



Southern Ute Indian Tribe Department of Energy Plug & Abandonment Form and Checklist

14929 Hwy 172 Ignacio, CO 81137

A draft of this form and all attachments are to be sent to the Southern Ute Indian Tribe's Department of Energy (DOE) prior to or after the plug and abandonment onsite. Please submit form to PA@sudoe.us.

SECTION 1 - OPERATOR INFORMATION

Name of Operator: _____ Operator No.: _____
 Address: _____ Phone: _____
 City: _____ State: _____ Zip: _____ Mobile: _____
 Contact Person: _____ Email: _____

Name of ROW holder/gatherer and contact information: _____

Lat/Long of custody transfer point: Latitude: _____ Longitude: _____

Has gatherer been notified: Yes No

****ROW holder/gatherer for off location flowlines/gathering lines (gas, water, etc.) must complete sections 1, 2, 3, 4, 5 & 6 of the DOE Notice of Intent to Abandon Pipeline and Well Site Flowline Form and submit the NOI to the email link provided on that form.*

P/A Form Checklist (All information in checklist must be present and completely filled out for plan to be accepted)

Well Site Flowline Abandonment Plan (Section 2)

Well Site Equipment Removal Sampling Plan & Map (Section 2)

Well Site Reclamation Plan (Section 2)

Access Road and Access Road Reclamation Plan (Section 3)

Site Map(s) (Section 4)

If disturbance is greater than 1 acre, operator must submit this Plug & Abandonment Form to the SUIT Environmental Programs Division epdwq@southernute-nsn.gov to satisfy the SUIT stormwater recommendations.

I hereby certify that the information detailed in the attached plan is in accordance with regulatory requirements and tribal requests, and all information submitted in connection with the reclamation of this well site, access road and pipeline ROW are true, accurate, and complete to the best of my knowledge.

Signature: _____ Email: _____
 Name: _____ Date: _____
 Title: _____

Reviewed and Approved by:

DOE Approved By: _____ Date: _____

Comments:

SECTION 2 - GENERAL WELL SITE INFORMATION

Well Name: _____ API: _____ Lease #: _____
Legal Description: QTRQTR: _____ Section: _____ TWP: _____
Latitude: _____ Longitude: _____
Location of Reserve Pit: _____
Producing Formation & Spud Date: _____
Equipment List: _____

Well Site Flowline Abandonment Plan (*Plan should include all applicable items in the "Scope of work Narrative" provided below*)

Well Site Flowline Abandonment Checklist (All information in this checklist must be provided for plan to be accepted)

- #1 SCOPE OF WORK NARRATIVE:** Describe applicable method(s) and processes that will be utilized for abandoning lines, including:
- What flowlines are to be removed and what flowlines are to be abandoned in place.
 - The process for draining all liquids from all water, oil and gas pipelines.
 - Purging procedures for lines to left in place.
 - Cutting and sealing all end connections/cut points for lines left in place.
 - Verifying that all portions of pipeline that are abandoned in place are greater than 30" below final grade.
- #2 MAPPING:** Provide a map of all well site flowlines and appurtenances (including fuel gas lines, taps, etc.). Only one map is required and will need to include:
- Pipe removed from the pad: detail the approximate location of the pipe removed from the pad, all appurtenances removed from the pad, and custody transfer point(s).
 - Pipe abandoned in place: detail the approximate location of cut points, abandoned lines left in place, and custody transfer point(s). GIS shapefiles for lines abandoned in place and cut points must be provided after work has been completed.
- #3 UPON COMPLETION OF WORK** the following items must be submitted to DOE prior to commencing recontouring work at the pad:
- Email notification asserting that all appurtenances have been removed per the plan.
 - Email notification asserting all pipe abandoned in place has been properly cut and capped per the plan. Include photos of all cutting and capping points or a separate stand-alone document signed by a legally authorized person (not a vendor or consultant) verifying that the flowline(s) has been properly cut and capped at all locations as indicated in the approved plan.
 - Location data for all pipe abandoned in place and cut points is to be recorded with a global positioning system (GPS). A GIS shapefile of all pipe abandoned in place is to be provided to DOE.

Well Site Equipment Removal Sampling Plan (*Map required, see attached Table 1 Sampling Guidance*)

Well Site Reclamation Plan *(See attached General Components of a P&A Plan)*

Well Site Stormwater Plan *(Type and Placement)*

SECTION 3 - GENERAL ACCESS ROAD RECLAMATION

Will Access Road Remain Active?	Yes	No
Will Access Road be Reclaimed with Pad?	Yes	No
Will Access Road be Reclaimed when Pad is Adequately Revegetated <i>(See attached SUIT DOE Westside Road Classification Map)</i> ?	Yes	No

Length of Access Road: _____

Access Road Reclamation Plan *(Drainage Restoration, Aggregate, Recontouring, Seeding and Mulching, Map)*

Access Road Stormwater Plan *(Type and Placement)*

SECTION 4 - MAPPING REQUIREMENTS RELATED TO THE RECLAMATION OF WELL SITE/ACCESS ROAD AND SAMPLING PLAN

All maps must include the following components:

Construction site boundaries/permitted area

Areas of potential receiving water

All areas of ground disturbance

Laydown areas

Potential sources of pollution

Location of BMPs

Areas of cut and fill

Stormwater outfall locations

Analytical sample locations

Equipment placement, pits and locations of all well site flowlines (water and gas)

Additional Comments/Information

Empty box for additional comments or information.



P&A GENERAL STIPULATIONS/MITIGATIONS:

WELL SITE & ACCESS ROAD

1. All work must be performed in conformance with the SUI Tribal Employment Rights Office (TERO).
2. The company shall use Best Management Practices (BMPs) which eliminate or minimize adverse impacts to the environment, public health and the Tribes natural resources.
3. All Colorado-listed noxious weeds shall be controlled and treated in and adjacent to the permitted area. All invasive weeds (i.e. cheat grass, etc.) shall be controlled to allow successful revegetation of the disturbed areas.
4. Prior to any herbicide treatment on Tribal Lands the commercial applicator must receive an approval letter from the SUI Water Resources Division. Please contact the SUI DNR Soil and Water Conservationist at (970) 563-9482 x 2933 to obtain the approval letter. The operator must also obtain a crossing permit from the SUI Lands Division (970) 563-0126.
5. All surface equipment identified on location at the time of P&A will be removed from location (listed below). All rig anchors found on location will be removed. Any concrete slabs on the pad will be removed. All trash, if any, will be removed from location.
6. Surficial gravel and rip rap rock that has not been contaminated with petroleum hydrocarbons can be buried onsite at a minimum 3-foot depth within the cut slope (if the cut slope is not substantial enough to get three feet of cover, the gravel will be hauled off, not buried elsewhere on the pad).
7. Operators will sample under all equipment and in some cases areas of concern where soil appears to be impacted or vegetation is stressed and potentially in areas of previously documented spills in order to prevent the spread of contaminated soil and to determine if the soil health is suitable for the propagation of desirable vegetation. Contaminated and stained soil on the pad will be excavated and disposed of. Recontouring work cannot commence until samples have been reviewed and deemed acceptable by the Tribe and BLM.
8. Prior to seeding and mulching the well site and other disturbances, the SUI and/or BLM must approve the recontouring work.
9. Fence, cattle guard, t-posts and all associated fence materials shall be removed from around the well pad.
10. Previously segregated topsoil must not be mixed or covered with subsurface material.
11. For final reclamation of project areas that have no available stockpiled or stored topsoil, identify sources from the existing cut/fill slopes and strip/segregate for reclamation. Salvage



the upper 6 inches minimum of soil (A horizon) and stockpile or windrow separately for use as topsoil material.

12. Disturbed areas will be graded and recontoured to create a smooth transition with adjacent undisturbed ground utilizing existing onsite soil materials. This includes ensuring fill slope material is placed in cut slope areas to achieve or mimic historic grades. Grading and contouring should be accomplished to emulate the native adjacent terrain and landscape.
13. Disturbed areas will be recontoured to provide positive stormwater drainage as sheet flow to the extent practicable to reduce management of conveyance paths. During design and grading careful consideration should be taken to length of sheet flow and ensure that any potential for concentration of stormwater is addressed to minimize erosion.
14. Remove all culverts and restore and recontour all drainages to match native bank and bed on access roads.
15. Prior to topsoil placement and once the area within the disturbance limits is to final grade, rip compacted areas to a minimum 4 to 6-inch depth (or up to 12" if dealing with heavy compacted roads), on the contour where necessary and possible.
16. Any specified amendments will be incorporated into the soils during the ripping process.
17. Respread topsoil to a 6-inch thickness (if possible) on all graded areas. Topsoil salvaged from wetland areas should be respread in its original location. It is preferred that topsoil be respread with tracked equipment to reduce compaction of seedbed. Topsoil shall be spread evenly across all slopes.
18. Drill specified seed mix at the required rate and to appropriate seeding depths on all disturbed areas.
19. Broadcast the specified seed mix on areas that are too steep for drill seeding. When seed is broadcast, the seed rate is doubled and the seed is culti-packed, imprinted, harrowed and/or raked into the soil depending on the slope gradient.
20. Apply Certified Weed Free Straw or native hay as mulch at a minimum rate of two tons per acre. Mechanically crimp the straw or native hay into the soil in all areas terrain permits. Tack straw in place where it cannot be crimped.
21. If hydro-mulching is specified for an area, broadcast and rake the seed. The hydro-mulch will be applied using 3,500 pounds/acre of Bonded Fiber Matrix (BFM) mulch.
22. Rolled erosion control products will be installed per the manufacturer specification as applicable and called for on a specific project.
23. The operator shall take appropriate measures to prevent erosion and sedimentation in accordance with the approved DOE *Plug & Abandonment Form and Checklist*.



24. If sediment control barriers or erosion control blankets are used for storm water management, the entire barrier or blanket (including netting) shall be made of biodegradable material.

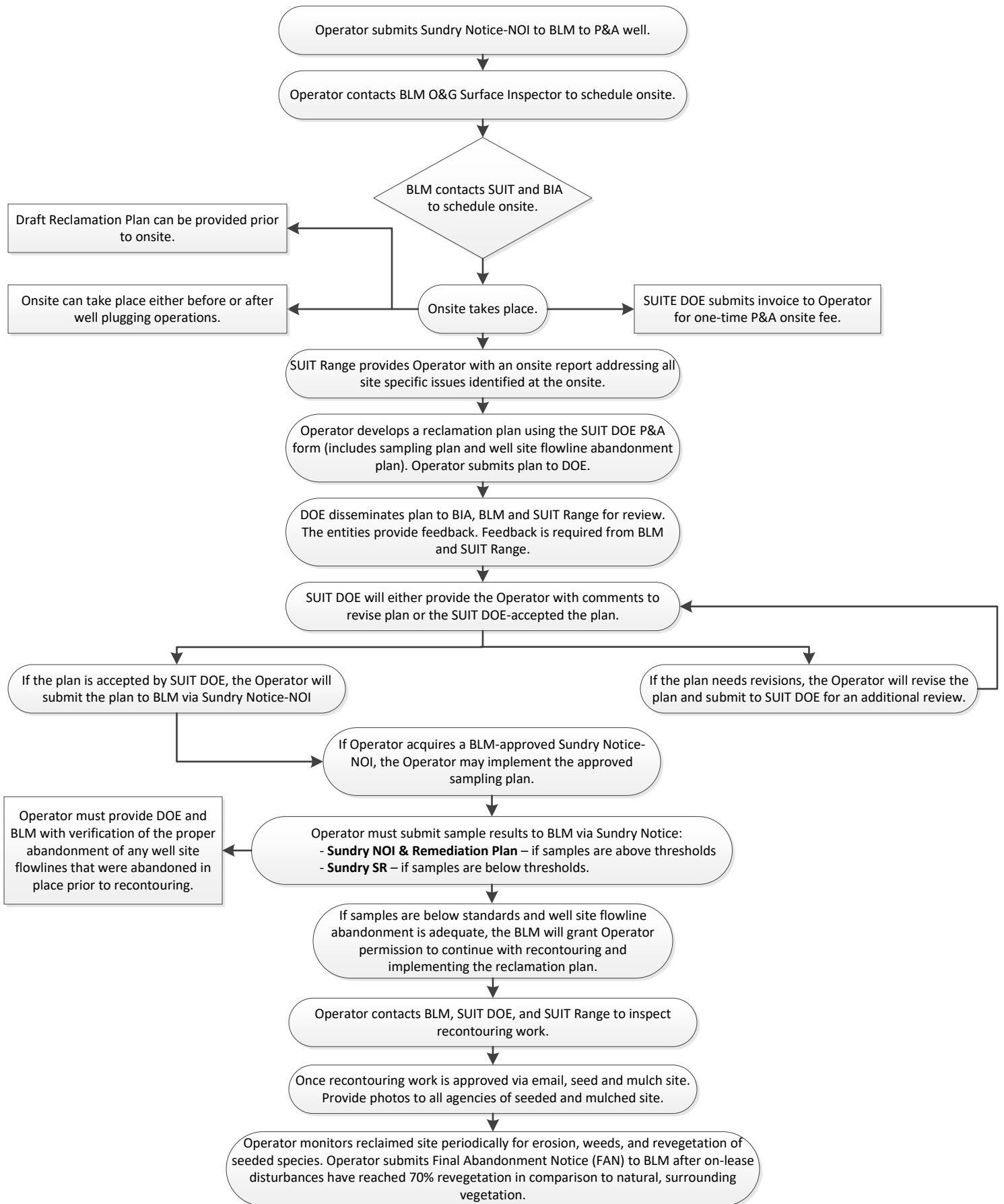
EQUIPMENT

1. The P&A marker must be permanently labeled in accordance with 43 CFR 3162.6 (e).
2. Nothing shall be stored or left onsite after final reclamation.
3. The Southern Ute Indian Tribe recommends testing as prescribed in attached Table 1 – Final Reclamation Sampling Guidance. Compare all analytes to COGCC Table 915-1 concentration levels. If operator is able to provide documentation of recent prior soils testing (during tank removal, etc.) certain requirements may be waived.
4. Unless records are provided to verify that a mercury meter was not used, test soils for mercury under the meter house.
5. No scrap or waste may be buried onsite except gravel as previously discussed. No materials may be burned onsite.

PIPELINES

1. When possible, all pipelines and well site flowlines within the permitted area/footprint shall be removed from underground. If this cannot be accomplished, pipes shall be cut at a minimum safe depth of at least 2 feet 6 inches below final grade. Verification of the proper abandonment of well site flowlines or off location pipelines that have been abandoned in place must be reviewed and approved by the BLM and SUIT DOE prior to the operator commencing recontouring work on a well site, access road or other disturbances associated with the abandonment of a well site.
2. All pipelines which will be abandoned in place shall be purged of all gases, produced water and chemicals and capped.
3. ROW appurtenances such as corrosion test stations, pigging stations and valve sets will be removed.

Flowchart 13 - Plug and Abandon (P&A) Project Phasing



Flowchart 14 - Plugged Wells on a Multi-Well Pad with Producing Wells (Operated by the Same Company) Project Phasing

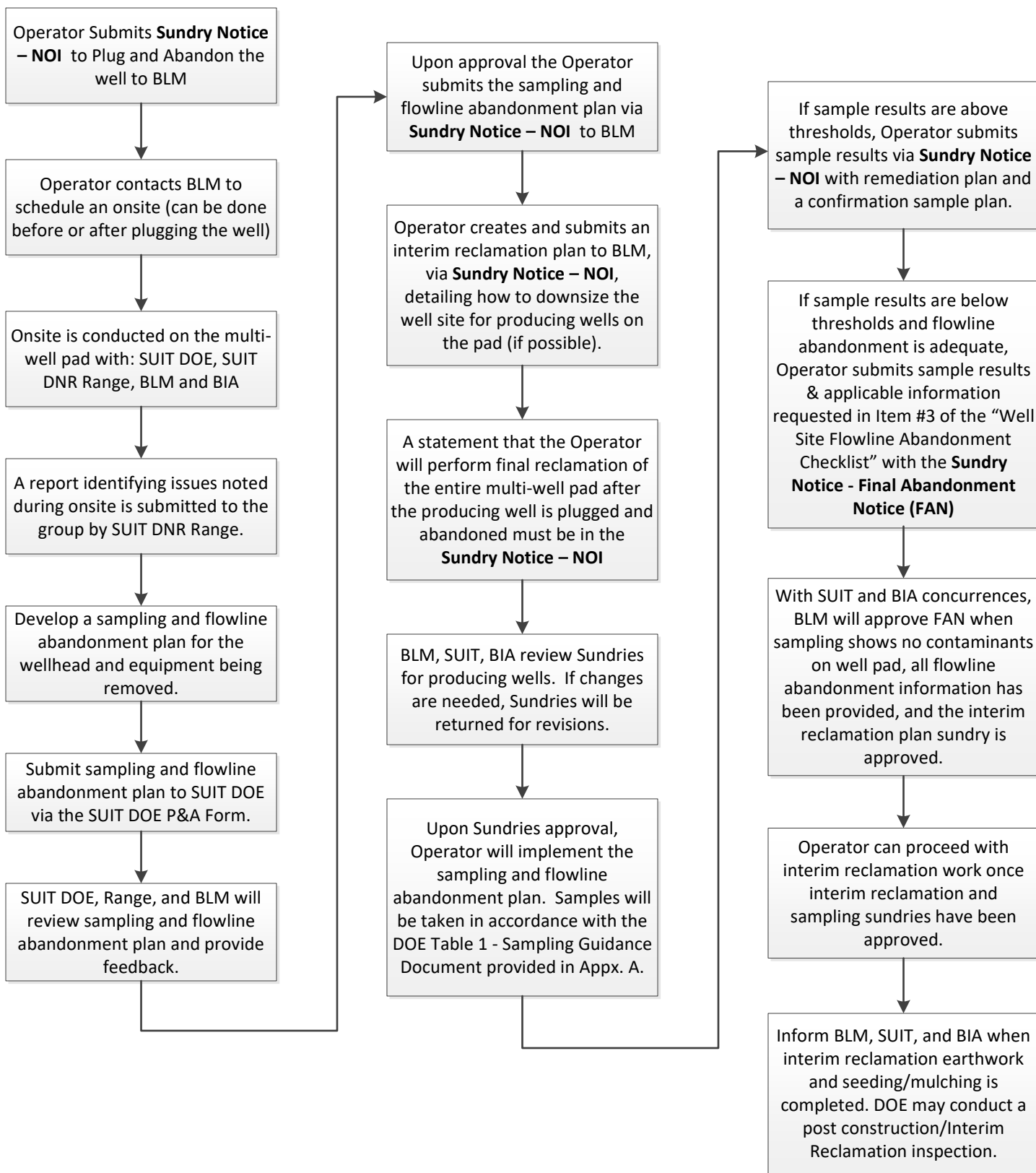


Table 1 – Final Reclamation Sampling Guidance on Southern Ute Indian Reservation

Area to Sample	Where to Sample	How to Sample	What to Sample ⁴
Produced Water Tank for Fruitland Coal Well ^{1,2}	Underneath	Composite sample from 2-3 discrete samples	SAR, EC, pH
Produced Water Tank for Non -Fruitland Coal Well ^{1,2}	Underneath	Composite sample from 2-3 discrete samples	SAR, EC, pH, BTEX, TPH
Condensate or Oil Tank ¹	Underneath	Composite sample from 2-3 discrete samples	Full Table 915-1
Separator ^{1,2}	Underneath	Composite sample from 2-3 discrete samples	SAR, EC, pH
Compressor ¹	Underneath	Composite sample from 2-3 discrete samples	SAR, EC, pH, All Organic Compounds in Table 915-1
Meter House ³	Underneath	Composite sample from 2-3 discrete samples	Mercury
Wellhead	Within 24"	Composite sample from 2-3 discrete samples	SAR, EC, pH, BTEX, TPH
Pumping Unit Base for Gas Driven Engines ¹	Within 6" of Base Edge	Composite sample from 2-3 discrete samples	TPH
Dehydration Unit ¹	Underneath	Composite sample from 2-3 discrete samples	TPH
Previously Buried Pit (<i>only if disturbed, exposed or impacting the environment.</i>)	Low Point or Center	1 Discrete Sample	Full Table 915-1

¹May be waived if documentation is provided of previous testing during equipment removal closure for historic equipment/tank decommissioning or removal.

²May be waived if area will be buried under at least three feet of clean soil from recontouring and not at risk of exposure from erosion

³May be waived if documentation provided that only non-mercury meters used onsite

⁴Samples must be analyzed at an accredited laboratory using the Colorado Oil and Gas Conservation Commission's Table 915-1

Note: Provide a map of sample locations. Additional sampling may be required, at DOE's discretion, depending upon analytical results, depth to groundwater, unique situations or circumstances, and location of nearby receptors. A background sample is also recommended. Operators are allowed to collect and transport their own lab samples as long as the appropriate collection methods and equipment are used.

Acronym(s):

- SAR – Sodium Absorption Ratio
- EC – Electrical Conductivity
- BTEX – Benzene, Toluene, Ethylbenzene, Xylenes (total)
- TPH – Total Petroleum Hydrocarbons

This document is provided to Operators as a guidance tool. If all areas are sampled in the manner provided on this document, the Operator will be in full compliance with all involved agencies.