



COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
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: Rocky Ford East Pit	MINE/PROSPECTING ID#: M-1977-560	MINERAL: Sand and gravel	COUNTY: Otero
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: January 13, 2016	INSP. TIME: 15:45
OPERATOR: Valco, Inc.	OPERATOR REPRESENTATIVE: Tom Brubaker	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$133,361.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: <i>Amy Eschberger</i>	SIGNATURE DATE: February 10, 2016

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: Financial Warranty

PROBLEM: The Division has reviewed the current cost of reclamation for this site, totaling \$193,678.00. Therefore, the existing financial warranty of \$133,361.00 is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the financial warranty in the current amount necessary to complete reclamation of the affected lands, pursuant to C.R.S. 34-32.5-117(4)(b).

CORRECTIVE ACTIONS: Pursuant to Construction Materials Rule 4.2.1(2), the operator has 60 days (due by April 11, 2016) to submit the additional required financial warranty in the amount of \$60,317.00 to ensure a total financial warranty of not less than \$193,678.00. The Division will send a separate surety increase notice to the operator regarding the increase of the financial warranty.

CORRECTIVE ACTION DUE DATE: April 11, 2016

INSPECTION TOPIC: Hydrologic Balance

PROBLEM: The Substitute Water Supply Plan (SWSP) for the site will expire July 31, 2016. The Office of the State Engineer (SEO) has indicated the SWSP will not be renewed. The Division's records indicate the operator has not secured a permanent plan for augmentation for the exposed groundwater on site. This is a problem pursuant to C.R.S. 34-32.5-116(4)(h) and Construction Materials Rule 3.1.6(1)(a), which obligates the operator to comply with applicable Colorado water laws and regulations governing injury to existing water rights.

CORRECTIVE ACTIONS: Within 60 days from the signature date of this report (due April 11, 2016), the operator shall demonstrate, to the Division's satisfaction, how compliance with the requirements of C.R.S. 34-32.5-116(4)(h) and Construction Materials Rule 3.1.6(1)(a) will be attained.

CORRECTIVE ACTION DUE DATE: April 11, 2016

OBSERVATIONS

This was a normal monitoring inspection of the Rocky Ford East Pit (Permit No. M-1977-560) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). Mr. Tom Brubaker represented the operator, Valco, Inc. during the inspection. The site is located approximately 1.5 miles east of Rocky Ford, Colorado, just north of and adjacent to Hwy 50. There are two main entrances to the site, one accessing the far western edge of the site off of Hwy 50, and the other accessing the center of the site from off of Co Rd 22. The site is situated approximately 0.5 mile south of the Arkansas River. The affected land is owned by Valco, Inc., City of Aurora, and Valley Concrete. The approved post-mining land use is a combination of wildlife habitat, recreation (with no swimming), and industrial/commercial.

This is a 112c operation permitted for 189.2 acres to mine sand and gravel via dragline or dredge (wet mining). The site is split into two separate mining areas by Co Rd 22, which runs north-south through the property. These areas will be referred to as the west mining area (located west of Co Rd 22) and the east mining area (located east of Co Rd 22). The west mining area is where mining began in the 1960's. A portion of this area was included in the original permit. In Amendment No. 1 (AM-01; approved 12/19/1995), the operator added additional land to the permit area to encompass the batch plant and stockpiling and processing area which were directly associated with the mining operation. According to a letter from the Division addressed to the operator (dated 4/5/1995), the existing permit area was 40.38 acres before 33.22 acres were added in AM-01, giving a revised west mining area size of 73.6 acres. Additionally, AM-01 added the east mining area, which consisted of 107.33 acres. The combined total acreage added to the permit area with AM-01 should have been 140.55 acres (33.22 acres for west mining area + 107.33 acres for east mining area), with a revised total permit area of 180.93 acres. However, the Division's approval letter for AM-01 (dated 01/04/1996) states that 148.8 acres were added to the permit area. This would give a total permit area of 189.2 acres, which is what the permit area is currently shown to be in the permit record. It is unclear in the permit record where the additional 8.27 acres came from (189.2 acres – 180.93 acres).

In the inspection report for 11/30/2006, the Division noted a discrepancy with regard to the acreage of the permit area. The report cited a problem for this issue, requiring the operator to submit a map of the entire permit area with explanation of the official acreage. The Division received a response from the operator on 04/30/2007, which included two maps of the site (**see two enclosed maps showing total acreages for each mining area**). The west mining area was shown to consist of 70.39 acres, and the east mining area was shown to consist of 107.33 acres. This would give a total permit area of 177.72 acres; however, the permit acreage was not officially revised in the permit record at that time. In review of the maps submitted by the operator on 04/30/2007, the Division recently attempted to depict the permit area on an aerial image of the site (**see enclosed Google Earth images of site**). The permit area shown on this image includes 177.72 acres. The Division recommends the operator review this image of the site and confirm with the Division (within 30 days of the signature date of this report) that the permit area is 177.72 acres. If the operator has recent records or survey data showing the permit area to be different in size than 177.72 acres, the Division recommends this information be submitted within the 30-day period. If no information regarding this issue is submitted to the Division within the 30-day period, the Division will officially revise the permit acreage to 177.72 acres in the record through an administrative revision.

In the west mining area, the far western portion was mined first in the early 1960's. This previously mined area was not included in the original permit area. The original mining plan map (**see enclosed original mining plan map for west mining area**) showed the area divided into 7 stages, including, Stage BL, Stage 0, Stage I, Stage II, Stage III, Stage IV, and Stage Y, with mining proceeding generally from east to west. Stage Y, located along the northern edge of the permit area would be used for storage of topsoil and overburden salvaged during mining. Much of the salvaged overburden was to be used in reclamation to backfill and grade disturbed slopes.

The remaining overburden would be graded to 3H:1V slopes, topsoiled, and revegetated to blend in with surrounding topography. The maximum mining depth in the west mining area was approximately 37 feet, with the deepest mining occurring in the western portion of the area. The Division was unable to find a revised mining plan map submitted with AM-01 for the west mining area. However, the reclamation plan map for this area was revised with AM-01 (**see enclosed reclamation plan map for west mining area**) to include the previously mined land that was added to this area through the revision.

The approved reclamation plan for the west mining area includes leaving a small unlined pond connected to a larger unlined pond, with a total surface area of approximately 40 acres. The pond shorelines are to be graded to 3H:1V to 5 feet above and 10 feet below the water level, except for portions of the smaller pond shoreline, which will keep slopes steeper than 3H:1V since this pond was excavated before the area was permitted. Pond shorelines will be irregularly shaped to promote a diverse wildlife habitat. Disturbed land is to be graded to 3H:1V or flatter, ripped if necessary, retopsoiled at an average depth of 6 inches, and revegetated in accordance with the revegetation plan submitted with the original permit application. This plan includes planting Russian Olive, Skunkbush, and Cottonwood trees along the pond shorelines. The operator should be aware that Russian Olive trees are considered a state-listed noxious weed species at this time, and should not be planted at the site. This was noted in the last inspection report (for 3/21/2011). In this report, the Division also mentioned that the operator was advised by the State Engineer's Office not to plant any additional cottonwood trees due to the amount of water they consume. To revise the current revegetation plan on file (e.g., remove tree planting), the operator will need to submit a Technical Revision to revise the approved reclamation plan. The haul road that enters the west mining area from the southwestern edge will be reclaimed. The post-mining land use for the west mining area is wildlife habitat and recreation for the pond areas, and industrial/commercial for the western portion where the batch plant operated. The operator stated that no swimming would occur in the recreational use of the ponds. If swimming is to occur, the Division will require the pond slopes to be graded to 5H:1V in the area(s) of swimming per Rule 3.1.5(7).

The 170.33-acre east mining area was added to the permit with approval of AM-01 (as mentioned above). The approved mining plan map (**see enclosed mining plan map for east mining area**) shows this area divided into 6 stages, including, Stage I, Stage II, Stage III-A, Stage III-B, Stage IV, and Stage V. Mining in this area was to begin in Stage I (in the western portion) and proceed generally eastward. The maximum mining depth in this area was approximately 35 feet, with the deepest mining occurring in the southern portion of the area. Stages IV and V along the northern and northwestern edges of the area would be used for a batch plant site and stockpiling and processing. Topsoil and overburden salvaged during the operation would be stockpiled mainly along the northern and southern edges of the area. The approved reclamation plan for the east mining area (**see enclosed reclamation plan map for east mining area**) includes leaving an unlined pond with a surface area of approximately 27 acres. The pond shorelines are to be graded to 3H:1V to 5 feet above and 10 feet below the water level. A (dry) bowl-shaped depression that is approximately 10 feet deep with side slopes of 3H:1V will be left in the western portion of this area (Stage I). The access road that enters the east mining area from Co Rd 22 will remain after reclamation.

At the time of the inspection, the weather was clear and cool. No standing water was observed on site (besides the excavated ponds). A permit identification sign was posted at each of the two main site entrances (**Photos 1 and 2**). The permit boundary of the west mining area was delineated mainly by property fencelines, by Co Rd 22 on the eastern boundary, and by the Crystal Drainage Ditch along the northern boundary. The permit boundary of the east mining area was delineated by property fencelines, by Co Rd 22 along the western boundary, Co Rd 22.75 along the eastern boundary, and the Crystal Drainage Ditch along the northern boundary. Permit boundary signs were posted along the property fencelines. The site was not active during the inspection. According to Mr. Brubaker, mining was completed at the site several years ago. However, since that time, product was still being hauled off site every year, which is in compliance with its intermittent status.

Currently, it appears that all product has been removed from the site. Therefore, if mining activities (e.g., extraction, material processing and/or hauling off site) have ceased, the operator should begin final reclamation of the site.

The west mining area was inspected first. This area includes a large excavated pond that is approximately 27.6 acres in size (**Photos 3 and 4**), and a smaller "slurry pond" that is approximately 1.19 acres in size (**Photos 5 and 6**). A large overburden stockpile was stored north of the large pond. The area located west of the ponds was the former stockpiling and processing area. The concrete batch plant building was removed from this area after the last inspection of the site conducted by the Division on 03/21/2011. The stockpiling and processing area (**Photo 7**) was relatively flat with very little vegetation, besides a few small patches of grass that are volunteering into the area. It is unclear whether topsoil has been replaced in this area. The shoreline of the larger pond appeared to be graded to 3H:1V or flatter. The pond slopes were vegetated with grasses and various types of trees and shrubs that have volunteered along the shoreline. The shoreline of the small "slurry pond" appeared to be graded to 3H:1V or flatter, except for the southern shoreline, which had slope gradients closer to 2H:1V. Several trees have established along the southern shoreline. The northern shoreline had a layer of concrete at the surface (**Photo 8**) where unhardened concrete was poured many years ago during the batch plant operation. According to the approved reclamation plan, the operator committed to topsoiling and revegetating the pond shorelines. Therefore, the concrete will most likely need to be cracked in order to remove a root restrictive layer for vegetation to establish along the northern shoreline. Several old concrete mixing truck containers were stored near the pond. These containers will need to be removed from the site for reclamation.

Imported material including pieces of concrete and asphalt were stored just west of the smaller pond (**Photo 9; also shown in Photo 8**). Mr. Brubaker indicated this inert material was imported to backfill the ponds in accordance with Technical Revision No. 2 (TR-02), which was approved by the Division on 09/24/2012. The inert fill was to be stored adjacent to the smaller pond in the west mining area and adjacent to the larger pond in the east mining area. The inert fill would be used to backfill portions of the ponds in order to reduce the amount of exposed groundwater requiring augmentation. The operator held off using this material for reclamation after discussions began with an interested party who wishes to permit the west mining area. Currently, the operator does not intend to complete any additional mining or reclamation work in the west mining area. The plan is to have the interested party submit a new permit application for the west mining area, and, once approved, this portion of the Rocky Ford East Pit permit area could be released from the current permit. If this were to occur, it would leave only the east mining area (located east of Co Rd 22) inside the Rocky Ford East Pit permit area.

The east mining area includes two excavated ponds, one that is approximately 4.1 acres in size (**Photos 10-12**), and a larger one that is approximately 11.5 acres in size (after subtracting the 3.1 acre island from 14.6 acres; **Photos 13-15**). Much of the pond shorelines are fairly irregular, with several small points and bays. It appeared that the operation had begun excavating land just south of the smaller pond (**Photo 16**) and west of the larger pond (**Photo 17**), but did not continue to the point of exposing groundwater. The pond shorelines had varying slope gradients from near vertical to 2H:1V. The pond slopes were vegetated with some grasses and trees, but mainly by annual weeds. Large stockpiles of overburden surround the two ponds. Imported material including pieces of concrete and asphalt were stored in the area between the two ponds (**Photos 18 and 19**). This material was imported after approval of TR-02 (mentioned above). The area located west of the ponds was the former stockpiling and processing area. This area was relatively flat with very little vegetation, besides a few small patches of grass and annual weeds which are volunteering into the area (**Photo 20**). It is unclear whether topsoil has been replaced in this area. The small batch plant that operated in this area when the pit was active has been removed from the site.

According to the Division of Water Resources (DWR), the operator has a valid well permit (No. 52017-F) and a Substitute Water Supply Plan (SWSP) that covers the current amount of exposed groundwater on site for the

period of 08/01/2015 through 07/31/2016 (see enclosed SWSP, received by the Division on 11/03/2015). This SWSP covers a total groundwater exposure of 47.3 acres on site, which includes 17.4 acres of pre-1981 exposure and 29.9 acres of post-1981 exposure. In the SWSP letter, the DWR states that any future renewal request must include evidence and/or documentation that ongoing progress has been made to come into compliance with the Division's 04/30/2010 letter (see enclosed letter Re: Mining operations with exposed groundwater).

In the letter sent to all operators on 04/30/2010, the Division identified four approaches for operators to achieve compliance with regard to mining-related exposure of groundwater, including (in summary): 1) Submit a financial warranty to backfill the exposed groundwater, or 2) Obtain a court approved augmentation plan, or 3) Submit a financial warranty to install a clay liner or slurry wall, or 4) Obtain approval from the DWR that acknowledges compliance with the SEO's requirements. At this time, it appears that the operator has not implemented one of the four approaches identified by the Division in the 04/30/2010 letter. **A problem is cited in this report (see page 1) pursuant to C.R.S. 34-32.5-116(4)(h) and Construction Materials Rule 3.1.6(1)(a), which obligates the operator to comply with applicable Colorado water laws and regulations governing injury to existing water rights. The Division is requiring the operator to demonstrate, to the Division's satisfaction, how compliance with the above cited Statute and Rule will be attained.**

The Division estimates current groundwater exposure at the site to be 44.39 acres, including 28.79 acres in the west mining area, and 15.6 acres in the east mining area. Because 17.4 acres are considered pre-1981 exposure which does not require permanent augmentation, this leaves a total of 26.99 acres of current exposure that will either need to be backfilled or covered by a permanent plan for augmentation. The operator expressed his intent to backfill all exposed groundwater in the east mining area this year in order to reduce the amount of exposed groundwater requiring a permanent plan for augmentation. The operator recently obtained an engineering evaluation which found there to be enough overburden and excess borrow material on site to backfill the ponds. However, the operator should be aware that even after backfilling the ponds in the east mining area, there will still be 11.39 acres of post-1981 exposure in the west mining area. According to the operator, the interested party that wishes to permit the west mining area (mentioned above) has more water shares available to off-set depletions (to pursue a permanent plan for augmentation). However, until the Division releases the west mining area from this permit, the current operator will be held responsible for implementing one of the approaches identified in the 04/30/2010 letter for exposed groundwater on site.

The Division has recalculated the required financial warranty and found the currently held financial warranty of \$133,361.00 to be inadequate to reclaim the site in accordance with the approved reclamation plan. This is cited as a problem in this report (see page 1). The Division will require an additional financial warranty to be submitted in the amount of \$60,317.00, giving a total financial warranty of \$193,678.00 (see enclosed bond estimate).

PHOTOGRAPHS



Photo 1. View of permit identification sign posted at main entrance to west mining area.



Photo 2. View of permit identification sign posted at main entrance to east mining area off of Co Rd 22.



Photo 3. View looking northeast, showing larger pond (27.6 acres in size) located in west mining area.



Photo 4. View looking east, showing larger pond (27.6 acres in size) located in west mining area.



Photo 5. View looking east, showing smaller “slurry pond” (1.19 acres in size) located in west mining area.



Photo 6. View looking south, showing smaller “slurry pond” (1.19 acres in size) located in west mining area. Note southern shoreline (disturbed prior to permit) has slopes steeper than 3H:1V and several trees established.



Photo 7. View looking northwest across stockpiling/processing area located west of ponds in west mining area. Note area is relatively flat with very little vegetation besides a few small patches of grass volunteering into the area.



Photo 8. View looking west across layer of concrete along northern edge of small “slurry pond” in west mining area. Unhardened concrete was poured here many years ago during batch plant operation. Note location of inert material imported for backfilling stored adjacent to pond (indicated).



Photo 9. View looking southeast, showing inert material imported for backfilling stored adjacent to pond. Other location shown in Photo 8.



Photo 10. View looking north, showing smaller pond (4.1 acres in size) located in east mining area (eastern shoreline shown in foreground). Note shoreline slope gradients steeper than 3H:1V.



Photo 11. View looking west, showing smaller pond (4.1 acres in size) located in east mining area (eastern shoreline shown in foreground).



Photo 12. View looking southwest, showing smaller pond (4.1 acres in size) located in east mining area (eastern shoreline shown in foreground). Note shoreline slope gradients steeper than 3H:1V.



Photo 13. View looking east, showing larger pond (14.6 acres in size including 3.1 acre island) located in east mining area. Exposed groundwater for this pond estimated to be 11.6 acres (minus island).



Photo 14. View looking east, showing small bay in northwestern portion of larger pond located in east mining area.



Photo 15. View looking southwest from northeastern corner of larger pond located in east mining area. Note island at right, center.



Photo 16. View looking south at excavated area south of smaller pond in east mining area. Note no groundwater is exposed in this area.



Photo 17. View looking east at excavated area west of larger pond in east mining area. Note no groundwater is exposed in this area.



Photo 18. View looking northeast, showing inert material imported for backfilling stored in area between the two ponds in east mining area.



Photo 19. View looking west, showing inert material imported for backfilling stored in area between the two ponds in east mining area.



Photo 20. View looking northwest across stockpiling area located west of two ponds in east mining area. Note area is relatively flat with very little vegetation besides a few small patches of volunteer grass and annual weeds.

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>PB</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</u>	(BG) BACKFILL & GRADING----- <u>NA</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SW) STORM WATER MGT PLAN---- <u>Y</u>	(CI) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>NA</u>

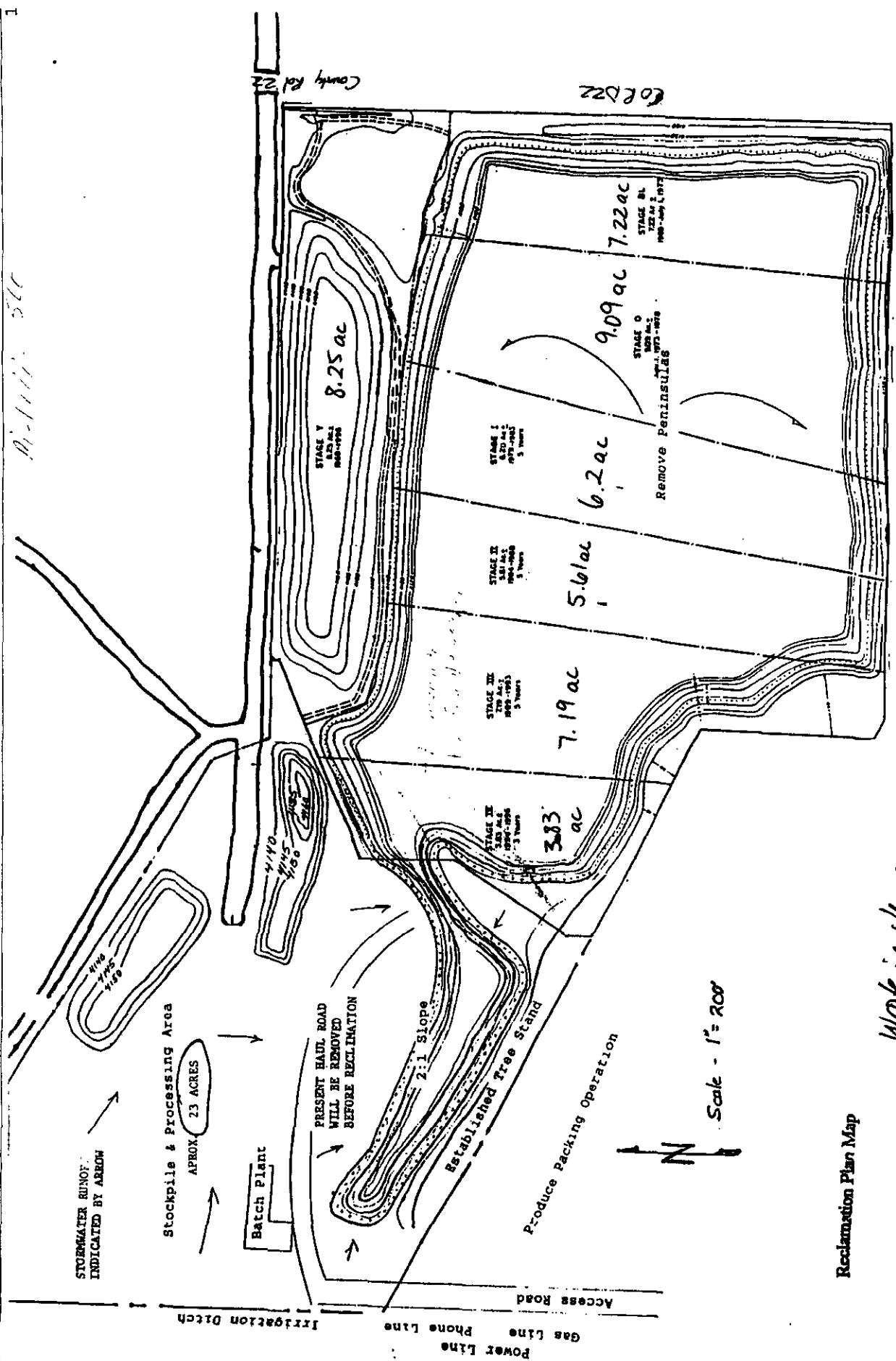
Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

Tom Brubaker
Valco, Inc.
9296 Windhaven Dr.
Parker, CO 80134

Enclosure(s): Map of west mining area, received by Division on 04/30/2007
Map of east mining area, received by Division on 04/30/2007
Google Earth image of site showing approved permit area
Google Earth image of site showing west mining area
Google Earth image of site showing east mining area
Original mining plan map for west mining area
Reclamation plan map for west mining area, approved with AM-01
Mining plan map for east mining area, approved with AM-01
Reclamation plan map for east mining area, approved with AM-01
Rocky Ford East Pit Substitute Water Supply Plan, received by Division on 11/03/2015
Letter from Division Re: Mining operations with exposed groundwater, dated 04/30/2010
Division's bond estimate

CC: Wally Erickson, DRMS
Caleb Foy, DWR (via email)



Work in the acreages that were hard to reach.
 Total Acreage west of CR 22 = 70.39 ac

0016536

01-11-17 560

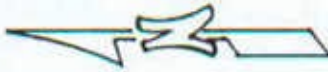
County Rd 22

60822



N 1/2 of Sec. 22, T. 23S., R. 56W., 6th P.11.
OTERO COUNTY, COLORADO
JAN. 1994

SCALE 1"=400'



CITY OF AURORA PROPERTY

Ditch Plant Site
Filling Site
Stockpile Area
Fuel Area

STAGE IV
11 ACRES
1994-2051

Limited Disturbance

STAGE III-A
13.24 ACRES
2013-2041

STAGE II
19.62 ACRES
1996-2012

STAGE III-B
19.47 ACRES
2013-2041

Excavation Depth 25'-35'

Limited Disturbance
No Disturbance on
South Side of Road
in Stage I

STAGE I
33 ACRES
1994-1996

Excavation Depth 25'-35'

STAGE V
11 ACRES
1994-2051

No Disturbance

Slurry Pump

Two Culverts

VALCO EAST PIT

Area affected by
Slurry Pumping

PROCTOR PROPERTY

CNTY RD 22

STATE HWY 50

Mining East to West
Stockpile By Dradline On Perimeter of Excavation

Stockpile Topsoil 100' Setback

HOLDER PROBLEM

0016560

CNTY RD 22.75

100' Setback

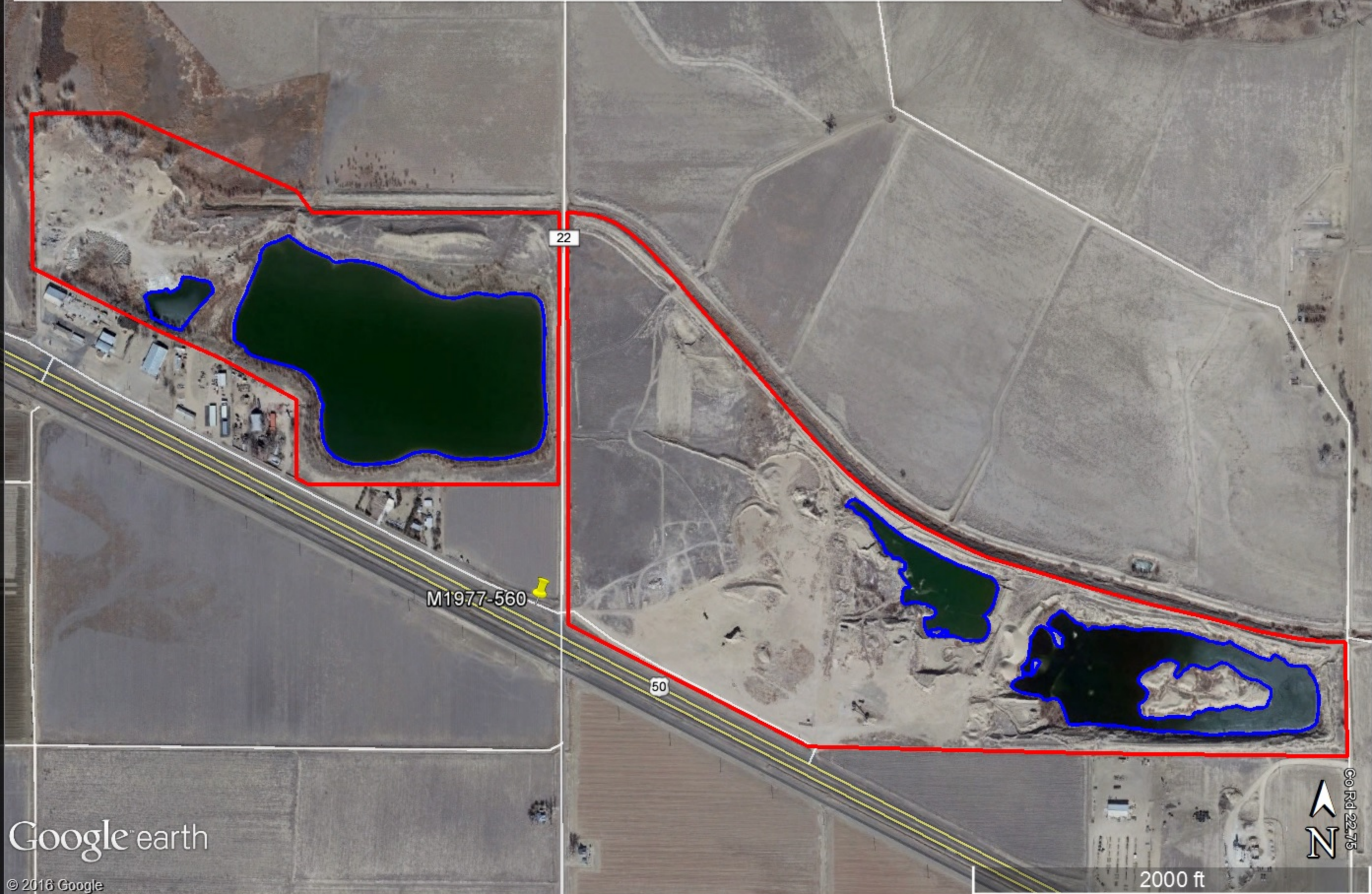
Total Acreage East of CR22 = 107.33 ac

M1977-560 / Rocky Ford East Pit / Valco, Inc.

(Approved permit area in permit system = 189.2 acres)

Red Outline = 177.72 acres = Permit area as shown on maps since AM-01 (70.39 acres W + 107.33 acres E)

Blue Outline = 44.39 acres = Total exposed groundwater (1.19 acres W + 27.6 acres W + 4.1 acres E + 11.5 acres E)



M1977-560 / Rocky Ford East Pit / Valco, Inc.

(Approved permit area in permit system = 189.2 acres)

Red Outline = 177.72 acres = Permit area as shown on maps since AM-01 (70.39 acres W + 107.33 acres E)

Blue Outline = 44.39 acres = Total exposed groundwater (1.19 acres W + 27.6 acres W + 4.1 acres E + 11.5 acres E)



M1977-560 / Rocky Ford East Pit / Valco, Inc.

(Approved permit area in permit system = 189.2 acres)

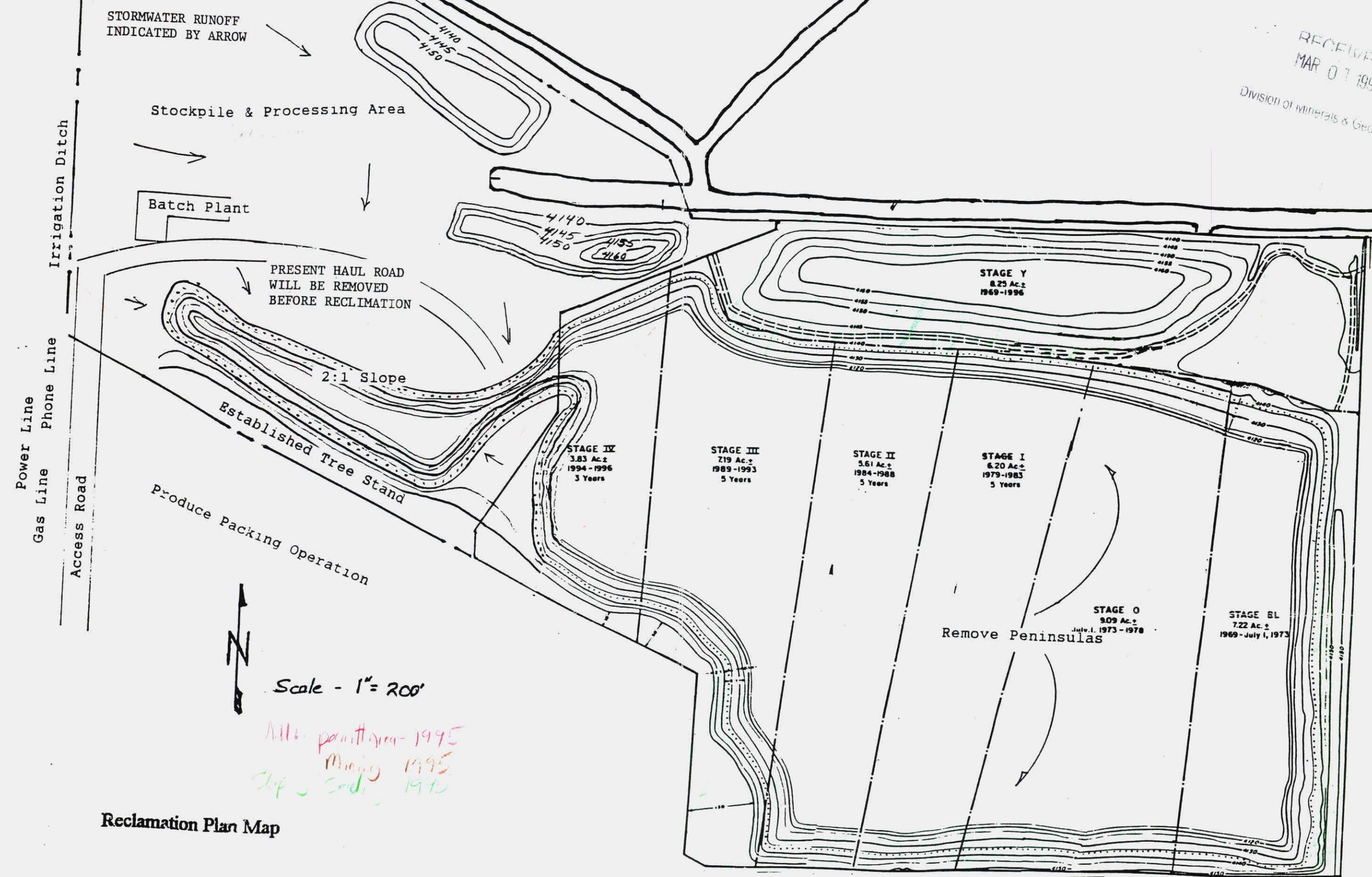
Red Outline = 177.72 acres = Permit area as shown on maps since AM-01 (70.39 acres W + 107.33 acres E)

Blue Outline = 44.39 acres = Total exposed groundwater (1.19 acres W + 27.6 acres W + 4.1 acres E + 11.5 acres E)



M-1977-566

RECEIVED
MAR 07 1996
Division of Minerals & Geology



Scale - 1" = 200'

Alluvial permit area - 1995
Mining 1995
Slope - 2:1, 1995

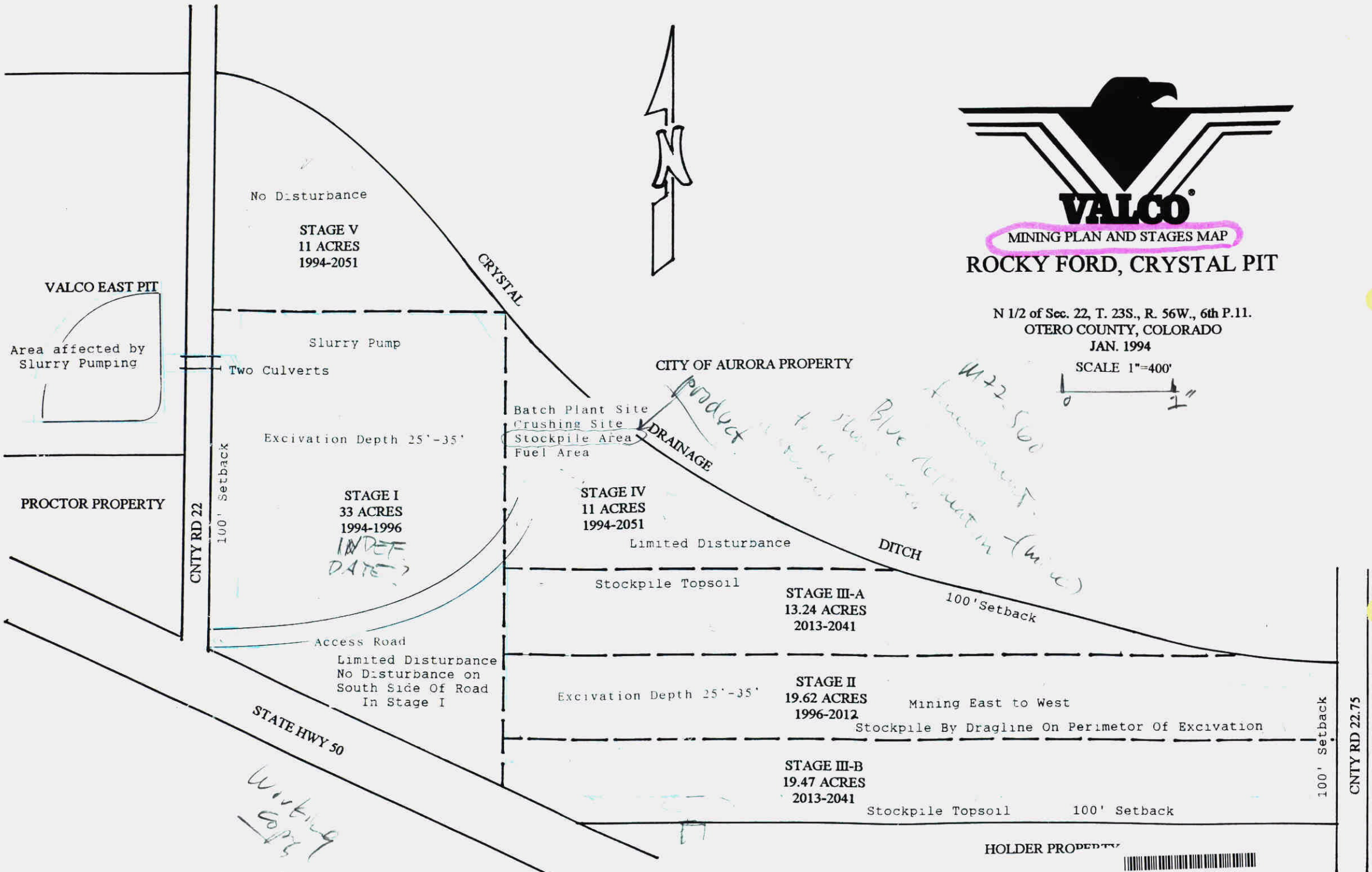
Reclamation Plan Map



MINING PLAN AND STAGES MAP
ROCKY FORD, CRYSTAL PIT

N 1/2 of Sec. 22, T. 23S., R. 56W., 6th P.11.
OTERO COUNTY, COLORADO
JAN. 1994

SCALE 1"=400'



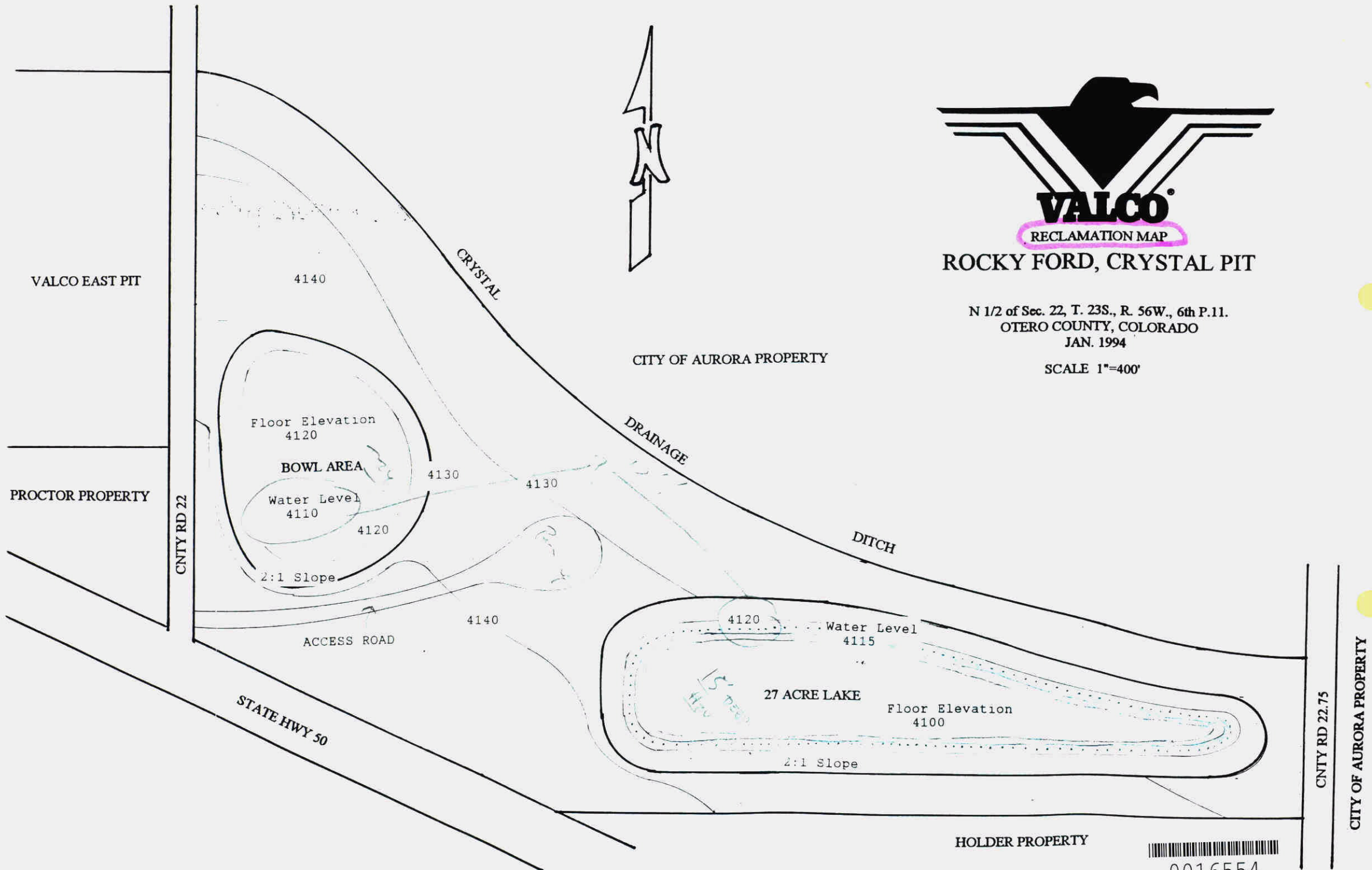
0016560



ROCKY FORD, CRYSTAL PIT

N 1/2 of Sec. 22, T. 23S., R. 56W., 6th P.11.
OTERO COUNTY, COLORADO
JAN. 1994

SCALE 1"=400'



HOLDER PROPERTY



0016554

CITY OF AURORA PROPERTY

AME



COLORADO *PR:*
Division of Water Resources
 Department of Natural Resources

Office of the State Engineer
 1313 Sherman St, Suite 818
 Denver, CO 80203

RECEIVED

✓ NOV 03 2015

**DIVISION OF RECLAMATION
 MINING AND SAFETY**

October 28, 2015

Mr. Paul Bruss
 BBA Water Consultants, Inc.
 333 West Hampden Avenue, Suite 1050
 Englewood, CO 80110

RE: Rocky Ford East Pit Substitute Water Supply Plan
DRMS Permit No. M-77-560
Section 21, Township 23S, Range 56W, 6th PM
Water Division 2, Water District 17
SWSP ID 115, WDID 1707854

RECEIVED

NOV 03 2015

Approval Period: August 1, 2015 through July 31, 2016
Contact Phone Number: 303-866-8952

**DIVISION OF RECLAMATION
 MINING & SAFETY**

Dear Mr. Bruss:

We have reviewed your May 1, 2015 letter requesting renewal of the substitute water supply plan ("SWSP") for the Rocky Ford East pit owned by Valco, Inc. ("Valco" or "Operator"). The required \$257 fee has been paid under receipt no. 3669542. This approval will cover the period August 1, 2015 through July 31, 2016.

PLAN OF OPERATION

The Rocky Ford East Pit was previously operated under a combined SWSP plan, together with the Lamar East Pit and the Canon City East Pit. Valco has recently conveyed the Lamar East Pit to the City of Lamar, and is separating the Rocky Ford East Pit from the combined plan due to changes in the water supply. Active mining has finished at all three pits. This SWSP request covers the depletions from the Rocky Ford East pit only, which is registered under permit no. 52017-F. The Rocky Ford East Pit most recently operated under a 16-month SWSP approved from April 1, 2014 - July 31, 2015.

Permit No.	WDID	Total Exposure	Pre-1981 Exposure (acres)	Post-1981 Exposure (acres)
52017-F	1705986	47.3	17.4	29.9

In accordance with the letter dated April 30, 2010 from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), attached, all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of ground water. A November 20, 2013



memo was previously provided to summarize the impacts of the proposed dewatering operation that will be utilized to safely backfill each pond; however, Condition of Approval No. 3 of the SWSP approval dated March 18, 2015 required that additional explanation and/or documentation be provided with any renewal request which explicitly identifies how the Operator plans to mitigate injurious stream depletions that result from mining-related exposure of post-1981 ground water in accordance with the April 30, 2010 letter from DRMS.

According to the renewal request, Valco is currently in negotiations with a potential buyer for the portion of the Rocky Ford East Pit property west of County Road 22 ("West Property"), which includes Ponds 1 and 2 as shown on the attached Figure 1. It is the understanding of Valco that the potential buyer is seeking a new DRMS permit to continue mining operations on the West Property and will be making application for a permanent plan for augmentation once mining operations are completed. Valco plans to retain the portion of the Rocky Ford East pit property east of County Road 22 ("East Property"), which includes Ponds 3 and 4 as shown on the attached Figure 1, and intends to backfill the remaining ponds on the East Property.

The information contained in this renewal request does not satisfy the requirements referenced in the April 30, 2010 letter from DRMS; therefore, any future renewal request must include evidence and/or documentation that on-going progress has been made to come into compliance with the April 30, 2010 letter from DRMS. Please note that any future renewal may not be approved without this information.

DEPLETIONS

The Rocky Ford East pit is in the process of reclamation. This SWSP renewal is to replace depletions resulting from evaporation from the ponds and from the water contained in the previously mined product. During the reclamation, dewatering will occur from one pond to another within the mining boundary, since three of the four ponds will be completely backfilled and the fourth reduced in size.

Evaporative depletions have been calculated using the maximum surface area of the pit, which is 29.9 acres of post-1981 exposed ground water surface area.

Depletions have been lagged back to the Arkansas River using a Glover analysis with the following inputs:

Distance from river:	2975 ft
Distance from alluvial boundary:	7675 ft
Transmissivity:	71,000 gpd/ft
Specific yield:	0.2

You have calculated the total lagged depletions to be 115.66 acre-feet for the period August 1, 2015 - July 31, 2016 (see attached Table 2A).



REPLACEMENTS

Valco will continue to utilize a combination of leased water and historical ditch credits to make replacements to the river. A one-year lease dated August 1, 2015 was obtained to provide replacement supplies during this approval period for 84 acre-feet from the Upper Arkansas Water Conservancy District ("UAWCD"). Additionally, Valco owns 2 shares in the Rocky Ford Ditch, which have been determined to yield 25.72 acre-feet per year of consumptive use for the purposes of this plan and will be used to off-set depletions at this pit. Lastly, Valco owns 26 shares of Canon City and Oil Creek ("CC&OC") Ditch, which have been determined to yield 38.34 acre-feet per year of consumptive use for the purposes of this plan. According to the Canon City East Pit SWSP dated September 15, 2015, 17.31 acre-feet of consumptive use credit from the 26 shares of CC&OC Ditch will be used for replacement at the Canon City East Pit from August 1, 2015 through July 31, 2016; therefore, there appears to be 21.03 acre-feet of consumptive use credit available for use under this plan.

CONDITIONS OF APPROVAL

This SWSP is hereby approved pursuant to Section 37-90-137(11), C.R.S., subject to the following conditions:

1. This SWSP shall be valid for the periods of August 1, 2015 through July 31, 2016, unless otherwise revoked, modified, or superseded by decree. Should an additional SWSP be requested, such renewal request must be submitted to this office with the statutory fee (currently \$257) no later than May 1, 2016.
2. No more than 47.3 acres (29.9 acres of post-1981 exposure) of ground water may be exposed at the Rocky Ford East Pit during this plan year without first obtaining an amendment to the plan. The above acreage totals include any surface areas in ponds to which de-watering water is delivered. Documentation of pond sizes may be required by the Division Engineer in the form of an aerial photo evaluation or survey by a Professional Land Surveyor during the plan year.
3. Any future renewal request must include evidence and/or documentation that on-going progress has been made to come into compliance with the April 30, 2010 letter from DRMS. Please note that any future renewal may not be approved without this information.
4. Subject to approval by the Division Engineer, the Applicant may lease or purchase additional replacement water from the sources approved in this plan. In addition, the Applicant must also provide a copy of a lease/purchase agreement to the State Engineer's Office and the Division Engineer for use of such additional replacement water.
5. Approval of this SWSP is for the purposes stated herein. The State Engineer's Office must first approve any additional uses for which the water may be used. The replacement water, which is the subject of this SWSP, cannot be sold or leased to any



other entity during the term of this SWSP without prior approval of the Division Engineer.

6. The Applicant shall provide daily accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis. The accounting must be emailed to the Water Commissioner (Lonnie.Spady@state.co.us) and to the Division Engineer (e-mail to Augmentation.Coordinator@state.co.us) on forms and at times acceptable to them. Said accounting must be received by the 10th of the month following the month being reported. The name, mailing address, and phone number of the contact person who is responsible for operation and accounting of this plan must be provided on the accounting forms. Accounting and reporting procedures are subject to approval and modification by the Division Engineer. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.
7. Credits for the Cañon City and Oil Creek Ditch shares shall be determined by diverting in-priority and measuring back to the river the amount for these share totals. Credits will be determined by applying the appropriate consumptive use factor to the daily delivered pro-rata share amount measured through the augmentation stations. The consumptive use factors and excess CU credit to be used are identified in Tables 2a-1 and 2a-2 of the Canon City East Pit SWSP dated September 15, 2015. Credits not delivered in the above manner shall not be counted against downstream depletions.
8. Conveyance loss for delivery of augmentation water to the Arkansas River is subject to assessment and modification as determined by the Division Engineer.
9. Replacement water shall be made available to cover all out-of-priority depletions in time, place, and amount and shall be made available under the direction and/or approval of the Water Commissioner.
10. All parcels of dried up land are subject to administration pursuant to the Administration of Parcels Claimed for Augmentation Credit Agreement signed by the Colorado State Engineer and Kansas Chief Engineer in September of 2005. The final verification of dry up will be in the form of an affidavit signed by an individual having personal knowledge of the dry up for the entire 2015 and 2016 irrigation seasons for each parcel of land for the water rights listed in the approved replacement plan. All affidavits must be provided to the Division Engineer by December 15, 2015 for 2015 dry up and December 15, 2016 for 2016 dry up such that the final determination of augmentation credits for the irrigation season can be made along with mapping showing any revisions to the dry up acreage.
11. The approval of this SWSP does not relieve the applicant and/or landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after the gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing ground water to evaporation, an application for plan for augmentation must be filed with the Division 2 Water Court at least three (3) years



prior to the completion of mining to include, but not be limited to, long-term evaporation losses and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow. Granting of this plan does not imply approval by this office of any such court application(s).

12. This SWSP may be revoked or modified at any time should it be determined that injury to other vested water rights has occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of water under this SWSP must cease immediately.
13. In accordance with amendments to Section 25-8-202-(7), C.R.S., and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the State Engineer shall determine whether or not the substitute supply is of a quality to meet requirements of use to senior appropriators. As such water quality data or analysis may be requested at any time to determine if the water quality is appropriate for downstream water users.
14. The decision of the State Engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in the pending water court case or any other legal action that may be initiated concerning the SWSP. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other SWSPs or in any proposed renewal of this SWSP, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

Should you have any questions, please contact Caleb Foy of this office or Charlie DiDomenico in our Division 2 office in Pueblo at (719) 542-3368.

Sincerely,



Jeff Deatherage, P.E.
Chief of Water Supply

Attachments: Figure 1
 Tables 1 - 3
 August 1, 2015 Water Lease Agreement

cc: Steven J. Witte, Division 2 Engineer (via email)
 Bill Tyner, Division 2 Assistant Engineer (via email)
 Lonnie Spady, District 17 Water Commissioner (via email)
 Charlie DiDomenico, Augmentation Coordinator (via email)

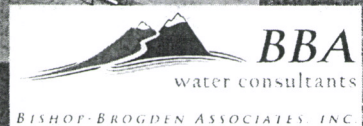


Mr. Paul Bruss
October 28, 2015
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
Rachel Zancanella, Water Resources Engineer (via email)
Kathy Trask, Water Information Team Leader (via email)
Division of Reclamation, Mining, and Safety
Jord Gertson, UAWCD

JD/crf: Rocky Ford East Pit M-77-560 2015-2016





Legend

-  Stream/Ditch
-  Valco Property Boundary (Approx.)

**Figure 1:
Valco, Inc.
Rocky Ford East Pit
General Location Map**

Date: 4/27/2015
Aerial Photo Date: 7/13/2013
Job No: 0518.00



TABLE 1
VALCO, INC.
SWSP PROJECTED DEPLETIONS SUMMARY (August 2015 - July 2016)

Annual Replacement Credits Summary (acre-feet)

Excess Canon City and Oil Creek Ditch Credits (Projected)	11.0
Rocky Ford Ditch Credits	25.72
UAWCD Water Lease	84.00
TOTAL Credits	120.76

Annual Depletions Summary

Pit	Well Permit	Total Exposure (acres)	Pre-1981 Exposure (acres)	Post-1980 Exposure (acres)	Evaporation Loss Rate (ft/yr)	Evaporation Loss (af/yr)	Total Unlagged Depletions (af)
-	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Rocky Ford East	52017-F	47.3	17.4	29.9	3.85	115.12	115.12

[1] State gravel pit well permit number.

[2] Total maximum exposed groundwater surface area for the accounting period.

[3] Pre-1981 exposed groundwater surface area.

[4] Post-1980 exposed groundwater surface area, [2] - [3].

[5] Evaporation rates from NOAA Technical Report NWS 33, including a 0.72 ft effective precipitation reduction.

[6] Evaporation loss, [4] * [5].

[7] Total Depletions, equal to [6] .

Table 2A
VALCO, INC.
SWSP ACCOUNTING PROJECTION
Rocky Ford East Pit
Projected Operations - August 2015 to July 2016
(all values in acre-feet unless otherwise indicated)

Month	Operations	Replacement Requirement			Ditch Credit Replacements			Replacement Requirement						Remaining Depletions (-)/Surplus Credit (+)
	Exposed Water Surface (ac)	Net Evaporative Depletions	Total Unlagged Depletions	Total Lagged Depletions	Rocky Ford Ditch CU Credit	CC&OC Ditch Transit Losses	Excess CC&OC Ditch CU Credit Avail	Remaining Replacement Requirement	Transit Loss Requirement	Required Release	UAWCD Requested Release	Transit Loss % Assessed on Release	Transit Loss Volume Assessed on Release	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
August 15	47.3	15.54	15.54	11.45	8.17	47.61%	4.31	1.02	0.02	1.04	1.04	2.00%	0.02	0.00
September 15	47.3	11.51	11.51	11.81	3.46	47.61%	2.27	7.16	0.15	7.30	7.30	2.00%	0.15	0.00
October 15	47.3	8.06	8.06	11.49	-0.70	47.61%	0.35	12.01	0.25	12.25	12.25	2.00%	0.25	0.00
November 15	47.3	4.60	4.60	10.71	-1.13	47.61%	0.00	11.84	0.24	12.08	12.08	2.00%	0.24	0.00
December 15	47.3	3.45	3.45	9.68	-1.08	47.61%	0.00	10.76	0.22	10.98	10.98	2.00%	0.22	0.00
January 16	47.3	3.45	3.45	8.74	-1.00	47.61%	0.00	9.74	0.20	9.94	9.94	2.00%	0.20	0.00
February 16	47.3	4.03	4.03	8.06	-0.93	47.61%	0.00	8.99	0.18	9.18	9.18	2.00%	0.18	0.00
March 16	47.3	6.33	6.33	7.68	-0.82	47.61%	0.00	8.50	0.17	8.67	8.67	2.00%	0.17	0.00
April 16	47.3	10.36	10.36	7.76	-0.10	47.61%	0.69	7.50	0.15	7.65	7.65	2.00%	0.15	0.00
May 16	47.3	13.81	13.81	8.39	2.58	47.61%	2.33	4.59	0.09	4.68	4.68	2.00%	0.09	0.00
June 16	47.3	16.69	16.69	9.38	7.47	47.61%	4.52	0.00	0.00	0.00	0.00	2.00%	0.00	0.46
July 16	47.3	17.27	17.27	10.51	9.80	47.61%	5.11	0.00	0.00	0.00	0.00	2.00%	0.00	1.97
Annual Total	-	115.12	115.12	115.66	25.72	-	19.59	82.11	1.68	83.78	83.78	-	1.68	2.43

Notes: Shaded months correspond with projection data, non-shaded months correspond with actual data.

[1] Total maximum exposed groundwater surface area in the pit.

[2] Required evaporative replacement based upon the following: Equals $([1] - 17.4 \text{ ac}) \times 3.85 \text{ ft} \times \text{monthly}\%$.

17.40 ac = pre-1981 exposed groundwater surface area (does not require augmentation)

3.85 feet = annual net evaporation rate at the site

[3] Total unlagged depletions requiring replacement. Equals [2]

[4] Total lagged depletion to the Arkansas River. Lagging method described in the SWSP renewal request, dated April 2015.

[5] Consumptive use credit from 2 Rocky Ford Ditch shares.

[6] River transit loss applied to excess Canon City and Oil Creek Ditch Credits that are used to augment depletions at Rocky Ford. Assumes 2.61% loss from Canon City East Pit to Pueblo Reservoir and 45% loss from Pueblo Reservoir to Rocky Ford East Pit.

[7] Excess Canon City and Oil Creek Ditch credits available for Rocky Ford site (before transit loss). Data obtained from Canon City East Pit accounting.

[8] Remaining replacement requirement equal to the maximum of $([4] - [5] - [7] \times (1 - [6]))$ and zero.

[9] Transit loss requirement for reservoir release to meet the remaining replacement requirement.

[10] Required release equals [8] + [9]

[11] Upper Arkansas Water Conservancy District scheduled release for Rocky Ford East Pit.

[12] Transit loss percent assessed on reservoir release during month.

[13] Transit loss volume of water assessed on reservoir release during month.

[14] Remaining Depletions (-) or Surplus Credit (+) after accounting for replacement sources. Equals $[5] + [7] \times (1 - [6]) + [11] - [4] - [13]$

Table 2B
VALCO, INC.
SWSP ACCOUNTING - DAILY SHEET
Rocky Ford East Pit
Sample Daily Accounting
(all values in acre-feet unless specified otherwise)

Call Information for Depletions to Arkansas River					Daily Unlagged Out-of-	Daily Lagged Out-of-	Rocky Ford Ditch Credits				Excess CU & OC Ditch Credits				UAWCD Lease Water		Net Impact to the River
Day of Month	Admin No	Call Location	Call on the River?	Priority Net Depletion	Priority Net Depletion	CU Credit Measured	CU Credit Used	Excess CU Credit	Return Flow Requirement	Available at Canon City East Pit	Transit Loss at	Available at Rocky Ford East Pit	Total Release	After Transit Loss			
-	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]				[12]	[13]	[14]		
1	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
2	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
3	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
4	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
5	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
6	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
7	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
8	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
9	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
10	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
11	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
12	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
13	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
14	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
15	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
16	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
17	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
18	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
19	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
20	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
21	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
22	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
23	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
24	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
25	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
26	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
27	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
28	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
29	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
30	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
31	Admin No	Call Location	Yes	0.50	0.37	0.26	0.26	0.00	0.00	0.14	47.61*	0.07	0.07	0.03	0.03	0.00	
Total	-	-	-	15.54	11.45	8.17	8.17	0.00	0.00	4.31	47.61*	2.03	2.26	1.04	1.02	0.00	

Notes

- [1], [2], [3] Call information gathered from CDSS for accounting month
- [4], [5] Unlagged out-of-priority depletions and lagged out-of-priority depletions equal to monthly amount in Table 2, distributed evenly on a daily basis
- [6] Total credit measured at Aurora's augmentation station
- [7] CU credits used is equal to the minimum of the CU credit measured and the lagged out of priority depletions on a monthly basis, distributed daily
- [8] Excess CU credit is equal to [6] - [7]
- [9] Return flow requirement attributable to the Rocky Ford Ditch credits. Equal to the monthly amount in Table 2, distributed evenly on a daily basis
- [12] Daily release of UAWCD lease water during the month
- [13] Daily deliveries of UAWCD lease water to Rocky Ford during the month after transit loss
- [14] Net impact to the river
- Transit Loss on UAWCD lease water: 2.00* From Lake Meredith under contract exchange

Table 3
VALCO, INC.
2013 SWSP
Lagging Factors

Rocky Ford East Pit			
Month	Factor	Month	Factor
1	2.47%	24	1.16%
2	13.42%	25	1.08%
3	12.16%	26	1.02%
4	8.61%	27	0.96%
5	6.39%	28	0.90%
6	5.01%	29	0.85%
7	4.14%	30	0.80%
8	3.57%	31	0.76%
9	3.17%	32	0.72%
10	2.87%	33	0.67%
11	2.64%	34	0.63%
12	2.44%	35	0.59%
13	2.28%	36	0.56%
14	2.14%	37	0.53%
15	2.00%	38	0.49%
16	1.87%	39	0.46%
17	1.77%	40	0.44%
18	1.66%	41	0.41%
19	1.56%	42	0.39%
20	1.47%	43	0.37%
21	1.38%	44	0.35%
22	1.30%	45	0.32%
23	1.22%	Total	100.00%

IDS-AWAS Inputs:	
Inputs	Rocky Ford
X (ft)	2975
W (ft)	7675
T (gpd/ft)	71000
S	0.2

Notes:

The lagging factors were normalized to the number of months required for 95% of the depletions to affect the river.

WATER LEASE AGREEMENT
(One year lease)

THIS AGREEMENT is entered into this 1st day of August, 2015, by and between VALCO INC. (hereinafter referred to as "Lessee"), whose address is 9296 Windhaven Drive, Parker, CO 80134, and the Upper Arkansas Water Conservancy District (ID No. 1975) through its water activity enterprise, known as Upper Arkansas Water Activity Enterprise (hereinafter referred to as "District"), whose address is P.O. Box 1090, Salida, Colorado, 81201.

RECITALS

A. Lessee needs a temporary supply of replacement water to meet out-of-priority depletions. Lessee desires for this water to be made available in the Arkansas River basin from the District's water supplies in Twin Lakes Reservoir, Pueblo Reservoir or from other District owned or controlled sources in order to meet the requirements of a court or administratively approved substitute supply plan, replacement plan, or similar plan for the replacement of out-of-priority depletions ("Lessee's Replacement Plan").

The location of the Lessee's operations is ("Place of Need"): Valco Rocky Ford Pit located in the N½, Section 22 and the NE ¼, Section 21, Township 23 South, Range 56 West of the 6th P.M.

B. The District owns, leases, or controls fully consumable water supplies from various sources, including but not limited to water attributable to shares of stock in Twin Lakes Reservoir and Canal Company (collectively "District Consumable Water").

C. Lessee desires to lease a portion of such water from the District for use in Lessee's Replacement Plan; and the District is willing to lease such water to Lessee under the terms and conditions hereof.

NOW, THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Lease of Water. Lessee shall lease from District, and District shall lease to Lessee, **84 acre-feet** of District Consumable Water. This amount shall be both the minimum and the maximum quantity of water to be paid for and delivered under this Lease. Lessee's failure to take delivery of its full leased amount of water shall not entitle Lessee to an extension of the terms of this lease.

2. Purpose. The water delivered pursuant to this Lease may be used by Lessee only to replace depletions pursuant to Lessee's Replacement Plan. District will cooperate with Lessee to identify the sources of the District's Consumable Water delivered pursuant to this Lease. Lessee shall be responsible for drafting any such plan, obtaining necessary approvals for any such plan, administration and accounting for any such plan, and for all costs associated with such plan.

3. Rental. In consideration of the water to be delivered under this Lease, Lessee shall pay District the following:

(a) a nonrefundable original application fee of [REDACTED] and

(b) a lease payment of [REDACTED] per acre foot ([REDACTED] as a per acre foot water fee and [REDACTED] per acre foot for annual storage, maintenance and administration fee);

for a total lease payment of [REDACTED] due and payable upon execution of this Lease.

4. Term. This Lease shall be effective for one calendar year commencing August 1, 2015 and continuing through July 31, 2016. The District shall not be responsible for delivering water to replace any depletions from Lessee's Replacement Plan, including any post-plan depletions after the term of this Lease.

5. Water. The water to be delivered pursuant to this Lease will be raw, untreated water from any one or a combination of sources available to the District. Once such water is delivered to Lessee pursuant to this Lease, Lessee shall have the right to recapture, reuse, and dispose of such water to its extinction. The District does not warrant and shall not be responsible for the quality of the water or the adequacy of such quality for any specific purpose.

6. Location of Delivery of Water. The District will deliver the leased water to the Arkansas River basin at a location or locations to be determined by the District. Although the District shall consult with Lessee and make reasonable attempts to deliver the leased water at a location or locations sufficient to meet the requirements of Lessee's Replacement Plan, the District does not warrant that the leased water can or will be delivered at a location sufficient for Lessee's Replacement Plan. If the leased water is from stored sources, the District may deliver it to the reservoir or at the outlet to the reservoir. If the leased water is not from storage, the District may deliver it at the location where such water flows into the stream. The District shall not be responsible for any diversion, measuring, or storage of the leased water after delivery of the water by the District.

7. Rate of Delivery of Water. The District shall deliver the leased water at times and rates to be determined by the District. Upon execution of this Lease, Lessee shall provide the District with a proposed monthly delivery schedule for the term of the Lease. The proposed delivery schedule shall include monthly totals in terms of acre-feet per month and maximum and minimum

daily rates in terms of acre-feet per day. Although the District shall make reasonable attempts to deliver the leased water at times and rates specified in the proposed schedule, the District does not warrant delivery of the leased water at times and rates sufficient for Lessee's Replacement Plan.

8. Determination of Water Availability by the District Board. The District Board allows surplus water to be leased to others on a temporary basis, such as this lease, until the same is needed by participants in the District's augmentation, substitute supply, or replacement plans. The extent to which surplus water is needed by participants in the District's plans is a fact to be determined by the District Board in the exercise of its reasonable discretion from time to time as occasion may require.

9. Interruption of Water Supply Beyond District Control. Both parties to this Lease recognize that the District's Consumable Water is variable in quantity for reasons beyond the control of the District. The District shall not be liable in tort or contract for any failure to accurately anticipate availability of water supply or because of an actual failure to supply water due to circumstances beyond the reasonable control of the District, including but not limited to act of God, strike, war, insurrection, or inability to serve arising out of the order of any court, or the lawful order of any governmental administrative body or agency clothed with authority to regulate matters pertaining to water, public utilities, public health or pollution control.

10. Emergency Water Limitations. The parties agree that from time to time emergency situations may require the District to limit leases of or the use of water leased from the District. The parties agree that the necessity for such limitation is a fact to be determined by the District in the exercise of its reasonable discretion from time to time, as occasion may require. The parties agree that the District may adopt such reasonable restrictions on the use of this leased water or priorities for curtailed use, as may be necessary to adapt to such emergency conditions, including limitations on Lessee's supplies pursuant to this Lease. The District shall not be liable in tort or contract for imposing such reasonable restrictions. In the event that the District is unable to deliver the leased water as specified in this Lease, then Lessee's payment for water shall be reduced or refunded in proportion to the amount of any reduction of deliveries by the District.

11. Not a Permanent Supply. The parties understand and agree that this Lease is not to be interpreted as any commitment on the part of the District to furnish water to Lessee on a permanent basis, but rather to assist Lessee in supplementing Lessee's own supplies by the leased water from the District for a temporary period.

12. Right to Object. The parties understand and agree that the District specifically reserves its right to object and may object to any Replacement Plan filed by Lessee to protect its interests in the water and this Agreement and to ensure compliance with applicable law, including the prevention of injury to other vested or conditional water rights, regardless of how Lessee uses the water.

13. Time of Essence/Remedies. Time is of the essence, and if any obligation created by this Lease is not performed by either party, then the nondefaulting party shall have all remedies available to it in law and equity.

14. This Lease may be assigned by Lessee only upon prior written consent of the District and at the District's sole discretion.

15. This Lease does not give Lessee any legal or equitable title in or to the water rights from which the water is derived or any water or water rights of the District. This Lease does not entitle Lessee to seek judicial approval of permanent commitment of or a change in the water rights from which the water is derived.

16. In the event of litigation regarding this Lease, the prevailing party shall be awarded its costs, including reasonable attorneys' fees.

17. This Lease shall be governed by the laws of the State of Colorado.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals on the day and year first above written.

UPPER ARKANSAS WATER CONSERVANCY DISTRICT, by and through its
UPPER ARKANSAS WATER ACTIVITY ENTERPRISE

By: Robert M. Senderhauf
Robert M. Senderhauf
Chairman of the Board of Directors

LESSEE: VALCO, INC.

By: Thomas E. Brubaker
Title President

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



Bill Ritter, Jr.
Governor

James B. Martin
Executive Director

Loretta E. Piñeda
Director

April 30, 2010

Valco, Inc.
P.O. Box 550
Rocky Ford, CO 810670000

RE: Mining Operations with Exposed Ground water

To Whom It May Concern:

The Division of Reclamation Mining and Safety is responsible for ensuring that Sand and Gravel mining operators comply with the requirements of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Act) and the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials (Rules). Among these requirements are provisions for the protection of water resources. The Act requires that reclamation plans must ensure minimization of disturbances to the prevailing hydrologic balance, including disturbances to the quantity of water in the area affected by mining and in the surrounding areas. § 34-32.5-116(4)(h). Rule 3.1.6(1)(a) requires compliance with Colorado water laws and regulations governing injury to existing water rights both during and after mining. Permits must specify how the permittee will comply with applicable Colorado water laws and regulations governing injury to existing water right rights. Rule 6.3.3(j); Rule 6.4.5(2)(c). After an extensive review, the Division determined that several operators may not have appropriate permit conditions to address certain reclamation liabilities arising from impacts to water resources.

In September 2009 the Division of Water Resources (DWR) updated its Guidelines for Sand and Gravel Pits. These guidelines provide guidance on achieving compliance with state law regarding replacement of depletions from sand and gravel mining, thus the guidelines provide a benchmark for the protection of hydrologic balance required under the Act and Rules. As noted in the Guidelines, sand and gravel operations which expose groundwater without complying with state law create a reclamation liability by impacting available groundwater.

State law requires that any person exposing ground water must obtain a well permit from the SEO pursuant to § 37-90-137(11). Because exposed groundwater results in out-of-priority water depletions, operations which expose ground water must also eventually obtain a water-court approved augmentation plan. Currently, several operators do not have either an augmentation plan or bonding to provide an alternative method to mitigate injurious stream depletions that result from mining-related exposure of ground water. The Division has a statutory duty to ensure that lands affected by mining are reclaimed in a manner that complies with state law and to ensure that operators have sufficient bonding to achieve reclamation. In order to assist operators in achieving compliance with these requirements, the Division proposes that, by April 30, 2011, operators should contact the Division and agree upon a plan for achieving compliance.

The Division has identified four approaches for operators:

1. File a financial warranty that will ensure backfilling of the pit to cover the exposed ground water to a depth of two feet above the static ground water level or,
2. Obtain a court approved augmentation plan prior to exposing ground water or,
3. File a financial warranty to cover the cost of installing a clay liner or slurry wall that meets the Division of Water Resources requirements for preventing ground water exposure or,
4. Obtain approval from the Division of Water Resources that acknowledges compliance with the SEO's requirements pursuant to § 37-90-137(11).

The Division will work with operators on an individual basis as they move to implement one of these plans. It is likely that options 1 and 3 will require the submittal of a technical revision or an amendment to the existing permit depending on the nature of the current mining and reclamation plan and the proposed changes. Increased financial warranties, as a result of these modifications, may be posted in a phased manner not to exceed three years. Amendments or revisions currently under review will be required to be approved by April 30, 2011 and may use the phased financial warranty approach described above. New applications going forward or presently under review by the Division will be required to meet the requirements of one of the options 1-4 at the time of application approval. Failure of affected operators to initiate contact with the Division and gain compliance as described above could result in an enforcement action being issued by the Division.

If you have any questions, please contact Tony Waldron at 303-866-3567, extension 8150.

cc: M1977559 Canon City East Pit
 M1977560 Rocky Ford East Pit
 M1977572 Lamar East Pit
 M1977222 Rocky Ford South Pit