

Newmont Mining Corporation Cripple Creek & Victor Gold Mining Company 100 North 3<sup>rd</sup> Street P.O. Box 191 Victor, CO 80860

www.newmont.com

**Electronic Delivery** 

October 5, 2018

Mr. Timothy Cazier, P.E. Environmental Protection Specialist Colorado Department of Natural Resources Division of Reclamation, Mining, and Safety Office of Mined Land Reclamation 1313 Sherman Street, Room 215 Denver, Colorado 80203

Re: Cripple Creek & Victor Mining, Co., Cresson Project, M-1980-244; Review of Record of Construction Report, VLF2 Recertification Report, Subgrade and Geomembrane 9750 – 9900' Elevations.

Dear Mr. Cazier:

On April 10, 2018, the Cripple Creek and Victor Gold Mining Company (CC&V) submitted a Technical Revision (TR) #100 proposing to conduct a liner integrity investigation in the immediate area impacted by the Squaw Gulch Valley Leach Facility (VLF2) slough. To certify repairs made to the liner, the Division of Reclamation, Mining and Safety (DRMS) requested CC&V to submit phased certification reports. On August 20, 2018, CC&V submitted the Record of Construction Report – VLF2 Recertification Project – Drain Cover Fill, Subgrade and Geomembrane 9750'-9900' Elevations. DRMS reviewed the Construction Report and provided comments to CC&V. These comments were shared with Newfields, the certifying engineering consultant; their responses are provided in Attachment 1.

Should you require further information please do not hesitate to contact Justin Bills at 719-689-4046 or justin.bills@newmont.com or me at (719) 689-4055 or Meg.Burt@newmont.com.

Regards,

Meg Burt Senior Environmental Manager Cripple Creek and Victor Mining Company

MB/jb

Enc

File

## Attachment 1:

Review of Record of Construction Report, VLF2 Recertification Report, Subgrade and Geomembrane 9750-9900' Elevations Response to Comments



October 5, 2018 NewFields Job 475.0106.026

Cripple Creek & Victor Gold Mining P.O. Pox 191 100 North 3<sup>rd</sup> Street Victor, Colorado 80860

### Attention: Mr. Laurin Colby Senior Metallurgist

## RE: Cripple Creek & Victor, Co., Cresson Project M-1980-244; Review of Record of Construction Report, VLF2 Recertification Report, Subgrade and Geomembrane 9750-9900' Elevations

Dear Mr. Colby,

NewFields Mining Design & Technical Services (NewFields) has prepared this letter in response to comments pertaining to the "Record of Construction Report, VLF2 Recertification Project, Subgrade and Geomembrane 9750 – 9900' Elevations" by the Colorado Division of Reclamation Mining and Safety (DRMS), received on October 3, 2018. DRMS comments appear in blue and are followed by NewFields' response.

1. Section 2 Project Description: This report is meant to be a stand-alone document that describes recertification activities of the subgrade and geomembrane between 9750' and 9900' elevations. The text states "This report covers the recertification construction activities monitored between April 2018 through July 2018." Please revise this statement to accurately describe what is contained in this report or provide the missing Daily Observation Reports and expand the text to include what was done from April 2018 through May 2018.

In order to replace the geomembrane liner between the 9650'-9750' benches, the contractor had to remove all the Drain Cover Fill (DCF) starting at 9900' bench. The dailies observation reports for the removal of the ore and DCF had previously been submitted in the "Record of Construction Report, VLF2 Recertification Project, Subgrade and Geomembrane 9650 – 9750' Elevation". In Attachment A of this addendum, the daily observation reports for period between April 6 – May 25, 2018 and June 19 – June 23, 2018 have been included. No work was performed with the 9750 - 9900' benches between May 26 – June 18, 2018.



2. Section 5.1.5 Geomembrane Destructive Testing: The text states "destructive test samples were marked for [sic] every 500 linear feet of seam for each welding type". However in Table E.4 the frequency of sampling is less than stated 500 linear feet of seaming. Please explain this discrepancy.

Per the approved technical specifications, 02776-0 Geomembrane, "Contractor shall test a minimum of one destructive test per five hundred (500) feet of seam length..." Based on the table presented in Appendix E.4, the average distance between each destructive test is approximately 475'. This results in more tests than the frequency specified in the Technical Specification.

3. Section 5.1.5 Geomembrane Destructive Testing: The text identifies one destructive test that failed, RCDF-9, but the location of this test is not shown on Drawing 2 nor are the testing results shown in any of the tables in Appendix E. Please clarify if the sample was collected as part of the VLF2 Recertification Project between 9750' - 9900' elevations and if so where the sample was taken and the results of the testing.

The destructive test identified as RCDF-9 was part of the "Record of Construction Report, VLF2 Recertification Project, Subgrade and Geomembrane 9650 – 9750' Elevation". This reference was mistakenly carried over into this report.

4. Field Daily Progress Report August 7 through 11, 2018: Please explain and describe the damage that occurred in the northeast corner of the geomembrane, the corrective actions taken, and why this event was left out of the text narrative.

Prior to commencing the recertification project, the barren pipeline was routed along the 9850' bench and was relocated. During the relocation of the pipe, small holes were punctured into the geomembrane liner. The location of this damage was marked for future inspection and repair.

Over the period of August 7 - 11, the contractor exposed the geomembrane liner and Comanco repaired the damaged liner. The repairs included: geomembrane patches over large holes and geomembrane beading the smaller holes. All repairs where completed per the technical specification.

These events were mistakenly left out of the narrative, as the narrative was completed prior to the repairs being completed.

5. Appendix E.3 Geomembrane Extrusion Trial Seam Summary: Please describe why RCTX-15 failed, what corrective actions were taken and if RCTX-16 is a follow up test.



The passing extrusion trail seam RCTX-16 is the retest for the failed RCTX-15 test. The welding machine was adjusted and retested after the failed test. An updated table has been included in this addendum in Attachment 2.

6. Appendix E.4 Geomembrane Fusion Welding Summary: As mentioned above, the text in section 5.1.5 indicated that destructive samples were to be collected at a rate of 500 linear feet of seam but this table reflects that was not done, please provide an explanation as to why.

Per the approved technical specification, 02776-0 Geomembrane", Contractor shall test a minimum of one destructive test per five hundred (500) feet of seam length…" Based on the table presented in Appendix E.4, the average distance between each destructive test is approximately 475'. This results in more tests than the frequency specified in the Technical Specification.

7. Appendix E.6 Geomembrane Fusion Destructive Testing Summary: Please describe the difference between the two columns titled Peel Strength.

During destructive testing of a fusion welded seam, both sides of each of the five test coupons are tested for Peel Strength. The two columns titled "Peel Strength" on Appendix E.6 Geomembrane Destructive Testing Summary are used to log the test result values.

8. Appendix E.6 Geomembrane Fusion Destructive Testing Summary: Under the column titled Shear Strength there are numerous samples that fail the indicated minimum value of 130 ppi but are marked as passing tests, please explain. If the minimum value shown is incorrect, please revise the table to reflect the correct value and check the table for completeness and accuracy (there is a misspelled word in title).

Per Table 2.01, Typical Properties, of the approved technical specification, 02776-0 Geomembrane", the minimum shear strength for a field seams on textured 80 mil LLDPE is 120 ppi, not 130ppi as indicated in the table in Appendix E.6. The table has been corrected and included in this addendum in Attachment 3.

# 9. Appendix E.6 Geomembrane Extrusion Destructive Testing Summary: There are two superscripts shown on the table.

The superscript and notes in the footer on the Table included in Appendix E.7 Geomembrane Extrusion Destructive Testing Summary, have been removed and the corrected table is included in this addendum in Attachment 4.

Record of Construction Report, VLF2 Recertification Report Subgrade and Geoembrane 9750'-9900' Elevations Response to DRMS Comments NewFields Job 475.0106.026 October 5, 2018

If you have any questions or require additional information, please contact the undersigned.

## Sincerely,

**NewFields Mining Design & Technical Services** 

**Reviewed by:** 

loore

Jay Janney-Moore, P.E. Engineer of Record

JNM/KCW/jnm



The file

Keith C. Williams Principal Engineer

Attachments:

- Attachment 1 Daily Observation Reports for April 6-May 25 2018 and June 18-June 23, 2018
- Attachment 2 Appendix E.4 Geomembrane Extrusion Trail Seam Summary
- Attachment 3 Appendix E.6 Geomembrane Fusion Destructive Testing Summary
- Attachment 4 Appendix E.7 Geomembrane Extrusion Destructive Testing Summary

Addressee: (via e-mail)

P:\Projects\0106.026 CC&V Leak Detection Services\J-REPORTS\ROC Reports\SG&GM 9750'-9900'\Address DRMS comments\181005 Addendum SGGM 9750-9900'final.docx



Attachment 1



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

**Date:** April 6, 2018



Temperature: Low: 33°F to High: 39°F Weather: Overcast with Snow

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

Ames removed ore material from the area between the 9750' and 9850' benches stockpiling on the DCF just below the 9750 bench. The ore was pushed downhill using a CAT D6T LGP dozer.

A four-inch CPe pipe was exposed using a mini excavator and laborers. The pipe was cut to allowing to allow a measuring tape to be placed in the pipe. The measuring tape was pushed down the slope in the pipe and stopped at 61 feet due to a possible blockage. This indicates the possibility of DCF movement at that location.

#### **1.2 Geomembrane Installation:**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal and pipe measurement.

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Site specific training was attended by NewFields personnel on April 3, 2018. A pre-shift safety meeting was attended.

If you have any questions or require additional information, please contact us at your convenience.



Ore removal





Exposing 4" CPe Pipe



Exposing 4" CPe Pipe



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

**Date:** April 9, 2018



Temperature: Low: 25°F to High: 41°F Weather: Overcast

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D9T dozer and a D6T LGP dozer removed ore material between 9750' and 9850' elevations stockpiling the material near the 9750' bench to placed later. The ore material was cut to 2.5' above the liner using D6T. The D9T on a minimum 4' of geomembrane cover.

#### **1.2 Geomembrane Installation:**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal.

#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended the project pre-shift safety meeting conducted by Ames Construction.

. 775.738.3399



If you have any questions or require additional information, please contact us at your convenience.



Ore removal



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 10, 2018



Temperature: Low: 33°F to High: 59°F Weather: Partly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer assisted by a CAT 330B excavator removed ore material between the 9750' and 9850' benches stockpiling near 9750' bench. The D6T and 330B worked on a minimum of 2' of geomembrane cover and the D9T worked on a minimum of 4' of geomembrane cover.

An eight-inch CPe pipe was exposed using a mini excavator and laborers. The pipe was cut to allow the fish tape to be placed in the pipe. The fish tape was pushed down the slope in the pipe. The fish tape stopped and was measured at 82' which is most likely the bend of the pipe at the crest of 9750 bench.

The mini excavator was utilized to excavate test pits to locate the geomembrane along the 9778' elevation. Five test pits were excavated at an interval of twenty feet.

#### **1.2 Geomembrane Installation:**

No activities performed during the shift.

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#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and measurements during the shift.

#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended the project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Ore Removal





## Exposing Geomembrane



Pipe Measurement



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 11, 2018



Temperature: Low: 37°F to High: 58°F

Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D9T dozer and a CAT D6T LGP dozer were used to remove ore material between the 9650' and 9750' benches stockpiling near 9650' bench. The D6T worked on a minimum of 2' of geomembrane cover and the D9T worked on a minimum of 4' of geomembrane cover. Approximately 25% of the material was pushed downhill using both dozers on the northside.

The mini excavator was utilized to excavate test pits to locate the geomembrane along the 9758' elevation. Six test pits were excavated at an interval of twenty feet. All liner and DCF materials were found to be in placed as installed.

#### **1.2 Geomembrane Installation:**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

Г. 775.738.3399

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NewFields personnel attended the project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Ore Removal** 





**Excavating Test Pits** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 12, 2018



Temperature: Low: 47°F to High: 62°F

Weather: Overcast

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D9T dozer and a CAT D6T LGP dozer were utilized to remove ore material between the 9650' and 9750'. Both dozers worked on 5' of geomembrane cover. The material was pushed downhill and stockpiled near the 9650' bench.

A mini excavator was used to excavate and locate an eight-inch CPe pipe near the 9750' bench approximately 80' west of the previously measured eight-inch pipe. The pipe was disconnected at the joint and measured using a fish tape. The pipe appeared to be blocked at approximately 42.5' down slope. The DCF material was soft and moist near the opening in the eight-inch pipe.

#### **1.2 Geomembrane Installation:**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and measurement of the eight-inch CPe pipe.

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NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.



Ore removal





Eight-inch CPe pipe Exposure



**Pipe Disconnection** 





**Pipe Measurement** 



**Ore Removal** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 13, 2018



Temperature: Low: 29°F to High: 41°F Weather: Overcast

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer were utilized to remove ore material between the 9650' and 9750' benches stockpiling near 9650' bench. The D6T and D9T worked on four-feet of geomembrane cover.

The mini excavator was used to excavate test pits to locate the geomembrane along the 9740' elevation. Nine test pits were excavated at an approximate interval of 20'. All existing DCF, geomembrane, and pipe exposed were found to be undisturbed and in as-built condition.

#### **1.2 Geomembrane Installation**

No activities performed during the shift.

#### 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Ore Removal** 





**Test Pit Excavation** 



Exposed Pipe and Geomembrane



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 16, 2018



Temperature: Low: 34°F to High: 63°F Weather: Overcast

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### 1.1 Ore Excavation

The mini excavator was used to excavate test pits to locate the geomembrane along the 9720' elevation. Seventeen test pits were excavated at an interval of approximately ten-feet. A damaged area of geomembrane was discovered. The excavation continued with a D6T LGP dozer and a mini excavator to identify the extent of the geomembrane damage. The damage is currently found to be approximately 200' wide running along the 9720' elevation and extends into the existing ore stockpile. Ore removal continued in the area between the 9720' and 9650' benches pushing downhill and stockpiling the material near the 9650' bench to allow for further investigation. All equipment worked on at least 2' of geomembrane cover at all times.

#### **1.2 Geomembrane Repair**

No activities performed during the shift.



#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and identification of geomembrane damage area during the shift.

#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.



Geomembrane Exposure





**Excavated Test Pits** 



Damaged Geomembrane





#### Damaged Geomembrane



**Ore Removal** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 17, 2018



**Temperature:** Low: 36°F to High: 48°F Weather: Overcast, Windy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer were utilized to remove ore material between the 9650' and 9710' benches stockpiling near 9650' bench. The D6T and D9T worked on a minimum of 2' and 4' of geomembrane cover, respectively.

The mini excavator was used to excavate test pits to locate the geomembrane along the 9710' elevation. Five test pits were excavated at an approximate interval of ten feet. The damaged geomembrane was exposed to the toe of stockpile on the north side. Exposure of damaged geomembrane will continue on the south side tomorrow.

#### **1.2 Geomembrane Repair**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

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NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.



**Ore Removal** 





Geomembrane Exposure



**Excavated Test Pits** 





Exposed Damage at North Side



Damaged Geomembrane at South Side



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 18, 2018



Temperature: Low: 22°F to High: 41°F Weather: Clear

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

#### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D6T LGP dozer was used to remove ore material between the 9650' and 9660' benches, stockpiling it near the 9650' bench. The D6T worked on a minimum of 2' of geomembrane cover.

The mini excavator was used to excavate test pits locating the geomembrane along the 9660' elevation. Four test pits were excavated at an approximate interval of ten feet. Damaged geomembrane was exposed on the south side of the recertification area.

#### **1.2 Geomembrane Repair**

No activities performed during the shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

. 775.738.3399



DRMS and CC&V Environmental Department representatives inspected and investigated the damage to the geomembrane in the recertification area. DRMS stated that integrity testing of the existing geomembrane would be required. It was also stated by DRMS that a certification report would be required for the remediation.

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Ore Removal** 





**Geomembrane Exposure** 



**Excavated Test Pits**


**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 19, 2018



Temperature: Low: 29°F to High: 51°F Weather: Clear

## **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D6T LGP dozer was used to remove ore material between the 9650' and 9670' benches, stockpiling it near the 9650' bench. The D6T worked on a minimum of 2' of geomembrane cover.

The mini excavator was used to excavate test pit locating the geomembrane along the 9645' elevation. One test pit was excavated and the geomembrane was exposed.

## **1.2 Geomembrane Repair**

Damaged geomembrane was removed between 9650' and 9670' elevation.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

1. 775.738.3399



## **3.0 COMMUNICATIONS AND MEETINGS**

An area of DCF slid down the slope for approximately ten feet near the 9700' bench. A meeting was held at the site discussing the situation with Laurin Colby (CC&V), Kevin Dumbrowski (Ames) and Ben Melly (NewFields). The decision was made to buttress the area near the 9650' bench. A NewFields representative will observe the buttress construction. This changes the schedule as no work activities were scheduled for tomorrow, April 20, 2018.

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







Damaged Geomembrane Removal



**DCF Slide Area** 





Damaged Geomembrane Exposure



Geomembrane Exposure



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 20, 2018



Temperature: Low: 22°F to High: 34°F Weather: Clear

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	5

## **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D6T LGP dozer was used to buttress the area near the 9650' bench. The buttress construction will continue Monday as more material is needed.

A CAT D9T dozer and a CAT D6T LGP dozer were used to remove ore material pushing downhill to the stockpile on the North side.

## **1.2 Geomembrane Repair**

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal and buttress construction near the 9650' bench.

## **3.0 COMMUNICATIONS AND MEETINGS**

Kevin Dumbrowski (Ames) was going to draft a proposal for Monday as a plan going forward.

. 775.738.3399



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Buttress Construction** 







**Client: Cripple Creek & Victor Gold Mining Company** 

Project: VLF2 Geomembrane Recertification

NewFields Project Number: 475.0106.026

Date: April 23, 2018



Temperature: 42°F - 55°F

Weather: Clear

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	0

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

No activities performed during the shift.

## **1.2 Geomembrane Installation:**

No activities performed during the shift.

## **2.0 NEWFIELDS ACTIVITIES**

No activities performed during the shift.

## **3.0 COMMUNICATIONS AND MEETINGS**

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315

r. 775.738.3399



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 24, 2018



Temperature: Low: 31°F to High: 34°F Weather: Overcast with Snow

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer were used to remove ore material from the stockpile on the North side. The dozers were utilized to feed the Mine loader with the ore material.

## **1.2 Geomembrane Repair**

No activities performed during the shift.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal.

## **3.0 COMMUNICATIONS AND MEETINGS**

Kevin Dombrowski (Ames), Laurin Colby (Mine) and Ben Melly (New Fields) had a meeting on discussing project scheduling, progress, and future plans. The decision was made that the DCF will be removed between the 9900' and 9750' elevations beginning Monday.

www.NewFields.com 9400 Station St, Lone Tree, Colorado 80124 T. 720.508.3300



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Ore Removal





## Mine Equipment Loading Ore



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 25, 2018



Temperature: Low: 28°F to High: 48°F Weather: Clear

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer continued to remove ore material between 9850' to 9750' elevations pushing down to the stockpile on the North side. The stockpile was loaded and hauled by the Mine Operations.

## **1.2 Geomembrane Repair**

No activities performed.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal.

#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.



If you have any questions or require additional information, please contact us at your convenience.

# Sincerely, **NewFields Mining Design & Technical Services** Prepared by:

Benjamin Melly. 817.889.7315





**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 26, 2018



Temperature: Low: 25°F to High: 46°F

Weather: Clear, Windy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D9T dozer and a CAT D6T LGP dozer continued to remove ore material between 9850' to 9750' elevations pushing down to the stockpile on the North side. The stockpile was loaded and hauled by the Mine Operations.

## **1.2 Geomembrane Repair**

No activities performed.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal on the North side.

## **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

1. 775.738.3399



If you have any questions or require additional information, please contact us at your convenience.

## Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315





**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 27, 2018



Temperature: Low: 34°F to High: 56°F Weather: Clear

NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## **1.1 Ore Excavation**

A CAT D9T and D6T LGP dozer were used to remove ore material between the 9650' and 9700' benches, stockpiling it near the 9650' bench. The D6T worked on a minimum of 2' and D9T on a minimum of 4' of geomembrane cover.

The mini excavator was used to excavate test pits locating the geomembrane along the 9700' elevation. Two test pits were excavated approximately ten feet apart on the north side of the recertification area. Soil Liner Fill (SLF) was exposed in the first test pit and geomembrane was exposed in the second.

## **1.2 Geomembrane Repair**

No activities performed during the shift.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, SLF/geomembrane exposure, and the excavation of test pits during the shift.

. 775.738.3399

www.NewFields.com 9400 Station St, Lone Tree, Colorado 80124 T. 720.508.3300



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

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Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







**Test Pit Excavation** 



**SLF Exposure** 





Geomembrane Exposure



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: April 30, 2018



Temperature: Low: 33°F to High: 55°F Weather: Mostly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 Ore Excavation

A CAT D6T LGP dozer was used to remove ore material between the 9650' and 9700' benches, stockpiling it near the 9650' bench. The D6T worked on a minimum of 2' of geomembrane cover. A CAT D9T dozer was used to buttress the area near the 9650' bench.

A mini excavator was used to excavate test pit locating the geomembrane along the 9690' elevation. Two test pits were excavated exposing geomembrane. Drain Cover Fill (DCF) was removed near the 9900' elevation using a CAT 335 track-mounted excavator.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

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#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

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Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Ore Removal** 





#### **Geomembrane Exposed**



DCF removal



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 1, 2018



Temperature: Low: 32°F to High: 52°F Weather: Mostly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 Ore Excavation

A CAT D9T dozer and a CAT D6T LGP dozer were used to remove ore material between the 9650' and 9750' benches, stockpiling on the north side near the 9650' bench. Both dozers worked on a minimum of 4' of geomembrane cover.

A CAT D6T LGP dozer was used to remove the Drain Cover Fill (DCF) from the perimeter road near the 9900' elevation, leaving 2' of cover over the geomembrane.

A CAT 321C excavator was utilized to expose geomembrane for the perimeter road near the 9900' bench.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

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### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

## **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







DCF Removal



Geomembrane Exposure



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 2, 2018



Temperature: Low: 28°F to High: 46°F Weather: Overcast

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	10

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 Ore Excavation

A CAT D6T LGP dozer and A CAT D9T dozer were used to remove ore material between the 9650' and 9750' benches, stockpiling it near the 9650' bench. Both dozers worked on a minimum of 4'of geomembrane cover.

The mini excavator was used to excavate test pits locating the geomembrane between 9687' and 9702' elevation. Three test pits were excavated exposing geomembrane.

A CAT 321C excavator was used to expose geomembrane between 9850' and 9900' bench.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

## 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, geomembrane exposure, and the excavation of test pits during the shift.

www.NewFields.com 9400 Station St, Lone Tree, Colorado 80124 T. 720.508.3300



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







#### **Geomembrane Exposure**



**DCF** Removal



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 3, 2018



Temperature: Low: 28°F to High: 34°F Weather: Overcast, Snow

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 Ore Excavation

A CAT D9T dozer was used to remove ore material between the 9650' and 9750' benches, stockpiling on the north side near the 9680' elevation. The dozer worked on a minimum of 4' of geomembrane cover.

A CAT D6T LGP dozer was utilized to remove the Drain Cover Fill (DCF) on 9850' elevation, leaving 2' of cover over the geomembrane.

A CAT 321C excavator continued to expose geomembrane between 9850' and 9900' bench.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

## 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

www.NewFields.com 9400 Station St, Lone Tree, Colorado 80124 T. 720.508.3300



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Ore Removal





**DCF** Removal



Geomembrane Exposure



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 4, 2018



Temperature: Low: 31°F to High: 51°F Weather: Clear

## **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## **1.1 Ore Excavation**

A CAT D9T and A CAT D6T LGP dozer were used to remove ore material between the 9750' and 9850' benches, stockpiling on the north side near the 9750' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

A CAT 321C excavator continued to expose geomembrane by removing the Drain Cover Fill (DCF) between 9850' and 9900' bench.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

## **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

1.775.738.3399



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







Geomembrane Exposure



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 5, 2018



Temperature: Low: 36°F to High: 58°F Weather: Partly Cloudy

## NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	8

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## **1.1 Drain Cover Fill Removal**

Drain Cover Fil (DCF) was removed and geomembrane was exposed between the 9850' and 9900' benches using a CAT 321C excavator. The material was stockpiled along 9850' bench using a CAT D6T LGP dozer to maintain the stockpile.

## **1.2 Geomembrane Repair**

No activities preformed during this shift.

#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed DCF removal and geomembrane exposure.

## **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.



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Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



DCF Removal and Geomembrane Exposure




Stockpiling DCF



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 7, 2018



Temperature: Low: 43°F to High: 61°F Weather: Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT 321C excavator was used to expose geomembrane by removing the Drain Cover Fill (DCF) between 9810' and 9850' benches.

A CAT D9T and A CAT D6T LGP dozer were used to remove ore material between the 9750' and 9850' benches, stockpiling on the north side near the 9750' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

1.775.738.3399



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Geomembrane Exposure







**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 8, 2018



Temperature: Low: 46°F to High: 67°F Weather: Clear, Windy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT D9T and A CAT D6T LGP dozer continued to remove ore material between the 9750' and 9850' benches, stockpiling on the north side near the 9750' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

A CAT 321C excavator continued to expose geomembrane by removing the Drain Cover Fill (DCF) between 9832' elevation and 9850' bench. Also, A CAT D6T LGP dozer was used to remove Drain Cover Fill(DCF) below 9810' elevation, stockpiling near the 9750' bench.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







#### Geomembrane Exposure



**Drain Cover Removal** 



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 9, 2018



Temperature: Low: 43°F to High: 66°F

Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT 321C excavator was utilized to expose geomembrane by removing the Drain Cover Fill (DCF) between 9819' and 9832' elevations.

A CAT D6T LGP dozer was used to remove (DCF) below 9780' elevation, stockpiling near the 9750' bench. The dozer worked on a minimum of 2' of geomembrane cover.

A CAT D9T and A CAT D6T LGP dozers were used to remove ore material between the 9750' bench and 9700' elevation, stockpiling near the 9750' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

775.738.3399



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Geomembrane Exposure





#### **Drain Cover Removal**





**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 10, 2018



Temperature: Low: 45°F to High: 67°F Weather: Clear

### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D9T dozer was used to remove ore material between 9750' to 9650' elevations pushing down to the stockpile on the North side near 9650' bench. The dozer worked on a minimum of 4' of geomembrane cover. The stockpile was loaded and hauled by the Mine Operations.

A CAT D6T LGP dozer continued to remove Drain Cover Fill (DCF) below 9819' elevation, stockpiling near the 9750' bench. The dozer worked on a minimum of 2' of geomembrane cover.

A CAT 321C excavator continued to expose geomembrane by removing the DCF between 9819' and 9790' elevations.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

. 775.738.3399



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







#### **Drain Cover Removal**



Geomembrane Exposure



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 11, 2018



**Temperature:** Low: 42°F to High: 66°F Weather: Partly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT D9T and A CAT D6T LGP dozer were used to remove ore material between the 9650' and 9750' benches, stockpiling on the north side near the 9650' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

A CAT 321C L excavator was utilized to expose geomembrane by removing the Drain Cover Fill (DCF) between 9775' and 9790' elevations. A CAT D6T LGP dozer was also used to remove DCF more than two feet above the geomembrane near the 9750' elevation.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







Geomembrane Exposure and DCF Removal



**Drain Cover Removal** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 14, 2018



Temperature: Low: 38°F to High: 56°F Weather: Mostly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT 321C L excavator continued to expose geomembrane by removing the Drain Cover Fill (DCF) between 9760' and 9775' elevations. A CAT D6T LGP dozer was utilized to remove DCF below 9775' elevation and worked two feet above the geomembrane near the 9750' bench.

A CAT D9T and A CAT D6T LGP dozer also continued to remove ore material between the 9650' and 9750' benches, stockpiling near the 9650' elevation. Both dozers worked on a minimum of 4' of geomembrane cover.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Geomembrane Exposure and DCF Removal





DCF Removal



**Ore and DCF Removal** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 15, 2018



Temperature: Low: 38°F to High: 55°F Weather: Clear

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D9T and a CAT D6T LGP dozer were used to remove ore material between 9650' to 9700' elevations pushing down to the stockpile near 9650' bench. Both dozers worked on a minimum of 4' of geomembrane cover. The stockpile was loaded and hauled by the Mine Operations.

A CAT 321C L excavator was utilized to expose geomembrane by removing the Drain Cover Fill (DCF) between 9725' and 9750' elevations. A CAT D6T LGP dozer was also used to remove DCF below 9760' elevation working on two feet above the geomembrane. The material was pushed down hill near the 9650' bench.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

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NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Ore and DCF Removal





Geomembrane Exposure and DCF Removal



**DCF** Removal



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 16, 2018



Temperature: Low: 42°F to High: 62°F Weather: Clear

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT 321C L excavator was used to expose geomembrane by removing the Drain Cover Fill (DCF) between 9750' and 9850' benches.

A CAT D9T, a CAT D7H and a CAT D6T LGP dozer were utilized to remove ore material between 9650' to 9750' elevations pushing down to the stockpile near 9650' bench. The dozers worked on a minimum of 4' of geomembrane cover. The removed ore stockpile was loaded and hauled by the Mine Operations.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

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NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Geomembrane Exposure and DCF Removal







**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 17, 2018



Temperature: Low: 42°F to High: 66°F Weather: Partly Cloudy

### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

One CAT D7H dozer and one CAT D6T LGP dozer continued to remove ore material between 9650' to 9700' elevations pushing down to the stockpile near 9650' bench. The dozers worked on a minimum of four feet of geomembrane cover.

A CAT 321C L excavator was utilized to expose geomembrane by removing the Drain Cover Fill (DCF) between 9650' and 9750' benches.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315







Geomembrane Exposure and DCF Removal



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 18, 2018



Temperature: Low: 41°F to High: 63°F Weather: Partly Cloudy

### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT 321C L excavator was utilized to remove Drain Cover Fill (DCF) from the existing Soil Liner Fill (SLF) surface and existing geomembrane between 9650' and 9735' elevations.

One CAT D9T dozer and one CAT D6T LGP dozer were used to remove ore material between the 9650' and 9750' benches, stockpiling on the north side near the 9650' elevation. Both dozers worked on a minimum of four feet of geomembrane cover.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

Jay Janney-Moore (NewFields – Certifying Engineer) was onsite to observe construction activities and met with Ames and NewFields project personnel. Project progress and schedule were discussed.

If you have any questions or require additional information, please contact us at your convenience.

# Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



DFC removal







**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 21, 2018



Temperature: Low: 38°F to High: 61°F Weather: Cloudy

### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D9T dozer and a CAT D6T LGP dozer were utilized to remove ore material between the 9650' and 9687' elevations stockpiling near 9650' bench. The D6T and D9T worked on four-feet of geomembrane cover.

A CAT 321C L excavator was used to remove Drain Cover Fill (DCF) from the existing Soil Liner Fill (SLF) surface between 9650' and 9695' elevations.

A CAT 321C L excavator was used to expose geomembrane on the North side by removing the DCF between 9687' and 9750' elevations.

### **1.2 Geomembrane Installation**

No activities performed during the shift.

T. 775.738.3399



# 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, geomembrane exposure, communications and meetings

# 3.0 COMMUNICATIONS AND MEETINGS

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

# Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315





**DCF** Removal



Geomembrane Exposure and DCF Removal



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 22, 2018



Temperature: Low: 39°F to High: 56°F Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11

# **1.0 AMES CONSTRUCTION ACTIVITIES**

#### 1.1 Ore Excavation

A CAT D9T, a CAT D7H and a CAT D6T LGP dozer were used to remove ore material between 9650' to 9750' elevations pushing down to the stockpile near 9650' bench. The dozers worked on a minimum of four-feet of geomembrane cover. The removed ore stockpile was loaded and hauled by the Mine Operations.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal during the shift.

# **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.



If you have any questions or require additional information, please contact us at your convenience.

# Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315




**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 23, 2018



Temperature: Low: 39°F to High: 60°F

Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours					
Benjamin Melly	11					

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A CAT D9T, and a CAT D6T LGP dozer were utilized to remove ore material between 9650' to 9687' elevations pushing downhill to the stockpile near 9650' bench. The dozers worked on a minimum of 4' of geomembrane cover. The removed ore stockpile was loaded and hauled by the Mine Operations.

A CAT 321C L excavator was used to expose geomembrane by removing the Drain Cover Fill (DCF) between 9650' and 9695' elevations and between 9750' and 9850' benches. The south extent of geomembrane damage was located during the shift.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

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#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

Personnel from the Colorado Division of Reclamation, Mining, and Safety (DRMS) were onsite during the shift to observe construction activities and review progress.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Ore Removal





# Geomembrane Exposure



Geomembrane Exposure and DCF Removal



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: May 24, 2018



Temperature: Low: 42°F to High: 64°F Weather: Partly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours					
Benjamin Melly	11					

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 Ore Excavation

A CAT 321C L excavator was utilized to expose geomembrane by removing the Drain Cover Fill (DCF) between 9650' and 9750' elevations on the South side.

A CAT D6T LGP dozer was used to remove ore material between 9643' to 9687' elevations pushing downhill to the stockpile near 9643' elevation. The dozers worked on a minimum of two feet of geomembrane cover.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### 2.0 NEWFIELDS ACTIVITIES

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Geomembrane Exposure





**Ore Removal** 



**Client: Cripple Creek & Victor Gold Mining Company** 

Project: VLF2 Geomembrane Recertification

NewFields Project Number: 475.0106.026

Date: May 25, 2018



Temperature: Low: 46°F to High: 71°F Weather: Sunny

### **NEWFIELDS PERSONNEL**

Name	Hours					
Benjamin Melly	10					

### **1.0 AMES CONSTRUCTION ACTIVITIES**

#### **1.1 Ore Excavation**

A CAT D9T, and a CAT D6T LGP dozer continued to remove ore material between 9635' to 9687' elevations pushing downhill to the stockpile near 9635' elevation. The dozers worked on a minimum of 4' of geomembrane cover.

A CAT 321C L excavator was used to expose geomembrane by removing the Drain Cover Fill (DCF) between 9750' and 9850' benches on the North side.

### **1.2 Geomembrane Repair**

No activities preformed during this shift.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed ore removal, DCF removal, and geomembrane exposure.

775.738.3399



#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely, NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**Ore Removal** 





Geomembrane Exposure



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 18, 2018



Temperature: Low: 47°F to High: 66°F Weathe

Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	13
Alex Lewallen	0

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### **1.1 Ore Excavation**

A Cat 312C L excavator was used to backfill the anchor trench on 9750' bench. One foot of the trench was filled with the Drain Cover Fill (DCF) material. Approximately 290 feet of temporary anchor trench was performed.

### **1.2 Geomembrane Installation**

Approximately 322 linear feet of extrusion seaming was performed using one extrusion welding machine/operator method. One destructive testing sample was marked during extrusion seaming for future testing. Repairs were performed using the extrusion welding method for most marked defects.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed anchor trench backfill and geomembrane installation during the shift.

. 775.738.3399



#### 3.0 COMMUNICATIONS AND MEETINGS

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Anchor Trench Backfill





#### **Tie-in Extrusion Seaming**



**Performing Repairs** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 19, 2018



Temperature: Low: 43°F to High: 67°F Weather: Mostly Cloudy

#### NEWFIELDS PERSONNEL

Name	Hours
Benjamin Melly	13
Alex Lewallen	12

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 DCF Removal

A Cat 312C L excavator was utilized to remove the Drain Cover Fill(DCF) on the 9750' bench.

### **1.2 Geomembrane Installation**

Approximately 900 square feet (panel PRC-16) of 80 Mil LLDPE double sided textured geomembrane was installed by Comanco during the shift. Approximately 167 linear feet of fusion seaming was performed using one fusion machine/operator combination. One destructive testing sample was marked during fusion seaming. Destructive test samples were cut from the geomembrane and will be tested tomorrow. Non-destructive testing was performed for the installed geomembrane. Sand bags were used to secure the geomembrane in place.

### **1.3 Geomembrane Repair**

All the marked defects were repaired using the extrusion welding method. No vacuum testing was performed.

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#### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed DCF removal and geomembrane installation during the shift.

### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

## NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



DCF Removal





**Extrusion Seaming** 



**Performing Repairs** 



**Client:** Cripple Creek & Victor Gold Mining Company

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 20, 2018



Temperature: Low: 42°F to High: 67°F Weather

Weather: Mostly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	13
Alex Lewallen	8

## **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 DCF Removal

A Cat 321 C L excavator continued to remove the Drain Cover Fill(DCF) on the 9750' bench.

## **1.2 Geomembrane Installation**

The tie-in for PRC-15 and PRC-16 to the existing geomembrane was welded using one fusion welding machine/operator combination. A total of 172' linear feet of seam was completed. Repairs were performed using the extrusion welding method. All repairs and extrusion welded seams were vacuum tested and passed. All pressure testing was performed and passed. All the destructive testing was performed and met project specifications excluding RCDF-9. The destructive test location is at the end of the seaming performed by the machine/operator combination. The failing test will be back tracked during tomorrow's shift and necessary repairs will be made.

### **2.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed DCF removal and geomembrane installation during the shift.

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#### **3.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**DCF** Removal





Fusion seaming performed on the tie-in



Pressure testing performed





Vacuum Testing



**Repair Activities** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 21, 2018



Temperature: Low: 44°F to High: 72°F Wea

Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	13
Alex Lewallen	2

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 DCF Removal

A Cat 305.5E mini excavator and a Cat 321C L excavator were used to remove the Drain Cover Fill (DCF) on 9850' bench.

## **1.2 Anchor Trench Backfilled**

Approximately 145 feet of anchor trench was backfilled on 9750' bench using a skid steer, a vibratory plate compactor and laborers. The temporary anchor trench was backfilled within project specifications.

## **2.0 COMANCO ACTIVITIES**

### 2.1 Geomembrane Installation

Repair activities and non-destructive testing were performed throughout the shift. RCDF-9 was backtracked and the limits of the failing seam were identified. The identified area was repaired and tested also. All repairs and testing results met project specifications. Sand bags were filled and staged preparing for subsequent work activities.

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#### **3.0 NEWFIELDS ACTIVITIES**

NewFields personnel observed DCF removal, anchor trench backfill, and geomembrane installation activities during the shift.

#### 4.0 COMMUNICATIONS AND MEETINGS

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**DCF Removal** 





Anchor Trench Backfill



**Filling Sand Bags** 



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 22, 2018



Temperature: Low: 41°F to High: 67°F Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	11
Alex Lewallen	10

### **1.0 AMES CONSTRUCTION ACTIVITIES**

## 1.1 DCF Removal

A Cat 305.5 E Mini Excavator was used to remove the Drain Cover Fill (DCF) on 9850' bench exposing geomembrane.

## **1.2 Anchor Trench Backfilled**

Approximately 145 feet of anchor trench was backfilled on 9750' bench using a skid steer, a vibratory plate compactor and laborers. The temporary anchor trench was backfilled within project specifications.

## **2.0 COMANCO ACTIVITIES**

## 2.1 Geomembrane Installation

Sand bags were filled and staged preparing for subsequent work activities

### 3.0 NEWFIELDS ACTIVITIES

NewFields personnel observed DCF removal and anchor trench backfill during the shift.

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#### **4.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



**DCF** Removal





Anchor Trench Backfill



Anchor Trench Backfill





Staging Sand Bags



**Client: Cripple Creek & Victor Gold Mining Company** 

**Project: VLF2 Geomembrane Recertification** 

NewFields Project Number: 475.0106.026

Date: June 23, 2018



Temperature: Low: 39°F to High: 59°F Weather: Partly Cloudy

#### **NEWFIELDS PERSONNEL**

Name	Hours
Benjamin Melly	6
Alex Lewallen	0

## **1.0 AMES CONSTRUCTION ACTIVITIES**

### 1.1 DCF Removal

No activities during this shift.

## **1.2 Anchor Trench Excavation**

A CAT 305.5 E mini excavator was used to excavate approximately 25 feet of anchor trench on the 9850' bench.

### **1.3 Geomembrane Removal**

A CAT 312 CL excavator was utilized to remove existing geomembrane and expose the Soil Liner Fill (SLF).

### **2.0 COMANCO ACTIVITIES**

## **2.1 Geomembrane Installation**

No activities during this shift.



#### **3.0 NEWFIELDS ACTIVITIES**

Newfield personnel observed anchor trench excavation and geomembrane removal during the shift.

### **4.0 COMMUNICATIONS AND MEETINGS**

NewFields personnel attended a project pre-shift safety meeting conducted by Ames Construction.

If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

NewFields Mining Design & Technical Services Prepared by: Benjamin Melly. 817.889.7315



Anchor Excavation





#### Geomembrane Removal



Attachment 2



						Machine	Settings		Test Results					
Date	Sample Number	Time	Machine Number	Operator	Ambient Air Temp.	Pre-Heat Temp.	Extruder		Peel (Min. = 88 ppi)		Shear (Min. = 120 ppi)		QA Monitor	Remarks
	Number		Number		(°F)	(°F)	Temp. (°F)	Strength (ppi)	Mode <sup>1</sup>	Strength (ppi)	Mode <sup>1</sup>	Pass/Fail	WOIIIIO	
								125	SE3	132	BRK	PASS	BM	
								125	SE3	133	BRK	PASS	BM	
6/27/2018	RCTX-8	12:20 PM	81	LA	70	500	500	123	SE3	133	BRK	PASS	BM	
								128	SE3	129	BRK	PASS	BM	
								125	SE3	134	BRK	PASS	BM	
								129	SE3	134	BRK	PASS	BM	
								142	SE3	132	BRK	PASS	BM	
6/28/2018	RCTX-9	2:40 PM	81	LA	86	500	500	118	SE3	130	BRK	PASS	BM	
								121	SE3	132	BRK	PASS	BM	
								120	SE3	128	BRK	PASS	BM	
								161	SE3	147	BRK	PASS	BM	
								145	SE3	148	BRK	PASS	BM	
6/29/2018	RCTX-10	8:00 AM	8	LA	53	500	500	140	SE3	140	BRK	PASS	BM	
								151	SE3	153	BRK	PASS	BM	
								151	SE3	172	BRK	PASS	BM	
								128	SE3	135	BRK	PASS	BM	
								132	SE3	141	BRK	PASS	BM	
6/29/2018	RCTX-11	1:30 PM	8	LA	70	500	500	129	SE3	133	BRK	PASS	BM	
								133	SE3	138		PASS	BM	
								129	SE3	141	BRK	PASS	BM	
								125	SE3	127	BRK	PASS	BM	
								125	SE3	136	BRK	PASS	BM	
7/2/2018	RCTX-12	1:00 PM	8	LA	70	500	500	116	SE3	142	BRK	PASS	BM	1
								125	SE3	143	BRK	PASS	BM	
								122	SE3	135	BRK	PASS	BM	



						Machine	Settings	Test Results						
	Sample		Machine		Ambient	Pre-Heat	Extrudor	Peel		Shear			QA	
Date	Number	Time	Number	Operator	Air Temp.	Temp.	Temp.	(Min. =	88 ppi)		120 ppi)	Pass/Fail	Monitor	Remarks
	Humber		Number		(°F)	(°F)	(°F)	Strength	Mode <sup>1</sup>	Strength	Mode <sup>1</sup>	1 4357 1 411	montor	
						. ,	. ,	(ppi)		(ppi)				
								118	SE3	137	BRK	PASS	BM	
- / - /			-					111	SE3	139	BRK	PASS	BM	
7/3/2018	RCTX-13	10:00 AM	8	LA	60	500	500	113	SE3	142	BRK	PASS	BM	
								132	SE3	143	BRK	PASS	BM	
								109	SE3	138	BRK	PASS	BM	
								139	SE3	158	BRK	PASS	BM	
								148	SE3	160	BRK	PASS	BM	
7/4/2018	RCTX-14	7:30 AM	8	LA	53	500	500	143	SE3	153	BRK	PASS	BM	
								143	SE3	163	BRK	PASS	BM	
								142	SE3	152	BRK	PASS	BM	
								67	SE3		BRK	FAIL	BM	
								141	SE3		BRK	FAIL	BM	
7/9/2018	RCTX-15	11:00 AM	8	LA	68	500	500	137	SE3		BRK	FAIL	BM	See RCTX-16
								120	SE3		BRK	FAIL	BM	
								123	SE3		BRK	FAIL	BM	
								137	SE3	137	BRK	PASS	BM	
								139	SE3	140	BRK	PASS	BM	Fusion Machine
7/9/2018	RCTX-16	11:30 AM	8	LA	68	500	500	136	SE3	138	BRK	PASS	BM	Adjusted and Re-Tested
								132	SE3	146	BRK	PASS	BM	Aujusteu anu ke-resteu
								127	SE3	139	BRK	PASS	BM	
								156	SE3	154	BRK	PASS	BM	
								158	SE3	164	BRK	PASS	BM	
7/10/2018	RCTX-17	8:00 AM	8	LA	68	500	500	159	SE3	161	BRK	PASS	BM	
								159	SE3	159	BRK	PASS	BM	
								155	SE3	161	BRK	PASS	BM	



## Cripple Creek & Victor Gold Mining Company VLF2 Recertification Project Subgrade & Geomembrane 9750'-9900' Elevations Geomembrane Extrusion Trial Seam Summary

						Machine	Settings			Fest Result	S					
Date	Sample Number	Time	Machine Number	Operator	Ambient Air Temp.	Pre-Heat		-	Peel (Min. = 88 ppi)		Shear (Min. = 120 ppi)		= 120 nni)		QA Monitor	Remarks
			Number		(°F)			Strength (ppi)	Mode <sup>1</sup>	Strength (ppi)	Mode <sup>1</sup>	Pass/Fail	Monitor			
								130	SE3	159	BRK	PASS	BM			
								127	SE3	164	BRK	PASS	BM			
7/10/2018	RCTX-18	6:00 PM	8	LA	75	500	500	121	SE3	160	BRK	PASS	BM			
								143	SE3	162	BRK	PASS	BM			
									131	SE3	139	BRK	PASS	BM		
								146	SE3	159	BRK	PASS	BM			
								163	SE3	175	BRK	PASS	BM			
7/11/2018	RCTX-19	6:00 AM	8	LA	45	500	500	166	SE3	166	BRK	PASS	BM			
								171	SE3	179	BRK	PASS	BM			
								154	SE3	182	BRK	PASS	BM			



Attachment 3



# Cripple Creek & Victor Gold Mining Company VLF2 Recertification Project Subgrade & Geomembrane 9750' - 9900' Elevations Geomembrane Fusion Destructive Testing Summary

Sampla	Seam Number	Date Seamed	Welding Data			Test Results														QA		
Sample Number			Operator	Machine Number	Date Tested	Peel Strength (Minimum = 88 ppi)						Peel Strength (Minimum = 88 ppi)					Shear Strength (Minimum = 120 ppi)					Monitor
RCDF-11	PRC-19/PRC-20	6/27/2018	TA	43	6/29/2018	117	124	117	122	124	120	121	117	119	121	127	130	125	133	134	PASS	BM
RCDF-12	PRC-20/PRC-23	6/28/2018	TA	43	6/29/2018	119	124	119	116	118	119	126	124	122	125	125	128	129	133	133	PASS	BM
RCDF-13	PRC-24/PRC-25	6/28/2018	TA	43	6/29/2018	121	124	121	120	121	119	124	120	120	124	130	133	128	135	134	PASS	BM
RCDF-14	PRC-26/PRC-27	6/28/2018	TA	43	6/29/2018	113	118	117	120	118	121	117	117	122	121	123	128	129	126	126	PASS	BM
RCDF-15	EL/PRC-17	6/29/2018	TA	43	6/29/2018	164	165	164	155	158	145	145	149	153	150	173	183	175	187	188	PASS	BM
RCDF-16	PRC-30/PRC-32	7/2/2018	TA	43	7/3/2018	118	123	118	126	125	122	123	116	121	121	129	136	127	135	132	PASS	BM
RCDF-17	EL/PRC-31	7/3/2018	TA	43	7/3/2018	130	135	131	133	134	130	129	125	131	129	136	137	136	142	134	PASS	BM
RCDF-18	PRC-37/PRC-38	7/7/2018	TA	43	7/7/2018	135	147	141	135	143	136	134	138	141	133	152	154	153	158	158	PASS	BM
RCDF-19	EL/PRC-33	7/9/2018	TA	43	7/9/2018	138	145	138	141	145	122	127	125	129	131	151	151	146	148	140	PASS	BM



Attachment 4



## Cripple Creek & Victor Gold Mining Company VLF2 Recertification Project Subgrade & Geomembrane 9750' - 9900' Geomembrane Extrusion Destructive Testing Summary

Sample		Date	Welding Data		Date	Test Results												
Number	Seam Number	Seamed	Operator	Machine Number	Machine Tested		Peel Strength (Minimum = 88 ppi)						ir Stre um = :	ngth 120 pp	oi)	Pass/Fail	QA Monitor	Remarks
RCDX-2	PRC-5/PRC-27	6/29/18	LA	9	6/29/18	165	160	160	163	161	173	179	174	175	171	PASS	BM	
RCDA-2						SE3	SE3	SE3	SE3	SE3	BRK	BRK	BRK	BRK	BRK			
RCDX-3	PRC-11/PRC-31	7/3/18	LA	10	7/3/18	133	138	132	129	136	140	143	140	146	147	PASS	BM	
RCDA-5						SE3	SE3	SE3	SE3	SE3	BRK	BRK	BRK	BRK	BRK			
RCDX-4	EL/PRC-41	7/10/18	LA	8	7/11/18	161	150	157	157	167	161	180	174	174	177	PASS	BM	
RCDA-4						SE3	SE3	SE3	SE3	SE3	BRK	BRK	BRK	BRK	BRK			
RCDX-5	EL/PRC-38	7/10/18	LA	8	7/11/18	149	156	148	141	153	172	172	172	169	173	PASS	BM	
NCDX-5						SE3	SE3	SE3	SE3	SE3	BRK	BRK	BRK	BRK	BRK	FA35		