




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Home Office Mine	MINE/PROSPECTING ID#: M-1977-439	MINERAL: Sand and gravel	COUNTY: Larimer
INSPECTION TYPE: Surety Release Inspection	INSPECTOR(S): Amy Eschberger	INSP. DATE: May 26, 2021	INSP. TIME: 10:00
OPERATOR: Martin Marietta Materials, Inc.	OPERATOR REPRESENTATIVE: Julie Mikulas	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$3,203,345.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: July 23, 2021

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM #1: The current mining plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 and Rule 6.4.4. The operator must provide sufficient information to describe or identify how the operator intends to conduct the operation.

CORRECTIVE ACTIONS: By the corrective action date, the operator shall submit the appropriate permit revision (Technical Revision or Amendment) and associated fee, to update and clarify the current approved mining plan to reflect existing and proposed activities. Additionally, the revision must include an updated mining plan map that meets the requirements of Rules 6.2.1(2) and 6.4.3. The revision must also identify all permanent, man-made structures located on or within 200 feet of the affected lands and provide demonstration that an agreement has been obtained with the structure owner(s) in accordance with Rule 6.4.19.

CORRECTIVE ACTION DUE DATE: October 21, 2021

INSPECTION TOPIC: Gen. Compliance With Reclamation Plan

PROBLEM #2: The current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 and Rule 6.4.5. The operator must provide sufficient information to describe or identify how the operator intends to conduct reclamation.

CORRECTIVE ACTIONS: By the corrective action date, the operator shall submit the appropriate permit revision (Technical Revision or Amendment) and associated fee, to update and clarify the current approved

reclamation plan to reflect existing and proposed activities, and including an updated reclamation cost estimate to reclaim the site in accordance with the proposed plan. Additionally, the revision must include an updated reclamation plan map that meets the requirements of Rules 6.2.1(2) and 6.4.6. The operator should be sure to specify the proposed post-mining land use for all portions of the affected lands and describe how each of these areas will be reclaimed, including any structures that will require demolition and/or removal, mitigation measures to be implemented for post-1980 exposed groundwater, and which areas will require grading, retopsoiling, and/or revegetation. This corrective action may be submitted with the same permit revision required for Problem #1.

CORRECTIVE ACTION DUE DATE: October 21, 2021

INSPECTION TOPIC: Right of Entry

PROBLEM #3: The Division has no evidence the operator has the legal right to enter to conduct mining and reclamation for all owners of record of the surface and mineral rights of the affected lands, as required by Rule 6.4.14 and C.R.S. 34-32.5-112(1)(c)(IV).

CORRECTIVE ACTIONS: By the corrective action date, the operator must provide documentation of its legal right to enter to conduct mining and reclamation for all owners of record of the affected lands. This may include a copy of a lease, deed, abstract of title, a current tax receipt, or a signed statement by the landowner and acknowledged by a Notary Public stating the operator has the legal right to enter to conduct mining and reclamation. This corrective action may be submitted with the permit revision required for Problems #1 and #2.

CORRECTIVE ACTION DUE DATE: October 21, 2021

OBSERVATIONS

This was a Surety Release inspection of the Home Office Mine (Permit No. M-1977-439) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to an Acreage Reduction Request (AR-04) filed with our office on April 14, 2021 to release 142.3 acres from the permit area. No comments were received for AR-04 within the public comment period which closed on April 29, 2021. The operator was represented by Julie Mikulas during the inspection. The site is located approximately one mile north of Fort Collins, CO in Larimer County. The site is situated directly adjacent to three other permits, including the North Taft Hill Expansion Site (M-2001-051) to the north, Treiber Lakes (M-2011-049) to the west, and Lamb Lakes (M-2018-039) to the southeast. Access to the site is off of N Taft Hill Rd. **Photos 1-56** taken during the inspection are included with this report.

Operation Summary:

This is a 112c operation permitted for 507.18 acres (prior to AR-04) to mine sand and gravel for construction use (see enclosed Google Earth image of site). The Cache La Poudre River flows west to east across the center of the permit area. N Taft Hill Rd runs north-south across the center of the permit area. The site is dry mined by constructing dewatering trenches around the perimeter of the excavation area. Water from the trenches enters a series of settling ponds on the pit floor prior to being discharged to the river under the operator's CDPHE discharge permit. The maximum mining depth is approximately 25 feet. Mined material is screened, crushed, and washed on site. An asphalt plant also operates on site. Excavated materials are transported to the processing area via an above ground conveyor system. Salvaged overburden and topsoil will be stored separately along the perimeter of excavation areas for use in reclamation.

Mining setbacks are to be maintained from various structures/features, including a 25 setback from the permit boundary, a 50 foot setback from irrigation ditches (some of which cross the permit area), a 25 foot setback from the Fort Collins Recreation Trail (at the southern edge of the permit area), a 75-125 foot setback from N Taft Hill Road, a 100 foot setback from the Cache La Poudre River, and a 200 foot setback from any residential buildings located near the permit area (unless a written agreement specifies a closer distance). It should be noted, in areas disturbed prior to 1973, disturbances may have occurred less than 100 feet from the river. These disturbances will be reclaimed and not re-disturbed, and all future disturbances will be kept a minimum of 100 feet from the river.

This permit was revised in 1987 through Amendment No. 1 (AM-01) to consolidate four existing permits (M-1977-439/Pit #1, M-1977-440/Pit #2, M-1978-256/Reclamation Pit #1, and M-1986-049/Seaworth Pit) into one permit, and changing its name to the Home Office Mine. The original combined permit area was divided into several "activity areas" designated with letters and numbers. Areas A through J were areas where excavation had or would occur; Areas T, U, and V would remain unaffected over the life of the mine; and Areas W, X, Y, and Z were disturbed prior to 1973. Areas 1 through 5 were designated as plant site/stockpile areas, of which, Areas 1 and 2 would not be mined (Area 2 was previously mined then backfilled), and Areas 3, 4, and 5 would eventually be mined.

The approved post-mining land use for the site is a combination of recreation, wildlife habitat, and industrial/commercial. The reclamation plan includes leaving a series of open groundwater ponds with irregular shorelines and slopes graded 3H:1V or flatter down to 10 feet below the anticipated water level, and 2H:1V below that depth. Shallows will occur in the northwestern portions of the ponds, with the deepest portions along their southeastern shorelines. To help prevent shoreline erosion along southeastern shorelines of newly created ponds (from wave action created by northwesterly winds), these slopes will be graded to 4H:1V from 5 feet above to 5 feet below the anticipated water line. Optional dikes may be constructed across ponds located in

Areas E, G, and J. The dikes may be constructed by leaving these areas unexcavated during mining of the pit, or by backfilling these areas after mining the pit (and while the pit is still being dewatered). If these dikes are created, they will be constructed to have variable undulations of 5-25 feet rather than straight shorelines.

Areas 1 and 2, which house the operation's office and shop buildings, and the backfilled portion of Area E, will continue to be used for industrial/commercial purposes after reclamation. All other disturbed areas (including pond shorelines above the water line) will be retopsoiled at an average depth of 8 inches and revegetated. This includes any pre-1973 disturbed areas which are re-disturbed by the operation. Access roads to each area and around pond perimeters will remain for reclamation. No reclamation will occur in Areas T, U, and V as these areas will remain unaffected throughout the life of mine. Riprap placed along the river banks during previous flood events will be maintained throughout the life of mine.

Two seed mixes were approved for the site in AM-01, one for dry slopes and upland areas, and the other for moist, low-lying areas adjacent to completed ponds. This revegetation plan was revised through Technical Revision No. 2 (TR-02; approved in 1990), with one seed mix for slopes and dry upland areas, one mix for moist low-lying areas, and one mix to be used on all areas (see enclosed seed mixes approved in TR-02). In Amendment No. 3 (AM-03; approved in 2006), a specific seed mix was approved only for the Area F silt pond (see enclosed seed mix approved in AM-03).

The mining and reclamation plans have not been significantly revised since AM-01 was approved in 1987. A second Amendment application (AM-02) was submitted to the Division in 1987 (after AM-01 was approved) to add 58 acres to the permit area. However, after the operator learned the changes proposed in this application would not be approved by the county, the application was withdrawn. Therefore, any changes proposed in AM-02 are not considered part of the approved permit. Technical Revision No. 1 (TR-01; approved in 1990) authorized the operation to relocate the truck scales and main entrance to south of the existing location (on the east side of N Taft Hill Rd). Technical Revision No. 3 (TR-03; approved in 1993) described the inert fill material used on site, including hardened concrete, rock, and dirt. Technical Revision No. 4 (TR-04; approved in 1996) merely updated the Exhibit C-4 map to show the location of the I.C. Woods Seepage Ditch which crosses the southeastern portion of the permit area (in response to a complaint submitted by the ditch owner).

AM-03 (approved in 2006) only added 0.38 acres to the affected area (not the permit area) to include a strip of land located between the Home Office Mine permit and the North Taft Hill Expansion Site permit to the north (permitted by the same operator) in which a berm meant to separate the two permits had been mined through. This berm was reconstructed prior to AM-03 submittal. AM-03 also revised the mining and reclamation plans to allow for an 11.18 acre silt storage area at the western edge of Area F (rather than an open groundwater pond, as previously approved). An open groundwater pond will still remain at the eastern edge of Area F. A 12 foot tall berm will be constructed across Area F to separate the western silt storage area from the eastern open water area. The slurry to be discharged into the silt storage area will be pumped from the wash plant located south of the river via an above-ground pipeline.

Other than the revised seed mix for the silt storage area (mentioned above), no other changes were proposed in AM-03. The most recent revision to the mining and reclamation plans occurred through Technical Revision No. 5 (TR-05; approved in 2013), which included the installation of a conveyor bridge across N Taft Hill Rd to transport mined material from the northeastern portion of the permit area westward across the road, across the southern edge of the North Taft Hill Expansion Site permit area, then southwestward across the northwestern portion of the Home Office Mine permit area, across the river, to the wash plant located in Area 5.

Since AM-01 approval, the original 730.5 acre permit area has been reduced through a series of Acreage Reductions, including: Acreage Reduction No. 1 (AR-01; approved in 2010) which released 89.6 acres (Areas

A, D, Z, and T), Acreage Reduction No. 2 (AR-02; approved in 2011) which released 39.6 acres (Area I), and Acreage Reduction No. 3 (AR-03; approved in 2013) which released 94.12 acres (Areas B and C). This has resulted in a (pre-AR-04) permit area of 507.18 acres. The original mine areas which remain in the permit area include Areas F, G, Y, Z, and V located north of the river, and Areas E, W, X, and 1-5 located south of the river. Areas H, J, and U (Lamb Lakes and undisturbed river corridor) are proposed for release in AR-04.

Site maps submitted with the various revisions approved for this permit (from 1987 to 2021) are enclosed with this report.

Exposed Groundwater:

The original combined permit, approved in AM-01, proposed leaving a total pond surface of 358.5 acres for reclamation. However, this amount was reduced in AM-03 with the 11.2 acre silt storage pond, to leave a maximum of 347.3 acres of exposed groundwater at the site for reclamation. According to the current Substitute Water Supply Plan (SWSP) for the site, which covers the period of January 1, 2021 through December 31, 2021, the Division of Water Resources (DWR) has recognized a total of 100.0 acres of pond surface at the site as being pre-1981 exposure. However, some of these existing ponds have been released from the permit area, partially backfilled, or covered under another permit. The current permit area (prior to AR-04 approval) includes 8 groundwater ponds which were exposed prior to 1981, covering a total of 83.69 acres, and 3 groundwater ponds which were exposed post-1980, covering a total of 87.2 acres.

In AR-04, the area requested for release referred to as Parcel A (128.8 acres; in Areas H and J) includes one pre-1981 pond that is 22.09 acres in size, and two post-1980 ponds that are 42.40 acres and 19.40 acres in size. This parcel was permitted over by the North Weld County Water District (NWCWD) in 2018 under Permit No. M-2018-039 (Lamb Lakes), and the water rights for the ponds are now covered by the NWCWD. Therefore, removal of this parcel from the Home Office Mine permit would leave 7 pre-1981 groundwater ponds within the permit area, totaling 61.6 acres, and one post-1980 groundwater pond covering 25.4 acres (located at the southwestern edge of the site in Area E, referred to as the "Currie Pit" in the SWSP).

The current SWSP for the site covers depletions from a total of 26.44 acres of post-1980 exposed groundwater, including the 25.4 acre pond and up to 1.04 acres in dewatering trenches. Based on aerial imagery from October 15, 2020 (available in Google Earth), the Division estimates there is a total of 65.0 acres of exposed groundwater within the permit area (excluding the 3 Lamb Lakes ponds), of which, 40.95 acres is considered pre-1981 exposure and 24.05 acres is considered post-1980 exposure. This estimate does not include dewatering trenches or the 2 acre pond located in the northeastern portion of the permit area labeled as "recharge pond" in the SWSP – these areas may be covered under the excess 2.39 acres of post-1980 exposure allowed under the SWSP (26.44 acres allowed – 24.05 acres exposed in Currie Pit). Therefore, it appears the operator is in compliance with the DWR at this time with regard to the amount of groundwater exposed on site.

Inspection Observations:

The site was active during the inspection. There was substantial ponding observed in low-lying areas throughout the site from a recent heavy storm event. If stormwater is retained on site for more than 72 hours, the operator will need to contact the Division of Water Resources (DWR) to determine how to obtain compliance with their office. The operator may also be authorized under its CDPHE stormwater and discharge permits to pump and discharge this water to the nearby river. Permit identification signs were posted at the site entrances off of N Taft Hill Rd. While the entire permit boundary was not investigated during this inspection, the Division did observe portions of the permit boundary to be delineated by stakes/posts in some areas and by fencing in others.

Area 5, located west of N Taft Hill Rd and south of the river, is currently utilized for the processing plant, material stockpiling, and the scale and scale house. The approved mining plan states that Area 5 will eventually be mined; however, this is not reflected on the approved reclamation plan map (last updated in AM-03). Area E, located just southeast of the plant/stockpiling area, is the location of the "Currie Pit" which, according to the SWSP, would be dewatered from January through April of this year and allowed to refill in May, covering an estimated 25.4 acres. This pit was holding water during the inspection. It appeared the slopes of this pit have not yet been graded to the approved final slope configuration. The approved reclamation plan indicates a portion of Area E will be backfilled and designated as an industrial/commercial area post-mining. However, the permit file does not provide any additional details on the reclamation plan for Area E, including approximately how many acres will be backfilled, and whether any structures will remain in this area for reclamation. The reclamation plan map also shows the Area E pond will be extended further westward, ultimately leaving a 29.6 acre pond (which is 4.2 acres larger than the 25.4 acres of post-1980 exposed groundwater currently authorized for this area under the SWSP). It is not clear whether the operator is pursuing a permanent augmentation plan for this post-1980 exposed groundwater, or if a mitigation plan (e.g., slurry wall liner) will be proposed.

Areas 3, 4, W, and X are located directly northeast of the plant/stockpiling area (south of the river). According to AM-01, these areas were disturbed prior to 1973, and additional disturbances were not planned. However, previously submitted annual report maps show the two existing ponds in Areas W and X were utilized by the operation for silt storage. The Area X pond was completely filled in and the Area W pond was partially filled in, leaving a 4 acre groundwater pond. Areas 3 and 4 are currently being utilized for material stockpiling.

Area F, located west of N Taft Hill Rd and north of the river, is currently separated into three areas: the western portion including a 7.35 acre groundwater pond, the central portion being utilized as a silt storage area where slurry from the wash plant is transported across the river via pipeline and discharged, and the eastern portion including a 7.15 acre groundwater pond. The conveyor system runs southwest along the western edge of the silt storage pond, transporting mined material from the active pit located east of N Taft Hill Rd to the processing plant located west of the road and south of the river. A bridge was constructed across the river for the conveyor system and slurry pipeline. The Division could not find any details in the permit file regarding this creek crossing or whether the current bond amount includes costs for removing this structure. Also, according to permit maps approved with AM-03, it appears the current configuration of Area F is not exactly consistent with what was approved (silt storage pond at western edge and groundwater pond at eastern edge, separated by a 12 foot tall earthen berm). However, the current silt storage area is estimated to cover approximately 11.2 acres as approved.

Areas 1 and 2 are located east of N Taft Hill Rd and south of the river. Area 1 is currently utilized for the main office and shop buildings, an asphalt plant, and material stockpiling. While this area is designated as an industrial/commercial area post-mining, it is not clear in the permit file which of the current structures in this area will remain for reclamation. Area 2, located directly north of Area 1, is currently used for equipment storage and parking. This area is also designated as an industrial/commercial area post-mining, and the permit file does not specify what structures, if any, will remain for reclamation.

Areas Y and Z, located east of N Taft Hill Rd and north of the river, are currently utilized as a shop and equipment storage area. According to AM-01, these areas were disturbed prior to 1973, and additional disturbances were not planned. Three groundwater ponds are present in this area, comprised of 7.7 acres, 4.22 acres, and 3.75 acres. Details of the pre-1973 disturbance in these areas could not be found in the permit file, and it is not clear whether the current bond amount includes costs for removing any current structures in this area (e.g., shop building).

Area G, located directly north of Areas Y and Z, is where active mining activities are occurring. Mined material is being transported westward from this pit area via an above-ground conveyor system, across N Taft Hill Rd and the southern edge of the North Taft Hill Expansion Site, then southwestward across Area F and the river, to the processing plant in Area 5. According to the permit file, this area will be mined in three phases, potentially separated by dikes. The eastern portion of Area G has been mined out, leaving a rectangular-shaped pit (oriented north-south) that is approximately 54 acres in size and 12-15 feet deep, with pit slopes graded 3H:1V down to the pit floor. The western portion of Area G was being actively dewatered and mined during the inspection. A small mobile processing plant operates in the active pit area. The approved reclamation plan includes leaving a large unlined groundwater pond in Area F, potentially separated into 2-3 ponds if the optional dikes are constructed. However, the operator does not appear to have the appropriate water rights secured for leaving this additional (post-1980) exposed groundwater at the site. During the inspection, the operator indicated an Amendment application would be submitted in the near future to revise the reclamation plan for this area to install a slurry wall liner around its perimeter (rather than leaving open groundwater ponds). A dike separates the completed eastern pit from the active western pit.

It should be noted, a KOA campground is located just southeast of Area G (in Area Z, released from the permit in 2010), adjacent to the eastern permit boundary. This campground is accessed from N Taft Hill Rd via Lakeside Resort Ln, which crosses the permit area between Areas Y and Z (to the south) and Area G (to the north). The KOA and access road appear to have been constructed sometime between 1998 and 2002 (according to historical images available in Google Earth). This road is not shown on the approved mining and reclamation plan maps for the site and it is not clear whether the operator has obtained a structure agreement for the road or the KOA facilities which are located within 200 feet of the affected lands.

Findings of Permit Research:

After researching this extensive permit file back to 1987, when the four existing permits were combined (through AM-01), and comparing this information with observations made during the inspection, it has become apparent the mining and reclamation plans and maps for this operation need to be updated to reflect existing conditions and plans for the site. The reclamation bond estimate will need to be revised accordingly. Also, given the numerous structures present on or within 200 feet of the affected lands, many of which may have been constructed after 1987 (e.g., Lakeside Resort Ln), the operator will need to demonstrate that agreements have been obtained for all such structures in accordance with Rule 6.4.19.

The Division believes all of these issues can be addressed through the submittal of one permit revision. This submittal will need to be in the form of an Amendment application if the operator proposes an increase in the permit area, a significant change in the approved reclamation plan, or a change to the approved post-mining land use(s). Otherwise, the submittal can be in the form of a Technical Revision. Since the operator already indicated plans to submit an Amendment application in the near future (for Area G), the Division recommends the operator ensure all issues identified in this report are addressed in this application. **A problem is cited in this report for the outdated mining plan and map (Problem #1; see page 1) as well as for the outdated reclamation plan and map (Problem #2; see pages 1 and 2), requiring the operator to submit the appropriate revision (Technical Revision or Amendment) to update these plans and maps to reflect existing and proposed activities at the site. This revision must also identify all permanent, man-made structures located on or within 200 feet of the affected lands, provide demonstration that an agreement has been obtained with the structure owner(s) in accordance with Rule 6.4.19, and include a revised reclamation bond estimate based on the proposed plans.**

According to AM-03, the affected lands are owned by Lafarge West, Inc. However, the Larimer County website shows the landowners of the affected lands to be City of Greeley/Fort Collins - Loveland Water District/North

Weld County Water District/East Larimer County Water District, Seaworth William O, Seaworth Augmentation LLC, Ronny & Billy LLC, Seaworth Paulette M/William O, and Martin Marietta Materials Inc. The Division was unable to find any updated right of entry documents in the permit file after Martin Marietta Materials, Inc. took over the permit in 2012. **This is cited as a problem in this report (Problem #3; see page 2), requiring the operator to provide evidence of its legal right to enter to conduct mining and reclamation for all owners of record of the affected lands. This may include a copy of a lease, deed, abstract of title, a current tax receipt, or a signed statement by the landowner and acknowledged by a Notary Public stating the operator has the legal right to enter to conduct mining and reclamation. This corrective action may be submitted with the permit revision required for Problems #1 and #2.**

Areas Proposed for Release in AR-04:

During the inspection, the Division observed Parcel A (128.8 acres) proposed for release in AR-04. This parcel appears to cover mine Areas H and J, and includes three groundwater ponds with well-vegetated shorelines. Mining in this area was completed many years ago. As mentioned above, the NWCWD permitted over this entire parcel in 2018 under Permit No. M-2018-039 (Lamb Lakes) and also took over the water rights for the existing ponds. The NWCWD has plans to dewater and install a slurry wall liner around the ponds to create water storage reservoirs. Because this entire parcel requested for release under AR-04 is covered by an existing permit, this parcel can be released from the Home Office Mine permit.

The Division observed Parcel B (5.7 acres) proposed for release in AR-04. This parcel appears to cover the southern edges of mine Area E (west of N Taft Hill Rd), Areas I and H (east of N Taft Hill Rd), and includes a section of the West Poudre River Trail. This area was never disturbed by the mining operation. The trail was actively being used by the public during the inspection. Because this area was never disturbed by the operation and its recreational use is in accordance with the approved post-mining land use for the site, this area can be released from the permit. Parcel C (7.8 acres), proposed for release in AR-04, appears to cover mine Area U. This parcel includes a section of the East Poudre River Trail and the Cache La Poudre River. This area also appears to have never been disturbed by the operation and is being actively used by the public in accordance with the recreational post-mining land use. Therefore, this parcel can also be released from the permit.

The new southern permit boundary is delineated by fencing west of N Taft Hill Rd and by fencing and posts east of N Taft Hill Rd. Because the Home Office Mine permit area shares a boundary with the Lamb Lakes permit area to the south, the operation will need to be very diligent about maintaining the boundary markers along this section and keeping all disturbances associated with this operation, including equipment storage, within its boundaries.

The Division approved AR-04 on May 28, 2021, reducing the permit area by 142.30 acres. The 30-day appeal period for this decision ended on June 27, 2021 with no appeals received. Therefore, the decision is considered final and the new permit area for this site is 364.88 acres.

Financial Warranty:

The currently held financial warranty for the site is in the amount of \$3,203,345.00. The required financial warranty was last increased in 2016 with TR-06 approval, which added \$50,000.00 for removing the conveyor bridge constructed across N Taft Hill Rd. Prior to that, the financial warranty was increased in 2012 after the Division conducted a site inspection and found the site to be grossly under bonded for the amount of exposed groundwater liability at the site. At that time, the required financial warranty was increased significantly, from \$117,600.00 to \$3,153,345.00 to include costs for installing a slurry wall around approximately 144 acres of exposed groundwater (at \$3/square foot for 23,375 feet total perimeter distance, to an average depth of 35 feet).

The Division could find no additional details in the permit file on how the information used to calculate this increase was derived, such as a site map indicating the approximate locations where a slurry wall is needed.

Prior to the 2012 increase, the financial warranty had remained at \$117,600.00 since the 1987 approval of AM-01. A full bond estimate has not been calculated for the site since 1987, as the 2012 and 2016 increases merely tacked on an additional line item amount to the existing financial warranty without actually reassessing the required financial warranty for reclaiming all site disturbances in accordance with the approved reclamation plan. Therefore, the required financial warranty will need to be calculated to account for all existing disturbances at the site, based on current costs. This task will be best completed during the Division's review of the revised mining and reclamation plans to be submitted as part of the required corrective actions described above.

It should be noted, since the 2012 increase, the operator has demonstrated the majority of exposed groundwater on site was exposed prior to 1981, and therefore, a permanent plan for augmentation is not required for these ponds. This means the Division would no longer require the financial warranty to include costs for mitigating the exposed groundwater in these ponds. However, the Division will require costs for mitigating any groundwater exposed after 1980. In the required permit revision, the operator will need to distinguish any pre-1981 ponds versus any post-1980 ponds (both existing and proposed), and propose a method for mitigating any post-1980 exposed groundwater. While the 2012 increase included costs for installing a slurry wall liner, this method is not actually part of the approved permit, and can only be incorporated into the permit through the appropriate revision.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at amy.eschberger@state.co.us.

PHOTOGRAPHS



Photo 1. View looking west across Area 1 (located east of N Taft Hill Rd and south of river), showing office building (background, left) and asphalt plant present in this area.



Photo 2. View looking northwest across Area 1 (located east of N Taft Hill Rd and south of river), showing material stockpiles present in this area.



Photo 3. View looking south across Area 1 (located east of N Taft Hill Rd and south of river), showing office and shop buildings and equipment present in this area.



Photo 4. View looking southwest across Area 1 (located east of N Taft Hill Rd and south of river), showing material stockpiles present in this area.



Photo 5. View looking west across Area 2 (located east of N Taft Hill Rd and south of river) used for equipment storage and parking.



Photo 6. View looking east across Area 2 (located east of N Taft Hill Rd and south of river) used for equipment storage and parking.



Photo 7. View looking west along access road to processing plant in Area 5 (located west of N Taft Hill Rd and south of river), showing material stockpiles stored along northern edge of road (in Area X).



Photo 8. View looking west along access road to processing plant in Area 5 (located west of N Taft Hill Rd and south of river), showing material stockpiles stored in this area (Areas 4 and 5).



Photo 9. View looking north at scale house present in Area 5 plant site (located west of N Taft Hill Rd and south of river).



Photo 10. View looking northeast at truck scale present in Area 5 plant site (located west of N Taft Hill Rd and south of river).



Photo 11. View looking west across parking area and aggregate bins (background, left) in Area 5 plant site (located west of N Taft Hill Rd and south of river).



Photo 12. View looking southwest across Area 5 plant site (located west of N Taft Hill Rd and south of river).



Photo 13. View looking west across Area 5 plant site (located west of N Taft Hill Rd and south of river).



Photo 14. View looking south at northern edge of Area 5 plant site (located west of N Taft Hill Rd and south of river), showing conveyor system which transports mined material from active mine to plant site and slurry from plant site to silt storage area located north of river.



Photo 15. View looking northeast at conveyor bridge constructed over river, connecting Area 5 plant site (south of river) to Area F silt storage area (north of river). Conveyor transports mined material from active pit to plant site, and pipeline (below conveyor) transports slurry from plant site to silt storage area.



Photo 16. View looking northeast, showing closer view of conveyor bridge constructed over river, connecting Area 5 plant site (south of river) to Area F silt storage area (north of river)



Photo 17. View looking east at Area 5 plant site (located west of N Taft Hill Rd and south of river) from western permit boundary (which abuts to Permit No. M-2011-049, Treiber Lakes).



Photo 18. View looking east across Area E pond (referred to in SWSP as “Currie Pit”). Note backfill ramp which remains in northwestern corner of pit (visible in foreground).



Photo 19. View looking southeast across Area E pond (referred to in SWSP as “Currie Pit”).



Photo 20. View looking northeast from southern permit boundary across eastern edge of Area E pond (referred to in SWSP as “Currie Pit”). Note pit slopes (at right) steeper than approved 3H:1V gradient.



Photo 21. View looking north at chain-link fence delineating southern permit boundary (west of N Taft Hill Rd). Note West Poudre Trail visible in foreground.



Photo 22. View looking northeast across pre-1981 pond in northeastern portion of Area Y/Z (located east of N Taft Hill Rd and north of river).



Photo 23. View looking west across Area Y/Z (located east of N Taft Hill Rd and north of river) used as a shop area and equipment storage area.



Photo 24. View looking south across Area Y/Z (located east of N Taft Hill Rd and north of river), used as a shop area and equipment storage area.



Photo 25. View looking east across pre-1981 pond in southeastern portion of Area Y/Z (located east of N Taft Hill Rd and north of river).



Photo 26. View looking southwest across Area Y/Z (located east of N Taft Hill Rd and north of river), used as a shop area and equipment storage area.



Photo 27. View looking southeast across northern edge of Area Y/Z (located east of N Taft Hill Rd and north of river), used for equipment storage.



Photo 28. View looking northwest across southern edge of western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection.



Photo 29. View looking northeast across southern edge of western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection. Operator should ensure exposed groundwater does not exceed amount authorized under SWSP.



Photo 30. View looking southeast across western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection.



Photo 31. View looking east at conveyor system constructed along northern edge of west pit in Area G (located east of N Taft Hill Rd and north of river) which transports mined material from this pit across N Taft Hill Rd and across river to plant site in Area 5.



Photo 32. View looking southwest across western pit in Area G (located east of N Taft Hill Rd and north of river), showing conveyor feeder on pit floor. This pit was being actively dewatered and mined during inspection.



Photo 33. View looking south across western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection.



Photo 34. View looking west along northern edge of western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection. Note dewatering trench along inside perimeter of pit (in foreground).



Photo 35. View looking southwest across western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection. Note dewatering trench along inside perimeter of pit (in foreground).



Photo 36. View looking south along eastern edge of western pit in Area G (located east of N Taft Hill Rd and north of river). This pit was being actively dewatered and mined during inspection. Note dike (indicated) which separates active western pit from completed eastern pit.



Photo 37. View looking south across western slope of eastern pit in Area G (located east of N Taft Hill Rd and north of river). Mining is completed in this pit and slopes are graded 3H:1V or flatter down to pit floor.



Photo 38. View looking southeast across eastern pit in Area G (located east of N Taft Hill Rd and north of river). Mining is completed in this pit and slopes are graded 3H:1V or flatter down to pit floor.



Photo 39. View looking east across eastern pit in Area G (located east of N Taft Hill Rd and north of river). Mining is completed in this pit and slopes are graded 3H:1V or flatter down to pit floor.



Photo 40. View looking north across western slope of eastern pit in Area G (located east of N Taft Hill Rd and north of river). Mining is completed in this pit and slopes are graded 3H:1V or flatter down to pit floor.



Photo 41. View looking northeast at conveyor bridge constructed over N Taft Hill Rd. Conveyor transports mined material from Area G pit (east of road, north of river) down to Area 5 processing plant (west of road, south of river).



Photo 42. View looking south across pre-1981 pond at eastern edge of Area F (located west of N Taft Hill Rd and north of river).



Photo 43. View looking west across pre-1981 pond at western edge of Area F (located west of N Taft Hill Rd and north of river).



Photo 44. View looking southwest at southwestern corner of Area F (located west of N Taft Hill Rd and north of river), where bridge is constructed across river for conveyor and slurry pipeline.



Photo 45. View looking southeast across silt storage area in center of Area F (located west of N Taft Hill Rd and north of river), where slurry from processing plant is discharged.



Photo 46. View looking northeast across silt storage area in center of Area F (located west of N Taft Hill Rd and north of river), where slurry from processing plant is discharged.



Photo 47. View looking northeast across northern edge of Parcel A (proposed for release in AR-04), delineated with wooden stakes (not visible in photo).



Photo 48. View looking southwest across north pond in Parcel A (proposed for release in AR-04).



Photo 49. View looking west across north pond in Parcel A (proposed for release in AR-04).



Photo 50. View looking southwest at middle pond in Parcel A (proposed for release in AR-04).



Photo 51. View looking southwest across south pond in Parcel A (proposed for release in AR-04).



Photo 52. View looking west across West Poudre River Trail in Parcel B (proposed for release in AR-04), between north and middle ponds. This trail was in use by the public during the inspection.



Photo 53. View looking west across West Poudre River Trail and small parking area in Parcel B (proposed for release in AR-04), just east of N Taft Hill Rd. This trail was in use by the public during the inspection.



Photo 54. View looking east across West Poudre River Trail in Parcel B (proposed for release in AR-04), just east of N Taft Hill Rd. This trail was in use by the public during the inspection.



Photo 55. View looking west across West Poudre River Trail in Parcel B (proposed for release in AR-04), just west of N Taft Hill Rd. This trail was in use by the public during the inspection.



Photo 56. View looking northeast across East Poudre River Trail in Parcel C (proposed for release in AR-04), just east of middle pond. This trail was in use by the public during the inspection.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS-----	<u>Y</u>	(FN) FINANCIAL WARRANTY-----	<u>N</u>	(RD) ROADS-----	<u>Y</u>
(HB) HYDROLOGIC BALANCE-----	<u>Y</u>	(BG) BACKFILL & GRADING-----	<u>Y</u>	(EX) EXPLOSIVES-----	<u>N</u>
(PW) PROCESSING WASTE/TAILING----	<u>Y</u>	(SF) PROCESSING FACILITIES-----	<u>Y</u>	(TS) TOPSOIL-----	<u>N</u>
(MP) GEN MINE PLAN COMPLIANCE----	<u>PB</u>	(FW) FISH & WILDLIFE-----	<u>N</u>	(RV) REVEGETATION----	<u>N</u>
(SM) SIGNS AND MARKERS-----	<u>Y</u>	(SP) STORM WATER MGT PLAN----	<u>N</u>	(RP) GEN RECL PLAN COMP- <u>PB</u>	
(ES) OVERBURDEN/DEV. WASTE-----	<u>Y</u>	(SC) EROSION/SEDIMENTATION---	<u>N</u>	(ST) STIPULATIONS-----	<u>N</u>
(AT) ACID OR TOXIC MATERIALS-----	<u>N</u>	(OD) OFF-SITE DAMAGE-----	<u>N</u>	(RE) RIGHT OF ENTRY----	<u>PB</u>

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

Julie Mikulas
Martin Marietta Materials, Inc.
1800 N. Taft Hill Road
Fort Collins, CO 80521

Encls: Google Earth image of site showing revised permit area after AR-4 approval
Seed mixtures proposed for all disturbed areas in TR-2, approved on 4/17/1990
Seed mixture proposed for Area F silt storage area in AM-3, approved on 12/13/2006
Site map showing area(s) proposed for release in AR-4, approved on 5/28/2021
Site map showing proposed conveyor alignment in TR-5, approved on 11/17/2016
Site map showing area(s) proposed for release in AR-3, approved on 3/28/2013
Site map showing area(s) proposed for release in AR-2, approved on 5/19/2011
Site map showing proposed new permit boundary for AR-1, approved on 9/20/2010
Mining Plan Map submitted with AM-3, approved on 12/13/2006
Reclamation Plan Map submitted with AM-3, approved on 12/13/2006
Mining Plan Map submitted with AM-1, approved on 10/23/1987

CC: Michael Cunningham, DRMS

M-1977-439 / Home Office Mine / Martin Marietta Materials, Inc. (112c)

Red Outline = 364.88 acres = Approved Permit Area (after AR-4 approval; location approximated based on permit maps)

Dark Blue Outline = 40.95 acres = Pre-1981 Exposed Groundwater

Light Blue Outline = 24.05 acres = Post-1980 Exposed Groundwater

(Image data from 10/15/2020)



TR-2 Revised Seed Mixtures, approved in 1990

CO-ECS-5
6/82
(180-12-11)
Page 1

U.S. Department of Agriculture
Soil Conservation Service

PART 1 - GRASS SEEDING PLANNED

Planner: RLHP Date: 4-2-90
Producer: Western Mobile

Contract or Agreement #

1. Fld # Ac Cntrct Itm # Practice # & Name 342 - C.A.T.
Lnd Res Area 49 Irr Dryland x Range Site Shallow Foothill

2. Planned:

Seedbed Prep: (a) Method * open
(b) Approx. Dates
(c) Clean Till
Firm Seedbed X
Stubble Cover
Interseed
Other

Seeding Operation: (a) Method drill
interseed
broadcast X
(b) Drill Spacing (c) Date 11/1 *
Type (d) Depth 1/2-3/4"
*Nov. 1 to April 30

Fertilizer:

Pounds actual per acre N2 40
(available) P2O5 40
K

Weed Control:

Mowing: as needed
Chemical: Type&Amt:
Dates:

Mulch:

Kind: Straw
Amount: 3000-4000 lbs/ac
How-applied: spread uniformly
How-anchored: crimped in
Anchor-depth: 3-4"

Seed:

		(1) Required PLS rates per acre (100%)	(2) % of species in mixture
Variety	Species		
<u>Lovington</u>	<u>Blue Grama</u>	<u>3.0</u>	<u>25</u>
<u>Vaughn</u>	<u>Sideoats Grama</u>	<u>9.0</u>	<u>19</u>
<u>Elida</u>	<u>Sand Bluestem</u>	<u>16.0</u>	<u>19</u>
<u> </u>	<u>Alkali Sacaton</u>	<u>1.5</u>	<u>6</u>
<u> </u>	<u>Sand Dropseed</u>	<u>0.5</u>	<u>6</u>
<u> </u>	<u>Purple Prairie Clover</u>	<u>6.0</u>	<u>6</u>
<u> </u>	<u>Thermopsis Montana</u>	<u>8.0</u>	<u>19</u>
(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres	(5) Total PLS lbs/ species planned (3)x(4)	
<u>.75</u>	<u> </u>	<u> </u>	
<u>1.71</u>	<u> </u>	<u> </u>	
<u>3.04</u>	<u> </u>	<u> </u>	
<u>0.09</u>	<u> </u>	<u> </u>	
<u>0.03</u>	<u> </u>	<u> </u>	
<u>0.36</u>	<u> </u>	<u> </u>	
<u>1.52</u>	<u> </u>	<u> </u>	
<u>7.5</u>	<u> </u>	<u> </u>	

Remarks: This mix is for both moist low-lying areas and dry upland areas, to be added to other mixtures. Livestock should be excluded from the area for at least the first growing season, after that light grazing would be okay.

PART 1 - GRASS SEEDING PLANNED

Planner: RLHP Date: 4-2-90
Producer: Western Mobile

Contract or Agreement # _____

1. Fld # _____ Ac _____ Cntrct Itm # _____ Practice # & Name 342 - C.A.T.
Lnd Res Area 49 Irr _____ Dryland x Range Site Shallow Foothill

2. Planned:

Seedbed Prep: (a) Method * open
(b) Approx. Dates _____
(c) Clean Till _____
Firm Seedbed X
Stubble Cover _____
Interseed _____
Other _____

Seeding Operation: (a) Method drill X
interseed _____
broadcast _____
(b) Drill Spacing 7-12" (c) Date 11/1 *
Type grassland (d) Depth 1/2-3/4"
*Nov. 1 to April 30

Fertilizer:

Pounds actual per acre N2 40
(available) P2O5 40
K _____

Weed Control:

Mowing: as needed
Chemical: _____ Type&Amt: _____
Dates: _____

Mulch:

Kind: Straw
Amount: 3000-4000 lbs/ac
How-applied: spread uniformly
How-anchored: crimped in
Anchor-depth: 3-4"

Seed:

		(1) Required PLS rates per acre (100%)	(2) % of species in mixture
Variety	Species		
<u>Rosana</u>	<u>Western Wheatgrass</u>	<u>16.0</u>	<u>33</u>
<u>Sodan</u>	<u>Streambank Wheatgrass</u>	<u>11.0</u>	<u>25</u>
<u>Revenue</u>	<u>Slender Wheatgrass</u>	<u>11.0</u>	<u>17</u>
<u>Grenville</u>	<u>Switchgrass</u>	<u>4.5</u>	<u>17</u>
<u>Nezpar</u>	<u>Indian Ricegrass</u>	<u>12.5</u>	<u>8</u>
(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres	(5) Total PLS lbs/ species planned (3)x(4)	
<u>5.28</u>	<u> </u>	<u> </u>	
<u>2.75</u>	<u> </u>	<u> </u>	
<u>1.87</u>	<u> </u>	<u> </u>	
<u>0.765</u>	<u> </u>	<u> </u>	
<u>1.00</u>	<u> </u>	<u> </u>	
<u>11.665</u>			

Remarks: This mix is for slopes and dry upland area. Livestock should be excluded from the area for at least the first growing season, after that light grazing would be okay.

PART 1 - GRASS SEEDING PLANNED

Planner: RLHP Date: 4-2-90
Producer: Western Mobile

Contract or Agreement # _____

1. Fld # _____ Ac _____ Cntrct Itm # _____ Practice # & Name 342 - C.A.T.
Lnd Res Area 49 Irr _____ Dryland x Range Site Shallow Foothill

2. Planned:

Seedbed Prep: (a) Method * open
(b) Approx. Dates _____
(c) Clean Till _____
Firm Seedbed X
Stubble Cover _____
Interseed _____
Other _____

Seeding Operation: (a) Method drill X
interseed _____
broadcast _____
(b) Drill Spacing 7-12" (c) Date 11/1 *
Type grassland (d) Depth 1/2-3/4"
*Nov. 1 to April 30

Fertilizer:

Pounds actual per acre N2 40
(available) P2O5 40
K _____

Weed Control:

Mowing: as needed
Chemical: _____ Type & Amt: _____
Dates: _____

Mulch:

Kind: Straw
Amount: 3000-4000 lbs/ac
How-applied: spread uniformly
How-anchored: crimped in
Anchor-depth: 3-4"

Seed:

Variety	Species	(1) Required PLS rates per acre (100%)	(2) % of species in mixture
	<u>Basin Wildrye</u>	<u>11.0</u>	<u>25</u>
<u>Rosana</u>	<u>Western Wheatgrass</u>	<u>16.0</u>	<u>25</u>
	<u>Reed Canarygrass</u>	<u>3.5</u>	<u>21</u>
<u>Revenue</u>	<u>Streambank Wheatgrass</u>	<u>11.0</u>	<u>17</u>
<u>Largo/Jose</u>	<u>Tall Wheatgrass</u>	<u>17.0</u>	<u>12</u>

(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres
<u>2.75</u>	<u> </u>
<u>4.00</u>	<u> </u>
<u>0.74</u>	<u> </u>
<u>1.87</u>	<u> </u>
<u>2.04</u>	<u> </u>
<u>11.40</u>	<u> </u>

(5) Total PLS lbs/ species planned (3)x(4)
<u> </u>
<u> </u>
<u> </u>
<u> </u>
<u> </u>

Remarks: This mix is for moist low-lying areas. Livestock should be excluded from the area for at least the first growing season, after that light grazing would be okay.

Silt Pond Area Seed Mix

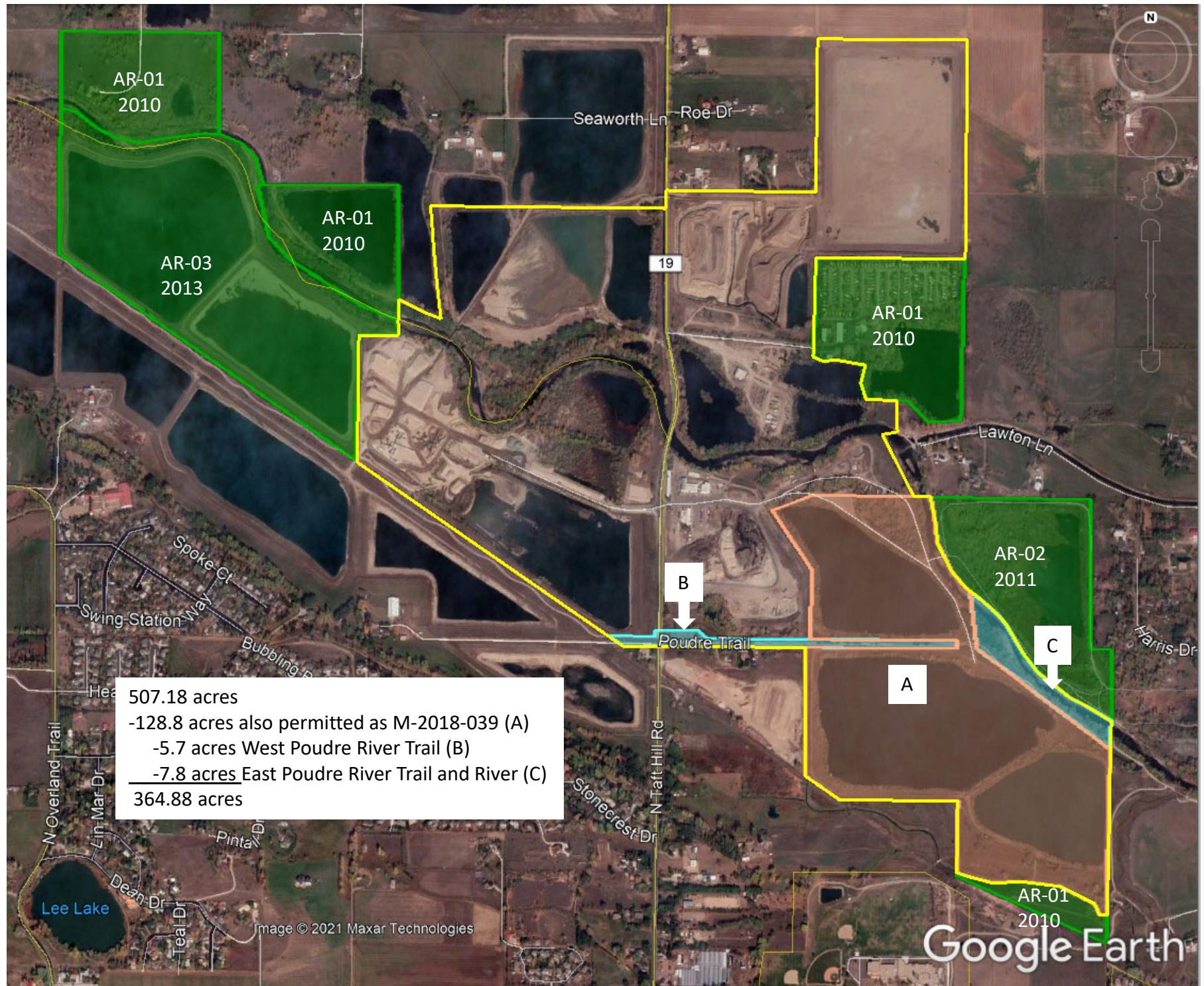
Common Name	Scientific Name	Variety	% of Mix	PLS Application Rate (lbs/ac)
Western Wheatgrass	Agropyron smithii	Arriba	10.6%	1.45
Side Oats Grama	Bouteloua curtipendia	Butte	9.2%	1.24
Canada Wildrye	Elymus canadensis	Mandan	18.1%	2.47
Basin Wildrye	Elymus cinereus	Magnar	9.8%	1.34
Switchgrass	Panicum virgatum	Pathfinder	5.7%	0.78
Sand Dropseed	Sporobolus cryptandrus		0.2%	0.03
Scarlet Globemallow	Sphaeralcea coccinea	ARS2936	3.8%	0.52
American Vetch	Vicia americana		42.60%	5.81
Total lbs/ac			100%	13.64
¹ Availability may dictate the need for variety substitution				
² Pure Live Seed pounds per acre; rates shown are for drill seeding; double rates for broadcast seeding				

Division of Reclamation,
Mining and Safety

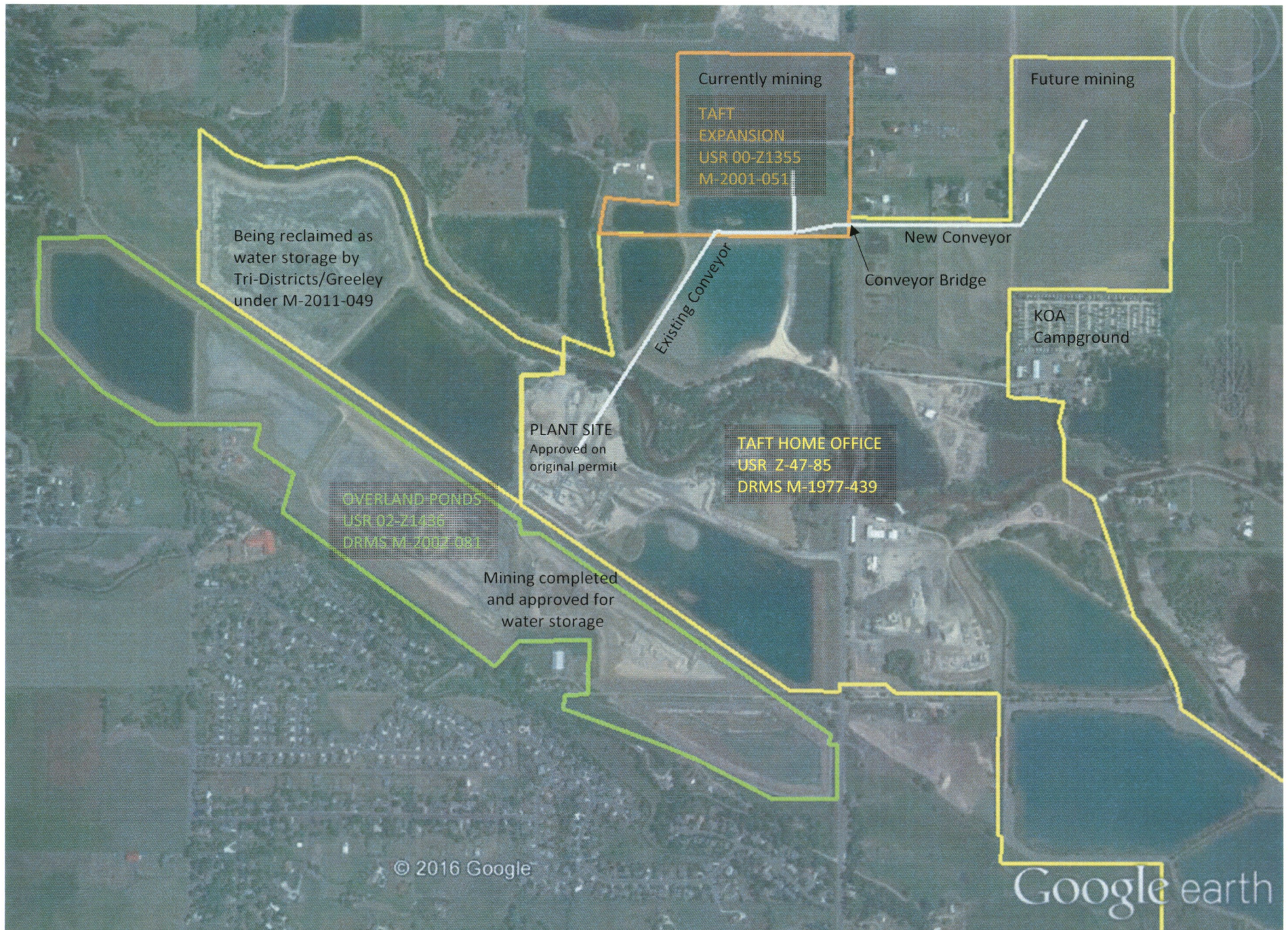
RECEIVED
DEC 18 2006

AR-4 map, approved in 2021

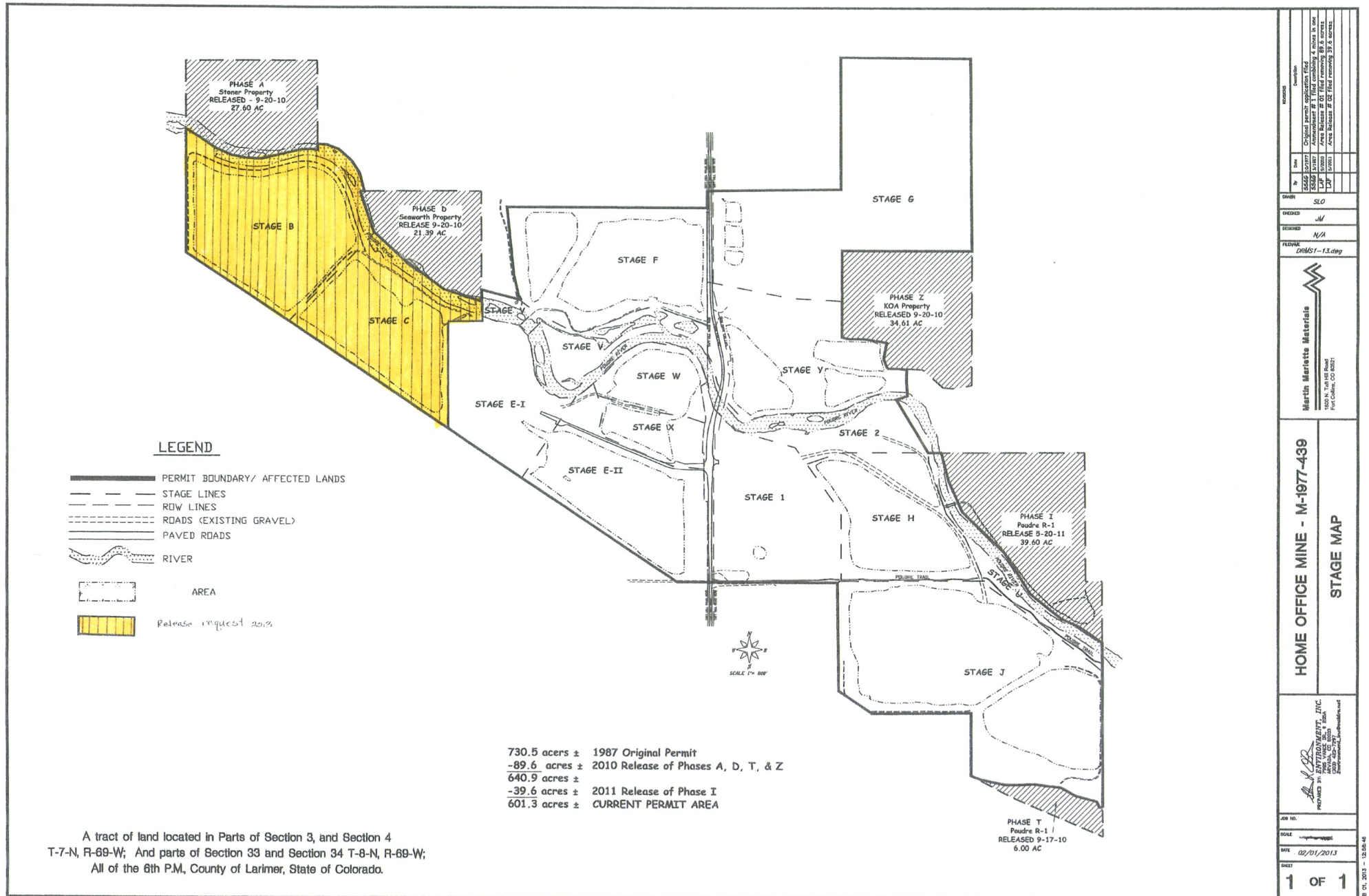
M1977-439 Home Office Pits - 2021 Release Request AR04 for 142.3 acres



TR-5 map, approved in 2016



AR-3 map, approved in 2013



AR-2 map, approved in 2011



--- PERMIT BOUNDARY - 589.7 ACRES
— AREA BOUNDARY



 LAFARGE AGGREGATES & CONCRETE			
10770 CHURCH RANCH WAY, SUITE 200 - WESTMINSTER, COLORADO 80021 303.657.4000			
PROJECT:		HOME OFFICE	
TITLE:		PERMIT No. M1977-439 09-28-2010 PERMIT AREA	
DESIGN BY:	TWK	DATE:	09-28-2010
FILE PATH: ACAD\GL704\DWG		SHEET NO. 1 OF 1	

AR-1 map, approved in 2010

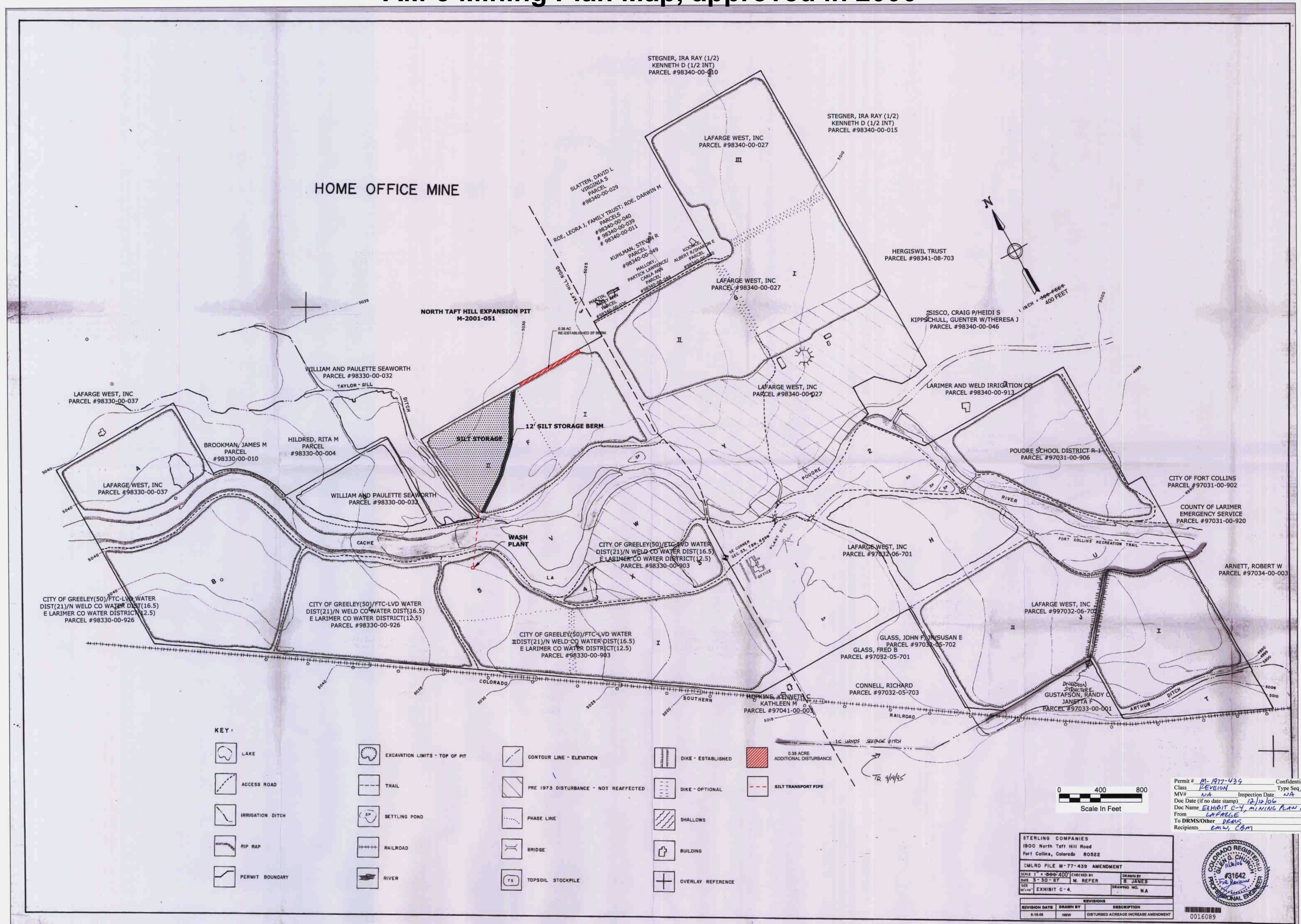


--- PERMIT BOUNDARY - 589.7 ACRES
 --- AREA BOUNDARY

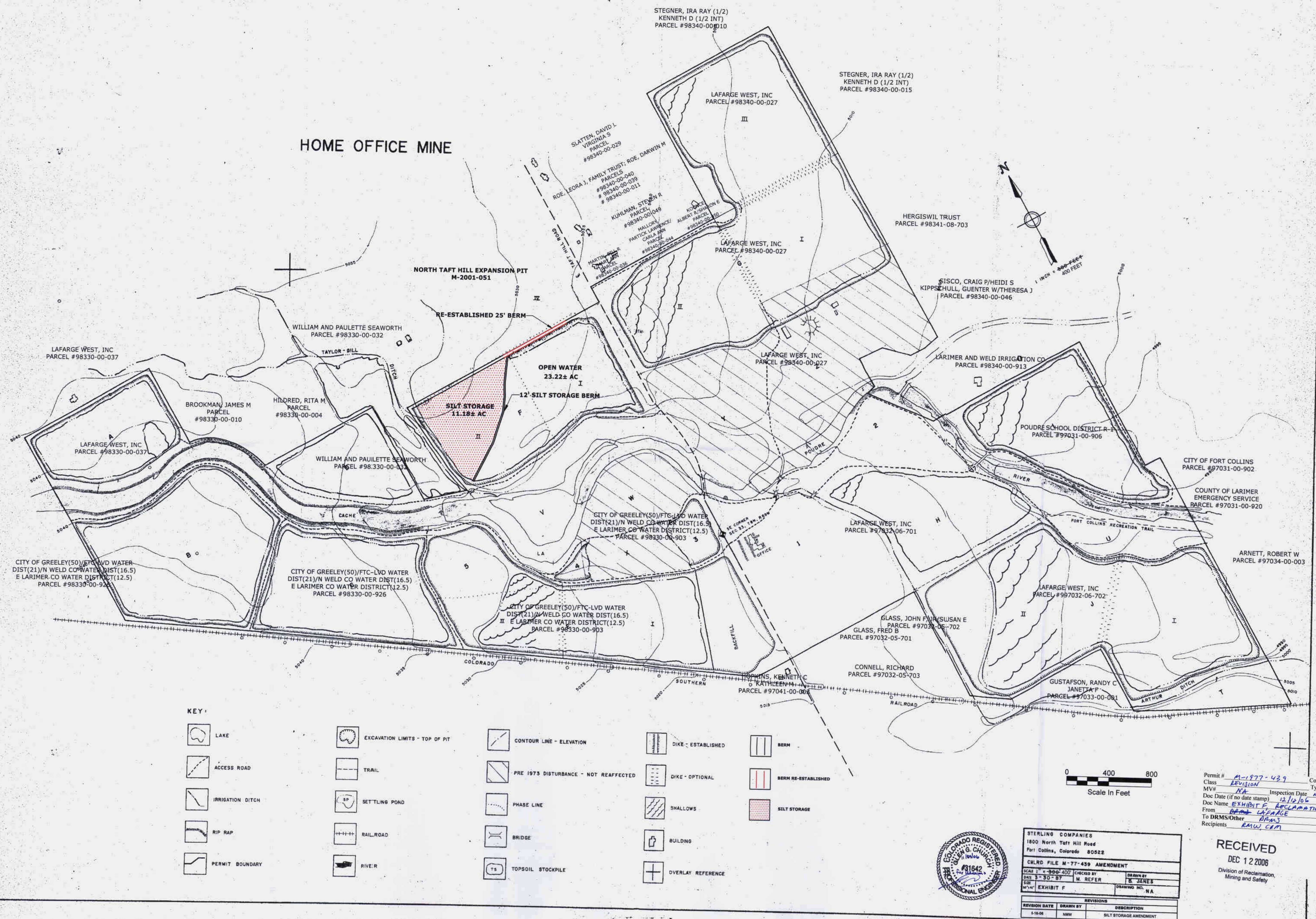


LAFARGE AGGREGATES & CONCRETE			
10710 CHURCH RANCH WAY, SUITE 300 - WESTMINSTER, COLORADO 80031 303.857.4000			
PROJECT: HOME OFFICE			
TITLE: PERMIT No. M1977-439 09-28-2010 PERMIT AREA			
DRAWN BY: TWK	DATE: 09/28/2010	SCALE: 1" = 500'	SHEET NO. 1 OF 1
FILE PATH: ACAD\GLT04.DWG			

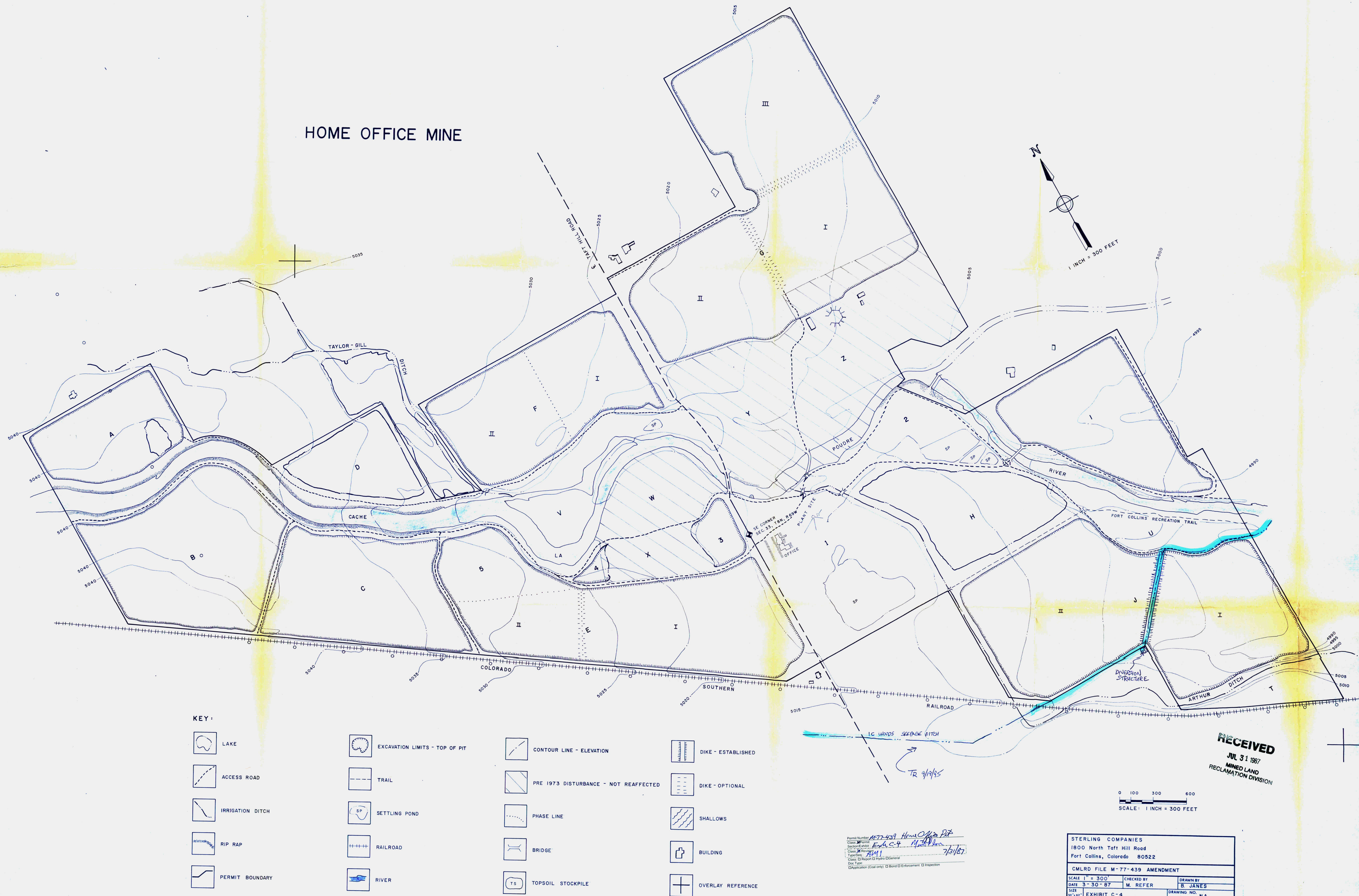
AM-3 Mining Plan Map, approved in 2006



AM-3 Reclamation Plan Map, approved in 2006



AM-1 Mining Plan Map, approved in 1987



RECEIVED
JUL 31 1987
MINED LAND
RECLAMATION DIVISION

STERLING COMPANIES		
1800 North Taft Hill Road		
Fort Collins, Colorado 80522		
CMLRD FILE M-77-439 AMENDMENT		
SCALE 1" = 300'	CHECKED BY	DRAWN BY
DATE 3-30-87	M. REFR	B. JAMES
SIZE 50"x42"	EXHIBIT C-4.	DRAWING NO. NA