STATE OF COLORADO

Gagnon - DNR, Nikie <nikie.gagnon@state.co.us>

Marcovich Mining Resource AR#1 Response

1 message

Ben Miller <ben@lewicki.biz> Tue, Oct 8, 2024 at 12:58 PM
To: "nikie.gagnon@state.co.us" <nikie.gagnon@state.co.us>, "jared.ebert@state.co.us" <jared.ebert@state.co.us>, Greg Geras <GregG@asphaltspecialties.com>, Cody Hunt <codyh@asphaltspecialties.com>

Ms. Gagnon and Mr. Ebert,

Please find the AR response at the following link. The cover letter and modified text have been attached and included in the folder.

https://www.dropbox.com/t/qgiGzUqlY0weooOx

A physical copy of the changes will be submitted to the County Clerk as well.

Regards,

Ben

Benjamin H. Miller, PhD

AusIMM Chartered Mining Professional (312991)

Quarry Manager Certificate (892-006132)

Qualified Person under NI43-101

Principal Consultant/Partner

Lewicki and Associates, PLLC

Autonomous Correct, LLC

(720)822-3258

2 attachments

Adequacy Response #1.pdf
381K

Marcovich Pit DRMS 240919 (AR1).pdf
1980K

Lewicki & Associates
ENGINEERING | GEOLOGY | ENVIRONMENTAL

September 20, 2024

Nikie Gagnon
Environmental Protection Specialist
DRMS Room 215
1001 E 62nd Ave
Denver, CO 80216

Marcovich Resource 112c Construction Materials Reclamation Permit Application

Ms. Gagon:

Please see our adequacy responses inline with your comments. The comments have been addressed in line as well as in the permit documents and maps.

Adequacy comments and responses:

- As required by Rule 1.6.2(d) and 1.6.5(2), please submit proof of publication in a newspaper of general circulation in the locality of the proposed mining operation. Proof of publication may consist of either a copy of the last newspaper publication, to include the date published, or a notarized statement from the paper.

Please see attached proof of publication.

- As required by Rule 1.6.2 (e), please submit Proof of Notice to all Owners of Record of the surface and mineral rights of the affected land and the Owners of Record of all land surface within 200 feet of the boundary of affected land. Proof of Notice may be by submitting return receipts of a Certified mailing or by proof of personal service.

Please see attached proof of mailing.

- The Division received comments from Colorado Parks and Wildlife, Weld County, and the Colorado Division of Water Resources. The comment letters are attached for your review. Please acknowledge and address the comments noted in the letters and make changes to the application/exhibits as necessary.

Colorado DWR – Stock ponds previously capturing water from the south have been blocked from capturing that water. Text in Exhibit D and H have been adjusted.

Colorado DWR – The gravel well permit and SWSP are included as additional required permits.

Colorado DWR – Ground water modeling is underway to determine impacts. This site is not surrounded by lined pits and it is not anticipated that the slurry wall will have impacts.

Colorado DWR – Well permit no. 124421 is associated with the home located on the property. It will not be utilized for the operation.

Colorado DNR Parks & Wildlife – Construction timing has been added to the mining timetable to avoid new ground disturbing activities between March 15 and October 31 or to complete a Burrowing Owl Survey. Wording has also been added to either avoid raptor nesting timing limitations from March 31 until July 31 or to perform a raptor survey prior to new ground disturbing activities.

Colorado DNR Parks & Wildlife – Mule deer impacts have been mitigated by committing to maintaining the riparian buffer and only mining in the areas disturbed by previous agricultural practices.

Colorado DNR Parks & Wildlife – No new fencing is planned with this application. If fencing associated with mining does occur onsite it will follow CPW guidelines.

Colorado DNR Parks & Wildlife – Noxious Weeds and re-seeding of the site are covered by the reclamation section of the permit.

Colorado DNR Parks & Wildlife – No tree replacement is planned due to the final reclamation land use. Minimal trees will be removed for mining as the riparian corridor will remain undisturbed.

Colorado DNR Parks & Wildlife – Wildlife escape ramps will be provided during the mining operation through the ramp used to access the pit floor.

Colorado DNR Parks & Wildlife – No retention ponds will be created with this site. Only a water storage pond will be created and designed to meet market expectations for water storage.

Colorado DNR Parks & Wildlife – Aquatic Species' impacts will be mitigated by the protection of the riparian cottonwood gallery.

Colorado DNR Parks & Wildlife – Mule Deer HPHs

Application Form

- Page 4, Question 12: The operator checked Rangeland for the primary future (post mining) land use. The Reclamation Plan (page E-1) states that "Marcovich Mining Resource will convert the site to a final land use of a water storage pond and rangeland." Table E-1 Reclamation Areas shows 26.7 acres of water storage pond and 12.1 acres of rangeland. Based on this estimate, please correct Page 4 of the application to select Developed Water Resources as the primary post mining land use. Additionally, please acknowledge that the operator will be required to submit an amendment application to change the post-mining land use from Developed Water Resources to Rangeland if the operator chooses to backfill all or a portion of the pit resulting in a change to the primary post mining land use. The Operator may also choose to submit an alternative reclamation plan and map with this application for review to allow for the option to backfill the site for a rangeland post mining land use. If the alternate plan is approved, the Operator would be required to submit a Technical Revision to change the reclamation plan from the primary to the alternate plan.

Please see the revised attached application form. The operator acknowledges that changing a post reclamation land use requires an amendment.

6.4.1 Exhibit A – Legal Description

- Adequate as submitted.

Legal Description of ROW along Hunt Brothers Properties Inc. to reach the Chavers Resource has been added.

6.4.2 Exhibit B – Index Map

- Adequate as submitted.

Hunt Brothers Properties, Inc. easement has been added to Exhibit B Index Map.

6.4.3 Exhibits C Pre-mining & Mining Plan Map(s) of Affected Lands:

- The C-1 Access map shows the haul road within the permit area, but it is not included in the affected area boundary. Please revise the map to depict the haul road within the affected area boundary and ensure the affected acres described in the introduction includes the haul road.

Please see the revised C-1 map. The affected area boundary has been modified.

- The C-1 Access map depicts an existing gravel trail north of the Chavers Mining Resource site (mine permit no. M2015030) and south of the proposed easement on Ogilvie Ken Living Trust land (parcel 147118000066). According to Weld County assessor data, this gravel trail is on land owned by the Hunt Brothers Properties (parcel 147118000084. This trail is not within the permitted acres for the Chavers Mining Resource site. The Mine Plan states that the Marcovich Mining Resource will be accessed via two 40-foot easements crossing agricultural land on Ogilvie and Sakata Land from the Chavers site, but the map doesn't depict an easement on the Hunt Brothers parcel. Additionally, the applicant proposes to construct a two-lane graveled road through the easements. Will the gravel trail on Hunt Brothers Properties be substantially upgraded to a two-lane gravel road for the mining operation?

Please see the revised C-1 map. The affected area and permit boundaries have been modified to connect the Chavers Resource affected area and Marcovich Resource permit boundaries.

6.4.4 Exhibit D – Mining Plan:

- The Mining Plan states that stockpiles must be below the elevation of the baseline conditions because the site is nearly entirely within the South Platte floodplain. Therefore, topsoil will be stored in designated stockpiles on the pit floor in the northeast corner of the pit, as shown on the C-3 Mine Plan map. Exhibit G, Item 3, states that in the event of flooding at the site,
  equipment from the active mining floor will be removed and the pit will be allowed to fill with water. Per Rule 3.1.9, topsoil stockpiles shall be stored in places and configurations to minimize erosion and located in areas where disturbance by ongoing mining operations will be minimized. Please describe how topsoil stored on the pit floor will be protected from water erosion from storms and flooding, and disturbance from the mining operations.

Please see revised Map C-3. Topsoil stockpiles have been placed on the far east side of the permit area to remove this issue.

- The Mining Plan states that backfill materials may be hauled back to the site from the Chavers Mining Resource. Per Rule 3.1.5(g), an operator may backfill structural fill material generated within the MLRB permitted area into an excavated pit within the permit area as provided for in the MLRB Permit. However, if an operator intends to

backfill inert structural fill generated outside of the approved permit area, it the Operator's responsibility to provide the Office notice of any proposed backfill activity not identified in the approved reclamation plan. Please acknowledge that an inert fill application will be required if backfill is imported to the site.

The operator intends to import backfill material under the same process as the Chavers Resource utilizing the import documents and processes as already approved.

- During the pre-operation inspection, the Division and Operator observed the active floodplain adjacent to the South Platte River and a Cottonwood canopy area within the 25-year return interval of the floodplain along the entire western edge of the permit area. The Operator indicated these areas will be avoided during mining and reclamation. This zone is shown on the Mining plan as outside the affected area. Please discuss these two buffer zones in Exhibit D and state how the area will be protected from disturbance from mining operations.

Please see the modified Exhibit D with the following changes:

"The affected area boundary avoids the active South Platte River channel and riparian buffer along the river except for inlet/outlet control structures. The affected area boundary will be signed to prevent disturbance outside that area."

Exhibit E – Reclamation Plan (Rule 6.4.5):

- As noted above in Item #4, the Operator may choose to submit an alternative reclamation plan and map with this application for review to allow for the option to backfill the site for a rangeland post mining land use. If the alternate plan is approved, the Operator would be required to submit a Technical Revision to change the reclamation plan from the primary to the alternate plan. Please submit the alternate reclamation plan in Exhibit E or acknowledge that an amendment application and inert fill application will need to be submitted prior to backfilling the pit.

The operator acknowledges that an amendment application will need to be submitted prior to completely backfilling the pit, however final water surface area may vary based on geologic conditions and rate of import. This can be seen in both the text and the reclamation map. The site will be utilizing the same import of materials process as the Chavers Resource.

- Please update Table E-1 to show the final land use for the haul road that will remain after reclamation.

Please see the updated Table E-1 in Exhibit E.

Exhibit F – Reclamation Plan Map (Rule 6.4.6):

- Please submit a map depicting the proposed reclamation (topography with contour lines and final land use) of the entire haul road between Marcovich and the Chavers site.

Post mine land use will remain the same as the pre-mine land use of the access road. After mining has been completed, the improved access road will remain for use by the landowners. Please see the revised maps for contours along the access road.

Exhibit G – Water Information (Rule 6.4.7):

- During the pre-operation inspection, the Operator discussed pumping water from the pit into a pond on in the northwestern portion of the permit area. According to the July 19, 2024 comment letter from Division of Water Resources (DWR), irrigation tailwater may be illegally being collected and used for livestock and the applicant may need to have a long-term SWSP or permanent augmentation plan even after reclamation if the reservoir will collect
  stormwater runoff. Per Rule 3.1.6, please explain this comment and state how the operation will be in compliance with the applicable Colorado water laws and regulations governing injury to existing water rights.

Please see the attached series of photos depicting the history of the pond on the site. The pond is the remanent of a gravel pit that operated from 1960's until being captured by the river in the late 1970's. Central Colorado Water Conservancy District (CCWCD) installed augmentation wells east of Highway 85 that discharged into a ditch, flowed underneath the highway and into the pond in question. In 2009, CCWCD was ordered to cease and desist from pumping those wells. The ditch has remained abandoned since those orders. Billy Mihelich, PE, the district engineer authorized the ditch be removed by the mining. The mine's intent is to utilize the pond as a discharge point for dewatering activities to prevent potential for erosion at the discharge point. Historic aerial photos have been attached to demonstrate that the pond was part of a historic gravel pit.

- According to the Review of Aquatic Resources in the project area, provided by

GeosUAS (Exhibit J), the pond in the northwest corner of the site is a shallow groundwater pond connected to the South Platte River. Additionally, the pond receives supplemental irrigation water. Figure 3 in the report proposes that the pond is potentially jurisdictional and should be avoided. The Mine Plan proposes to utilize this pond as a settling basin. Per Rule 3.1.6(1)(c) please provide documentation on whether a USACE 404 permit is required and update the Mine Plan to state an alternative to dewatering the pit until the appropriate approval is obtained.

Text has been updated in the mining plan to reflect better wording. The pond no longer receives irrigation water. A dewatering sump will be constructed within the pit to allow for sediment to settle. Only water passing discharge standards will be pumped to the discharge point. The described activity is neither the discharge or placement of dredged or fill material, therefore, a USACE 404 permit is not necessary. Colorado HB 24-1379: Regulate Dredge & Fill Activities in State Waters was also checked for consistency and whether a separate application would be needed. No permit is required under HB 24-1379 nor the Clean Water Policy 17 based on the same conditions as the USACE 404. See the revised Map C-3 for the proposed discharge configuration.

- Per Rule 3.1.7(b)(i) the Operator shall include a map that accurately locates all proposed groundwater sample points and any locations that are proposed as points of compliance. The C-2 Baseline maps faintly depict the wells within 600 feet of the permit boundary but does not indicate which locations are associated with the monitoring well data for MW-1 and MW-2. Please revise the map to show the monitoring well locations in a more visible color and label the monitoring wells and points of compliance. Additionally, please note, the Division's Groundwater Guidance document states that a minimum of three groundwater data points are needed to establish groundwater flow direction across the site.

Please see the revised C-2 map with improved labeling. Two additional wells have been added to the monitoring plan. Those wells are also shown on the map. Visibility has been improved on the maps.

- The Applicant has identified six groundwater wells within 600 feet of the proposed permit area. Page G-5, Section 7 states that groundwater quality data was gathered and the data and discussion can be seen in Appendix G-2. Appendix G-2 does not contain a discussion or a Groundwater Quality Monitoring Plan. Pursuant to Rule 3.1.6(1), please describe the anticipated effects to the wells and specify how the Operator will avoid disturbances to the quantity and quality of groundwater during and after the mining operation.

Please see the GQMP provided by ASCI.

- Appendix G-2 Groundwater Quality Monitoring Plan is incomplete with respect to Rule 3.1.7(b) and the DRMS Groundwater Monitoring: Sampling and Analysis Plan Guidance for Construction Materials and Hard Rock Sites. Please review the Guidance document (attached) and submit all the required information listed in Per Rule 3.1.7(b), including well construction diagrams, method of monitoring well completion, method of sampling, frequency of sampling, quality control and assurance methods, and potential sources of groundwater contamination.

Please see the GQMP provided by ASCI.

- The application includes only a cover page for Appendix G-3 Groundwater Model. Please submit the appendix for review.

Please see the GQMP provided by ASCI.

Exhibit H – Wildlife Information (Rule 6.4.8):

- During the pre-operation inspection, the Division observed prairie dog colonies on site. Please update Exhibit H and the Mining Timetable in Exhibit D to address the comments from CPW, specifically wildlife surveys, timing stipulations for burrowing owls, and avoidance of the riparian zone adjacent to the South Platte to protect wildlife corridors in the Cottonwood canopy area within the floodplain.

Timing limitation language has been added to Exhibit H.

Exhibit I – Soils Information (Rule 6.4.9)

- Adequate as submitted.

Exhibit J – Vegetation Information (Rule 6.4.10)

- Adequate as submitted.

Exhibit K – Climate (Rule 6.4.11)

- Adequate as submitted.

Exhibit M – Other Permits and Licenses (Rule 6.4.13)

- Please update the list of permits to include a USACE 404 permit, if required.

A USACE 404 Permit is not required. The described activity is neither the discharge or placement of dredged or fill material, therefore, a USACE 404 permit is not necessary. Colorado HB 24-1379: Regulate Dredge & Fill Activities in State Waters was also checked for consistency and whether a separate application would be needed. No permit is required under HB 24-1379 nor the Clean Water Policy 17 based on the same conditions as the USACE 404.

Exhibit N – Source of Legal Right to Enter (Rule 6.4.14)

- Please submit evidence of a Legal Right to Enter for the parcels owned by Hunt Brothers Properties, Ogilvie Ken Living Trust and Sakata Land Co. associated with the construction and use of the gravel road for hauling material from Marcovich to the Chavers Mining

Please see the attached Legal Right to Enter documents for the above referenced owners.

- The signed Legal Right to Enter between Asphalt Specialties and Jerry and Adam Marcovich refers to an attachment. Please submit the referenced Quit Claim Deed.

Please see the attachment for the Legal Right to Enter.

Exhibit O – Owner(s) of Record of Affected Land (Surface Area) and Owners of Substance to be Mined (Rule 6.4.16)

- Please update Exhibit O to list all landowners of affected land including the haul road that will be constructed between the Markovich and Chavers mine sites.

Please see the revised Exhibit O that now includes Hunt Brothers Properties, Properties, Ogilvie Ken Living Trust and Sakata Land Co.

Exhibit P – Municipalities within Two Miles (Rule 6.4.17)

- Adequate as submitted.

Exhibit Q - Proof of Mailing of Notices to County Commissioners and Soil Conservation District (Rule 6.4.17):

- Per Rule 1.6.2 the Applicant shall send a notice, on a form approved by the Board, to the local Board of County Commissioners Soil Conservation District. The applicant provided evidence of a certified mailing (receipts) to the Weld County Commissioners and the Platte Valley Conservation District; however, the applicant did not submit evidence that a form approved by the Board (page 9 of the 112c application) was sent to each entity. Please provide a copy of the notices that were sent.

Please see the attached notice forms

Exhibit R – Proof of Filing with County Clerk and Recorder (Rule 6.4.18):

- Adequate as submitted.

Exhibit S – Permanent Man-Made Structures (Rule 6.4.19):

- In accordance with Rule 6.4.19, when mining operations will adversely affect the stability of any significant, valuable and permanent man-made structure located within 200 feet of the affected area the applicant shall provide a notarized agreement between the applicant and the person(s) having an interest in the structure, that the applicant is to provide compensation for any damage to the structure. The Division acknowledges that the applicant provided an engineering evaluation in Exhibit S, which is an option under Rule 6.4.19 when such a structure agreement cannot be reached. However, please provide evidence that a structure agreement was pursued for with each of structure owners listed in Table S-1 and submit the signed/notarized structure agreements to the Division.

Aurora and CDOT have returned signed structure agreements. The remaining have been mailed structure agreements but have not returned the agreements.

Regards,

Benjamin Miller, PhD.
Lewicki & Associates, PLLC
(720) 842- 5321
ben@lewicki.biz

PUBLIC NOTICE

Asphalt Specialties Co. Inc, 345 W 62nd St, Denver, Colorado 80216, (303) 289-8555, has filed an application for a Construction Materials (112c) Reclamation Permit with the Colorado Mined Land Reclamation Board under provisions of the Colorado Mined Land Reclamation Act. The proposed mine is known as Marcovich Mining Resource, and is located at or near Section 7, Township 1 North, Range 66 West, on the 6th Prime Meridian.

The proposed date of commencement is January 2025, and the proposed date of completion is June 2032. The proposed future use of the land is rangeland. Additional information and tentative decision date may be obtained from the Division of Reclamation, Mining, and Safety, 1313 Sherman Street, Room 215, Denver, Colorado 80203, (303) 866-3567, or at the Weld County Clerk & Recorder's Office, 1250 H St, Greeley, Colorado 80631, or the above-named applicant. A complete copy of the application is available at the above-named County Clerk and Recorder's office and at the Division's office.

Comments concerning the application and exhibits must be in writing and must be received by the Division of Reclamation, Mining, and Safety by 4:00 p.m., 20 days after the last publication of this notice.

Please note that under the provisions of C.R.S. 34-32-101 et seq. Comments related to noise, truck traffic, hours of operation, visual impacts, effects on property values and other social or economic concerns are issues not subject to this Office's jurisdiction. These subjects, and similar ones, are typically addressed by your local governments, rather than the Division of Reclamation, Mining, and Safety or the Mined Land Reclamation Board.
Published: Greeley Tribune July 24, 31, August 7, 14, 2024-2065780

Prairie Mountain Media, LLC

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County of Weld
State of Colorado

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Melissa Najera
Signature

Subscribed and sworn to me before me this
14th **day of** August, 2024.

Shayla Najera
Notary Public

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heodore Shipman Living Trust
301 E Prentice Ave Ste 100
Greenwood Vlg CO 80111-2904

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Hunt Brothers Properties Inc
10100 Dallas St
Commerce City CO 80640-8491

9490 9118 9956 4520 5618 01

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Dan Nelson

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Brighton CO 80603-9334

9490 9118 9956 4520 5624 02

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Sakata Land Co
PO Box 508
Brighton CO 80601-0508

9490 9118 9956 4520 5268 62

2. Article Number (Transfer from service label)
9414 7118 9956 4520 5268 51

PS Form 3811 Facsimile, July 2015 (SDC 3930)

COMPLETE THIS SECTION ON DELIVERY

A. Signature: (☐ Addressee or ☑ Agent)
X Joanna Sakata

B. Received By: (Printed Name)
Joanna Sakata

C. Date of Delivery
JUL 24 2024

D. Is delivery address different from item 1? ☐ Yes
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1. Article Addressed to:

Caw Equities LLC
8301 E Prentice Ave Ste 100
Greenwood Vlg CO 80111-2904

9490 9118 9956 4520 5741 22

2. Article Number (Transfer from service label)
9414 7118 9956 4520 5741 66

S Form 3811 Facsimile, July 2015 (SDC 3930)

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A. Signature: (☐ Addressee or ☑ Agent)
X Oscar Colmenero

B. Received By: (Printed Name)
Oscar Colmenero

C. Date of Delivery
7/24/24

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1. Article Addressed to:

Ken Ogilive Living Trust
4620 Us Highway 85
Fort Lupton CO 80621-8316

9490 3118 9956 4520 5508 29

2. Article Number (Transfer from service label)
9414 7118 9956 4520 5508 63

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X

B. Received By: (Printed Name)

C. Date of Delivery
7.24.24

D. Is delivery address different from item 1? ☐ Yes
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1. Article Addressed to:

Lawrence Scott
1165 S Denver Ave
Fort Lupton CO 80621-8373

9490 9118 9956 4520 5200 99

2. Article Number (Transfer from service label)
9414 7118 9956 4520 5200 02

PS Form 3811 Facsimile, July 2015 (SDC 3930)

COMPLETE THIS SECTION ON DELIVERY

A. Signature: (☐ Addressee or ☐ Agent)

X [signature] 22 JUL 2024

B. Received By: (Printed Name) [illegible]

C. Date of Delivery
JUL 27 2024

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DENVER CO 8
FORT LUPTON CO
80621

3. Service Type

☑ Certified Mail®

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- Ensure items 1, 2, and 3 are completed.
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1. Article Addressed to:

Elizabeth Ann Wethington
254 Donna St
Fort Lupton CO 80621-1284

9490 9118 9956 4520 5997 67

2. Article Number (Transfer from service label)
9414 7118 9956 4520 5997 56

PS Form 3811 Facsimile, July 2015 (SDC 3930)

COMPLETE THIS SECTION ON DELIVERY

A. Signature: (☐ Addressee or ☐ Agent)

X [signature]

B. Received By: (Printed Name)
JoEllen Hoffman

C. Date of Delivery
JUL 25 2024

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DENVER CO 8
FORT LUPTON CO
80621

3. Service Type

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Domestic Return Receipt

12. **Primary future (Post-mining) land use (check one)**:

☐ Cropland(CR)	☐ Pastureland(PL)	☐ General Agriculture(GA)
☐ Rangeland(RL)	☐ Forestry(FR)	☐ Wildlife Habitat(WL)
☐ Residential(RS)	☐ Recreation(RC)	☐ Industrial/Commercial(IC)
☑ Developed Water Resources(WR)		☐ Solid Waste Disposal(WD)

13. **Primary present land use (check one)**:

☐ Cropland(CR)	☐ Pastureland(PL)	☑ General Agriculture(GA)
☐ Rangeland(RL)	☐ Forestry(FR)	☐ Wildlife Habitat(WL)
☐ Residential(RS)	☐ Recreation(RC)	☐ Industrial/Commercial(IC)
☐ Developed Water Resources(WR)		

14. **Method of Mining**: Briefly explain mining method (e.g. truck/shovel): loaders, dozers and haul trucks

15. **On Site Processing**: ☐ Crushing/Screening

13.1 Briefly explain mining method (e.g. truck/shovel): _____

List any designated chemicals or acid-producing materials to be used or stored within permit area: _____

16. **Description of Amendment or Conversion**:

If you are amending or converting an existing operation, provide a brief narrative describing the proposed change(s).

Marcovich Mining Resource

112c Colorado Division of Reclamation, Mining, and Safety Construction Material Regular Operation Application

May 2024

By:

Asphalt Specialties Co., Inc.

Represented by:

Lewicki & Associates

Table of Contents

INTRODUCTION

The proposed Marcovich Mining Resource is located just west of U.S. Highway 85 and southwest of the city limits of Fort Lupton in Weld County, CO. The property is bound by the South Platte River to the west. Asphalt Specialties Co., Inc. (Asphalt Specialties) is both the permittee and operator of the proposed aggregate mining operation. The site contains a group of agricultural fields, a residence, stock watering ponds, and agriculture related buildings. Mining access to the site will be via an easement across the agricultural parcel to the south and into the Asphalt Specialties Chavers Mining Resource (M-2015-030).

Asphalt Specialties is proposing that the site be converted to a gravel pit to feed raw materials to their processing and sales point at the Chavers Mining Resource. The permit area of this operation will be 57.28 acres. The affected area from mining will be 44.2 acres. Reclamation will convert the site to water storage ponds surrounded by rangeland. A portion of the ponds may be refilled based on market conditions for inert fill disposal.

The proposed operation at the Marcovich Mining Resource will consist of mining sand and gravel, then transporting material to the Chavers Mining Resource. Processing of the extracted materials at the Chavers Mining Resource will include crushing, screening, washing, and the use of concrete and asphalt plants.

EXHIBIT A LEGAL DESCRIPTION

The site is located southwest of the City of Fort Lupton in Weld County, Colorado. The legal boundary is shown on Map C-1 which is included in Exhibit C. A general location map is shown in Exhibit B which indicates the mine entrance coordinates.

The Marcovich Mining Resource is located southwest of Fort Lupton in Weld County, CO in part of the Northeast ¼ of the Northwest ¼ of Section 7, Township 1 North, Range 66 West, of the 6th Principal Meridian (PM). The legal description of mining portion of the permit area is as follows:

Beginning at the Northwest Corner of the Northeastern Quarter of the Southwestern Quarter of Section 7 Township 1 North, Range 66 West of the 6th Principal Meridian;

Thence, a x a distance of x feet to the point of beginning;

Thence, N48° 50' 10.07"E a distance of 247.23 feet;

Thence, N88° 51' 55.21"E a distance of 902.63 feet;

Thence, N89° 33' 30.91"E a distance of 344.14 feet;

Thence S03° 14' 49.41"W a distance of 1533.69 feet;

Thence N89° 30' 23.42"W a distance of 220.05 feet;

Thence S89° 38' 26.79"W a distance of 85.25 feet;

Thence S89° 14' 25.14"W a distance of 1259.23 feet;

Thence N00° 21' 25.96"W a distance of 1165.87 feet to the point of beginning.

The mining portion of the permit area contains 54.65 acres more or less.

Three temporary easements have been granted to the operation to cross the Sakata Farms Inc., Ogilvie, and Hunt Brothers Properties, Inc. properties. All easements are 40 feet wide. The Sakata easement is 1,160 feet long for a total of 1.07 acres. The Ogilvie easement is 1,100 feet long for a total of 1.01 acres. The Hunt Brothers Properties, Inc. easement is 600 feet long for a total of 0.55 acres. Therefore, the total permit acreage is 57.28 acres. The easement documentation is attached to this section.

EXHIBIT B INDEX MAP

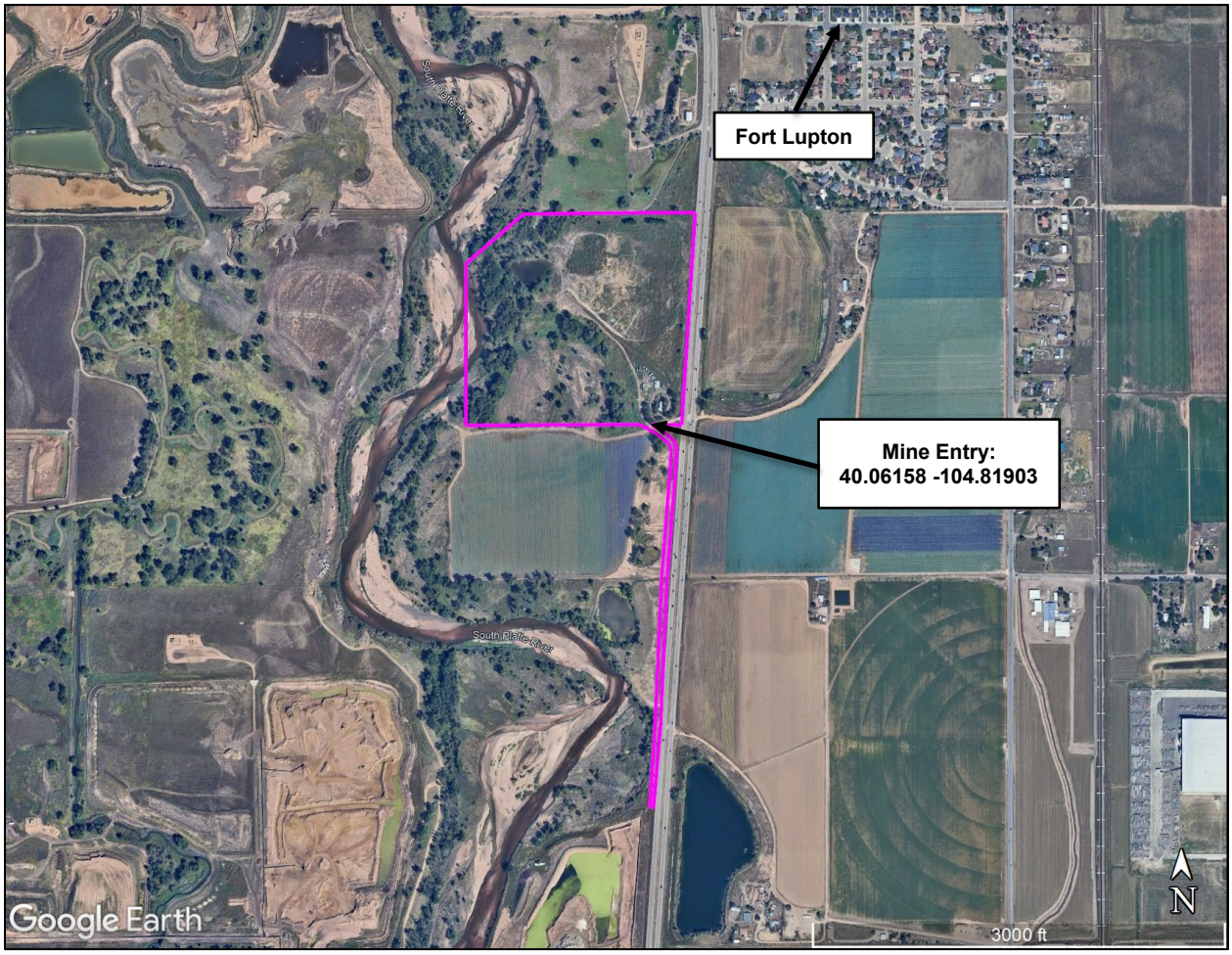


EXHIBIT C PREMINE AND MINE PLAN MAPS

Map C-1 Access Road

Map C-2 Current Conditions

Map C-3 Mining Plan

Map C-4 Cross Sections

EXHIBIT D MINING PLAN

1. General Mining Plan

The property boundary has been surveyed. Map C-3 outlines the mining plan including the affected area of 44.2-acre. Sand and gravel will be extracted for use in construction materials such as crushed rock, sand, washed rock, concrete, and asphalt. There is also the possibility of incidental fill dirt production.

Access to the mine will be through a new road constructed between the current site and Chavers Mining Resource (M-2015-030). This road has been included in the legal description. The access road has been specifically designed to accommodate mine traffic, with all necessary earthwork for road improvement completed before mining begins.

To prevent groundwater infiltration into the pit and facilitate water storage, a slurry wall will be installed around the mining area. Just outside the slurry wall boundary lies the affect area boundary. The affected area boundary avoids the active South Platte River channel and riparian buffer along the river except for inlet/outlet control structures. The affected area boundary will be signed to prevent disturbance outside that area.

Dozers and scrapers will strip topsoil and overburden from mining areas, storing them in designated stockpiles. Any stockpile remaining for over 90 days will be seeded to prevent erosion. During pre-mine stripping, all existing buildings, except the manufactured home and garages, will be demolished, and debris will be entirely removed from the site. Sand and gravel extraction will involve loaders, excavators, dozers, and trucks, with material transported to Chavers Mining Resource for processing. Backfill materials may be hauled back to this site from the Chavers Mining Resource. While haul trucks are currently anticipated, there is potential for replacement by a conveyor belt in the future.

The sand and gravel deposit, averaging 20-23 feet in thickness, will be mined progressively from north to south. Mining and reclamation will occur simultaneously to minimize overall disturbance. There is ample on-site topsoil and overburden for successful reclamation, transforming the site into water storage ponds surrounded by rangeland. The reclamation process will involve backfilling, regrading, topsoiling, and revegetation. Some or all of the water storage pond may be filled based on market demands for inert fill disposal.

Mining will extend to the bottom of the gravel deposit, maintaining final mining slopes at 1.5H:1V along the perimeter. The active highwall will have a near-vertical slope, progressing halfway down the final mining slope to enable the dozer to knock down the remaining highwall, creating the completed mining slope. Slopes will then be backfilled with sand or overburden to achieve the reclaimed 3H:1V slopes, with specific slope details available on Map C-4 cross sections.

No blasting will occur at the Marcovich Mining Resource. If refuse, acid, or toxic materials are unexpectedly encountered, these materials will be removed from the site and disposed of appropriately.

2. Mining Timetable

Mining operations at the Marcovich Mining Resource are expected to take approximately 7.3 years to complete, based on an annual average production of 700,000 tons. Actual production rates will fluctuate based on market conditions. An approximate mining timetable based on this production and the phased mining plan is shown in Table D-1.

Table D-1 Mining Timetable

Description	Time Required
Construction of access road and slurry wall.	2 months
Initial stripping of Northern Phase.	1 month
Mine and reclaim Northern Phase according to approved plans. Reclamation occurs as mining has reached its maximum extents in an area.	3 years
Initial stripping of Southern Phase.	1 month
Mine and reclaim Southern Phase according to approved plans. Reclamation occurs as mining has reached its maximum extents in an area.	3 years
Total	7.3 years

3. Mine Facilities and Operation

The site will contain the following facilities and equipment:

Facilities:

- Portable toilet
- Mine office (portable)
- Portable fuel storage

Equipment:

- Front-end loaders
- Bulldozers
- Scrapers
- Haul trucks (off highway)
- Water trucks
- Graders
- Excavators
- Conveyors

Asphalt Specialties will provide portable toilets and bottled water to employees on site during operations. Any fuel stored on site will have full secondary containment that can carry 110% of the fuel tank volume. All facilities will be removed during reclamation.

4. Topsoil and Overburden Handling

Topsoil averages 0.5-1.5 feet, averaging 1 foot, overlying 2.5 feet of overburden. Topsoil and overburden will be stripped with appropriate earthmoving equipment as deemed suitable for the operation such as front-end loaders, dozers, excavators, and water trucks. Topsoil and overburden will be stockpiled separately onsite in either designated stockpiles, berms, or directly placed to create final reclamation slopes. Stockpiles must be below the elevation of the baseline conditions because the site is nearly entirely within the floodplain. The very first portion of stripping will be hauled from Marcovich to Chavers. After that stripped materials will be directly placed into reclamation or stockpiled on the pit floor. These materials will be directly placed in the designated stockpile areas or berms which can be seen on Map C-3. Stockpiles to be in place longer than 90 days will be seeded with the permanent seed mix to prevent erosion (see Exhibit E for seed mix). An average of one feet of topsoil and 2.5 feet of overburden were assumed to determine the overall material balance shown in Table D-2.

Table D-2 Topsoil and Overburden Material Generated During Mining

	Stripping Area (ac)	Material Generated (CY)
Topsoil	32.1	51,870
Overburden	32.1	129,680

Due to the reclaimed land use as water storage ponds, there will be an excess of topsoil than what is needed for reclamation. This is because the pond makes up the majority of the reclaimed land and does not need to be topsoiled entirely. There is not enough overburden to meet reclamation needs by itself, however, with excess topsoil and potential sand, there is more than enough material on site for reclamation. Excess topsoil and overburden will be used to achieve the final grading shown in the reclamation map in Exhibit F. Overburden, topsoil, and sand will be used to backfill mining slopes to their final reclaimed state. Topsoil will be replaced on all disturbances outside of the ponds and on the pond slopes. It will not be replaced on the pond floor. Topsoil will be replaced in an average two-foot layer to restore the existing soil conditions. Details pertaining to reclamation can be found in Exhibit E and the maps in Exhibit F.

5. Site Access

The Marcovich Mining Resource will be accessed via two easements to cross agricultural land to the active Chavers Mining Resource. A 40-foot wide easement has been granted to the operator. A two lane graveled road will be constructed. This road will remain in place after mining is completed. Easements are shown on map C-1.

6. Water Information, Rights, and Augmentation

All water right issues such as availability of water for this operation, consumption rates, dust control, etc. are presented in Exhibit G – Water Information.

7. Schedule of Operations

Mining operations will occur as dictated by demand with an average annual production of 700,000 tons. Mining, screening, and processing will be conducted on site with portable equipment throughout the year. The operator will not have night gravel mining operations, although minor truck activity and repairs may occur after hours.

8. Weld County Impacts and Environmental Impacts

All potential county impacts and concerns are addressed in the Weld County Use by Special Review.

EXHIBIT E RECLAMATION PLAN

1. General Reclamation Plan

The total affected area to be reclaimed under this permit is 44.2 acres out of the 57.28-acre permit area. Reclamation of the Marcovich Mining Resource will convert the site to a final land use of a water storage pond and rangeland. Reclamation will occur concurrently with mining. Final reclamation will be completed after mining has finished. The pre-mine land use is predominantly agriculture with one residence. Surroundings land uses include agriculture, open space, and mining. Pursuant to Rule 6.4.5.2(b), the applicant evaluated the post-mine land use in regard to adopted state and local land use plans for this area and adjacent land uses. The proposed post-mine land use of water storage ponds and rangeland is compatible with the general agricultural character of the area. Table E-1 below summarizes the anticipated final land uses within the affected area upon completion of reclamation. The distribution of rangeland and water storage pond may vary based on the market demand for inert backfill storage.

Table E-1 Reclamation Areas

Description	Area (Acres)
Rangeland	12.1
Water Storage Pond	26.7
Access Roads/Easements	2.63
Disturbed Area Total	41.4
Undisturbed Area	15.8
Total Affected Area	**57.28**

Reclamation will occur concurrently as mining progresses. No more than 1,000 feet of highwall will be unreclaimed at a time. Mining slopes will be backfilled and graded to a maximum 3H:1V slope. The slopes will then be compacted for stabilization and to prevent erosion. All portable facilities and equipment will be removed from the area. All berms will be flattened. The slurry wall will remain during and after reclamation. The pond slopes and any other surrounding disturbances will be topsoiled and seeded for revegetation. Topsoil will be replaced in a two-foot layer to restore the current soil profile. Revegetation will be completed using a native seed mix recommended by the Natural Resource Conservation Service. Revegetation efforts will be monitored following reclamation. The pit will be used for freshwater storage after it has been fully reclaimed and revegetated.

There will be more than enough material stockpiled from on-site materials to fulfill reclamation needs as the groundwater lake takes up the majority of the reclamation area. Table E-2 shows the volumes of topsoil and overburden required for reclamation and the material volumes that will be stripped and stockpiled. As shown, there is an excess of topsoil that is stripped versus what is required for reclamation. The stripped overburden does not meet the amount required for backfilling the pits. However, there will be an excess of topsoil and sand that will be more

than enough to meet these requirements. These calculations were made assuming that the site has a uniform one foot of topsoil and 2.5 feet of overburden across all areas. Sand volumes were not calculated as detailed information on their location and thickness were not obtained. No sand volume is assumed for the reclamation volume balance calculations, however, sand is very likely to be encountered. Any sand encountered will either be sold or used to augment the overburden for backfill. Topsoil will be replaced in an average two-foot layer across all non-pond disturbances, while overburden and other excess material will be used to backfill the pit slopes from 1.5H:1V to 3H:1V.

Table E-2 Reclamation Volumes

		Material Available on Site		Requirements for Reclamation	
Reclamation Area	Area (acres)	Topsoil Stripped (CY)	Overburden Stripped (CY)	Topsoil Required (CY)	Overburden Backfill Required (CY)
Mining Area & Surroundings	32.2	51,870	129,680	30,300	109,278

Excess material will be used for backfilling slopes. Sand that may be encountered will be used for backfilling or will be sold. Asphalt Specialties will keep the minimum amount of material (topsoil, overburden, and potentially sand) required for reclamation throughout the entire mine life.

Based on market demand, a portion or all of the area within the slurry wall may be backfilled. If the site is completely or partially backfilled the amount of area reclaimed as dry rangeland will increase. The operator will ensure that material is clean and uncontaminated. They will utilize the same forms as the Chavers Resource because the Chavers resource will act as the processing and sales point for the Marcovich site.

2. Topsoil Replacement

An average of one foot of topsoil will be stripped and stockpiled prior to mining. After backfilling and grading has been completed during reclamation, topsoil will be replaced at 0.5 to 1.5 feet, at an average depth of one foot in a manner that is similar to the pre-mine soil profile. Topsoil will only be placed on the pond slopes and other surrounding disturbances. Topsoil will not be replaced on the pond floors. Replaced topsoil will be directly placed by loaders and haul trucks. All topsoiled areas will be disced to aid in root penetration.

3. Haul Roads and Access

All internal haul roads will remain following reclamation to support the future land use.

4. Reclamation Timetable and Sequence

The sequence and timing of reclamation can be seen in Table E-4 below. The reclamation schedule is dependent on the rate of mining and fluctuating market demands. The operator will reclaim the site concurrently with the progression of mining to limit the total disturbance.

Table E-4 Reclamation Timetable

Description	Time Required
Develop and mine Northern Phase	3 years
Develop and mine Southern Phase	3 years
Backfill, topsoil, and revegetate remaining disturbances	1 year
Vegetation monitoring	2 years
Total	9 years

5. Revegetation Plans

Seed will be placed in all areas to be vegetated following grading, topsoiling, and discing of the soil. All disturbances that are retopsoiled will be seeded with a Rangeland Seed Mix. The Weld County recommended mix to be used is as follows:

5.1. Rangeland Seed Mix

Species	Pounds of pure live seed per acre (drilled)
Sand Bluestem	1.0
Sand Lovegrass	2.5
Indian Ricegrass	3.0
Prairie Sandreed	0.75
Green Needlegrass	1.5
Little Bluestem	0.75
Yellow Indiangrass	0.5
Switchgrass	1.5
Sand Dropseed	0.5
Total	**12.0**

Broadcast seeding will be done at double the drill rate. Mulch will be placed at roughly 4000 pounds per acre.

6. Post Reclamation Site Drainage

The site will drain internally following reclamation. All water that enters the site will drain to the water storage pond in the center of the site. Refer to map G-1 for the post reclamation drainage of the site.

7. Revegetation Success Criteria

Revegetation will be deemed adequate when erosion is controlled, the vegetation cover matches neighboring wildlife habitat areas, and when it is considered satisfactory according to Division standards. This will be monitored for a minimum of two years following the completion of reclamation.

8. Monitoring Reclamation Success

Measures will be employed for the control of any noxious weed species. The objective of this weed management plan is to control undesirable plants on the Marcovich property. Plants identified through the Colorado Noxious Weed Act (C.R.S 35-5.5) and the Weld County Noxious Weed List as undesirable and designated for management within the county will be removed. Any weeds identified as List A species will be eradicated. Other lower listed plants identified as noxious weeds will be managed by control measures. A Weed Control Plan will be utilized as follows:

1) Each April, a weed survey will be taken of the permit area.
2) If any patches or plants have been identified, they will be sprayed by backpack sprayer or 4-wheeler using chemicals approved for use by the weed control staff of Weld County.
3) After reclamation, weed surveys and spraying will continue until the perennial cover and production of the site have met DRMS requirements and bond release has been obtained.

The Division and Weld County staff will be consulted regarding any weed infestation areas and any control measures prior to their initiation. The plan does not contemplate total weed removal on the property. Rather, the goal is to prevent the spread of weeds into uninfected areas as is the primary goal of the Weld County Weed Management Plan.

Each year during the mining operation, the permit area will be monitored closely, through which the operator may determine if any additional weeds have grown. If any new species of weeds are found, Weld County and the Division will be consulted in order to formulate the best plan for the new infestation.

8.1. Weed List

Weeds listed in Table E-1 will be eradicated or suppressed according to Weld County requirements.

Table E-1. Weld County Weed List

Eradication	Suppression
List A (in Weld County)	
Cypress Spurge	Myrtle Spurge
Haire Willow-Herb	Purple Loosestrife
Japanese	Yellow Flag Iris
List B (in Weld County)	
Absinth Wormwood	Eurasian Watermilfoil
Black Henbane	Jointed Goatgrass
Bull Thistle	Musk Thistle
Chamomile species	Russian knapweed
Chinese Clematis	Scotch Thistle
Houndstongue	Yellow Nutsedge
Moth Mullein	Bouncingbet
Oxeye Daisy	Common Tansy
Plumeless thistle	Dalmation Toadflax
Spotted knapweed	Dames Rocket
Sulfur Cinquefoil	Diffuse Knapweed
Tamarisk	Hoary Cress
Wild Caraway	Leafy Spurge
Yellow Toadflax	Perrenial Pepperweed
Canada Thistle	Russian Olive
Common & Cutleaf Thistle	
List C (in Weld County)	
Common Mullein	Field Bindweed
Cheatgrass/Downy Brome	Puncturevine/Goatheads

EXHIBIT F RECLAMATION MAPS

Map F-1 Reclamation Plan

EXHIBIT G WATER INFORMATION

1. General

The Marcovich Mining Resource is within the floodplain and floodway of the South Platte River. The pond onsite is a remanent of a gravel pit that operated from 1960's until being captured by the river in the late 1970's. Central Colorado Water Conservancy District (CCWCD) installed augmentation wells east of Highway 85 that discharged into a ditch, flowed underneath the highway and into the pond in question. In 2009, CCWCD was ordered to cease and desist from pumping those wells. The ditch has remained abandoned since those orders. Billy Mihelich, PE, the district engineer authorized the ditch be removed by the mining. The mine's intent is to utilize the pond as a discharge point for dewatering activities to prevent potential for erosion at the discharge point. Sampling will occur prior to water entering the pond.

Mining within the floodway will be conducted with no filling or stockpiling above the natural ground grade. Groundwater is located roughly five feet below the natural grade. All groundwater onsite is part of the South Platte River alluvial aquifer. Prior to mining, a slurry wall will be installed around the perimeter, as shown on Map C-3. These slurry walls will be for the development of water storage reservoirs following reclamation. Asphalt Specialties is committed to protecting the hydrological balance and water quality at the site.

2. Water Quality Protection

The primary concerns surrounding water quality protection at the Marcovich Mining Resource site are the potential impacts to the surface and groundwater from sediment, hydraulic fluids, and diesel fuel. Sediment will be controlled through the use of stormwater retention within the disturbance area through the life of the mine. The site will be graded in a manner that maintains all surficial flows within the disturbed area, in turn containing all sediment and unwanted discharges from leaving the site. Hydraulic fluids and diesel fuels will be contained within vehicles that follow best practices of maintenance; these practices include regular inspections of vehicles, hydraulic lines, and any other potential spill sources. Diesel fuel or other oils will not be stored on-site.

Any surface water discharges from the site will be sampled in accordance with the NPDES discharge permit. All discharge will be via the approved Outfall, the proposed location of which is shown on Map C-3. A dewatering sump will be utilized within the pit. The mine's intent is to utilize the pond as a discharge point for dewatering activities to prevent potential for erosion at the discharge point. Sampling will occur prior to water entering the pond.

Table G-1. Surface Water Discharge Monitoring Requirements in NPDES Discharge Permit

Parameter	Monitoring Frequency	Sample Type
Flow	Instantaneous, Monthly	In-situ
pH	2x/month	Grab
Total Suspended Solids	2x/month	Grab
Oil and Grease Visual	2x/month	Visual
Oil and Grease	Contingent on visibility of oil and grease	Grab
Total Flow	Instantaneous, Monthly	Calculated
Selenium, Potentially Dissolved	2x/month	Grab
Total Dissolved Solids	Quarterly	Grab

Note: these are the anticipated analytes based on operator experience at similar sites. CDPHE may issue different sampling requirements with the permit.

3. Floodplain

The majority of the site is within the 100-year floodplain and floodway as reported by the Federal Emergency Management Agency. These boundaries are shown in the Exhibit C and F maps. The minimum distance maintained from the South Platte River to excavation activities is 100 feet. Additionally, no stockpiling or filling above the natural grade will occur in the floodway. Overall, the downstream flood impacts should remain the same or be reduced from activity at the site as the removal of material results in more storage space for flood water below the existing grade. A no-rise certification has been provided to Weld County as part of its floodplain development permit.

In accordance with the Mile High Flood Control District technical guidelines, inflow/outflow structures will be installed along the riverbank where mining reaches its closest point to the South Platte River. Details of these designs can be seen on Map G-1.

In the event of flooding at the site, equipment from the active mining floor will be removed and the pit will be allowed to fill with water. The flooded pit will be pumped only after the flood has subsided. All fuel will be stored at least one foot above the base flood elevation and in sufficient secondary containment with 110% carrying capacity.

4. Wetlands

The National Wetlands Inventory aerial-based mapping indicates the presence of wetlands within the permit area. They are however limited to a concrete lined ditch and a settling pond at the end of the ditch. An onsite inventory of potential wetlands will be undertaken before disturbing these areas. Exhibit C and F maps show the NWI mapped wetlands.

5. Aquifers

The only identified aquifer located at the site is the shallow alluvial aquifer of the South Platte River. The depth to this aquifer varies throughout the year but is typically five feet below surface. According to the U.S. Geological Survey's Ground Water Atlas of the United States[1], the underlying bedrock aquifer is the Laramie Fox Hills Aquifer of the Denver Basin system. The entirety of the Marcovich Mining Resource mining operation will take place in the overlaying alluvium above a shale/siltstone layer; the Laramie Fox Hills Aquifer will not be mined.

6. Surface Water

The mining operation will impact surface water in the area through the stormwater runoff that enters the site. Map G-1 shows the drainage patterns and how they are affected throughout the life of the mine. The maps include information on the drainage basins currently, during mining, and post reclamation as well as the drainage directions throughout these stages. The primary concern for surface water protection at the site is preventing the discharge of sediment, oil, and/or hydraulic fluids from the operation areas. Oils and hydraulic fluids are stored on site following the standard best management practices. These practices include the use of secondary containment at fluid storage and transfer points, spill kits, and employee training regarding safe handling practices. Sediment is trapped onsite using controls and best management practices by directing and controlling surface water runoff that enters the disturbed areas. More information on sediment and surface water control is provided below.

6.1. Surface Water Handling

One drainage basin collects all stormwater runoff on and around the Marcovich site. This is shown on the Drainage Map. Currently, the area has a series of dams to provide stock watering ponds. Those ponds will be removed prior to mining.

6.1.1. Mining

During all phases of mining, surface water runoff will drain to the active pit or reclaimed reservoir. Water collected in the active mining pod will be allowed to evaporate or will be discharge via the approved CDPHE outfall once sediment has settled out.

6.1.2. Post Reclamation

The drainage patterns during mining will be retained following reclamation of the site. Any surface water runoff will collect in the reclaimed reservoir. There is enough storage capacity above the anticipated reservoir level and the top of the shore to store the 100-year storm events. More on those calculations are provided in section 6.2 below.

[1] https://pubs.usgs.gov/ha/ha730/ch_c/

6.1.3. Flood Protection

Mining will extend to within 200 feet from the South Platte River as shown on the Drainage Map. Due to this proximity to the river, measures will be taken to protect the riverbank from erosion during a flood event. An inflow and outflow structure will be constructed between the River and the mining pod once mining is within 300 feet of the river. These structures will allow for the safe exchange of flood waters between the pit and river which prevents erosion of the riverbank and pitside slope during flood events. These structures are of a design approved for use by the Mile High Flood District. Details of the inflow/outflow structure are shown on Map F-2.

6.2. Disturbed Area Runoff

During all stages of mining, there is enough water storage capacity to contain the 5-year and 100-year 24-hour storm events and prevent erosion from surface water discharge. The expected rainfall from these events at the Marcovich Site is provided in Table G-2 below.

Table G-2. Area Storm Events (from NOAA[2])

Event Probability	Event Rainfall (inches)
5-YR 24-HR	2.29
100-YR 24-HR	4.64

The peak runoff was generated from these values for the three drainage basins during all stages of mining. Pre-mine, mining, and reclamation conditions are delineated on the Drainage Map. The discharge volumes from these storm events are calculated in Appendix G-1 at the end of this exhibit. Table G-3 summarizes the runoff volumes and storage volumes for each drainage. All drainage calculations were made using the Rational Method identified in the Mile High Flood Control District.

Table G-3. Drainage Calculations

Drainage Basin 1					
Site Condition	Area (ac)	Curve Number	100-Yr 24-Hr Runoff (ac-ft)	Discharge Flow Rate (gpm)*	Detention Capacity (ac-ft)***
Base	44.0	70	6.55	0	N/A
Mine	44.0	82	10.3	1000-3000**	820
Reclamation	44.0	89	12.8	0	81.6

* The discharge flow rate is calculated from the peak discharge of the 100-Yr 24-Hr storm event.

**Discharge flow rate is variable and controlled during mining as all discharges are pumped from the pit
***Detention Capacity calculated in CAD as the surface volume above the pit floor (approx. 25 feet @ 32 acres) or water storage pond (approx. 3 feet @ 27 acres).

[2] National Oceanic and Atmospheric Administration

7. Groundwater

Groundwater is located approximately five feet below the surface at the Marcovich site. This was determined from wells installed onsite. Table G-4 outlines all wells within 600' of the permit area. These well locations are also shown on Map C-2. Groundwater quality data was gathered in advance of mining. This data and discussion of it can be seen in the Groundwater Monitoring Plan in Appendix G-2.

Table G-4. Wells Within 600' of Permit Area

Applicant/Well ID	Permit ID	Total Depth (feet)	Purpose	Distance from nearest mining area (ft)
ELIZABETH A WETHINGTON & CO	197906	30	Domestic Stock	600
WETHINGTON, ELIZABETH A	19458-F-R	34	Irrigation	<100 but spotted from quarters
EHELNS, WM H	936-WCB	48	Irrigation	<100 but spotted from quarters
ASPHALT SPECIALTIES CO., INC. (HUNT, DAN)	4000003-MH	29	Monitoring	0
LELL, J	124421	34	Domestic	0
CENTRAL COLO W CONSER DIST	20005-F	41	Other	375

*Lell, J and Asphalt Specialties wells on the property are under the applicant's control.

7.1. Groundwater – Mining

Prior to mining, a slurry wall will be installed around the perimeter of the pit to prevent groundwater flow into the mining area. Following slurry wall installation, the operator will mine out the pod by dewatering it via the approved CDPHE discharge point. Pumping to conduct this dewatering will take place during the initial mining and then pumping will cease. Stormwater runoff that is collected may be pumped out to protect local water rights, once sediment has settled. For this reason, the CDPHE discharge point will be maintained over the life of the mine. The pump will be located at least two feet below the active mining floor at the lowest point of the pit. It will be surrounded by a gravel filter. This configuration minimizes the risk of sediment being pumped out of the pit.

The typical pit pump location can be seen on Map C-2.

7.2. Groundwater – Reclamation

A permanent water storage reservoir will be left behind, as can be seen on Map F-1. There will be no groundwater consumptive use in reclamation.

7.3. Groundwater – Slurry Wall Impact

The installation of a slurry wall within the alluvial aquifer of the South Platte River may create two potential impacts to the aquifer: the creation of local groundwater shadows or mounding that damage neighboring structures or property and the potential exacerbation of regional groundwater impacts. For these reasons, the applicant will submit a groundwater model prior to

installation of the slurry wall. If the determined by modelling, a French drain system will be installed to mitigate modelled impacts.

8. Water Related Permits

The operator is applying for all necessary permits that have not already been acquired for water handling at the Marcovich Mining Resource. This includes a discharge permit with the Colorado Department of Public Health and Environment and a gravel well permit for initial dewatering of each pod with the Colorado Division of Water Resources.

9. Water Consumption and Source

Water for dust control will be the primary consumptive use at the Marcovich Mining Resource site. Water will be purchased from a local source during operations for consumptive uses. No ongoing water consumptive use exists in reclamation, since the water storage pod is lined. This water will be sourced from a freshwater pond in the processing area. This pond will be covered by a gravel well permit. Table G-7 summarizes the estimated water consumption for the operation throughout the year.

Table G-5. Water Consumption

Month	Dust Control (ac-ft)	Evaporative Depletions (ac-ft)	Water Removed from Mining (ac-ft)	Total (ac-ft)
Jan	0.11	0.00	0.00	0.1
Feb	0.12	0.00	0.00	0.1
Mar	0.19	0.00	0.00	0.2
Apr	0.32	0.00	0.00	0.3
May	0.42	0.00	0.00	0.4
Jun	0.51	0.00	0.00	0.5
Jul	0.53	0.00	0.00	0.5
Aug	0.47	0.00	0.00	0.5
Sep	0.35	0.00	0.00	0.4
Oct	0.25	0.00	0.00	0.3
Nov	0.14	0.00	0.00	0.1
Dec	0.11	0.00	0.00	0.1
Total	**3.50**	**0.00**	**0.00**	**3.5**

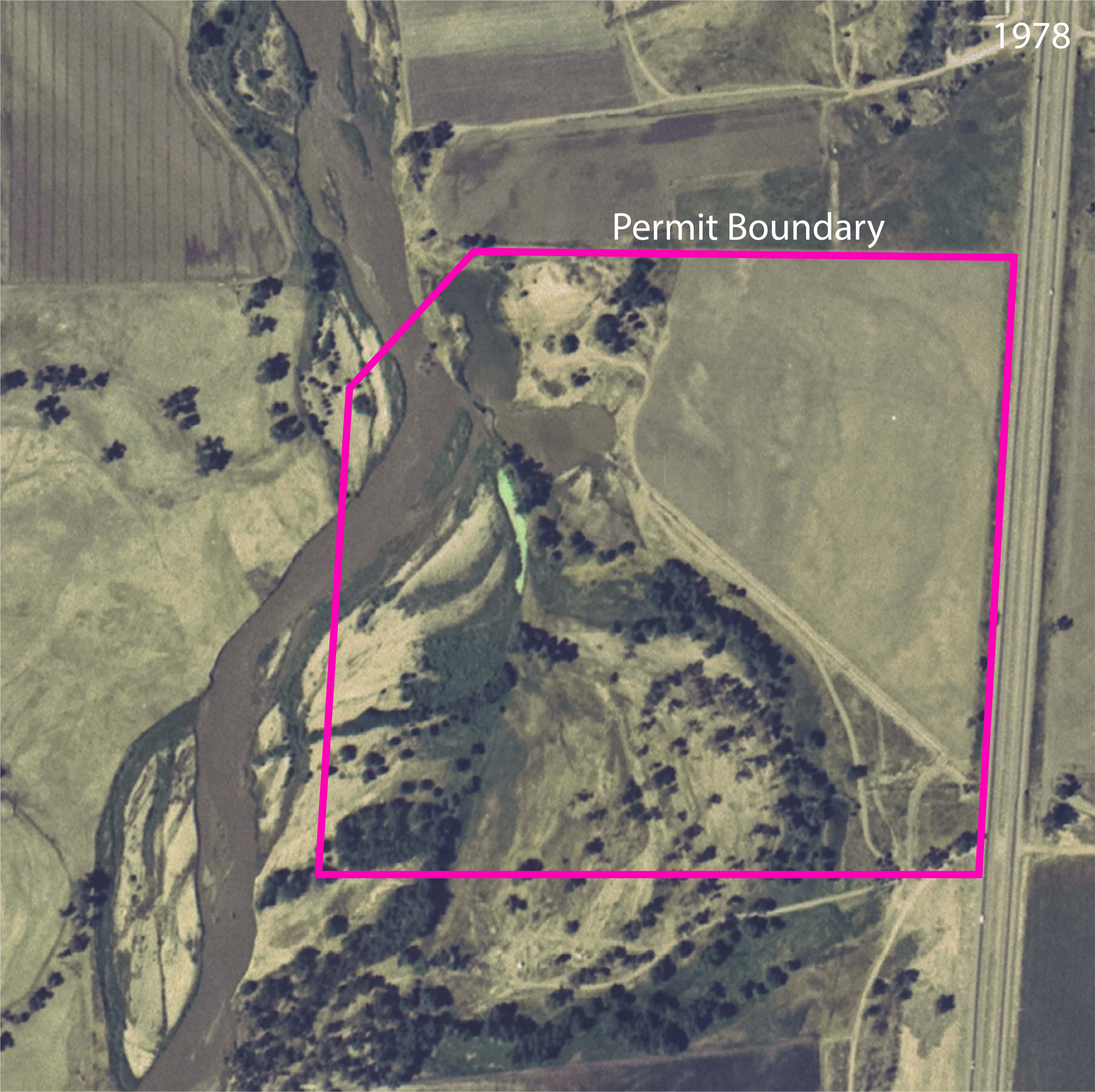
The Marcovich Mining Resource sources water for operations via water contract. Any groundwater exposure will be covered by a gravel well permit with the Colorado Division of Water Resources.

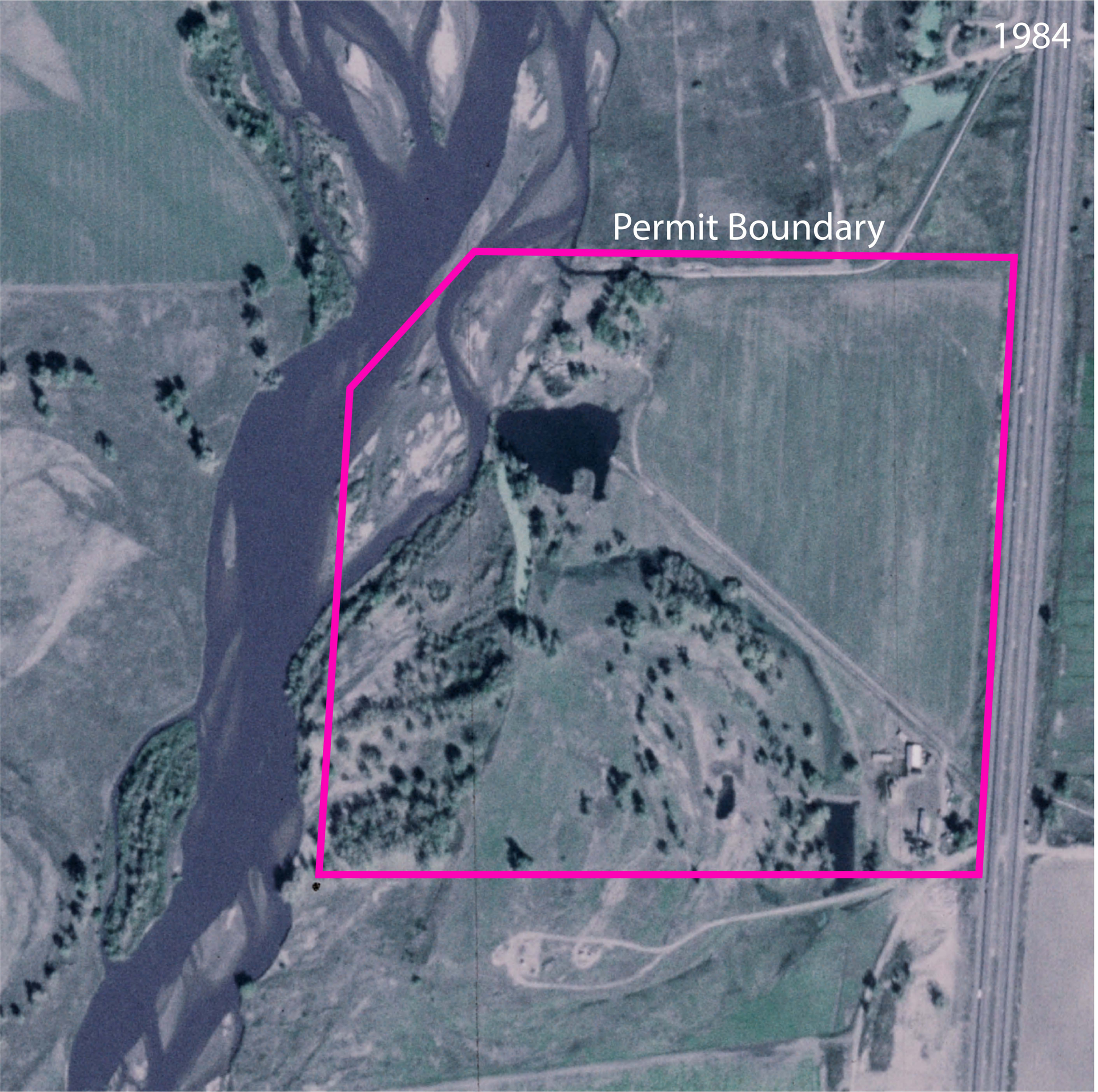

1956
Permit Boundary


1969
Permit Boundary


1970
Permit Boundary

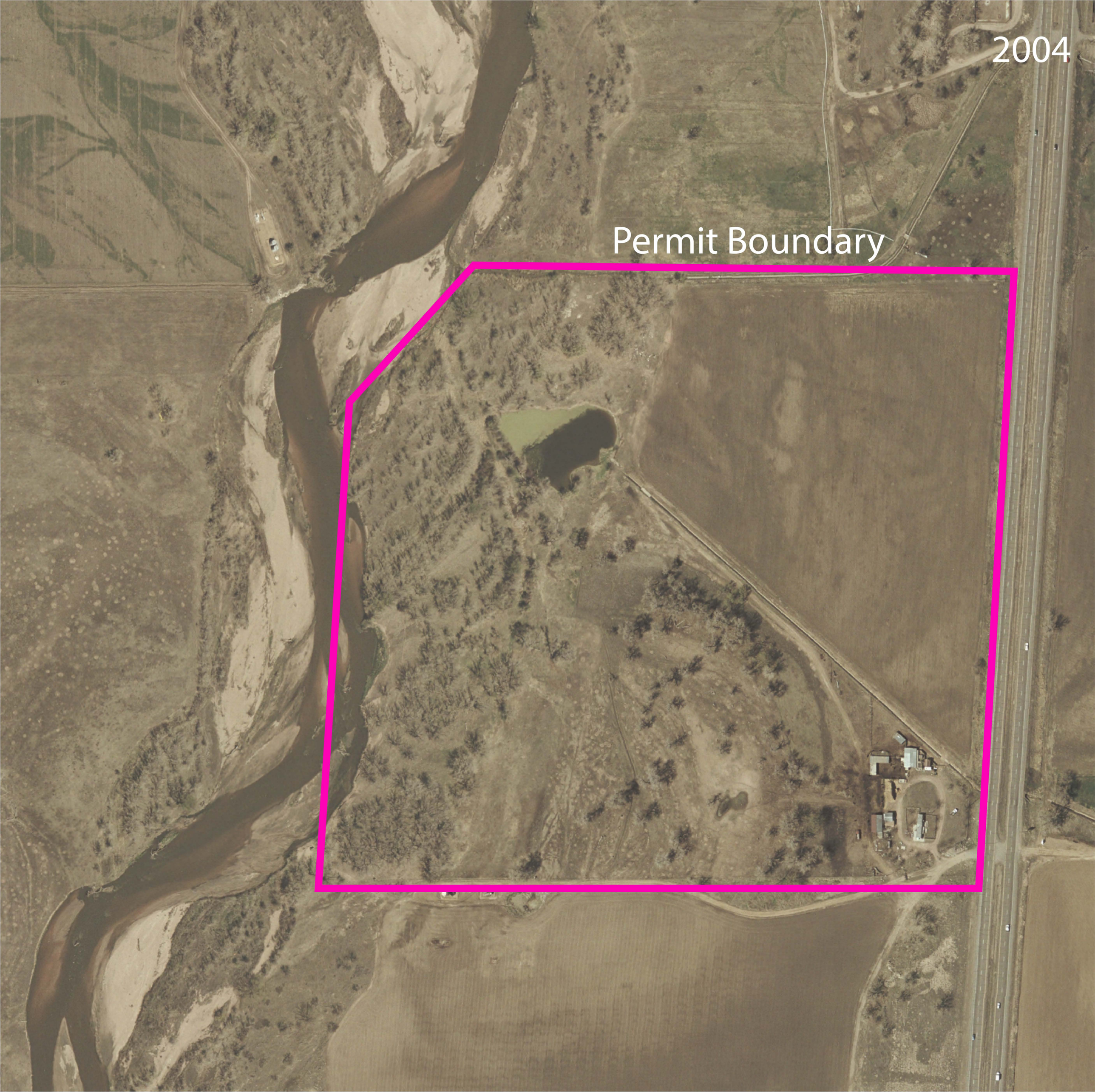

1971
Permit Boundary


1978
Permit Boundary


1984
Permit Boundary


1991
Permit Boundary


1993
Permit Boundary


2004
Permit Boundary

Appendix G-1 Hydrology Calculations

Hydrograph Report

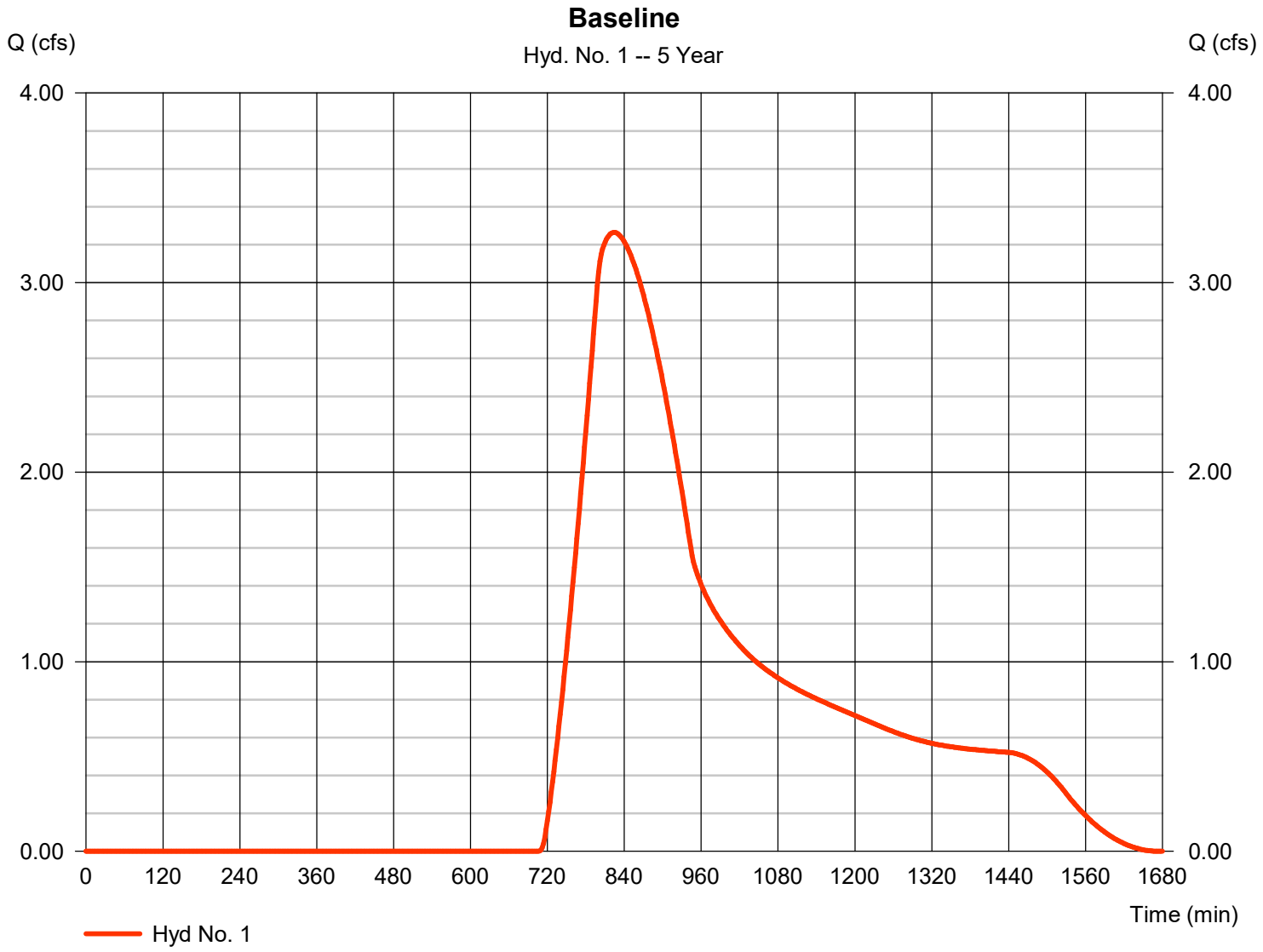
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Wednesday, 10 / 2 / 2024

Hyd. No. 1

Baseline

Hydrograph type	=	SCS Runoff	Peak discharge	=	3.265 cfs
Storm frequency	=	5 yrs	Time to peak	=	824 min
Time interval	=	2 min	Hyd. volume	=	57,751 cuft
Drainage area	=	44.440 ac	Curve number	=	70*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	146.80 min
Total precip.	=	2.29 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.940 x 100) + (2.800 x 30) + (11.600 x 49) + (5.000 x 89) + (21.900 x 80) + (2.200 x 86)] / 44.440



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No. 1

Baseline

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 0.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 0.00		0.00		0.00		
Land slope (%)	= 0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Shallow Concentrated Flow							
Flow length (ft)	= 1333.00		0.00		0.00		
Watercourse slope (%)	= 0.01		0.00		0.00		
Surface description	= Unpaved		Unpaved		Paved		
Average velocity (ft/s)	=0.15		0.00		0.00		
Travel Time (min)	**= 146.79**	**+**	**0.00**	**+**	**0.00**	**=**	**146.79**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 146.80 min

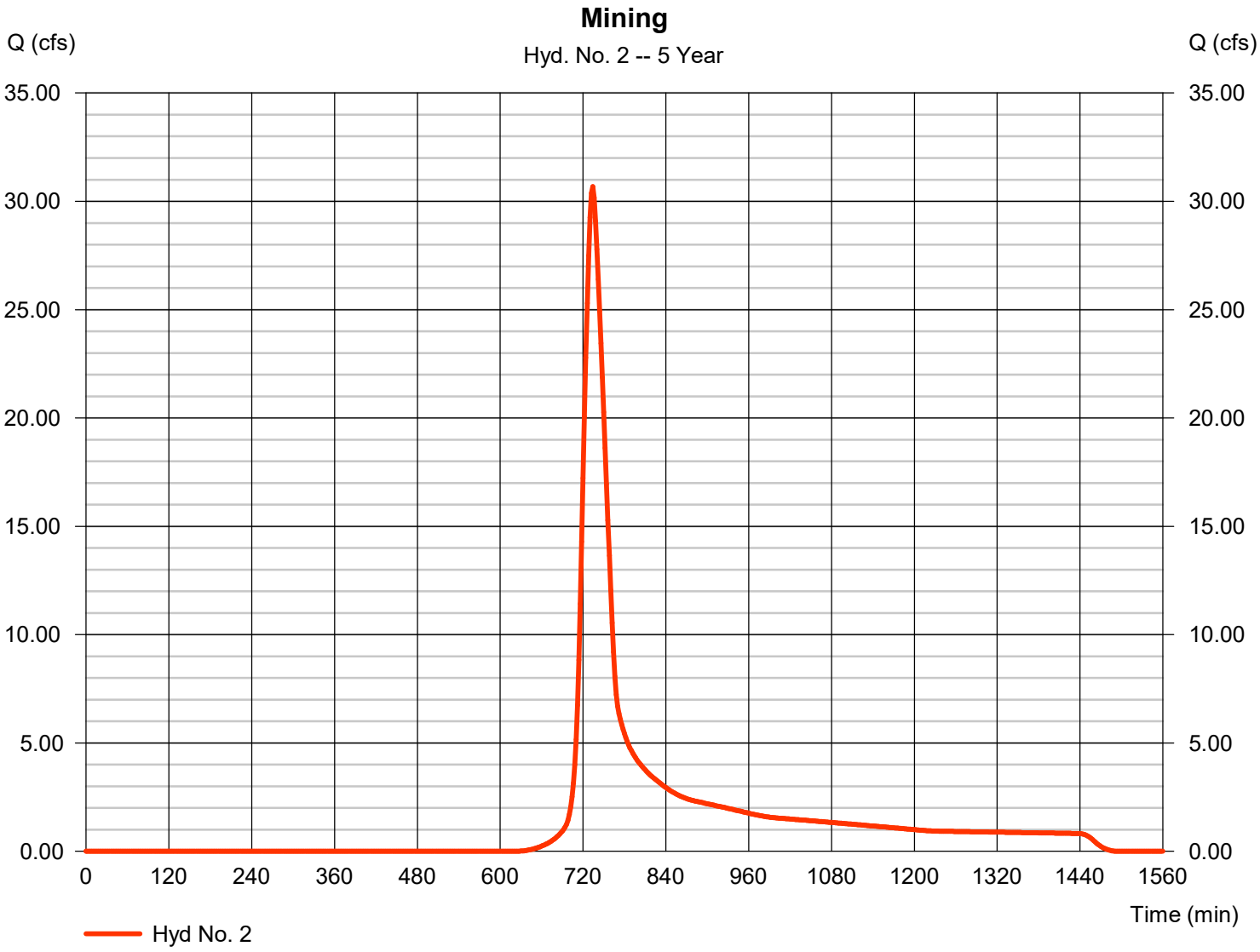
Hydrograph Report

Hyd. No. 2

Mining

Hydrograph type	=	SCS Runoff	Peak discharge	=	30.68 cfs
Storm frequency	=	5 yrs	Time to peak	=	734 min
Time interval	=	2 min	Hyd. volume	=	138,306 cuft
Drainage area	=	44.440 ac	Curve number	=	82*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	32.30 min
Total precip.	=	2.29 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(30.000 x 89) + (0.940 x 100) + (6.100 x 49) + (7.400 x 80)] / 44.440



TR55 Tc Worksheet

Hyd. No. 2

Mining

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 0.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 0.00		0.00		0.00		
Land slope (%)	= 0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Shallow Concentrated Flow							
Flow length (ft)	= 295.00		0.00		0.00		
Watercourse slope (%)	= 0.01		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=0.15		0.00		0.00		
Travel Time (min)	**= 32.30**	**+**	**0.00**	**+**	**0.00**	**=**	**32.30**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 32.30 min

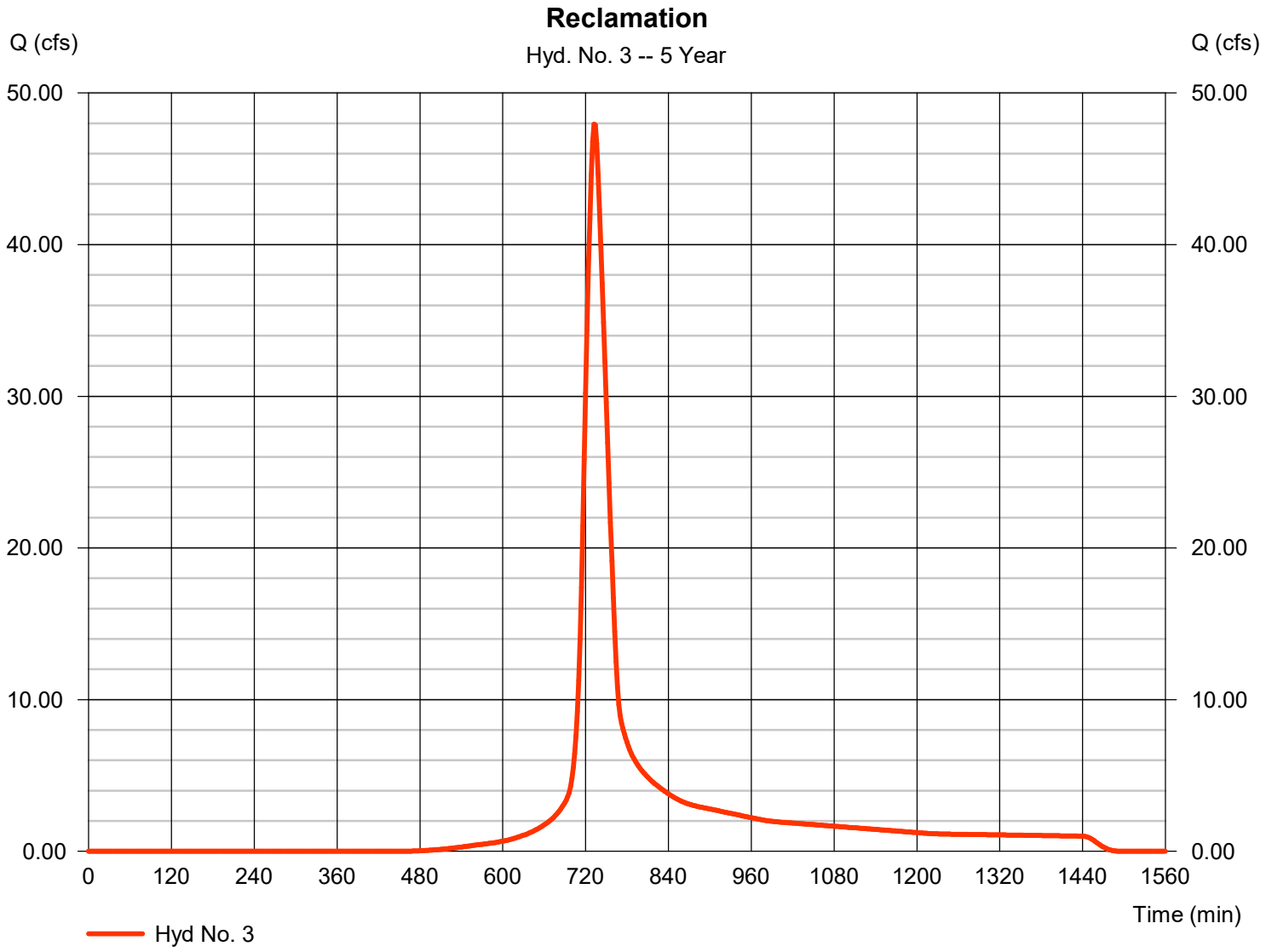
Hydrograph Report

Hyd. No. 3

Reclamation

Hydrograph type	=	SCS Runoff	Peak discharge	=	47.95 cfs
Storm frequency	=	5 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	207,510 cuft
Drainage area	=	44.360 ac	Curve number	=	89*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	32.30 min
Total precip.	=	2.29 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(28.300 x 100) + (2.600 x 80) + (6.100 x 49) + (7.360 x 80)] / 44.360



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No. 3

Reclamation

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 0.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 0.00		0.00		0.00		
Land slope (%)	= 0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Shallow Concentrated Flow							
Flow length (ft)	= 295.00		0.00		0.00		
Watercourse slope (%)	= 0.01		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=0.15		0.00		0.00		
Travel Time (min)	**= 32.30**	**+**	**0.00**	**+**	**0.00**	**=**	**32.30**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 32.30 min

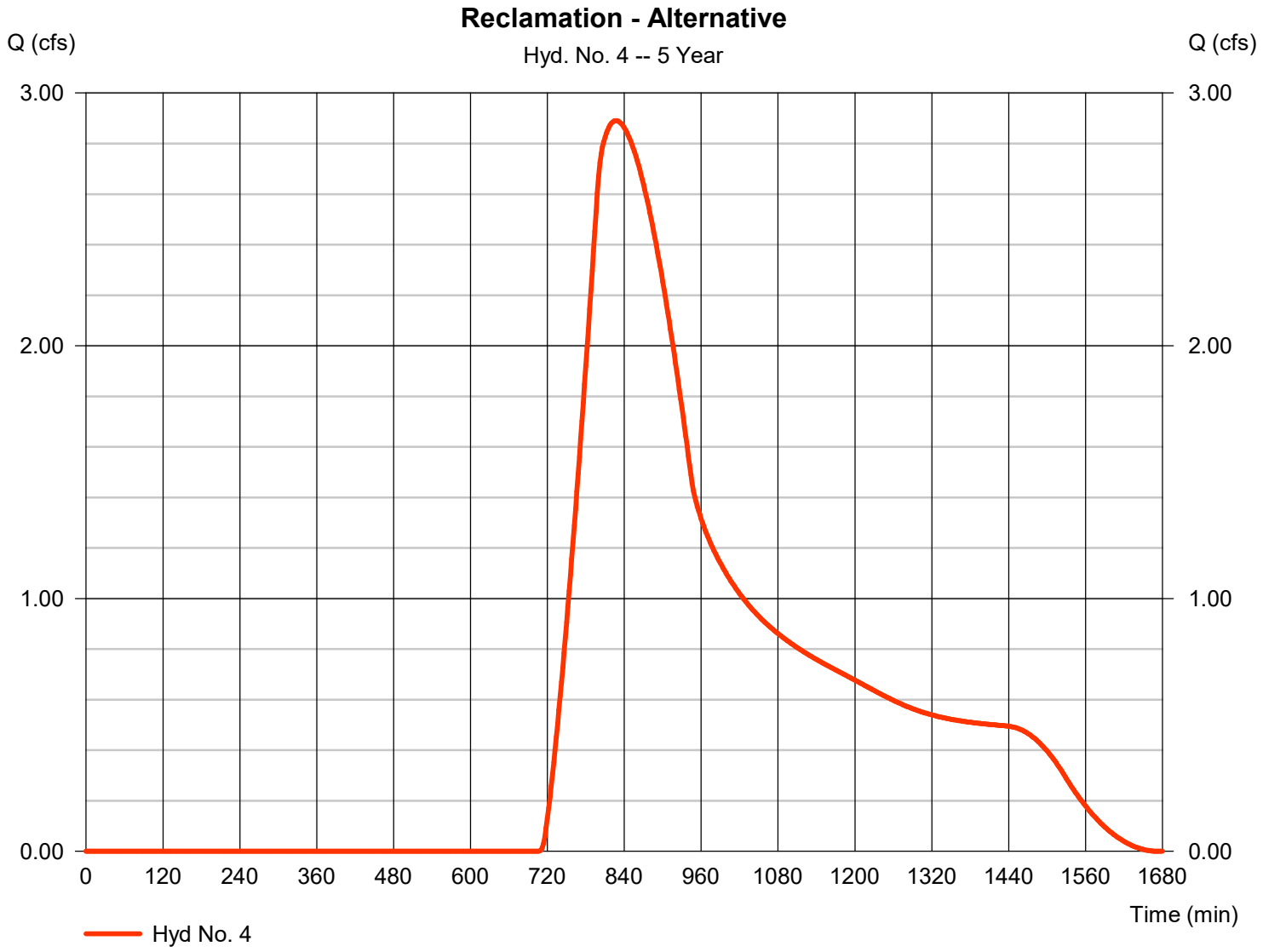
Hydrograph Report

Hyd. No. 4

Reclamation - Alternative

Hydrograph type	=	SCS Runoff	Peak discharge	=	2.891 cfs
Storm frequency	=	5 yrs	Time to peak	=	828 min
Time interval	=	2 min	Hyd. volume	=	52,836 cuft
Drainage area	=	44.370 ac	Curve number	=	69*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	146.10 min
Total precip.	=	2.29 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.940 x 100) + (2.790 x 30) + (11.560 x 49) + (29.080 x 80)] / 44.370



TR55 Tc Worksheet

Hyd. No. 4

Reclamation - Alternative

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 0.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 0.00		0.00		0.00		
Land slope (%)	= 0.00		0.00		0.00		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**
Shallow Concentrated Flow							
Flow length (ft)	= 1333.00		0.00		0.00		
Watercourse slope (%)	= 0.01		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=0.15		0.00		0.00		
Travel Time (min)	**= 146.12**	**+**	**0.00**	**+**	**0.00**	**=**	**146.12**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 146.10 min

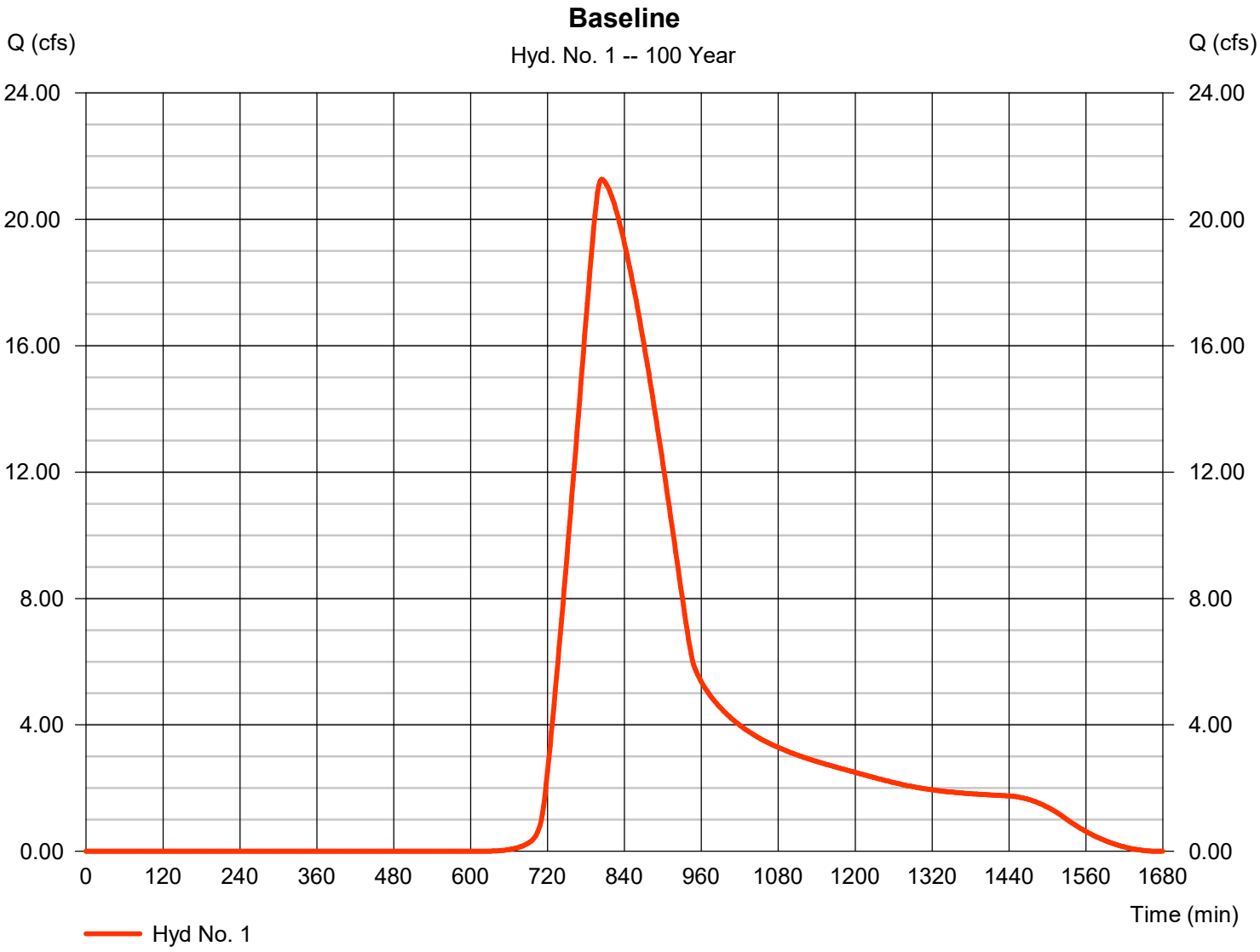
Hydrograph Report

Hyd. No. 1

Baseline

Hydrograph type	=	SCS Runoff	Peak discharge	=	21.27 cfs
Storm frequency	=	100 yrs	Time to peak	=	804 min
Time interval	=	2 min	Hyd. volume	=	285,291 cuft
Drainage area	=	44.440 ac	Curve number	=	70*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	146.80 min
Total precip.	=	4.64 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.940 x 100) + (2.800 x 30) + (11.600 x 49) + (5.000 x 89) + (21.900 x 80) + (2.200 x 86)] / 44.440



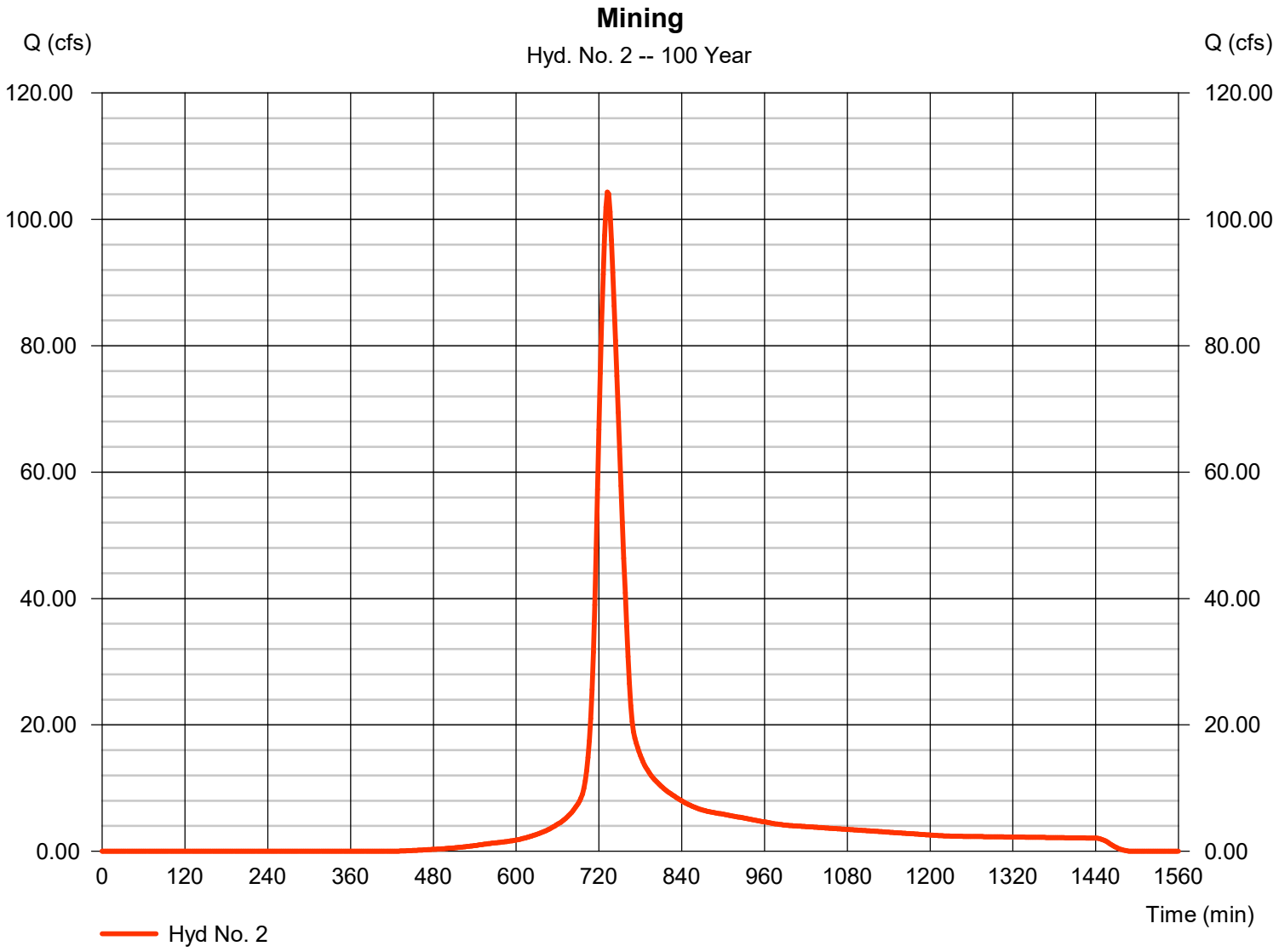
Hydrograph Report

Hyd. No. 2

Mining

Hydrograph type	=	SCS Runoff	Peak discharge	=	104.32 cfs
Storm frequency	=	100 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	450,673 cuft
Drainage area	=	44.440 ac	Curve number	=	82*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	32.30 min
Total precip.	=	4.64 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(30.000 x 89) + (0.940 x 100) + (6.100 x 49) + (7.400 x 80)] / 44.440



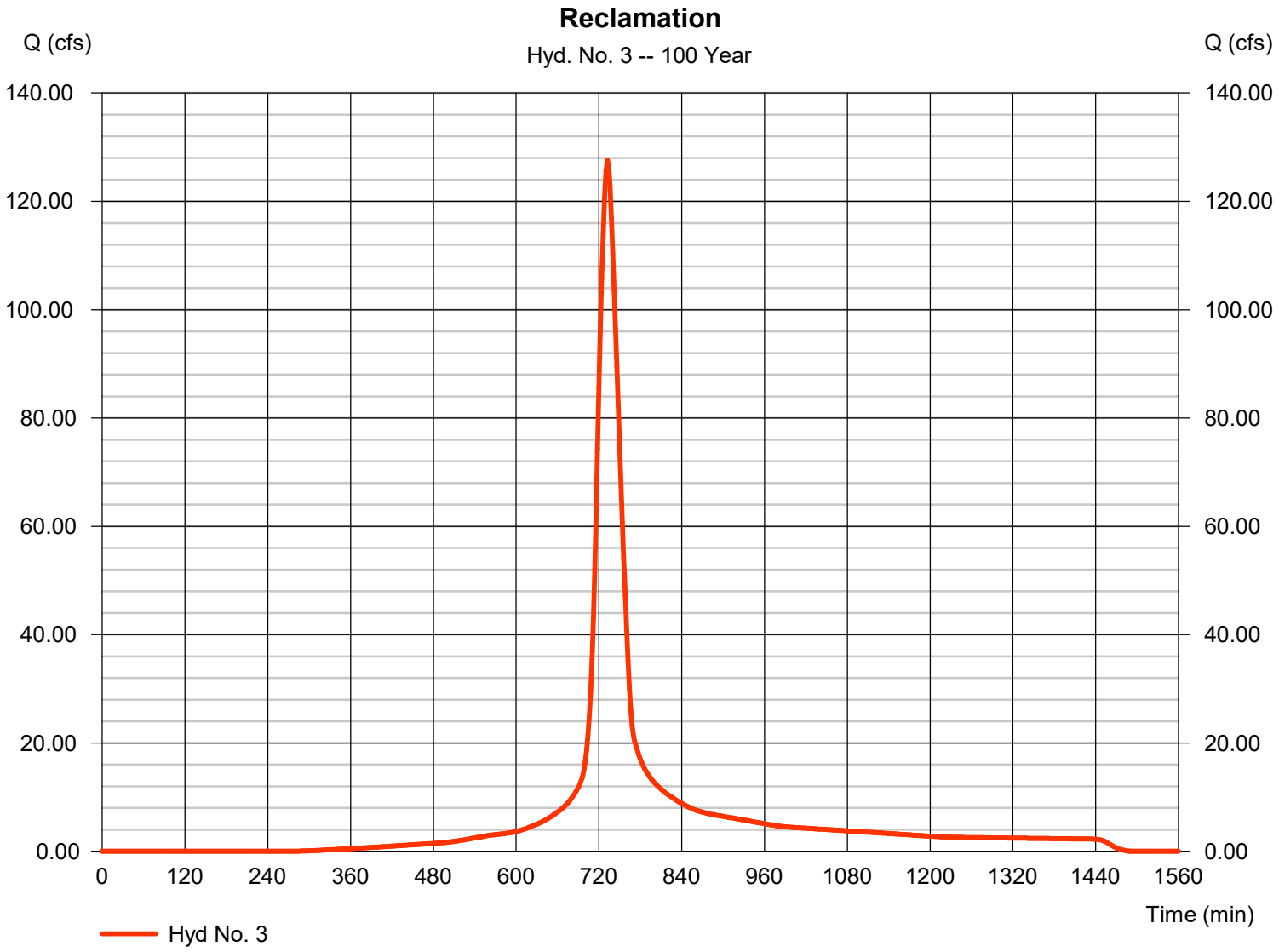
Hydrograph Report

Hyd. No. 3

Reclamation

Hydrograph type	=	SCS Runoff	Peak discharge	=	127.66 cfs
Storm frequency	=	100 yrs	Time to peak	=	732 min
Time interval	=	2 min	Hyd. volume	=	558,939 cuft
Drainage area	=	44.360 ac	Curve number	=	89*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	32.30 min
Total precip.	=	4.64 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(28.300 x 100) + (2.600 x 80) + (6.100 x 49) + (7.360 x 80)] / 44.360



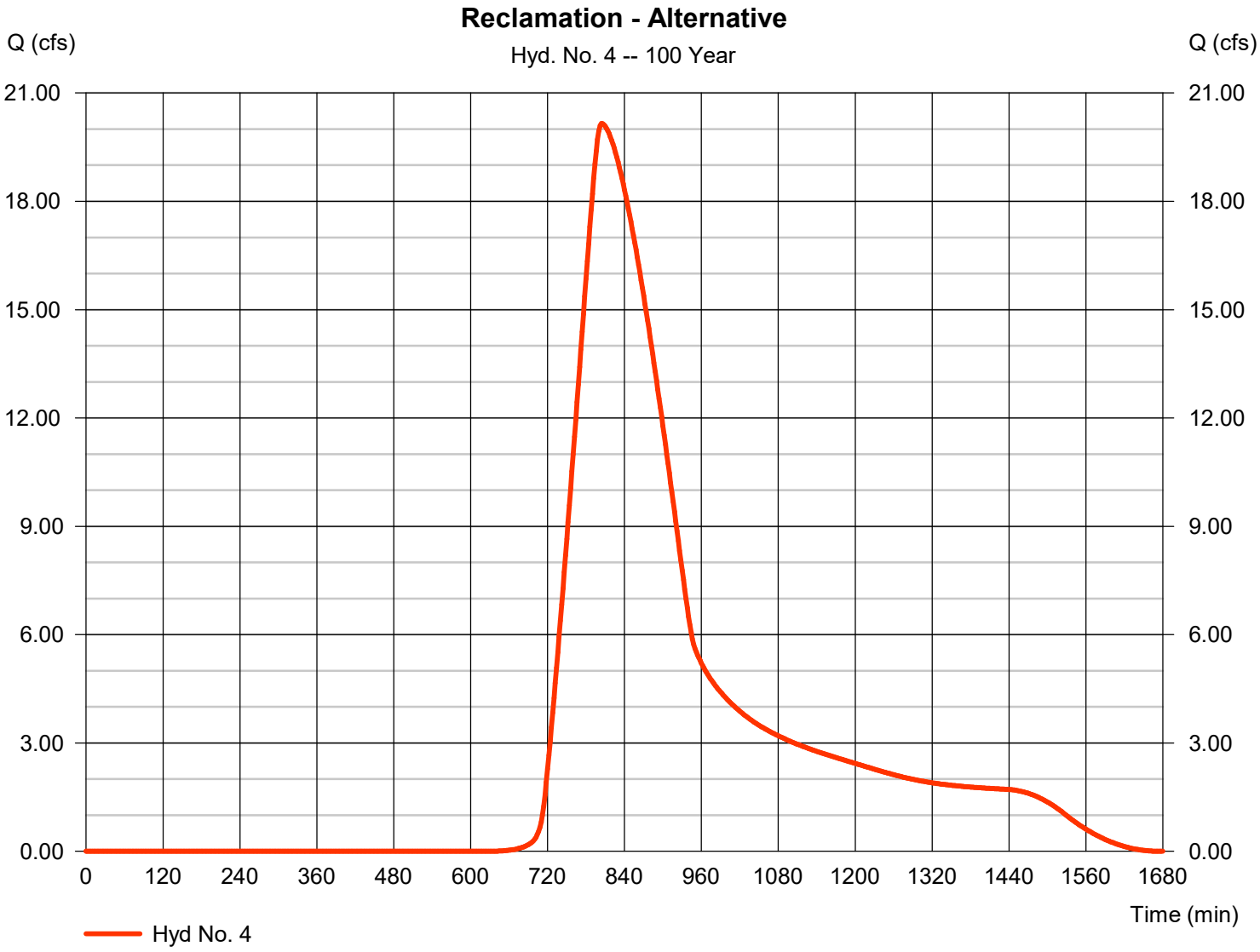
Hydrograph Report

Hyd. No. 4

Reclamation - Alternative

Hydrograph type	=	SCS Runoff	Peak discharge	=	20.16 cfs
Storm frequency	=	100 yrs	Time to peak	=	804 min
Time interval	=	2 min	Hyd. volume	=	273,035 cuft
Drainage area	=	44.370 ac	Curve number	=	69*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	146.10 min
Total precip.	=	4.64 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(0.940 x 100) + (2.790 x 30) + (11.560 x 49) + (29.080 x 80)] / 44.370



Appendix G-2 Groundwater Quality Monitoring Plan

GROUNDWATER MONITORING PLAN
FOR
MARCOVICH MINING RESOURCE
DRMS PERMIT NO. M-2024-034
4125 US HIGHWAY 85
WELD COUNTY, COLORADO

Prepared by:

ASPHALT SPECIALTIES CO., INC
10100 DALLAS STREET
HENDERSON, COLORADO 80640
303-289-8555 • Fax 303-289-7707

ASPHALT SPECIALTIES CO.

October 2024

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LIST OF ACRONYMS

ASCI	Asphalt Specialties Co., Inc.
CDSS	Colorado's Decision Support System
DRMS	Division of Reclamation, Mining, and Safety
DWR	Division of Water Resources
ft amsl	feet above mean sea level
ft bgs	feet below ground surface
gpd/ft	gallons per day per foot
HSA	hollow stem auger
POC	Point of Compliance
INS	Interim Narrative Standards
QA/QC	quality assurance/quality control
TDS	total dissolved solids
WQCC	Water Quality Control Commission

1.0 INTRODUCTION

Asphalt Specialties Co., Inc. (ASCI) has prepared this Groundwater Monitoring Plan (GWMP) for the Marcovich Mining Resource (Site) located at 4125 US Highway 85 in Weld County, Colorado (Figure 1) in general accordance with the requirements set forth in the Construction Materials Rule No. 3, Section 3.1.7 and the Division of Reclamation, Mining, and Safety (DRMS) *Groundwater Monitoring: Sampling and Analysis Plan Guidance. Construction Materials and Hard Rock Sites* (July 2024). Prior to mining, a slurry wall will be installed to hydraulically disconnect the mining operation from groundwater in the surrounding alluvial aquifer. This GWMP summarizes data available to-date from the initial six (6) consecutive quarters of baseline groundwater characterization conducted and details the future monitoring activities that will occur throughout the operational life of the mine. As additional baseline characterization data will be collected to supplement the current information, the final data sets used to characterize baseline groundwater conditions will be finalized prior to commencement of mining related activities that will impact the Site. Any changes to the baseline groundwater information presented in this GWMP will be provided to DRMS.

1.1 SITE DESCRIPTION

The Site is former agricultural land that is relatively flat with a topographic slope of 0.0021 ft/ft. Mining activities at the Site will occur within the unconfined alluvial aquifer of the South Platte River. The average thickness of the overburden is approximately three (3) to four (4) feet below ground surface (ft bgs). Beneath the overburden are low terrace alluvial deposits of the South Platte River. The deposits vary from silty sands and gravel in the upper zones to sandy gravels nearer the bedrock. The sand and gravel deposits slightly vary in thickness but are approximately 28 to 30 feet across the Site. Underlying the sand and gravel deposit is the Denver Formation which is a consolidated bedrock stratum composed primarily of generally impermeable shale and claystone approximately 550 – 600 feet thick. Surrounding land uses in the area include agricultural, other sand and gravel mines, oil and gas industry sites, and rangelands. The total affected area is 44.3 acres. Sand and gravel mining operations are anticipated to begin in 2025.

Groundwater in the alluvial aquifer at the Site is approximately 5 ft bgs and generally flows northwest to north-northwest towards the South Platte River. Per the Division of Water Resources (DWR) Colorado's Decision Support System (CDSS) website, the alluvial aquifer has rapid permeability with a transmissivity of approximately 120,000 gallons per day per foot (gpd/ft) and specific yield of 0.2. The estimated coefficient of storage is $1.5x10^{-5}$ to $3.1x10^{-5}$. The Site is located within the City of Fort Lupton Wellfield as classified by the Water Quality Control Commission (WQCC) Regulation 42.

1.2 MONITORING WELL NETWORK

Four (4) monitoring wells (MW-1 through MW-4) have been installed in accordance with DWR standards within the unconsolidated alluvium at the Site to characterize baseline groundwater conditions. Borings were installed utilizing 4-1/4" ID hollow stem auger (HSA) drilling method

from ground surface to the top of underlying bedrock. Monitoring wells are constructed of two (2)-inch diameter Schedule 40 PVC with factory slotted 0.010" slot size for the screened portions. The filter packs consist of 10/20 silica sand and a bentonite seal (chips) was installed from the top of the filter pack to ground surface. At the surface, concrete pads were installed along with a four (4)-inch square steel well covering with hinged locking cap to protect the above ground riser. However, existing monitoring well MW-2 is currently located inside the proposed slurry wall and will be abandoned and replaced by monitoring well MW-2R. The location of monitoring wells is shown in Figure 2. Monitoring well construction logs are provided in Appendix A.

2.0 BASELINE GROUNDWATER CHARACTERIZATION

This GWMP summarizes available data collected to-date from June 2023 through September 2024 to characterize baseline groundwater conditions. Data collected includes monthly groundwater elevations (for groundwater quantity) and quarterly groundwater sampling event results (for groundwater quality). As ASCI is still conducting baseline groundwater characterization, additional baseline data will be collected to supplement the current data set presented in this GWMP.

2.1 BASELINE GROUNDWATER QUANTITY

Groundwater elevations collected from monitoring wells at the Site are presented in Table 1. The general groundwater flow direction across the Site is northwest to north-northwest towards the South Platte River as shown on the potentiometric maps presented in Figures 3 and 4. A graph depicting the fluctuation in groundwater elevations during the baseline monitoring period to-date is presented in Figure 5.

2.1.1 Groundwater Fluctuation

Groundwater elevations naturally fluctuate throughout the year based on the season but can also be influenced by a variety of unusual conditions at any one time (e.g., persistent rain or drought). Evaluation of groundwater elevation data collected from June 2023 to September 2024 at the Site (a 16-month period) indicates an average fluctuation of 2.45 ft at the Site (i.e., a change of 2.04 ft in MW-1 and 2.85 ft in MW-2). However, the elevated groundwater elevations collected in June and July of 2023 are due to the historic precipitation that occurred during the spring and early-summer of 2023. When evaluating groundwater elevations between August 2023 to September 2024 (a 14-month period), the average fluctuation between groundwater high and low elevations at the Site is only 0.92 ft (i.e., a change of 1.04 ft in MW-1 and 0.80 ft in MW-2). While the elevated water levels in June and July of 2023 are useful in documenting the pre-operational groundwater high levels at the Site, as discussed in Section 2.1.3, the groundwater elevation data available from August 2023 to September 2024 indicates that the groundwater fluctuation across the Site remains relatively stable with an approximate change of only one (1)-foot.

2.1.2 Groundwater Flow Direction

Given the known hydraulic properties of the homogenous alluvial aquifer at the Site (e.g., an unconfined aquifer, uniform stratigraphy, consistent flow transmissivity as mapped by DWR, etc.) and since groundwater only fluctuates approximately one (1)-foot at the Site, the site-specific groundwater elevation data collected from MW-1 can be correlated to MW-3 (both wells are located approx. 1,450 feet ± 100 ft east of the South Platte River) and the site-specific groundwater elevation data collected from MW-2 can be correlated to MW-4 (both wells are located approx. 375 feet ± 50 ft east of the South Platte River). By applying the difference in the September 2024 groundwater elevation vs. the average groundwater elevation for MW-1 (i.e., 0.19 feet) to MW-3 and for MW-2 (i.e., -0.18 feet) to MW-4, an estimate of the average groundwater elevations for MW-3 and MW-4 during the baseline period can be obtained. The following table presents the September 2024 and Average Baseline Groundwater Elevations for each monitoring well used to determine groundwater flow direction at the Site.

Monitoring Well	September 2024 Groundwater Elevation	Average Baseline Groundwater Elevation
MW-1	4901.47	4901.28
MW-2	4899.33	4899.51
MW-3	4903.29	4903.10*
MW-4	4901.78	4901.96*

Notes:
Elevations in ft amsl
* = Estimated value

Potentiometric maps for September 2024 and the Average Baseline Groundwater Elevations are presented in Figures 3 and 4, respectively. As shown, groundwater generally flows northwest to north-northwest across the Site towards the South Platte River. While seasonal fluctuations may slightly alter groundwater flow direction, based on the minimal change in groundwater fluctuation that occurs at the Site (i.e., < 1 foot), groundwater elevations do not change substantially enough to alter the general flow of groundwater in a direction other than towards the South Platte River as would be expected in an unconfined alluvial aquifer adjacent to a river.

2.1.3 Groundwater High and Low Elevations

As discussed in Section 2.1.2, given the known hydraulic properties of the alluvial aquifer and locations of the monitoring wells in relation to the South Platte River, the groundwater high and low elevations for MW-1 and MW-2 between June 2023 to September 2024 can also be correlated to estimate the groundwater high and low elevations for MW-3 and MW-4. By applying the difference in the September 2024 groundwater elevations against the groundwater high and low elevations for MW-1 (1.28 ft and -0.76 ft, respectively) to MW-3 and for MW-2 (2.55 ft and -0.30 ft, respectively) to MW-4, the following table indicates the pre-operational groundwater high and low elevations for each well during the baseline period.

Monitoring Well	Pre-operational Groundwater High Elevation	Pre-operational Groundwater Low Elevation
MW-1	4902.75	4900.71
MW-2	4901.88	4899.03
MW-3	4904.57*	4902.53*
MW-4	4904.33*	4901.48*

Notes:
Elevations in ft amsl
* = Estimated value

2.2 BASELINE GROUNDWATER QUALITY

2.2.1 Groundwater Quality Benchmarks

The objective of the baseline groundwater period is to document the background groundwater quality for applicable analytes and establish the groundwater quality benchmarks for the Site. Per WQCC Regulation No. 42 *Site-specific Water Quality Classifications and Standards for Groundwater*, the Site is located within the specified area of the City of Fort Lupton Wellfield. The groundwater classifications in this area are Domestic Use-Quality and Agricultural Use-Quality. The groundwater quality standards assigned to confined and unconfined groundwater in the City of Fort Lupton Wellfield is WQCC Regulation 41 Interim Narrative Standards (INS) Tables 1 – 4 (5 CCR 1002-41) which are the same standards utilized by the DRMS. Per Rule 3.1.7(2)(c)(ii) and through correspondence with DRMS, the lowest WQCC Regulation 41 INS Tables 1 – 4 standards for applicable analytes are utilized as the default numeric protection value benchmarks (Table 2), except for analytes where baseline groundwater concentrations exceed these values. For these analytes, the highest concentration reported during the baseline groundwater sampling period will be used as a site-specific groundwater quality benchmark. Site-specific groundwater quality benchmarks will be used for comparison against future groundwater sampling event results to demonstrate protection of existing and reasonably potential future uses of groundwater throughout the operational life of the mine until reclamation has been achieved (i.e., when release of reclamation liability occurs). Should any change to groundwater quality benchmark values occur due to additional baseline data collected prior to the start of mining operations, an updated table will be provided to DRMS.

2.2.2 Baseline Groundwater Quality Sampling Results

Results of the first five (5) quarters of baseline groundwater sampling events used to determine the groundwater quality benchmarks for the Site are presented in Table 3. Results were compared against their lowest WQCC Regulation 41 INS Tables 1 – 4 standards. As shown in Table 3, results for five (5) analytes during the baseline monitoring period to-date have exceeded their lowest WQCC Regulation 41 INS Tables 1 – 4 standards (Chloride, Nitrate [NO3], Total Nitrate-Nitrite [NO2+NO3], Sulfate, and Uranium). Therefore, the highest concentration reported for these analytes during the baseline groundwater monitoring period will be used as the site-specific

groundwater quality benchmark. Results for all other analytes are below their respective WQCC Regulation 41 INS Tables 1 – 4 standards.

3.0 PREDICTED IMPACTS TO HYDROLOGIC BALANCE

To predict the extent of impacts to the hydrologic balance, groundwater modeling was conducted (see Appendix G-3 of the DRMS Permit Application). The predicted impacts to the hydrologic balance are localized areas of groundwater mounding occurring to the south and east of the slurry wall and groundwater shadowing occurring to the north and west of the slurry wall in the alluvial aquifer. The maximum groundwater mounding predicted by the model is +1.39 feet occurring 100 feet south of the slurry wall. The maximum groundwater shadowing predicted by the modeling is -0.96 feet occurring 100 feet north of the slurry wall. These predicted impacts to the hydrologic balance are within the general range of seasonal fluctuation at the Site and are not anticipated to have an adverse effect to the surrounding area. Since no other slurry walls are near the Site, this slurry wall will not prohibit groundwater from reaching the South Platte River. As the slurry wall will hydraulically separate the mining operation from the surrounding alluvial aquifer, no impacts to groundwater quality are anticipated.

4.0 GROUNDWATER MONITORING PLAN

The following activities will be conducted to monitor groundwater quantity and quality throughout the operational life of the mine until reclamation is complete. Any changes to the information presented in this GWMP because of additional baseline monitoring activities will be provided to DRMS prior to the commencement of mining related activities that will impact the Site.

4.1 GROUNDWATER QUANTITY

4.1.1 Groundwater Measurement Schedule

ASCI will continue to collect and evaluate monthly groundwater elevation readings from Site monitoring wells prior to the start of mining related activities and for a minimum of 12 months after installation of the slurry wall is complete and mining operations have commenced to monitor for adverse impacts to the hydrologic balance. Any change to the groundwater level monitoring schedule (i.e., reduction in measurement frequency) will be submitted to DRMS via Technical Revision for approval prior to implementation.

4.1.2 Groundwater Quantity Data Evaluation and Trigger Levels

The primary trigger for evaluating if potentially adverse impacts to the hydrologic exist will be if the groundwater level in any well either increases two (2) feet above the baseline high measurement or decreases two (2) feet below the baseline low measurement. The trigger measurements for each well are provided in the following table.

Well ID	Baseline GW Elevation – High	Trigger Elevation for Evaluating High GW Impacts	Baseline GW Elevation – Low	Trigger Elevation for Evaluating Low GW Impacts
MW-1	4902.75	**4904.75**	4900.71	**4898.71**
MW-2	4901.88	**4903.88**	4899.03	**4897.03**
MW-3	4904.57*	**4906.57***	4902.53*	**4900.53***
MW-4	4904.33*	**4906.33***	4901.48*	**4899.48***

Notes:
Elevations in ft amsl
* = Estimated value

4.1.3 Reporting

Groundwater levels collected after the slurry wall is installed will be compared against the baseline data set and the predicted impacts from groundwater modeling. Unless adverse impacts to the hydrologic balance substantially above those predicted in modeling or any actual damage to neighboring structures or property are identified, ASCI will report groundwater level data to DRMS as supplemental information with the annual report for the Site each year. Should adverse impacts to the hydrologic balance occur, ASCI will contact DRMS upon discovery to discuss the path forward and appropriate mitigation measures (e.g., installation of a French drain).

4.2 GROUNDWATER QUALITY

4.2.1 Groundwater Sampling Schedule

ASCI will continue to conduct quarterly groundwater sampling events at the Site for a minimum of four (4) consecutive quarters after installation of the slurry wall is complete and mining operations have commenced. For each sampling event, groundwater samples will be collected from Site monitoring wells and submitted for laboratory analysis. A duplicate quality assurance/quality control (QA/QC) sample will be collected from one of the monitoring wells per event. Additional QA/QC samples (e.g., method blanks, laboratory control samples, matrix spikes, etc.) will be analyzed by the laboratory during batch analyses with results provided in the final laboratory reports. Any change to the groundwater quality monitoring schedule (i.e., reduction in sampling frequency) will be submitted to DRMS via Technical Revision for approval prior to implementation.

4.2.2 Groundwater Sample Collection Procedures

Prior to sampling each well, depth to groundwater and total well depth measurements will be collected using a water level indicator to the nearest 0.01 foot. Groundwater will then be purged from the well utilizing a submersible pump with dedicated tubing or hand-bailed with a dedicated bailer. All non-dedicated equipment used to collect groundwater samples will be decontaminated with a detergent (e.g., Alconox® Detergent Powder) and distilled water solution prior to use at each monitoring well. Purged water will be collected in five (5) gallon buckets where water quality parameter readings for temperature, pH, specific conductivity, and total dissolved solids (TDS) will be collected. The total purge volume from the well will be recorded. Once groundwater

stabilization is achieved (i.e., three consecutive readings within ten percent for each stabilization parameter) and/or a minimum of three (3) well volumes are removed, groundwater will be collected directly into laboratory-supplied containers with the preservative appropriate for the analysis requested, as applicable. The samples will be labeled, placed in a cooler with ice (cooled to 4°C), and stored until delivery to the laboratory accompanied by chain-of-custody documentation.

4.2.3 Laboratory Analysis of Groundwater Samples

Groundwater samples submitted to the laboratory will be analyzed for applicable WQCC Regulation 41 INS Tables 1 – 4 analytes. The following analytical methods (or comparable methods) will be utilized by the laboratory to report water quality results.

- Metals (Dissolved) by EPA Method 200.7 and 200.8
- Inorganic Anions by EPA Method 300.0 + Calculation
- Chromium by Standard Method (SM) 3500-Cr B + Calculation
- pH by SM 4500-H-B
- TDS by SM 2540-C

Any change to the current analyte list for laboratory analysis (e.g., reduction of analytes) will be submitted to DRMS via Technical Revision for approval prior to implementation.

4.2.4 Groundwater Point of Compliance Wells

After installation of the slurry wall, monitoring wells MW-1 and MW-3 will be in hydraulically up-gradient locations at the Site. Monitoring well MW-2, which is currently located inside the proposed slurry wall, will be abandoned and replaced by monitoring well MW-2R. As a result, monitoring wells MW-2R and MW-4 will be located hydraulically down-gradient of the mining operation, and these wells will serve as the designated “Point of Compliance” (POC) wells in accordance with Rule 3.1.7(6)(b)(ii)(A).

4.2.5 Groundwater Quality Data Evaluation and Trigger Levels

ASCI will compare laboratory results against the groundwater quality benchmarks developed for the Site to determine if any exceedance(s) of the benchmarks has occurred. The primary trigger for evaluating if potentially adverse impacts to groundwater have occurred will be if results for any analytes exceed their baseline groundwater quality benchmark in the POC monitoring wells MW-2R and/or MW-4.

4.2.6 Reporting

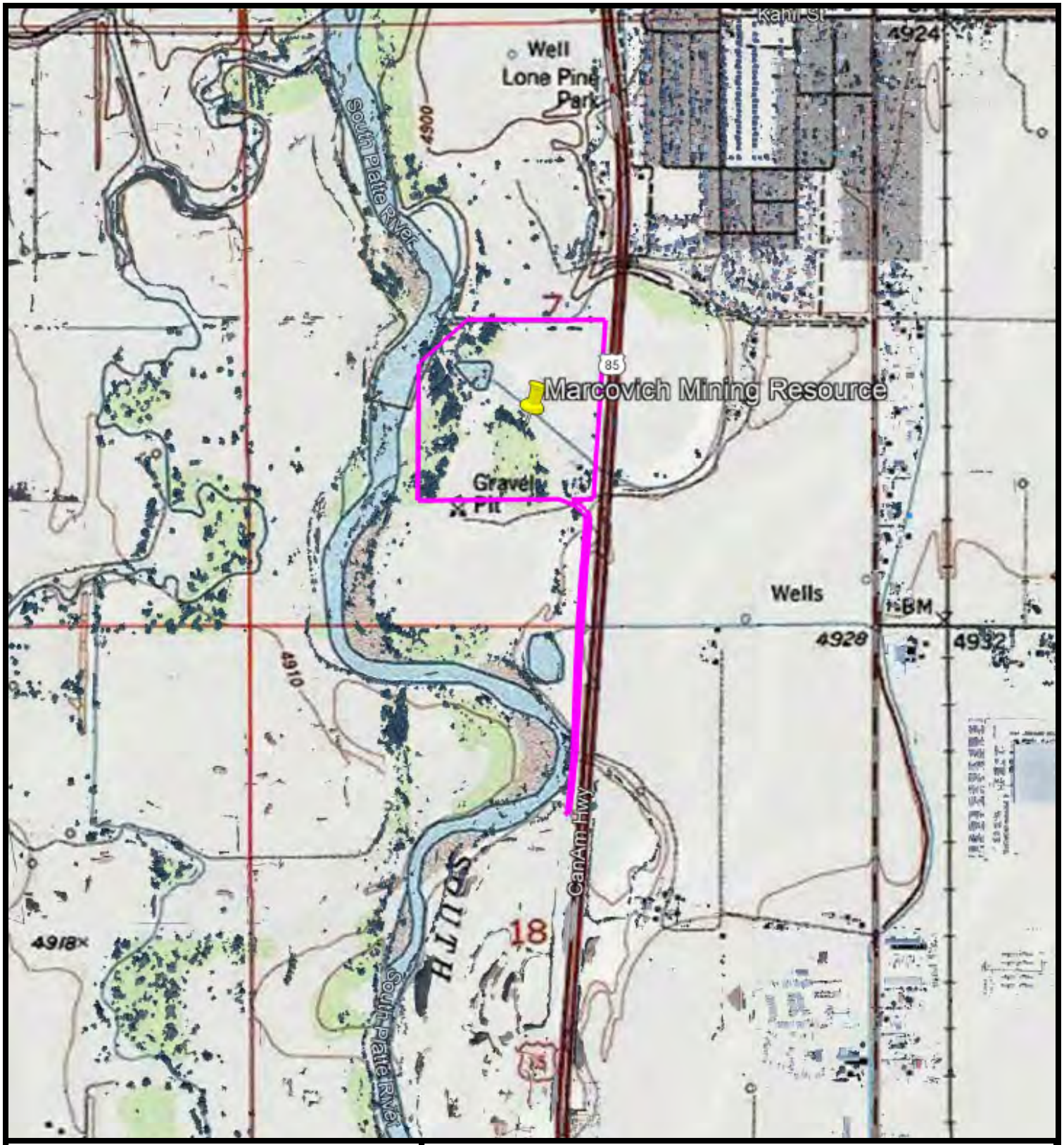
Unless exceedance(s) above baseline groundwater quality benchmarks occur in POC wells (MW-2R and MW-4), ASCI will report groundwater quality monitoring results to DRMS as supplemental information with the annual report for the Site each year. If analyte exceedance(s) of site-specific groundwater quality benchmarks are reported in up-gradient monitoring wells (MW-1 and MW-3), this would indicate the impact to groundwater quality is potentially from an

off-site source. Should analyte exceedance(s) occur in up-gradient wells only, ASCI will monitor results from subsequent groundwater sampling events to determine if elevated concentration(s) of the analyte(s) persist. If exceedance(s) of baseline groundwater quality benchmarks are detected in down-gradient POC wells (MW-2R and MW-4), ASCI will contact DRMS upon discovery to discuss the path forward and potential mitigation measures, if appropriate. Potential mitigation measures may include:

- Conduct confirmation sampling of well(s) for the exceeding parameter(s).
- Evaluate the existing data set to determine if any trends are present.
- Increase groundwater sampling event frequency to determine if impacts are anomalous and/or temporary, as applicable. Install additional up-gradient and/or down-gradient POC wells, as necessary, if exceedances persist.
- If exceedances persist, conduct a statistical trend analysis to determine: 1) if exceedances are statistically significant increases over background; and/or 2) if a new site-specific groundwater quality benchmark is appropriate (to be submitted to DRMS as a Technical Revision).

ASCI will work with DRMS to address impacts identified in POC wells and implement mitigation measures, as appropriate, based upon the situation encountered at that time.

FIGURES



Legend

N
W E
S

DRMS Permit Boundary

SCALE (approx.)

0 1,225 ft 2,450 ft

FIGURE 1 - SITE LOCATION MAP

4125 US HIGHWAY 85
WELD COUNTY, CO 80621

MARCOVICH MINING RESOURCE
GROUNDWATER MONITORING AND MITIGATION PLAN
ASPHALT SPECIALTIES CO., INC.

DATE: 9/24/2024

Legend

- DRMS Permit Boundary
- Slurry Wall (Approx.)
- POC Monitoring Well
- Up-gradient Monitoring Well
- Monitoring Well To Be Removed

N W E S

Scale: 0 315 630 feet

FIGURE 2

MONITORING WELL NETWORK MAP

MARCOVICH MINING RESOURCE
GROUNDWATER MONITORING PLAN
ASPHALT SPECIALTIES CO., INC.

DATE: 9/24/2024

Legend

N
W E
S

DRMS Permit Boundary

Monitoring Well

4902 Groundwater Potentiomeitrc Contour Line (ft amsl)

Flow Direction Arrow

4901.47 GW Elevation (ft amsl)

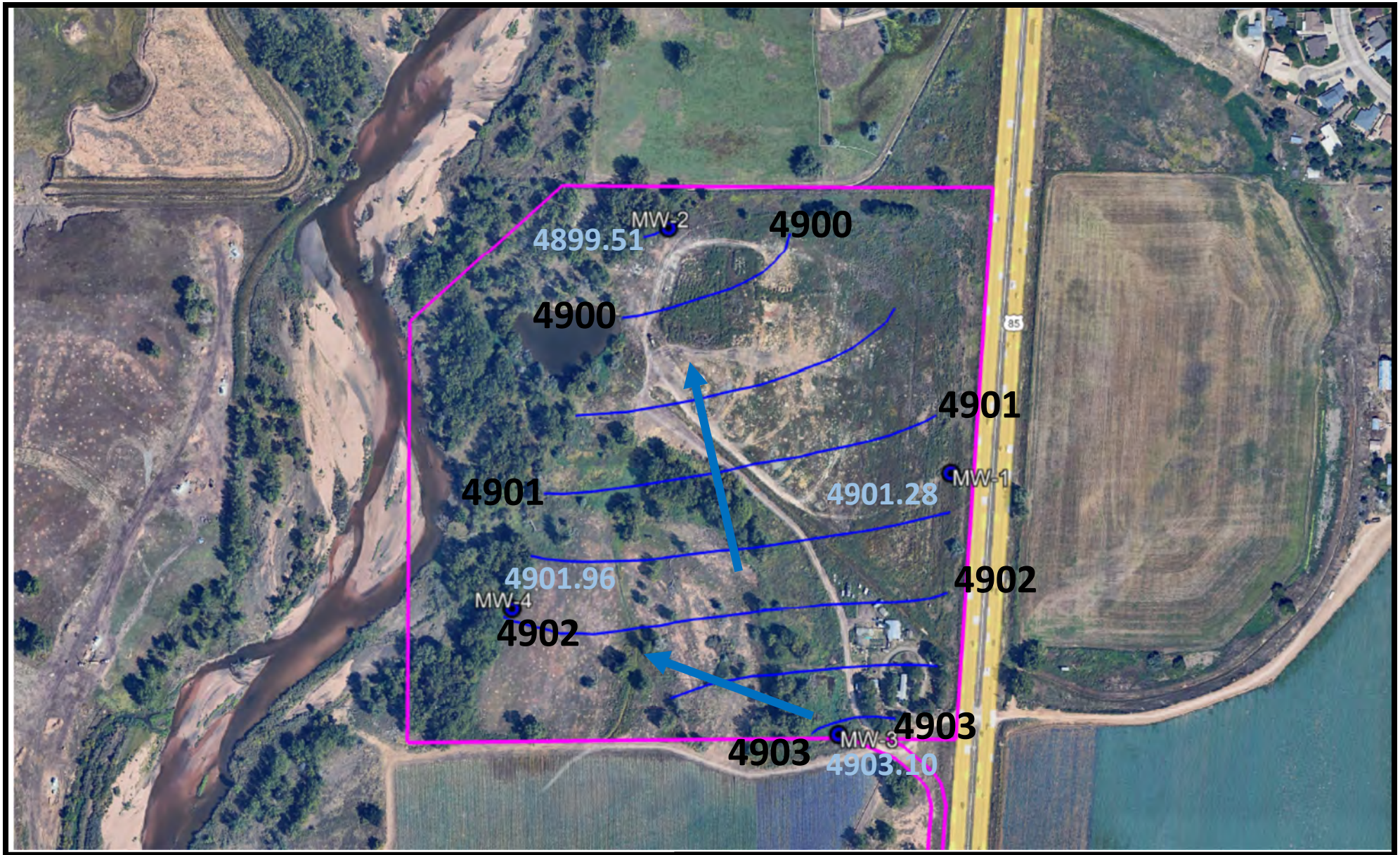
Scale: 0 300 600 feet

FIGURE 3

SEPTEMBER 2024 GROUNDWATER POTENTIOMETRIC MAP

MARCOVICH MINING RESOURCE
GROUNDWATER MONITORING PLAN
ASPHALT SPECIALTIES CO., INC.

DATE: 9/20/2024



Legend

N
W E
S

DRMS Permit Boundary Monitoring Well

4902 Groundwater Potentiomeitrc Contour Line (ft amsl)

Flow Direction Arrow 4901.28 GW Elevation (ft amsl)

Scale: 0 315 630 feet

FIGURE 4

AVERAGE BASELINE GROUNDWATER POTENTIOMETRIC MAP

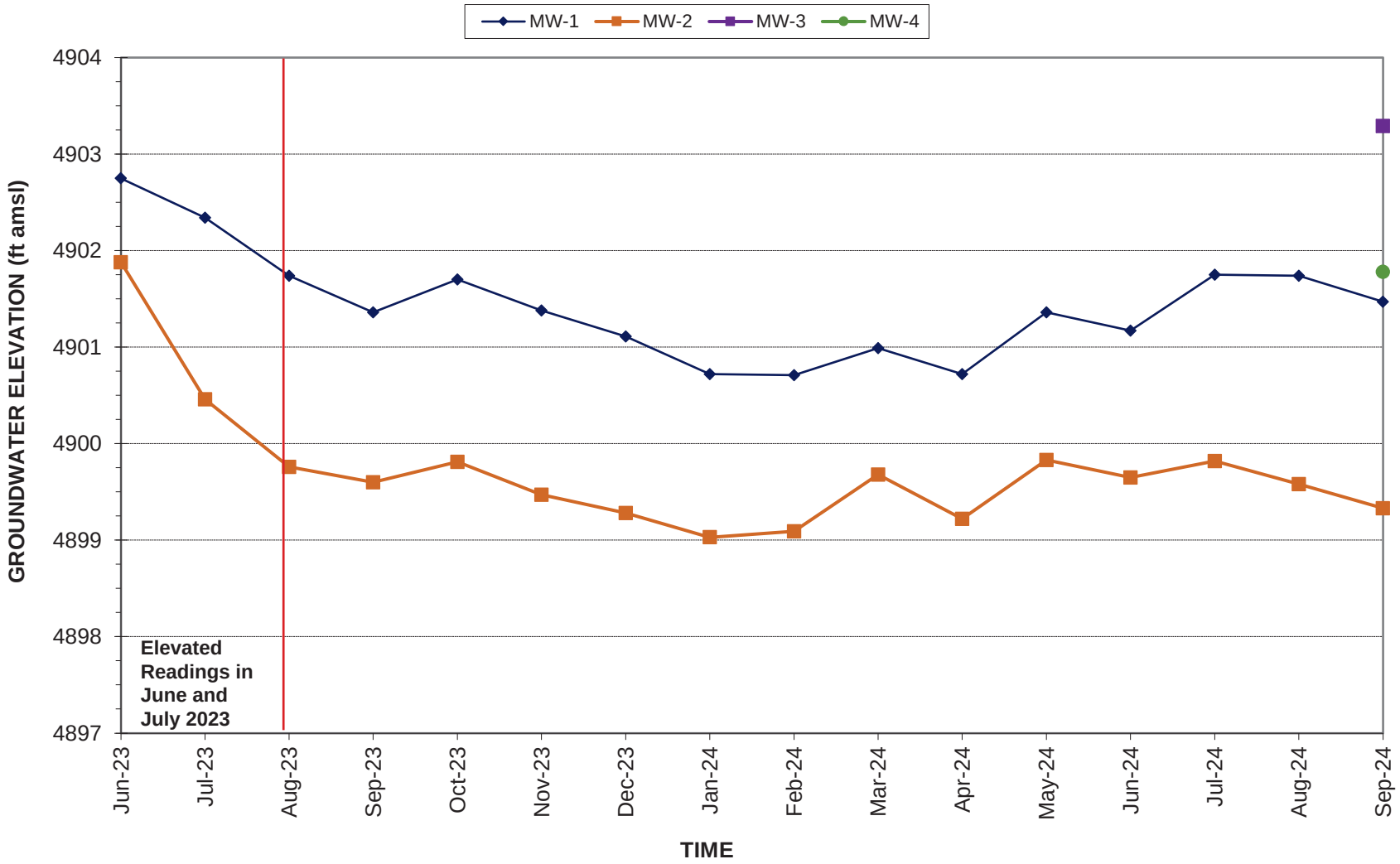
MARCOVICH MINING RESOURCE

GROUNDWATER MONITORING PLAN

ASPHALT SPECIALTIES CO., INC.

DATE: 9/20/2024

Figure 5 - Marcovich Mining Resource
Baseline Groundwater Well Elevations
June 2023 - September 2024



TABLES

Table 1

Marcovich Mining Resource
Groundwater Monitoring Plan
Baseline Groundwater Elevations (To-Date)
June 2023 to September 2024

Well Consturction Information	MW-1	MW-2	MW-3	MW-4
Latitude / Longitude	40.063479° / -104.819044°	40.065363° / -104.821855°	40.061470° / -104.820161°	40.062438° / -104.823413°
TOC (ft amsl)	4909.34	4907.55	4910.47	4910.6
Ground (ft amsl)	4906.5	4904.4	4907.6	4907.7
Screen (Top)	4.38	4.64	5.16	4.96
Screen (Bottom)	29.38	34.64	25.16	24.96
Screen (Length)	25	30	20	20
Total Depth from TOC	32.22	37.79	28.03	27.86
Total Depth (ft bgs)	29.38	34.64	25.16	24.96

Month & Year	MW-1			MW-2			MW-3			MW-4		
	SWL TOC (ft)	SWL (ft bgs)	GW Elev. (ft amsl)	SWL TOC (ft)	SWL (ft bgs)	GW Elev. (ft amsl)	SWL TOC (ft)	SWL (ft bgs)	GW Elev. (ft amsl)	SWL TOC (ft)	SWL (ft bgs)	GW Elev. (ft amsl)
Baseline Collection Period To-Date : August 2023 to September 2024												
June 2023*	*6.59*	*3.75*	***4902.75***	*5.67*	*2.52*	***4901.88***	Well Not Installed			Well Not Installed		
July 2023*	*7.00*	*4.16*	***4902.34***	*7.09*	*3.94*	***4900.46***	Well Not Installed			Well Not Installed		
August 2023	7.60	4.76	**4901.74**	7.79	4.64	**4899.76**	Well Not Installed			Well Not Installed		
September 2023	7.98	5.14	**4901.36**	7.95	4.80	**4899.60**	Well Not Installed			Well Not Installed		
October 2023	7.64	4.80	**4901.70**	7.74	4.59	**4899.81**	Well Not Installed			Well Not Installed		
November 2023	7.96	5.12	**4901.38**	8.08	4.93	**4899.47**	Well Not Installed			Well Not Installed		
December 2023	8.23	5.39	**4901.11**	8.27	5.12	**4899.28**	Well Not Installed			Well Not Installed		
January 2024	8.62	5.78	**4900.72**	8.52	5.37	**4899.03**	Well Not Installed			Well Not Installed		
February 2024	8.63	5.79	**4900.71**	8.46	5.31	**4899.09**	Well Not Installed			Well Not Installed		
March 2024	8.35	5.51	**4900.99**	7.87	4.72	**4899.68**	Well Not Installed			Well Not Installed		
April 2024	8.62	5.78	**4900.72**	8.33	5.18	**4899.22**	Well Not Installed			Well Not Installed		
May 2024	7.98	5.14	**4901.36**	7.72	4.57	**4899.83**	Well Not Installed			Well Not Installed		
June 2024	8.17	5.33	**4901.17**	7.90	4.75	**4899.65**	Well Not Installed			Well Not Installed		
July 2024	7.59	4.75	**4901.75**	7.73	4.58	**4899.82**	Well Not Installed			Well Not Installed		
August 2024	7.60	4.76	**4901.74**	7.97	4.82	**4899.58**	Well Not Installed			Well Not Installed		
September 2024	7.87	5.03	**4901.47**	8.22	5.07	**4899.33**	7.18	4.31	**4903.29**	8.82	5.92	**4901.78**
Average Groundwater Elevation (ft amsl) =**	**4901.28**			**4899.51**			**4903.10**			**4901.96**		

Notes:

** = Elevated readings due to persistent rains during spring and early-summer of 2023*

** = Inferred elevations for MW-3 and MW-4

ags = above ground surface

amsl = above mean sea level

bgs = below ground surface

ft = feet

SWL = Static Water Level

TOC = Top of Casing

Marcovich Mining Resource
Groundwater Monitoring Plan
WQCC Regulation 41 Interim Narrative Standards (INS) Tables 1 – 4

Table 2

Analytes	CAS No.	Units	INS Table 1 Domestic Water Supply: Human Health Standards	INS Table 2 Domestic Water Supply: Drinking Water Standards	INS Table 3 Agricultural Standards	INS Table 4 TDS Water Quaity Standards	Lowest INS Tables 1 - 4 Groundwater Quality Benckmark
Dissolved							
Aluminum	7429-90-5	mg/L	--	--	5	--	**5**
Antimony	7440-36-0	mg/L	0.006	--	--	--	**0.006**
Arsenic	7440-38-2	mg/L	0.01	--	0.1	--	**0.01**
Barium	7440-39-3	mg/L	2	--	--	--	**2**
Beryllium	7440-41-7	mg/L	0.004	--	0.1	--	**0.004**
Boron	7440-42-8	mg/L	--	--	0.75	--	**0.75**
Cadmium	7440-43-9	mg/L	0.005	--	0.01	--	**0.005**
Chloride	16887-00-6	mg/L	--	250	--	--	**250**
Chromium (Total) [Cr(III) + Cr(VI)]	7440-47-3	mg/L	0.1	--	0.1	--	**0.1**
Cobalt	7440-48-4	mg/L	--	--	0.05	--	**0.05**
Copper	7440-50-8	mg/L	--	1	0.2	--	**0.2**
Flouride	16984-48-8	mg/L	4	--	2	--	**2**
Iron	7439-89-6	mg/L	--	0.3	5	--	**0.3**
Lead	7439-92-1	mg/L	0.05	--	0.1	--	**0.05**
Lithium	7439-93-2	mg/L	--	--	2.5	--	**2.5**
Manganese	7439-96-5	mg/L	--	0.05	0.2	--	**0.05**
Molybdenum	7439-98-7	mg/L	0.21	--	--	--	**0.21**
Nickel	7440-02-0	mg/L	0.1	--	0.2	--	**0.1**
Nitrate (NO3)	14797-55-8	mg/L	10	--	--	--	**10**
Nitrite (N02)	14797-65-0	mg/L	1	--	10	--	**1**
Nitrate-Nitrite, Total (NO2 +NO3)	--	mg/L	10	--	100	--	**10**
Selenium	7782-49-2	mg/L	0.05	--	0.02	--	**0.02**
Silver	7440-22-4	mg/L	0.05	--	--	--	**0.05**
Sulfate	14808-79-8	mg/L	--	250	--	--	**250**
Thallium	7440-28-0	mg/L	0.002	--	--	--	**0.002**
Total Dissolved Solids (TDS)	10-33-3	mg/L	--	--	--	Based on Result	**Based on Result**
Uranium	7440-61-1	mg/L	0.03	--	--	--	**0.03**
Vanadium	7440-62-2	mg/L	--	--	0.1	--	**0.1**
Zinc	7440-66-6	mg/L	--	5	2	--	**2**
Other							
pH	--	mg/L	--	6.5 - 8.5	6.5 - 8.5	--	**6.5 - 8.5**

Notes:

= Lowest INS Table Standard per Parameter

All samples are filtered through 0.45 micron filter prior to preservation

Parameters Excluded from Groundwater Monitoring Program:

INS Table 1	INS Table 2	INS Table 3	INS Table 4
Total Coliforms (30 day average)	Chlorophenol	Mercury	None
Total Coliforms (max in 30 days)	Color		
Asbestos	Corrosivity		
Cyanide [Free]	Foaming Agents		
Mercury	Odor		
Gross Alpha Particle Activity	Phenol		
Beta and Photon Emitters			

Marcovich Mining Resource
Groundwater Monitoring Plan
Baseline Groundwater Quality Results (To-Date)
2nd Quarter 2023 - 2nd Quarter 2024

Table 3

Analyte/Parameters	CAS No.	Sample Event:	1st Quarter Background Sampling Event			2nd Quarter Background Sampling Event			3rd Quarter Background Sampling Event			4th Quarter Background Sampling Event			5th Quarter Background Sampling Event			Lowest INS Tables 1 - 4 Groundwater Quality Standards	Marcovich Site-Specific Groundwater Quality Benchmarks (To-Date)
		Well Type:	Up-gradient		Down-gradient	Up-gradient	Down-gradient		Up-gradient		Down-gradient	Up-gradient	Down-gradient		Up-gradient		Down-gradient		
		Sample ID:	MW-1	MW-1D	MW-2	MW-1	MW-2	MW-2D	MW-1	MW-1D	MW-2	MW-1	MW-2	MW-2D	MW-1	MW-1D	MW-2		
		Date:	6/30/2023	6/30/2023	6/30/2023	9/27/2023	9/27/2023	9/27/2023	12/14/2023	12/14/2023	12/14/2023	3/28/2024	3/28/2024	3/28/2024	6/25/2024	6/25/2024	6/25/2024		
		Type:	Grab	QA/QC	Grab	Grab	Grab	QA/QC	Grab	QA/QC	Grab	Grab	Grab	QA/QC	Grab	QA/QC	Grab		
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Dissolved																			
Aluminum	7429-90-5	mg/L	**0.017**	**0.019**	**0.015**	**0.003**	**0.002**	**0.003**	**0.004**	**0.004**	**0.008**	**0.003**	**0.003**	**0.004**	**0.009**	**0.005**	**0.002**	**5**	**5**
Antimony	7440-36-0	mg/L	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	**0.006**	**0.006**
Arsenic	7440-38-2	mg/L	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	**0.01**	**0.01**
Barium	7440-39-3	mg/L	**0.0867**	**0.086**	**0.0886**	**0.0955**	**0.1046**	**0.1052**	**0.0986**	**0.0942**	**0.0738**	**0.0958**	**0.0769**	**0.0782**	**0.0916**	**0.0975**	**0.0817**	**2**	**2**
Beryllium	7440-41-7	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	**0.004**	**0.004**
Boron	7440-42-8	mg/L	**0.33**	**0.32**	**0.3**	**0.29**	**0.27**	**0.28**	**0.2**	**0.2**	**0.16**	**0.28**	**0.21**	**0.2**	**0.29**	**0.29**	**0.24**	**0.75**	**0.75**
Cadmium	7440-43-9	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	**0.005**	**0.005**
Chloride	16887-00-6	mg/L	**201.2**	**201.99**	**223.45**	**201**	**274**	**274**	**200**	**203**	**201**	**213**	**200**	**200**	**198**	**215**	**173**	**250**	**274**
Chromium (Total) [Cr(III) + Cr(VI)]	7440-47-3	mg/L	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	**0.1**	**0.1**
Cobalt	7440-48-4	mg/L	**0.0003**	**0.0002**	**0.0011**	**0.0002**	**0.0004**	**0.0004**	**0.0002**	**0.0002**	**0.0003**	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0006**	**0.05**	**0.05**
Copper	7440-50-8	mg/L	**0.0018**	**0.002**	**0.0019**	**0.0016**	**0.0017**	**0.0018**	**0.0017**	**0.0015**	**0.0015**	**0.0011**	**0.0012**	**0.0013**	**0.0011**	**0.0014**	**0.0019**	**0.2**	**0.2**
Flouride	16984-48-8	mg/L	**1.18**	**1.18**	**1.25**	**1.26**	**1.14**	**1.16**	**1.11**	**1.14**	**1.01**	**1.16**	**1.06**	**1.05**	**1.09**	**1.21**	**0.98**	**2**	**2**
Iron	7439-89-6	mg/L	0.005 U	0.005 U	**0.009**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.006**	0.005 U	0.005 U	**0.005**	0.005 U	0.005 U	0.005 U	**0.3**	**0.3**
Lead	7439-92-1	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	**0.05**	**0.05**
Lithium	7439-93-2	mg/L	**0.033**	**0.033**	**0.028**	**0.046**	**0.042**	**0.045**	**0.039**	**0.039**	**0.032**	**0.037**	**0.028**	**0.028**	0.1 U	0.1 U	0.1 U	**2.5**	**2.5**
Manganese	7439-96-5	mg/L	**0.0144**	**0.0148**	**0.0041**	0.0008 U	**0.0025**	**0.0027**	0.0008 U	0.0008 U	**0.0015**	0.0008 U	**0.0009**	0.0008 U	**0.0008**	0.0008 U	**0.0023**	**0.05**	**0.05**
Molybdenum	7439-98-7	mg/L	**0.0099**	**0.0102**	**0.004**	**0.0058**	**0.0033**	**0.0036**	**0.0056**	**0.0056**	**0.0024**	**0.004**	**0.0024**	**0.0023**	**0.0036**	**0.0033**	**0.0032**	**0.21**	**0.21**
Nickel	7440-02-0	mg/L	**0.0029**	**0.003**	**0.0027**	**0.0021**	**0.0024**	**0.0026**	**0.002**	**0.002**	**0.0018**	**0.0019**	**0.0017**	**0.0016**	**0.002**	**0.002**	**0.002**	**0.1**	**0.1**
Nitrate (NO3)	14797-55-8	mg/L	**19.37**	**19.48**	**14.96**	**15.3**	**13.8**	**13.6**	**15.5**	**15.9**	**12**	**11.9**	**14.6**	**14.5**	**9.28**	**9.79**	**6.56**	**10**	**19.48**
Nitrite (NO2)	14797-65-0	mg/L	0.3 U	0.3 U	0.3 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	**1**	**1**
Nitrate-Nitrite, Total (NO2+NO3)	--	mg/L	**19.37**	**19.48**	**14.96**	**15.3**	**13.8**	**13.6**	**15.5**	**15.9**	**12**	**11.9**	**14.6**	**14.5**	**9.28**	**9.79**	**6.56**	**10**	**19.48**
Selenium	7782-49-2	mg/L	**0.0033**	**0.0041**	**0.0037**	**0.0023**	**0.0039**	**0.0035**	**0.0025**	**0.0023**	**0.002**	**0.001**	**0.0016**	**0.0013**	**0.0023**	**0.0021**	**0.0023**	**0.02**	**0.02**
Silver	7440-22-4	mg/L	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	**0.05**	**0.05**
Sulfate	14808-79-8	mg/L	**249.51**	**251.21**	**286.72**	**264**	**292**	**290**	**236**	**240**	**223**	**579**	**210**	**210**	**215**	**243**	**176**	**250**	**579**
Thallium	7440-28-0	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	**0.0005**	**0.002**	**0.002**
Total Dissolved Solids (TDS)	10-33-3	mg/L	**1160**	**1187**	**1087**	**1006**	**1254**	**1192**	**1150**	**1112**	**904**	**1142**	**956**	**964**	**1254**	**1373**	**1193**	**1716.25** [a]	**1716.25**
Uranium	7440-61-1	mg/L	**0.0199**	**0.019**	**0.0219**	**0.0159**	**0.0104**	**0.0115**	**0.0114**	**0.0091**	**0.0049**	**0.0185**	**0.0072**	**0.009**	**0.0309**	**0.0321**	**0.0102**	**0.03**	**0.0321**
Vanadium	7440-62-2	mg/L	0.001 U	0.001 U	**0.001**	**0.001**	**0.001**	**0.001**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.1**	**0.1**
Zinc	7440-66-6	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.001**	**0.001**	0.001 U	0.001 U	0.001 U	**2**	**2**
Other																			
pH	--	su	**7.0**	**7.0**	**6.9**	**7.3**	**7.0**	**7.0**	**6.9**	**7.0**	**6.7**	**7.0**	**6.8**	**6.8**	**7.2**	**7.2**	**7.1**	**6.5 - 8.5**	**6.5 - 8.5**

Notes:

	= Marcovich Site-Specific Groundwater Quality Standard value per Baseline sampling results (to-date)
	= Marcovich Groundwater Quality Standard value based on lowest applicable INS Tables 1 - 4 standard
	= Background concentration result exceeds lowest applicable INS Tables 1 - 4 standard
	= Highest Background TDS value
Bold	= Concentration detected above reporting limit
[a]	= Calculated Value (Per WQCC Regulation No. 41, for Background TDS Value between 501 - 10,000 mg/L, the Maximum Allowable TDS Concentration is 1.25 times the background value)
BKG	= Background
INS	= Interim Narrative Standard
mg/L	= milligrams per liter
POC	= Point of Compliance
su	= standard unit
U	= Analyte not detected above reporting limit
WQCC	= Water Quality Control Commission

APPENDIX A
MONITORING WELL CONSTRUCTION LOGS

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

Marcovich Mining Resource

Monitoring Well Construction Log: MW-1

Date: 6/29/2023
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)
Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.063479° / -104.819044°
Ground Elevation: 4,906.5 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL CONSTRUCTION	APPROX. DEPTH TO WATER (Drilling)	Elevation (ft amsl)
0		Ground Surface	Concrete Pad; Protective Casing		4,907
1–2		Sandy silt/clay, brown, dry (Overburden)	Bentonite Seal; Riser		4,906–4,905
3–30		Sand and gravel, tan, dry (Alluvium) moisture present at ~3 ft bgs (% gravel increasing w/ depth) wet at ~ 4 ft bgs	10/20 Silica Sand Pack; 0.010" Slotted Screen	6 ft bgs	4,904–4,877
30		Total Depth of Boring 30 feet bgs			

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

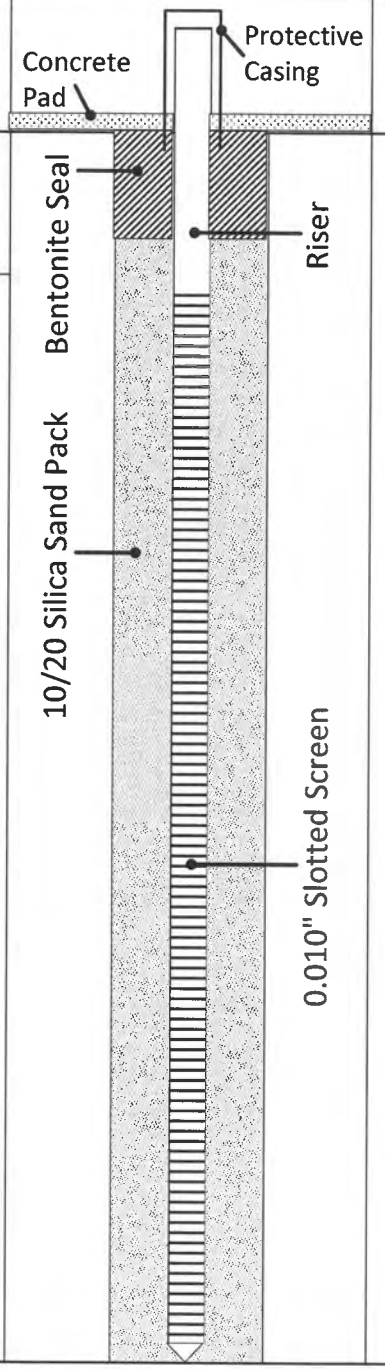
Marcovich Mining Resource

Monitoring Well Construction Log: MW-2

Date: 6/22/2023
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.065363° / -104.821855°
Ground Elevation: 4,904.4 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		**Ground Surface**
1 – 4		Sandy clay/silt, brown, dry (Overburden)
5 – 34		Sand and gravel, tan, dry (Alluvium) moisture present at ~5 ft bgs wet at ~ 6 ft bgs % gravel increasing w/ depth
34		Top of Shale encountered at 34.5 feet bgs (Bedrock)



APPROX. DEPTH TO WATER (Drilling): 5 ft bgs

Elevation (ft amsl): 4,907 – 4,906 – 4,905 – 4,904 – 4,903 – 4,902 – 4,901 – 4,900 – 4,899 – 4,898 – 4,897 – 4,896 – 4,895 – 4,894 – 4,893 – 4,892 – 4,891 – 4,890 – 4,889 – 4,888 – 4,887 – 4,886 – 4,885 – 4,884 – 4,883 – 4,882 – 4,881 – 4,880 – 4,879 – 4,878 – 4,877 – 4,876 – 4,875 – 4,874 – 4,873 – 4,872 – 4,871 – 4,870

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

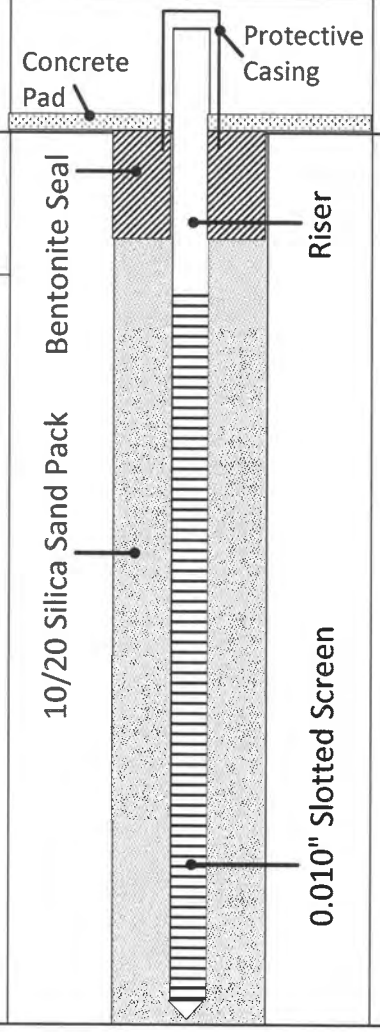
Marcovich Mining Resource

Monitoring Well Construction Log: MW-3

Date: 9/5/2024
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.061470° / -104.820161°
Ground Elevation: 4,907.6 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		Ground Surface
1–4		Sandy clay/silt, brown, dry (Overburden)
5–25		Sand with gravel, tan, dry (Alluvium) moisture present at ~5 ft bgs wet at ~ 6 ft bgs % gravel increasing w/ depth
25		Total Depth of Boring 25 feet bgs



APPROX. DEPTH TO WATER (Drilling): 6 ft bgs

Elevation (ft amsl): 4,911 to 4,883

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

Marcovich Mining Resource

Monitoring Well Construction Log: MW-4

Date: 9/5/2024
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.062438° / -104.823413°
Ground Elevation: 4,907.7 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL CONSTRUCTION	APPROX. DEPTH TO WATER (Drilling)	Elevation (ft amsl)
-3			Protective Casing		4,911
-2					4,910
-1			Concrete Pad		4,909
0		Ground Surface			4,908
1		Sandy clay/silt, brown, dry (Overburden)	Bentonite Seal		4,907
2					4,906
3			Riser		4,905
4					4,904
5		Sand with gravel, tan, dry (Alluvium)			4,903
6				6 ft bgs	4,902
7		wet at ~ 6 ft bgs			4,901
8					4,900
9					4,899
10					4,898
11					4,897
12			10/20 Silica Sand Pack		4,896
13					4,895
14					4,894
15					4,893
16		% gravel increasing w/ depth			4,892
17					4,891
18					4,890
19					4,889
20					4,888
21					4,887
22			0.010" Slotted Screen		4,886
23		Sandy Gravel ~ 22 ft bgs			4,885
24					4,884
25					4,883
		Total Depth of Boring 25 feet bgs			

Appendix G-3 Groundwater Model

DEWATERING EVALUATION REPORT
ASCI MARCOVICH MINE

WELD COUNTY, COLORADO
AWES PROJECT # 2024 ASCI-01
OCTOBER 2024

Prepared for:

Asphalt Specialties Co., Inc. (ASCI)
345 W. 62nd Ave.
Denver, CO 80216

Prepared by:

AWES, LLC
4809 Four Star Ct.
Fort Collins, CO 80524

Introduction

The following report presents the results of a hydrogeologic evaluation regarding a proposed dry mine gravel quarry operation to be operated by Asphalt Specialties Company, Inc., (ASCI) near Fort Lupton, Colorado. ASCI identifies the proposed mine as the Marcovich Pit.

This evaluation consisted of reviewing available hydrogeologic data and inputting those data into a numerical groundwater flow model. The model was then used to estimate the effects of dewatering operations on the surrounding groundwater hydrology. This report was prepared as part of an OMLR 112 permit application. The site location is depicted on Figure 1.

Background Information

The majority of the proposed gravel quarry is located in NE1/4 of the SW1/4 of Section 7 Township 1 North, Range 66 West of the 6th Principal Meridian. The surrounding land use consists of agricultural, rural residential and oil and gas gathering. The proposed disturbed mine area occupies an estimated 44 acres. The anticipated extraction depth is anticipated to vary between 25 and 35 feet below grade.

Information provided by geotechnical investigations, monitoring well water level data and water resource evaluation reports document the local and regional hydrogeology. Between June 2023 and September 2024, four soil borings were drilled from ground surface to bedrock to determine the potential aggregate mass within the proposed mine boundary. All borings were competed as two-inch diameter monitoring wells. Soil boring and well logs are provided as Appendix A.

Bedrock elevations were obtained from mine geotechnical studies, and well records from the State of Colorado Division of Water Resources (Division). The depth to bedrock within the proposed mine pit boundaries varied between 25 and 35 feet below ground surface. In general soil conditions consist of two to four feet of top soil and sandy clay underlain by 25 to 35 feet of sand and gravel. The coarse alluvial deposits are underlain by bedrock which consists of siltstone, sandstone and claystone.

Based on domestic and municipal well test records the hydraulic conductivity of the sand and gravel deposits varied between 93 and 746 feet per day. A hydraulic conductivity of 200 feet per day was used for model simulations. The average effective porosity of the local sand and gravel deposits is estimated at 0.27. The natural hydraulic gradient as documented by past water resource investigation reports and measured water table elevation data is on the order of 0.0024 feet per foot within the coarse alluvial deposits. The average depth to groundwater measured in the ASCI monitoring wells was 4.61 feet below ground surface (annual high and low average). The natural groundwater flow direction within the mine area is to the north-northwest. Within the model area the groundwater flow direction varies from northeast to northwest. Seasonal water table fluctuations of between two and three feet were documented by ASCI; however, fluctuations of greater than ten feet have been documented during drought conditions (Schneider, 1983). The mine area and model boundary are depicted on Figure 1.

A slurry wall will be installed at the extent of the mining area as depicted on the model boundary condition Plate. Mining will consist of dry mining and the water table in the pit will be drawn down to the pit bottom or bedrock by allowing groundwater to flow from the side walls of the excavation into ditches excavated into the bedrock or pit bottom. The ditches will be sloped so water drains to predetermined pump locations. The water is then pumped from the excavation into a discharge trench, which will eventually outfall to the South Platte River.

Project Assumptions

The following are assumptions made in estimating the slurry wall and pit dewatering effects.

- The aquifer within the model boundary is heterogeneous and anisotropic.
- The average water table altitude within the mine area varies between 4899 and 4903 feet above mean sea level.
- The average horizontal hydraulic conductivity (K) of the sand and gravel deposits is 200 feet per day and the vertical K value is 20 feet per day. A 1.5 inch recharge rate from precipitation was assigned to the entire model area.
- The vertical hydraulic conductivity of the South Platte River bed is 4 feet per day.
- The hydraulic conductivity of the slurry wall material is 0.001 feet per day with a wall thickness of 4 feet.
- Other than dewatering associated with the pits no other aquifer stresses such as drought and surrounding well use were modeled.
- All groundwater solutions are steady state.
- The bedrock which underlies the coarse alluvial deposits is an impermeable barrier.

Model Parameters

The effects of dewatering on groundwater flow within the study area were evaluated by using the three dimensional groundwater flow model Visual ModFlow Pro (VMOD). The general parameters used in the model are presented below. The model grid is depicted on Plate 1. A model grid cross section is presented as Plate 2.

- The model boundary is 5000 feet (east-west) by 4500 feet (north-south);
- The model grid is 90 rows by 100 columns or 9000 cells;
- Two layers were used in the model with the upper layer representing unconsolidated alluvial deposits and the lower layer representing bedrock;
- The thickness of the upper layer varied between 24 and 35 feet within the pit areas;
- Constant head boundaries were assigned for the dewatering line sinks.;
- River boundaries were assigned for the South Platte River;
- Barrier walls were assigned to the slurry walls for shadow and mounding simulations; and,
- General head boundaries were assigned to the model perimeter.

A uniform flow field was defined in the model with an unconfined aquifer. Water levels obtained from published water level data and existing monitoring well data were used to generate water level contours unaffected by any pumping influences. Water level data within the mine boundaries were used to calibrate the model based on observed conditions. Ground surface and bedrock elevations were obtained from site surveys, drill hole data, water well records and USGS maps. The ground surface and bedrock elevations were input into the geo-statistical model Surfer®, which created surface and bedrock contour maps. These surface and bedrock elevation data were imported into VMOD to define the ground surface and bedrock elevations within the flow model. The river stage elevations were extrapolated from available groundwater data and historic USGS groundwater contours.

Water table elevations measured in on-site piezometers over a 15 month period were averaged and these elevations were used in the calibration process. Water table contours generated from measured water levels (ASCI wells) are presented on Figure 2. The model boundary was superimposed over a topographic map and the author generated hand drawn contours that best reflected measured groundwater and surface water elevations. General head boundaries were assigned to the model perimeter and head elevations were assigned where hand drawn elevations intersected the model boundary. The model was then ran and model predicted heads were compared to observed heads. After the calibration process was completed the “cell inspector” function was used to determine the predicted head elevation for model assigned wells. The head elevations at the model assigned wells prior to any mining activities were used as a baseline to measure the effects of dewatering and mine slurry wall installations. The calibration simulation included seepage from the river boundaries which included the South Platte River. The calibration simulation is depicted on Plate 3. The model calculated head values as depicted on the calibration head graph are depicted on Plate 4. Plate 5 depicts calibration boundary conditions.

To evaluate the effects of the slurry walls on the local groundwater hydrology, barrier walls were assigned near the excavation limits of the pit. A model simulation was then ran to predict the effects of the slurry walls on the groundwater hydrology. Plate 6 depicts predicted groundwater contours for post slurry wall conditions. The calibration graph for this simulation is depicted on Plate 7.

To simulate the effects of mine dewatering constant head line sinks were assigned to cells within the pit with head values approximately four feet above the bedrock elevation, which accounts for the predicted seepage face. To account for significant differences in bedrock elevations linear gradients were assigned to the line sinks where appropriate. Predicted groundwater contours resulting from mine dewatering are presented on Plate 8. Calibration graph for the dewatering simulation are presented on Plate 8. Tables 1 presents the predicted water level changes resulting from the slurry wall installations and dewatering for the ultimate pit depth.

ASCI intends to reclaim the mine as a surface water storage pond. The reclamation plan indicates a pond water elevation of 4900 feet. A constant head line source was placed within the barrier wall and a simulation ran to evaluate the effects of water storage. Simulation contours are presented on Plate 10 and the calibration graph is presented as Plate 11. A review of these Plates show that no hydrology changes are predicted as a result of water storage.

Table 1 – Simulation Water Levels

Point	Distance to Slurry Wall (ft.)	Calibration Water Level (ft.)	Dewatering Water Level (ft.)	Post Slurry Wall Water Level (ft)	Dewatering Elevation Difference (ft.)	Post Slurry Wall Elevation Difference (ft.)
MW-1	100	4897.88	4896.91	4896.92	-0.97	-0.96
MW-2	100	4902.49	4903.87	4903.88	1.38	1.39
MW-3	50	4898.76	4897.89	4897.90	-0.87	-0.86
MW-4	50	4900.63	4901.64	4901.65	1.01	1.02

Results

A review of Table 1 shows that the groundwater hydrology exhibits minor shadow and mounding effects from the slurry walls with very minimal influences from dewatering. Wells MW-2 and MW-4 are located on the upstream side of the barrier walls and MW-1 and MW-3 are on the downstream side of the walls. The model predicts mine dewatering will result in a drawdown of much less than one foot in all directions from the mine faces. A review of Table 1 shows that the predicted groundwater mounding and drawdowns immediately up and downgradient of the slurry wall are within the range of normal seasonal water table elevation changes.

Conclusions

The results of numerical solutions indicate that the proposed mine dewatering activities will not adversely affect the regional groundwater hydrology. In the author's opinion one cannot reasonably differentiate the head differences of seasonal groundwater fluctuations and head

differences created by mining activities – they are both within expected seasonal head variations. The placement of the slurry wall substantially mitigates the effects of dewatering and will substantially reduce the pumping rate required for dry mining. If required, groundwater mounding resulting from the placement of the slurry wall can be mitigated by installing a single drain and associated infiltration gallery.

This report was prepared by **AWES, LLC**

_____ Date: 10/03/2024

Joby L. Adams, P.G., REM
Principal/Hydrogeologist

REFERENCES

Colton, R.B., and Fitch, H.R., 1974, Map showing potential sources of gravel and crushed-rock aggregate in the Boulder-Fort Collins-Greeley area, Front Range Urban Corridor, Colorado: U.S. Geol. Survey Misc. Geol. Inv. Map I-855-D.

Schneider, P. A., 1983, Shallow groundwater in the Boulder—Fort Collins—Greeley area, Colorado, 1975-77: U.S. Geological Survey Water Resources Investigation Report 83-4058.

APPENDIX A

BORING LOGS

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

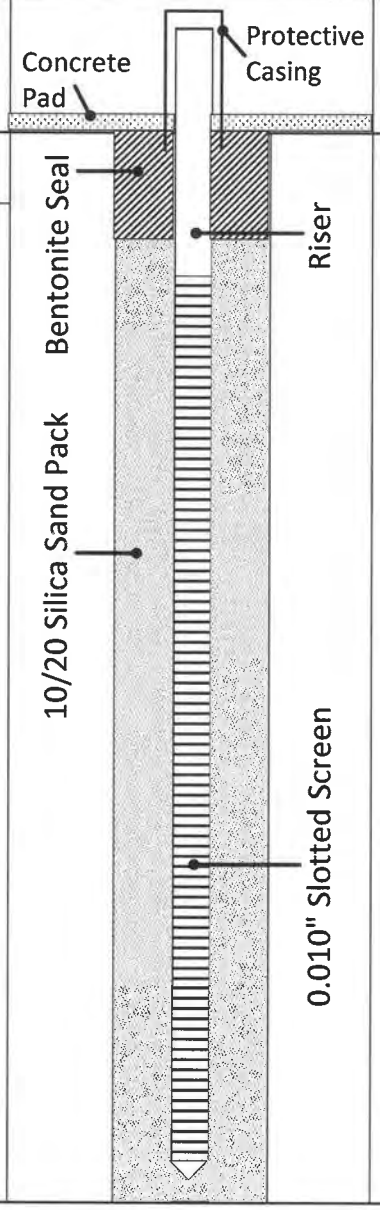
Marcovich Mining Resource

Monitoring Well Construction Log: MW-1

Date: 6/29/2023
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.063479° / -104.819044°
Ground Elevation: 4,906.5 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		**Ground Surface**
1–2		Sandy silt/clay, brown, dry (Overburden)
3–30		Sand and gravel, tan, dry (Alluvium) moisture present at ~3 ft bgs (% gravel increasing w/ depth) wet at ~ 4 ft bgs
30		Total Depth of Boring 30 feet bgs



APPROX. DEPTH TO WATER (Drilling): 6 ft bgs

Depth (ft bgs)	Elevation (ft amsl)
0	4,907
1	4,906
2	4,905
3	4,904
4	4,903
5	4,902
6	4,901
7	4,900
8	4,899
9	4,898
10	4,897
11	4,896
12	4,895
13	4,894
14	4,893
15	4,892
16	4,891
17	4,890
18	4,889
19	4,888
20	4,887
21	4,886
22	4,885
23	4,884
24	4,883
25	4,882
26	4,881
27	4,880
28	4,879
29	4,878
30	4,877

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

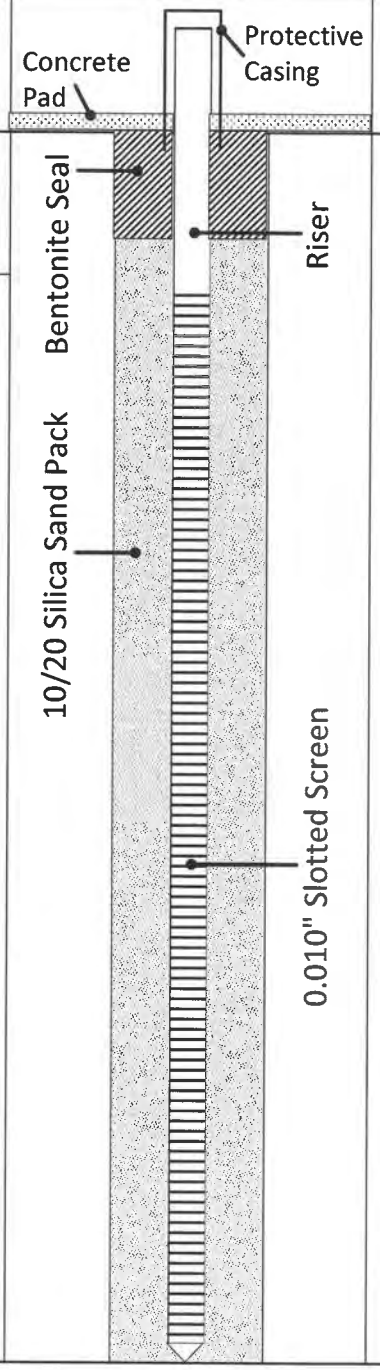
Marcovich Mining Resource

Monitoring Well Construction Log: MW-2

Date: 6/22/2023
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.065363° / -104.821855°
Ground Elevation: 4,904.4 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		Ground Surface
1 – 4		Sandy clay/silt, brown, dry (Overburden)
5 – 34		Sand and gravel, tan, dry (Alluvium) moisture present at ~5 ft bgs wet at ~ 6 ft bgs % gravel increasing w/ depth
34		Top of Shale encountered at 34.5 feet bgs (Bedrock)



APPROX. DEPTH TO WATER (Drilling): 5 ft bgs

Elevation (ft amsl)
4,907 – 4,870

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

Marcovich Mining Resource

Monitoring Well Construction Log: MW-3

Date: 9/5/2024
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)

Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.061470° / -104.820161°
Ground Elevation: 4,907.6 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL CONSTRUCTION	APPROX. DEPTH TO WATER (Drilling)	Elevation (ft amsl)
-3			Protective Casing		4,911
-2					4,910
-1			Concrete Pad		4,909
0		Ground Surface			4,908
1		Sandy clay/silt, brown, dry (Overburden)	Bentonite Seal		4,907
2					4,906
3			Riser		4,905
4					4,904
5		Sand with gravel, tan, dry (Alluvium)			4,903
6		moisture present at ~5 ft bgs		6 ft bgs	4,902
7		wet at ~ 6 ft bgs			4,901
8					4,900
9					4,899
10					4,898
11					4,897
12			10/20 Silica Sand Pack		4,896
13					4,895
14		% gravel increasing w/ depth			4,894
15					4,893
16					4,892
17					4,891
18					4,890
19					4,889
20					4,888
21			0.010" Slotted Screen		4,887
22					4,886
23					4,885
24					4,884
25					4,883
		Total Depth of Boring 25 feet bgs			

ASPHALT SPECIALTIES CO.

345 W. 62nd Ave.
Denver, CO 80216
Phone: 303-289-8555

Asphalt Specialties Co., Inc.

Marcovich Mining Resource

Monitoring Well Construction Log: MW-4

Date: 9/5/2024
Drilling Company: Terracon
Drilling Method: Hollow Stem Auger (HSA)
Well Material: 2" Schedule 40 PVC
Well Lat. / Long.: 40.062438° / -104.823413°
Ground Elevation: 4,907.7 ft amsl

DEPTH (ft bgs)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	APPROX. DEPTH TO WATER (Drilling)	Elevation (ft amsl)
0		Ground Surface		4,908
1–4		Sandy clay/silt, brown, dry (Overburden)		4,907–4,904
5–7		Sand with gravel, tan, dry (Alluvium)		4,903–4,901
7		wet at ~ 6 ft bgs	6 ft bgs	4,901
8–15				4,900–4,893
16		% gravel increasing w/ depth		4,892
17–22				4,891–4,886
23		Sandy Gravel ~ 22 ft bgs		4,885
24–25				4,884–4,883
		Total Depth of Boring 25 feet bgs		

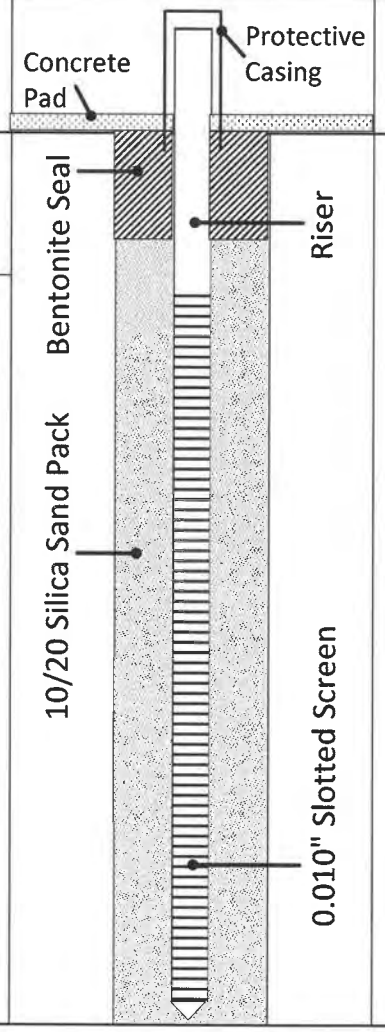


Figure 1 - Site Location Map

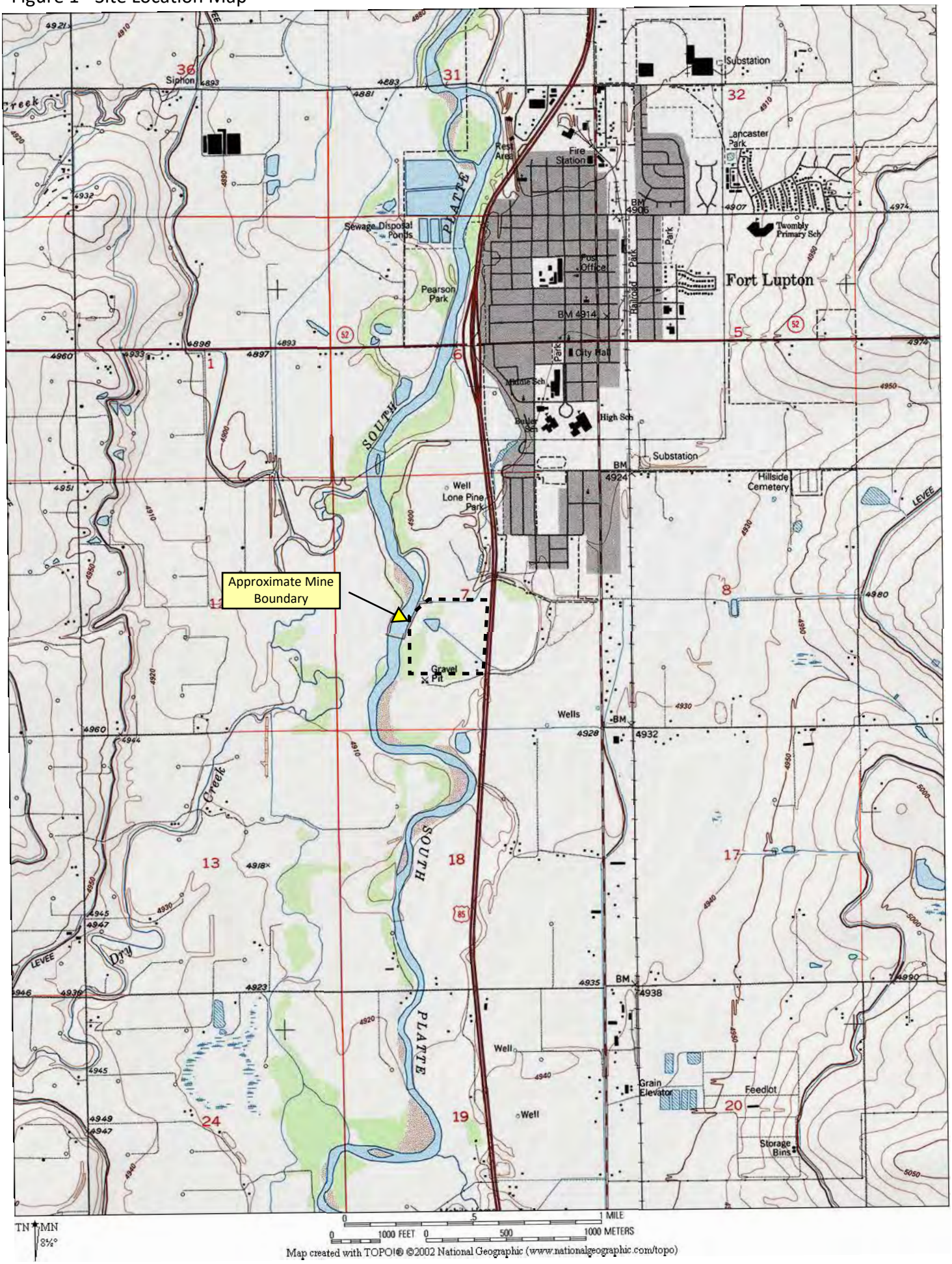


Figure 3 - ASCI Water Table Countours

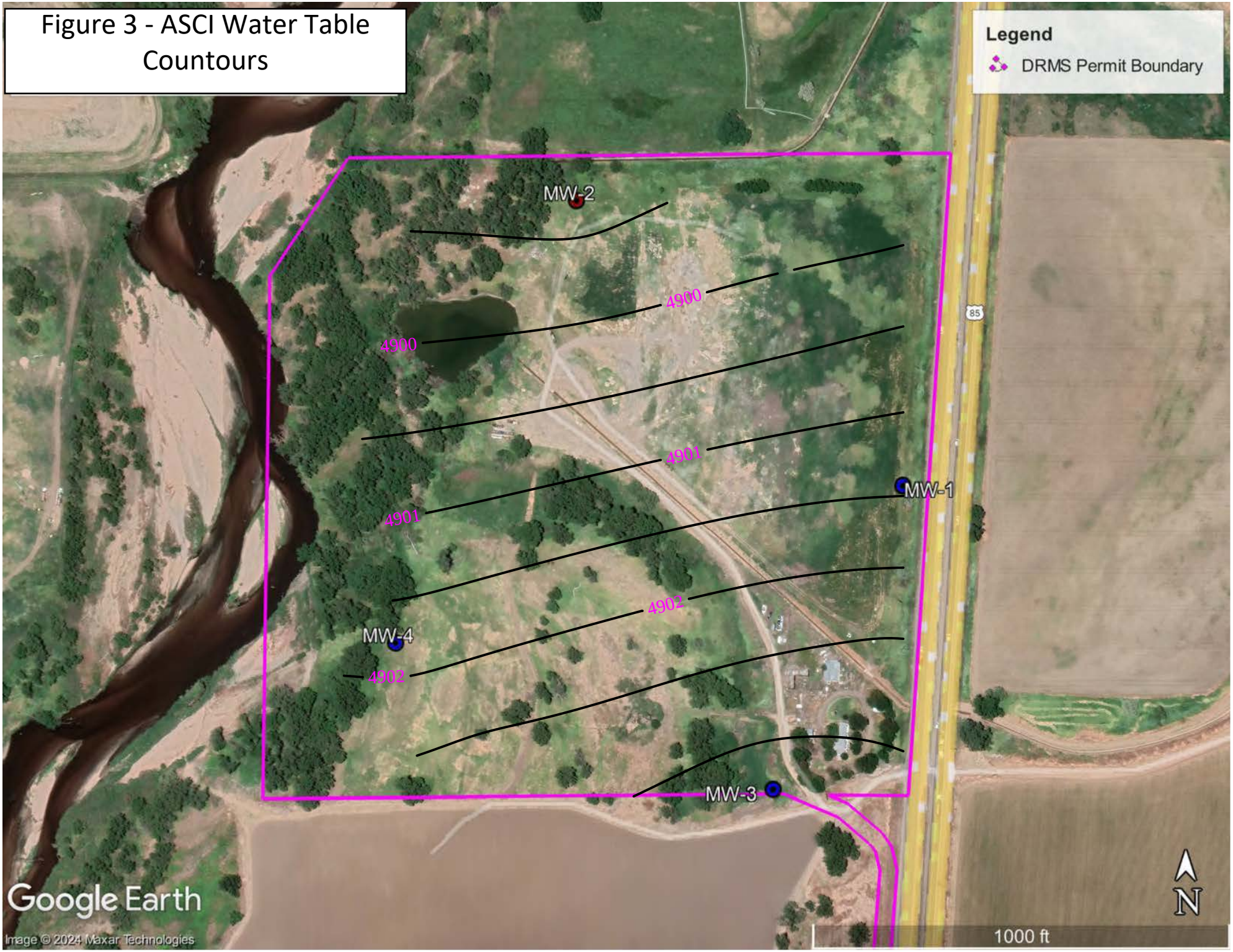
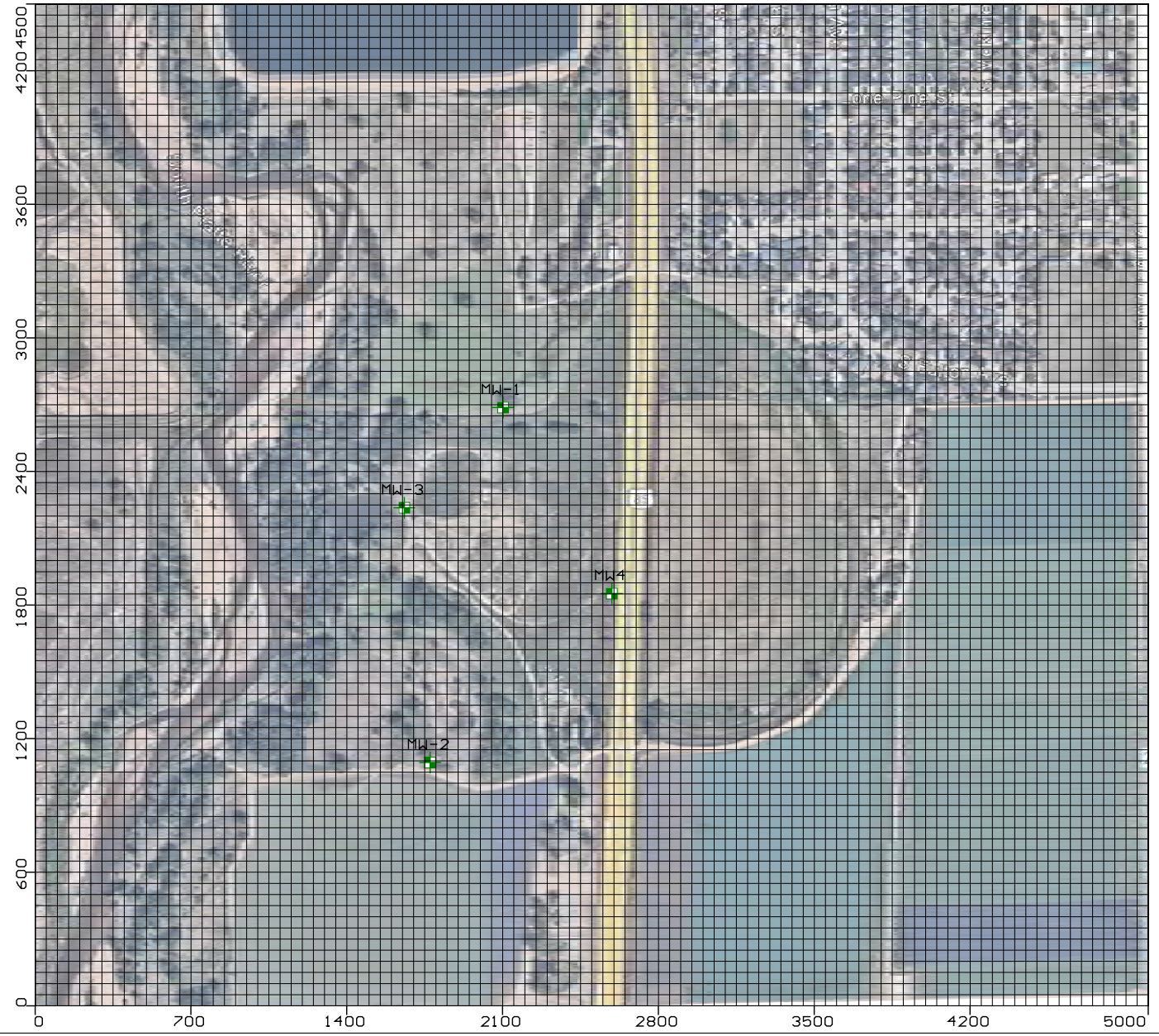


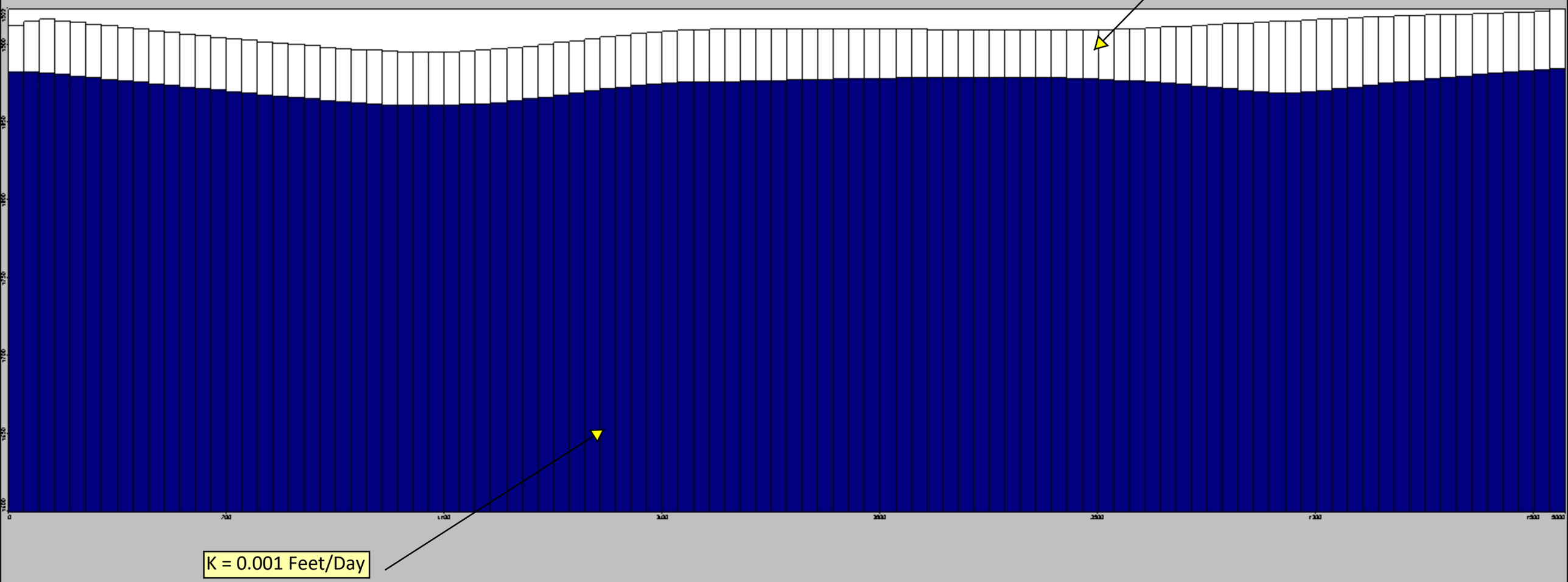
PLATE 1- Model Grid



ASCI Marcovich Pit
Model Grid Map
Weld County, Colorado

Company: AWES, LLC	Project: Marcovich Pit VMOD Simulations Modeller: JLA

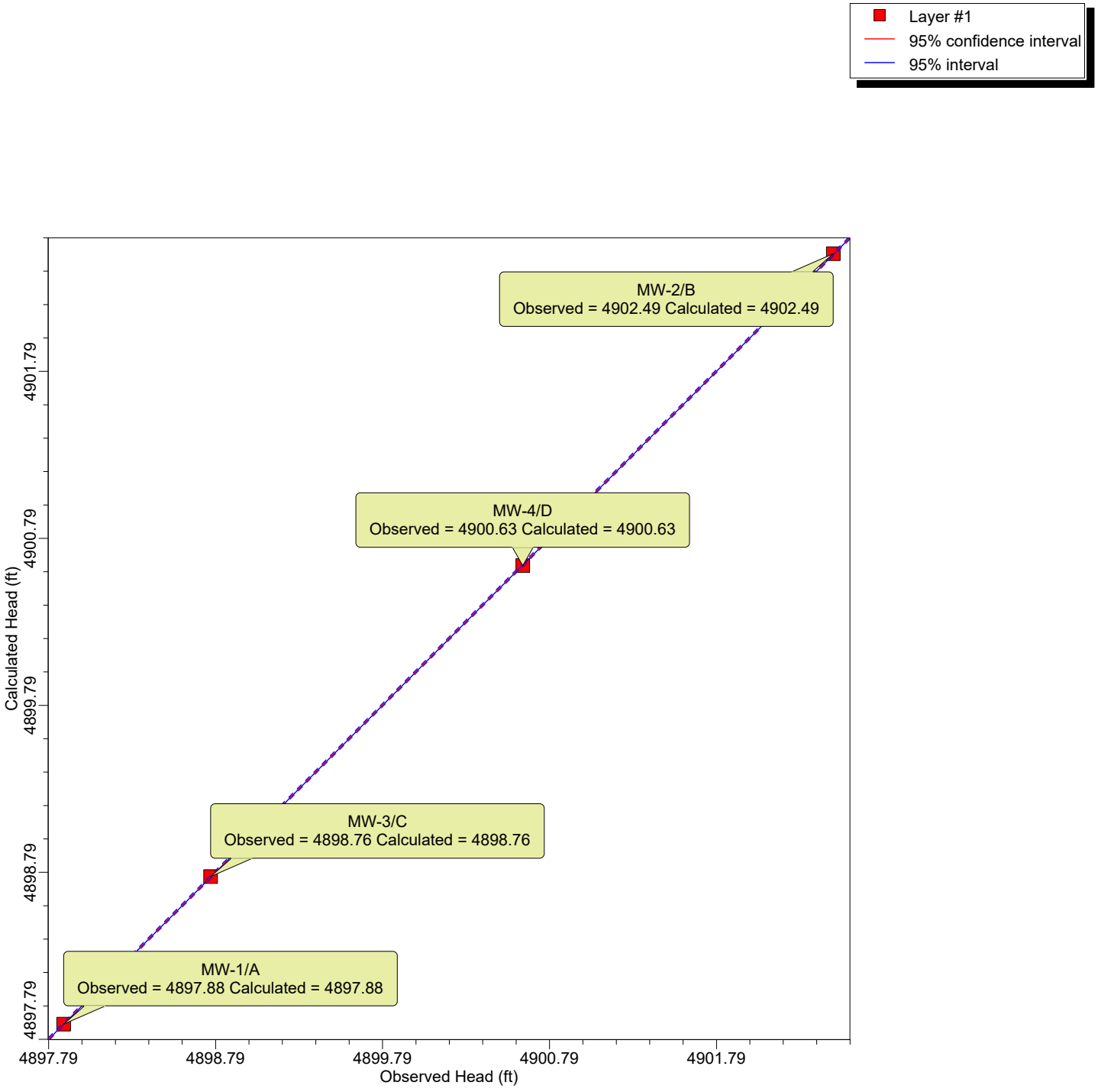
PLATE 2 - Model Cross Section



ASCI Marcovich Pit
Calibratrion Simulation
Weld County, Colorado

Company: AWES, LLC	Project: Marcovich Pit VMOD Simulations Modeller: JLA

Plate 4 - Calibration Head Graph



Max. Residual: 0.005 (ft) at MW-3/C
Min. Residual: 0.001 (ft) at MW-1/A
Residual Mean : 0.002 (ft)
Abs. Residual Mean : 0.003 (ft)

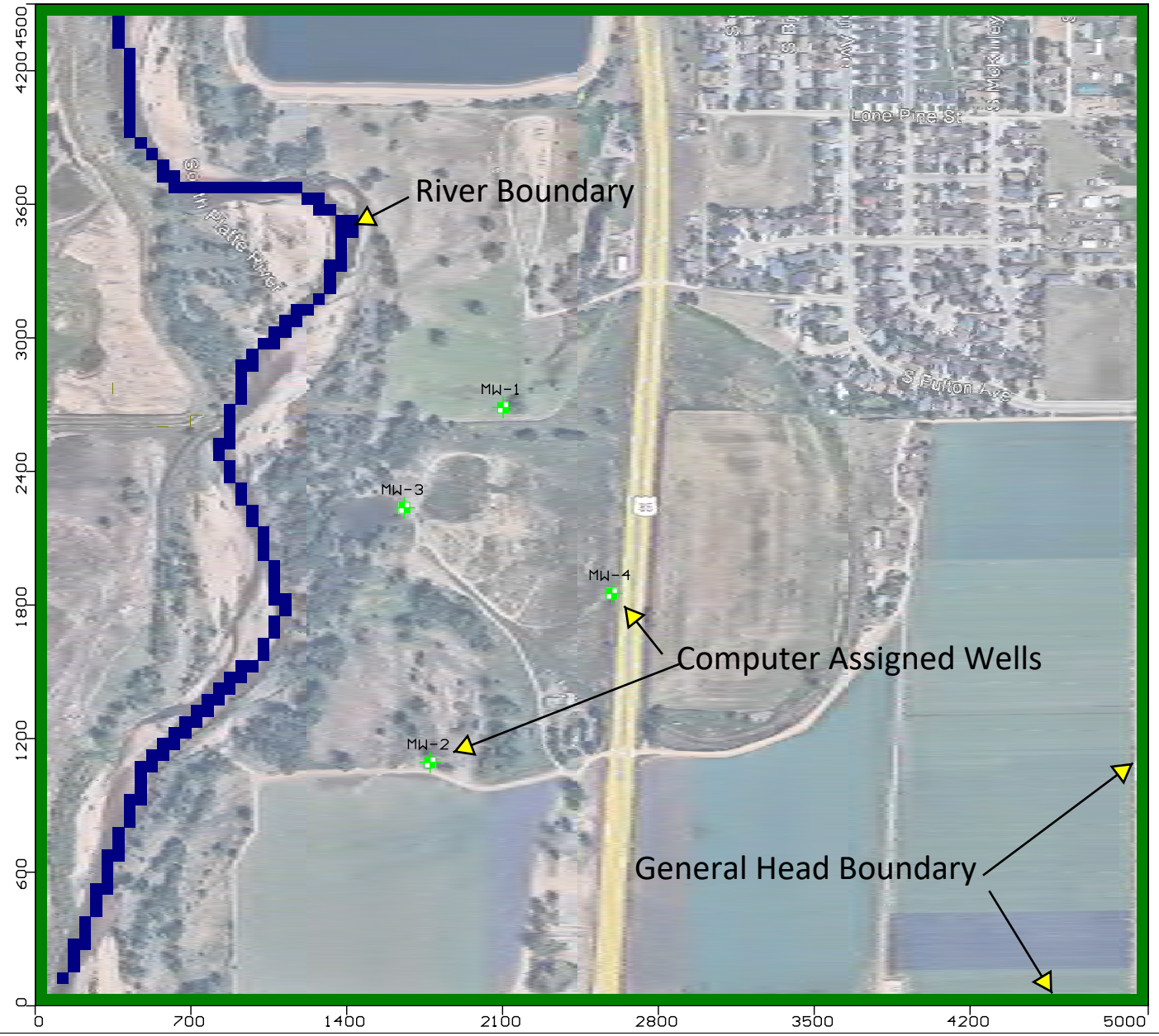
Num. of Data Points : 4
Standard Error of the Estimate : 0.002 (ft)
Root Mean Squared : 0.004 (ft)
Normalized RMS : 0.081 (%)
Correlation Coefficient : 1

ASCI Marcovich Pit
Calibratrion Simulation
Weld County, Colorado

Company: AWES, LLC

Project: Marcovich Pit VMOD Simulations
Modeller: JLA

Plate 5 - Model Boundary Conditions



ASCI Marcovich Pit
Calibratrion Boundary Conditions
Weld County, Colorado

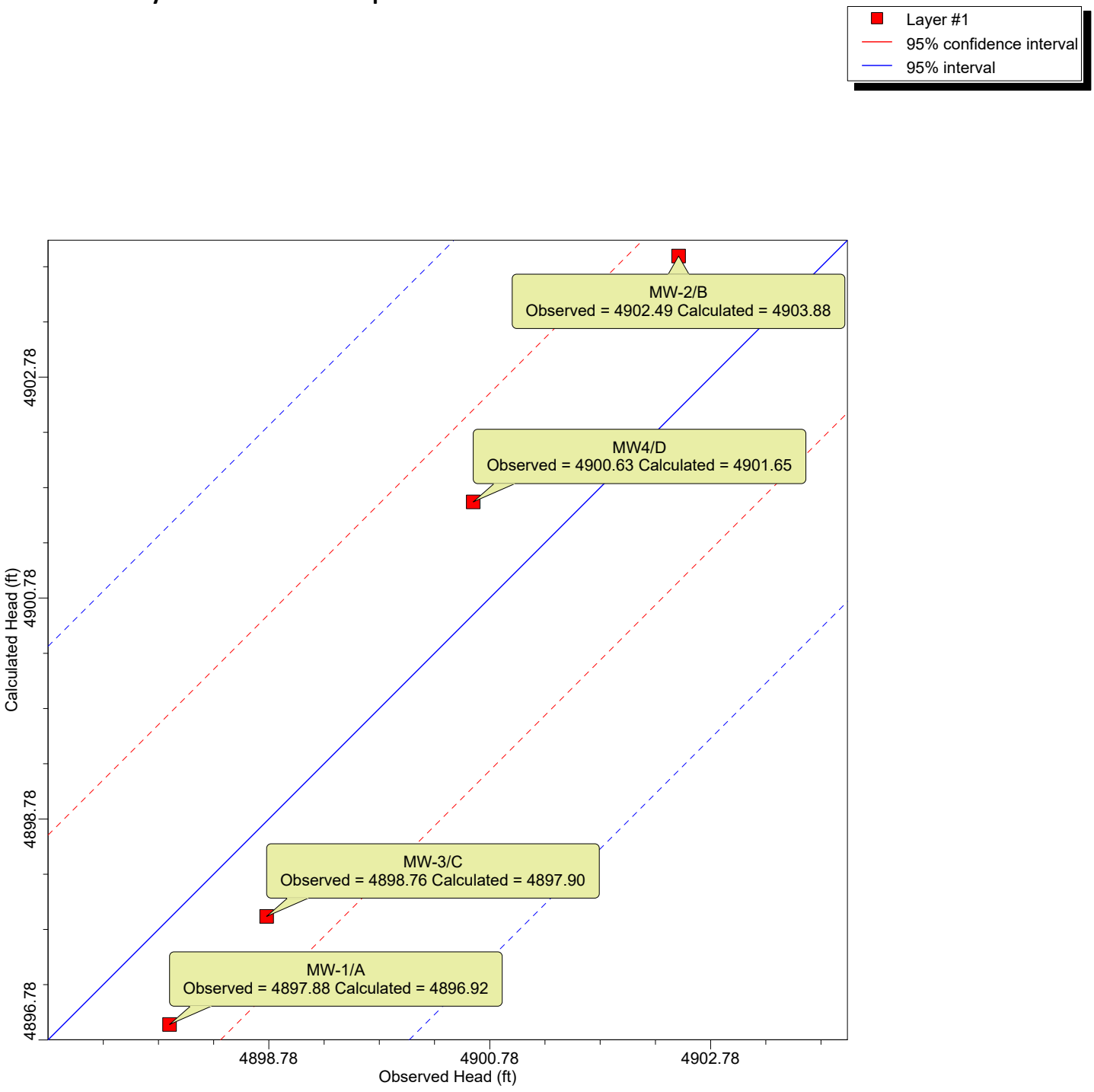
Company: AWES, LLC	Project: Marcovich Pit VMOD Simulations Modeller: JLA

Plate 6 - Slurry Wall Simulation

ASCI Marcovich Pit
Slurry Wall Simulation
Weld County, Colorado

Company: AWES, LLC	Project: Marcovich Pit VMOD Simulations Modeller: JLA

PLATE 7 - Slurry Wall Calibration Graph



Max. Residual: 1.387 (ft) at MW-2/B
Min. Residual: -0.862 (ft) at MW-3/C
Residual Mean : 0.146 (ft)
Abs. Residual Mean : 1.057 (ft)

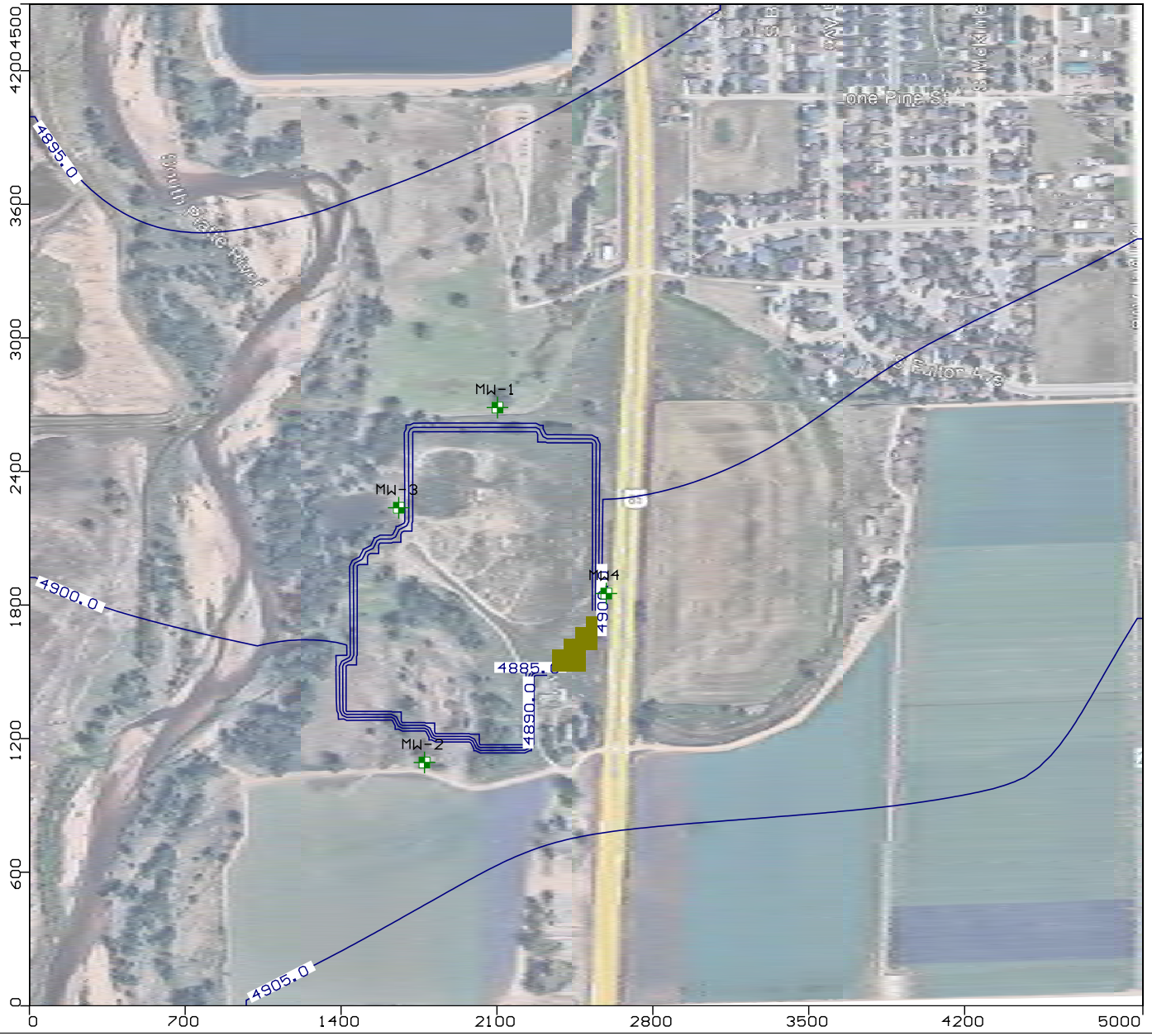
Num. of Data Points : 4
Standard Error of the Estimate : 0.615 (ft)
Root Mean Squared : 1.076 (ft)
Normalized RMS : 23.337 (%)
Correlation Coefficient : 0.994

ASCI Marcovich Pit
Slurry Wall Simulation
Weld County, Colorado

Company: AWES, LLC

Project: Marcovich Pit VMOD Simulations
Modeller: JLA

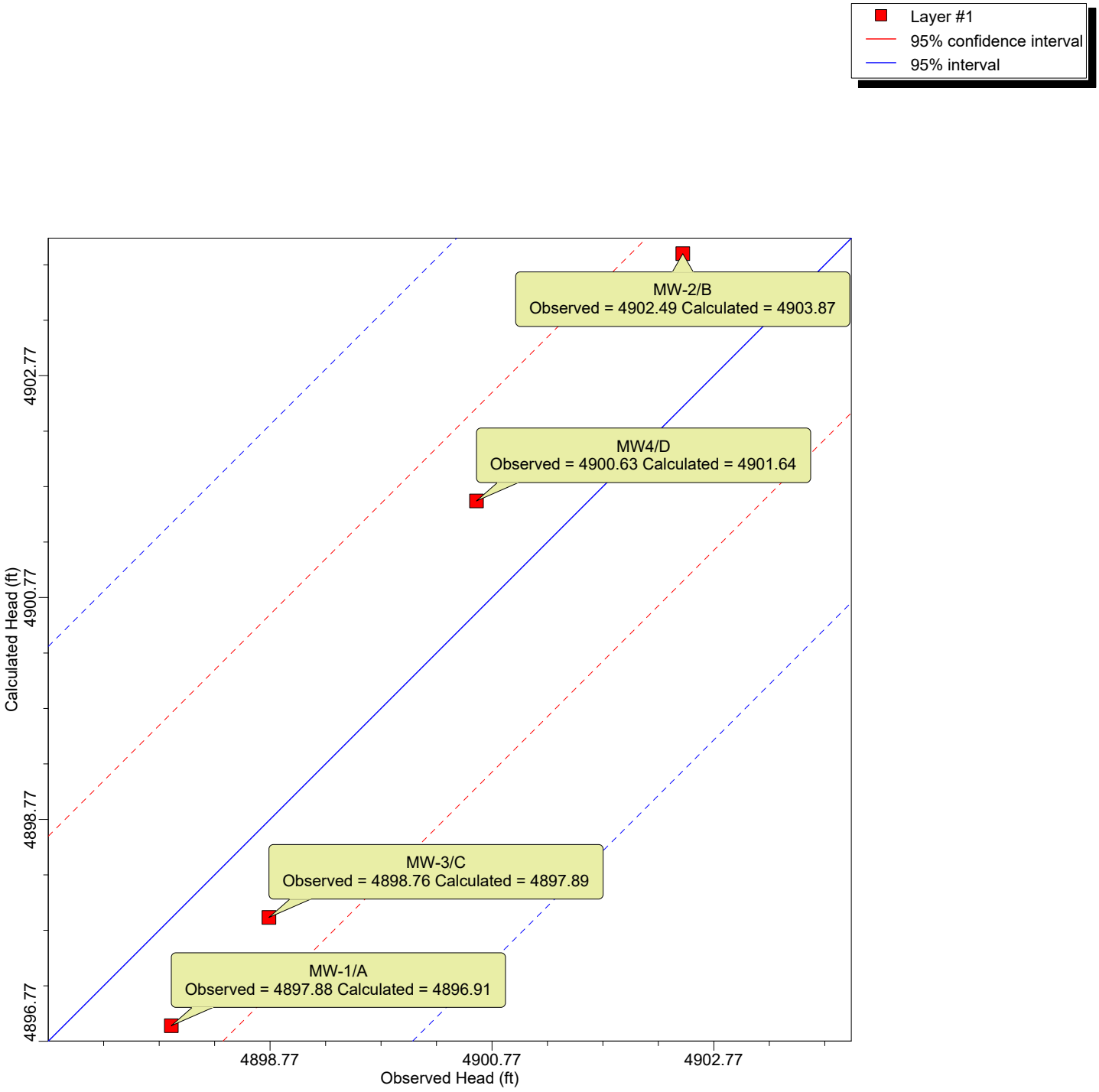
Plate 8 - Dewatering Simulation



ASCI Marcovich Pit
Dewatering Simulation
Weld County, Colorado

Company: AWES, LLC	Project: Marcovich Pit VMOD Simulations Modeller: JLA

Plate 9 - Dewatering Calibration Graph



Max. Residual: 1.38 (ft) at MW-2/B
Min. Residual: -0.874 (ft) at MW-3/C
Residual Mean : 0.137 (ft)
Abs. Residual Mean : 1.059 (ft)

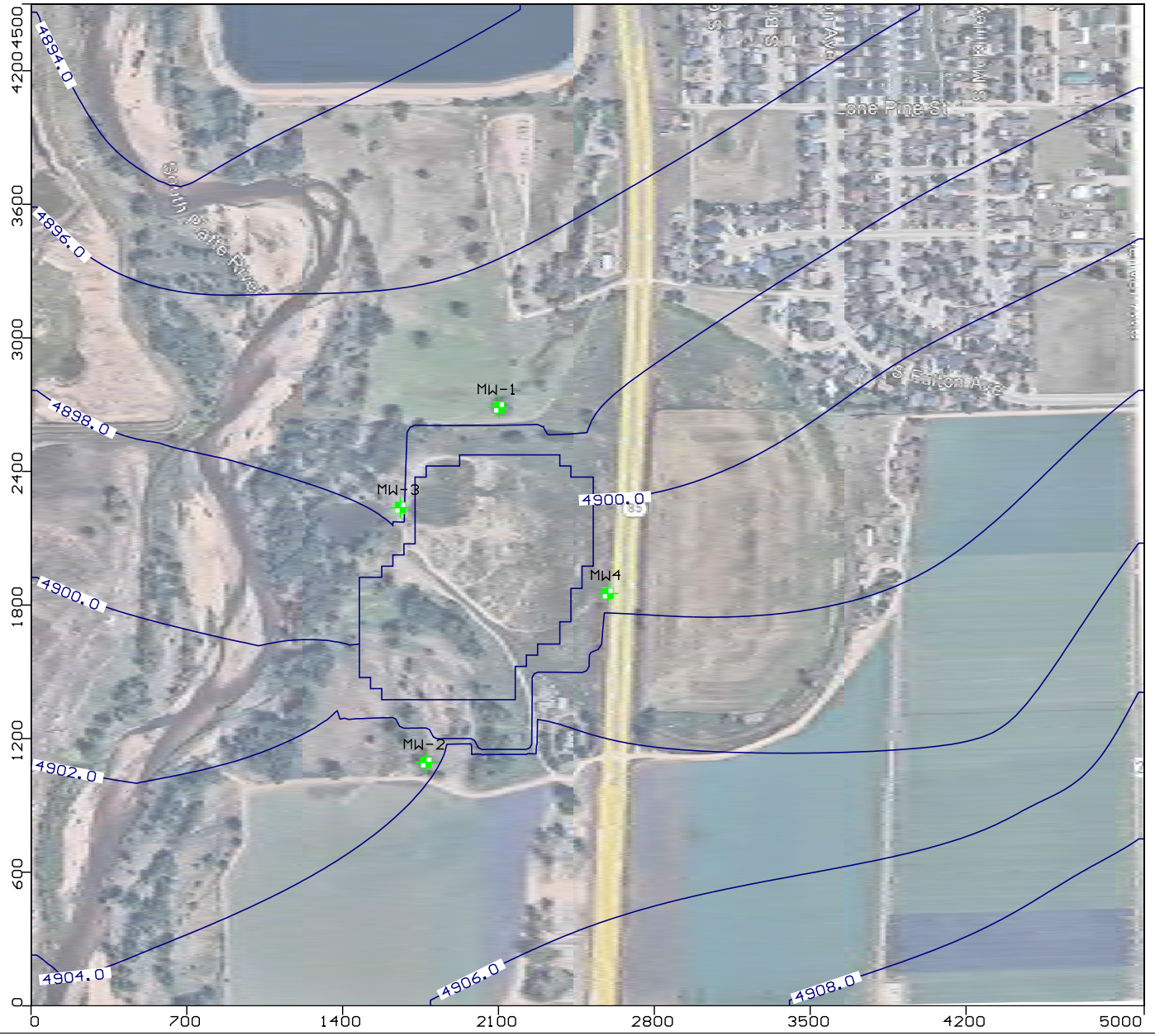
Num. of Data Points : 4
Standard Error of the Estimate : 0.616 (ft)
Root Mean Squared : 1.076 (ft)
Normalized RMS : 23.341 (%)
Correlation Coefficient : 0.994

ASCI Marcovich Pit
Slurry Wall w/ Dewatering Simulation
Weld County, Colorado

Company: AWES, LLC

Project: Marcovich Pit VMOD Simulations
Modeller: JLA

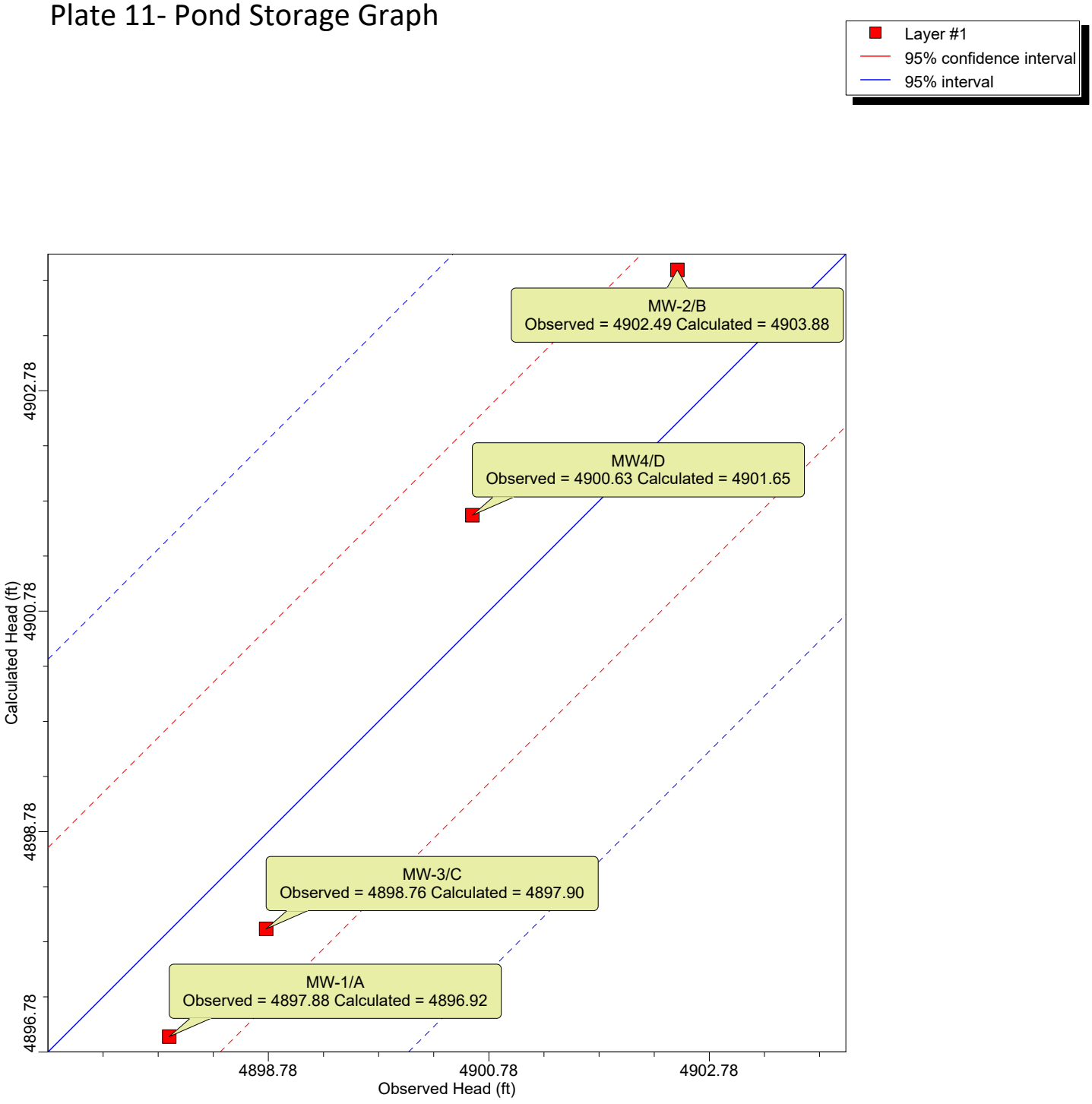
Plate 10 - Pond Storage Simulation



ASCI Marcovich Pit
Pond Storage Simulation
Weld County, Colorado

Company: AWES, LLC Fort Collins, CO	Project: Marcovich Pit VMOD Simulations Modeller: JLA

Plate 11- Pond Storage Graph



Max. Residual: 1.387 (ft) at MW-2/B
Min. Residual: -0.863 (ft) at MW-3/C
Residual Mean : 0.146 (ft)
Abs. Residual Mean : 1.057 (ft)

Num. of Data Points : 4
Standard Error of the Estimate : 0.615 (ft)
Root Mean Squared : 1.076 (ft)
Normalized RMS : 23.339 (%)
Correlation Coefficient : 0.994

ASCI Marcovich Pit
Pond Storage Simulation
Weld County, Colorado

Company: AWES, LLC
Fort Collins, CO

Project: Marcovich Pit VMOD Simulations
Modeller: JLA

EXHIBIT H WILDLIFE INFORMATION

1. Introduction

Given the location of the Marcovich Mining Resource just south of Fort Lupton, adjacent to the highway, and surrounded by an abundance of gravel pits and agricultural fields, it is safe to assume that wildlife habitat fragmentation has already occurred. Colorado Parks and Wildlife (CPW) habitat and range mapping has been used to develop this wildlife analysis. The CPW will be consulted as part of the mine permitting process.

2. Description of Significant Wildlife Resources on the Affected Land

The affected land is within seasonal and general range of a few non-endangered species.

There are no bald eagle nests within 5,000 feet of the site, but the site is considered part of a few bald eagle ranges: summer forage, winter forage, and winter concentration.

The affected area is within the mule deer corridor and their severe and normal winter range. The site is not near any mule deer migration corridors or highway crossings. The site is also within the white-tailed deer concentration area and winter range.

3. Seasonal Use of the Area

Bald eagles make use of the site as summer and winter forage, as well as a winter concentration area. Mule deer and white-tailed deer use the site as winter range. All other significant wildlife resources are year-round in their usage.

4. Presence and Estimated Population of Threatened or Endangered Species

No federally listed threatened and endangered species and/or habitat were identified on the or immediately surrounding the affected land.

5. Effect of Proposed Operation on Existing Wildlife

Impacts on wildlife use from the proposed project would include direct temporary elimination of potential habitat within the affected area during mining, and temporary localized displacement associated with additional noise and lighting from the proposed project. This localized loss of habitat would not disrupt regional migration or significant movement patterns and would not threaten the overall health and viability of any species. Nearby lands are also disturbed for

similar uses, and as such, the Marcovich Mining Resource will not cause a significant impact on the local area's wildlife habitat.

The affected area will be fully reclaimed at the conclusion of mining which will restore some degree of wildlife habitat over time. Concurrent reclamation and phased mining will also help to reduce the total impact on wildlife. Transformation of the bulk of the agricultural fields onsite into water storage ponds will be a permanent change in overall habitat.

6. Impacts to Fish

Mining will not take place in any water ways or natural lakes. Surface water controls will protect offsite drainages and fish habitats from sediment discharges. Asphalt Specialties will not stock the reclaimed lake with non-native species at any time.

7. Wildlife Surveys and Timing Limitations

Black-tailed prairie dog colonies exist within the site. These are potential habitats for burrowing owls, a Colorado state-threatened species. The site will cultivate the fallow field to destroy all abandoned prairie dog burrows before March 15 so that burrowing owls cannot utilize burrows for nesting. Otherwise, a burrowing owl survey per Colorado Parks and Wildlife guidelines would need to be conducted for site disturbances that occur between March 15 and October 31.

EXHIBIT I SOILS INFORMATION

1. General

A soil report was generated using the United States Department of Agriculture's NRCS Web Soil Survey (WSS)[3] and is included in this exhibit as Appendix I-1 at the end of this exhibit. The WSS provides soil data and information produced by the National Cooperative Soil Survey. The majority of the site's soil consists of aquolls and aquents with a gravelly substratum in the eastern area, and the Ellicott-Ellicott sandy skeletal complex in the western area along the river (see Map C-1). The A-horizon of the soil profile was used as the basis for determining the topsoil stripping depth during mining operations. These primary soil types that exist at the site are described as follows.

2. Suitability for Reclamation Revegetation

The two main soil types provide an average of two feet of suitable material for revegetation. The soil in the east (3-Aquolls and Aquents) is not considered prime farmland, but the soil in the west (10-Ellicott-Ellicott sandy-skeletal complex) is considered prime farmland if irrigated. As the majority of the site will be reclaimed to a pond, converting the land back to agriculture is not considered for reclamation. However, the soil should be suitable to be used for rangeland as portions of the site currently are rangeland. Revegetating disturbances as rangeland will also complement the reclaimed land use of open space.

3. Soil Type Descriptions

3—Aquolls and Aquents, gravelly substratum

Map Unit Setting

National map unit symbol: 3627
Elevation: 4,000 to 7,200 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 80 to 155 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

*Aquolls and similar soils:*55 percent
*Aquents, gravelly substratum, and similar soils:*30 percent
*Minor components:*15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aquolls

Setting

Landform: Swales, flood plains, streams
Down-slope shape: Linear

[3] https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

Across-slope shape: Linear
Parent material: Recent alluvium

Typical profile

H1 - 0 to 48 inches: loam
H2 - 48 to 60 inches: gravelly sand

Properties and qualities

*Slope:*0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
*Capacity of the most limiting layer to transmit water (Ksat):*Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 6 to 48 inches
Frequency of flooding: FrequentNone
Frequency of ponding: None
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Ecological site: R067BY035CO - Salt Meadow
Hydric soil rating: Yes

Description of Aquents, Gravelly Substratum

Setting

*Landform:*S tream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Recent alluvium

Typical profile

H1 - 0 to 48 inches: variable
H2 - 48 to 60 inches: very gravelly sand

Properties and qualities

*Slope:*0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
*Capacity of the most limiting layer to transmit water (Ksat):*Moderately high to very high (0.57 to 19.98 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: Frequent None
Frequency of ponding: None
*Calcium carbonate, maximum content:*10 percent
Maximum salinity: Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Ecological site: R067BY035CO - Salt Meadow
Hydric soil rating: Yes

Minor Components

Bankard

*Percent of map unit:*10 percent
Hydric soil rating: No

Ustic torrifluvents

*Percent of map unit:*5 percent
Hydric soil rating: No

10—Ellicott-Ellicott sandy-skeletal complex, 0 to 3 percent slopes, rarely flooded

Map Unit Setting

National map unit symbol: 2xsth
Elevation: 3,950 to 5,960 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 135 to 165 days
Farmland classification: Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

Map Unit Composition

*Ellicott, rarely flooded, and similar soils:*65 percent
*Ellicott sandy-skeletal, rarely flooded, and similar soils:*25 percent
*Minor components:*10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ellicott, Rarely Flooded

Setting

Landform: Drainageways, flood plains on intermittent streams
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Noncalcareous, stratified sandy alluvium

Typical profile

A - 0 to 4 inches: sand
AC - 4 to 13 inches: sand
C1 - 13 to 30 inches: sand
C2 - 30 to 44 inches: sand
C3 - 44 to 80 inches: coarse sand

Properties and qualities

*Slope:*0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
*Capacity of the most limiting layer to transmit water (Ksat):*High to very high (13.00 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.1 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R067BY031CO - Sandy Bottomland
Hydric soil rating: No

Description of Ellicott Sandy-skeletal, Rarely Flooded

Setting

Landform: Channels on drainageways, channels on intermittent streams
Down-slope shape: Linear
Across-slope shape: Concave, linear
Parent material: Noncalcareous, stratified sandy alluvium

Typical profile

A - 0 to 4 inches: very gravelly coarse sand

AC - 4 to 13 inches: very gravelly sand
C1 - 13 to 30 inches: very gravelly sand
C2 - 30 to 44 inches: very gravelly sand
C3 - 44 to 80 inches: very gravelly coarse sand

Properties and qualities

*Slope:*0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
*Capacity of the most limiting layer to transmit water (Ksat):*High to very high (13.00 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.1 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: A
Ecological site: R067BY031CO - Sandy Bottomland
Hydric soil rating: No

Minor Components

Haverson

*Percent of map unit:*10 percent
Landform: Terraces
*Landform position (three-dimensional):*Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R067BY036CO - Overflow
Hydric soil rating: No

Appendix I-1 Soil Report

EXHIBIT J VEGETATION INFORMATION

1. Existing Vegetation Community

The native vegetation at the Marcovich Mining Resource is mostly limited to the eastern banks of the Platte River and low-lying areas used for stock watering ponds. The remaining portions of the site are agricultural fields. The native vegetation that is present consists of mature cottonwoods galleries with a shrubby midstory. The understory is predominantly dry grasses and shrubs.

Some small portions of the site contain dry rangeland vegetation. The remaining areas of the site are agricultural fields which do not contain native vegetation, and will be removed during mining. The reclamation plan aims to revegetate the site to similar conditions of the existing native rangeland vegetation.

Figure J-1 Typical vegetation in river corridor

Figure J-2 Typical rangeland vegetation

2. Wetlands

Wetlands identified on the site from the National Wetlands Inventory are shown on Map C-1. A preliminary investigation of wetlands onsite indicates only manmade structures are associated with wetlands. This is limited to a concrete ditch, return irrigation ditch, stock ponds, and a settling pond at the end of the concrete ditch. (see Appendix J-1). A full delineation will be conducted prior to mining in stock ponds area.

3. Estimated Carrying Capacity

The final use for the site will be a water storage pond with surrounding rangeland which will serve as open space and public recreation. Since the pond makes up the vast majority of the site area, the rangeland is not anticipated to be used for grazing.

Appendix J-1 Wetlands Report

EXHIBIT K CLIMATE INFORMATION

The Marcovich Mining Resource is located southeast of Fort Lupton, Colorado at an elevation of approximately 4890 feet. The area is classified as a cold semi-arid climate (BSk) under the Koppen Climate Classification system. This climate type is typically characterized as dry and moderate with cool, wetter winters and warm, dryer summers. Table K-1 shows a summary of the climate for this area based on records from 1980-2016.

Table K-1 Climate Data of Fort Lupton, Colorado[4]

	Average Temperature (F)		Average Precipitation (in)	
	Maximum	Minimum	Total precip.	Total snow
January	43	20	0.5	2.1
February	47	23	0.4	2.3
March	56	29	0.9	2.7
April	63	36	1.3	1.6
May	82	45	2.4	0.2
June	83	54	1.7	0.0
July	88	59	1.3	0.0
August	86	57	1.2	0.0
September	78	48	1.2	0.2
October	65	37	0.8	1.3
November	52	27	0.5	2.5
December	42	20	0.3	2.6
Yearly (avg)	**65.4**	**37.9**	**12.4**	**15.5**

[4] https://weatherspark.com/y/3746/Average-Weather-in-Fort-Lupton-Colorado-United-States-Year-Round

EXHIBIT L RECLAMATION COSTS

The worst-case reclamation scenario will occur at the beginning of mining due to the cost of the slurry wall. Inlet and outlet structures are included in this estimate, but do not need to be constructed immediately. Before mining progresses within the 300-foot offset, the structures will be installed. In addition to the slurry wall cost, the highwall will be dozed to a 1.5H:1V slope and then backfilled with material to a 3H:1V slope. Sufficient material stockpiles will remain onsite until the final backfilling is complete. For worst case bonding, it has been assumed that 1000 feet of highwall will require backfill and other reclamation work. After final grading is complete, stockpiled topsoil will be placed at a thickness of one foot. The topsoiled areas will then be seeded based on the permitted seed plan. A breakdown of the estimated worst-case reclamation cost is shown in Table L-1.

Once the slurry wall is installed, the permittee may pursue a reduced bond via a bond reduction request to CDRMS. The slurry wall unit cost is based on previous CDRMS slurry wall cost calculations for other similar sites.

Table L-1 Marcovich Mining Resource Bond Estimate.

Description	Material Quantity	Unit	Unit Cost	Cost
Construct slurry wall. 4750-ft by 50-ft deep.	237,500	Sq. ft.	$4.30	$1,021,250
Inflow / outflow structures including excavation, riprap, concrete, and vegetation.	1	each	$35,000	$35,000
Topsoiling to 1 FT. deep along the slurry wall installation path. 20-ft wide x 4750-ft long (2.2 acres) x 1-ft deep.	3,520	CY	$1.05	$3,700
1000-ft of highwall backfilled from 1.5H:1V to 3H:1V to a depth of 25-ft.	17,360	CY	$1.05	$18,230
Topsoil areas above water level and above highwall 1 ft. deep (4 acres)	9,680	CY	$1.05	$10,160
Scarify topsoiled areas prior to seeding (slurry wall installation path + highwall and surroundings)	6.2	acres	$150	$930
Seeding of topsoiled areas.	6.2	acres	$400	$2,480
Mulching of topsoiled areas.	6.2	acres	$500	$3,100
Weed control management for two years.	2	each	$1500	$3,000
Subtotal				$1,108,010
DRMS cost (28%)				$310,243
Total				**$1,418,253**

EXHIBIT M OTHER PERMITS REQUIRED

The following permits are necessary to operate at the Marcovich Mining Resource. Copies of all permits will be provided to the Division after they have been acquired.

1. Weld County Use Permit
2. Colorado Air Pollution Control Division Fugitive Dust Permit and Air Pollution Emission Notice (APEN)
3. Water Quality Control Commission Discharge Permit
4. Colorado Dept. of Transportation access permit (this may be covered by the existing Chavers Resource)
5. Weld County Floodplain Development permit
6. Colorado Division of Water Resources gravel well permit

EXHIBIT N RIGHT OF ENTRY

The surface and mineral owners of the property to be mined are Jerry and Adam Marcovich. A right of entry affidavit is attached.

RIGHT OF WAY AGREEMENT

This Right of Way Agreement (this "Agreement") is entered into on this 10th day of September, 2024, by and between **Hunt Brothers Properties, Inc., ("Grantor")**, whose mailing address is 345 W 62nd Ave, Denver, Colorado 80216, and **Asphalt Specialties Company, Inc.**, a Colorado corporation, ("**Grantee**"), whose mailing address is 345 W 62nd Ave, Denver, Colorado 80216.

In consideration of the sum of ten dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor does hereby grant unto Grantee a non-exclusive right of way for grading, graveling, expanding, and using a dirt road for ingress and egress to adjacent properties across a strip of land approximately forty feet (40') in width (the "**Right of Way**"), further depicted on Exhibit "A" attached hereto and made a part hereof, and located adjacent to US Hwy 85 in part of:

Township 1 North, Range 66 West, 6th P.M.
Section 18: N/2
Weld County, Colorado

This Agreement is made subject to the following terms and conditions:

1. Grantee shall pay Grantor one dollar ($1.00) per year (each an "**Annual Payment**") for a ten (10) year term ("**Term**"). The first Annual Payment shall be made within upon execution of this Agreement ("**Anniversary Date**"). Each subsequent Annual Payment shall be made on each annual Anniversary Date during the term of this Agreement. This Agreement shall terminate upon failure to timely pay the Annual Payment for the subsequent year or at the expiration of the Term, i.e., on September 11, 2034 ("**Expiration Date**"). Should Grantee timely pay each Annual Payment for the duration of the Term, Grantee may extend the Term for an additional five (5) year term ("**Extension Term**") under the same conditions, except that the Annual Payment for the Extension Term shall be one dollar ($1.00) and notice of an intent to extend shall be given in writing at least sixty (60) days prior to the Expiration Date. The Extension Term shall terminate upon failure to timely pay for the subsequent Extension Term year or at the expiration of the Extension Term, i.e., September 11, 2039. This Agreement and privileges granted in this Agreement are assignable in whole or in part by Grantee only upon written consent from Grantor, which shall not be unreasonably withheld and may be withheld if the proposed assignee cannot demonstrate and verify the ability to adhere to the terms of this Agreement.

2. EXECUTED as of this 10th day of September, 2024.

GRANTOR:

Hunt Brothers Properties, Inc.
By: Daniel W Hunt
As: President

GRANTEE:

Asphalt Specialties Company, Inc.
By: Daniel W. Hunt
President

ACKNOWLEDGEMENTS

STATE OF COLORADO)
)
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 10th day of September, 2024, by **Daniel W. Hunt, President, Hunt Brothers Properties, Inc.**, and being authorized to do so, on behalf of said company.

WITNESS my hand and Official Seal.

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

Jan Nelson (Jan Nelson)
Notary Public in and for said State and County

MY COMMISSION EXPIRES:

May 3, 2028

STATE OF COLORADO)
)
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 10th day of September, 2024, by **Daniel W. Hunt, President, Asphalt Specialties Company, Inc.**, a Colorado corporation, and

being authorized to do so, on behalf of said company.

WITNESS my hand and Official Seal.

Jan Nelson (Jan Nelson)
Notary Public in and for said State and County

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

MY COMMISSION EXPIRES:

May 3, 2028

Exhibit "A"

Attached to and made a part of that certain Right of Way Agreement dated the 10th day of September, 2024 by and between Hunt Brothers Properties, Inc, as Grantor, and Asphalt Specialties Company, Inc. as Grantee.


WELD COUNTY
ONLINE MAPPING
12749
HIGHWAY 85 NB
HIGHWAY 85 SB
Area of Right-of-Way Agreement
12679
12651
12739
12645
WCR 8 1/2
12838
EXHIBIT A - Right of Way Agreement
Hunt Brothers Properties, Inc. (Grantor)
Asphalt Specialties Co., Inc. (Grantee)
1: 6,703
Cheyenne
Fort Collins
Loveland
Boulder
Denver
Legend
Parcels
Highway
County Boundary
Notes
1,117.1 0 558.56 1,117.1 Feet
WGS_1984_Web_Mercator_Auxiliary_Sphere
© Weld County Colorado
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

SECOND AMENDMENT TO THAT CERTAIN SAND AND GRAVEL LEASE BETWEEN ASPHALT SPECIALTIES CO. INC., AND JERRY D. MARCOVICH AND ADAM D. MARCOVICH

This Second Amendment ("Second Amendment"), effective the 17th day of July 2024, is made to that certain Sand and Gravel Lease, dated September 8, 2023 (the "Lease"), by and between Jerry D. Marcovich and Adam D. Marcovich, (collectively "Lessor") and Asphalt Specialties Co., Inc., ("ASCI"). Defined terms in this Second Amendment have the same meaning as those in the Lease, unless indicated otherwise.

RECITALS

A. Exhibit A to the Lease contains a legal description as well as a map overlay of the proposed area to be mined ("Mine Area Map") on the Leased Premises.

B. Lessor and ASCI desire to amend Exhibit A to include a revised Mine Area Map that reflects a change in the area to be mined under the Lease.

AGREEMENT

Lessor and ASCI hereby agree to amend the Lease as follows:

The Mine Area Map contained in Exhibit A to the Lease is replaced in its entirety with the revised Mine Area Map attached to this Second Amendment.

IN WITNESS WHEREOF, this Second Amendment is effective as of the date first set forth above.

LESSOR:

Jerry D. Marcovich

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

STATE OF Colorado)
) ss.
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 17th day of July, 2024 by Jerry D. Marcovich, the Lessor identified above.

WITNESS my hand and Notaries Seal

Jan Nelson

Notary Public Jan Nelson

My Commission Expires: May 3, 2028

LESSOR:

Adam D. Marcovich

STATE OF Colorado)

) ss.

COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 17th day of July, 2024 by Adam D. Marcovich, the Lessor identified above.

WITNESS my hand and Notaries Seal

Jan Nelson

Notary Public

My Commission Expires: May 3, 2028

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

Asphalt Specialties Co., Inc.

By:

Asphalt Specialties Co., Inc.
Daniel W. Hunt, President

STATE OF COLORADO)

) ss.

COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 17th day of July, 2024 by Daniel W. Hunt on behalf of Asphalt Specialties Co., Inc

WITNESS my hand and Notaries Seal

Jan Nelson

Notary Public Jan Nelson

My Commission Expires: May 3rd, 2028

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

EXHIBIT A

TO THE SECOND AMENDMENT TO THAT CERTAIN SAND AND GRAVEL LEASE BETWEEN ASPHALT SPECIALTIES CO. INC., AND JERRY D. MARCOVICH AND ADAM D. MARCOVICH

EFFECTIVE THE 17th DAY OF July, 2024.

4613672 Pages: 1 of 1
07/28/2020 12:32 PM R Fee:$13.00 D Fee:$0.00
Carly Koppes, Clerk and Recorder, Weld County, CO

The printed portions of this form, except differentiated additions, have been approved by the Colorado Real Estate Commission.
(D4-10-19) (Mandatory 1-20)

QUIT CLAIM DEED

Amy Francis Marcovich (Grantor(s)), whose street address is 1025 S. Denver Avenue, City or Town of Fort Lupton, County of Weld and State of Colorado, for the consideration of Ten & no/100ths dollars, ($10.00), in hand paid, hereby sell(s) and quitclaim(s) to Jerry D. Marcovich (Grantee(s)) as ☐ joint tenants, ☐ tenants in common, ☐ _____, whose street address is 1025 S. Denver Avenue, City or Town of Fort Lupton, County of Weld and State of Colorado, the following real property in the County of Weld and State of Colorado, *except reserving all oil and gas mineral interests and the right to use so much of the surface as is necessary to develop, produce and care for the same*, to wit:

15819-D PT S2 7 1 66 BEG N0D12'W 1097' OF S4 COR SEC N89D25'E 208.03' TO WLY R/W HWY 85 N03D48'E 1533.02' TO E-W C/L SEC S89D02'W 315.34' S89D02'W 1316.88' S0D10'E 1517.87' N89D25'E 1317.3' TO BEG (3R)

Section: **7** Township: **1N** Range: **66W**

also known as Assessor's Parcel Number: **147107000015**

also known as: **4125 Highway 85** (Street Address) **Fort Lupton** (City) **Colorado** (State) **80621** (Zip)

with all its appurtenances (Property).

Signed this 7 day of 27th, 2020.

GRANTOR(S):

_____ _____

STATE OF COLORADO)
) ss.
COUNTY OF Weld)

The foregoing instrument was acknowledged before me this 27th day of July, 2020, by Amy Francis Marcovich.

Witness my hand and official seal.
My commission expires: 09/21/2022

DAWN KOSHIO
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20104038580
My Commission Expires September 21, 2022

_____
Notary Public

RIGHT OF WAY AGREEMENT

Final 3.7.2023
Parcel # 147118000066

STATE OF COLORADO)
)
COUNTY OF WELD)

This Right of Way Agreement (this "Agreement") is entered into on this 10 day of March, 2023, by and between **Ken Ogilvie Living Trust, dated September 13, 2018**, ("**Grantor**"), whose mailing address is 4620 US Highway 85, Fort Lupton, Colorado 80621 and **Asphalt Specialties Company, Inc.**, a Colorado corporation, ("**Grantee**"), having a mailing address of 10100 Dallas Street, Henderson, Colorado 80640, collectively referred to herein as "**Parties**".

In consideration of the sum of ten dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor does hereby grant unto Grantee a non-exclusive right of way for grading, graveling, expanding, and using a dirt road for ingress and egress to adjacent properties across a strip of land forty feet (40') in width (the "**Right of Way**"), further depicted on Exhibit "A" attached hereto and made a part hereof, and located adjacent to US Hwy 85 in part of:

Township 1 North, Range 66 West, 6th P.M.
Section 18: N/2
Weld County, Colorado

This Agreement is made subject to the following terms and conditions:

1. Grantee shall pay Grantor [redacted] per year (each an "**Annual Payment**") for a ten (10) year term ("**Term**"). The first Annual Payment shall be made within 30 days after Grantee has obtained all required Government Authorizations described in Paragraph 2 below ("**Anniversary Date**"). Each subsequent Annual Payment shall be made on each annual Anniversary Date during the term of this Agreement. This Agreement shall terminate upon failure to timely pay the Annual Payment for the subsequent year or at the expiration of the Term, i.e., on March 10, 2033 ("**Expiration Date**"). Should Grantee timely pay each Annual Payment for the duration of the Term, Grantee may extend the Term for an additional five (5) year term ("**Extension Term**") under the same conditions, except that the Annual Payment for the Extension Term shall be [redacted] and notice of an intent to extend shall be given in writing at least sixty (60) days prior to the Expiration Date. The Extension Term shall terminate upon failure to timely pay for the subsequent Extension

Term year or at the expiration of the Extension Term, i.e., March 10, 2038.

2. Grantor acknowledges that Grantee must first obtain certain approvals for zoning, permits, and other authorizations from federal, state, and local governments or private entities, prior to starting operations on properties adjacent to the Right of Way and using the Right of Way ("**Government Authorizations**"). Grantee shall be responsible for obtaining such Government Authorizations. Grantor agrees to cooperate and to join Grantee in applying for, obtaining and maintaining such Government Authorizations as they pertain to the Right of Way, but this shall not be construed to financially obligate Grantor for the expenses associated with obtaining the Government Authorizations, which expenses shall be borne solely by Grantee. Grantee shall have twelve months to obtain the Government Authorizations and shall pay Grantor [redacted] to paid at the date of signing this Agreement in exchange (the "Deposit"). Should Grantee require additional time after the initial twelve months to obtain Government Authorizations, Grantee shall be granted an additional six months upon payment of an additional [redacted] to Grantor (the "Authorization Extension Fee"). Grantee shall provide written notice to Grantor immediately upon receipt of all Governmental Authorization and prior to access upon the Right of Way. The Deposit and any Authorization Extension Fee paid by Grantee shall be applied against the first Annual Payment due Grantor under Paragraph 1 above.

3. Grantee agrees not to construct anything within the Right of Way, except that Grantee shall construct gates where it enters and exits Grantor's property and a four wire barbed fence along the western boundary of the Right of Way to contain livestock and may expand, grade, and/or gravel the existing dirt road and take such other actions necessary to ensure its safe, adequate and prudent use for travel by trucks. Grantee shall be solely responsible for maintaining the dirt road within the Right of Way.

4. Grantor agrees not to construct anything within the Right of Way that could interfere with Grantee's rights granted hereunder, and Grantee agrees not to impede Grantor's use of the Right of Way unless such use such use interferes with Grantee's rights granted hereunder.

5. Grantee has no rights to use Grantor's property outside of the Right of Way and use of the Right of Way shall be limited to those uses specifically identified herein. Construction within the Right-of-Way for the fence and other uses identified herein shall occur only during normal business hours.

6. Grantee agrees to comply with all applicable federal, state, and local laws, regulations, orders and rules related to the use of the Right of Way and the exercise of Grantee's rights hereunder.

7. Grantee agrees to protect, indemnify, and hold harmless Grantor from any claims, demands, expenses, losses, damages, or injuries (including death) to persons or property to the extent caused by Grantee or Grantee's employees, and/or authorized agents, affiliates, or any other third party working on behalf of Grantee (collectively, "**Grantee's Representatives**") in connection with Grantee's or Grantee's Representatives' use of the Right of Way, and specifically to protect, indemnify, and hold harmless Grantor from any failure of Grantee or Grantee's Representative to obtain requisite permits or any use by Grantee that violates federal, state, or local regulation, order, rule, or law irrespective of whether such use is permitted herein.

8. Grantee shall have the right to discharge or redeem for Grantor, in whole or in part, any mortgage, tax or other lien that covers, in whole or in part, the Right-of-Way and shall be subrogated to such lien and rights.

9. This Agreement and privileges granted in this Agreement are assignable in whole or in part by Grantee only upon written consent from Grantor, which shall not be unreasonably withheld and may be withheld if the proposed assignee cannot demonstrate and verify the ability to adhere to the terms of this Agreement.

10. All notices must be in writing and must be delivered to the above addresses and to the following email addresses:

    To Grantor: pegasusk3@gmail.com and emily.g.sheridan@gmail.com
    To Grantee: dan@asphaltspecialties.com

    in order to be effective unless changed by either party through prior written notice to the other. All payments made to Grantor pursuant to the terms of this Agreement will be made by Grantee by cashier's check, payable to Grantor at the above address. This payment arrangement may be modified by Grantor upon written notice to Grantee at least sixty (60) days prior to the due date of the next payment.

11. Prior to entry upon the Right of Way, Grantee shall deposit [redacted] as escrow ("Escrow Payment") with a mutually agreed upon escrow agent, to be held for the duration of this agreement, including the Extension Term if applicable. The Escrow Payment shall be returned to Grantee upon remediation of the Right of Way within sixty (60) days of the expiration of this agreement as contemplated in Section 1 to substantially the same condition as it existed prior to Grantee's entry thereon, or in Grantor's sole discretion . Should Grantee fail to remediate the Right of Way to substantially the same condition as it existed prior to Grantee's entry thereon within sixty (60) days of expiration of this agreement, the entirety of the Escrow Payment shall be

released to Grantor.

12. Grantee shall extend all culverts running under US Hwy 85 as they currently exist as shown on Exhibit A to avoid interfering with the drainage of water through the culverts.

13. The Right of Way is granted **AS IS WHERE IS**, with no representation or warranties made by Grantor related thereto. Grantee is solely responsible for identifying and complying with any existing easements or other burdens within the Right of Way.

14. If any provision or any portion of any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable by reason of any law or public policy, such provision or portion thereof will be considered to be deleted, and the remainder of this Agreement will constitute the agreement between Grantor and Grantee covering the subject matter hereof.

[Remainder of Page Intentionally Left Blank]

EXECUTED as of this 10 day of March, 2023.

GRANTOR:

Ken Ogilvie Living Trust, dated September 13, 2018
By: Ken Ogivlie
As: Trustee

GRANTEE:

Asphalt Specialties Company, Inc.
By: Daniel W. Hunt
President

ACKNOWLEDGEMENTS

STATE OF COLORADO)
)
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 10 day of March, 2023, by **Ken Ogilvie, as Trustee for the Ken Ogilvie Living Trust, dated September 13, 2018**, and being authorized to do so, on behalf of said trust.

WITNESS my hand and Official Seal.

ANTONIO DIAZ
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20224025565
MY COMMISSION EXPIRES 06/30/2026

Notary Public in and for said State and County

MY COMMISSION EXPIRES:

06/30/2026

STATE OF COLORADO)
)
COUNTY OF Adams)

The foregoing instrument was acknowledged before me this 8th day of March, 2023,

by Daniel W. Hurt, as President for **Asphalt Specialties Company, Inc.**, a Colorado corporation, and being authorized to do so, on behalf of said company.

WITNESS my hand and Official Seal.

Jan Nelson

Notary Public in and for said State and County

JAN NELSON
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
My Commission Expires April 29, 2024

MY COMMISSION EXPIRES:

April 29, 2024

Exhibit "A"

Attached to and made a part of that certain Right of Way Agreement dated the 10 day of March, 2023 by and between the **Ken Ogilvie Living Trust, dated September 13, 2018**, as Grantor and **Asphalt Specialties Company, Inc.** as Grantee.

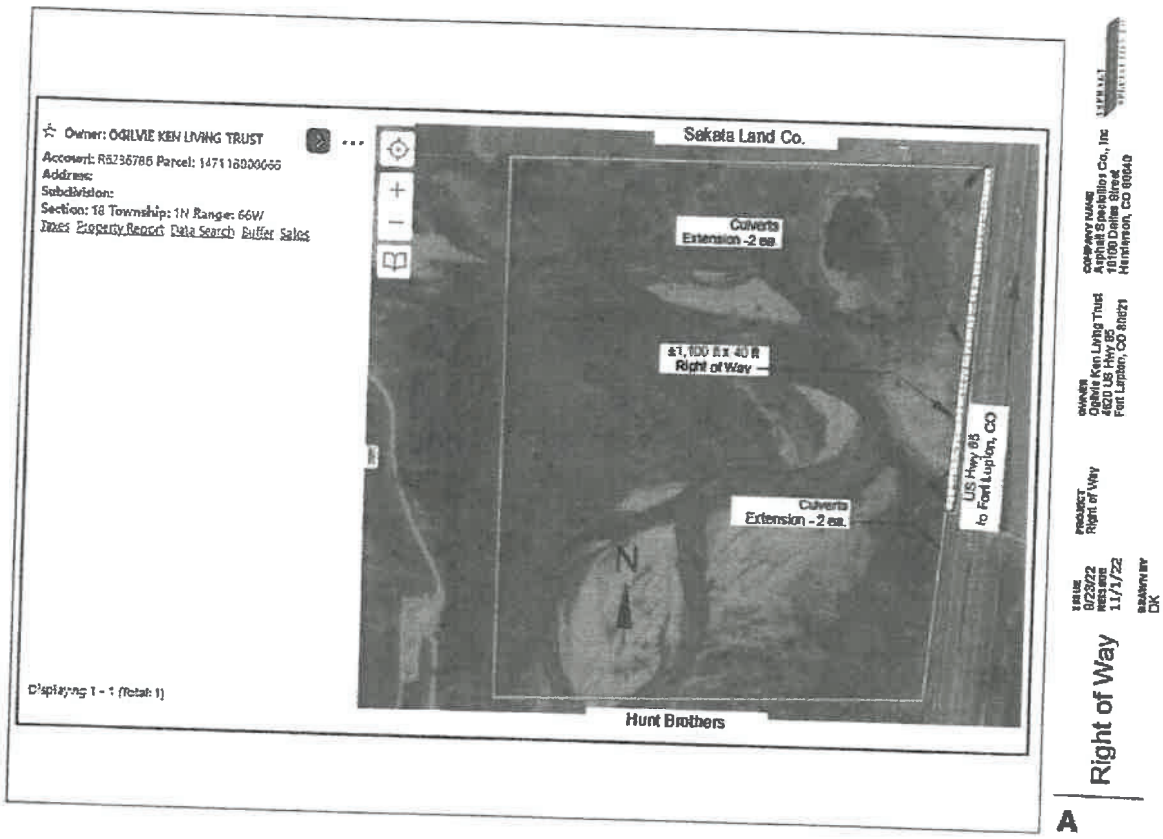


EXHIBIT O OWNERS OF AFFECTED LAND AND MINERAL TO BE MINED

The owner(s) of record of affected land (surface area) and owners of substance to be mined are Jerry and Adam Marcovich.

ROW owners are Sakata Farms Inc., Ogilvie, and Hunt Brothers Properties, Inc. properties.

EXHIBIT P MUNICIPALITIES WITHIN TWO MILES

The Marcovich Mining Resource is located immediately southeast of Fort Lupton, Colorado, a city in Weld County.

Fort Lupton

130 S McKinley Avenue

Fort Lupton, CO

EXHIBIT Q PROOF OF MAILING OF NOTICES TO THE BOARD OF COUNTY COMMISSIONERS AND SOIL CONSERVATION DISTRICT

Notices were filed with the Weld County Board of Commissioners and the West Greeley Conservation District in support of this permit application.

Weld County Board of Commissioners
1150 O Street
P.O. Box 758
Greeley, CO 80631

Platte Valley Conservation District
57 W Bromley Lane
Brighton, CO 80601

EXHIBIT R PROOF OF FILING WITH COUNTY CLERK

A return receipt from the Weld County Clerk & Recorder is attached.

Weld County Clerk and Recorder
1250 H Street
Greeley, CO 80631

EXHIBIT S PERMANENT MAN-MADE STRUCTURES

The following is a list of man-made structures within 200 feet of the affected area. All of these structures are shown on Map C-1. Landowner boundaries can also be found on Map C-1. Proof of delivery of structure agreements is attached to this exhibit. In the event that a structure agreement is unobtainable, defer to the Geotechnical Stability Exhibit which indicates that all structures will be protected.

Table S-1. Permanent Structures within 200' of the Affected Area

Owner	Owner Address	Structures	General Location
Sakata Land Co.	PO BOX 508 Brighton, CO 80601	Access Road, fences, culverts, return irrigation ditch	Parcel directly south of the permit area and across Highway 85 from the permit area.
Lawrence Scott	1165 S Denver Ave Fort Lupton, CO 80621	Fence, culvert, and return irrigation ditch	Located east of the affected area across Highway 85
City of Aurora	15151 E ALAMEDA PKWY # 3200 AURORA, CO 800121555	Fence, culvert, and return irrigation ditch	North of permit area.
Xcel Energy	7493 Highway 85 Fort Lupton, CO 80621	Powerlines servicing permit area and property to the north.	East of permit area.
Colorado Department of Transportation	10601 W. 10th St. Greeley, CO 80634	US Highway 85 and related structures.	East of permit area.

Asphalt Specialties Co., Inc
345 W 62nd Ave
Denver, CO 80216

June 20, 2024
RE: Marcovich Pit

City of Aurora
15151 E Alameda Parkway #3200
Aurora, CO 80012

Asphalt Specialties Co., Inc. intends to mine on property they control in Weld County, Colorado in Section 7 of T1N and R66W of the 6th Principal Meridian.

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site.

The following structures are located on or within 200 feet of the proposed affected area:

1. Fence
2. Culvert
3. Return irrigation ditch
4. WELL (IRR) PERMIT # 19458-RF / WDID: 0208560
5.

If there are any questions, I can be contacted at (303) 289-8555 or you can contact the project engineer, Ben Miller, PhD., at (720) 842-5321. If you agree, please sign and notarize the enclosed letter and send it back to me. If you are not authorized to sign this, please present it to the proper person who is authorized.

Signed: Dawn Jewell 7/3/2024
Date

Printed Name: Dawn Jewell

CERTIFICATION

The Applicant, Asphalt Specialties Co. Inc., represented by Greg Geras, as Land Resource Manager, does hereby certify that City of Aurora shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located on or within 200 feet of the proposed affected area described within Exhibit A, of the Colorado Mined Land Reclamation Board Reclamation Permit Application for the Marcovich pit.

This form has been approved by the Colorado Mined Land Reclamation Board pursuant to its authority under the Colorado Land Reclamation Act for the Extraction of Construction Materials and the Colorado Mined Land Reclamation Act for Hard Rock, Metal, and Designated Mining Operations. Any alteration or modification to this form shall result in voiding this form.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEGED BY:

Applicant GR. G Representative Name Greg R. Geras

Date 7/16/24 Title Land Resource Manager

STATE OF Colorado)
) ss.
COUNTY OF Denver)

The foregoing was acknowledged before me this 16th day of July, 2024, by

Greg R. Geras as Land Resource Manager of Asphalt Specialties Co., Inc.

Jan Nelson My Commission Expires: May 3rd, 2028
Notary Public Jan Nelson

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

NOTARY FOR STRUCTURE OWNER WITHIN 200 FT OF MARCOVICH PIT AFFECTED AREA

ACKNOWLEGED BY:

Structure Owner Aurora Water Name Dawn Jewell

Date 7/3/2024 Title Water Resources Manager

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

The foregoing was acknowledged before me this 3rd day of JULY, 2024, by DAWN JEWELL as Water Resources Manager of AURORA WATER.

Casey Lee Burgeson My Commission Expires: 05/20/2028
Notary Public

Casey Lee Burgeson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID# 20204017584
MY COMMISSION EXPIRES 05/20/2028

Asphalt Specialties Co., Inc
345 W 62nd Ave
Denver, CO 80216

June 20, 2024
RE: Marcovich Pit

Colorado Department of Transportation
10601 W 10th St
Greeley, CO 80634

Asphalt Specialties Co., Inc. intends to mine on property they control in Weld County, Colorado in Section 7 of T1N and R66W of the 6th Principal Meridian.

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site.

The following structures are located on or within 200 feet of the proposed affected area:

1. US Highway 85 and related structures
2. _____
3. _____
4. _____
5. _____

If there are any questions, I can be contacted at (303) 289-8555 or you can contact the project engineer, Ben Miller, PhD., at (720) 842-5321. If you agree, please sign and notarize the enclosed letter and send it back to me. If you are not authorized to sign this, please present it to the proper person who is authorized.

Signed: _____ 06/26/2024
Date

Printed Name: Peter T. Sylvestos

CERTIFICATION

The Applicant, Asphalt Specialties Co. Inc., represented by Greg Geras, as Land Resource Manager, does hereby certify that Colorado Department of Transportation shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located on or within 200 feet of the proposed affected area described within Exhibit A, of the Colorado Mined Land Reclamation Board Reclamation Permit Application for the Marcovich pit.

This form has been approved by the Colorado Mined Land Reclamation Board pursuant to its authority under the Colorado Land Reclamation Act for the Extraction of Construction Materials and the Colorado Mined Land Reclamation Act for Hard Rock, Metal, and Designated Mining Operations. Any alteration or modification to this form shall result in voiding this form.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEGED BY:

Applicant G R. G Representative Name Greg R. Geras

Date 7/2/24 Title Land Resource Manager

STATE OF COLORADO)
) ss.
COUNTY OF DENVER)

The foregoing was acknowledged before me this 2nd day of July, 2024, by

Greg R. Geras as Land Resource Manager of Asphalt Specialties Co. Inc.

Jan Nelson My Commission Expires: May 3rd, 2028
Notary Public

Jan Nelson
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994030527
MY COMMISSION EXPIRES May 03, 2028

NOTARY FOR STRUCTURE OWNER WITHIN 200 FT OF MARCOVICH PIT AFFECTED AREA

ACKNOWLEGED BY:

Structure Owner Colorado Dept. of Trasportation Name Peter Sulmeisters

Date 6/26/24 Title ROW Manager

STATE OF Colorado)
) ss.
COUNTY OF Weld)

The foregoing was acknowledged before me this 26 day of June, 2024, by Peter Sulmeisters as ROW Manager of CDOT.

Notary Public My Commission Expires: 3/7/26

Damien Gang

DAMIEN GANG
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20224009228
MY COMMISSION EXPIRES 03/07/2026

RULE 1.6.2(1)(B)

Prior to the submittal of the application, a sign was erected at the entrance to the site that contains the required information dictated by Rule 1.6.2(1)(b).

Please see attached sign certification.