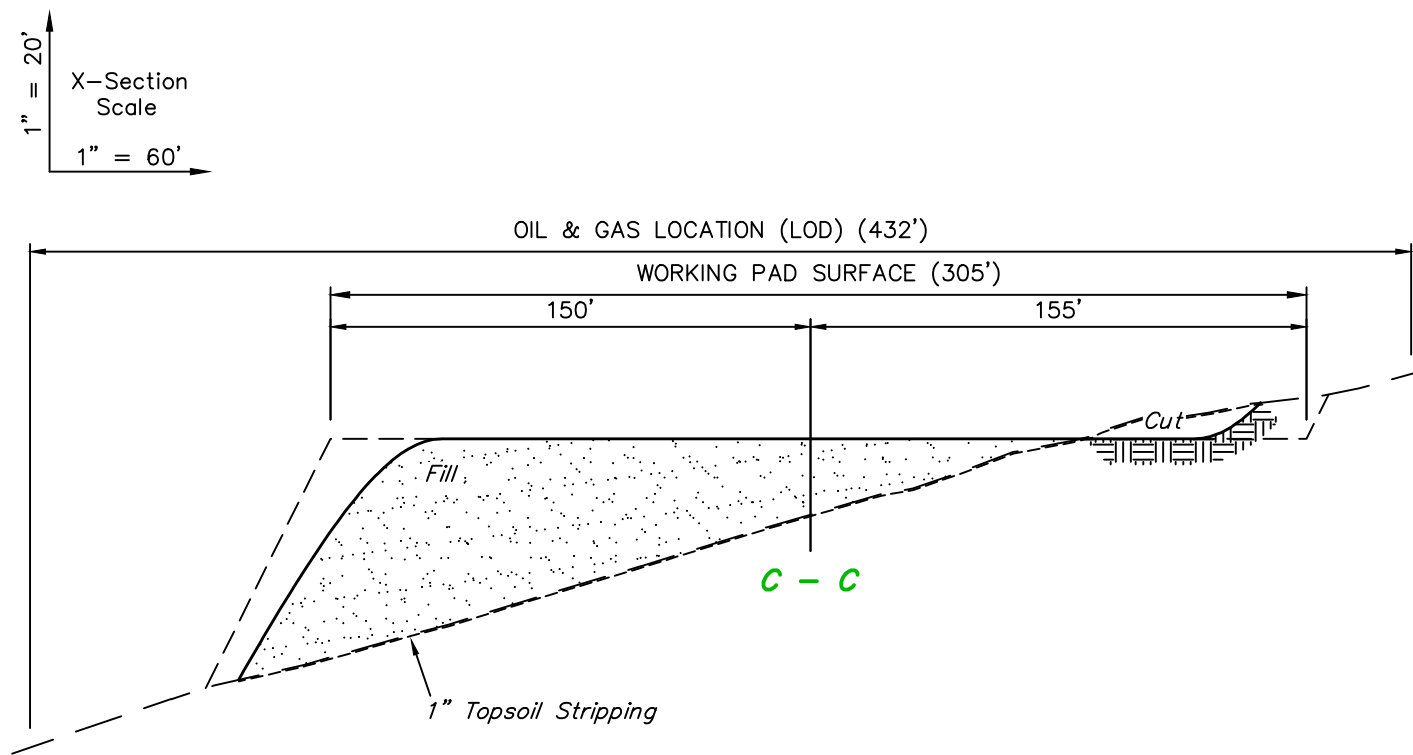
FEDERAL 298-13-1 PAD  
LOTS 9, 11 & 12, SECTION 13, T2S, R98W, 6th P.M.  
RIO BLANCO COUNTY, COLORADO

|                 |              |          |          |
|-----------------|--------------|----------|----------|
| SURVEYED BY     | BART HUNTING | 07-21-21 | SCALE    |
| DRAWN BY        | M.D.         | 07-23-21 | 1" = 20' |
| WELLHEAD DETAIL |              |          |          |



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| APPROXIMATE SURFACE DISTURBANCE AREAS               |          |        |
|---|----------|--------|
|   | DISTANCE | ACRES  |
| WORKING PAD SURFACE DISTURBANCE (WELL & TRENCH PAD) | NA       | ±4.232 |
| CONSTRUCTION DISTURBANCE                            | NA       | ±3.291 |
| TOTAL OIL & GAS LOCATION (LOD)                      |          | ±7.523 |

| APPROXIMATE SURFACE DISTURBANCE AREAS  |          |        |
|--|----------|--------|
|  | DISTANCE | ACRES  |
| 60' WIDE WATER LINE R-O-W DISTURBANCE (OUTSIDE LOD AREA) (INCLUDES TEMPORARY WORKSPACE AREA) | ±18'     | ±0.050 |
| WATER LINE DISTURBANCE (EDGE OF PAD TO LOD)  | ±41'     | N/A    |
| TOTAL WATER PIPELINE DISTURBANCE   |          | ±0.050 |

| APPROXIMATE SURFACE DISTURBANCE AREAS  |          |        |
|--|----------|--------|
|  | DISTANCE | ACRES  |
| 50' WIDE GAS PIPELINE R-O-W DISTURBANCE (OUTSIDE LOD AREA) (INCLUDES TEMPORARY WORKSPACE AREA) | ±17'     | ±0.043 |
| WATER LINE DISTURBANCE (EDGE OF PAD TO LOD)  | ±33'     | N/A    |
| TOTAL GAS PIPELINE DISTURBANCE   |          | ±0.043 |

|                           |        |
|---------------------------|--------|
| TOTAL PROJECT DISTURBANCE | ±7.616 |
|---------------------------|--------|



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**NOTES:**

- Fill quantity includes 10% for compaction.
- Calculations based on 6" of topsoil stripping.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted).

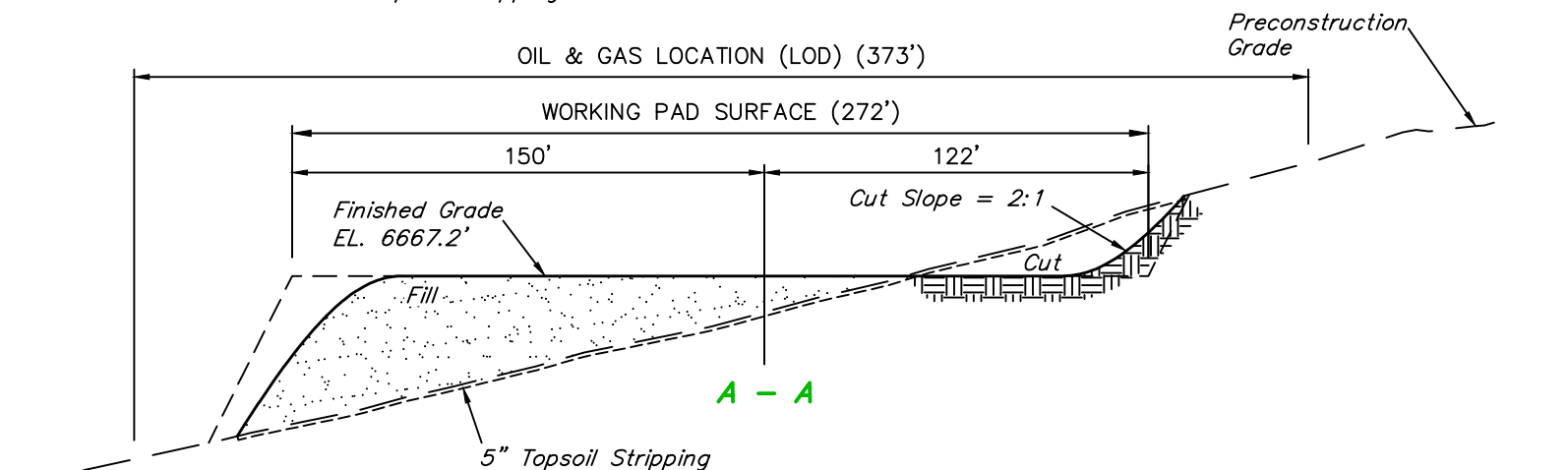
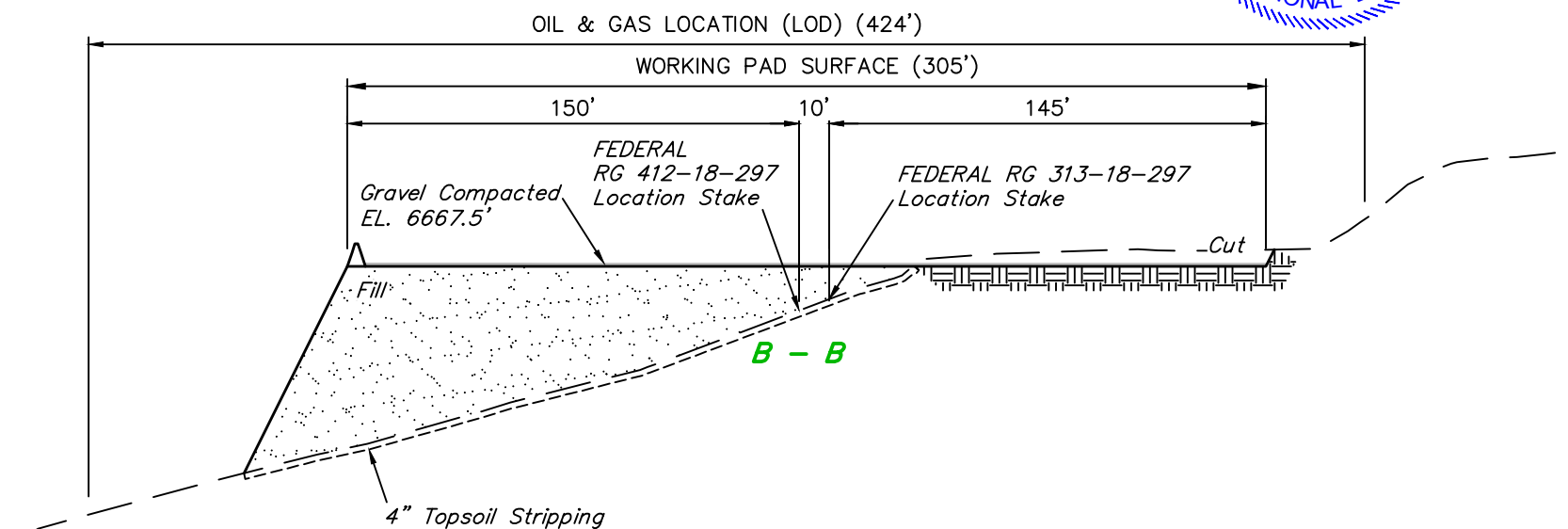
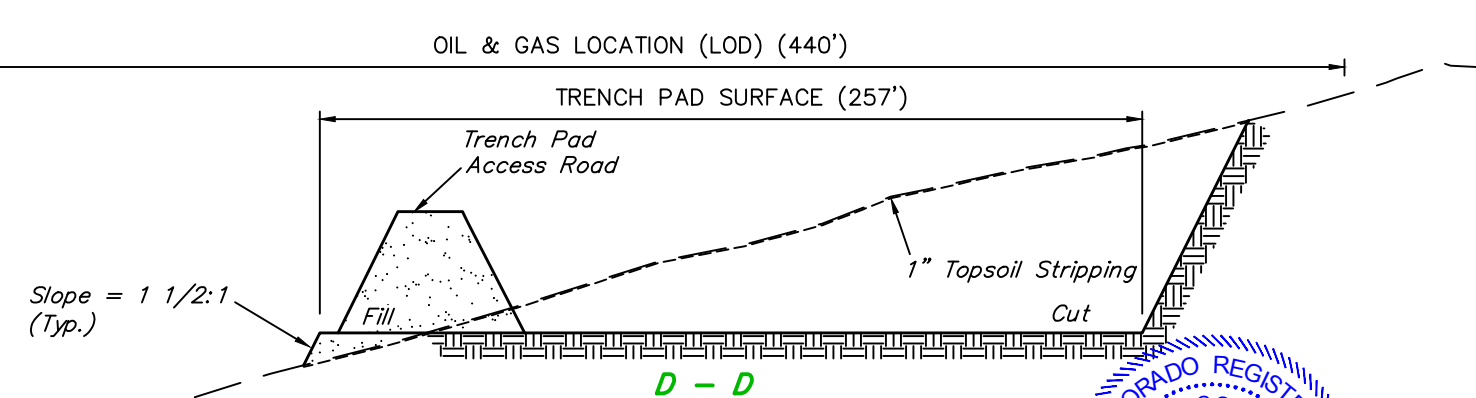
**NOTE:**

- 1860 Cu. Yds. Min. 4" of aggregate base. Gravel to increase location stability. Compacted Volume of Approximately 1860 Cu. Yds. Gravel is to be Applied to Entire Well Pad & Trench Pad Footprint.
- Topsoil Stripping Varies (1", 4" & 5" Depth) And is based on in-field Soil Pits/Samples. Provided by TEP Rocky Mountain LLC.

**NOTE:**

Excess Earthwork from Trench Pad To be used in the Construction of the Well Pad.

| WELL PAD APPROXIMATE EARTHWORK QUANTITIES        |                   |
|--|-------------------|
| (6") TOPSOIL STRIPPING (NEW CONSTRUCTION ONLY)   | 2,200 Cu. Yds.    |
| REMAINING LOCATION                               | 2,930 Cu. Yds.    |
| TOTAL CUT  | 5,130 Cu. Yds.    |
| FILL   | 47,120 Cu. Yds.   |
| DEFICIT MATERIAL                                 | <41,990 Cu. Yds.> |
| TOPSOIL  | 2,220 Cu. Yds.    |
| DEFICIT UNBALANCE (After Interim Rehabilitation) | <44,160 Cu. Yds.> |



REV: 9 05-03-22 M.D. (UPDATE TABLE LABELS)

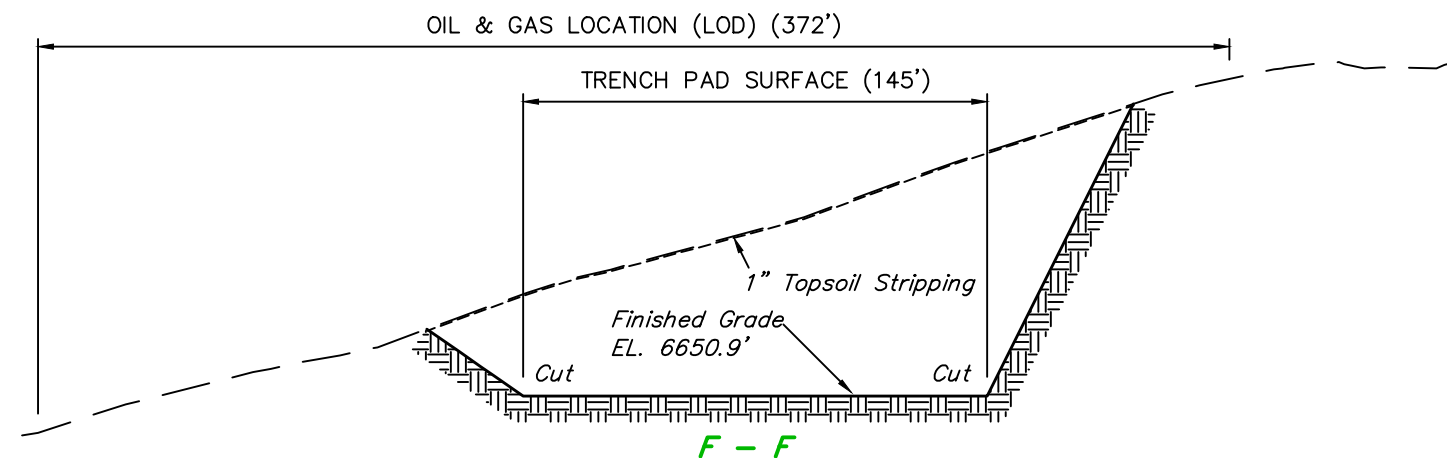
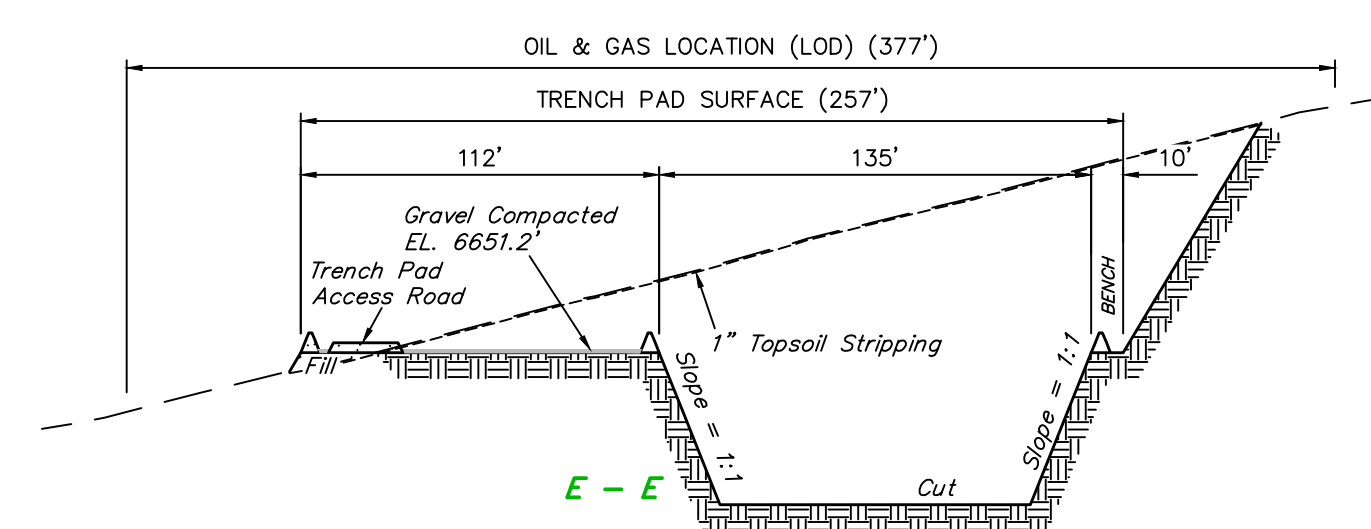
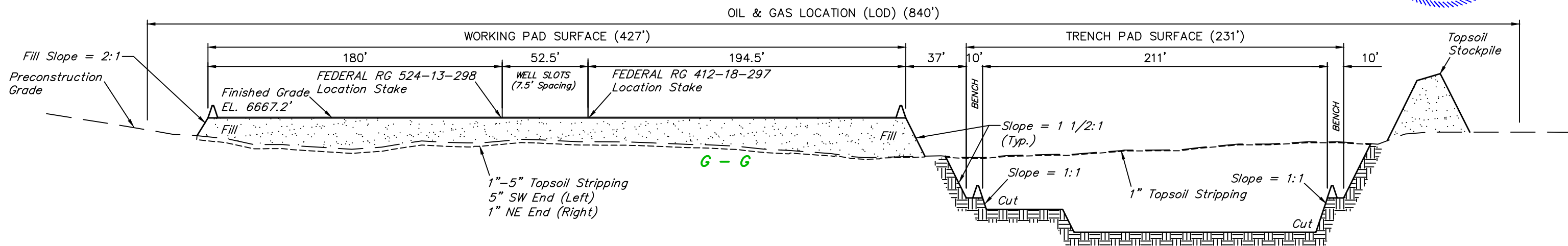
TEP Rocky Mountain LLC

FEDERAL 298-13-1 PAD  
LOTS 9, 11 & 12, SECTION 13, T2S, R98W, 6th P.M.  
RIO BLANCO COUNTY, COLORADO

|                                    |              |          |          |
|------------------------------------|--------------|----------|----------|
| SURVEYED BY                        | BART HUNTING | 07-21-21 | SCALE    |
| DRAWN BY                           | M.D.         | 07-23-21 | AS SHOWN |
| CONSTRUCTION LAYOUT CROSS SECTIONS |              |          |          |



1" = 20'  
X-Section  
Scale  
1" = 60'



**NOTE:**

- 1860 Cu. Yds. Min. 4" of aggregate base. Gravel to increase location stability. Compacted Volume of Approximately 1860 Cu. Yds. Gravel is to be Applied to Entire Well Pad & Trench Pad Footprint.
- Topsoil Stripping Varies (1", 4" & 5" Depth) And is based on in-field Soil Pits/Samples. Provided by TEP Rocky Mountain LLC.

**NOTES:**

- Fill quantity includes 10% for compaction.
- Calculations based on 6" of topsoil stripping.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted).

**NOTE:**

Excess Earthwork from Trench Pad To be used in the Construction of the Well Pad.

REV: 7 02-22-22 M.D.  
(PAD NAME, GRAVEL NOTE & TOPSOIL STRIPPING CHANGES)

**TEP Rocky Mountain LLC**

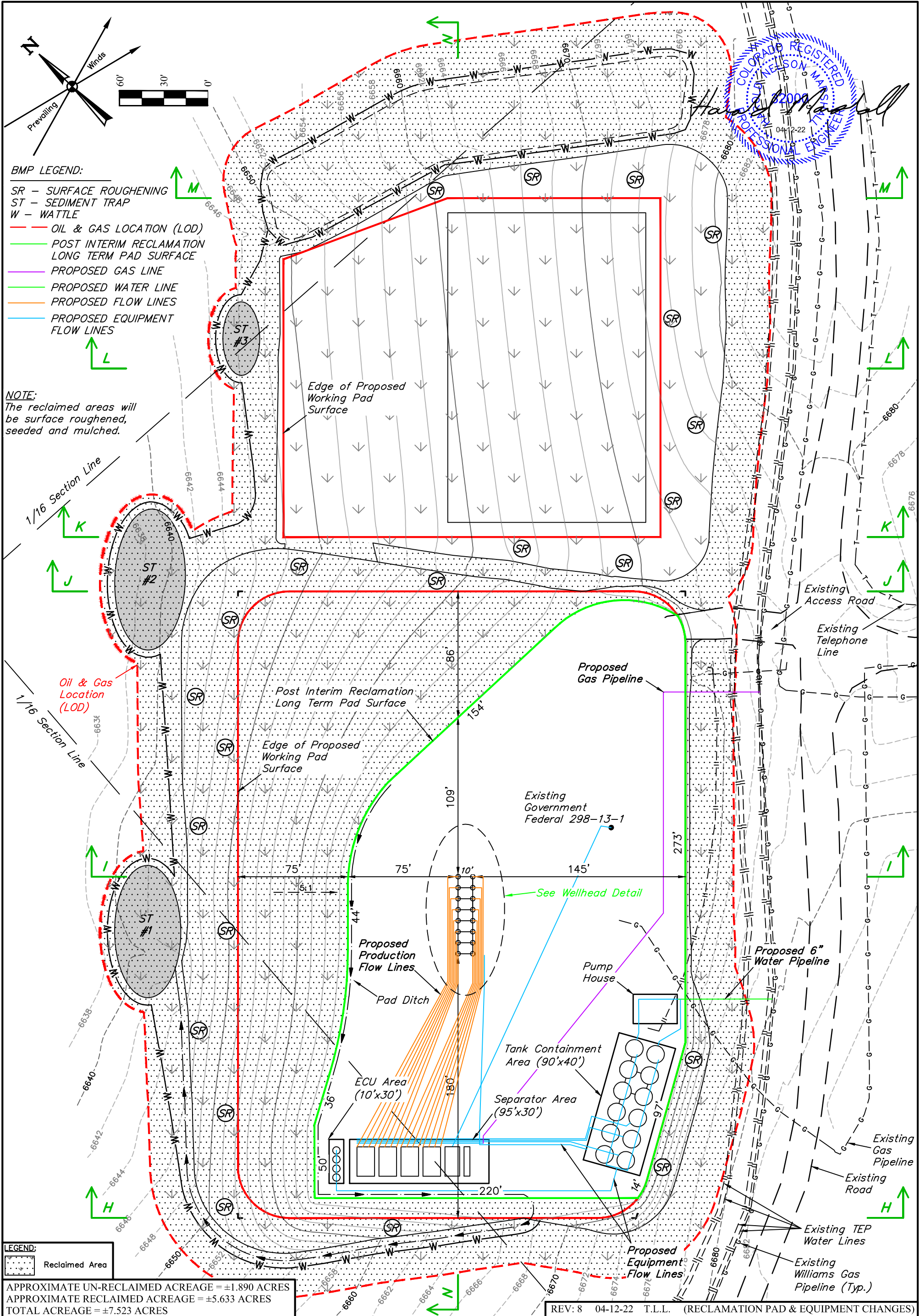
**FEDERAL 298-13-1 PAD**  
**LOTS 9, 11 & 12, SECTION 13, T2S, R98W, 6th P.M.**  
**RIO BLANCO COUNTY, COLORADO**

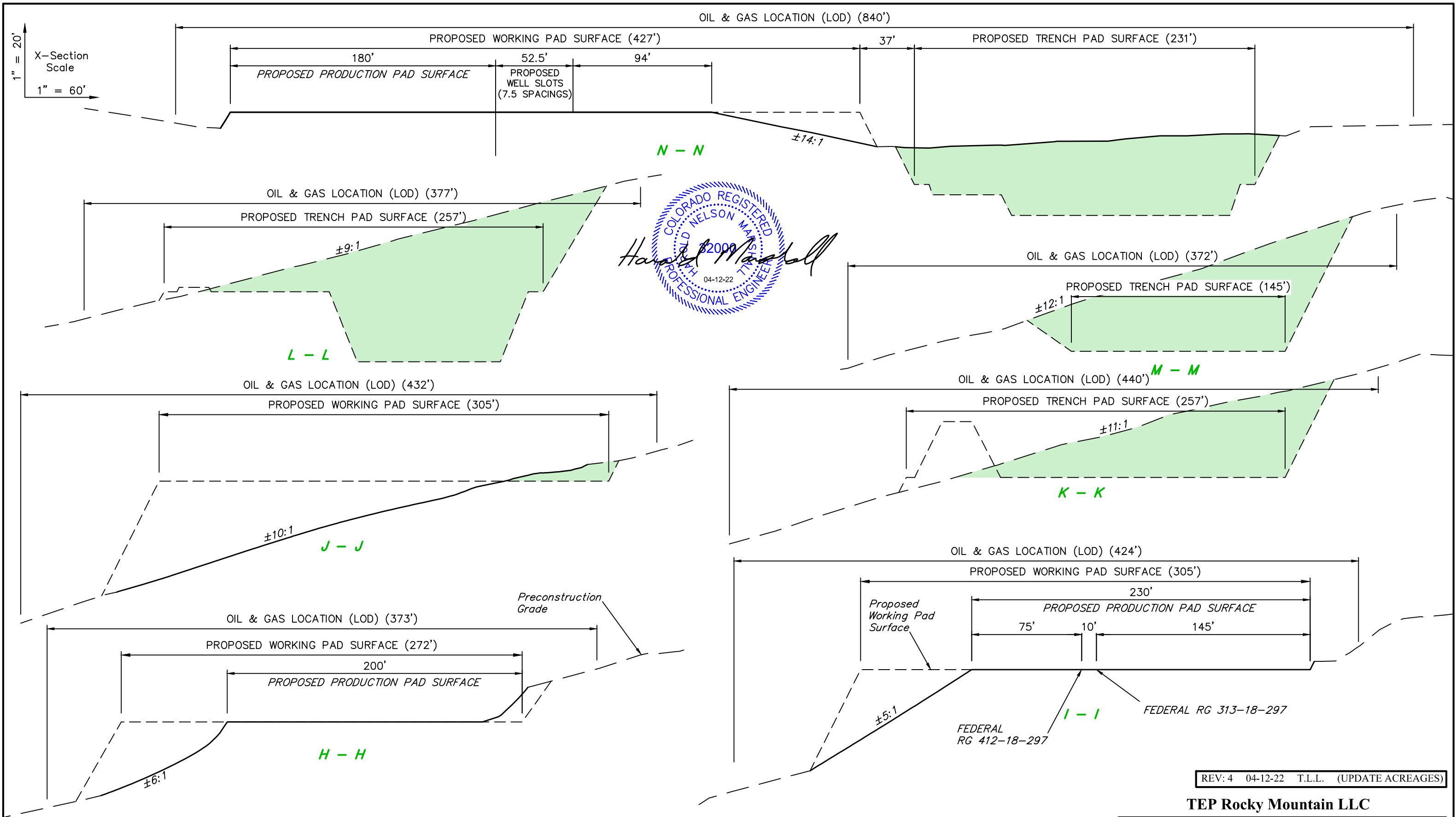
|                                    |              |          |          |
|------------------------------------|--------------|----------|----------|
| SURVEYED BY                        | BART HUNTING | 07-21-21 | SCALE    |
| DRAWN BY                           | M.D.         | 07-23-21 | AS SHOWN |
| CONSTRUCTION LAYOUT CROSS SECTIONS |              |          |          |



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**ATTACHMENT B**  
**FEDERAL 298-13-1 DRILL PAD**  
**INTERIM RECLAMATION LAYOUT**  
**PLAN VIEW & CROSS SECTION**





**NOTE:**  
Reclaim Slopes Vary as Shown.

| APPROXIMATE SURFACE DISTURBANCE AREAS              |          |        |
|--|----------|--------|
|  | DISTANCE | ACRES  |
| INTERIM RECLAMATION AREA                           | N/A      | ±1.874 |
| UN-RECLAIMED ROAD DISTURBANCE<br>(WITHIN LOD AREA) | N/A      | ±0.016 |
| TOTAL SURFACE USE AREA                             |          | ±1.890 |

REV: 4 04-12-22 T.L.L. (UPDATE ACREAGES)

**TEP Rocky Mountain LLC**

**FEDERAL 298-13-1 PAD**  
**LOTS 9, 11 & 12, SECTION 13, T2S, R98W, 6th P.M.**  
**RIO BLANCO COUNTY, COLORADO**

|             |              |          |          |
|-------------|--------------|----------|----------|
| SURVEYED BY | BART HUNTING | 07-21-21 | SCALE    |
| DRAWN BY    | J.J.         | 09-21-21 | AS SHOWN |

**INTERIM RECLAMATION CROSS SECTIONS**



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