

**ROCKY FLATS SITE
REGULATORY CONTACT RECORD**

Purpose: Replace East Trenches Plume Treatment System (ETPTS) media and make minor changes to the piping configuration.

Contact Record Approval Date: 9/15/09

Site Contact(s)/Affiliation(s): Scott Surovchak, U.S. Department of Energy (DOE); John Boylan, S.M. Stoller (Stoller); Rick DiSalvo, Stoller

Regulatory Contact(s)/Affiliation(s): Carl Spreng, Colorado Department of Public Health and Environment (CDPHE)

Discussion: A routine maintenance activity to remove the ETPTS spent treatment media (zero valent iron [ZVI] filings) and replace it with new ZVI media is scheduled for late September through October 2009. The last ETPTS media replacement was performed in 2005. The work proposed for 2009 was discussed at a consultation meeting with DOE, CDPHE, and Stoller staff on September 10, 2009.

The PVC piping in the two treatment cells will also be removed with the media (it is, by design, sacrificial). New PVC piping will be installed as part of the media replacement, but the piping configuration will be changed slightly to allow easier field operational alignment to provide either up flow or down flow of water through the media. Although the system plumbing was improved in 2006 to allow both of these flow configurations, the currently proposed upgrades will make these adjustments easier to effect and will eliminate subsurface valves that have proved problematic in some cases. The flexibility to switch the flow directions based on treatment system monitoring results allows flow characteristics to be optimized within the media as conditions warrant.

As part of this minor change to the piping configuration, a new concrete vault (approximately 6 feet wide by 7 feet long and 6 feet deep) will be installed between the two treatment cells to house the terminal ends of the piping from the cells. Removable piping sections with watertight couplings will be used within this vault to connect the pipes supporting each treatment cell to establish the desired flow configuration. Designing these pipes to be easily removable will facilitate potential maintenance needs, such as unclogging pipes. The influent lines will pass through the new vault before entering the treatment cells, and the effluent lines will pass through the new vault before flow is routed to the existing effluent manhole. A copy of the design drawing showing the plan view of the existing configuration and the new vault and piping is included as Attachment 1.

The work will include excavation to approximately 6 to 8 feet below ground surface to install the vault and piping. This excavation work will exceed the 3-foot depth limit specified by Rocky Flats Legacy Management Agreement (RFLMA) institutional control (IC) 2 (RFLMA, Attachment 2, Table 4, Control 2); thus, the procedures require preapproval.

Furthermore, IC 3 (RFLMA, Attachment 2, Table 4, Control 3) stipulates that soil disturbance must be in accordance with the CDPHE-approved Erosion Control Plan and that the soil surface must be restored to the preexisting grade after any soil-disturbance activity has occurred.

The objective of the ICs is to maintain the current depth to subsurface contamination or contaminated structures. These ICs also result in achieving compliance with the CDPHE risk management policy of ensuring that residual risks to the site user are at or below 1×10^{-6} . As discussed below, the proposed work achieves the risk management policy goal.

Excavation will be reduced to the extent feasible, and soils will be returned to approximately the preexisting grade. Excess soils from the excavation after the new vault is installed will be used in the immediate area to reduce the potential for ponding and enhance drainage away from the treatment cells and associated vaults, and any leftover soil will be spread in areas where additional soils may be used to facilitate revegetation. The best management practices in the *Erosion Control Plan for Rocky Flats Property Central Operable Unit, DOE-LM/1497-2007* (July 2007) will also be implemented to provide erosion controls for the construction area so that run-on and runoff will be minimized.

The ETPTS is expected to be shut down for several weeks to accomplish the work. Water within the treatment cells at the start of the project will be pumped out through the ETPTS effluent manhole. Water from precipitation in the excavation that may impact the construction work, or that accumulates in the treatment cells during the work, will be pumped to the ground in the area northwest of the excavation area. If water that collects in the ETPTS collection trench needs to be managed to reduce the levels in the trench, it will be transferred to the Mound Site Plume Treatment System.

CDPHE has requested that the following information related to ICs be included in contact records for soil excavation:

1) Provide information about any remaining subsurface structures in the vicinity so that the minimum cover assumption will not be violated (or state that there are none if that is the case).

The work is at the ETPTS. Except for ETPTS-related components, there are no other subsurface structures in the immediate vicinity.

2) Provide information about any former IHSSs/PACs [Individual Hazardous Substance Sites/Potential Areas of Concern] or other known soil or ground water contamination in the vicinity (or state that there is no known contamination).

The East Trenches Plume is upgradient of the ETPTS. There are no former IHSSs or PACs in the vicinity of the excavation area.

3) Resurvey any new surface established in subsurface soil, unless sufficient existing data is available to characterize the surface (or state that the excavated soil will be replaced and the original contours restored).

When completed, the surrounding soil will be generally consistent with the existing grade, with some very minor improvements to facilitate drainage and prevent ponding at the treatment cells. The new vault will protrude above the surface by about 1 foot.

Closeout of Contact Record: This contact record will be closed when the work is completed and post-construction revegetation and erosion controls are in place.

Resolution: Carl Spreng, CDPHE, approved this contact record.

Contact Record Prepared By: John Boylan and Rick DiSalvo

Distribution:

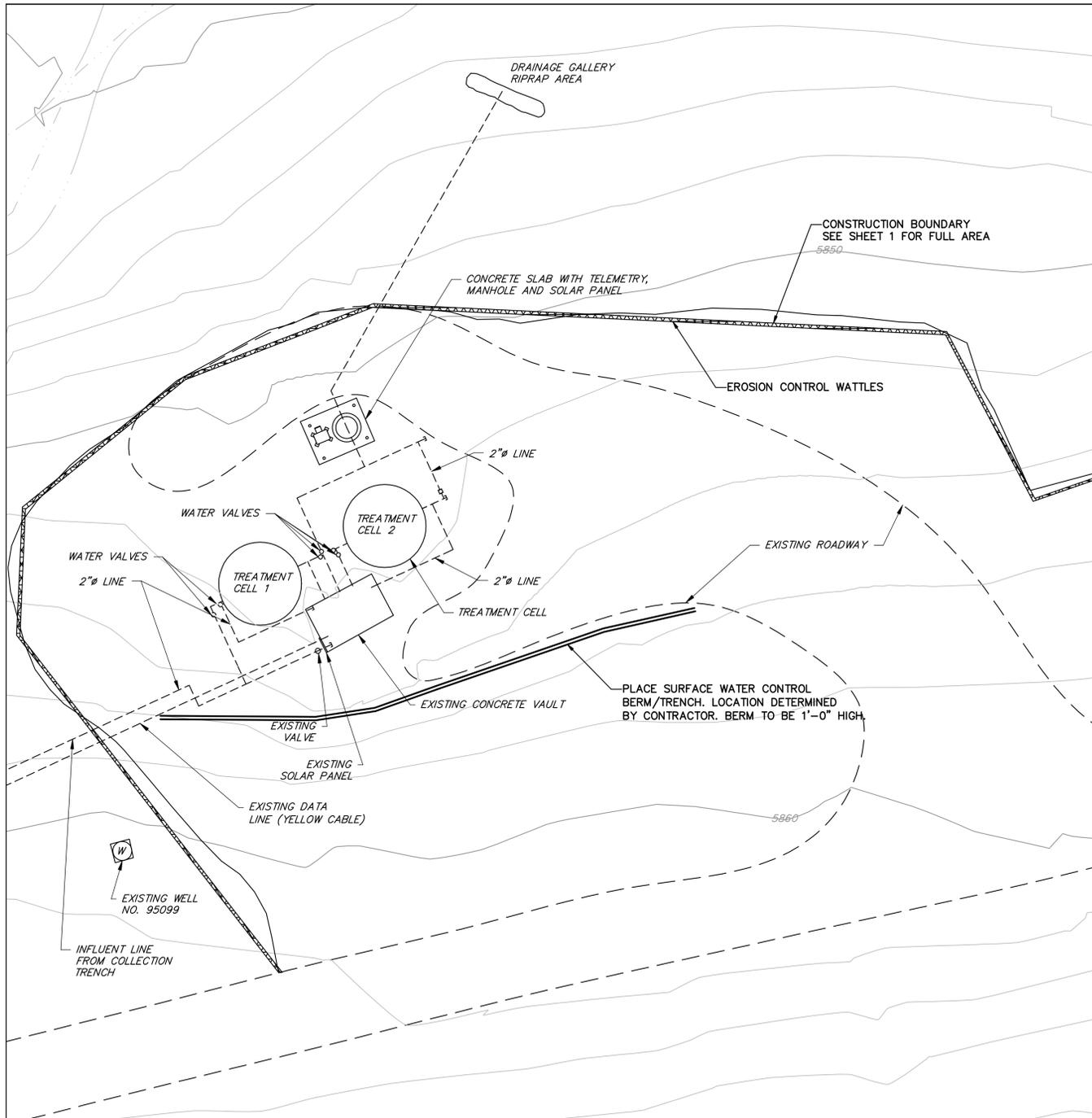
Carl Spreng, CDPHE

Scott Surovchak, DOE

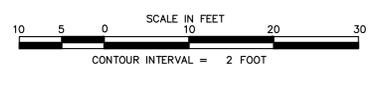
Linda Kaiser, Stoller

Rocky Flats Contact Record

File



EXISTING CONDITION SITE PLAN

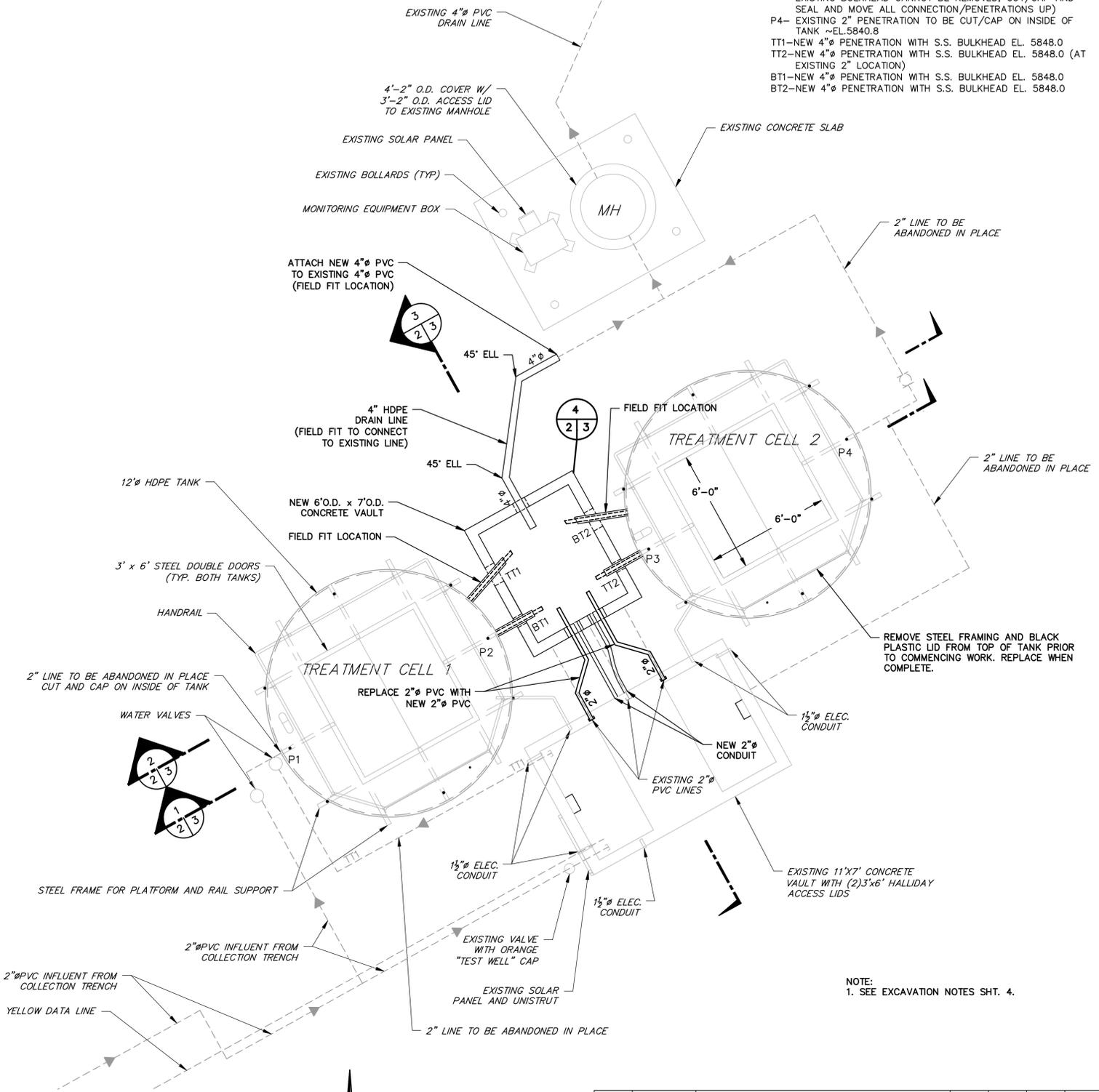


- SUBMITTALS REQUIREMENTS:**
- 1.0 SUBMITTALS—THE SUBCONTRACTOR SHALL PROVIDE SUBMITTALS REQUIRED BY THE SUBCONTRACT DOCUMENTS IN ACCORDANCE WITH THE WORK ORDER RELEASE AND THESE DRAWINGS. REVISE AND RESUBMIT ITEMS, AS NECESSARY, TO ESTABLISH COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
 - 1.2 GENERAL SUBMITTAL REQUIREMENTS
 - A. FOR REVIEW: REVIEW IS REQUIRED FOR EXTENSIONS OF DESIGN, CRITICAL MATERIALS, PROPOSED APPROVED EQUAL MATERIAL SUBSTITUTIONS, DEVIATIONS, EQUIPMENT THAT MUST BE CHECKED, COMPATIBILITY WITH THE ENTIRE SYSTEM, AND OTHER ITEMS AS DESIGNATED IN THE SUBCONTRACT DOCUMENTS THAT REQUIRE CONTRACTOR REVIEW.
 - B. FOR INFORMATION ONLY: ALL SUBMITTALS NOT REQUIRING CONTRACTOR REVIEW WILL BE FOR INFORMATION ONLY.
 - 1.3 REQUIRED SUBMITTALS—BELOW ITEMS REQUIRE A SUBMITTAL. CONTRACTOR MAY REQUIRE ADDITIONAL MATERIAL SUBMITTALS DURING THE CONSTRUCTION PROCESS THAT ARE NOT INCLUDED ON THE BELOW LIST.
 - A. DELIVERY TICKETS (FOR INFORMATION)
 - B. EQUIPMENT LIST (FOR INFORMATION)
 - C. PEA GRAVEL (FOR REVIEW)
 - D. LIFTING PLAN (FOR REVIEW)
 - E. RUBBER BOOTS (FOR REVIEW)
 - F. BULKHEADS (FOR REVIEW)
 - G. HDPE-PVC CONNECTION (FOR REVIEW)
 - H. WATER FOR TESTING (FOR INFORMATION)

- REVEGETATION/EROSION CONTROL NOTES:**
1. PRE-CONSTRUCTION INSTALLATION OF WATTLES FOR EROSION CONTROL SHALL BE CONDUCTED BY SUBCONTRACTOR.
 2. SUBCONTRACTOR IS RESPONSIBLE FOR MAINTENANCE/REPAIR OF EROSION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT. THE EROSION CONTROL PLAN FOR ROCKY FLATS PROPERTY CENTRAL OPERABLE UNIT SHALL BE FOLLOWED ALONG WITH ANY ADDITIONAL SPECIFICATIONS/DIRECTION FROM THE CONTRACTOR.
 3. PRIOR TO DEMOBILIZING AND AFTER COMPLETION OF THE CONSTRUCTION/PROJECT ACTIVITIES THE SUBCONTRACTOR SHALL SCARIFY ALL AREAS IDENTIFIED BY CONTRACTOR (EXCLUDING ROADS AND PARKING AREAS) THAT WERE DISTURBED BY THE PROJECT TO A DEPTH OF 6 INCHES.
 4. REVEGETATION WILL BE CONDUCTED BY THE CONTRACTOR.
 5. ALL STOCKPILED SOILS SHALL REMAIN INSIDE THE EROSION CONTROLS. AND SHALL HAVE WATTLES PLACED AROUND THEIR PERIMETER.
 6. NO PROJECT ACTIVITIES OR STOCKPIILING OF MATERIALS/SOILS ARE ALLOWED IN THE ADJACENT PREBLE'S MEADOW JUMPING MOUSE HABITAT OR WETLAND MITIGATION AREAS. THESE AREAS WILL BE FLAGGED (BY CONTRACTOR) AND SHOWN TO THE SUBCONTRACTOR DURING THE PRE-JOB CONFERENCE/BRIEFING.

- NOTE:**
1. SUBCONTRACTOR TO TAKE MEASUREMENTS OF THE CELLS (AFTER LID HAS BEEN REMOVED) AND ELEVATIONS SHOTS WILL BE TAKEN ON THE CONCRETE FEATURES AS WELL AS THE TOP OF THE CELL WALLS. CONTRACTOR WILL RECORD MEASUREMENTS ON THE PROVIDED SHEETS WHICH WILL BE ATTACHED TO THE DAILY JOB LOGS.
 2. ANY WORK INVOLVING DATA LINES WILL BE PERFORMED BY THE CONTRACTOR.

- NOTE:**
- P1- EXISTING 2" PENETRATION TO BE CUT/CAP ON INSIDE OF TANK ~EL.5848
 - P2- EXISTING 2" PENETRATION TO BE CUT/CAP ON INSIDE OF TANK ~EL.5840.8
 - P3- EXISTING 2" PENETRATION TO BE REMOVED AND NEW 4" PIPE/BULKHEAD INSTALLED OVER EXISTING LOCATION (I.E. ENLARGE THE CELL PENETRATION TO SUPPORT THE NEW BULKHEAD BY RE-CORING THE HDPE CELL) ~EL.5848 (IF EXISTING BULKHEAD CANNOT BE REMOVED, CUT/CAP AND SEAL AND MOVE ALL CONNECTION/PENETRATIONS UP)
 - P4- EXISTING 2" PENETRATION TO BE CUT/CAP ON INSIDE OF TANK ~EL.5840.8
 - TT1-NEW 4" PENETRATION WITH S.S. BULKHEAD EL. 5848.0
 - TT2-NEW 4" PENETRATION WITH S.S. BULKHEAD EL. 5848.0 (AT EXISTING 2" LOCATION)
 - BT1-NEW 4" PENETRATION WITH S.S. BULKHEAD EL. 5848.0
 - BT2-NEW 4" PENETRATION WITH S.S. BULKHEAD EL. 5848.0



NOTE:
1. SEE EXCAVATION NOTES SHT. 4.

| REVISION NO. | DATE | DESCRIPTION | DRAWN BY | CHECKED BY | PROJECT A.P. | APPROVAL | | | | | | | | | | | | | | | | | | |
|---|--------------|-------------|---|------------|--------------|--|----------|-----------|---------|----------|-----------|---------|------------------|--------------|---------|-------------------|-----------|---------|--------------|-----------|---------|---------------|-----------|---------|
| <p align="center">U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO</p> <p align="right">Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AM01-07LM00060</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>PROJECT LOCATION ROCKY FLATS SITE JEFFERSON COUNTY, CO</p> | | | <p align="center">APPROVALS</p> <table border="1"> <tr> <td>DRAWN BY</td> <td>S. PITTON</td> <td>9/17/09</td> </tr> <tr> <td>ENGINEER</td> <td>S. PITTON</td> <td>9/17/09</td> </tr> <tr> <td>PROJECT ENGINEER</td> <td>A. PIZZAGOLI</td> <td>9/17/09</td> </tr> <tr> <td>DESIGNING WORKMAN</td> <td>M. MADRIL</td> <td>9/17/09</td> </tr> <tr> <td>PROJECT LEAD</td> <td>J. BOYLAN</td> <td>9/17/09</td> </tr> <tr> <td>DATE DICTATED</td> <td>L. KAISER</td> <td>9/17/09</td> </tr> </table> | | | | DRAWN BY | S. PITTON | 9/17/09 | ENGINEER | S. PITTON | 9/17/09 | PROJECT ENGINEER | A. PIZZAGOLI | 9/17/09 | DESIGNING WORKMAN | M. MADRIL | 9/17/09 | PROJECT LEAD | J. BOYLAN | 9/17/09 | DATE DICTATED | L. KAISER | 9/17/09 |
| DRAWN BY | S. PITTON | 9/17/09 | | | | | | | | | | | | | | | | | | | | | | |
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| PROJECT ENGINEER | A. PIZZAGOLI | 9/17/09 | | | | | | | | | | | | | | | | | | | | | | |
| DESIGNING WORKMAN | M. MADRIL | 9/17/09 | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT LEAD | J. BOYLAN | 9/17/09 | | | | | | | | | | | | | | | | | | | | | | |
| DATE DICTATED | L. KAISER | 9/17/09 | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">ETPTS PLUMBING MODIFICATIONS</p> <p align="center">SITE PLAN</p> | | | | | | <p>PROJECT NO. LTS-111-0056-10-006 SHT. 2 OF 6</p> | | | | | | | | | | | | | | | | | | |