

# **Fence Construction & Hot Mixed Asphaltic Concrete Cover Repair Letter Report**

**Rockwool Industries, Inc. Federal  
Superfund Site 1741  
Taylors Valley Road, Belton, Bell  
County, Texas**

**Prepared for**

**Texas Commission on  
Environmental Quality**

**February 3, 2015**

**Submitted By:**

**Contract No.  
582-14-40670  
Work Order No.  
327-0028**



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**Ben Camacho, P.G.  
Project Manager**



***Daniel B. Stephens & Associates, Inc.***

4030 W. Braker Lane, Suite 325, Austin, Texas 78759



February 3, 2015

Marilyn Long, Project Manager  
TCEQ Superfund Section, MC-136  
P.O. Box 13087  
Austin, TX 78711-3087

Re: Fence Construction and Hot Mixed Asphaltic Concrete Cover Repair Letter Report  
Rockwool Industries, Inc. Federal Superfund Site  
1741 Taylors Valley Road, Belton, Bell County, Texas.  
TCEQ Site Identification Number SUP033

Dear Ms. Long:

This letter report summarizes the fence construction activities and repairs to the MatCon Hot Mixed Asphaltic Concrete (HMA) cover completed in 2014 at the Rockwool Industries, Inc. (RWI) Federal Superfund Site located in Belton, Bell County, Texas. Daniel B. Stephens & Associates, Inc. (DBS&A) conducted the scope of work under the Texas Commission on Environmental Quality (TCEQ) Assessment, Investigation & Remediation Services (AIRS) Contract 582-14-40670, Work Order numbers 327-0024 and 327-0028; and in accordance with the February 11, 2011 Rockwool Industries, Inc. Superfund Site Operations & Maintenance (O&M) Plan (DBS&A, Feb 2011); the January 17, 2014 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site Field Sampling Plan (FSP2) for Operations & Maintenance Activities (DBS&A, January 2014); and the Wilder Construction Company MatCon® Operation and Maintenance Plan for Rockwool Superfund Site (Wilder, 2006). The site inspection and maintenance activities have been developed in accordance with Texas Administrative Code (TAC) requirements for closure and remediation of industrial solid waste and municipal hazardous waste landfill facilities per 30 TAC §335.8.

Specific inspection and maintenance activities have been established in order to ensure that the selected remedy remains protective of human health and the environment. The maintenance tasks were performed as required in support of the Record of Decision (ROD) for the Rockwool Industries Inc. Federal Superfund Site (EPA, 2004) in order to ensure the continued protectiveness of the selected remedy. Fence construction was performed at the RWI Site to prevent unauthorized access and vandalism. The MatCon HMA cover repairs were performed at the RWI Site to ensure that the cover is performing as designed.

## Site Background

In 2010, the TCEQ contracted DBS&A to perform O&M activities in the form of semi-annual groundwater monitoring and other inspection and maintenance tasks to ensure the continued protectiveness of the selected remedy at the RWI Federal Superfund Site located at 1741 Taylors

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Valley Road, Belton, Bell County, Texas. **Figure 1** (Site Location Map) of this report presents a map illustrating the location of the RWI facility and the surrounding area.

The RWI Site includes an approximately 100-acre tract of land in a primarily industrial area located one quarter mile east of Interstate 35 in Bell County. The RWI Site is bounded to the north by the Leon River and to the south and west by Nolan Creek. East Belton Cemetery and other commercial and undeveloped private properties lie to the west of the RWI Site and light industrial properties lie to the east.

The RWI Site is broadly divided into two main areas; the North Property and the Central Property as illustrated in **Figure 2** (Site Map). The North Property and adjoining Geer Property-Cemetery area constitute a 14-acre tract of land on the north side of Taylor's Valley Road. The Central Property includes Operable Unit 2 (OU2) and forms a 47-acre tract of land south of Taylor's Valley Road extending to FM-93. Historically, the RWI Site included a Non-Process tract that covered approximately 40-acres of land located south of FM-93, which traversed southwest to Nolan Creek. During prior remedial investigations, the Non-Process tract was determined to be free of contaminant impacts; therefore, this 40-acre tract of land is no longer considered part of the RWI Site.

Former consultants for the project executed the remedial action (RA) at the RWI Site as defined in the ROD and in accordance with the accepted remedial design (RD). The RA consisted of activities utilized to eliminate human and ecological exposure to contaminated waste emanating from the RWI Site. RA processes included drainage improvement activities, waste and soil excavation and removal and the placement of clay and topsoil caps over the contaminated areas. The clay/topsoil covered areas were marked and surveyed for institutional control and replanted with vegetative cover. The RA also consisted of the construction and capping of a containment cell designed to contain excavated waste from areas of the RWI Site. Site inspections conducted by Shaw Environmental, Inc. (Shaw) in June 2013 identified several areas of the site that needed maintenance work, including maintenance issues pertaining to the HMA cover.

## **Fence Construction**

On July 28, 2014 through August 8, 2014, DBS&A provided oversight of fence construction activities at the RWI Site. The north side of the Central Property and east side of the North Property were equipped with new fencing. To be consistent with the existing surrounding fences, a chain link fence was constructed between the cemetery property and the site on the North property and a barbed wire fence was constructed along the north side of the Central Property. During the fence construction activities, vegetation was cleared to ground surface three feet to each side of proposed fence location. For reference, photographic documentation is included in

**Attachment A** and field notes are included in **Attachment B**. The Site Map (included as **Figure 2**) has been updated to illustrate the new barbed wire and chain link fences.

### **Barbed Wire Fence Installation**

From July 28, 2014 through August 1, 2014, approximately 1,700 linear feet of barbed wire fence was installed on the north side of the Central Property. The fence was installed in accordance with the manufacturer's instructions, in a neat and workmanship like manner. Steel posts were set in concrete per American Society for Testing and Materials (ASTM) F567, "Alternate Method." Schedule 80 steel pipe posts were set at least 36-inches deep and in holes not less than 9-inches in diameter, and filled with concrete. Concrete rated at 3,500 pounds per square inch (psi) with a 2-3 inch slump was poured into each post hole and extended approximately 1-inch above finished grade and sloped away from the post in each direction to prevent water ponding around each post.

Approximately 6.5-feet long steel "T" posts (manufactured as per ASTM A702-89) were oriented for wire placement to the "outside" of the enclosure. The steel "T" posts were spaced at approximately 10-foot intervals. Steel "H" braces were set by driving each brace at least 18-inches into the ground. Angle brace posts supporting "H" braces extend at an approximate 30-degree angle out from the posts being supported. For corrosion protection, the exposed steel posts and braces were primed and painted with two coats of paint.

Five zinc coated strands consisting of No. 12-1/2 gauge barbs (3 inches apart) were utilized for the fence construction. The bottom barbed wire strand was positioned approximately 4-inches above finished grade and subsequent barbed wire strands were placed above and spaced at approximately 12 inches apart.

### **Chain Link Fence Installation**

From August 4, 2014 through August 8, 2014, approximately 500 linear feet of 6-foot chain link fence was installed on the west side of the Northern Property. Vegetative brush and several trees were removed after approval was obtained by the City of Belton. Line posts, corner posts, top rails, barbed wire arms, fabric, and gates were installed to provide a rigid structure for the fence. The following provides a list of the material utilized for the chain link fence construction:

- Line Posts: Schedule 40, butt weld, standard weight, hot dip galvanized. ASTM A120, 2<sup>3</sup>/<sub>8</sub>-inch outside diameter;
- Corner and Terminal Posts: 2<sup>7</sup>/<sub>8</sub>-inch outside diameter;
- Top and Brace Rail: 1<sup>5</sup>/<sub>8</sub> inches O.D. sleeve coupled;
- Caps: Hot dip steel galvanized, sized to post dimension;
- Fittings: Sleeves, bands, clips, rail ends, tension bars, fasteners, and fittings: steel galvanized;



- Fabric: 2-inch diamond shaped mesh, interwoven. 9-gauge top selvage twisted tight. Bottom selvage knuckle end closed;
- Bottom Tension Wire: 7-gauge steel single strand, galvanized; and,
- Concrete: 3,500 psi, 2 to 3 inch slump.

Post were installed at a spacing of a maximum of 10 feet. Line, corner and terminal posts were installed plumb, and set in concrete footings. Posts were installed within 6-inches from bottom of concrete footing. The bottom of fabric was positioned approximately 2-inches above finished grade with tension wire stretched taut between posts.

The top rail was passed through line post to form continuous bracing. Approximately 7-inch-long couplings were installed mid-span at the pipe ends. Each gate and corner post was braced back to each adjacent line post utilizing a horizontal center brace rail. The brace rail was installed one bay from each end. Center and bottom brace rails were installed on each corner.

The fabric was fastened to the top rail, line posts, braces and bottom tension wire with wire ties at a maximum of 15-inch centers. The fabric was attached to the end, corner and gate posts with tension bars and tension bar clips. The fabric was stretched between terminal posts at intervals of approximately 100-feet.

## **HMA Concrete Cover Repair**

In 2005, waste material was consolidated in a Containment Cell (CC) located in the central portion of the Rockwool property. The CC cell is trapezoidal in shape and has a surface area of approximately 3.944 acres (including a seven foot wide perimeter apron) as illustrated in the Boundary Survey (Shaw, 20013) included in **Attachment C (C-1)**. Construction of the MatCon Hot Mixed Asphaltic Concrete (HMA) cover on the CC was completed in November 2005. The final cover system for the containment cell consists of 4-inches of a HMA cover that was constructed over 6-inches of compacted flexible base. The purpose of the cover is to contain the underlying waste, and the principle purpose of the HMA cap is to preclude surface water from infiltrating into the waste. The 7-foot width of asphalt surrounding the perimeter is generally referred to as the apron and is outside the limits of the waste.

The HMA cover consists of a proprietary product furnished by MatCon, Inc. and installed by Wilder Construction (Wilder) in August 2005. The HMA cover consists of a dense graded mixture (similar in gradation to the Texas Department of Transportation (TXDOT) Type D, fine graded surface course material) with the MatCon binder.

The HMA cover has experienced surface oxidation, cracking, and settlement/ponding. A detailed survey of the existing crack development in the cover along with a topographic survey of the cover

surface was conducted by Shaw in 2013. The Topographic Survey of Asphalt and Landfill Cap (Shaw, 2013) and the MatCon Cover/Cracks Survey (Shaw, 2013) are included in **Attachment C (C-2 and C-3, respectively)**. The cover is not subject to traffic or material storage. For reference, photographs depicting the cover prior to the repair activities (labeled as photograph numbers 1 through 12) are provided in **Attachment A**.

Repair crews mobilized to the site in August 2014 to initiate asphalt cover repairs. A pre-construction meeting was conducted on-site and asphalt cover repair operations were discussed in detail with the TCEQ, asphalt contractor, and oversight contractor. General sequence of repair operations included installation of the drainage swale crossing, apron repair, patching, crack sealing, and the application of the seal coat. For reference, photographic documentation is included in **Attachment A** and field notes are included in **Attachment B**.

#### **Drainage Swale Rip Rap Protection/Crossing**

On August 12, 2014 two drainage swale rip rap crossings were installed; one at the southern portion of the HMA cover and one at the northeastern portion of the cover. In order for heavy machinery to access the HMA cover, the drainage swale surrounding the cover was temporarily altered to allow for a smooth ingress/egress path. At both locations where the drainage swale was crossed, additional rip rap was placed in the drainage swale up to the top of the drainage swale berm for a distance of approximately 15 feet for each crossing.

Upon completion of the project, the drainage swale crossings were removed and the drainage swales were returned to its previous condition and grade. The additional rip rap material was removed and placed on the southern side of HMA cover in order to reinforce the sidewall of the southern drainage swale.

#### **Apron Repair**

On August 12, 2014 through August 19, 2014, the existing 7-foot apron surrounding the HMA cover was removed, subgrade compacted and new HMA was constructed. The 7-foot width of asphalt strip around the perimeter of the CC is outside the limits of the waste.

Approximately 8-inches of the existing apron material was removed and disposed of off-site; a portion of the HMA was retained to reconstruct the apron. The apron was reconstructed by mixing former HMA with new HMA. An approximately 8-inch HMA cover was placed over the compacted subgrade utilizing materials and techniques consistent with "Patching and Overlays" described below to match the apron to the existing grade lines of the CC cover. Approximately 10,276 square feet of apron cover was replaced.

### **Patching and Overlays**

Patching and Overlays were conducted from August 12, 2014 through September 5, 2014. Patching was performed on severe cracks that were measured to be greater than 3/4-inch wide and cracks that extend full depth (i.e., 4-inches deep). Patching was performed at areas of the HMA cover containing excessive cracking, such as a crack frequency greater than 100 linear feet within an area of 320 square feet or less or cracks less than approximately 5 feet apart. Patching was performed at areas to correct surface grade deformation problems, such as ponding or rutting.

Patch repairs were completed by milling out the surface of the asphalt cover to a depth of 4-inches. The surface areas to receive the overlay were cleaned, dried of moisture, and tack coated. Patching material consisted of an approved HMA Type D mixture. Approximately 9,668 square feet of patching was conducted on the asphalt cover in conformance with specifications outlined in the Operation and Maintenance Plan for MatCon HMA Cover and illustrated in the Asphalt Repair Details diagram, which is included in **Attachment C (C-4)**.

### **Crack Sealing**

Crack sealing was conducted at the HMA cover on four separate occasions (8/26/2014, 9/24/2014, 10/28/2014, and 11/10/2014). Cracks previously identified throughout the HMA cover were sealed using Martin EZ-7 Cold-Applied Crack Sealant. Martin EZ-7 Cold-Applied Crack Sealant is a rubber-asphalt (cold applied) crack sealing compound that complies with TxDOT Specification 300.2 H.

Approximately 2,800 linear feet of cracks were sealed in general conformance with specifications outlined in the Operation and Maintenance Plan for MatCon HMA Cover and illustrated in the Asphalt Repair Details diagram, which is included in **Attachment C (C-4)**. Cracks ranging in width from 1/8-inch to 3/4-inch were sealed.

Prior to sealing the cracks, vegetation was removed from each crack using a propane torch and dirt and debris were removed using compressed air. Cracks with a mean width of approximately 1/8-inch or greater were routed using rotary-impact router to provide a clean and even crack edge and reservoir for the sealant. Routing removed approximately 1/8-inch of material from each side of the crack and extended approximately 1/2-inch to 3/4-inch deep. After routing and removal of at least 1/8-inch of material from each side of the crack, the sealant reservoir measured at least 1/4-inch wider than the original crack. The sealant reservoir had a minimum width of approximately 3/8-inch and a maximum width of approximately 3/4-inch.

After completion of routing and removal of uneven edges and loose aggregate, each crack was cleaned out utilizing filtered compressed air. After preparation was completed, the joints were sealed with Martin EZ-7 Cold-Applied Crack Sealant. The crack sealing material was applied with

a pressure feed nozzle to penetrate the joint and completely fill each crack so that the top of sealant was not more than 1/8-inch above the pavement surface. Crack sealing material experienced settling in certain areas which required the repair contractor to reapply the crack seals to ensure that the seal was to grade, but not more than 1/8-inch above the pavement surface.

### **Seal Coat**

On October 27, 2014, upon completion of the patch overlay and crack sealing activities, a seal coat was applied to HMA cover. Seal coats are part of normal asphalt surface maintenance and are useful for rejuvenating and protecting the surface, sealing hairline cracks, and repairing surface abrasions. Seal coats consist of thin layer of asphalt or coal tar material that is applied in liquid form with a high pressure sprayer or power squeegee.

Seal Master Polymer-modified Master Seal, an asphalt emulsion mixed with water, sand, and other additives was utilized to seal the HMA cover. Prior to seal coat application, the asphalt surface was swept with a power broom to remove dirt and debris. Loose surface material, such as flaking of previous seal coats, were scraped off. The seal coat application was conducted in accordance with the manufacturer's recommendations and consistent with applicable TxDOT specifications. Approximately 154,524 square feet of seal coat was applied, covering the entire surface area of the HMA cover.

### **Conclusions**

Following the completion of the HMA cover repair activities, consulting engineer William Gamblin; P.E., of Apex Geosciences Inc., inspected the cover repairs and provided a certified HMA Cover Repair Installation Report dated December 31, 2014, which is included in **Attachment D**. The inspection report indicated that the HMA cover repairs were completed in accordance with the "Operation and Maintenance Plan for MATCON HMA Cover" (Addendum to the Site Operations and Maintenance Plan) dated August 2013 for the RWI Site.

As required by the current O&M plan, visual inspections of the HMA cover will be performed on routine basis to document any evidence of settlement, cracking, animal holes, pooled water, erosion, or deep-rooted vegetation, and indications of a dense grass mats. Furthermore, any future O&M activities will be performed in accordance with the O&M Plan in order to ensure that the selected remedy remains protective of human health and the environment.

DBS&A appreciates the opportunity to be of service to the TCEQ. If you have any questions, please feel free to contact Mr. Ben Camacho at (512) 821-2765.

Ms. Marilyn Long  
February 3, 2015  
Page 8

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.



Ben Camacho  
Project Manager

#### ATTACHMENTS

##### Figures

1. Site Location Map
2. Site Map

##### Attachments

- A. Photographic Documentation.
- B. Field Notes.
- C. C-1 Boundary Survey (Shaw, 2013);  
C-2 Topographic Survey of Asphalt and Landfill Cap (Shaw, 2013);  
C-3 MatCon Cover/Cracks Survey (Shaw, 2013); and,  
C-4 Asphalt Repair Details (CB&I, 2013).
- D. Apex Geosciences Inc. HMA Cover Repair Installation Report dated December 31, 2014.



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## FIGURES

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FIGURE 1 - SITE LOCATION MAP

FIGURE 2 - SITE MAP





**EPA ID No. TXD066379645**

**TCEQ Site ID No. SUP033**



0 500 1,000 Feet



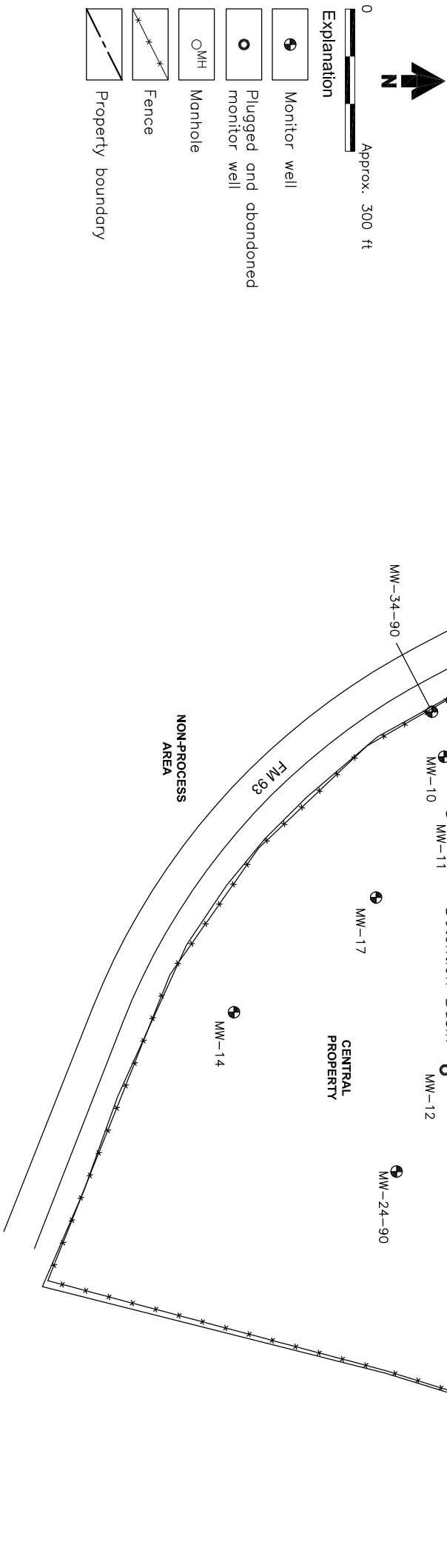
**Daniel B. Stephens & Associates, Inc.**  
2/3/2015 ES15.AIR0.40

**ROCKWOOL INDUSTRIES, INC.**  
**FEDERAL SUPERFUND SITE**  
**1741 TAYLOR VALLEY ROAD**  
**BELTON, BELL COUNTY, TEXAS**  
**Site Location Map**





Daniel B. Stephens & Associates, Inc.  
6/26/2013



Rockwool Industries Superfund Site  
1741 Taylor's Valley Rd  
Belton, Texas  
**Site Map**





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*Daniel B. Stephens & Associates, Inc.*

# ATTACHMENT A

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## PHOTOGRAPHIC DOCUMENTATION



*Daniel B. Stephens & Associates, Inc.*



Photo 1: HMA Cover Inspection photo (2013).



Photo 2: HMA Cover Inspection photo (2013).



Photo 3: HMA Cover Inspection photo (2012).



Photo 4: HMA Cover Inspection photo (2012).



Photo 5: HMA Cover Inspection photo (2012).



Photo 5: HMA Cover Inspection photo (2012).





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Photo 7: HMA Cover Inspection photo (2012).



Photo 8: HMA Cover Inspection photo (2012).



Photo 9: HMA Cover Inspection photo (2012).



Photo 10: HMA Cover Inspection photo (2012).



Photo 11: HMA Cover Inspection photo (2013).



Photo 12: HMA Cover Inspection photo (2013).





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Photo 13: Facing northwest at contractors drilling hole for barbed wire fence on south property.



Photo 14: Facing west at barbed wire fence posts installed.



Photo 15: Facing northwest at finished barbed wire fence on south property.



Photo 16: Facing southwest at contractors removing vegetation from north property.



Photo 17: Facing northwest as contractor secures chain-link fence to fence posts.



Photo 18: Facing southwest at finished chain-link fence on north property.





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Photo 19: Facing northwest on north-side as contractor mills the 7-foot apron surrounding the HMA cover.



Photo 20: Facing south at the eastern side of the milled and compacted apron.



Photo 21: Facing west at the southern side of the milled and compacted apron.



Photo 22: Facing east at the southern side of the milled and compacted apron.



Photo 23: Close-up view of newly laid and compacted asphalt.



Photo 24: Facing southwest at newly laid asphalt on the southern side of the apron.





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Photo 25: Facing north at milled and swept crack areas located on the HMA cover.



Photo 26: Facing east at milled and swept crack areas located on the HMA cover.



Photo 27: Facing north at milled and compacted crack areas located on the HMA cover.



Photo 28: Facing west at milled and compacted crack areas located on the HMA cover.



Photo 29: Facing west at milled and compacted crack areas located on the HMA cover.



Photo 30: Facing west. View of contractors patching milled cracks.





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Photo 31: Facing east. View of milled areas filled with asphalt during patching and overlay activities.



Photo 32: Facing east. View of milled areas filled with asphalt during patching and overlay activities.



Photo 33: Facing northeast. View of depression on northeast corner of the HMA cover.



Photo 34: Facing northwest looking at milled depression on northeast corner of the HMA cover.



Photo 35: Facing northwest. View of asphalt being compacted on northeast corner of the HMA cover.



Photo 36: Facing west at depression on the southern side of the HMA cover.





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Photo 37: Facing southeast at depression on the southern side of the HMA cover.



Photo 38: Facing southwest at southern depression being milled.



Photo 39: Facing southwest at newly patched and compacted area located on the southern side of the cover.



Photo 40: Facing west at a sealed crack.



Photo 41: Facing west at a sealed crack



Photo 42: Facing east at a sealed crack.





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Photo 43: Facing west. View of seal coat application on the HMA cover.



Photo 44: Facing northwest. View of seal coat application on the HMA cover.



Photo 45: Facing south. View of crew applying final seal coat on the HMA cover.



Photo 46: Facing northeast. View of final seal coat curing and drying.



Photo 47: Facing east. View of completed seal coat application.



Photo 48: Facing south. View of completed seal coat application.



*Daniel B. Stephens & Associates, Inc.*



Photo 49: Facing west. View of rip-rap material located south of the HMA cover.



Photo 50: Facing west. View of constructed and re-enforced rip-rap located on the southern side of the HMA cover.



Photo 51: View of crack sealant applied to existing crack after settling occurred.



Photo 52: View of crack sealant applied to existing crack after settling occurred.



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# ATTACHMENT B

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## FIELD NOTES

7/28/14

(37)

EST 14 AIRD. 24

BC, GG

0700 Leave Austin office

0800 arrived on site; perform Health &amp; safety plan at 95° - 100°F sunny

0930 - walked site with Sun Belt

contractor &amp; City of Belton workers

1000 - Walked fence perimeter

w/ fencing contractor

1100 fencing contractors begin measuring distance of fence. \*Note: two (2) additional

"H" braves needed for small property

1330 - contractors started laying

out fence posts

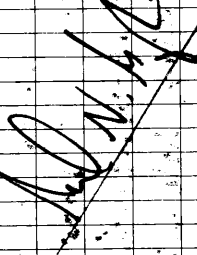
1430 - contractors started putting

in fence posts. Having delays bc of rocky gel.

1700 - fence contractors and GG leave

site for the day. Contractor going to

McCombs to get concrete drill



10b



(38)

ES 14. A120.24

7/29/14

GS

0530 - leave for Rockwood site from Austin.

0630 - Arrive on site

0645 - Conduct Health & Safety meeting.

0700 - Contractors continue installing posts for fence

0720 - Contractor having delays due to drilling of concrete for fence posts.

0830 - Met with Heath w/ City of Belton on tree concerns on the fence line of cemetery. He said it was ok to trim/gd around

larger trees; remove smaller trees obstructing fence path.

1130 - Contractors left site to go fill up water tank. Water needed to use agar

1240 - Contractors return on site.

1250 - Begin drilling hole with agar for boundary fence post.

1330 - Began digging holes for T-posts & H-posts.

W.N. hfg

(39)

ES 14. A120.24

7/29/14

GS

1430 - Supply truck arrived with chain link fencing, fence posts and pallets of cement bags.

1715 - Contractors finished drilling/digging holes for posts. Crew packing up.

1730 - Depart site. Heading back to Austin.

1860 - Arrive in Austin.

W.N. hfg

7/30/14

ES14. AIRD-24 G6

(4)

- 0530 - leave Austin for site
- 0630 - Arrive on site
- 0645 - Conduct Health & Safety meeting
- 0700 - Contractors begin drilling holes in concrete and cutting steel posts for fence
- 0800 - Contractors begin filling post holes with cement to secure posts.
- 1400 - Contractors finished pouring concrete. Going to let it cure for 24 hrs.
- 1430 - Contractors leave site to get lunch & supplies.
- 1500 - Contractors return to site.
- 1520 - Contractors and G6 head to North property to begin clearing brush.
- 1715 - finished for the day at North property. Parking up for the day
- 1730 - Contractors and G6 leave site
- 1830 - Arrive in Austin

*And N. H. H.*

7/31/14

ES14. AIRD-24 G6

(4)

- 0530 - leave Austin for site
- 0630 - Arrive on site
- 0640 - Conduct Health & Safety meeting
- 0645 - Contractors begin work on barbed wire fence again. Welding "H" posts.
- 0910 - Contractor Ran out of acetylene and had to go get another tank to continue welding "H" posts.
- 1107 - Contractors return w/ supplies.
- 1110 - Continue welding "H" posts
- 1830 - Contractors completed/painted "H" posts for fence. Depart site for the day.

*And N. H. H.*

(142)

ES14. ARB. 24

GG

8/1/14

0530 - Leave Austin

0640 - Arrive on site - Conduct

Health &amp; Safety meeting

0645 - Contractors begin putting

posts wire onto fence.

0850 - Ben Canacho arrives on

site. Inspects fencing being

put in.

0930 - Casey Padgett (Sunbelt)

arrives on site

0940 - Billy Granblin arrives

on site

1020 - Pavecon representatives

arrive on site - Conduct

Health &amp; Safety Plan

1025 - Begin walking cap perimeter

1108 - Pavecon representatives

depart site.

1130 - Ben Canacho and Billy Granblin

depart site for lunch

1230 - BC and BG return from

lunch

1242 - BG departs site

1315 - BC departs site

8/1/14

ES14. ARB. 24 GG

(43)

1700 - Contractors complete fence

on south property.

1715 - Begin packing up equipment.

1730 - Depart site. Contractors to

return Monday morning.

1830 - Arrive in Austin.

(14)

ES14. AICO. 24

GG

8/4/14

0730 Leave Austin.  
0825 Arrive on site. Contractors  
washing at gate  
0830 Conduct Health & Safety  
meeting.  
0840 Work crew mobilizes  
to North property  
0850 Begins clearing fencing  
and brush for new fence installation  
1715 Contractors finished clearing  
most of brush out of  
fence line area. Packing  
up to mobilize back to  
Austin.  
1730 - Depart site for Austin.  
1830 - Arrive back in Austin.

*W. N. L.*

ES14. AICO. 24

GG

8/5/14

(15)

0530 - Leave Austin.  
0630 - Arrive on site.  
0635 - Conduct Health & Safety plan.  
0640 - Contractors begin mucking some  
of the brush and setting fence  
outline.  
0800 - Contractors leave site to  
go pickup concrete and equip.  
0825 - Contractors return to site.  
0830 - Begin drilling holes for  
fence post with auger.  
1008 - Contractors need to get  
more hydraulic fluid for Bobcat.  
"depart site".  
1028 - return to site w/ hydraulic  
fluid.  
1140 - Casey Padgett (Sabbett)  
arrives on site.  
1353 - Casey Padgett departs site.  
1400 - Contractors having difficulty  
drilling post holes with auger.  
1615 - Contractors finished mobilizing/drilling  
half of the posts for fence.  
1830 - Depart site for Austin.  
1930 - Arrive in Austin.

*W. N. L.*



8/6/14

ES14 A120.24 GG

(46)

0530 - Leave Austin  
0632 - Arrive on site  
0635 - Conduct Health & Safety meeting  
Plan

0638 - Contractors begin work on fence posts.

0901 - Crew finished drilling rest of post holes with auger  
0912 - Crew begins installing posts with cement.

0928 - Crew goes to south property to get cement, chain link fence

1001 - Crew returns to South 8/6/14

North property.

1125 - Crew runs out of cement. Need to go get more. Two of four crewmen leave to get cement. Two remain to mulch and clean up.

1232 - Crew returns with cement. Begin work.

1715 - Contractors finish installing posts with cement. Parking up for the day.

1730 - Leave site for day to return to Austin  
1630 - Arrive in Austin  
8/7/14

8/7/14

ES14 A120.24 GG

(47)

0530 - Leave Austin  
0630 - Arrive on site  
0635 - Conduct Health & Safety meeting  
0640 - Crew begins setting fence line night.

0816 - Crew begins cutting pipe to meet 16 ft height measurement.

0918 - Crew begins installing top rail on fence line.

1115 - Contractor left site to get more chain-link fencing, braces, and horizontal pipe for fence. (American Fence & Supply) Two stay back to begin chain link fence installation

1315 - Contractor returns to site with supplies. Continue working on fence.

1815 - Contractors finished putting up over 3/4 of chain link fence. Just need to secure rest of fencing. Parking up.

1830 - Leave site. Head back to Austin.

(48)

ES 14. APR. 24

GG

8/8/14

0530- Depart Austin

0630- Arrive on site.

0633- Conduct Health &amp; Safety meeting

0636- Contractors begin work on fence

0731- Contractor putting up chain link fence. Begin securing it to fence posts

1030- Chain link fence installation is complete. Trail adjacent to fence was also been blocked by cut branches and various debris, per the request of City of Belton employees.

1040- Contractors begin clean up and capping of fence posts on Smith property.

1150- Contractors finished packing up equipment and train. Depart site

1153- GG Departs site. Heads back to Austin.

1253- Arrive back at Austin office.

~~John H. Hyl~~

8/12/14

GG

ES 14. APR. 24

(49)

0957 Depart Austin for Rockwood

1059 Arrive at site (North property)

1100 conduct Health &amp; Safety meeting

1105 Begin putting "Environmental work site" signs given to us by TCEQ throughout North and South property.

1230- Pavement contractors arrive on site. Health &amp; Safety meeting held.

1237- Pavement begins unloading rock to make crossing over rip-rap onto cap. Two truckloads were used.

1345- Pavement finishes building crossings (2) onto cap. Begins Paving up.

1357- Depart site. Head back to Austin

1459- Arrive in Austin

~~John H. Hyl~~

(50)

Backward  
ES14.A120.24 C&A

8/12/14

- 0552 - Leave Austin  
0703 - Arrive on site  
0715 - Paveon crew arrives on site  
0724 - Conduct Health and Safety Plan  
0731 - Discuss work plan of the day with Salino (Paveon). He says they will primarily focus on Apron today  
0735 - Crew begins clearing vegetation overgrown on to apron  
0822 - Crew begins removing asphalt and soil from apron 8 in altogether deep. 7 ft wide. Gravelly layer no disturbed.  
0840 - Case Padgett (Sublett) arrives on site to ensure work is running smoothly. Discusses apron work with Salino.  
0932 - Paveon having mechanical issues with miller  
0943 - Issues fixed. Begin milling apron again.  
1023 - Crew finished milling east side of apron, begin milling North side.  
1101 - Steam roller arrives.

- 1204 - Crew still working on North side. Salino says asphalt denser on North side. Harder to mill. Asphalt is also thicker than 4 in.  
1312 - Crew begins compacting gravel around apron with steam roller on east side of ramp.  
1417 - Crew begins spraying water on compacted soil.  
1437 - Crew begins milling west side of apron.  
1522 - Crew stops miller to allow it to cool off. They don't want it to overheat.  
1530 - Start milling west side of apron again.  
1620 - Crew finished milling west side. Begin milling south side of apron.  
1730 - Crew finished milling south side of apron.  
1732 - Crew containers to remove asphalt/soil mixture to begin repaving soil.  
1900 - Crew begins wrapping up for the day.  
1852 - Departure. Half back to Austin  
1920 - Arrive in Austin  
~~10/11/14~~

(52)	Rockwood ES14. ARO. 24 - JH	8/14/14	(53)
0554	Jessica Hinojosa (JH) departs Austin for Belton.		1348 Jessica and Sabino on-site. Crew breaks for lunch.
0700	Arrive at site. Gate is chained and locked.		1418 Crew commences work. Continues to compact and add asphalt/soil mix to apron.
0714	Sunbelt crew arrives on site.		1604 Miller arrives. <del>contractor arrives JH</del>
0733	Conduct Health and Safety Plan. Discuss work plan for the day with Sabino Flores (Pavecon). Primary focus is continuation of apron repair.		1822 Crew is finishing up compacting asphalt/soil mix on North side and ending for the day.
0735	Crew begins apron repair for the day.		1828 JH departs site for Austin
0739	Apron material removal contractor off-site. Sabino not ready for material to be disposed of off-site.		1924 Arrive at Austin office.
0809	Sabino off-site. Looking for mill.		
0845	Sabino on-site. Crew continues to remove asphalt/soil mixture.		
1045	Crew begins compacting soil of apron with 6' roller.		
1134	Sabino off-site to send papers (personal).		
1200	Sabino on-site.		
1230	Crew continues compacting soil of apron. Asphalt/soil mixture is too wet.		
	Spreading out mixture so it can dry and continuing to compact with 6' roller.		
1320	Jessica and Sabino off-site. Lunch pick-up.		

8/15/14  
 0559 - G6 Depart's Austin  
 0701 - Arrive at site. Crew is here  
 also  
 0705 - Conduct Health + Safety meeting  
 Discuss Plan of day: continue  
 working on apron. Begin milling of  
 cracks on cap. needing patches.  
 0715 - Crew begins work on apron  
 Sabino informs me that  
 he is going to have remaining soil/  
 asphalt mixture that was not used  
 removed and disposed of.  
 0805 - Truck from FBF Trucking  
 arrives to begin soil removal  
 0817 - FBF Truck leaves with load  
 0832 - FBF Truck returns  
 0840 - FBF Truck leaves w/load  
 0855 - FBF Truck returns  
 0900 - FBF leaves w/load  
 0911 - FBF returns  
 0913 - Sabino begins milling on cap  
 0919 - FBF leaves w/load.  
 0928 - FBF returns  
 0938 - FBF leaves w/load  
 0947 - FBF returns  
 0959 - FBF leaves w/load

1005 - FBF returns  
 1014 - FBF leaves w/load.  
 1028 - FBF returns  
 1023 - Pavement crew milled 8 areas.  
 Sabino talks to me about going  
 over sq footage of overpaving.  
 Called Marty from Pavement to assure  
 no change orders need to be made  
 1110 - FBF leaves  
 1124 - FBF returns  
 1145 - FBF leaves  
 1150 - FBF returns  
 1209 - FBF leaves  
 1222 - FBF returns  
 1234 - FBF leaves  
 1240 - crew continues milling cracks  
 and steam rolling apron.  
 1245 - FBF leaves returns  
 1257 - FBF leaves  
 1310 - FBF returns  
 1321 - FBF leaves Pavement driver leaves w/steam roller  
 1333 - FBF returns  
 1345 - FBF leaves  
 1357 - FBF returns  
 Billy Gambelin arrives on site

(50)

8/16/14

ESM, ALDO, ZH

GG

1400 - walks the site and inspects work being done

1415 - FBF leaves

1429 - FBF returns

1438 - FBF leaves

1447 - FBF returns

1450 - Billy Gambin leaves site

1455 - FBF leaves

1501 - Pavcon driver returns w/ sweeper

1529 - FBF returns

1530 - Pavcon begins sweeping cap

1550 - FBF leaves

1645 - Pavcon crew cleaning out

milled areas on cap... continue to

sweep cap.

1715 - Pavcon finished sweeping

cap. Crew returns Sweeper to

Rental Company

1753 - Crew returns to site

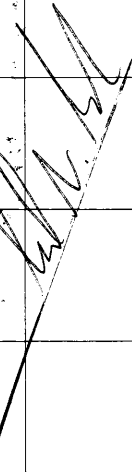
Begin final clean up + packing

up equipment.

1751 - Pavcon crew departs site

GG does as well.

1853 - Arrive in Austin



Railwood

ES 14. AKD. 24 - JH

8/18/14

(51)

0635 Jessica Hinojosa (JH) departs Austin for Belton.

0735 Arrive at site. Gate is chained and locked. Awaiting arrival of asphalt crew and asphalt trucks.

0824 Marty Harris (Pavcon) on site.

0833 Crew on site. Awaiting arrival of equipment and rest of the crew.

0849 2 more crew members arrive on-site.

Total of 4 crew members. Awaiting last of crew and asphalt truck to arrive.

0856 2 more crew members arrive on-site.

Total of 6 crew members plus Marty.

0905 2 more crew members arrive with equipment. Total of 8 crew members.

Foreman is Jerry.

0915 Conduct Health and Safety Plan. Discuss

plan for the day with Marty and

Jerry. Crew to begin patching & overlay on cap.

0932 Spoke with Heath (City Water Dept.) will

come to site to install spicket on

fire hydrant located NE of cap for

crew use in mixing asphalt. Heath

to arrive in 1 hour.

1029 Heath Box (City) on site. Installs spicket

on fire hydrant.

1040 Heath off site.

(58)

Rockwood

ES 14. ARO. 24 - JH

8/18/14

1055 Crew done applying tack to sides of milled surfaces. Hold up at asphalt facility. Jerry and Marty off-site to asphalt facility. Crew on break.

1105 Jerry on-site.

1130 Still waiting on asphalt facility.

1147 Jerry off-site.

1151 Jerry on-site. Still waiting on asphalt.

1215 Asphalt truck arrives. Crew back to work from break. Begin spreading asphalt into milled cracks on cap.

1345 Crew finishes filling in milled cracks on cap with asphalt. Begin laying asphalt of the apron on the East side of pad.

1445 Crew lays the north half of the apron.

1618 Crew finishes laying asphalt along the north side.

1700 Crew finishes laying asphalt of apron on the East side of pad. Begin south side.

1718 Crew begins wrapping up for the day.

1727 Crew off-site.

1728 JH off-site. Chained and locked gate.

~~1800~~ 1857 JH arrives home.

Rockwood

ES 14. ARO. 24 - JH

8/19/14

(59)

0800 Jessica Hinojosa (JH) departs Austin for Belton.

0718 JH arrives at site. Gate is unlabeled and open. Crew already on site. Health and Safety plan covered.

0721 Discuss plan of the day with Jerry (Foreman). Continue to work on laying asphalt of the apron on East side of pad moving west.

0855 City worker on site to remove spicket from hydrant.

0916 City worker off site.

0933 Crew finished laying asphalt of apron. Begin packing up. Site activities of crew are complete.

1021 Jerry off site. Crew continues to sweep pad.

1047 Crew off site.

1048 JH chains and locks gate. JH off site. Departs for Austin.

1150 Arrive at Austin office.

(60)

Rockwood

ES14. A140. 24 8/21/14 Gabriel Canales (GG)

- 0546 Depart Austin  
0651 Arrive on site  
0701 Green planet arrives to  
pickup Non-Hazardous Waste SS gel  
drums.  
0716 Driver loads drum in truck.  
Waste manifest signed by GG.  
0720 Driver departs site  
0725 GG begins to walk the perimeter  
of cap to inspect new asphalt  
on apron. Billy Gambelin spoke of  
areas of concern that could create  
water pooling areas.  
0810 - GG walked perimeter  
and marked several areas of concern  
west 8/21/14 mainly on the South  
and East sides of the apron.  
Areas of concern are marked with  
contractors spray paint.  
0822 - GG begins to inspect  
over patch work.  
0837 - GG begins measuring  
distance of apron and over patch  
areas.

8/20/14 (61)

ES14. A140. 24

GG

- 0923 - GG finished measuring apron and  
over patch areas.  
Apron = ~10,276 sq. ft.  
Overpatches = ~1334.8 sq. ft. completed  
by Pareian  
0930 - get call from Don Canales to  
locate unidentified well and take a  
picture.  
0955 - Get ready to leave site.  
0957 - Depart site and head back  
to Austin.  
1012 - Arrive back at Austin office.

*[Signature]*  
8/21/14



Rockwood  
ES14. A120.24. 8/26/14

(62)

0743 - Depart Austin.  
0859 - Arrive on site. Casey Padgett waiting at gate.  
1003 - Pavon crew arrives given.  
1004 - Ben Canacho & Marilyn Long Begin discussing upon irregularities. Good scheduling upon correction.  
Pavon says they will send out crew to fix problem areas on NESE corners of cap. will mill 8/26/14 problem areas and cracks missed for ~~24 cap~~ cap. Crew begins cleaning out cracks  
1030 Billy Gambelin on site  
240 x 20 on avg for belly (depression) on South side of cap next to apron.  
39 x 3 for SE corner repair.  
10 x 2.5  
24 x 2.5  
9 x 2.5  
50.5 x 2.5  
11 x 2.5  
60 x 2.5 - Additional overlay  
27 x 2.5  
34 x 2.5  
38 x 2.5  
61 x 2.5  
28 x 2.5  
27 x 2.5  
49 x 2.5  
40 x 30 SE corner  
+ patching sq. ft.  
9.5 x 2.6

8/26/14

ES14. A120.24. GG

03

1068 sq ft completed w/ 8000 ft remaining sq ft of patching & apron.  
105 pavon crew (Marty & Ben) depart site.  
1135 Billy Gambelin departs site.  
1145 Marilyn Long & Ben Canacho depart site.  
1201 - Pavon crew begins application for cracks sealant.  
1302 - Casey Padgett leaves site.  
1310 - Pavon crew leaves site for lunch.  
1352 - Pavon crew returns from lunch.  
1401 - Continues work on cracks.  
1447 - Crew continues working on cracks.  
1532 - Crew continues working on sealing cracks.  
1641 - Crew continues working on sealing cracks.  
1650 - Crew begins patching & finishing up for the day.  
1700 - Crew & GG depart site. GG heads back to Austin.  
1813 - Arrive back in Austin.  
A.M. 8/27

8/27/14  
Gabriel Gonzalez

(68) ESTIMATED 24

0601 - Depart Austin

0803 - Arrive on site. Paveon

contractors waiting at gate

0815 - Conduct Visual & Sealing meeting.

Discuss plan of day w/ crew. Should

finish today. Also mentioned any

intentions left by crack sealant will

be filled in w/ over seal

0820 - Begin working on sealing cracks

0907 - Crew still working on crack

sealing

1031 - Crew still working on crack

sealing

1112 - Crew still working on crack

sealing

1222 - crew still working on crack

sealing

1230 - G.G. makes cap on marks

cracks that need additional sealant

1250 - Crew finishes crack sealing

Begins additional filling of cracks

marked by G.G.

1315 - Crew has completed all

crack sealing. Paveon crew

crack seal measurement is

1800 linear ft. Crew begins

paving up.

Packman 1  
8/27/14

ESTIMATED 24 G.G.

1327 - Paveon crew departs site.

1334 - G.G. begins measuring crack

seals

1432 - G.G. measures approx 2830

linear ft.

1450 - G.G. departs site.

1601 - Arrive in Austin.

~~Handwritten signature/initials~~

## (66) \* Field Note \*

On September 2, 2014, Paveman will mobilize to the Site and prepare the base for seal application. As a result of suspected differential waste settlement within the cell, potential ponding areas were discovered during detailed inspection of ongoing construction activities. The asphalt surface of the cap along the cell perimeter (south side) and the cap corners (ENE & WNW) needs to be milled and re-graded prior to the application of the surface sealant. The reworking and final grading of the cell cover slope and the sealant application will facilitate drainage off the cell cover and mitigate the ponding of water on the cell cover, degradation of the sealant, and degradation of the cap integrity over time.

9/2/14

ESM, ALCO-24 G.G.

(67)

0721 - G.G. departs office for site.  
0827 - G.G. Arrives on site. Waiting for Paveman crew to arrive.  
0904 - Paveman lead vehicle arrives on site. Says track with equipment is about 1.5 hrs behind him.  
1025 - Sabino (Paveman) and crew walk the cap to inspect what needs to be worked on.  
1110 - Paveman crew departs site to reserve small steam roller.  
1150 - Paveman crew back on site.  
1215 - Equipment arrives on site. Crew begins unloading.  
1233 - Conduct Health & Safety meeting. Begin walking cap with Paveman lead. Sabino, discussing marked areas that need to be milled.  
1250 - Sabino calls herty from Paveman to discuss 240'x20' depression that needs to be milled. He says herty & Paveman will be here tomorrow to discuss further.  
1303 - Paveman begins milling of marked areas (cracks)

(68)

ES14 ARO. 24

GG

9/2/14

- 1315 - Steam roller arrives on site.  
 1422 - Crew milling and removing asphalt from marked areas.  
 1515 - Pavement crew still working on milling.  
 1525 - One truck load of rocks was dropped off.  
 1612 - Second load of rocks dropped off.  
 1720 - Decided to stop working for the day due to oncoming rain.  
 1727 - Depart site.  
 1833 - Arrive in Austin.

*[Signature]*

(69)

ES14 ARO. 24

GG

9/3/14

- 0601 - Depart Austin for Rockwood.  
 0706 - Arrive on site. Pavement crew waiting at gate.  
 0715 - Conduct Health & Safety meeting.  
 0720 - Walk the ramp to lookout standing water on ramp and in milled areas.  
 0733 - Crew begins removing water from milled areas. Minor pooling occurred.  
 0812 - Crew still working on areas needing to be milled, 2nd load of rocks dropped off.  
 0938 - Crew still working on areas needing to be milled.  
 1004 - Ben Canacho Arrives on site to discuss depression on south side and NE side of ramp with Pavement.  
 11:22 Equipment arrives on site.  
 11:25 Ben Canacho departs site.  
 11:40 Marty and Ron (Pavement) arrive on site to discuss crack sealing. Some areas of cracks require more sealant applied. Marty said if we designate cracks requiring more sealant, Seal Coat crew can apply crack sealant before Seal Coat.

(70)

ES14. A120.14

06/13/14

After yesterday's rain, ~~to~~ pooling on the NE corner of cap was discovered. Pavement is also going to mill and level depression areas on NE corner.

1227 - Ron and Marty depart site.

1247 - Pavement crew continues to work on Southern end of cap.

1359 - Pavement crew still working on Southern end of cap.

1447 - Pavement finished milling Southern and South Eastern corner of cap.

1522 - Crew continues work on SE corner and continues asphalt removal and clean up.

1614 - Crew finished SE corner.

1632 - Crew begins milling NE area with depression.

1720 - Crew finished milling on cap. begin cleaning and asphalt removal of milled areas.

1800 - Depart site

1901 - Arrive in Austin.

*John*

ES14. A120.24

GG

9/4/14 (71)

0654 Depart Austin.

0659 Arrive on site.

0701 Pavement crew arrives. Conduct health & safety meeting. Sabrina says the rest of crew will arrive around 2:30.

0715 - crew begins cleaning milled area on SE corner of cap.

0840 - Asphalt arrives.

0855 - Pavement crew arrives. Conduct another health & safety meeting for crew.

0911 - Contact City of Belton. Water Superintendent to install spicket on fire hydrant located at NE corner of cap. so crew can mix asphalt. Says he will be here in about an hour.

0931 - Health (City of Belton) arrives on site to install spicket on fire hydrant.

0935 - City left ~~after~~ site for get water hose needed for spicket.

0952 - City returns on site with water hose. Pavement crew begins applying asphalt to milled areas on South side of cap.

1044 - Crew laying asphalt to large depression area and compacting/smoothing with steam roller.

(72)

ES14. ALO. 24 GG 9/4/13

1160 - Sabino discovers one area of asphalt cracking where depression was. He suspects it could be from soil failure underneath asphalt says it could level out and be okay as more layers of asphalt is applied.

1231 - Crew finished applying asphalt to depression area on South side. Begin applying asphalt to milled cracks areas.

1307 - Crew breaks for lunch. Depart site...

1340 - Crew resumes work. Begin asphalt work on SE corner and remaining milled areas

1420 - Crew applying layers of asphalt to milled areas

1506 - large milled area on south side shows signs of cracking. looks solid.

1527 - Rockwool work stopped on account of rain

1559 - Sabino indicates to GG that there is too much water on top to continue work

(73)

GG 9/4/13

1607 - Crew and GG depart site  
1712 - Arrive in Austin.



(714)

Est. ALCO. 24 9/5/14

GG

0543- Depart Austin

0650 - Arrive on site

0710- Pavement crew arrives on site

0717- Give Health & Safety Plan conducted

0727- Crew uses sweeper to sweep  
walled areas with standing water.

0731- Gls walks cur with Sabine  
newly repaired depression on south  
side of cap showed no signs  
of water retention

0755- Sabine heads to store to get  
supplies.

0832- Old asphalt being removed  
off site

0940- Areas prepped and ready.  
Waiting on asphalt.

1029- Asphalt arrives on site.

1046- Crew begins application of asphalt  
to NE corner where depression was.

1130 - crew finished applying asphalt to  
NE corner. begin steam rolling area.

Begin adding asphalt to depressions  
on NNE area of cap.

1147. Crew finished rolling NE corner  
area. Begin rolling NNE area.

GG 9/5/14 (75)

1208- Crew finished rolling area on  
NNE side of cap.

1215- Crew begins filling in remaining S & SE  
pilled areas with asphalt. Gls begins receiving order

1241 - Crew finished filling in remaining  
areas. Areas were also steam rolled.

1250 - Crew begins work on apron  
to fix/smooth areas of uplt. where apron  
meets cap. Total patched sq ft = 9,885.50 sq ft

1335- Crew not still working on apron

1444- Crew finished smoothing edges on apron.  
Begin clean up and packing of gear

1455- Depart site

1601 - Arrive in Austin

*[Handwritten signature/initials across the bottom of the page]*

9/24/14

ES14. ALD 24 Gabriel Gumbles

(76)

0840 Depart Austin

0942 GG Arrives on site

1015 - Pavement crew arrives

1020 - Conducted Health & Safety Plan with crew. Discussed plan of the day with crew lead.

1055 - Crew begins clearing dirt

from cracks using blower.

1120 - Crew begins adding crack seal to cracks.

1229 - Crew breaks for lunch

1324 - Crew continues work.

1417 - Crew continues working on cracks

1537 - Crew continues working on cracks.

1549 - Crew finishes work on cracks. Begin packing up equipment.

1600 - Pavement crew departs site

GG walks camp perimeter & take pictures of sealed cracks

1610 - GG departs site.

1722 - GG arrives in Austin

hvn. h

10/27/14

ES14. ALD 28

B. CAMPBELL

(77)

0730 left office

0835 arrive onsite

Scope of work - oversee Pavement with the final seal application of the cap

1100 Pavement Cooled and was delayed

because of a faulty air leg in their truck

1145 Pavement crew arrive onsite

1200 health and safety meeting

1220 crew begins sweeping dirt and debris off of cap.

1330 crew begins preparing final seal coat.

1400 crew begins filling in divots in cracks with sealant.

1430 crew begins application of seal coat.

1845 left site: drive back to Austin.

1945 arrive in Austin (D&S Austin office)

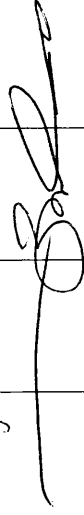
hvn. h

10-28-14  
Rockwell ES14, APR 28

B. CAMACHO

78

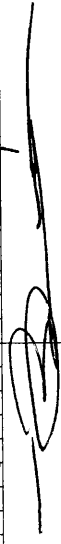
0600 left Austin  
0710 Arrive at site  
0715 crew fills tank (mobile) w/  
seal coat.  
0815 crew and DBSA conduct  
health and safety meeting  
0820 crew begins applying seal  
coat.  
0835 United Rentals delivers  
frontend loader for Tip Rap  
sidewall construction  
1015 TCEQ and DBSA senior PM  
arrives for inspection  
CITEQ Marilyn Long  
1035 Engineer Billy Gambelin arrives  
onsite to oversee inspections  
1130 Inspections identified openings  
and indentations in cracks.  
1200 TCEQ breaks for lunch  
1230 crew places gravel on south  
side of Cap for stability.  
Entrance ramp removed.  
crew applies second seal  
to cracks identified by  
engineer.



Rockwell ES14, APR 28

79

1320 TCEQ and DBSA arrive onsite  
to inspect second crack seal  
application. Note: cracks  
~~did not meet~~  
specifications; the cracks were  
not flush to grade. See photo  
log for reference.  
1400 TCEQ and DBSA depart site.  
1410 crew applies crack seal to  
cracks identified by Engineer  
at meeting. Re-work after  
Ben Camacho discuss issue  
with Pavement Manager.  
Third ~~coat~~ sealant applied to  
cracks.  
1530 Crew begins applying second  
seal coat to cap.  
1800 crew completes seal coat application  
1820 crew removes north east cap  
entrance; places gravel next  
to north east sidewalk.  
1840 crew cleans up and decontaminates.  
1900 left site to Austin. CAP  
will need to dry and cure  
before another inspection.



80

10/30/14

Rockwood ES14. AR. 28  
Ben Camacho and Billy  
Gambelin (Engineer) travel  
to site.

1110 arrive onsite.

1120 Engineer and DBSA inspects  
cap to determine job  
complexity.

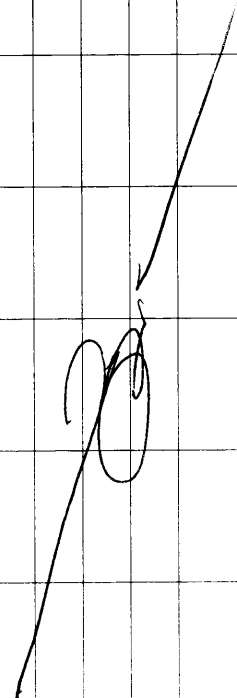
Note: Engineer determines  
that nearly all the cracks  
will need to be reworked  
to allow the cracks to  
be flush to grade.

Ben Camacho calls contractor  
to inform them of the  
issue. Contractor to set  
up a site visit with all parties  
to assess the crack seals.

1200 see photo log for reference

1220 Engineer and DBSA depart  
site to Austin.

1320 arrive in Austin.



11/10/14

Rockwood ES14. AR. 28

81

1000 onsite

1015 AGS meeting

1030 Pavcon, Billy Gambelin, Eric  
Morris, Ben Camacho onsite  
to discuss sealing cracks.

Pavcon and Engineer agree to  
plan to seal cracks.

1040 Pavcon crew onsite to fill  
cracks that are not flush  
to grade. Crack seals  
brought to 1/8" above grade.

1400 Crew finish applying seal to  
deficient cracks.

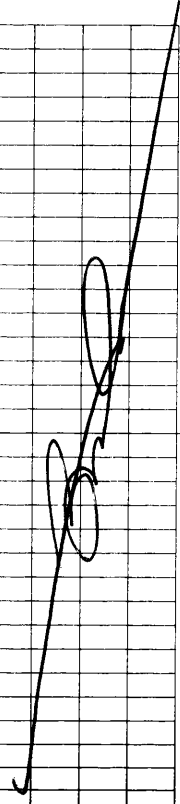
1445 Billy Gambelin onsite to  
inspect sealing activities.

1530 Billy Gambelin approves crack  
seal.

1545 demobilization meeting  
- Job complete -

1600 leave site.

1730 arrive in Austin.





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*Daniel B. Stephens & Associates, Inc.*

## ATTACHMENT C

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C-1 BOUNDARY SURVEY

C-2 TOPOGRAPHIC SURVEY

C-3 MATCON COVER/CRACKS SURVEY

C-4 ASPHALT REPAIR DETAILS

This sketch is to accompany a Field Note Description.

\* REFER TO SHEET TITLED  
"TOPOGRAPHY SURVEY" FOR  
TOPOGRAPHIC INFORMATION

BOUNDARY SURVEY  
ROCKWELL INDUSTRIES FEDERAL SUPPLY SITE, IN  
BOLTON BELL COUNTY, TEXAS.

ALL COUNTY SURVEYING, INC.

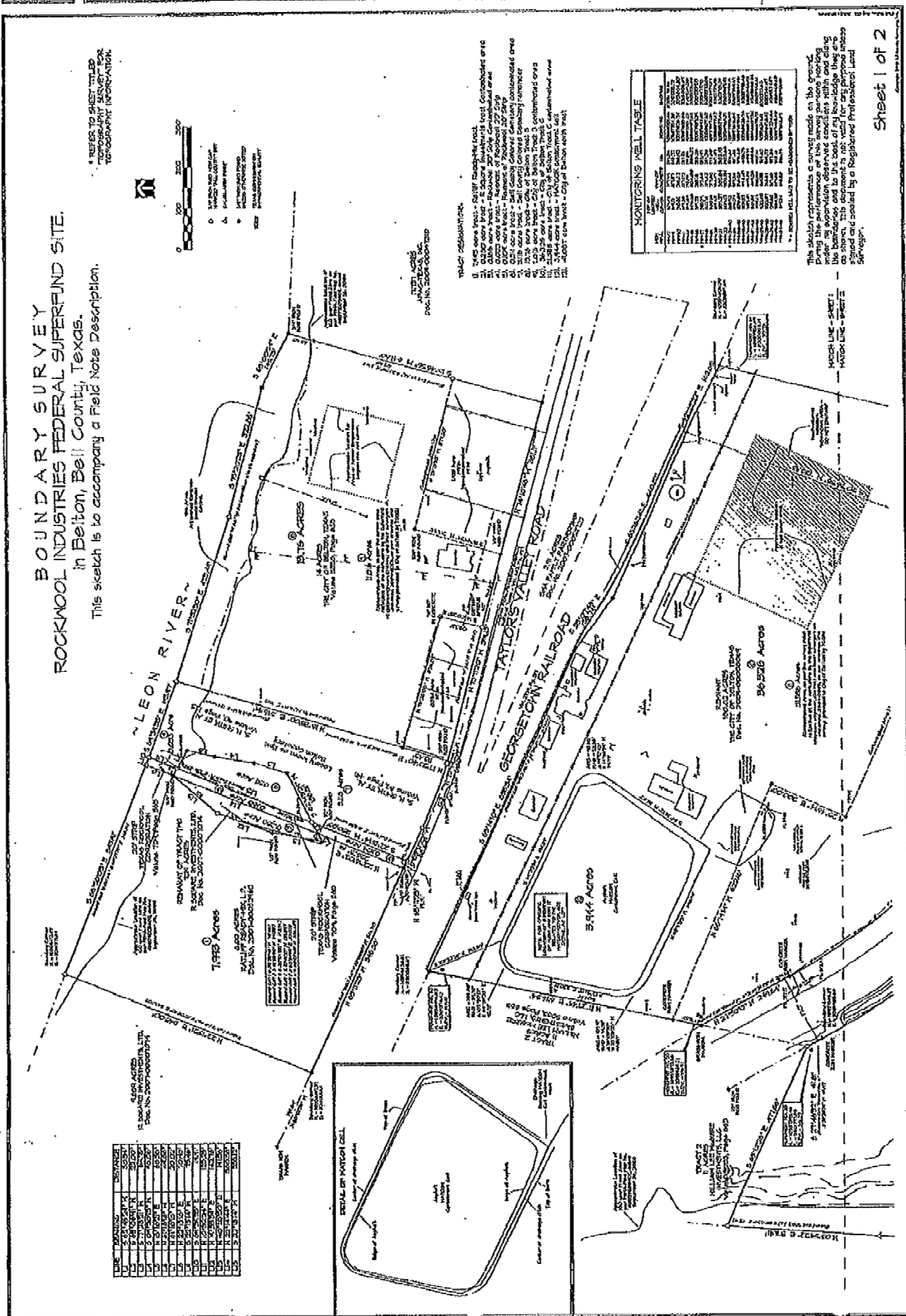


Survey completed, March 1972  
in 1 hour  
by \_\_\_\_\_  
by \_\_\_\_\_  
by \_\_\_\_\_  
by \_\_\_\_\_  
by \_\_\_\_\_

Sheet 1 of 2

[illegible]

This sketch represents a survey made on the ground during the performance of the survey persons working under my supervision observe excellent within and along the boundaries and to the best of my knowledge they are as shown. This document is not valid for any purpose unless signed and sealed by a Registered Professional Land Surveyor.





NOTES:

(1) THE CREATION OF THIS DRAWING IS BASED ON THE  
TERRAIN DATA PLAIN COORDINATE SYSTEM, AND ALL  
LENGTHS SHALL BE IN FEET.

(2) ELEVATIONS SHOWN HEREON ARE BASED ON CITY OF  
ALBUQUERQUE TIDE GAUGE, STATION NO. 8-1.  
ELEVATION = 4,471.76'

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

UTILITY: ADZE.

UTILITY INFORMATION IS BASED UPON FIELD MEASUREMENTS. FIELD DATA IS LIMITED TO THAT WHICH IS VISIBLE AND CAN BE MEASURED. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND ITEMS.

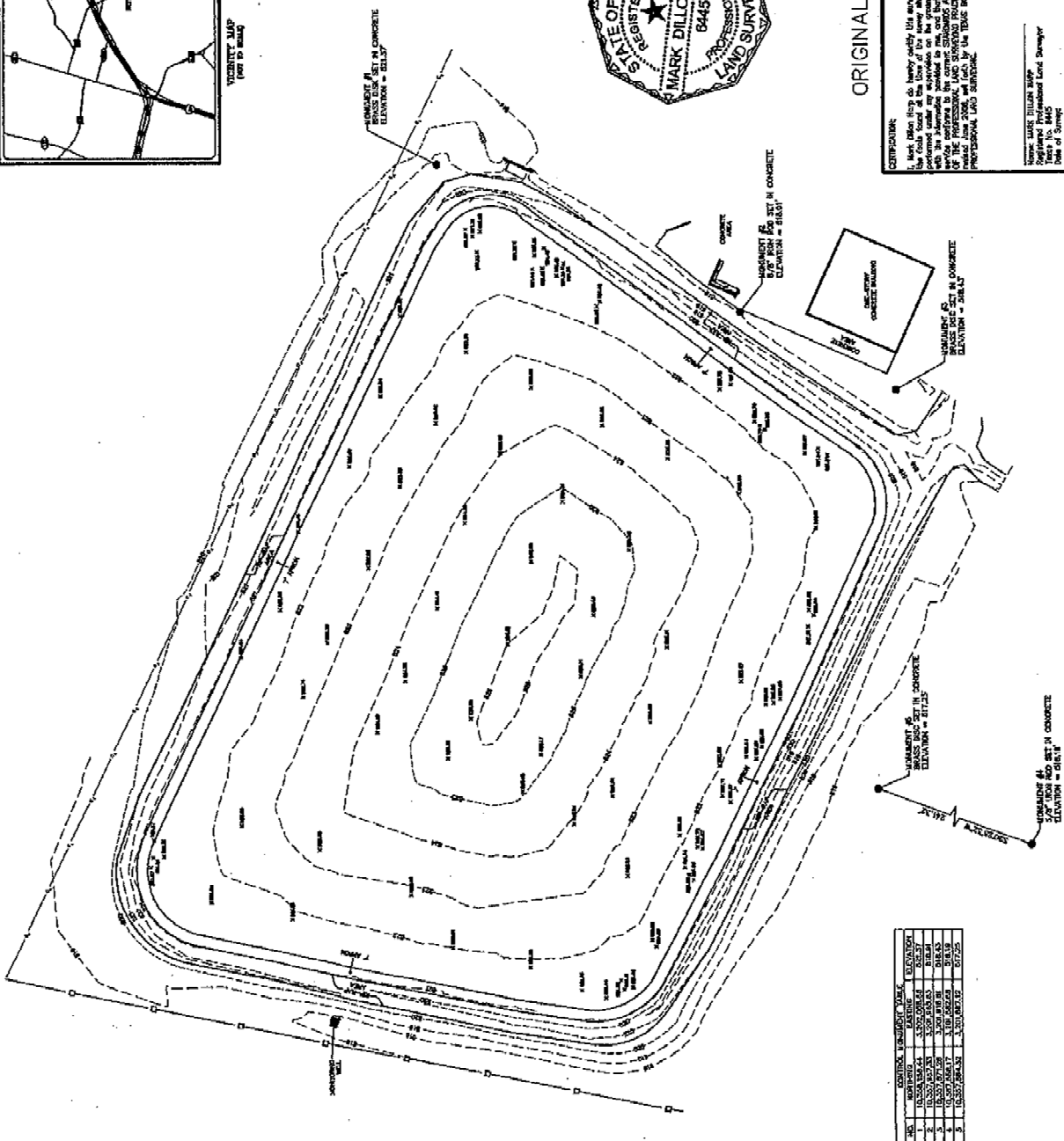
TOPOGRAPHIC SURVEY OF  
ASPHALT LANDFILL CAP FOR  
ROCKHOL INDUSTRIES, INC.  
SUPERFUND SITE  
BELTON, TEXAS

EXPIRATION DATE	JAN 2007
CHECKED BY	MMH
DATE	02/28/13
FIELD NO.	
PROJECT	
COUNTRY	
STATE	
LOCALITY	
COLLECTOR(S)	
PLANT	
PREPARED BY	
REMARKS	

ORIGINAL.

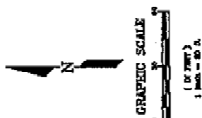
[illegible]

Name: MARK DILLON 3599  
Registered Professional Land Surveyor  
Tax # No. 8445  
Date of Survey



NO.	CONTROL	WOUND	TIME	ELEVATION
1	10-2508	336.64	3.302	008.68
2	10-2507	327.33	3.308	010.83
3	10-2506	327.26	3.304	016.16
4	10-2507	348.17	3.301	022.68
5	10-2507	364.32	3.301	027.32





**Notes**

- 1) THE COMPLETION OF THIS DRAWING IS BASED ON THE  
TESTS LEFT PLANE COORDINATE SYSTEM AND AT  
GENERAL 220E 420E
- 2) ELEVATIONS SHOWN HEREON ARE BASED ON CITY OF  
BOSTON TIDEAL MONITORING NO. 8-15  
ELEVATION 4. 810.25'

**RECAP:**

- [illegible]

9/20/2013



ORIGINAL:

4. I, Erik Nelson May, hereby certify the survey directly reflects the facts told at the base of the survey taken herein as performed under my supervision on the ground in accordance with the information provided to me, and that this performance conforms to the current STANDARDS AND SPECIFICATIONS of the PROFESSIONAL LAND SURVEYING PRACTICES ACT, as amended June 2006, and forth by the TEXAS BOARD OF

Notary: MARK JULIAN HARR  
Registered Professional Land Surveyor  
Texas No. 6445  
Date of Signing

DATE	08/22/15
TIME	1500G
PAGE	
GROUP	

**THE**  
**WORLD**  
**OF**  
**THE**  
**WORLD**

COLOR	TYPE	L.F. IN CAP	L.F. IN JERSEY	L.F. TOTAL
UNPAID		1,046	1,140	2,186
PAID		838	241	1,079
TOTAL		1,884	1,381	3,265

NO.	CONTROL MONUMENT TABLE		ELEVATION
	NORTHING	EASTING	
1	10,356,156.44	5,192,008.88	921.27
2	10,357,987.33	5,201,983.63	918.11
3	10,357,871.28	5,207,415.66	918.43
4	10,357,854.17	5,201,697.98	916.19

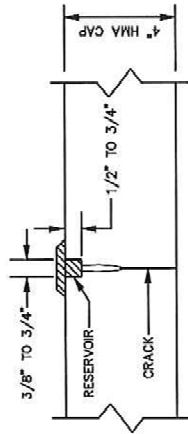


FIGURE 1 - CRACK SEALING RESERVOIR

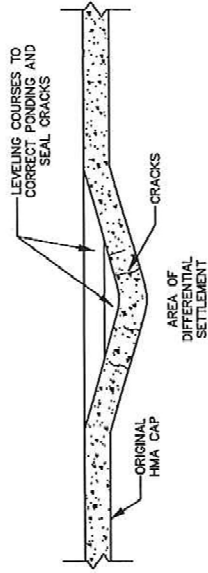


FIGURE 2 - LEVELING PATCH

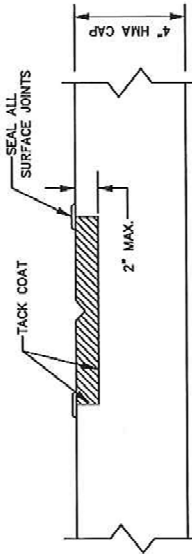


FIGURE 3 - SHALLOW PATCH

NOTE:  
MILL OUT AREA TO BE PATCHED TO A DEPTH  
NOT TO EXCEED 2\"/>

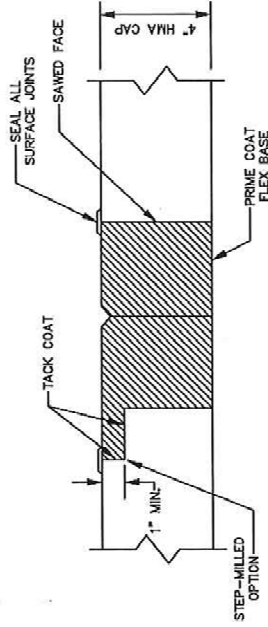


FIGURE 4 - FULL DEPTH PATCH

NOTES:  
1. SAW CUT OR MILL EDGES TO REMOVE  
EXISTING MATERIAL  
2. PLACE AND COMPACT HMA PATCH MATERIAL  
IN 2 LIFTS.



12005 FORD ROAD, SUITE 600  
DALLAS, TEXAS 75234  
(972) 773-8400 OFFICE  
(972) 773-8401 FAX

OFFICE: DALLAS DATE: 11-5-13 ACAD FILE: 986581.dwg

### ASPHALT REPAIR DETAILS

CLIENT:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY	PM:	AK
LOCATION:	ROCKWOOL INDUSTRIES, INC. BELTON, TEXAS	CHECKED:	DF
DESIGNED:	DF	DRAWN:	SDJF
PROJECT NO.:	149865	APPENDIX:	H



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*Daniel B. Stephens & Associates, Inc.*

## ATTACHMENT D

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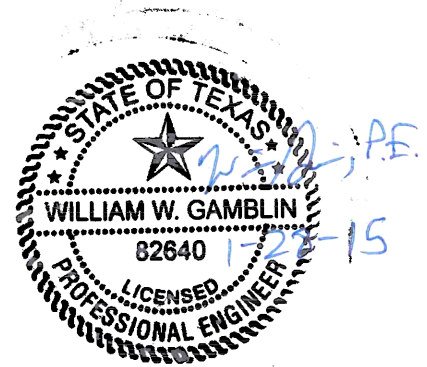
# APEX GEOSCIENCES INC. HMA COVER REPAIR INSTALLATION REPORT



Texas P.E. Firm Registration #3179

January 28, 2015

Marilyn Czimer Long, P.G.  
MC-136  
Superfund Section  
Remediation Division  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, TX 78711-3087  
(512) 239-0761  
[marilyn.long@tceq.texas.gov](mailto:marilyn.long@tceq.texas.gov)



**Re: HMA Cover Repair Installation Report  
Rockwool Industries, Inc. Federal Superfund Site  
1741 Taylors Valley Road, Belton, Bell County, Texas  
TCEQ Site ID No. SUP033**

Dear Ms. Long,

Apex Geosciences Inc. (Apex) is pleased to provide this report detailing the installation and oversight of the Hot Mix Asphaltic (HMA) Concrete Cover repair project under the Texas Commission on Environmental Quality (TCEQ) Assessment, Investigation, and Remediation Services Contract (TCEQ-AIRS No. 582-14-40670) for the Rockwool Industries, Inc. Federal Superfund project located in Belton, Bell County, Texas.

The Hot Mix Asphaltic Concrete Cover repair specifications were derived in accordance with the TCEQ approved: "Operation and Maintenance Plan for MATCON HMA Cover" (Addendum to the Site Operations and Maintenance Plan) dated August 2013 for the Rockwool Industries, Inc. site.

#### **Rockwool MATCON Cover Background**

Waste material was consolidated in a Containment Cell (CC) located in the central portion of the Rockwool property. The CC is trapezoidal in shape and has a surface area of approximately 3.944 acres (including a seven foot wide perimeter apron). Construction of the MatCon Hot Mixed Asphaltic Concrete (HMA) cover on the CC was completed in November 2005. The final cover system for the containment cell consists of approximately 4-inches of a HMA cover or cap that was constructed over 6-inches of compacted flexible base. The purpose of the cover is to contain the underlying waste, and the principle purpose of the HMA cap is to preclude surface water from infiltrating into the waste. The 7-foot wide asphalt perimeter is generally referred to as the apron and is located outside the limits of the waste.



The HMA cap consists of a proprietary product furnished by MatCon, Inc. and installed by Wilder Construction (Wilder) in August 2005. The HMA consists of a dense graded mixture (similar in gradation to the TXDOT Type D, fine graded surface course material) with the MatCon binder.

During the past several years, the MatCon CC HMA cap has experienced surface oxidation, cracking, and settlement/ponding. A detailed survey of the existing crack development in the cap was conducted in 2013 along with a topographic survey of the cap surface. The cap is not subject to traffic or material storage.

### **Rockwool HMA Concrete Cover Repair Operations**

Repair crews mobilized to the site in August 2014 to initiate asphalt cover repairs. A pre-construction meeting was conducted on-site and asphalt cover repair operations were discussed in detail with the TCEQ, asphalt contractor, and oversight contractor. General sequence of repair operations included installation of the drainage swale crossing, apron repair, patching, crack sealing, and the application of the seal coat.

### **Drainage Swale Rip Rap Protection/Crossing**

In order for heavy machinery to access the MatCon HMA Cap, the drainage swale which surrounds that Cap needed to be altered to allow for a smooth ingress/egress path. The existing drainage swale extends approximately 15 feet in a outward direction from the CC on all sides with a 1:4 side slope and drains into a detention basin on the southeast corner of the containment cell. Two locations were selected for crossing the drainage swale and additional riprap was placed up to the top of the drainage swale berm for a distance of approximately 15 feet for each crossing.

After completion of the project, the drainage swale crossings were removed and the drainage swale was returned to its previous condition and grade. The additional riprap material was utilized to enhance the existing slope protection of the drainage swale.

### **Apron Repair**

The existing asphalt cover on the apron was removed and the base/subgrade was re-worked and compacted. A new HMA cover was placed on the compacted apron to the design lines and grades.

An approximately 8-inch HMA cover was placed over the compacted subgrade utilizing materials and techniques consistent with the procedures utilized for "Patching and Overlays" described below, to match the apron to the existing grade lines of the CC cap. Approximately 10,276 square feet of apron cover was replaced.





### **Patching and Overlays**

Patching was applicable for severe cracks that were greater than 3/4" wide and cracks that extended to full depth (i.e., 4-inches deep). Patching was also recommended for areas with excessive cracking and was used in areas where the surface had failed. Patches were also used to correct surface grade deformation problems, such as ponding or rutting.

Patch repairs were completed by milling out the surface of the asphalt cover to a depth of 4-inches. The surface to receive the overlay was cleaned, dried of moisture, and tack-coated. Patching material consisted of an approved HMAC Type D mixture. Approximately 9,668 square feet of patching was conducted on the asphalt cover.

### **Crack Sealing**

Cracks in the HMA cover surface were sealed using an appropriate approved material, EZ-7 Crack Sealant, and sound procedures.

Cracks were sealed in general conformance with specifications. Vegetation was removed from cracks using a propane torch. Dirt and debris were removed using compressed air. After preparation was completed, the joints were sealed. The crack sealing material was applied with a pressure feed nozzle so that it penetrated the joint and completely filled the crack. Crack sealing material experienced settling in certain areas which required the repair contractor to reapply the crack seals to ensure that the seal was to grade but not more than 1/8" above the pavement surface. Approximately 3,500 linear feet of Crack Sealing was completed.

### **Seal Coat**

Seal coats are part of normal asphalt surface maintenance and are useful for rejuvenating and protecting the surface, sealing hairline cracks, and repairing surface abrasions. Seal coats consist of thin layer of asphalt or coal tar material that is applied in liquid form with a high pressure sprayer or power squeegee.

Seal Master Polymer-modified Master Seal (PMM), an asphalt emulsion mixed with water, sand, and other additives was utilized. Prior to seal coat application, the asphalt surface was made sure to be clean and free of dirt and debris and dry of free moisture. The surface was cleaned with a power broom and any loose surface material such as, flaking of previous seal coats, was scrapped off. The seal coat application was in accordance with the manufacturers recommendations and consistent with applicable TxDOT specifications. Approximately 154,524 square feet of Seal Coating was completed.



### **Inspections**

Several Quality Control/Quality Assurance inspections were conducted throughout the cover repair project with the final inspection and Engineering approval of the project being completed to specifications determined on November 2, 2014.

### **Conclusions**

Through detailed project specification compilation, the contracting of reputable firms, and vigilant oversight to ensure that requirements were met; the Rockwool HMA cover was successfully repaired in accordance with the "Operation and Maintenance Plan for MATCON HMA Cover" (Addendum to the Site Operations and Maintenance Plan) dated August 2013 for the Rockwool Industries, Inc. site.

Sincerely,



*William W. Gamblin, P.E.*

William W. Gamblin, P.E.

Director, Environmental/Water Resources

