

GW-164

**General
Correspondence**

YEAR(S): 2009 - 2013

Lowe, Leonard, EMNRD

From: Michelle Green [michelle@laenvironmental.com]
Sent: Monday, June 14, 2010 9:28 AM
To: Michelle Green; VonGonten, Glenn, EMNRD; Lowe, Leonard, EMNRD; Johnson, Larry, EMNRD
Cc: Schornick, Mike (WGESP); Baron, Sam (WGESP); Mark Larson
Subject: RE: Wood Group ESP Hobbs Test Facility, Sump Closure - GW-164

Good morning All,

The sump closure has been re-scheduled for Wednesday, June 16, 2010.

If you have any questions or require additional information please let me know.

Thank you,

Michelle Green

From: Michelle Green
Sent: Thursday, June 10, 2010 8:43 AM
To: Glenn VonGonten; 'Lowe, Leonard, EMNRD'; Larry Johnson-NM OCD
Cc: 'Schornick, Mike (WGESP)'; 'Baron, Sam (WGESP)'; Mark Larson
Subject: Wood Group ESP Hobbs Test Facility, Sump Closure - GW-164

Good morning All,

This sump closure notification is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Wood Group ESP, Inc. (WGESP).

WGESP Test Shop
GW-164
8426 North Dal Paso
Hobbs, NM

The Wash Bay and South Bays sumps will be closed on Friday, June 11, 2010 per approved closure plan.

Please contact Mike Schornick with WGESP at (405) 671-2145 or myself at (432) 678-0901 if you have questions or need additional information.

Thank you,

Michelle L. Green
Larson & Associates, Inc.
507 N Marienfeld, Suite 200
Midland, TX 79701

Office: 432.687.0901
Fax: 432.687.0789
Cell: 432.934.3231

Wood Group ESP Inc.



RECEIVED OCD

2010 JUN 24 A 11: 28

June 18, 2010

VIA EMAIL: Leonard.Lowe@state.nm.us

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 88505

RE: Sump Closure
Wood Group ESP, Inc., Hobbs Test Facility (GW-164)
8426 North Dal Paso, Hobbs, New Mexico 88240

Dear Mr. Lowe:

This letter report was prepared with the assistance of Larson and Associates, Inc. (LAI) on behalf of Wood Group ESP, Inc. (WGESP) and is submitted to the New Mexico Oil Conservation Division (OCD).

The report presents closure documentation for two sumps at the Hobbs Test Facility (GW-164) located in Unit D (NW/4, NW/4), Section 35, Township 17 South and Range 38 East, Lea County, New Mexico. The facility physical address is 8426 North Dal Paso, Hobbs, New Mexico. The geodetic location is north 32° 47' 51.0" and west 103° 7' 38.5". Figure 1 presents a location map.

Timeline of Events

| | |
|--------------------|---|
| August 27, 2009 | OCD requested WGESP to conduct hydrostatic testing of the sumps to ensure integrity. The OCD also notified WGESP that the sumps will require upgrading to comply with its current rules (NMAC 19.15.17.11). The upgrade would require retrofitting the sumps, following the integrity demonstration, with fiberglass liners designed to allow monitoring of leakage in the space between the fiberglass liner and concrete containment. |
| September 4, 2009 | Conference call with the OCD, WGESP expressed a desire to retrofit two sumps, located at the drain near the south side of the building and pump cleaning area inside the test building, and close the remaining three sumps. The OCD was in agreement with the proposal and WGESP requested a list of procedures from the OCD for demonstrating sump integrity |
| September 14, 2009 | OCD provided procedures to WGESP for hydrostatic testing and verification of sump integrity |
| October 15, 2009 | <i>Sump Integrity Test Results and Closure Plan</i> Report was submitted to OCD for review and approval |
| October 21, 2009 | OCD approved Sump Integrity and Closure Plan |
| November 3, 2009 | Three sumps filled with concrete per Closure Plan |
| November 16, 2009 | <i>Sump Integrity Test Results and Retrofit Plan</i> for the two remaining |

Wood Group ESP Inc.



| | |
|-------------------|---|
| | sumps was submitted to OCD for review and approval |
| November 24, 2009 | OCD approves Sump Retrofit Plan |
| May 24, 2010 | WGESP discontinues pump cleaning at the facility, and submits <i>Sump Closure Request</i> , for the two remaining sumps, to the OCD for review and approval |
| June 2, 2010 | OCD approves Sump Closure Request, approval is presented in Appendix A |
| June 16, 2010 | Remaining two sumps filled with concrete per Closure Plan |

On June 16, 2010, LAI personnel, Michelle Green observed cementing of the South Drain Sump and the Wash Bay Sump. Custom Mobile Concrete was contracted by STA FLO to prepare the cement mixture onsite. The cement mixture was added to each sump. A pneumatically energized hand-held vibrating rod was placed in the freshly poured cement. The rod vibrated the cement mixture to remove any air pockets and push suspended gravel downward to provide a finished surface. The surface of the concrete was tamped, floated and made flush with the existing surface.

Photo documentation of the closed sumps is presented in Appendix B. An updated schematic showing the closed 'sumps' is presented in Figure 2.

Final Closure

WGESP requests closure on these concrete filled containments. An update concerning the sumps will be made on the next groundwater discharge renewal.

If you have any questions or require additional information I may be reached at (405) 671-2145.

Sincerely,
Wood Group ESP, Inc.

A handwritten signature in black ink, appearing to read 'MSchornick', written over a white background.

Mike Schornick, P.E.
Global Environmental Engineer

Cc: Sam Baron – WGESP, Midland, TX
Mark J. Larson – LAI, Midland, TX

FIGURES

JWW

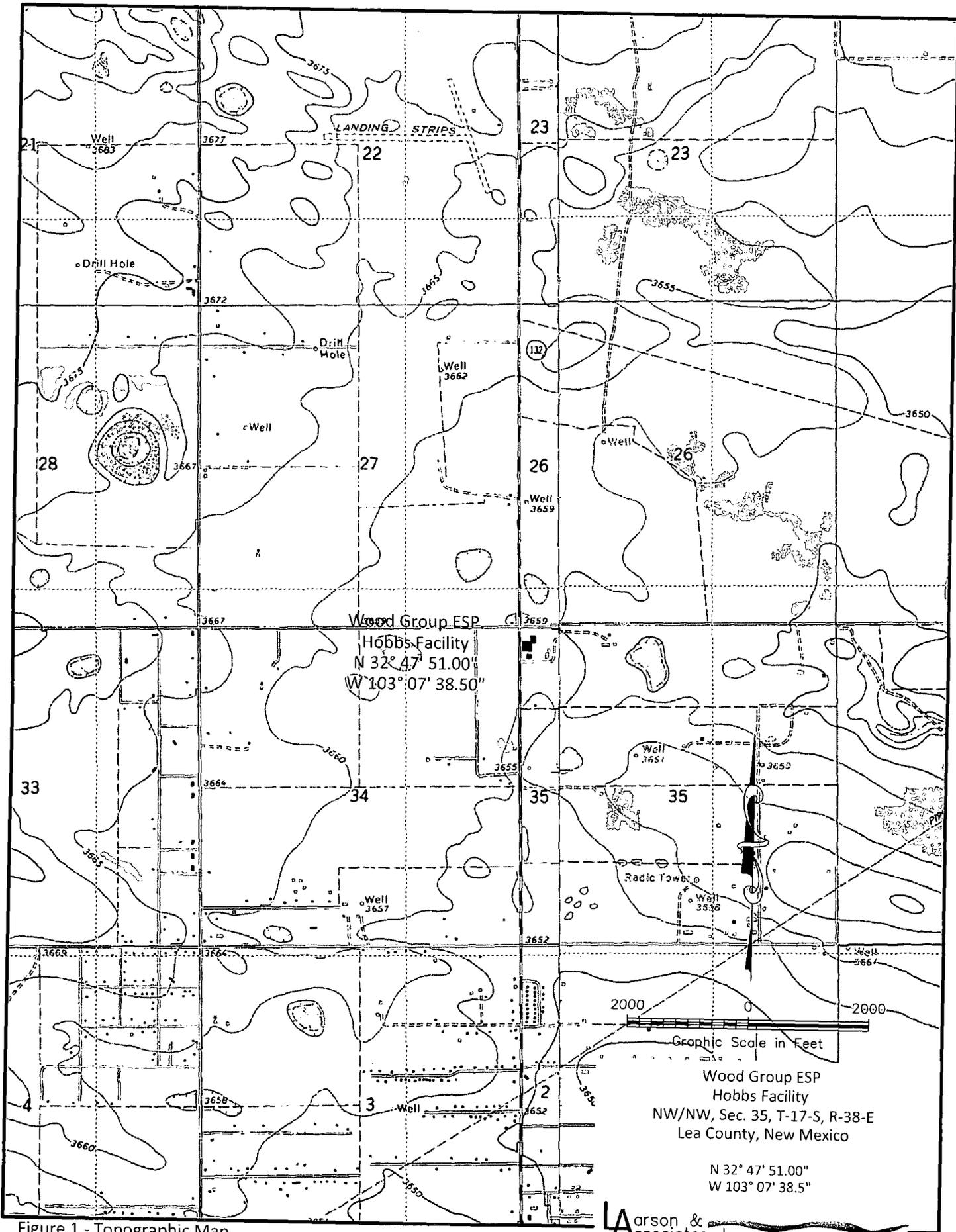
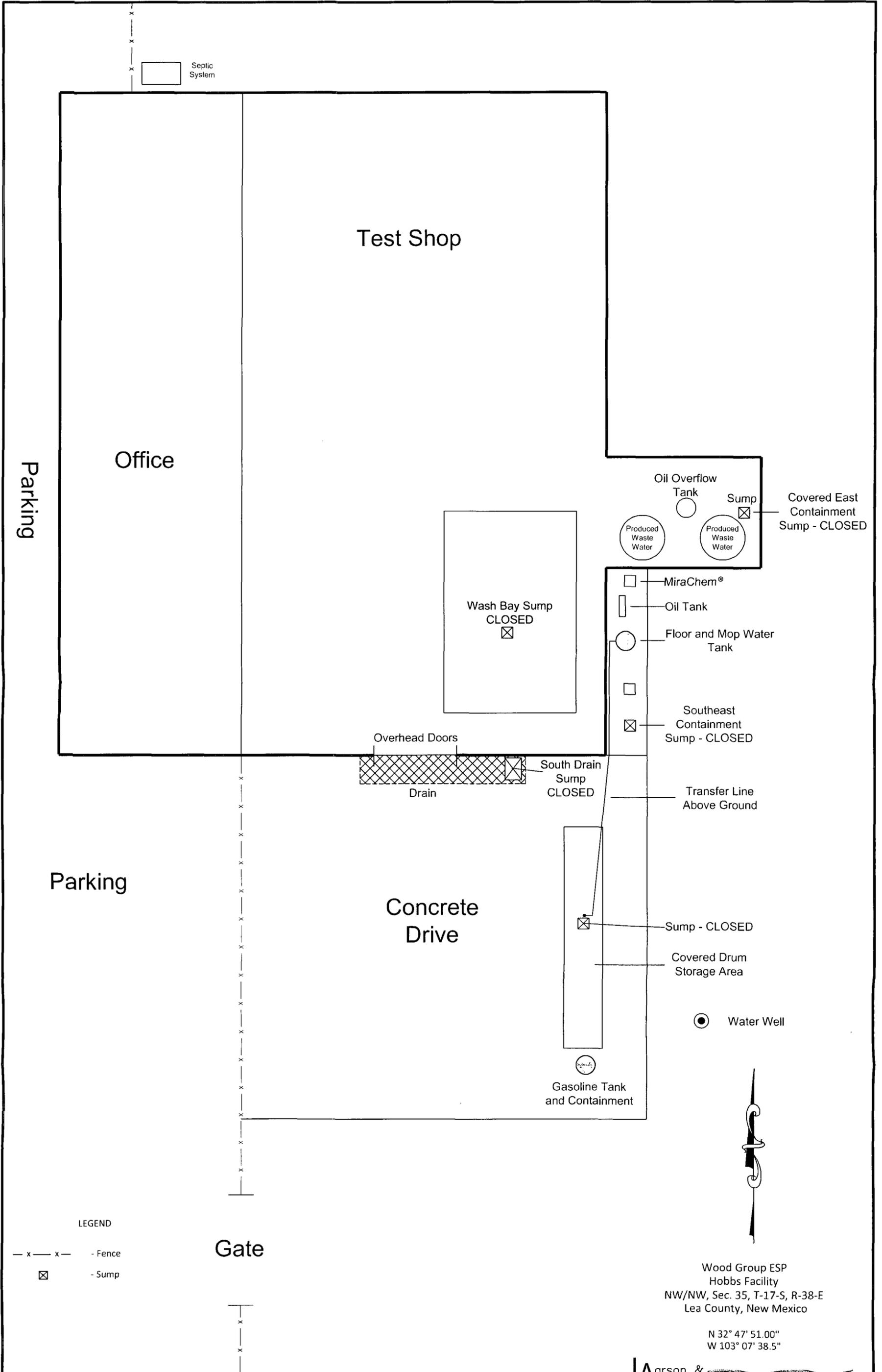


Figure 1 - Topographic Map

JWW



LEGEND

- x - x - Fence
- ☒ - Sump

Gate

Wood Group ESP
 Hobbs Facility
 NW/NW, Sec. 35, T-17-S, R-38-E
 Lea County, New Mexico

N 32° 47' 51.00"
 W 103° 07' 38.5"

Larson &
 Associates, Inc.
 Environmental Consultants

Figure 2 - Facility Drawing

Appendix A

Michelle Green

From: Mark Larson
Sent: Wednesday, June 02, 2010 4:35 PM
To: Michelle Green
Subject: FW: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request
Attachments: image001.jpg

Mike,
Please find approval from the New Mexico Oil Conservation Division (OCD) in Santa Fe, New Mexico, for closing two (2) sumps (wash bay and south drain) at the Hobbs Test Facility (GW0-164). Closure will be in accordance with the plan submitted to the OCD on May 24, 2010, including:

- Remove all equipment (pump, tubing, electrical leads, fiberglass liner, etc.) – Sam
- Clean concrete containment to remove any loose debris – Sam
- Photo Document – LAI
- Schedule concrete, fill sump containments (concrete) and photo document – LAI
- Prepare and submit final closure document to OCD – LAI

LAI proposes the following onsite activities for discharge permit compliance concurrent with closing the sumps:
(Michelle – please add so I can forward to Mike)

Please provide your approval for these activities. LAI will provide notification to the OCD prior to commencing sump closure activities. Please contact me if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Larson &
Associates, Inc.
Environmental Consultants

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Wednesday, June 02, 2010 3:21 PM
To: Mark Larson
Cc: VonGonten, Glenn, EMNRD
Subject: RE: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Mr. Larson,

You have OCD approval to close these sumps as discussed today, June 2, 2010. Please submit a final closure report to the OCD once these are completed.

Upon your next renewal process please note these updates within the application.

Thank you,

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Wednesday, June 02, 2010 9:21 AM
To: Lowe, Leonard, EMNRD
Cc: Schornick, Mike (WGESP); Baron, Sam; Michelle Green
Subject: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Leonard,

Per our conversation yesterday, Wood Group ESP, Inc. (WGESP) has discontinued pump cleaning at the Hobbs Test Facility (GW-164) requests your approval to close the remaining two (2) sumps (wash bay and south drain) rather than retrofit the sumps as originally planned. The sumps were hydrostatically tested on September 14 and 18, 2009, respectively, and concluded that there was no potential for any significant release and the integrity of the sumps was not compromised. Larson & Associates, Inc., on behalf of WGESP, requests your approval to close the sumps according to the procedures presented in the attached document with a final closure report, including photo documentation, to be submitted to the OCD. Your approval of the sump closure is requested. Please contact me at (432) 687-0901 if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com



I am using the Free version of [SPAMfighter](#).
We are a community of 7 million users fighting spam.

SPAMfighter has removed 5309 of my spam emails to date.
The Professional version does not have this message.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

I am using the Free version of SPAMfighter.
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5310 of my spam emails to date.
The Professional version does not have this message.

Appendix B

Photo Documentation



View of the Wash Bay sump before closure.

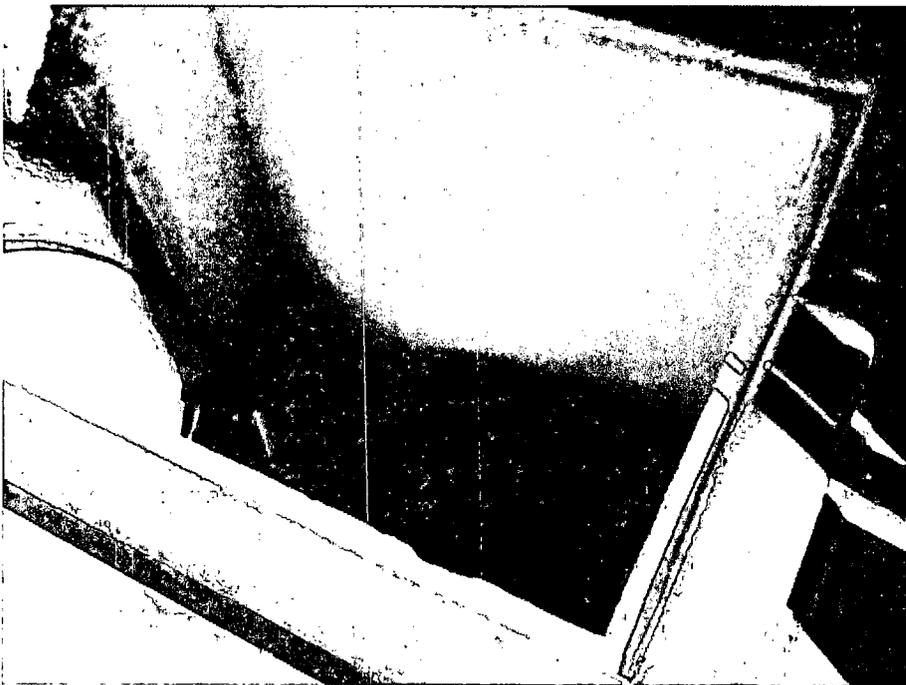


The cementing of the Wash Bay sump.

Photo Documentation



View of former Wash Bay sump filled with cement.

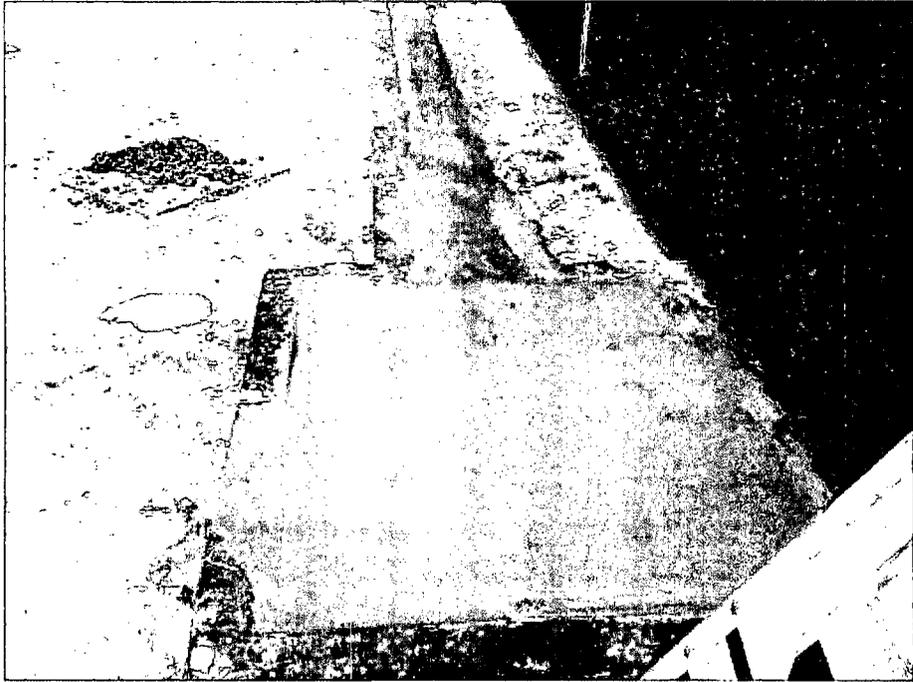


View of the South Drain sump being filled with cement.

Photo Documentation



Another view of the South Drain sump being filled with cement.



View of former South Drain sump filled with cement.

Lowe, Leonard, EMNRD

From: Michelle Green [michelle@laenvironmental.com]
Sent: Friday, June 18, 2010 3:12 PM
To: Lowe, Leonard, EMNRD; VonGonten, Glenn, EMNRD
Cc: Baron, Sam (WGESP); Schornick, Mike (WGESP)
Subject: GW-164, Wood Group ESP, Inc. - Hobbs Test Facility, Sump Closure Report
Attachments: Complete Report - WGESP Sump Closure June 18, 2010.pdf

Hello Leonard and Glenn,

Attached is the Sump Closure Report for the Hobbs Test Facility for your review. A hard copy of the report will follow.

If you have any questions or require additional information please let us know.

Have a wonderful weekend.

Thank you,

Michelle L. Green
Larson & Associates, Inc.
507 N Marienfeld, Suite 200
Midland, TX 79701

Office: 432.687.0901
Fax: 432.687.0789
Cell: 432.934.3231



Lowe, Leonard, EMNRD

From: Mark Larson [Mark@laenvironmental.com]
Sent: Wednesday, June 02, 2010 9:21 AM
To: Lowe, Leonard, EMNRD
Cc: Schornick, Mike (WGESP); Baron, Sam; Michelle Green
Subject: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request
Attachments: Sump Closure Request, May 24, 2010.pdf

Leonard,

Per our conversation yesterday, Wood Group ESP, Inc. (WGESP) has discontinued pump cleaning at the Hobbs Test Facility (GW-164) requests your approval to close the remaining two (2) sumps (wash bay and south drain) rather than retrofit the sumps as originally planned. The sumps were hydrostatically tested on September 14 and 18, 2009, respectively, and concluded that there was no potential for any significant release and the integrity of the sumps was not compromised. Larson & Associates, Inc., on behalf of WGESP, requests your approval to close the sumps according to the procedures presented in the attached document with a final closure report, including photo documentation, to be submitted to the OCD. Your approval of the sump closure is requested. Please contact me at (432) 687-0901 if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com



I am using the Free version of [SPAMfighter](#).
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5309 of my spam emails to date.
The Professional version does not have this message.

Lowe, Leonard, EMNRD

From: Mark Larson [Mark@laenvironmental.com]
Sent: Wednesday, May 26, 2010 7:57 AM
To: Lowe, Leonard, EMNRD
Subject: FW: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request
Attachments: Sump Closure Request, May 24, 2010.pdf

Dear Mr. Lowe,

I was told by Larry Johnson, District 1 – Hobbs, of your return to the office. Welcome Back! I sent the following email to Glenn von Gonten on May 25, 2010, to request approval from the New Mexico Oil Conservation Division (OCD) to close the two (2) remaining sumps (wash bay and south drain) at the Wood Group ESP, Inc. (WGESP) Hobbs Test Facility located north of Hobbs, New Mexico. WGESP has decided to no longer clean pumps at this location and would like to close rather than retrofit the sumps. The email that was sent on May 25, 2010 requests OCD approval to close the sumps. Thanks for your attention to this matter.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com



From: Mark Larson
Sent: Tuesday, May 25, 2010 9:48 AM
To: 'VonGonten, Glenn, EMNRD'
Cc: 'Schornick, Mike (WGESP)'; 'Baron, Sam'; Michelle Green; 'Larry.Johnson@state.nm.us'
Subject: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Dear Glenn,

This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Wood Group ESP, Inc. (WGESP) to request your approval to close two (2) sumps (wash bay and South Drain) at the Hobbs Test Facility (Facility). The Facility is no longer cleaning pumps and hydrostatic test result have demonstrated that sump integrity has not been compromised, therefore, WGESP requests your approval to close rather than retrofit the sumps. The attached letter presents the closure procedures. WGESP would like to proceed with sump closure as quickly as possible and will provide notification to the OCD and submit a final report that includes photo documentation. Your approval of this request is greatly appreciated. Please contact Mike Schornick with WGESP at (405) 671-2145 or myself at (432) 678-0901 if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

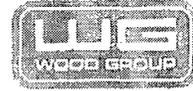


I am using the Free version of SPAMfighter.
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5301 of my spam emails to date.
The Professional version does not have this message.

I am using the Free version of SPAMfighter.
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5304 of my spam emails to date.
The Professional version does not have this message.

E-MAIL ATTACHMENT

Wood Group ESP Inc.



June 18, 2010

VIA EMAIL: Leonard.Lowe@state.nm.us

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 88505

RE: Sump Closure
Wood Group ESP, Inc., Hobbs Test Facility (GW-164)
8426 North Dal Paso, Hobbs, New Mexico 88240

Dear Mr. Lowe:

This letter report was prepared with the assistance of Larson and Associates, Inc. (LAI) on behalf of Wood Group ESP, Inc. (WGESP) and is submitted to the New Mexico Oil Conservation Division (OCD).

The report presents closure documentation for two sumps at the Hobbs Test Facility (GW-164) located in Unit D (NW/4, NW/4), Section 35, Township 17 South and Range 38 East, Lea County, New Mexico. The facility physical address is 8426 North Dal Paso, Hobbs, New Mexico. The geodetic location is north 32° 47' 51.0" and west 103° 7' 38.5". Figure 1 presents a location map.

Timeline of Events

| | |
|--------------------|---|
| August 27, 2009 | OCD requested WGESP to conduct hydrostatic testing of the sumps to ensure integrity. The OCD also notified WGESP that the sumps will require upgrading to comply with its current rules (NMAC 19.15.17.11). The upgrade would require retrofitting the sumps, following the integrity demonstration, with fiberglass liners designed to allow monitoring of leakage in the space between the fiberglass liner and concrete containment. |
| September 4, 2009 | Conference call with the OCD, WGESP expressed a desire to retrofit two sumps, located at the drain near the south side of the building and pump cleaning area inside the test building, and close the remaining three sumps. The OCD was in agreement with the proposal and WGESP requested a list of procedures from the OCD for demonstrating sump integrity |
| September 14, 2009 | OCD provided procedures to WGESP for hydrostatic testing and verification of sump integrity |
| October 15, 2009 | <i>Sump Integrity Test Results and Closure Plan Report</i> was submitted to OCD for review and approval |
| October 21, 2009 | OCD approved Sump Integrity and Closure Plan |
| November 3, 2009 | Three sumps filled with concrete per Closure Plan |
| November 16, 2009 | <i>Sump Integrity Test Results and Retrofit Plan</i> for the two remaining |



| | |
|-------------------|---|
| | sumps was submitted to OCD for review and approval |
| November 24, 2009 | OCD approves Sump Retrofit Plan |
| May 24, 2010 | WGESP discontinues pump cleaning at the facility, and submits <i>Sump Closure Request</i> , for the two remaining sumps, to the OCD for review and approval |
| June 2, 2010 | OCD approves Sump Closure Request, approval is presented in Appendix A |
| June 16, 2010 | Remaining two sumps filled with concrete per Closure Plan |

On June 16, 2010, LAI personnel, Michelle Green observed cementing of the South Drain Sump and the Wash Bay Sump. Custom Mobile Concrete was contracted by STA FLO to prepare the cement mixture onsite. The cement mixture was added to each sump. A pneumatically energized hand-held vibrating rod was placed in the freshly poured cement. The rod vibrated the cement mixture to remove any air pockets and push suspended gravel downward to provide a finished surface. The surface of the concrete was tamped, floated and made flush with the existing surface.

Photo documentation of the closed sumps is presented in Appendix B. An updated schematic showing the closed 'sumps' is presented in Figure 2.

Final Closure

WGESP requests closure on these concrete filled containments. An update concerning the sumps will be made on the next groundwater discharge renewal.

If you have any questions or require additional information I may be reached at (405) 671-2145.

Sincerely,
Wood Group ESP, Inc.

A handwritten signature in black ink, appearing to read 'Mike Schornick'.

Mike Schornick, P.E.
Global Environmental Engineer

Cc: Sam Baron – WGESP, Midland, TX
Mark J. Larson – LAI, Midland, TX

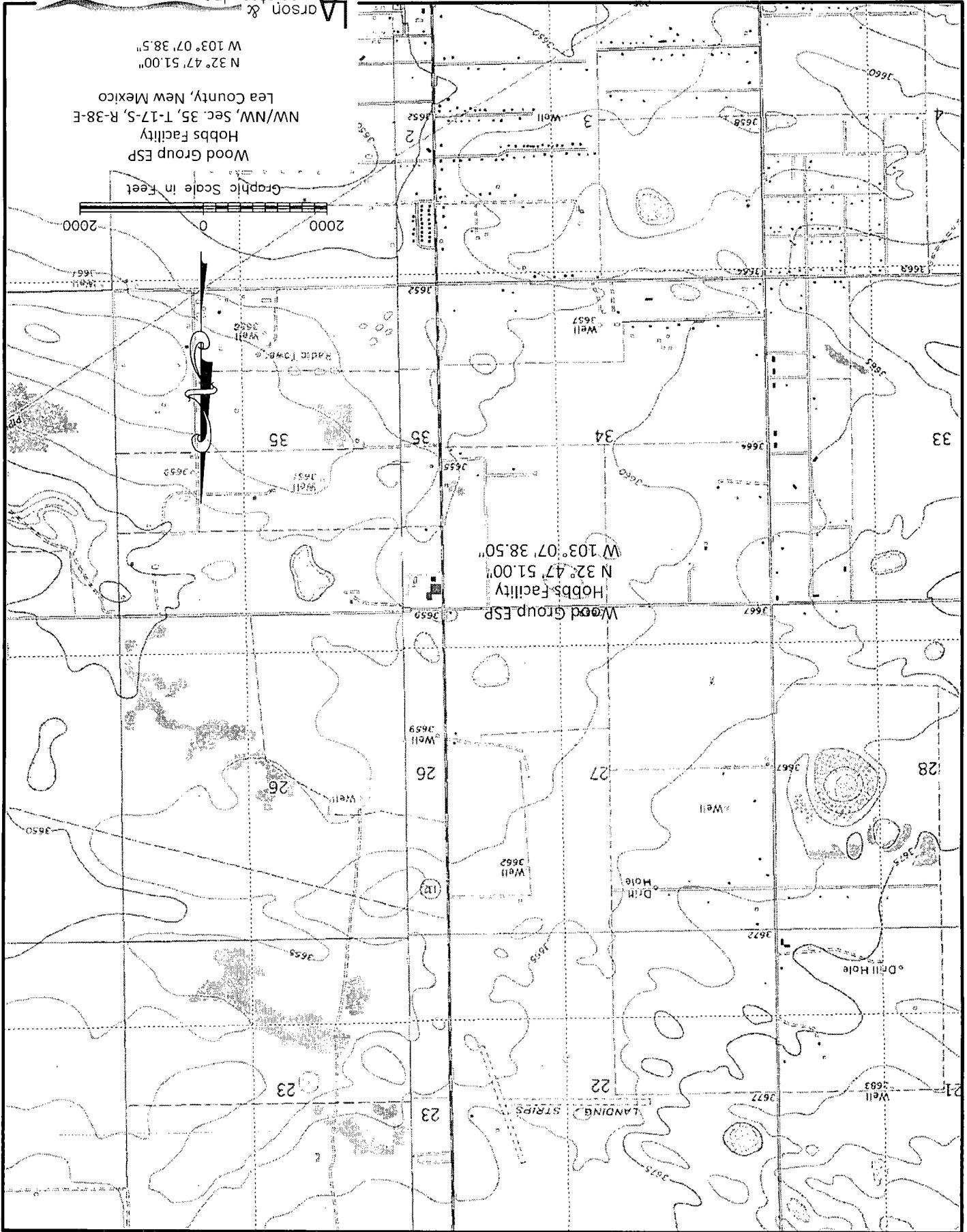
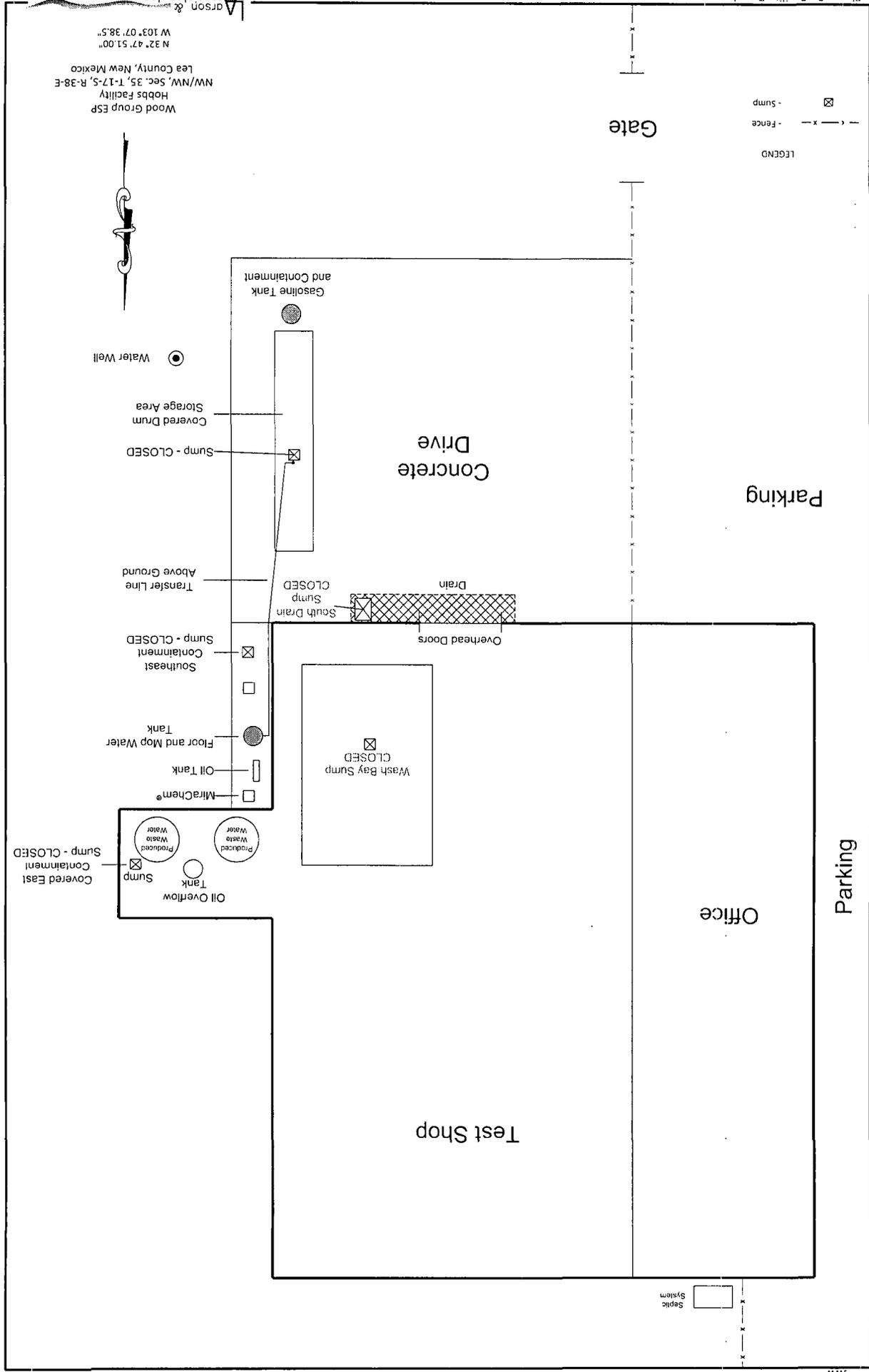


Figure 1 - Topographic Map

Arson & Associates, Inc. Environmental Consultants



Wood Group ESP
 Hobbs Facility
 NW/4W, Sec. 35, T-17-S, R-38-E
 Lea County, New Mexico
 N 32° 47' 51.00"
 W 103° 07' 38.5"

Grison & Associates, Inc.
 Environmental Consultants

Michelle Green

From: Mark Larson
Sent: Wednesday, June 02, 2010 4:35 PM
To: Michelle Green
Subject: FW: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request
Attachments: image001.jpg

Mike,

Please find approval from the New Mexico Oil Conservation Division (OCD) in Santa Fe, New Mexico, for closing two (2) sumps (wash bay and south drain) at the Hobbs Test Facility (GW0-164). Closure will be in accordance with the plan submitted to the OCD on May 24, 2010, including:

- Remove all equipment (pump, tubing, electrical leads, fiberglass liner, etc.) – Sam
- Clean concrete containment to remove any loose debris – Sam
- Photo Document – LAI
- Schedule concrete, fill sump containments (concrete) and photo document – LAI
- Prepare and submit final closure document to OCD – LAI

LAI proposes the following onsite activities for discharge permit compliance concurrent with closing the sumps:
(Michelle – please add so I can forward to Mike)

Please provide your approval for these activities. LAI will provide notification to the OCD prior to commencing sump closure activities. Please contact me if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com



From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Wednesday, June 02, 2010 3:21 PM
To: Mark Larson
Cc: VonGonten, Glenn, EMNRD
Subject: RE: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Mr. Larson,

You have OCD approval to close these sumps as discussed today, June 2, 2010. Please submit a final closure report to the OCD once these are completed.

Upon your next renewal process please note these updates within the application.

Thank you,

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Wednesday, June 02, 2010 9:21 AM
To: Lowe, Leonard, EMNRD
Cc: Schornick, Mike (WGESP); Baron, Sam; Michelle Green
Subject: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Leonard,

Per our conversation yesterday, Wood Group ESP, Inc. (WGESP) has discontinued pump cleaning at the Hobbs Test Facility (GW-164) requests your approval to close the remaining two (2) sumps (wash bay and south drain) rather than retrofit the sumps as originally planned. The sumps were hydrostatically tested on September 14 and 18, 2009, respectively, and concluded that there was no potential for any significant release and the integrity of the sumps was not compromised. Larson & Associates, Inc., on behalf of WGESP, requests your approval to close the sumps according to the procedures presented in the attached document with a final closure report, including photo documentation, to be submitted to the OCD. Your approval of the sump closure is requested. Please contact me at (432) 687-0901 if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com



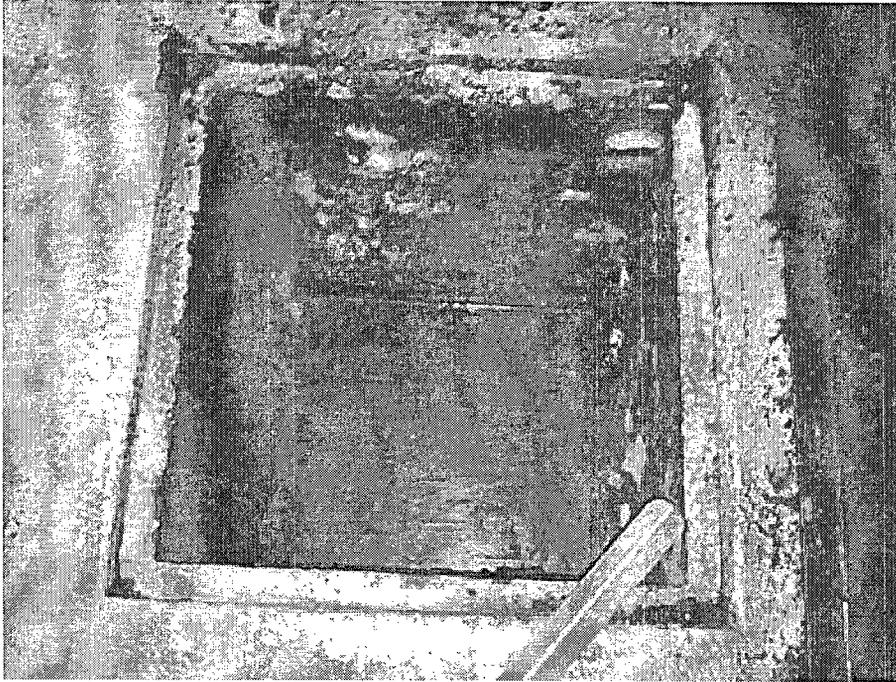
I am using the Free version of [SPAMfighter](#).
We are a community of 7 million users fighting spam.

SPAMfighter has removed 5309 of my spam emails to date.
The Professional version does not have this message.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

I am using the Free version of SPAMfighter.
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5310 of my spam emails to date.
The Professional version does not have this message.

Photo Documentation



View of the Wash Bay sump before closure.

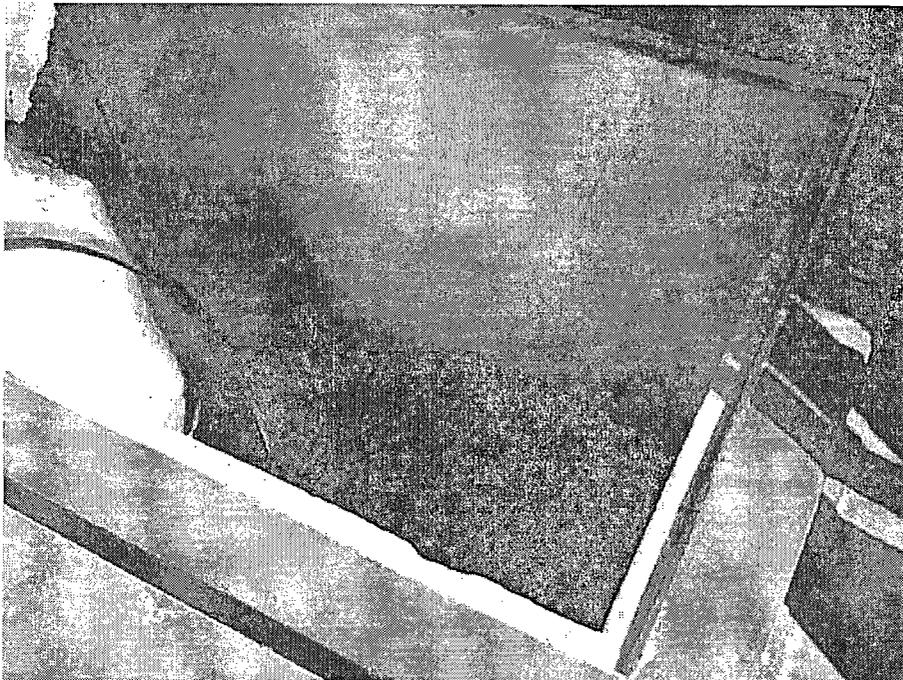


The cementing of the Wash Bay sump.

Photo Documentation

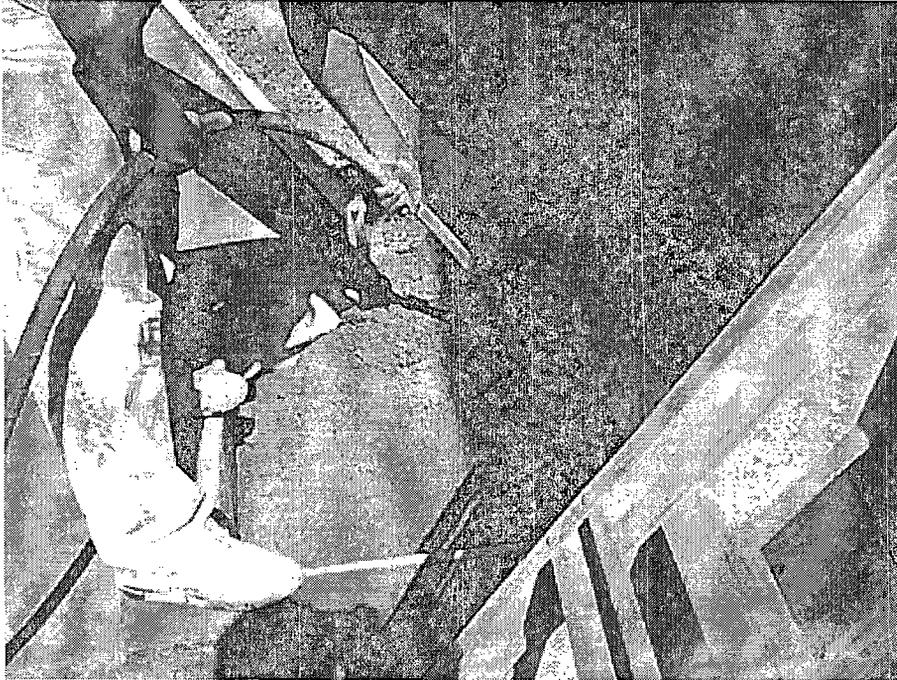


View of former Wash Bay sump filled with cement.

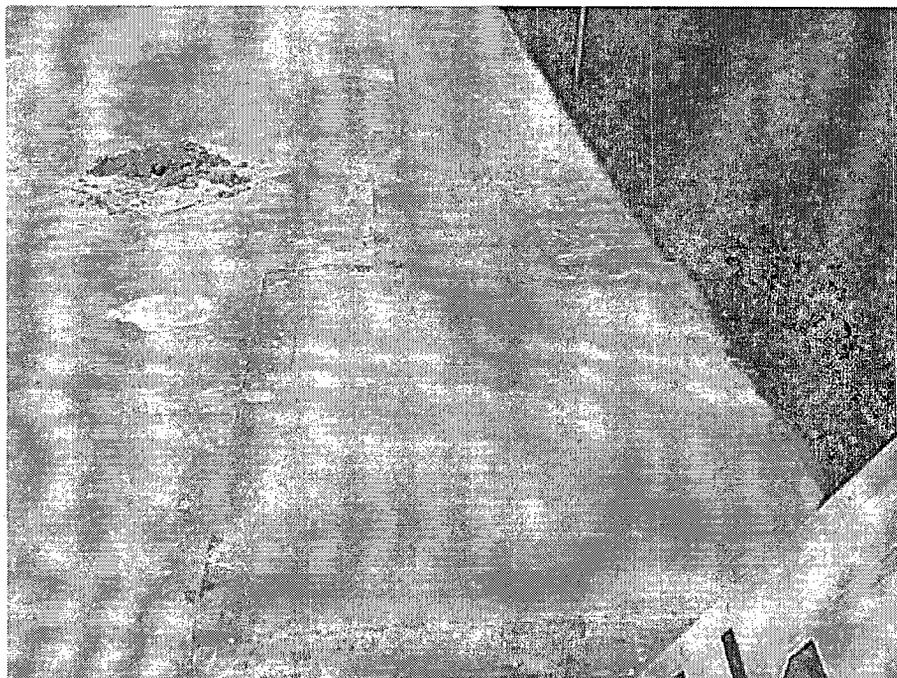


View of the South Drain sump being filled with cement.

Photo Documentation



Another view of the South Drain sump being filled with cement.



View of former South Drain sump filled with cement.

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Wednesday, June 02, 2010 2:21 PM
To: 'Mark Larson'
Cc: VonGonten, Glenn, EMNRD
Subject: RE: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Mr. Larson,

You have OCD approval to close these sumps as discussed today, June 2, 2010. Please submit a final closure report to the OCD once these are completed.

Upon your next renewal process please note these updates within the application.

Thank you,

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Wednesday, June 02, 2010 9:21 AM
To: Lowe, Leonard, EMNRD
Cc: Schornick, Mike (WGESP); Baron, Sam; Michelle Green
Subject: Re: GW-164, Wood Group ESP, Inc., Hobbs Test Facility, Sump Closure Request

Leonard,

Per our conversation yesterday, Wood Group ESP, Inc. (WGESP) has discontinued pump cleaning at the Hobbs Test Facility (GW-164) requests your approval to close the remaining two (2) sumps (wash bay and south drain) rather than retrofit the sumps as originally planned. The sumps were hydrostatically tested on September 14 and 18, 2009, respectively, and concluded that there was no potential for any significant release and the integrity of the sumps was not compromised. Larson & Associates, Inc., on behalf of WGESP, requests your approval to close the sumps according to the procedures presented in the attached document with a final closure report, including photo documentation, to be submitted to the OCD. Your approval of the sump closure is requested. Please contact me at (432) 687-0901 if you have questions.

Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

I am using the Free version of SPAMfighter.
We are a community of 7 million users fighting spam.
SPAMfighter has removed 5309 of my spam emails to date.
The Professional version does not have this message.



May 24, 2010

VIA EMAIL: Glenn.VonGonten@state.nm.us

Mr. Glenn von Gonten, Acting Chief
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 88505

RE: Sump Closure Request
Wood Group ESP, Inc., Hobbs Test Facility (GW-164)
8426 North Dal Paso, Hobbs, New Mexico 88240

Dear Mr. von Gonten:

This letter report was prepared by Larson & Associates, Inc. (LAI) on behalf of Wood Group ESP, Inc. (WGESP) and is submitted to the New Mexico Oil Conservation Division (OCD) to request approval to close the two (2) remaining sumps (south drain sump and wash bay sump) at the Hobbs Test Facility (facility) which operates under OCD discharge permit number GW-164. On November 16, 2009, WGESP submitted a letter to the OCD that included hydrostatic test results and a plan to retrofit the sumps. However, WGESP has discontinued pump cleaning processes at the Facility and requests permission to permanently close rather than retrofit the sumps. The facility is located in Unit D (NW/4, NW/4), Section 35, Township 17 South and Range 38 East, Lea County, New Mexico. The physical address is 8426 North Dal Paso, Hobbs, New Mexico. The geodetic position is north 32° 47' 51.0" and west 103° 7' 38.5". Figure 1 presents a location map. Figure 2 presents a facility drawing showing the sump locations.

Background

On August 27, 2009, during a compliance inspection of the facility, the OCD requested WGESP to conduct hydrostatic testing of five (5) sumps to ensure integrity. The OCD also notified WGESP that the sumps will require upgrading to comply with its existing rules (NMAC 19.15.17.11). The upgrade would require retrofitting the sumps, following the integrity demonstration, with fiberglass liners designed to allow monitoring of leakage in the space between the fiberglass liner and concrete containment.

On September 4, 2009, during a conference call with the OCD, WGESP expressed a desire to retrofit two (2) sumps, located at the drain near the south side of the building (South Drain Sump) and pump cleaning area (Wash Bay Sump) inside the test building. WGESP proposed to close three (3) sumps located in the covered drum storage area, southeast storage area and east covered storage area. The OCD was in agreement with the proposal and WGESP requested a list of procedures from the OCD for demonstrating sump integrity.

On September 14, 2008, OCD provided the following procedures for WGESP to use in hydrostatic testing and verification of sump integrity, including:

- Clean out the sumps: bottoms and walls;
- Photograph sumps once clean;
- Fill sumps with clean or fresh water and allow them to sit over 24 hours;
- Take photographs of sumps full of water;
- Take photographs of sumps when 24 hour period is over; and
- Properly dispose of used hydrostatic water.

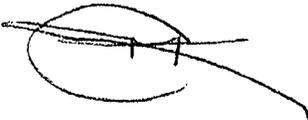
The hydrostatic test results for the three (3) sumps (drum storage area, southeast tank storage area and east tank storage area) were submitted to the OCD in a letter report dated October 13, 2009. The OCD approved the closure plan and the sumps were closed on November 3, 2009.

The remaining sumps (south drain and wash bay) were hydrostatically tested on September 14, 2009 and September 18, 2009, respectively, and the results were reported to the OCD in a letter dated November 16, 2009. Based on the results of the hydrostatic testing, observations of the sump conditions, and concurrence by LAI and WGESP concluded there was no potential for any significant release and the integrity of the south drain and wash bay sumps was not compromised. LAI, on behalf of WGESP, requests approval to close the south drain sump and wash bay sump using the same procedures to close the drum storage area, southeast tank storage area and east tank storage area sumps, including:

- Removing all equipment (i.e., pump, tubing, electric leads, fiberglass liners, etc.);
- Filling the concrete containments with concrete; and
- Submitting a final closure report to the OCD that includes photo documentation of the closure process.

Your approval of the closure plan is requested. Please contact me at (432) 687-0901 if you have questions.

Sincerely,
Larson & Associates, Inc.

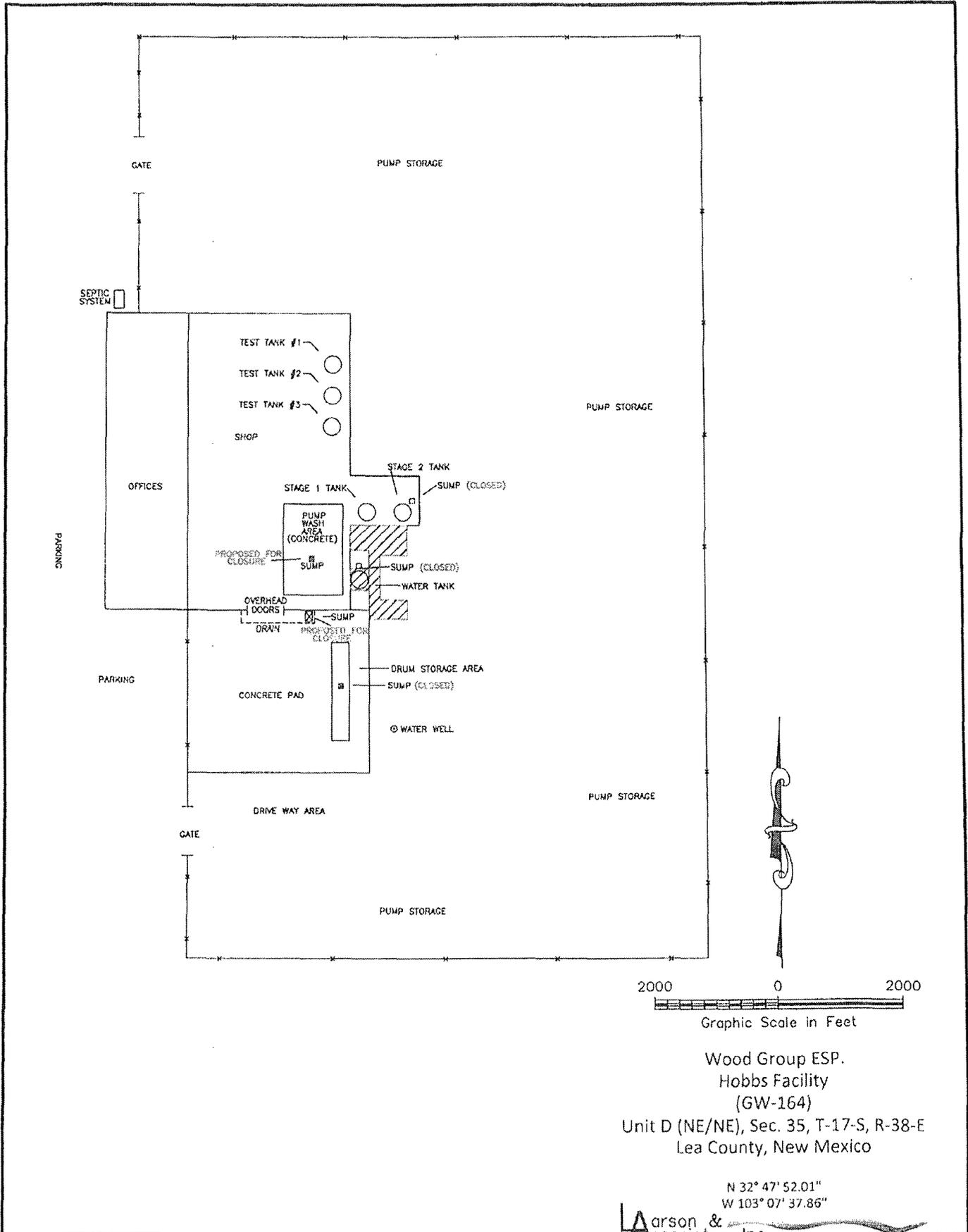


Mark J. Larson, P.G.
Sr. Project Manager
mark@laenvironmental.com

Cc: Sam Baron – WGESP, Midland, TX
Mike Schornick – WGESP, Oklahoma City, OK
Larry Hill – OCD District 1, Hobbs, NM

FIGURES

JWW



Wood Group ESP.
 Hobbs Facility
 (GW-164)
 Unit D (NE/NE), Sec. 35, T-17-S, R-38-E
 Lea County, New Mexico

N 32° 47' 52.01"
 W 103° 07' 37.85"

Larson & Associates, Inc.
 Environmental Consultants

Figure 2 - Facility Layout

Wood Group ESP Inc.



December 17, 2009

VIA EMAIL: Leonard.Lowe@state.nm.us

Mr. Leonard Lowe
State of New Mexico – Oil Conservation Division
1220 S St Francis Drive
Santa Fe, New Mexico 87505

RE: Transfer Line Closure Report
Wood Group ESP, Hobbs Test Shop (GW-164)
Unit Letter D (NW/4, NW/4), Section 35, T 17S, R 37E
Lea County, New Mexico

RECEIVED OOD
2009 DEC 18 P 2:51

Dear Mr. Lowe:

The enclosed report was prepared by Larson and Associates, Inc., on behalf of Wood Group ESP, Inc, (WGESP) and is submitted to the State of New Mexico Oil Conservation Division by WGESP for documentation and closure. The report presents the backfill of the transfer line trench approved by OCD and associated with a line release from a subsurface transfer line at its Hobbs Test Facility. The facility is located at 8426 N. Dal Paso, in Hobbs, New Mexico.

This report presents the backfill and completing of the trench along with an above ground transfer line. Your concurrence with final closure is requested.

If you have any questions or require additional information, please call me to discuss.

Sincerely,
Wood Group ESP, Inc.

A handwritten signature in black ink, appearing to read 'Mike Schornick'.

Mike Schornick, P.E.
Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road
Oklahoma City, Oklahoma 73135
(405) 671-2145 (office)
(405) 290-8523 (cell)

Mr. Leonard Lowe
Hobbs Test Facility (GW-0164)
Transfer Line Closure
December 17, 2009
Page 2 of 2

Attachments

CC Sam Baron – Wood Group
Rod Burrola – Wood Group
Michelle Green – Larson & Associates, Inc.

Transfer Line Closure Report

Hobbs Test Facility
Unit D, Section 35, T17S, R38E
Lea County, New Mexico

Discharge Permit GW-164

LAI Project No. 8-0113-04

December 17, 2009

Prepared for:
Wood Group ESP
6205 Sooner Road
Oklahoma City, Oklahoma 73135

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld, Suite 200
Midland, Texas 79701

Table of Content

Executive Summary..... 1
Background Information..... 1
Conclusions 2

List of Figures

- Figure 1 Topographic Map
- Figure 2 Facility Drawing

List of Appendices

- Appendix A Photo Documentation

Executive Summary

This report was prepared by Larson & Associates, Inc. (LAI) and is submitted to the State of New Mexico Oil Conservation Division (OCD) on behalf of Wood Group ESP, Inc. (WGESP). This report provides documentation of the backfill and completion of the transfer line release investigation.

WGESP requests closure. Your concurrence and approval of this request is appreciated.

Wood Group's contact for environmental concerns is:

Mr. Mike Schornick – Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road
Oklahoma City, Oklahoma 73135
Office – 405.671.2145, Cell – 405.290.8523
Email – mike.schornick@woodgroup.com

Background Information

Timeline of Events

| | |
|-----------------|--|
| June 11, 2009 | WGESP personnel tested the transfer line using pressurized air to approximately 3 pounds per square inch (psi) above the operating pressure. The pressure test failed. |
| June 15, 2009 | WGESP personnel exposed the line to identify a release (i.e., stained or wet soil, odor, etc.). The line was excavated up to a concrete containment for a wastewater tank where it was no longer accessible. Soil was visibly moist with some staining where the transfer line intersected the concrete containment en route to the waste water tank. A hole in the line was observed at this point suggesting that this was the failure point. The observation indicated that a release of an undetermined amount had occurred. WGESP notified OCD of the release and subsequently, OCD requested an investigation be performed |
| July 10, 2009 | Initial C-141 and Sampling Plan submitted to the OCD. |
| August 6, 2009 | OCD approves the Sampling Plan. |
| August 7, 2009 | LAI notified OCD representatives Messrs. Leonard Lowe and Geoffrey Leking of its intent to perform a soil boring investigation. |
| August 11, 2009 | LAI personnel installed two soil boring (LSB-1 and |

| | |
|------------------|---|
| | LSB-2) using Terraprobe® direct-push sampling methods near the concrete containment. |
| October 15, 2009 | 'Transfer Line Release Investigation Report and Closure Report' submitted to the OCD for review and approval. |
| October 21, 2009 | OCD approves the backfilling of the trench. |
| November 3, 2009 | Trench filled with cement as per Closure Plan. |
| December 9, 2009 | Transfer line routed above ground as per Closure Plan. |

On November 3, 2009, LAI personnel, Michelle Green observed cementing of the trench from the transfer line removal. Custom Mobile Concrete was contracted by Big Boys LLC to prepare the cement mixture onsite. The cement mixture was added to the trench. The surface of the concrete was tamped, floated and made flush with the existing surface.

On December 9, 2009, WGESP personnel installed a PVC above ground transfer line. The line is routed Southeast Containment waste water tank.

Photo documentation of the filled trench and replaced transfer line are presented in Appendix A. Figure 1 presents the topographic map. An updated schematic showing the newly routed above ground line is presented in Figure 2.

Conclusions

Based upon the completion of activities, WGESP requests final closure on the transfer line release investigation. Your concurrence is requested.

JWW

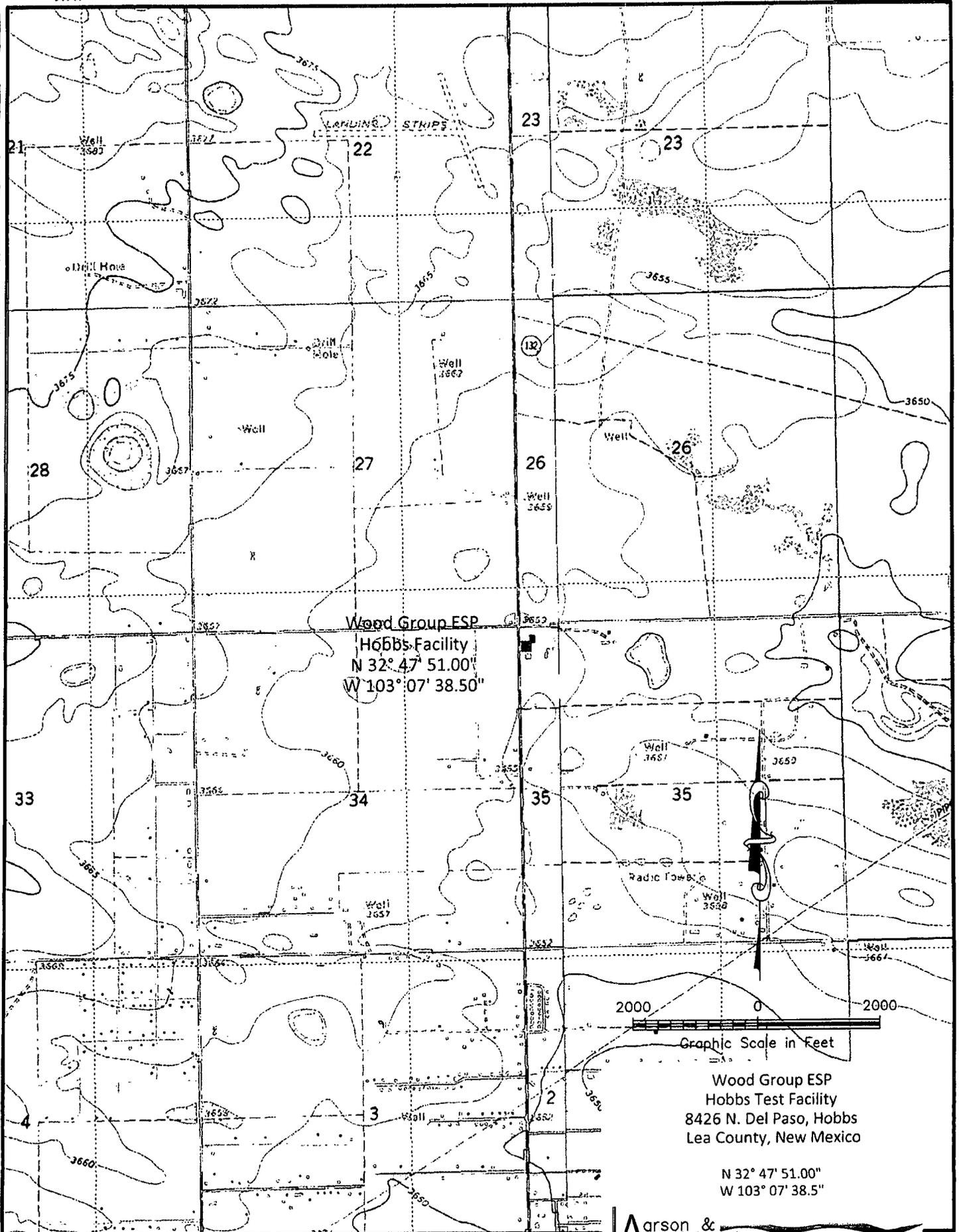
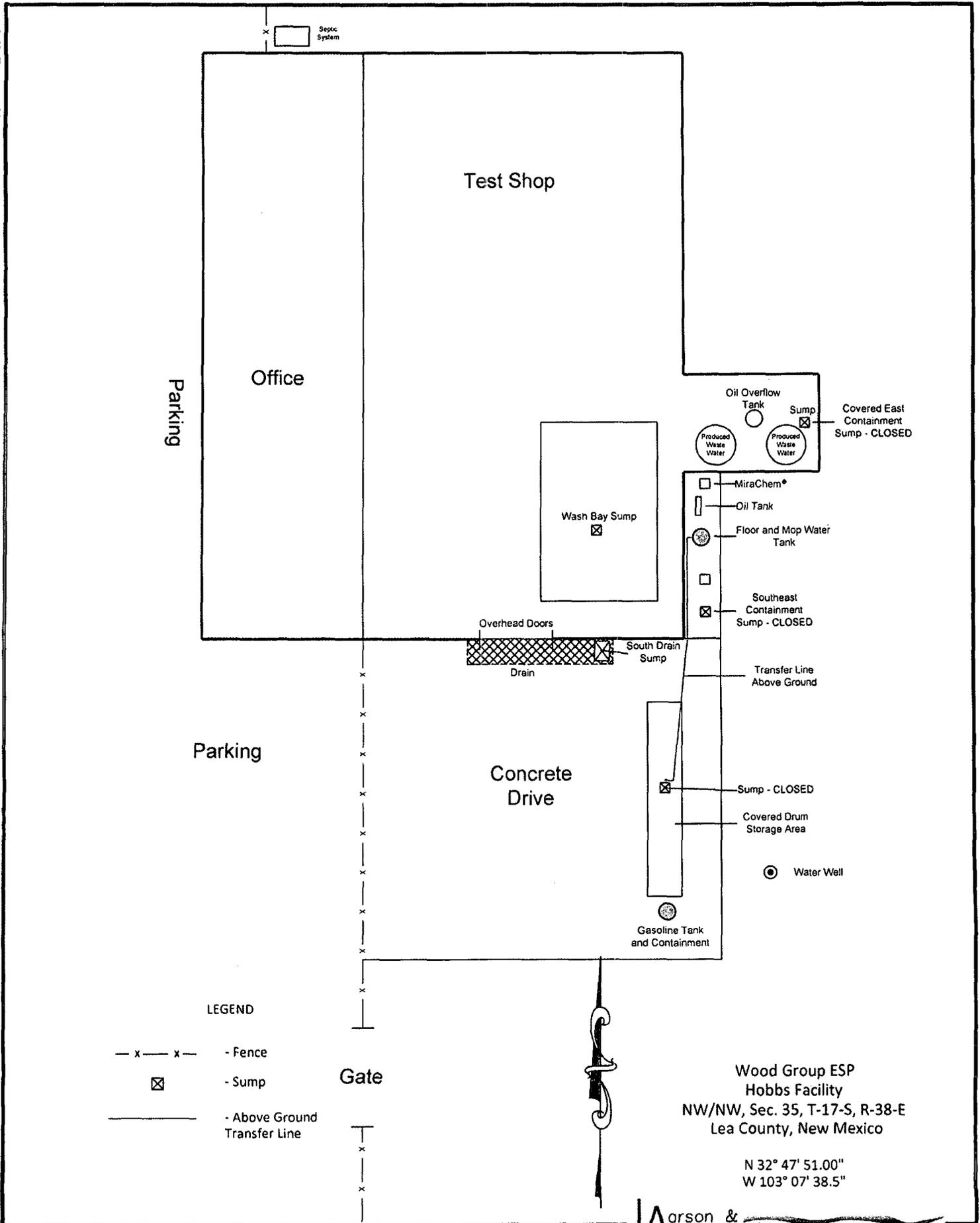


Figure 1 - Topographic Map



LEGEND

- x - x - - Fence
- ☒ - Sump
- Above Ground Transfer Line

Gate

Wood Group ESP
 Hobbs Facility
 NW/NW, Sec. 35, T-17-S, R-38-E
 Lea County, New Mexico

N 32° 47' 51.00"
 W 103° 07' 38.5"

Larson &
 Associates, Inc.
 Environmental Consultants

Figure 2 - Facility Drawing

Photo Documentation



View of trench being filled with cement.



View of cement filled trench.

Photo Documentation



View of pump and transfer line from the South Drum Storage Containment.



View of the transfer line routed above ground surface from South Drum Storage Containment.

Photo Documentation



View of transfer line routed to Southeast Containment.



View of transfer line routed to Waste Water tank located in the Southeast Containment.

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Wednesday, October 21, 2009 3:07 PM
To: 'Schornick, Mike'
Cc: Mark Larson; 'Michelle Green'
Subject: OCD response: Sump Integrity test results and Closure Plan

Mr. Schornick,

OCD has approved your integrity and closure plan for the facility GW-164.

Please update your facility schematic to show the closed "sumps" then submit schematic to the OCD.

This was noted in Condition 16 of Owner/Operators recently renewed permit. At the time of this e-mail, a signed copy was yet to be received.

Update the OCD once all work is completed toward this task.

Thank you for your attention.

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>



WOOD GROUP ELECTRIC SUBMERSIBLE PUMPS, INC.
5500 SE 59th St., OKLAHOMA CITY, OK 73135



October 15, 2009

VIA EMAIL: Leonard.Lowe@state.nm.us

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 88505

RECEIVED OCD
2009 OCT 16 A 9:53

RE: Sump Integrity Test Results and Closure Plan
Wood Group ESP, Inc., Hobbs Test Facility (GW-164)
8426 North Dal Paso, Hobbs, New Mexico 88240

Dear Mr. Lowe:

This letter report was prepared with the assistance of Larson and Associates, Inc. (LAI) on behalf of Wood Group ESP, Inc. (WGESP) and is submitted to the New Mexico Oil Conservation Division (OCD). The report presents the hydrostatic test results and closure plan for three (3) sumps at the Hobbs Test Facility (GW-164) located in Unit D (NW/4, NW/4), Section 35, Township 17 South and Range 38 East, Lea County, New Mexico. The facility physical address is 8426 North Dal Paso, Hobbs, New Mexico. The global positioning system coordinates are north 32° 47' 51.0" and west 103° 7' 38.5". Figure 1 presents a location map.

Background

On August 27, 2009, during a compliance inspection of the facility, the OCD requested WGESP to conduct hydrostatic testing of the sumps to ensure integrity. The OCD also notified WGESP that the sumps will require upgrading to comply with its existing rules (NMAC 19.15.17.11). The upgrade would require retrofitting the sumps, following the integrity demonstration, with fiberglass liners designed to allow monitoring of leakage in the space between the fiberglass liner and concrete containment.

On September 4, 2009, during a conference call with the OCD, WGESP expressed a desire to retrofit two (2) sumps, located at the drain near the south side of the building and pump cleaning area inside the test building, and close the remaining three (3) sumps. The OCD was in agreement with the proposal and WGESP requested a list of procedures from the OCD for demonstrating sump integrity.

On September 14, 2008, OCD provided the following procedures for WGESP to use in hydrostatic testing and verification of sump integrity:

- Clean out the sumps: bottoms and walls. Photograph sumps once clean.
- Fill sumps with clean or fresh water and allow them to sit over 24 hours. Take photographs of sumps full of water.
- Take photographs of sumps when 24 hour period is over.
- Properly dispose of used hydrostatic water.

WGESP hydrostatic test procedures are presented in Appendix A.

The following sections present descriptions of the actual hydrostatic test procedures and results for the three (3) sumps proposed for closure: the drum storage area sump, southeast tank storage area sump and east tank storage area sump. Fiberglass liners were present in two (2) of the sumps to be closed (i.e. the drum storage area sump and the southeast tank storage area sump). The liners were removed, by WGESP, prior to hydrostatic testing. Accordingly, the liners from these two (2) sumps were hydrostatically tested after removal. Figure 2 presents a facility drawing and sump locations.

Drum Storage Area Sump

The drum storage area sump was constructed of concrete with a fiberglass liner. The fiberglass liner measured approximately 24 X 24 X 21 inches and was recessed into the concrete containment and sealed with silicon caulking. The bottom of the fiberglass liner was flush with the concrete floor. The fiberglass liner was equipped with leak detection to allow monitoring of the space between the fiberglass liner and concrete containment. However, the fiberglass liner was not in compliance with existing OCD rules due to the bottom of the liner being flush with concrete floor.

Facility personnel cleaned and photographed the liner prior to removal from the containment for hydrostatic testing. Sump photographs are presented in Appendix B. A small amount of water was observed in the bottom of the concrete containment after the liner was removed. This may have been the result of seepage around the lip seal between the liner and concrete. The liquid was removed using a shop vacuum and was placed in the wastewater tank. The fiberglass liner was visually inspected for cracks and holes and none were found.

On September 3, 2009, facility personnel filled, near full, the removed fiberglass liners with fresh water to begin the hydrostatic test. The test began at 11:02 am on September 3, 2009 and was concluded at 11:02 am on September 5, 2009. The fiberglass liner was marked prior to filling and the fluid level remained substantially unchanged during the test. No leaks were observed confirming that liner integrity has not been compromised. This also supports the conclusion that water observed in the bottom of the concrete containments was likely the result of seepage between the lip seal and concrete. Photographs 1 through 3, presented in Appendix B, represent the drum storage area sump testing.

Southeast Tank Storage Area Sump

The southeast tank storage area sump was constructed of concrete with a fiberglass liner. The fiberglass liner measured approximately 24 X 24 X 21 inches and is recessed into the concrete containment and sealed with silicon caulking. The bottom of the fiberglass liner was flush with the concrete floor. The fiberglass liner was equipped with leak detection to allow monitoring of the space between the fiberglass liner and concrete containment. However, the fiberglass liner was not in compliance with existing OCD rules due to the bottom of the liner being flush with concrete floor.

Facility personnel cleaned and photographed the liner prior to removal from the containment for testing according to the OCD approved procedure. Sump photographs are presented in Appendix A. A small amount of water was observed in the bottom of the concrete containment this may have been the result of seepage around the lip seal between the liner and concrete. The liquid was removed using a shop vacuum and placed in the wastewater tank. The fiberglass liner was visually inspected for cracks and holes and none were found.

On September 3, 2009, facility personnel filled, near full, the removed fiberglass liner with fresh water to begin the hydrostatic test. The test began at 11:07 am on September 3, 2009 and was concluded at 11:03 am on September 5, 2009. The fiberglass liner was marked prior to filling and the fluid level remained substantially unchanged during the test. No leaks were observed confirming that liner integrity has not been compromised. This also supports the conclusion that water observed in the bottom of the concrete containment was likely the result of seepage between the lip seal and concrete. Photographs 4, 5 and 6, presented in Appendix B, represent the southeast tank storage area sump testing.

East Tank Storage Area Sump Testing and Results

The east tank storage area sump was constructed of concrete, sealed with an industrial coating. The sump measures approximately 36 X 36 X 30 inches. The industrial coating covered the walls and bottom of the sump, as well as the surface of the tank storage secondary containment. Facility personnel cleaned and photographed the sump prior to hydrostatic testing (presented in Appendix B). No cracks or holes were observed in the coated concrete. The hydrostatic test was performed according to the OCD approved procedure.

On September 14, 2009, facility personnel filled, near full, the sump with fresh water. Testing of the sump commenced at 09:54 am on September 14, 2009 and was concluded at 09:25 am on September 15, 2009. The concrete sump was marked prior to filling. The water level stabilized below the mark due to the surface slope however, the water level remained substantially unchanged during the test. These results confirm that the sump integrity has not been compromised. Photographs 7, 8 and 9 (presented in Appendix B) represent the east tank storage area sump testing.

Hydrostatic Test Conclusion

Based on the results of the hydrostatic testing, observations of the sump conditions, and concurrence by our consultant LAI, WGESp concludes there was no potential for any significant release and the integrity was not compromised.

Final Closure Plan

Wood Group proposes to complete final closure of the sumps by removing all equipment (i.e. pump, tubing, electric leads, fiberglass liners, etc.) and filling the concrete containments with concrete. Photographs of the closure process and a documentation report will be submitted to the OCD upon completion.

Your concurrence with the hydrostatic testing conclusion and approval of the closure plan is requested. Please contact me at (405) 671-2145 if you have questions.

Sincerely,
Wood Group ESP, Inc.



Mike Schornick, P.E.
Environmental Engineer

Cc: Sam Baron – WGESp, Midland, TX
Rod Burrola – WGESp, Hobbs, NM
Mark J. Larson – Larson & Associates, Inc.

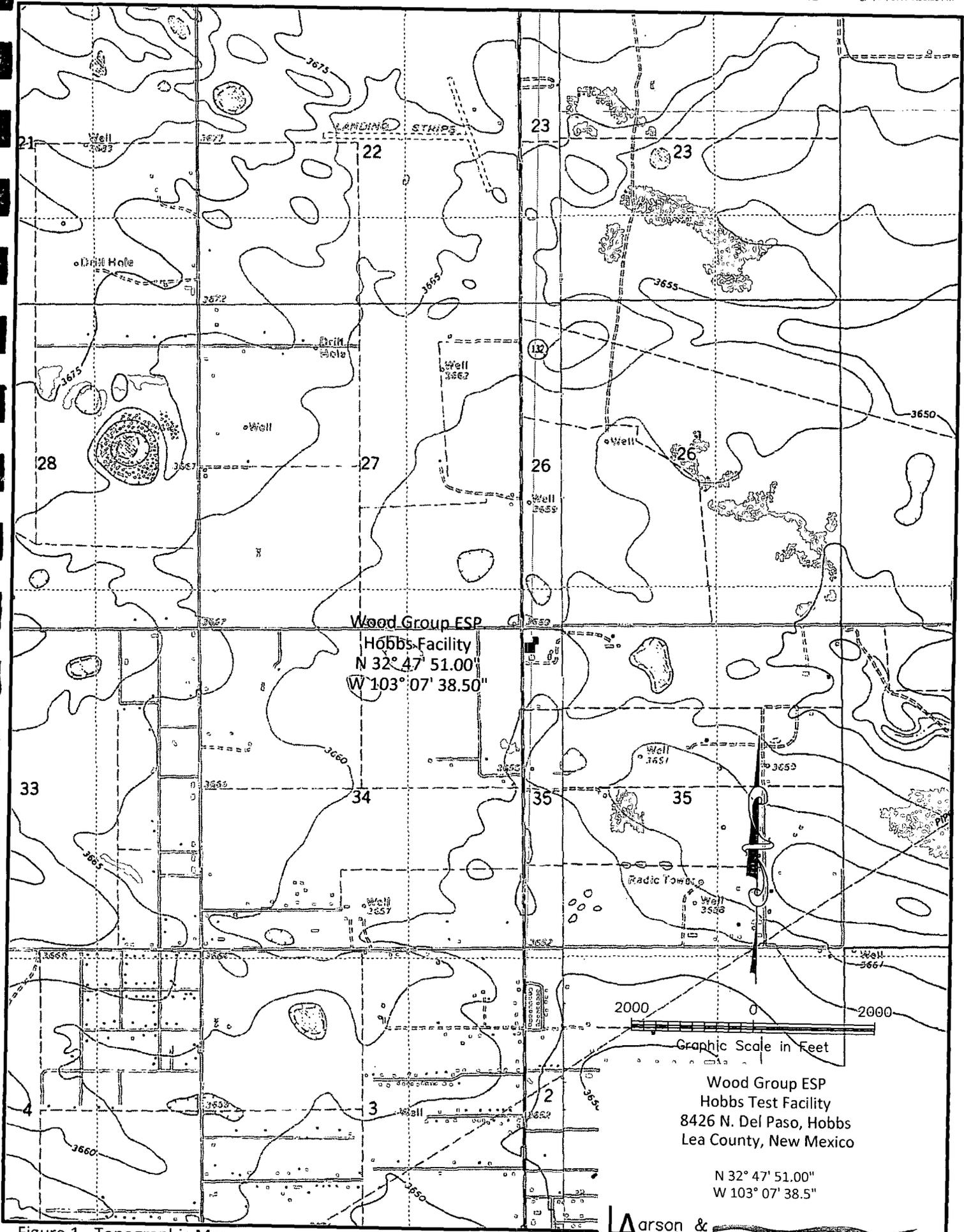


Figure 1 - Topographic Map

Larson &
 Associates, Inc.
 Environmental Consultants

Wood Group ESP
 Hobbs Test Facility
 8426 N. Del Paso, Hobbs
 Lea County, New Mexico

N 32° 47' 51.00"
 W 103° 07' 38.5"

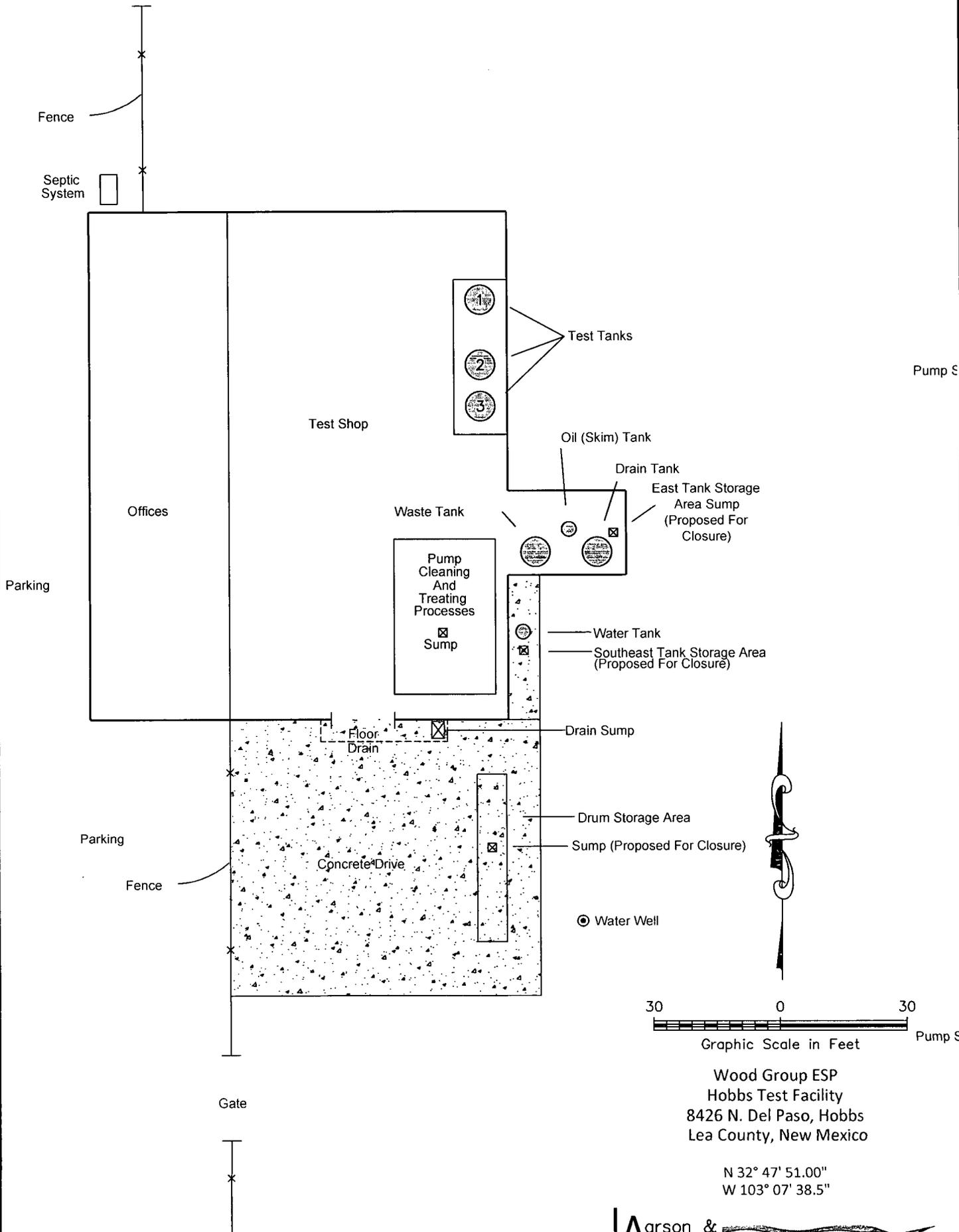
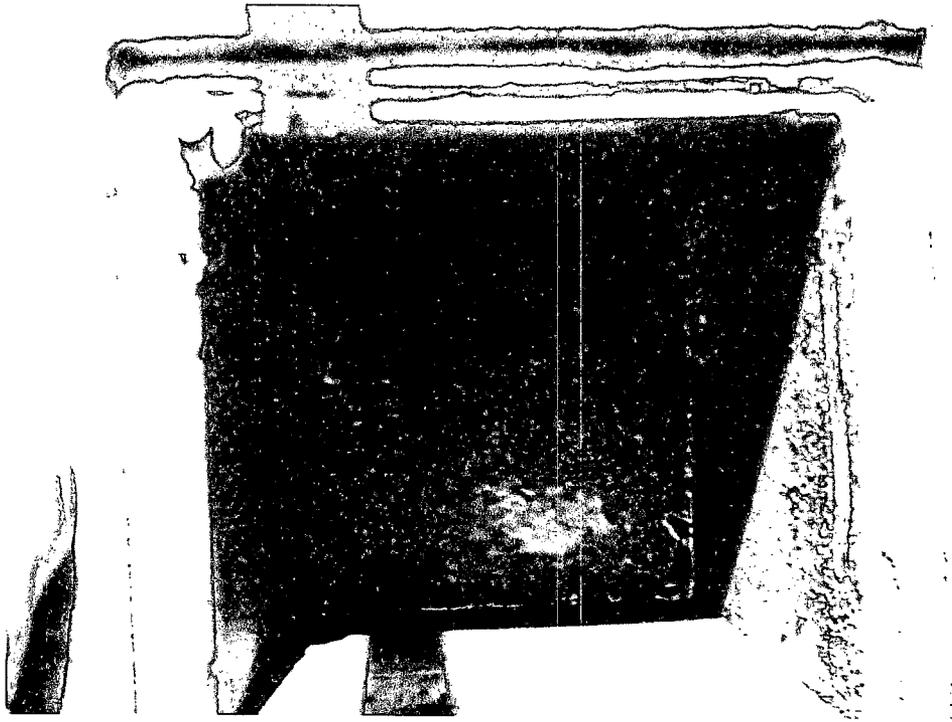


Figure - Sump Locations

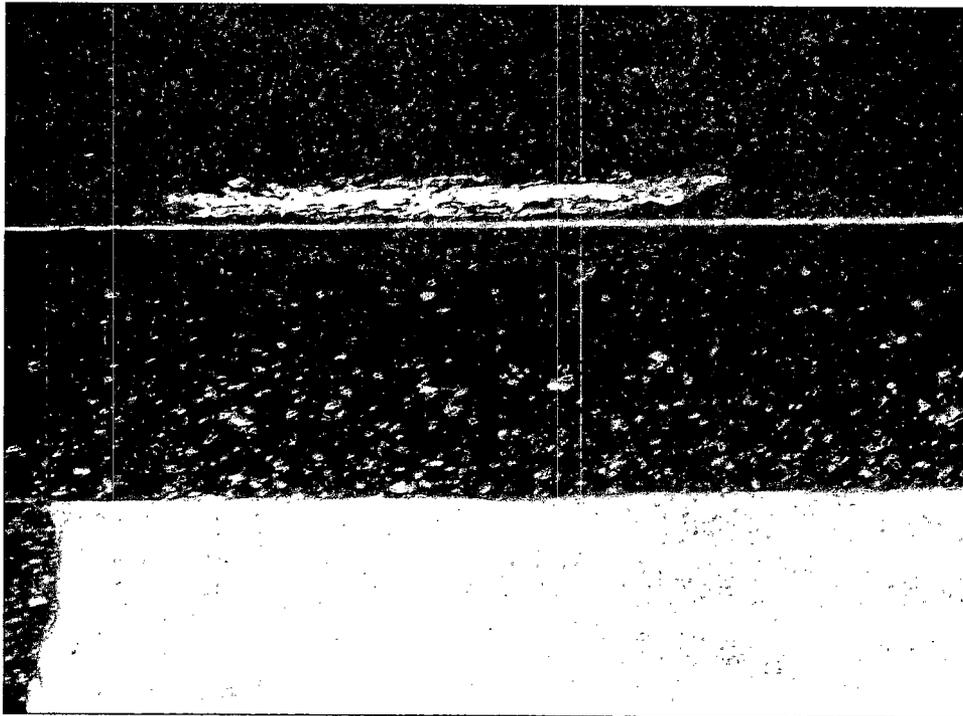
Wood Group ESP, Hobbs, Containment Sump Hydrostatic Test Procedures:

1. Prior to conducting the test, any accumulated trash, debris, or product present must be removed from the containment sump and properly disposed.
2. Damaged containment sumps should not be tested, but should instead be noted in the test log and reported to the OCD by Mike Schornick, the Environmental Engineer for WGESP NAO.
3. Any ancillary equipment present inside the sump should be inspected for product leaks, and repaired prior to testing.
4. Fill the containment sump to just below the grate level.
5. Draw a straight line at the top of the water line using a paint marker. Allow the water to "settle" in the containment sump and record the time in the test log.
6. Cover the containment sump, using its lid or an alternative cover, and allow the containment sump to sit undisturbed for 24 hours.
7. After the allotted time frame specified in #6 has elapsed, measure the height of the water level with a measuring device that is accurate to 1'16th of an inch. Measure from the water line to the line made in step #5. The test fails if the water level drops 1/8th of an inch or more.
8. Record the time, date, and test results in the test log.
9. All water must be removed at the completion of the test. It may be re-used for testing purposes or must be properly disposed.
10. After fiberglass liners are removed, concrete containments will be hydro tested using this same procedure with the exception of allowing the water level to stabilize for 72-hours prior to starting the 24-hour timer. This will allow for saturation of the dry concrete in the outer sump.

Photographic Documentation

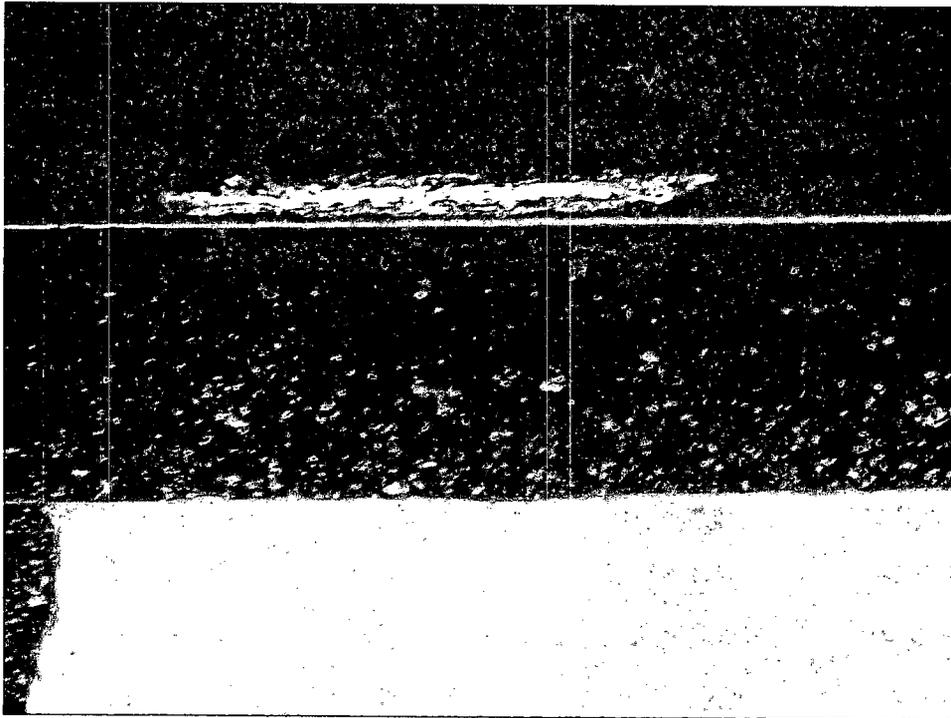


1. Drum Storage Area Sump After Cleaning

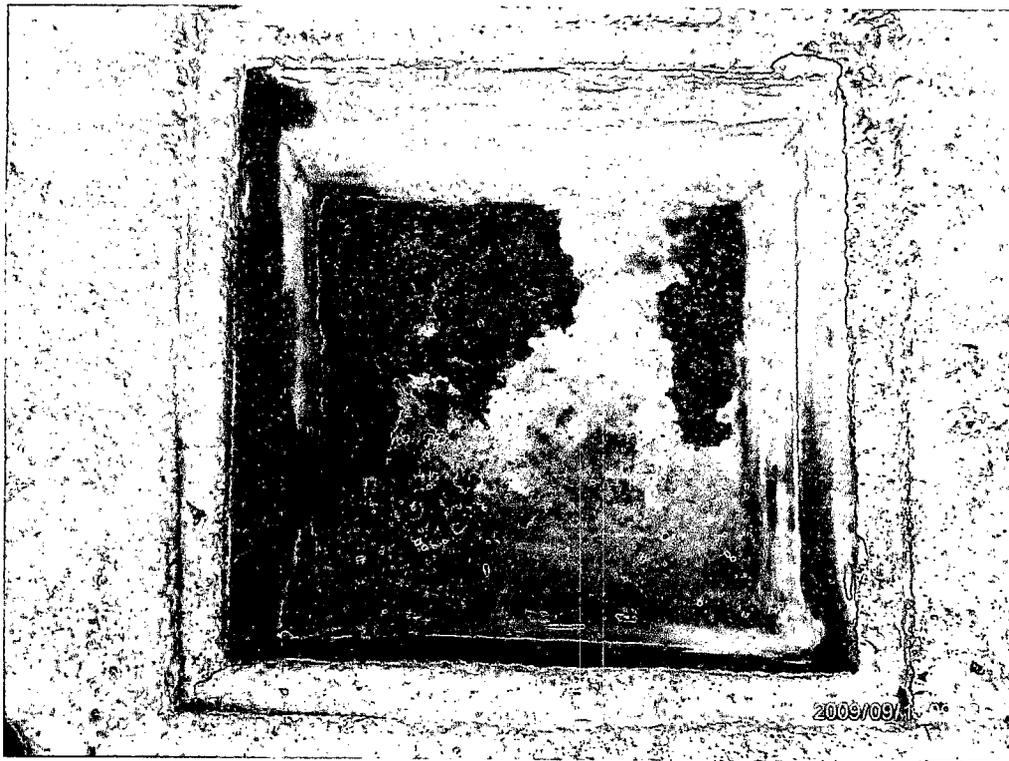


2. Drum Storage Area Sump Hydrostatic Test Start (9-3-2009, 11:02AM)

Photographic Documentation

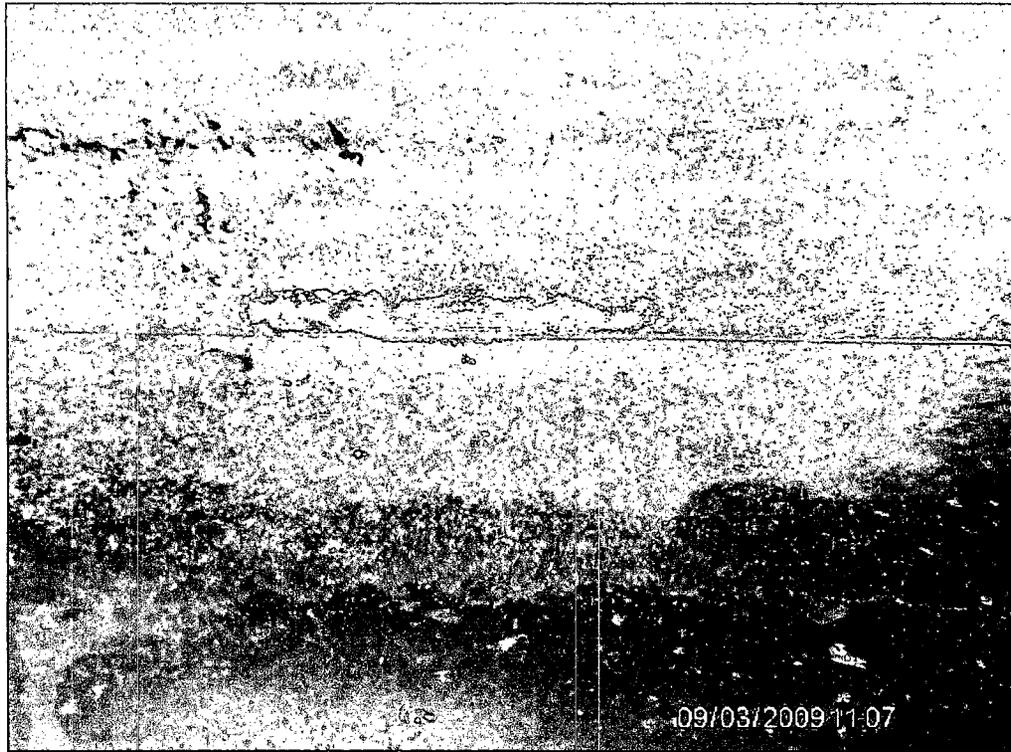


3. Drum Storage Area Sump Hydrostatic Test End (9-5-2009, 11:02AM)

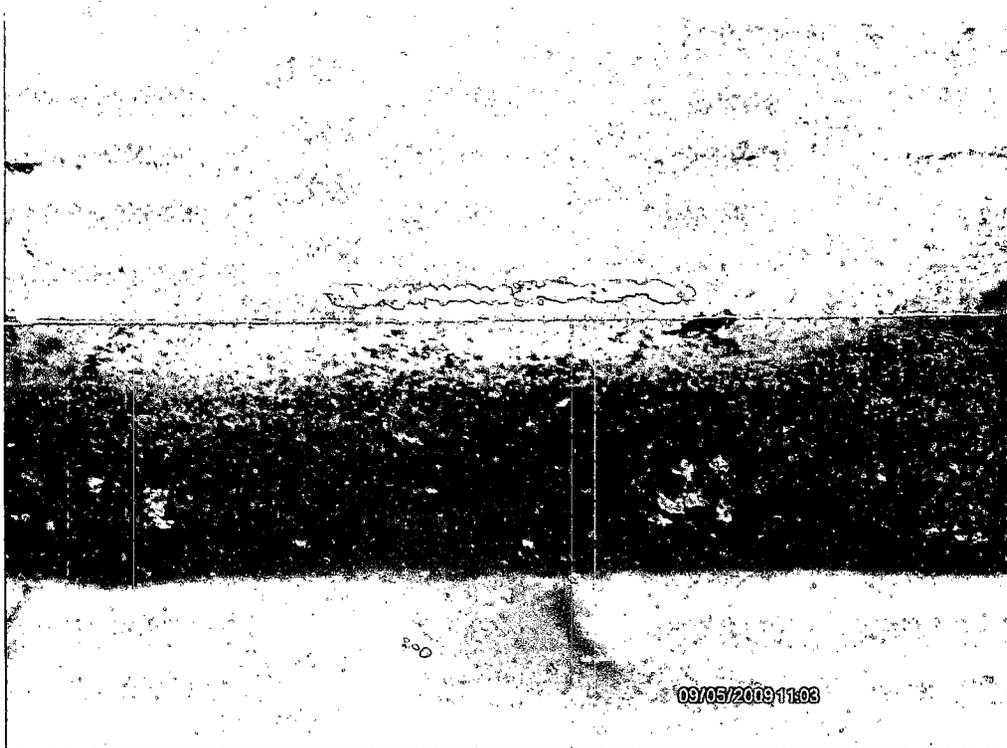


4. Southeast Tank Storage Area Sump After Cleaning

Photographic Documentation

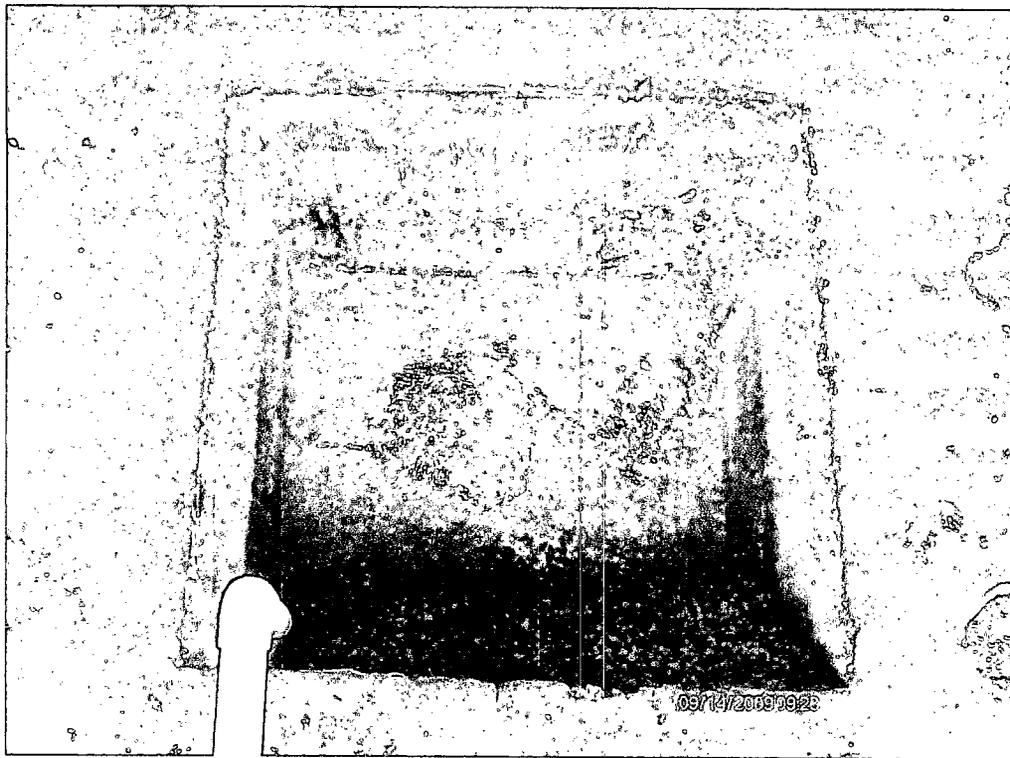


5. Southeast Tank Storage Area Sump Hydrostatic Test Start (9-3-2009, 11:07AM)



6. Southeast Tank Storage Area Sump Hydrostatic Test End (9-5-2009, 11:03AM)

Photographic Documentation

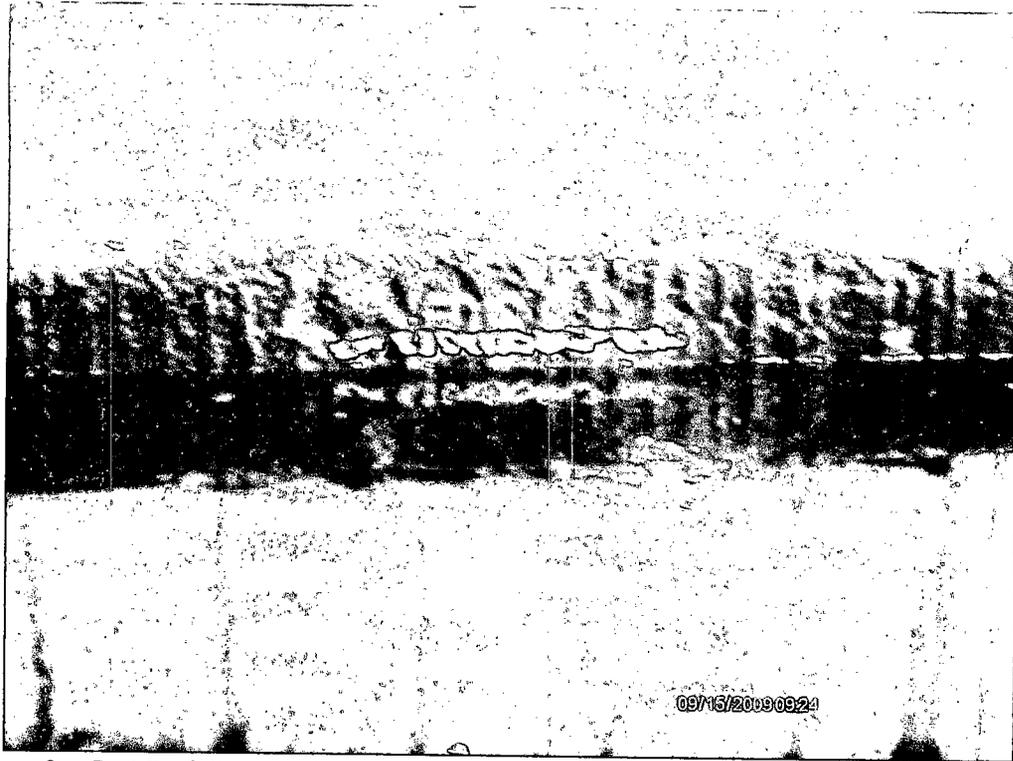


7. East Tank Storage Area Sump After Cleaning



8. East Tank Storage Area Sump Hydrostatic Test Start (9-14-2009, 09:54AM)

Photographic Documentation



9. East Tank Storage Area Sump Hydrostatic Test End (9-15-2009, 09:24AM)

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Wednesday, October 21, 2009 3:15 PM
To: 'Schornick, Mike'
Cc: 'Mark Larson'; 'Michelle Green'
Subject: GW-164 OCD response: release line closure

Mr. Schornick,

OCD has approved to fill the expose ditch for this release at the facility GW-164.

Notify OCD when work is completed as to either complete take the line out of service or replace it with an above ground line. Reflect changes on facility schematic.

Update the OCD once all work is completed toward this task.

Thank you for your attention.

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>



WOOD GROUP ELECTRIC SUBMERSIBLE PUMPS, INC.
5500 SE 59th St., OKLAHOMA CITY, OK 73135



October 15, 2009

VIA EMAIL: Leonard.Lowe@state.nm.us

Mr. Leonard Lowe
State of New Mexico – Oil Conservation Division
1220 S St Francis Drive
Santa Fe, New Mexico 87505

RE: Transfer Line Investigation Report Transmittal
Wood Group ESP, Hobbs Test Shop (GW-164)
Unit Letter D (NW/4, NW/4), Section 35, T 17S, R 37E
Lea County, New Mexico

2009 OCT 16 A 9:53
RECEIVED OOD

Dear Mr. Lowe:

The enclosed report was prepared by Larson and Associates, Inc., on behalf of Wood Group ESP, Inc, (WGESP) and is submitted to the State of New Mexico Oil Conservation Division by WGESP for documentation and approval. The report presents the results of investigative activities approved by OCD and associated with a line leak release from a subsurface transfer line at its Hobbs Test Facility. The facility is located at 8426 N. Dal Paso, in Hobbs, New Mexico.

This report concludes no significant release of contaminants occurred as a result of the transfer line release and no further investigation or response actions are required. WGESP requests permission to fill the exposed area with clean soil and repair the concrete pad to complete closure. Your concurrence with the findings and approval of final closure actions is requested.

If you have any questions or require additional information, please call me to discuss.

Sincerely,
Wood Group ESP, Inc.

Mike Schornick
Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road
Oklahoma City, Oklahoma 73135
(405) 671-2145 (office)
(405) 290-8523 (cell)

Attachments

CC Sam Baron – Wood Group
Rod Burrola – Wood Group
Michelle Green – Larson & Associates, Inc.

**Transfer Line Release Investigation
Report and Closure Request**

Hobbs Test Facility
Unit D, Section 35, T17S, R38E
Lea County, New Mexico

Discharge Permit GW-164

LAI Project No. 8-0113-04

October 15, 2009

Prepared for:
Wood Group ESP
6205 Sooner Road
Oklahoma City, Oklahoma 73135

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld, Suite 200
Midland, Texas 79701

Table of Content

Executive Summary 1
Release Information 1
Soil Investigation 2
Conclusions 3

List of Tables

Table 1 Soil Analytical Data Summary

List of Figures

Figure 1 Topographic Map
Figure 2 Facility Drawing

List of Appendices

Appendix A OCD Correspondence
Appendix B Laboratory Report
Appendix C Photo Documentation
Appendix D Initial and Final Form C-141

Executive Summary

This report was prepared by Larson & Associates, Inc. (LAI) and is submitted to the State of New Mexico Oil Conservation Division (OCD) on behalf of Wood Group ESP, Inc. (WGESP) to present the analytical laboratory results of soil samples from borings installed at referenced transfer line release and the findings.

Based upon the results of the investigation, which are documented herein, it is concluded that no significant release of contaminants occurred to the environmental media at the facility and no further response action is required. WGESP requests no further action from the OCD and permission to perform final closure actions which includes filling the exposed line with clean soil and concrete. Your concurrence and approval of this request is appreciated.

Wood Group's contact for environmental concerns is:

Mr. Mike Schornick – Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road
Oklahoma City, Oklahoma 73135
Office – 405.671.2145, Cell – 405.290.8523
Email – mike.schornick@woodgroup.com

Release Information

On June 11, 2009, WGESP personnel tested the transfer line using pressurized air to approximately 3 pounds per square inch (psi) above the operating pressure. The pressure test failed. On June 15, 2009, WGESP personnel exposed the line to identify a release (i.e., stained or wet soil, odor, etc.). The line was excavated up to a concrete containment for a wastewater tank where it was no longer accessible. Soil was visibly moist with some staining where the transfer line intersected the concrete containment en route to the waste water tank. A hole in the line was observed at this point suggesting that this was the failure point. The observation indicated that a release of an undetermined amount had occurred. WGESP notified OCD of the release and subsequently, OCD requested an investigation be performed. An investigation plan was submitted and approved by the OCD.

The transfer line conveys liquid, predominantly rain or storm water, from a sump in the covered drum storage area containment to an above ground non-hazardous waste water tank. The tank water is picked up by a commercial water hauler and transferred for disposal at an OCD approved Class II commercial disposal well. The transfer line was constructed of ¾-inch diameter galvanized steel and will be routed above-ground or taken entirely out of service.

Figure 1 presents the topographic map. Figure 2 presents the facility drawing figure showing the location of the drum storage area, approximate location of the transfer line, location of the line failure and boring locations.

Soil Investigation

On July 10, 2009, as per OCD's request, WGESP submitted a work plan and initial form C-141 (*Release Notification*) that proposed collecting soil samples to approximately twelve (12) feet below ground surface (bgs) or refusal due to caliche, to assess the soil for a release. The boring was proposed at a location where moist conditions and staining were observed adjacent to the concrete containment. The OCD approved the work plan on August 6, 2009. Appendix A presents the COD approval correspondence.

On August 7, 2009, LAI notified OCD representatives Messrs. Leonard Lowe and Geoffrey Leking of its intent to perform a soil boring investigation.

On August 11, 2009, LAI chemist Ms. Michelle Green and technician Don McGinnis installed the soil boring (LSB-1) using Terraprobe® direct-push sampling methods near the concrete containment. Boring LSB-1 was terminated at approximately 6.5 feet bgs due to refusal from caliche. A second boring (LSB-2) was also installed about 44 inches south of LSB-1 where WGESP personnel observed additional moist or stained soil after the initial plan was submitted and approved. Boring LSB-2 was terminated at 6.5 feet bgs due to refusal from caliche. Soil samples were collected at various depth intervals, with aliquots divided for photoionization detector (PID) headspace analysis and quantitation laboratory analyses.

The headspace portion of the samples were field analyzed with a Thermo Electron Instruments model 580B linearly calibrated at 0 parts per million (ppm) filtered air and 250 ppm with certified isobutylene span gas. Samples exhibited ionized vapor concentrations less than or equal to 1 ppm, indicating no significant hydrocarbons to likely be present in the release area.

All laboratory samples were placed in an ice chest, and delivered under chain of custody control to DHL Analytical, located in Round Rock, Texas for testing in accordance with the approved plan. Selected samples, according to the approved plan, from each boring were analyzed for New Mexico Water Quality Control Commission (WQCC) constituents (NMAC 20.6.2.3103(A)) excluding nitrate, uranium, radium 226, and radium 228 as per approved sampling plan. The remaining samples were placed on hold pending the initial analyses. However, it was determined that further sample analysis would not be needed since the sample results found no detectable or significant contaminants present. Table 1 presents a summary of the laboratory analysis of soil samples from borings LSB-1 and LSB-2. Appendix B presents the laboratory report. Appendix C presents photographs.

Referring to Table 1, tetrachloroethene, the only volatile organic compound (VOC), was detected in soil sample LSB-2 (4-5'), at 0.00123 milligrams per kilogram (mg/Kg). Acenaphthylene (0.0137 mg/Kg), benzo(b)fluoranthene (0.0416 mg/Kg), benzo(g,h,i)perylene (0.0236 mg/Kg), and fluoranthene (0.206 mg/Kg), the only semi-volatile organic compounds (SVOC), were detected in sample LSB-1 (18-24") bgs. No polychlorinated biphenyls (PCB) were detected in the samples and metals were detected in varying concentrations consistent with expected anthropogenic background values.

Most importantly, the VOC, SVOC, and metal concentrations were well below the industrial and occupational soil screening levels (SSL) established by the New Mexico Environment Department which are presented in the document titled *Technical Background Document for Development of Soil*

Screening Levels, Revision 4, June 2006". Accordingly, there was no significant release necessitating further action. Appendix D presents the initial and final C-141.

Conclusions

Based upon the results of the investigation, it was determined that no significant release of contaminants occurred, thus no further clean-up action is required. WGESP requests permission to fill the exposed ditch and patch the concrete to complete closure. The transfer line is no longer in service and if replaced, will be installed above grade. Your concurrence and approval is requested.

Table 1
 Summary of Soil Analytical Results
 Wood Group ESP - Hobbs Test Shop
 GW-164
 Hobbs, New Mexico
 Project 8-0113-04

| Volatile Organic Compounds | Reporting Units | NMED Screening Levels | LSB-1 (18-24") 8/11/09 | LSB-1 (4-5') 8/11/09 | LSB-2 (4-5') 8/11/09 |
|--|-----------------|-----------------------|------------------------|----------------------|----------------------|
| 1,1,1-Trichloroethane | mg/Kg | 563 | <0.00104 | <0.00107 | <0.00109 |
| 1,1,2,2-Tetrachloroethane | mg/Kg | 14.6 | <0.00104 | <0.00107 | <0.00109 |
| 1,1,2-Trichloroethane | mg/Kg | 30.2 | <0.00104 | <0.00107 | <0.00109 |
| 1,1-Dichloroethane | mg/Kg | 1,420 | <0.00104 | <0.00107 | <0.00109 |
| 1,1-Dichloroethene | mg/Kg | 777 | <0.00104 | <0.00107 | <0.00109 |
| 1,2-Dichloroethane | mg/Kg | 15.2 | <0.00104 | <0.00107 | <0.00109 |
| Benzene | mg/Kg | 25.8 | <0.00104 | <0.00107 | <0.00109 |
| Carbon tetrachloride | mg/Kg | 8.64 | <0.00104 | <0.00107 | <0.00109 |
| Chloroform | mg/Kg | 9.59 | <0.00104 | <0.00107 | <0.00109 |
| Ethylbenzene | mg/Kg | 128 | <0.00104 | <0.00107 | <0.00109 |
| Ethylene dibromide | mg/Kg | 1.31 | <0.00104 | <0.00107 | <0.00109 |
| Methylene chloride | mg/Kg | 490 | <0.00521 | <0.00537 | <0.00544 |
| Tetrachloroethene | mg/Kg | 31.6 | <0.00104 | <0.00107 | 0.00123 |
| Toluene | mg/Kg | 252 | <0.00104 | <0.00107 | <0.00109 |
| Total Xylenes | mg/Kg | 82 | <0.00104 | <0.00107 | <0.00109 |
| Trichloroethene | mg/Kg | 1.56 | <0.00104 | <0.00107 | <0.00109 |
| Vinyl chloride | mg/Kg | 14 | <0.00104 | <0.00107 | <0.00109 |
| Semi-volatile Organic Compounds | | | | | |
| 1-Methylnaphthalene | mg/Kg | -- | <0.011 | <0.0106 | <0.0103 |
| 2-Methylnaphthalene | mg/Kg | -- | <0.0219 | <0.0213 | <0.0206 |
| Acenaphthene | mg/Kg | 33,500 | <0.0219 | <0.0213 | <0.0206 |
| Acenaphthylene | mg/Kg | -- | 0.0137 | <0.0106 | <0.0103 |
| Anthracene | mg/Kg | 10,000 | <0.011 | <0.0106 | <0.0103 |
| Benzo[a]anthracene | mg/Kg | 23.4 | <0.0219 | <0.0213 | <0.0206 |
| Benzo[a]pyrene | mg/Kg | 2.34 | <0.0329 | <0.0319 | <0.0309 |
| Benzo[b]fluoranthene | mg/Kg | 23.4 | 0.0416 | <0.0213 | <0.0206 |
| Benzo[g,h,i]perylene | mg/Kg | -- | 0.0236 | <0.0213 | <0.0206 |
| Benzo[k]fluoranthene | mg/Kg | 234 | <0.0329 | <0.0319 | <0.0309 |
| Chrysene | mg/Kg | 2,310 | <0.0219 | <0.0213 | <0.0206 |
| Dibenz[a,h]anthracene | mg/Kg | 2.34 | <0.0219 | <0.0213 | <0.0206 |
| Fluoranthene | mg/Kg | 24,400 | 0.0206 | <0.0106 | <0.0103 |
| Fluorene | mg/Kg | 26,500 | <0.011 | <0.0106 | <0.0103 |
| Indeno[1,2,3-cd]pyrene | mg/Kg | 23.4 | <0.011 | <0.0106 | <0.0103 |
| Naphthalene | mg/Kg | 300 | <0.011 | <0.0106 | <0.0103 |
| Phenanthrene | mg/Kg | 20,500 | <0.011 | <0.0106 | <0.0103 |
| Pyrene | mg/Kg | 30,900 | <0.0219 | <0.0213 | <0.0206 |
| Polychlorinated Biphenyls | | | | | |
| Aroclor 1016 | mg/Kg | 41.3 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1221 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1232 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1242 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1248 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1254 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |
| Aroclor 1260 | mg/Kg | 8.26 | <0.0566 | <0.055 | <0.0543 |

Table 1
Summary of Soil Analytical Results
Wood Group ESP - Hobbs Test Shop
GW-164
Hobbs, New Mexico
Project 8-0113-04

| Trace Metals | Reporting Units | NMED Screening Levels | LSB-1 (18-24") 8/11/09 | LSB-1 (4-5') 8/11/09 | LSB-2 (4-5') 8/11/09 |
|----------------------------|------------------------|------------------------------|-------------------------------|-----------------------------|-----------------------------|
| Arsenic | mg/Kg | 17.7 | 5.43 | 3.52 | 4.59 |
| Barium | mg/Kg | 100,000 | 130 | 97.7 | 74.0 |
| Cadmium | mg/Kg | 564 | 1.20 | 0.179 | 0.249 |
| Chromium | mg/Kg | 100,000 | 24.8 | 9.27 | 11.3 |
| Lead | mg/Kg | 800 | 51.9 | 5.93 | 14.0 |
| Selenium | mg/Kg | 5680 | 0.838 | 1.01 | 1.40 |
| Silver | mg/Kg | 5680 | 0.126 | <0.105 | <0.102 |
| Mercury | mg/Kg | 100,000 | 0.0820 | <0.0152 | 0.0207 |
| Inorganic Compounds | | | | | |
| Fluoride | mg/Kg | 41,000 | 3.71 | 7.86 | 3.47 |
| Cyanide, Total | mg/Kg | 13,700 | <0.225 | <0.218 | <0.218 |

Notes

Analyses performed by DHL Analytical, Inc., Round Rock, Texas
All values reported in Milligrams per kilogram (mg/Kg, parts per million).

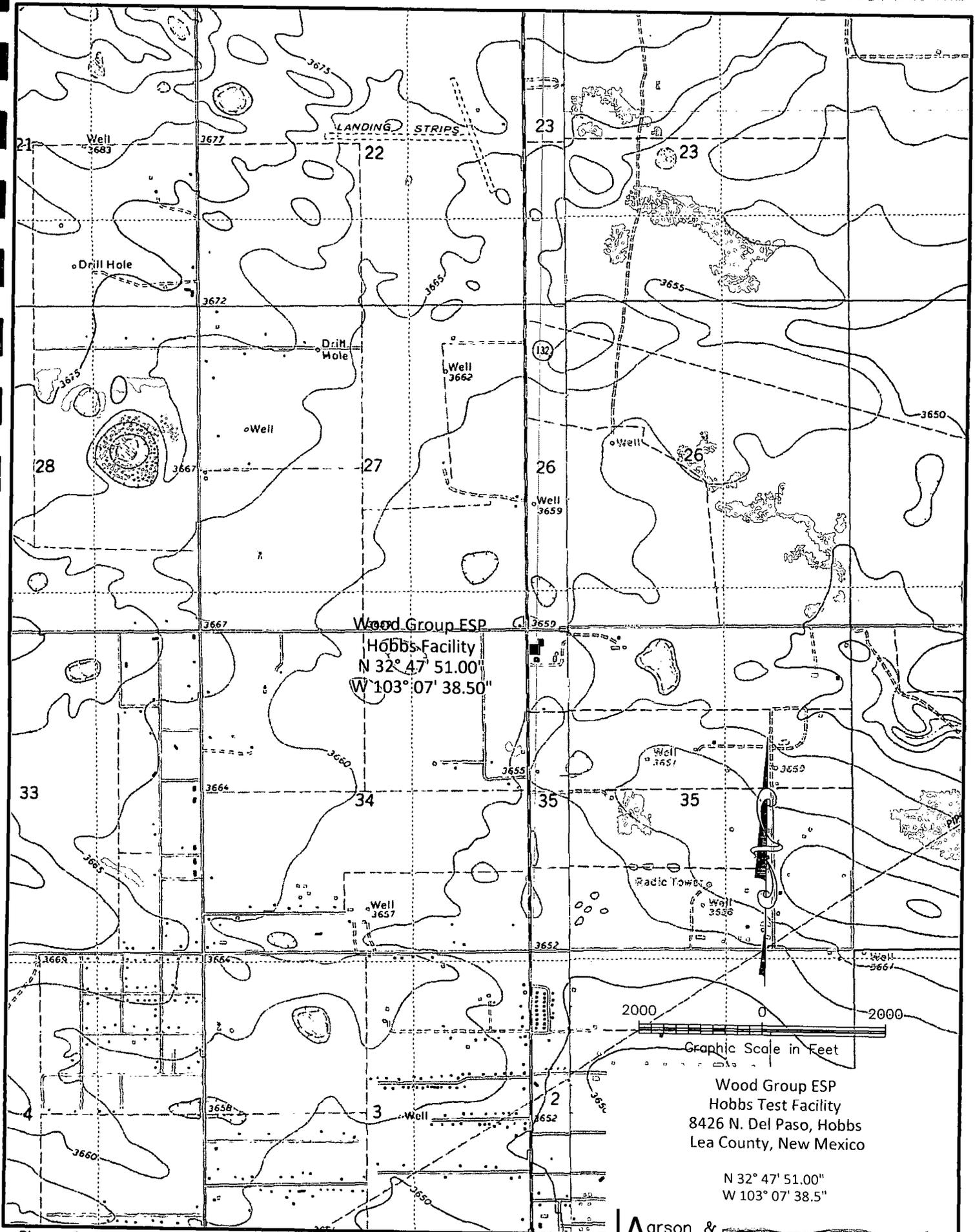
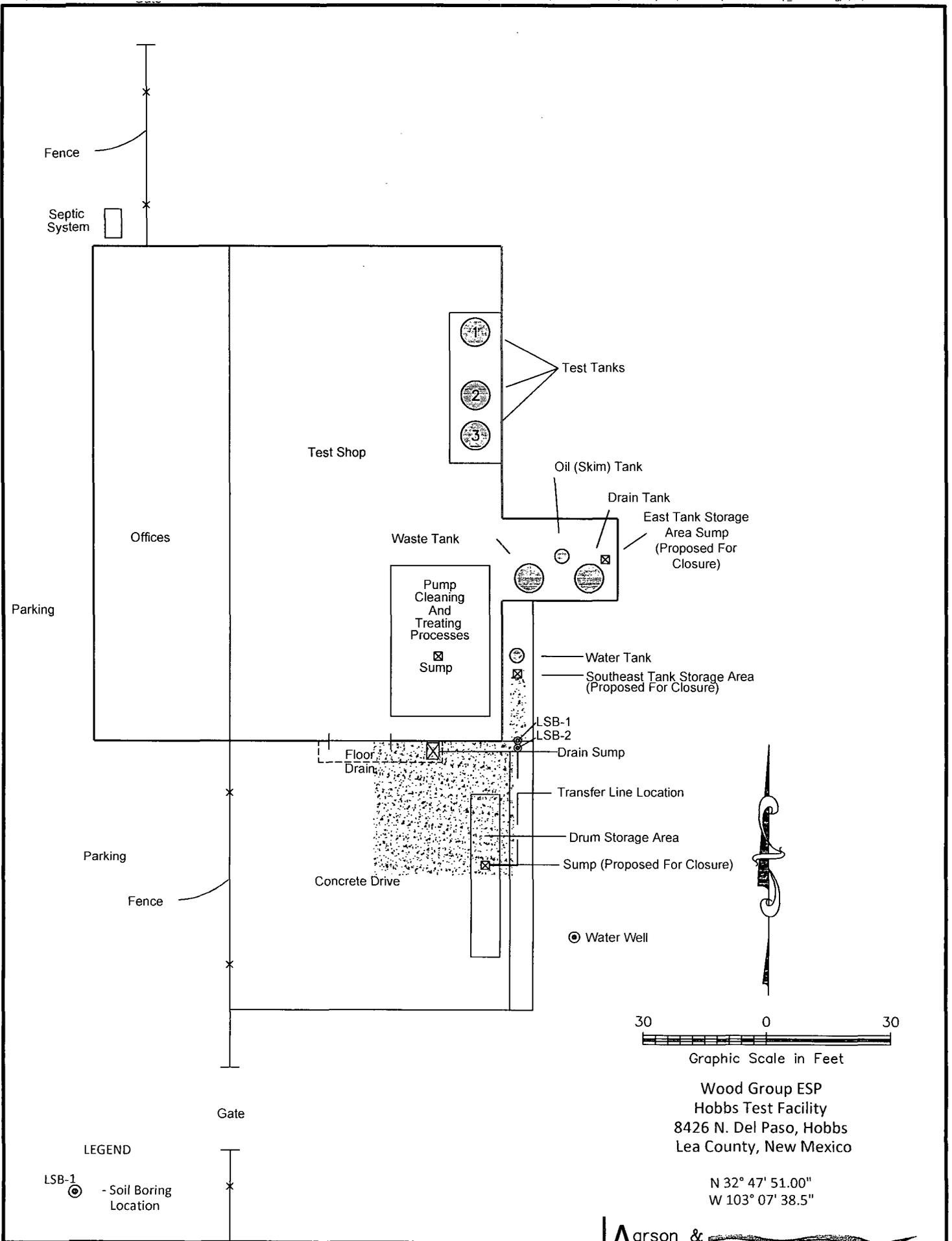


Figure 1 - Topographic Map



LEGEND
 LSB-1 - Soil Boring Location

Wood Group ESP
 Hobbs Test Facility
 8426 N. Del Paso, Hobbs
 Lea County, New Mexico

N 32° 47' 51.00"
 W 103° 07' 38.5"

Larson & Associates, Inc.
 Environmental Consultants

Figure 2 - Soil Boring Locations

Mark Larson

From: Schornick, Mike [Mike.Schornick@woodgroup.com]
Sent: Thursday, August 06, 2009 3:01 PM
To: Mark Larson; Baron, Sam; Michelle Green
Subject: Fw: Wood Group ESP, Inc. Hobbs Test Facility (GW-164) Cover Letter, Release Notification (C-141) and Sampling Plan

From: Lowe, Leonard, EMNRD
To: Schornick, Mike
Sent: Thu Aug 06 14:56:09 2009
Subject: RE: Wood Group ESP, Inc. Hobbs Test Facility (GW-164) Cover Letter, Release Notification (C-141) and Sampling Plan
Mr. Schornick,

The OCD approves your submitted work plan.

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Schornick, Mike [mailto:Mike.Schornick@woodgroup.com]
Sent: Thursday, July 16, 2009 1:41 PM
To: Lowe, Leonard, EMNRD
Cc: VonGonten, Glenn, EMNRD; Baron, Sam; Mark Larson
Subject: Wood Group ESP, Inc. Hobbs Test Facility (GW-164) Cover Letter, Release Notification (C-141) and Sampling Plan
Importance: High

Mr. Lowe:

Pursuant to your request, attached please find my cover letter, Form C-141, and Sampling Plan in regards to the WGESP Hobbs Test Facility.

Please note in Item 3 of the Sampling and Analysis Plan that our consultant has recommended an extensive list of constituents be evaluated based on review of the materials which could have been historically present in the area of concern. We feel this is a conservative list and will more than include all possible or potential constituents of concern.

With your concurrence, we are prepared to initiate the investigation next week. I plan to send the original version of the attachments to you and the district office via overnight mail today.

Please let me know if you have questions or require modifications.

Sincerely,

Mike Schornick, P.E.
Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road

Oklahoma City, Oklahoma 73135
(405) 671-2145 (office)
(405) 290-8523 (cell)

This email and any files attached to it contain confidential information. Please notify the sender if you have received this email in error. If you are not the intended recipient, any use or disclosure of this email or any attached files is prohibited.

This inbound email has been scanned by the MessageLabs Email Security System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the MessageLabs Email Security System.



August 21, 2009

Michelle Green
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701

Order No: 0908100

TEL: (432) 687-0901
FAX: (432) 687-0456

RE: Hobbs Test Shop

Dear Michelle Green:

DHL Analytical received 14 sample(s) on 8/12/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-09-TX



Table of Contents

| | |
|-----------------------------------|----|
| Miscellaneous Documents..... | 3 |
| Case Narrative | 6 |
| Sample Summary..... | 8 |
| Prep Dates Report..... | 9 |
| Analytical Dates Report..... | 10 |
| Sample Results | 11 |
| Analytical QC Summary Report..... | 17 |



WWW.LSO.COM
Questions? Call 800-800-8984

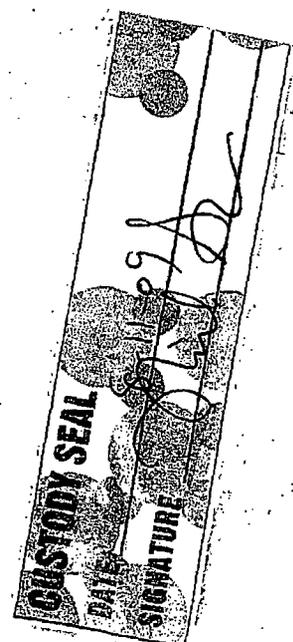
Airbill No. 43387778



43387778

| | | | |
|---|--|--|--|
| 1. To: Print Name (Person) _____ Phone (Important) _____ Company Name _____ Street Address _____ Suite / Floor _____ City _____ State _____ Zip _____ | | 2. From: Print Name (Person) _____ Phone (Important) _____ Company Name _____ Street Address _____ Suite / Floor _____ City _____ State _____ Zip _____ | |
| 3. Services: <input checked="" type="checkbox"/> By 10:30am Delivery (Aloch to select zip codes.) <input type="checkbox"/> By 8:30am Delivery (Aloch Cities) (Extra Charge, No Signature Obtained) <input type="checkbox"/> Saturday Delivery - By 12 Noon (Extra Charge) <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Deliver Without Delivery Signature (See Limits of Liability below) | | FOR COURIER USE ONLY Courier Number: 3333 Pick-up Location: 5111 Date: 8-11-09 Time: 1830 City Code: | |
| 4. Package: Weight: 30 Your Company's Billing Reference Information: 8-0113-04 Ship Date: (mm/dd/yy) 8-11-09 | | 5. Payment: | |

LIMIT OF LIABILITY: We are not responsible for claims in excess of \$100 for any reason unless you: 1) declare a greater value (not to exceed \$25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a delivery commitment, we will assume the liability for claims resulting from such service. **NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 8:30 AM DELIVERIES AND RESIDENTIAL DELIVERIES. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.**



Sample Receipt Checklist

Client Name Larson & Associates

Date Received: 8/12/2009

Work Order Number 0908100

Received by SCS

Checklist completed by: [Signature] 8/12/09
Signature Date

Reviewed by SS 8/12/09
Initials Date

Carrier name: LoneStar

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No 3.8 °C
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted Larson Date contacted: 8-12-09 Person contacted Michelle

Contacted by: [Signature] Regarding: LSB-1 (14-18") + LSB-1 (18-24")

Comments: Per Michelle hold sample LSB-1 (14-18")
and analyze LSB-1 (18-24") for requested analysis.

Corrective Action logged in for requested analysis.

CLIENT: Larson & Associates
Project: Hobbs Test Shop
Lab Order: 0908100

CASE NARRATIVE

Sample was analyzed using the methods outlined in the following references:

Method SW8260B - Volatile Organics
Method SW8270C - PAH Analysis
Method SW6020 - Metals Analysis
Method SW7471A - Mercury Analysis
Method SW8082 - PCB Analysis
Method M4500-CN E (18th Edition) - Cyanide Analysis
Method E300 - Anions Analysis
Method D2216 - Percent Moisture

LOG IN

Samples were received and log-in performed on 8/12/09. A total of 14 samples were received. The time of collection was Mountain Standard Time. Sample LSB-1 (14-18") was put on Hold and sample LSB-1 (18-24") was analyzed for the requested test parameter as per the client. The samples arrived in good condition and were properly packaged.

METALS ANALYSIS

For Metals analysis performed on 8/17/09 the matrix spike and matrix spike duplicate recoveries were out of control limits for a few analytes. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Metals analysis performed on 8/18/09 the RPD for the serial dilution was slightly above control limits for Chromium and Selenium. These are flagged accordingly in the QC summary report. The PDS was within control limits for these analytes. No further corrective actions were taken.

SEMIVOLATILES ANALYSIS

For Semivolatiles analysis performed on 8/13/09 the matrix spike recovery was slightly below control limits for Fluorene. In addition, the matrix spike and matrix spike duplicate had the RPD slightly above control limits for Fluorene. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these compounds. No further corrective actions were taken.

CYANIDE ANALYSIS

For Cyanide analysis performed on 8/14/09 the matrix spike and matrix spike duplicate recoveries were slightly above control limits. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits. No further corrective actions were taken.

VOLATILE ORGANICS

For Volatiles analysis performed on 8/13/09 the surrogate recoveries for sample LSB-1 (4-5'), the matrix

CLIENT: Larson & Associates
Project: Hobbs Test Shop
Lab Order: 0908100

CASE NARRATIVE

spike and matrix spike duplicate were slightly above control limits for 1,2-Dichloroethane. These are flagged accordingly. No further corrective actions were taken.

PCB ANALYSIS

For PCB analysis performed on 8/18/09 and 8/19/09 the surrogate recoveries for sample LSB-2 (1.5-2.5'), the LCS and matrix spike duplicate were slightly above control limits for Decachlorobiphenyl. These are flagged accordingly. No further corrective actions were taken.

For PCB analysis performed on 8/18/09 CCV2 was slightly above control limits for Aroclor 1260. This is flagged accordingly in the QC summary report. No further corrective actions were taken.

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Lab Order: 0908100

Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recv'd |
|------------|------------------|------------|-------------------|-------------|
| 0908100-01 | LSB-1 (14-18") | | 08/11/09 10:24 AM | 08/12/09 |
| 0908100-02 | LSB-1 (18-24") | | 08/11/09 10:28 AM | 08/12/09 |
| 0908100-03 | LSB-1 (24-32") | | 08/11/09 10:26 AM | 08/12/09 |
| 0908100-04 | LSB-1 (32-42") | | 08/11/09 10:30 AM | 08/12/09 |
| 0908100-05 | LSB-1 (4-5') | | 08/11/09 11:18 AM | 08/12/09 |
| 0908100-06 | LSB-1 (5-6') | | 08/11/09 11:20 AM | 08/12/09 |
| 0908100-07 | LSB-1 (6-6.5') | | 08/11/09 11:18 AM | 08/12/09 |
| 0908100-08 | LSB-2 (7"-1.5') | | 08/11/09 12:59 PM | 08/12/09 |
| 0908100-09 | LSB-2 (1.5-2.5') | | 08/11/09 01:06 PM | 08/12/09 |
| 0908100-10 | LSB-2 (2.5-4') | | 08/11/09 01:08 PM | 08/12/09 |
| 0908100-11 | LSB-2 (4-5') | | 08/11/09 01:19 PM | 08/12/09 |
| 0908100-12 | LSB-2 (5-6') | | 08/11/09 01:22 PM | 08/12/09 |
| 0908100-13 | LSB-2 (6-7') | | 08/11/09 01:23 PM | 08/12/09 |
| 0908100-14 | LSB-2 (7-8') | | 08/11/09 01:27 PM | 08/12/09 |

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Lab Order: 0908100

PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|-------------|------------------|-------------------|--------|-------------|--------------------------------|-------------------|----------|
| 0908100-02A | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW5030B | Purge and Trap Soils GC/MS | 08/13/09 09:29 AM | 36525 |
| 0908100-02B | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW3550B | Soil Prep Sonication: PCB | 08/18/09 02:01 PM | 36630 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW9010 | Cyanide Soil Prep | 08/14/09 11:54 AM | 36551 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | E300 | Anion Prep | 08/12/09 09:13 AM | 36486 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW7471A | Mercury Soil Prep. Total | 08/13/09 12:00 PM | 36503 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW3050B | Soil Prep Total Metals: ICP-MS | 08/13/09 09:00 AM | 36495 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | SW3550B | Soil Prep Sonication: PAH | 08/12/09 02:47 PM | 36499 |
| | LSB-1 (18-24") | 08/11/09 10:28 AM | Soil | D2216 | Moisture Preparation | 08/17/09 11:20 AM | 36580 |
| 0908100-05A | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW5030B | Purge and Trap Soils GC/MS | 08/13/09 09:29 AM | 36525 |
| 0908100-05B | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW3550B | Soil Prep Sonication: PCB | 08/18/09 02:01 PM | 36630 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW9010 | Cyanide Soil Prep | 08/14/09 11:54 AM | 36551 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | E300 | Anion Prep | 08/12/09 09:13 AM | 36486 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW7471A | Mercury Soil Prep. Total | 08/13/09 12:00 PM | 36503 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW3050B | Soil Prep Total Metals: ICP-MS | 08/13/09 09:00 AM | 36495 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | SW3550B | Soil Prep Sonication: PAH | 08/12/09 02:47 PM | 36499 |
| | LSB-1 (4-5') | 08/11/09 11:18 AM | Soil | D2216 | Moisture Preparation | 08/17/09 11:20 AM | 36580 |
| 0908100-09A | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW5030B | Purge and Trap Soils GC/MS | 08/17/09 11:54 AM | 36587 |
| 0908100-09B | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW3550B | Soil Prep Sonication: PCB | 08/18/09 02:01 PM | 36630 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW9010 | Cyanide Soil Prep | 08/14/09 11:54 AM | 36551 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | E300 | Anion Prep | 08/12/09 09:13 AM | 36486 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW7471A | Mercury Soil Prep. Total | 08/17/09 09:55 AM | 36579 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW3050B | Soil Prep Total Metals: ICP-MS | 08/17/09 09:00 AM | 36555 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | SW3550B | Soil Prep Sonication: PAH | 08/17/09 11:01 AM | 36581 |
| | LSB-2 (1.5-2.5') | 08/11/09 01:06 PM | Soil | D2216 | Moisture Preparation | 08/19/09 05:00 PM | 36671 |

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Lab Order: 0908100

ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|-------------|------------------|--------|-------------|------------------------------|----------|----------|-------------------|------------------|
| 0908100-02A | LSB-1 (18-24") | Soil | SW8260B | Volatiles by GC/MS | 36525 | 1 | 08/13/09 02:10 PM | GCMS2_090813A |
| 0908100-02B | LSB-1 (18-24") | Soil | E300 | Anions by IC method - Soil | 36486 | 1 | 08/14/09 11:57 AM | IC_090814A |
| | LSB-1 (18-24") | Soil | SW9014 | Cyanide - Solid Sample | 36551 | 1 | 08/15/09 03:46 PM | UV/VIS_2_090814A |
| | LSB-1 (18-24") | Soil | SW8270C | PAHs: GC/MS | 36499 | 1 | 08/13/09 03:15 PM | GCMS8_090813A |
| | LSB-1 (18-24") | Soil | SW8082 | PCB by GC - Soil/Solid | 36630 | 1 | 08/19/09 02:37 AM | GC16_090818B |
| | LSB-1 (18-24") | Soil | D2216 | Percent Moisture | 36580 | 1 | 08/18/09 11:05 AM | PMOIST_090817A |
| | LSB-1 (18-24") | Soil | SW7471A | Total Mercury: Soil/Solid | 36503 | 1 | 08/17/09 02:08 PM | CETAC_HG_090817D |
| 0908100-05A | LSB-1 (18-24") | Soil | SW6020 | Trace Metals: ICP-MS - Solid | 36495 | 5 | 08/17/09 02:23 PM | ICP-MS2_090817B |
| 0908100-05B | LSB-1 (4-5') | Soil | SW8260B | Volatiles by GC/MS | 36525 | 1 | 08/13/09 01:38 PM | GCMS2_090813A |
| | LSB-1 (4-5') | Soil | E300 | Anions by IC method - Soil | 36486 | 1 | 08/14/09 12:30 PM | IC_090814A |
| | LSB-1 (4-5') | Soil | SW9014 | Cyanide - Solid Sample | 36551 | 1 | 08/15/09 03:46 PM | UV/VIS_2_090814A |
| | LSB-1 (4-5') | Soil | SW8270C | PAHs: GC/MS | 36499 | 1 | 08/13/09 02:41 PM | GCMS8_090813A |
| | LSB-1 (4-5') | Soil | SW8082 | PCB by GC - Soil/Solid | 36630 | 1 | 08/19/09 03:05 AM | GC16_090818B |
| | LSB-1 (4-5') | Soil | D2216 | Percent Moisture | 36580 | 1 | 08/18/09 11:05 AM | PMOIST_090817A |
| | LSB-1 (4-5') | Soil | SW7471A | Total Mercury: Soil/Solid | 36503 | 1 | 08/17/09 02:10 PM | CETAC_HG_090817D |
| 0908100-09A | LSB-1 (4-5') | Soil | SW6020 | Trace Metals: ICP-MS - Solid | 36495 | 5 | 08/17/09 02:28 PM | ICP-MS2_090817B |
| 0908100-09B | LSB-2 (1.5-2.5') | Soil | SW8260B | Volatiles by GC/MS | 36587 | 1 | 08/17/09 01:48 PM | GCMS1_090817A |
| | LSB-2 (1.5-2.5') | Soil | E300 | Anions by IC method - Soil | 36486 | 1 | 08/14/09 01:20 PM | IC_090814A |
| | LSB-2 (1.5-2.5') | Soil | SW9014 | Cyanide - Solid Sample | 36551 | 1 | 08/15/09 04:04 PM | UV/VIS_2_090814A |
| | LSB-2 (1.5-2.5') | Soil | SW8270C | PAHs: GC/MS | 36581 | 1 | 08/18/09 07:11 PM | GCMS6_090818A |
| | LSB-2 (1.5-2.5') | Soil | SW8082 | PCB by GC - Soil/Solid | 36630 | 1 | 08/19/09 03:33 AM | GC16_090818B |
| | LSB-2 (1.5-2.5') | Soil | D2216 | Percent Moisture | 36671 | 1 | 08/20/09 09:30 AM | PMOIST_090819A |
| | LSB-2 (1.5-2.5') | Soil | SW7471A | Total Mercury: Soil/Solid | 36579 | 1 | 08/19/09 12:27 PM | CETAC_HG_090819A |
| | LSB-2 (1.5-2.5') | Soil | SW6020 | Trace Metals: ICP-MS - Solid | 36555 | 5 | 08/18/09 12:24 PM | ICP-MS2_090818A |

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-1 (18-24")
 Lab ID: 0908100-02
 Collection Date: 08/11/09 10:28 AM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|----------|---------------------|-----------|----|-------------------|
| PCB by GC - Soil/Solid | | SW8082 | | Analyst: DO | | | |
| Aroclor 1016 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1221 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1232 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1242 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1248 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1254 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Aroclor 1260 | ND | 0.0566 | 0.113 | | mg/Kg-dry | 1 | 08/19/09 02:37 AM |
| Surr: Decachlorobiphenyl | 130 | 0 | 40 - 130 | | %REC | 1 | 08/19/09 02:37 AM |
| Surr: Tetrachloro-m-xylene | 73.5 | 0 | 40 - 130 | | %REC | 1 | 08/19/09 02:37 AM |
| Total Mercury: Soil/Solid | | SW7471A | | Analyst: LM | | | |
| Mercury | 0.0820 | 0.0168 | 0.0419 | | mg/Kg-dry | 1 | 08/17/09 02:08 PM |
| Trace Metals: ICP-MS - Solid | | SW6020 | | Analyst: KW | | | |
| Arsenic | 5.43 | 0.498 | 0.996 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Barium | 130 | 0.498 | 1.99 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Cadmium | 1.20 | 0.0996 | 0.299 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Chromium | 24.8 | 0.498 | 1.99 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Lead | 51.9 | 0.0996 | 0.299 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Selenium | 0.838 | 0.149 | 0.498 | | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| Silver | 0.126 | 0.0996 | 0.199 | J | mg/Kg-dry | 5 | 08/17/09 02:23 PM |
| PAHs: GC/MS | | SW8270C | | Analyst: DO | | | |
| 1-Methylnaphthalene | ND | 0.0110 | 0.0548 | N | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| 2-Methylnaphthalene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Acenaphthene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Acenaphthylene | 0.0137 | 0.0110 | 0.0548 | J | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Anthracene | ND | 0.0110 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Benzo[a]anthracene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Benzo[a]pyrene | ND | 0.0329 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Benzo[b]fluoranthene | 0.0416 | 0.0219 | 0.0548 | J | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Benzo[g,h,i]perylene | 0.0236 | 0.0219 | 0.0548 | J | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Benzo[k]fluoranthene | ND | 0.0329 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Chrysene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Dibenz[a,h]anthracene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Fluoranthene | 0.0206 | 0.0110 | 0.0548 | J | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Fluorene | ND | 0.0110 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Indeno[1,2,3-cd]pyrene | ND | 0.0110 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Naphthalene | ND | 0.0110 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Phenanthrene | ND | 0.0110 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Pyrene | ND | 0.0219 | 0.0548 | | mg/Kg-dry | 1 | 08/13/09 03:15 PM |
| Surr: 2-Fluorobiphenyl | 95.9 | 0 | 40 - 140 | | %REC | 1 | 08/13/09 03:15 PM |
| Surr: 4-Terphenyl-d14 | 79.9 | 0 | 40 - 140 | | %REC | 1 | 08/13/09 03:15 PM |
| Volatiles by GC/MS | | SW8260B | | Analyst: AJR | | | |
| 1,1,1-Trichloroethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| 1,1,2,2-Tetrachloroethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |

| | | | | |
|-------------|----|---|-----|--|
| Qualifiers: | * | Value exceeds TCLP Maximum Concentration Level | J | Analyte detected between MDL and RL |
| | B | Analyte detected in the associated Method Blank | MDL | Method Detection Limit |
| | C | Sample Result or QC discussed in the Case Narrative | N | Parameter not NELAC certified |
| | DF | Dilution Factor | ND | Not Detected at the Method Detection Limit |
| | E | TPH pattern not Gas or Diesel Range Pattern | RL | Reporting Limit |
| | | | S | Spike Recovery outside control limits |

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-1 (18-24")
 Lab ID: 0908100-02
 Collection Date: 08/11/09 10:28 AM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-----------------------------------|--------|---------------|----------|------|-----------|----|---------------------|
| 1,1,2-Trichloroethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| 1,1-Dichloroethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| 1,1-Dichloroethene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| 1,2-Dibromoethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| 1,2-Dichloroethane | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Benzene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Carbon tetrachloride | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Chloroform | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Ethylbenzene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Methylene chloride | ND | 0.00521 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Tetrachloroethene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Toluene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Trichloroethene | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Vinyl chloride | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Total Xylenes | ND | 0.00104 | 0.00521 | | mg/Kg-dry | 1 | 08/13/09 02:10 PM |
| Surr: 1,2-Dichloroethane-d4 | 122 | 0 | 78 - 125 | | %REC | 1 | 08/13/09 02:10 PM |
| Surr: 4-Bromofluorobenzene | 122 | 0 | 82 - 125 | | %REC | 1 | 08/13/09 02:10 PM |
| Surr: Dibromofluoromethane | 102 | 0 | 84 - 116 | | %REC | 1 | 08/13/09 02:10 PM |
| Surr: Toluene-d8 | 102 | 0 | 84 - 118 | | %REC | 1 | 08/13/09 02:10 PM |
| Cyanide - Solid Sample | | SW9014 | | | | | Analyst: AAD |
| Cyanide, Total | ND | 0.225 | 0.564 | | mg/Kg-dry | 1 | 08/15/09 03:46 PM |
| Anions by IC method - Soil | | E300 | | | | | Analyst: JBC |
| Fluoride | 3.71 | 1.15 | 1.15 | | mg/Kg-dry | 1 | 08/14/09 11:57 AM |
| Percent Moisture | | D2216 | | | | | Analyst: RP |
| Percent Moisture | 13.5 | 0 | 0 | | WT% | 1 | 08/18/09 11:05 AM |

| | | | | |
|-------------|----|---|-----|--|
| Qualifiers: | * | Value exceeds TCLP Maximum Concentration Level | J | Analyte detected between MDL and RL |
| | B | Analyte detected in the associated Method Blank | MDL | Method Detection Limit |
| | C | Sample Result or QC discussed in the Case Narrative | N | Parameter not NELAC certified |
| | DF | Dilution Factor | ND | Not Detected at the Method Detection Limit |
| | E | TPH pattern not Gas or Diesel Range Pattern | RL | Reporting Limit |
| | | | S | Spike Recovery outside control limits |

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-1 (4-5')
 Lab ID: 0908100-05
 Collection Date: 08/11/09 11:18 AM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|----------|---------------------|-----------|----|-------------------|
| PCB by GC - Soil/Solid | | SW8082 | | Analyst: DO | | | |
| Aroclor 1016 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1221 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1232 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1242 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1248 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1254 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Aroclor 1260 | ND | 0.0550 | 0.110 | | mg/Kg-dry | 1 | 08/19/09 03:05 AM |
| Surr: Decachlorobiphenyl | 127 | 0 | 40 - 130 | | %REC | 1 | 08/19/09 03:05 AM |
| Surr: Tetrachloro-m-xylene | 86.0 | 0 | 40 - 130 | | %REC | 1 | 08/19/09 03:05 AM |
| Total Mercury: Soil/Solid | | SW7471A | | Analyst: LM | | | |
| Mercury | ND | 0.0152 | 0.0381 | | mg/Kg-dry | 1 | 08/17/09 02:10 PM |
| Trace Metals: ICP-MS - Solid | | SW6020 | | Analyst: KW | | | |
| Arsenic | 3.52 | 0.524 | 1.05 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Barium | 97.7 | 0.524 | 2.09 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Cadmium | 0.179 | 0.105 | 0.314 | J | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Chromium | 9.27 | 0.524 | 2.09 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Lead | 5.93 | 0.105 | 0.314 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Selenium | 1.01 | 0.157 | 0.524 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| Silver | ND | 0.105 | 0.209 | | mg/Kg-dry | 5 | 08/17/09 02:28 PM |
| PAHs: GC/MS | | SW8270C | | Analyst: DO | | | |
| 1-Methylnaphthalene | ND | 0.0106 | 0.0532 | N | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| 2-Methylnaphthalene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Acenaphthene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Acenaphthylene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Anthracene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Benzo[a]anthracene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Benzo[a]pyrene | ND | 0.0319 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Benzo[b]fluoranthene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Benzo[g,h,i]perylene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Benzo[k]fluoranthene | ND | 0.0319 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Chrysene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Dibenz[a,h]anthracene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Fluoranthene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Fluorene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Indeno[1,2,3-cd]pyrene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Naphthalene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Phenanthrene | ND | 0.0106 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Pyrene | ND | 0.0213 | 0.0532 | | mg/Kg-dry | 1 | 08/13/09 02:41 PM |
| Surr: 2-Fluorobiphenyl | 105 | 0 | 40 - 140 | | %REC | 1 | 08/13/09 02:41 PM |
| Surr: 4-Terphenyl-d14 | 99.7 | 0 | 40 - 140 | | %REC | 1 | 08/13/09 02:41 PM |
| Volatiles by GC/MS | | SW8260B | | Analyst: AJR | | | |
| 1,1,1-Trichloroethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| 1,1,2,2-Tetrachloroethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 B Analyte detected in the associated Method Blank
 C Sample Result or QC discussed in the Case Narrative
 DF Dilution Factor
 E TPH pattern not Gas or Diesel Range Pattern

J Analyte detected between MDL and RL
 MDL Method Detection Limit
 N Parameter not NELAC certified
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 S Spike Recovery outside control limits

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-1 (4-5')
 Lab ID: 0908100-05
 Collection Date: 08/11/09 11:18 AM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-----------------------------------|--------|---------------|----------|------|-----------|----|---------------------|
| 1,1,2-Trichloroethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| 1,1-Dichloroethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| 1,1-Dichloroethene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| 1,2-Dibromoethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| 1,2-Dichloroethane | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Benzene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Carbon tetrachloride | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Chloroform | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Ethylbenzene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Methylene chloride | ND | 0.00537 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Tetrachloroethene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Toluene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Trichloroethene | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Vinyl chloride | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Total Xylenes | ND | 0.00107 | 0.00537 | | mg/Kg-dry | 1 | 08/13/09 01:38 PM |
| Surr: 1,2-Dichloroethane-d4 | 131 | 0 | 78 - 125 | S | %REC | 1 | 08/13/09 01:38 PM |
| Surr: 4-Bromofluorobenzene | 104 | 0 | 82 - 125 | | %REC | 1 | 08/13/09 01:38 PM |
| Surr: Dibromofluoromethane | 104 | 0 | 84 - 116 | | %REC | 1 | 08/13/09 01:38 PM |
| Surr: Toluene-d8 | 98.0 | 0 | 84 - 118 | | %REC | 1 | 08/13/09 01:38 PM |
| Cyanide - Solid Sample | | SW9014 | | | | | Analyst: AAD |
| Cyanide, Total | ND | 0.218 | 0.544 | | mg/Kg-dry | 1 | 08/15/09 03:46 PM |
| Anions by IC method - Soil | | E300 | | | | | Analyst: JBC |
| Fluoride | 7.86 | 1.11 | 1.11 | | mg/Kg-dry | 1 | 08/14/09 12:30 PM |
| Percent Moisture | | D2216 | | | | | Analyst: RP |
| Percent Moisture | 10.7 | 0 | 0 | | WT% | 1 | 08/18/09 11:05 AM |

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 B Analyte detected in the associated Method Blank
 C Sample Result or QC discussed in the Case Narrative
 DF Dilution Factor
 E TPH pattern not Gas or Diesel Range Pattern

J Analyte detected between MDL and RL
 MDL Method Detection Limit
 N Parameter not NELAC certified
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 S Spike Recovery outside control limits

DHL Analytical

Date: 08/21/09

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-2 (1.5-2.5')
 Lab ID: 0908100-09
 Collection Date: 08/11/09 01:06 PM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|----------|---------------------|-----------|----|-------------------|
| PCB by GC - Soil/Solid | | SW8082 | | Analyst: DO | | | |
| Aroclor 1016 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1221 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1232 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1242 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1248 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1254 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Aroclor 1260 | ND | 0.0543 | 0.109 | | mg/Kg-dry | 1 | 08/19/09 03:33 AM |
| Surr: Decachlorobiphenyl | 135 | 0 | 40 - 130 | S | %REC | 1 | 08/19/09 03:33 AM |
| Surr: Tetrachloro-m-xylene | 84.3 | 0 | 40 - 130 | | %REC | 1 | 08/19/09 03:33 AM |
| Total Mercury: Soil/Solid | | SW7471A | | Analyst: LM | | | |
| Mercury | 0.0207 | 0.0156 | 0.0391 | J | mg/Kg-dry | 1 | 08/19/09 12:27 PM |
| Trace Metals: ICP-MS - Solid | | SW6020 | | Analyst: KW | | | |
| Arsenic | 4.59 | 0.511 | 1.02 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Barium | 74.0 | 0.511 | 2.05 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Cadmium | 0.249 | 0.102 | 0.307 | J | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Chromium | 11.3 | 0.511 | 2.05 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Lead | 14.0 | 0.102 | 0.307 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Selenium | 1.40 | 0.153 | 0.511 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| Silver | ND | 0.102 | 0.205 | | mg/Kg-dry | 5 | 08/18/09 12:24 PM |
| PAHs: GC/MS | | SW8270C | | Analyst: DO | | | |
| 1-Methylnaphthalene | ND | 0.0103 | 0.0516 | N | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| 2-Methylnaphthalene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Acenaphthene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Acenaphthylene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Anthracene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Benzo[a]anthracene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Benzo[a]pyrene | ND | 0.0309 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Benzo[b]fluoranthene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Benzo[g,h,i]perylene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Benzo[k]fluoranthene | ND | 0.0309 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Chrysene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Dibenz[a,h]anthracene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Fluoranthene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Fluorene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Indeno[1,2,3-cd]pyrene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Naphthalene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Phenanthrene | ND | 0.0103 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Pyrene | ND | 0.0206 | 0.0516 | | mg/Kg-dry | 1 | 08/18/09 07:11 PM |
| Surr: 2-Fluorobiphenyl | 95.2 | 0 | 40 - 140 | | %REC | 1 | 08/18/09 07:11 PM |
| Surr: 4-Terphenyl-d14 | 96.3 | 0 | 40 - 140 | | %REC | 1 | 08/18/09 07:11 PM |
| Volatiles by GC/MS | | SW8260B | | Analyst: AJR | | | |
| 1,1,1-Trichloroethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| 1,1,2,2-Tetrachloroethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 B Analyte detected in the associated Method Blank
 C Sample Result or QC discussed in the Case Narrative
 DF Dilution Factor
 E TPH pattern not Gas or Diesel Range Pattern

J Analyte detected between MDL and RL
 MDL Method Detection Limit
 N Parameter not NELAC certified
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 S Spike Recovery outside control limits

DHL Analytical

Date: 08/21/09

CLIENT: Larson & Associates
 Project: Hobbs Test Shop
 Project No: 8-0113-04
 Lab Order: 0908100

Client Sample ID: LSB-2 (1.5-2.5')
 Lab ID: 0908100-09
 Collection Date: 08/11/09 01:06 PM
 Matrix: Soil

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed |
|-----------------------------------|---------|---------------|----------|------|-----------|----|---------------------|
| 1,1,2-Trichloroethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| 1,1-Dichloroethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| 1,1-Dichloroethene | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| 1,2-Dibromoethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| 1,2-Dichloroethane | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Benzene | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Carbon tetrachloride | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Chloroform | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Ethylbenzene | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Methylene chloride | ND | 0.00544 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Tetrachloroethene | 0.00123 | 0.00109 | 0.00544 | J | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Toluene | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Trichloroethene | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Vinyl chloride | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Total Xylenes | ND | 0.00109 | 0.00544 | | mg/Kg-dry | 1 | 08/17/09 01:48 PM |
| Surr: 1,2-Dichloroethane-d4 | 107 | 0 | 78 - 125 | | %REC | 1 | 08/17/09 01:48 PM |
| Surr: 4-Bromofluorobenzene | 101 | 0 | 82 - 125 | | %REC | 1 | 08/17/09 01:48 PM |
| Surr: Dibromofluoromethane | 108 | 0 | 84 - 116 | | %REC | 1 | 08/17/09 01:48 PM |
| Surr: Toluene-d8 | 91.2 | 0 | 84 - 118 | | %REC | 1 | 08/17/09 01:48 PM |
| Cyanide - Solid Sample | | SW9014 | | | | | Analyst: AAD |
| Cyanide, Total | ND | 0.218 | 0.544 | | mg/Kg-dry | 1 | 08/15/09 04:04 PM |
| Anions by IC method - Soil | | E300 | | | | | Analyst: JBC |
| Fluoride | 3.47 | 1.10 | 1.10 | | mg/Kg-dry | 1 | 08/14/09 01:20 PM |
| Percent Moisture | | D2216 | | | | | Analyst: RP |
| Percent Moisture | 10.3 | 0 | 0 | | WT% | 1 | 08/20/09 09:30 AM |

| | | | | |
|-------------|----|---|-----|--|
| Qualifiers: | * | Value exceeds TCLP Maximum Concentration Level | J | Analyte detected between MDL and RL |
| | B | Analyte detected in the associated Method Blank | MDL | Method Detection Limit |
| | C | Sample Result or QC discussed in the Case Narrative | N | Parameter not NELAC certified |
| | DF | Dilution Factor | ND | Not Detected at the Method Detection Limit |
| | E | TPH pattern not Gas or Diesel Range Pattern | RL | Reporting Limit |
| | | | S | Spike Recovery outside control limits |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GC16_090818B

| Sample ID: | LCS-36630 | Batch ID: | 36630 | TestNo: | SW8082 | Units: | mg/Kg | | | |
|----------------------------|-----------|-----------|--------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | GC16_090818B | Analysis Date: | 08/18/09 06:31 PM | Prep Date: | 08/18/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Aroclor 1016 | 0.941 | 0.100 | 1.000 | 0 | 94.1 | 65 | 126 | | | |
| Aroclor 1260 | 0.979 | 0.100 | 1.000 | 0 | 97.9 | 66 | 118 | | | |
| Surr: Decachlorobiphenyl | 0.137 | | 0.1000 | | 137 | 50 | 130 | | | S |
| Surr: Tetrachloro-m-xylene | 0.0845 | | 0.1000 | | 84.5 | 50 | 130 | | | |

| Sample ID: | MB-36630 | Batch ID: | 36630 | TestNo: | SW8082 | Units: | mg/Kg | | | |
|----------------------------|----------|-----------|--------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | GC16_090818B | Analysis Date: | 08/19/09 12:45 AM | Prep Date: | 08/18/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Aroclor 1016 | ND | 0.100 | | | | | | | | |
| Aroclor 1221 | ND | 0.100 | | | | | | | | |
| Aroclor 1232 | ND | 0.100 | | | | | | | | |
| Aroclor 1242 | ND | 0.100 | | | | | | | | |
| Aroclor 1248 | ND | 0.100 | | | | | | | | |
| Aroclor 1254 | ND | 0.100 | | | | | | | | |
| Aroclor 1260 | ND | 0.100 | | | | | | | | |
| Surr: Decachlorobiphenyl | 0.119 | | 0.1000 | | 119 | 50 | 130 | | | |
| Surr: Tetrachloro-m-xylene | 0.0830 | | 0.1000 | | 83.0 | 50 | 130 | | | |

| Sample ID: | 0908100-05B-MS | Batch ID: | 36630 | TestNo: | SW8082 | Units: | mg/Kg-dry | | | |
|----------------------------|----------------|-----------|--------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MS | Run ID: | GC16_090818B | Analysis Date: | 08/19/09 04:02 AM | Prep Date: | 08/18/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Aroclor 1016 | 1.04 | 0.111 | 1.107 | 0 | 94.2 | 65 | 126 | | | |
| Aroclor 1260 | 1.10 | 0.111 | 1.107 | 0 | 99.5 | 66 | 118 | | | |
| Surr: Decachlorobiphenyl | 0.144 | | 0.1107 | | 130 | 40 | 130 | | | |
| Surr: Tetrachloro-m-xylene | 0.0932 | | 0.1107 | | 84.2 | 40 | 130 | | | |

| Sample ID: | 0908100-05B-MSD | Batch ID: | 36630 | TestNo: | SW8082 | Units: | mg/Kg-dry | | | |
|----------------------------|-----------------|-----------|--------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MSD | Run ID: | GC16_090818B | Analysis Date: | 08/19/09 04:30 AM | Prep Date: | 08/18/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Aroclor 1016 | 1.08 | 0.110 | 1.097 | 0 | 98.3 | 65 | 126 | 3.38 | 50 | |
| Aroclor 1260 | 1.13 | 0.110 | 1.097 | 0 | 103 | 66 | 118 | 2.11 | 50 | |
| Surr: Decachlorobiphenyl | 0.148 | | 0.1097 | | 135 | 40 | 130 | 0 | 50 | S |
| Surr: Tetrachloro-m-xylene | 0.0928 | | 0.1097 | | 84.6 | 40 | 130 | 0 | 50 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GC16_090818B

| | | | |
|----------------------------|----------------------|----------------------------------|--------------|
| Sample ID: ICV-090818 | Batch ID: R44963 | TestNo: SW8082 | Units: mg/Kg |
| SampType: ICV | Run ID: GC16_090818B | Analysis Date: 08/18/09 04:32 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Aroclor 1016 | 1.86 | 0.100 | 2.000 |
| Aroclor 1260 | 1.97 | 0.100 | 2.000 |
| Surr: Decachlorobiphenyl | 0.201 | | 0.2000 |
| Surr: Tetrachloro-m-xylene | 0.191 | | 0.2000 |

| | | | |
|----------------------------|----------------------|----------------------------------|--------------|
| Sample ID: CCV1-090818 | Batch ID: R44963 | TestNo: SW8082 | Units: mg/Kg |
| SampType: CCV | Run ID: GC16_090818B | Analysis Date: 08/18/09 10:53 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Aroclor 1016 | 1.02 | 0.100 | 1.000 |
| Aroclor 1260 | 1.10 | 0.100 | 1.000 |
| Surr: Decachlorobiphenyl | 0.113 | | 0.1000 |
| Surr: Tetrachloro-m-xylene | 0.114 | | 0.1000 |

| | | | |
|-----------------------------|----------------------|----------------------------------|--------------|
| Sample ID: CCV2-090818 1248 | Batch ID: R44963 | TestNo: SW8082 | Units: mg/Kg |
| SampType: CCV | Run ID: GC16_090818B | Analysis Date: 08/19/09 05:26 AM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Aroclor 1248 | 1.11 | 0.100 | 1.000 |
| Surr: Decachlorobiphenyl | 0.120 | | 0.1000 |
| Surr: Tetrachloro-m-xylene | 0.105 | | 0.1000 |

| | | | |
|-----------------------------|----------------------|----------------------------------|--------------|
| Sample ID: CCV2-090818 1254 | Batch ID: R44963 | TestNo: SW8082 | Units: mg/Kg |
| SampType: CCV | Run ID: GC16_090818B | Analysis Date: 08/19/09 05:54 AM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Aroclor 1254 | 1.15 | 0.100 | 1.000 |
| Surr: Decachlorobiphenyl | 0.113 | | 0.1000 |
| Surr: Tetrachloro-m-xylene | 0.117 | | 0.1000 |

| | | | |
|----------------------------|----------------------|----------------------------------|--------------|
| Sample ID: CCV2-090818 | Batch ID: R44963 | TestNo: SW8082 | Units: mg/Kg |
| SampType: CCV | Run ID: GC16_090818B | Analysis Date: 08/19/09 06:22 AM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Aroclor 1016 | 1.06 | 0.100 | 1.000 |
| Aroclor 1260 | 1.17 | 0.100 | 1.000 |
| Surr: Decachlorobiphenyl | 0.118 | | 0.1000 |
| Surr: Tetrachloro-m-xylene | 0.110 | | 0.1000 |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_090817D

| Sample ID: | Batch ID: | TestNo: | Units: |
|----------------------------|--------------------------|----------------------------------|--|
| MB-36503 | 36503 | SW7471A | mg/Kg |
| SampType: MBLK | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 01:04 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | ND 0.0400 | | |
| Sample ID: LCS-36503 | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg |
| SampType: LCS | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 01:11 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.207 0.0400 0.2000 | 0 104 | 85 115 |
| Sample ID: LCSD-36503 | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg |
| SampType: LCSD | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 01:13 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.204 0.0400 0.2000 | 0 102 | 85 115 1.46 25 |
| Sample ID: 0908105-01C SD | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg-dry |
| SampType: SD | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 02:00 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.0730 0.183 0 | 0.07158 | 2.02 10 |
| Sample ID: 0908105-01C PDS | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg-dry |
| SampType: PDS | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 02:02 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.289 0.0365 0.2282 | 0.07158 95.4 | 85 115 |
| Sample ID: 0908105-01C MS | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg-dry |
| SampType: MS | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 02:04 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.234 0.0356 0.1780 | 0.07158 91.3 | 80 120 |
| Sample ID: 0908105-01C MSD | Batch ID: 36503 | TestNo: SW7471A | Units: mg/Kg-dry |
| SampType: MSD | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 02:06 PM | Prep Date: 08/13/09 |
| Analyte | Result RL SPK value | Ref Val %REC | LowLimit HighLimit %RPD RPD Limit Qual |
| Mercury | 0.243 0.0359 0.1794 | 0.07158 95.6 | 80 120 3.82 25 |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_090817D

| | | | |
|------------------------|--------------------------|----------------------------------|--------------|
| Sample ID: ICV2-090817 | Batch ID: R44896 | TestNo: SW7471A | Units: mg/Kg |
| SampType: ICV | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 12:58 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Mercury | 0.00371 | 0.0400 | 0.004000 |
| | | Ref Val | %REC |
| | | 0 | 92.8 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | |
|------------------------|--------------------------|----------------------------------|--------------|
| Sample ID: CCV1-090817 | Batch ID: R44896 | TestNo: SW7471A | Units: mg/Kg |
| SampType: CCV | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 01:23 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Mercury | 0.00187 | 0.0400 | 0.002000 |
| | | Ref Val | %REC |
| | | 0 | 93.5 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | |
|------------------------|--------------------------|----------------------------------|--------------|
| Sample ID: CCV2-090817 | Batch ID: R44896 | TestNo: SW7471A | Units: mg/Kg |
| SampType: CCV | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 01:48 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Mercury | 0.00201 | 0.0400 | 0.002000 |
| | | Ref Val | %REC |
| | | 0 | 101 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | |
|------------------------|--------------------------|----------------------------------|--------------|
| Sample ID: CCV3-090817 | Batch ID: R44896 | TestNo: SW7471A | Units: mg/Kg |
| SampType: CCV | Run ID: CETAC_HG_090817D | Analysis Date: 08/17/09 02:12 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Mercury | 0.00192 | 0.0400 | 0.002000 |
| | | Ref Val | %REC |
| | | 0 | 96.0 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_090819A

| Sample ID: | Batch ID: | TestNo: | Units: | | | | | | | |
|----------------------------|--------------------------|----------------------------------|---------------------|---------|------|----------|-----------|------|-----------|------|
| SampType: | Run ID: | Analysis Date: | Prep Date: | | | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Mercury | ND | 0.0400 | | | | | | | | |
| Sample ID: LCS-36579 | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg | | | | | | | |
| SampType: LCS | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:22 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0.214 | 0.0400 | 0.2000 | 0 | 107 | 85 | 115 | | | |
| Sample ID: LCSD-36579 | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg | | | | | | | |
| SampType: LCSD | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:25 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0.214 | 0.0400 | 0.2000 | 0 | 107 | 85 | 115 | 0 | 25 | |
| Sample ID: 0908100-09B SD | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg-dry | | | | | | | |
| SampType: SD | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:29 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0 | 0.196 | 0 | 0.02074 | | | | 0 | 10 | |
| Sample ID: 0908100-09B PDS | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg-dry | | | | | | | |
| SampType: PDS | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:31 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0.277 | 0.0391 | 0.2445 | 0.02074 | 105 | 85 | 115 | | | |
| Sample ID: 0908100-09B MS | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg-dry | | | | | | | |
| SampType: MS | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:33 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0.225 | 0.0407 | 0.2033 | 0.02074 | 100 | 80 | 120 | | | |
| Sample ID: 0908100-09B MSD | Batch ID: 36579 | TestNo: SW7471A | Units: mg/Kg-dry | | | | | | | |
| SampType: MSD | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:35 PM | Prep Date: 08/17/09 | | | | | | | |
| Mercury | 0.227 | 0.0411 | 0.2057 | 0.02074 | 100 | 80 | 120 | 1.17 | 25 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_090819A

| | | | |
|-----------------------|--------------------------|----------------------------------|---------------------|
| Sample ID: ICV-090819 | Batch ID: R44946 | TestNo: SW7471A | Units: mg/Kg |
| SampType: ICV | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:16 PM | Prep Date: |
| Analyte | Result RL SPK value | Ref Val %REC LowLimit HighLimit | %RPD RPD Limit Qual |
| Mercury | 0.00383 0.0400 0.004000 | 0 95.8 90 110 | |

| | | | |
|------------------------|--------------------------|----------------------------------|---------------------|
| Sample ID: CCV1-090819 | Batch ID: R44946 | TestNo: SW7471A | Units: mg/Kg |
| SampType: CCV | Run ID: CETAC_HG_090819A | Analysis Date: 08/19/09 12:41 PM | Prep Date: |
| Analyte | Result RL SPK value | Ref Val %REC LowLimit HighLimit | %RPD RPD Limit Qual |
| Mercury | 0.00202 0.0400 0.002000 | 0 101 90 110 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090817B

| Sample ID: | MB-36495 | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|----------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 12:51 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | ND | 1.00 | | | | | | | | |
| Barium | ND | 2.00 | | | | | | | | |
| Cadmium | ND | 0.300 | | | | | | | | |
| Chromium | ND | 2.00 | | | | | | | | |
| Lead | ND | 0.300 | | | | | | | | |
| Selenium | ND | 0.500 | | | | | | | | |
| Silver | ND | 0.200 | | | | | | | | |

| Sample ID: | LCS-36495 | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|-----------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:02 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 48.3 | 1.00 | 50.00 | 0 | 96.6 | 80 | 120 | | | |
| Barium | 51.2 | 2.00 | 50.00 | 0 | 102 | 80 | 120 | | | |
| Cadmium | 49.1 | 0.300 | 50.00 | 0 | 98.2 | 80 | 120 | | | |
| Chromium | 51.9 | 2.00 | 50.00 | 0 | 104 | 80 | 120 | | | |
| Lead | 50.7 | 0.300 | 50.00 | 0 | 101 | 80 | 120 | | | |
| Selenium | 45.4 | 0.500 | 50.00 | 0 | 90.7 | 80 | 120 | | | |
| Silver | 48.5 | 0.200 | 50.00 | 0 | 97.0 | 80 | 120 | | | |

| Sample ID: | LCSD-36495 | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|------------|-----------|-----------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| SampType: | LCSD | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:07 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 48.2 | 1.00 | 50.00 | 0 | 96.5 | 80 | 120 | 0.051 | 20 | |
| Barium | 51.0 | 2.00 | 50.00 | 0 | 102 | 80 | 120 | 0.440 | 20 | |
| Cadmium | 48.7 | 0.300 | 50.00 | 0 | 97.4 | 80 | 120 | 0.818 | 20 | |
| Chromium | 52.0 | 2.00 | 50.00 | 0 | 104 | 80 | 120 | 0.289 | 20 | |
| Lead | 51.2 | 0.300 | 50.00 | 0 | 102 | 80 | 120 | 0.932 | 20 | |
| Selenium | 45.2 | 0.500 | 50.00 | 0 | 90.5 | 80 | 120 | 0.221 | 20 | |
| Silver | 48.2 | 0.200 | 50.00 | 0 | 96.4 | 80 | 120 | 0.620 | 20 | |

| Sample ID: | 0908105-01C SD | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
|------------|----------------|-----------|-----------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| SampType: | SD | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:18 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 7.58 | 4.39 | 0 | 6.995 | | | | 7.98 | 10 | |
| Cadmium | 2.91 | 1.32 | 0 | 3.021 | | | | 3.70 | 10 | |
| Chromium | 80.2 | 8.79 | 0 | 75.31 | | | | 6.31 | 10 | |
| Lead | 329 | 1.32 | 0 | 329.8 | | | | 0.200 | 10 | |
| Selenium | 1.99 | 2.20 | 0 | 2.007 | | | | 0.846 | 10 | |
| Silver | 0 | 0.879 | 0 | 0.1695 | | | | 0 | 10 | |

| Sample ID: | 0908105-01C PDS | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
|------------|-----------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | PDS | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:23 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 45.1 | 0.879 | 43.94 | 6.995 | 86.7 | 75 | 125 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090817B

| | | | | | | | |
|----------|------|-------|-------|--------|------|----|-----|
| Cadmium | 44.2 | 0.264 | 43.94 | 3.021 | 93.7 | 75 | 125 |
| Chromium | 116 | 1.76 | 43.94 | 75.31 | 91.9 | 75 | 125 |
| Lead | 371 | 0.264 | 43.94 | 329.8 | 95.0 | 75 | 125 |
| Selenium | 37.1 | 0.439 | 43.94 | 2.007 | 79.8 | 75 | 125 |
| Silver | 39.7 | 0.176 | 43.94 | 0.1695 | 90.0 | 75 | 125 |

| | | | | | | | | | | |
|------------|----------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| Sample ID: | 0908105-01C MS | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
| SampType: | MS | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:28 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 47.8 | 0.917 | 45.86 | 6.995 | 89.0 | 80 | 120 | | | |
| Barium | 1430 | 1.83 | 45.86 | 1577 | -323 | 80 | 120 | | | S |
| Cadmium | 47.9 | 0.275 | 45.86 | 3.021 | 97.8 | 80 | 120 | | | |
| Chromium | 128 | 1.83 | 45.86 | 75.31 | 115 | 80 | 120 | | | |
| Lead | 408 | 0.275 | 45.86 | 329.8 | 170 | 80 | 120 | | | S |
| Selenium | 39.7 | 0.459 | 45.86 | 2.007 | 82.2 | 80 | 120 | | | |
| Silver | 43.8 | 0.183 | 45.86 | 0.1695 | 95.1 | 80 | 120 | | | |

| | | | | | | | | | | |
|------------|-----------------|-----------|-----------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| Sample ID: | 0908105-01C MSD | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
| SampType: | MSD | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:33 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 47.7 | 0.901 | 45.07 | 6.995 | 90.3 | 80 | 120 | 0.264 | 20 | |
| Barium | 1280 | 1.80 | 45.07 | 1577 | -668 | 80 | 120 | 11.3 | 20 | S |
| Cadmium | 48.0 | 0.270 | 45.07 | 3.021 | 99.9 | 80 | 120 | 0.346 | 20 | |
| Chromium | 135 | 1.80 | 45.07 | 75.31 | 132 | 80 | 120 | 4.90 | 20 | S |
| Lead | 400 | 0.270 | 45.07 | 329.8 | 156 | 80 | 120 | 1.80 | 20 | S |
| Selenium | 39.6 | 0.451 | 45.07 | 2.007 | 83.5 | 80 | 120 | 0.192 | 20 | |
| Silver | 44.1 | 0.180 | 45.07 | 0.1695 | 97.4 | 80 | 120 | 0.641 | 20 | |

| | | | | | | | | | | |
|------------|----------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| Sample ID: | 0908105-01C SD | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
| SampType: | SD | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 02:44 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Barium | 1690 | 87.9 | 0 | 1652 | | | | 2.57 | 10 | |

| | | | | | | | | | | |
|------------|-----------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| Sample ID: | 0908105-01C PDS | Batch ID: | 36495 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
| SampType: | PDS | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 02:50 PM | Prep Date: | 08/13/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Barium | 2070 | 17.6 | 439.4 | 1652 | 94.5 | 75 | 125 | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090817B

| Sample ID: | ICV1-090817 | Batch ID: | R44903 | TestNo: | SW6020 | Units: | mg/L | | | |
|------------|-------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | ICV | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 12:29 PM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 0.102 | 0.00600 | 0.100 | 0 | 102 | 90 | 110 | | | |
| Barium | 0.104 | 0.0100 | 0.100 | 0 | 104 | 90 | 110 | | | |
| Cadmium | 0.0989 | 0.00100 | 0.100 | 0 | 98.9 | 90 | 110 | | | |
| Chromium | 0.110 | 0.00600 | 0.100 | 0 | 110 | 90 | 110 | | | |
| Lead | 0.105 | 0.00100 | 0.100 | 0 | 105 | 90 | 110 | | | |
| Selenium | 0.0937 | 0.00600 | 0.100 | 0 | 93.7 | 90 | 110 | | | |
| Silver | 0.101 | 0.00200 | 0.100 | 0 | 101 | 90 | 110 | | | |

| Sample ID: | CCV1-090817 | Batch ID: | R44903 | TestNo: | SW6020 | Units: | mg/L | | | |
|------------|-------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | CCV | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 01:44 PM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 0.199 | 0.00600 | 0.200 | 0 | 99.6 | 90 | 110 | | | |
| Barium | 0.211 | 0.0100 | 0.200 | 0 | 105 | 90 | 110 | | | |
| Cadmium | 0.199 | 0.00100 | 0.200 | 0 | 99.6 | 90 | 110 | | | |
| Chromium | 0.214 | 0.00600 | 0.200 | 0 | 107 | 90 | 110 | | | |
| Lead | 0.204 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| Selenium | 0.188 | 0.00600 | 0.200 | 0 | 94.0 | 90 | 110 | | | |
| Silver | 0.200 | 0.00200 | 0.200 | 0 | 99.8 | 90 | 110 | | | |

| Sample ID: | CCV2-090817 | Batch ID: | R44903 | TestNo: | SW6020 | Units: | mg/L | | | |
|------------|-------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | CCV | Run ID: | ICP-MS2_090817B | Analysis Date: | 08/17/09 03:00 PM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 0.201 | 0.00600 | 0.200 | 0 | 100 | 90 | 110 | | | |
| Barium | 0.213 | 0.0100 | 0.200 | 0 | 106 | 90 | 110 | | | |
| Cadmium | 0.201 | 0.00100 | 0.200 | 0 | 100 | 90 | 110 | | | |
| Chromium | 0.210 | 0.00600 | 0.200 | 0 | 105 | 90 | 110 | | | |
| Lead | 0.204 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| Selenium | 0.191 | 0.00600 | 0.200 | 0 | 95.4 | 90 | 110 | | | |
| Silver | 0.200 | 0.00200 | 0.200 | 0 | 100 | 90 | 110 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090818A

| Sample ID: | MB-36555 | Batch ID: | 36555 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|----------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:08 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | ND | 1.00 | | | | | | | | |
| Barium | ND | 2.00 | | | | | | | | |
| Cadmium | ND | 0.300 | | | | | | | | |
| Chromium | ND | 2.00 | | | | | | | | |
| Lead | ND | 0.300 | | | | | | | | |
| Selenium | ND | 0.500 | | | | | | | | |
| Silver | ND | 0.200 | | | | | | | | |

| Sample ID: | LCS-36555 | Batch ID: | 36555 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|-----------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:14 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 47.7 | 1.00 | 50.00 | 0 | 95.4 | 80 | 120 | | | |
| Barium | 49.2 | 2.00 | 50.00 | 0 | 98.5 | 80 | 120 | | | |
| Cadmium | 47.4 | 0.300 | 50.00 | 0 | 94.8 | 80 | 120 | | | |
| Chromium | 50.9 | 2.00 | 50.00 | 0 | 102 | 80 | 120 | | | |
| Lead | 50.3 | 0.300 | 50.00 | 0 | 101 | 80 | 120 | | | |
| Selenium | 44.7 | 0.500 | 50.00 | 0 | 89.4 | 80 | 120 | | | |
| Silver | 49.0 | 0.200 | 50.00 | 0 | 97.9 | 80 | 120 | | | |

| Sample ID: | LCSD-36555 | Batch ID: | 36555 | TestNo: | SW6020 | Units: | mg/Kg | | | |
|------------|------------|-----------|-----------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| SampType: | LCSD | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:19 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 47.8 | 1.00 | 50.00 | 0 | 95.6 | 80 | 120 | 0.105 | 20 | |
| Barium | 50.1 | 2.00 | 50.00 | 0 | 100 | 80 | 120 | 1.66 | 20 | |
| Cadmium | 47.5 | 0.300 | 50.00 | 0 | 95.0 | 80 | 120 | 0.211 | 20 | |
| Chromium | 51.1 | 2.00 | 50.00 | 0 | 102 | 80 | 120 | 0.441 | 20 | |
| Lead | 50.4 | 0.300 | 50.00 | 0 | 101 | 80 | 120 | 0.298 | 20 | |
| Selenium | 44.6 | 0.500 | 50.00 | 0 | 89.2 | 80 | 120 | 0.336 | 20 | |
| Silver | 49.2 | 0.200 | 50.00 | 0 | 98.4 | 80 | 120 | 0.560 | 20 | |

| Sample ID: | 0908116-01B SD | Batch ID: | 36555 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
|------------|----------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | SD | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:35 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Arsenic | 6.29 | 5.78 | 0 | 5.766 | | | | 8.75 | 10 | |
| Barium | 45.5 | 11.6 | 0 | 44.91 | | | | 1.37 | 10 | |
| Cadmium | 0 | 1.73 | 0 | 0.2594 | | | | 0 | 10 | |
| Chromium | 18.6 | 11.6 | 0 | 16.09 | | | | 14.6 | 10 | R |
| Lead | 6.60 | 1.73 | 0 | 6.514 | | | | 1.34 | 10 | |
| Selenium | 1.94 | 2.89 | 0 | 1.619 | | | | 18.1 | 10 | R |
| Silver | 0 | 1.16 | 0 | 0 | | | | 0 | 10 | |

| Sample ID: | 0908116-01B PDS | Batch ID: | 36555 | TestNo: | SW6020 | Units: | mg/Kg-dry | | | |
|------------|-----------------|-----------|-----------------|----------------|-------------------|------------|-----------|--|--|--|
| SampType: | PDS | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:40 PM | Prep Date: | 08/17/09 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090818A

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
|----------|--------|-------|-----------|---------|------|----------|-----------|------|-----------|------|
| Arsenic | 59.4 | 1.16 | 57.80 | 5.766 | 92.8 | 75 | 125 | | | |
| Barium | 102 | 2.31 | 57.80 | 44.91 | 99.0 | 75 | 125 | | | |
| Cadmium | 51.1 | 0.347 | 57.80 | 0.2594 | 88.0 | 75 | 125 | | | |
| Chromium | 64.2 | 2.31 | 57.80 | 16.09 | 83.2 | 75 | 125 | | | |
| Lead | 65.1 | 0.347 | 57.80 | 6.514 | 101 | 75 | 125 | | | |
| Selenium | 49.2 | 0.578 | 57.80 | 1.619 | 82.4 | 75 | 125 | | | |
| Silver | 51.2 | 0.231 | 57.80 | 0 | 88.6 | 75 | 125 | | | |

Sample ID: 0908116-01B MS Batch ID: 36555 TestNo: SW6020 Units: mg/Kg-dry
 SampType: MS Run ID: ICP-MS2_090818A Analysis Date: 08/18/09 12:45 PM Prep Date: 08/17/09

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
|----------|--------|-------|-----------|---------|------|----------|-----------|------|-----------|------|
| Arsenic | 60.1 | 1.14 | 57.23 | 5.766 | 95.0 | 80 | 120 | | | |
| Barium | 102 | 2.29 | 57.23 | 44.91 | 99.3 | 80 | 120 | | | |
| Cadmium | 50.6 | 0.343 | 57.23 | 0.2594 | 88.0 | 80 | 120 | | | |
| Chromium | 64.9 | 2.29 | 57.23 | 16.09 | 85.3 | 80 | 120 | | | |
| Lead | 64.3 | 0.343 | 57.23 | 6.514 | 101 | 80 | 120 | | | |
| Selenium | 51.2 | 0.572 | 57.23 | 1.619 | 86.6 | 80 | 120 | | | |
| Silver | 50.5 | 0.229 | 57.23 | 0 | 88.2 | 80 | 120 | | | |

Sample ID: 0908116-01B MSD Batch ID: 36555 TestNo: SW6020 Units: mg/Kg-dry
 SampType: MSD Run ID: ICP-MS2_090818A Analysis Date: 08/18/09 12:51 PM Prep Date: 08/17/09

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
|----------|--------|-------|-----------|---------|------|----------|-----------|-------|-----------|------|
| Arsenic | 59.3 | 1.13 | 56.68 | 5.766 | 94.4 | 80 | 120 | 1.40 | 20 | |
| Barium | 103 | 2.27 | 56.68 | 44.91 | 102 | 80 | 120 | 0.836 | 20 | |
| Cadmium | 50.6 | 0.340 | 56.68 | 0.2594 | 88.8 | 80 | 120 | 0.019 | 20 | |
| Chromium | 64.6 | 2.27 | 56.68 | 16.09 | 85.7 | 80 | 120 | 0.448 | 20 | |
| Lead | 63.4 | 0.340 | 56.68 | 6.514 | 100 | 80 | 120 | 1.51 | 20 | |
| Selenium | 50.7 | 0.567 | 56.68 | 1.619 | 86.6 | 80 | 120 | 0.920 | 20 | |
| Silver | 50.3 | 0.227 | 56.68 | 0 | 88.7 | 80 | 120 | 0.354 | 20 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_090818A

| Sample ID: | ICV1-090818 | Batch ID: | R44941 | TestNo: | SW6020 | Units: | mg/L | | | | |
|------------|-------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|--|
| SampType: | ICV | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 11:58 AM | Prep Date: | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual | |
| Arsenic | 0.103 | 0.00600 | 0.100 | 0 | 103 | 90 | 110 | | | | |
| Barium | 0.103 | 0.0100 | 0.100 | 0 | 103 | 90 | 110 | | | | |
| Cadmium | 0.0984 | 0.00100 | 0.100 | 0 | 98.4 | 90 | 110 | | | | |
| Chromium | 0.106 | 0.00600 | 0.100 | 0 | 106 | 90 | 110 | | | | |
| Lead | 0.103 | 0.00100 | 0.100 | 0 | 103 | 90 | 110 | | | | |
| Selenium | 0.0974 | 0.00600 | 0.100 | 0 | 97.4 | 90 | 110 | | | | |
| Silver | 0.102 | 0.00200 | 0.100 | 0 | 102 | 90 | 110 | | | | |

| Sample ID: | CCV1-090818 | Batch ID: | R44941 | TestNo: | SW6020 | Units: | mg/L | | | | |
|------------|-------------|-----------|-----------------|----------------|-------------------|------------|-----------|------|-----------|------|--|
| SampType: | CCV | Run ID: | ICP-MS2_090818A | Analysis Date: | 08/18/09 12:56 PM | Prep Date: | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual | |
| Arsenic | 0.199 | 0.00600 | 0.200 | 0 | 99.5 | 90 | 110 | | | | |
| Barium | 0.201 | 0.0100 | 0.200 | 0 | 101 | 90 | 110 | | | | |
| Cadmium | 0.193 | 0.00100 | 0.200 | 0 | 96.6 | 90 | 110 | | | | |
| Chromium | 0.203 | 0.00600 | 0.200 | 0 | 101 | 90 | 110 | | | | |
| Lead | 0.203 | 0.00100 | 0.200 | 0 | 101 | 90 | 110 | | | | |
| Selenium | 0.196 | 0.00600 | 0.200 | 0 | 98.0 | 90 | 110 | | | | |
| Silver | 0.199 | 0.00200 | 0.200 | 0 | 99.4 | 90 | 110 | | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS6_090818A

| Sample ID: | LCS-36581 | Batch ID: | 36581 | TestNo: | SW8270C | Units: | mg/Kg | | | |
|------------------------|-----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | GCMS6_090818A | Analysis Date: | 08/18/09 04:07 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.772 | 0.0500 | 1.000 | 0 | 77.2 | 40 | 140 | | | N |
| 2-Methylnaphthalene | 0.776 | 0.0500 | 1.000 | 0 | 77.6 | 47 | 128 | | | |
| Acenaphthene | 0.767 | 0.0500 | 1.000 | 0 | 76.7 | 56 | 114 | | | |
| Acenaphthylene | 0.768 | 0.0500 | 1.000 | 0 | 76.8 | 56 | 116 | | | |
| Anthracene | 0.755 | 0.0500 | 1.000 | 0 | 75.5 | 40 | 113 | | | |
| Benzo[a]anthracene | 0.706 | 0.0500 | 1.000 | 0 | 70.6 | 52 | 108 | | | |
| Benzo[a]pyrene | 0.734 | 0.0500 | 1.000 | 0 | 73.4 | 48 | 115 | | | |
| Benzo[b]fluoranthene | 0.755 | 0.0500 | 1.000 | 0 | 75.5 | 43 | 115 | | | |
| Benzo[g,h,i]perylene | 0.759 | 0.0500 | 1.000 | 0 | 75.9 | 47 | 123 | | | |
| Benzo[k]fluoranthene | 0.715 | 0.0500 | 1.000 | 0 | 71.5 | 54 | 118 | | | |
| Chrysene | 0.763 | 0.0500 | 1.000 | 0 | 76.3 | 56 | 115 | | | |
| Dibenz[a,h]anthracene | 0.750 | 0.0500 | 1.000 | 0 | 75.0 | 43 | 120 | | | |
| Fluoranthene | 0.799 | 0.0500 | 1.000 | 0 | 79.9 | 41 | 108 | | | |
| Fluorene | 0.792 | 0.0500 | 1.000 | 0 | 79.2 | 47 | 128 | | | |
| Indeno[1,2,3-cd]pyrene | 0.750 | 0.0500 | 1.000 | 0 | 75.0 | 46 | 119 | | | |
| Naphthalene | 0.755 | 0.0500 | 1.000 | 0 | 75.5 | 55 | 113 | | | |
| Phenanthrene | 0.773 | 0.0500 | 1.000 | 0 | 77.3 | 55 | 114 | | | |
| Pyrene | 0.751 | 0.0500 | 1.000 | 0 | 75.1 | 42 | 125 | | | |
| Surr: 2-Fluorobiphenyl | 3.58 | | 4.000 | | 89.4 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 3.69 | | 4.000 | | 92.1 | 40 | 140 | | | |

| Sample ID: | MB-36581 | Batch ID: | 36581 | TestNo: | SW8270C | Units: | mg/Kg | | | |
|------------------------|----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | GCMS6_090818A | Analysis Date: | 08/18/09 04:37 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | ND | 0.0500 | | | | | | | | N |
| 2-Methylnaphthalene | ND | 0.0500 | | | | | | | | |
| Acenaphthene | ND | 0.0500 | | | | | | | | |
| Acenaphthylene | ND | 0.0500 | | | | | | | | |
| Anthracene | ND | 0.0500 | | | | | | | | |
| Benzo[a]anthracene | ND | 0.0500 | | | | | | | | |
| Benzo[a]pyrene | ND | 0.0500 | | | | | | | | |
| Benzo[b]fluoranthene | ND | 0.0500 | | | | | | | | |
| Benzo[g,h,i]perylene | ND | 0.0500 | | | | | | | | |
| Benzo[k]fluoranthene | ND | 0.0500 | | | | | | | | |
| Chrysene | ND | 0.0500 | | | | | | | | |
| Dibenz[a,h]anthracene | ND | 0.0500 | | | | | | | | |
| Fluoranthene | ND | 0.0500 | | | | | | | | |
| Fluorene | ND | 0.0500 | | | | | | | | |
| Indeno[1,2,3-cd]pyrene | ND | 0.0500 | | | | | | | | |
| Naphthalene | ND | 0.0500 | | | | | | | | |
| Phenanthrene | ND | 0.0500 | | | | | | | | |
| Pyrene | ND | 0.0500 | | | | | | | | |
| Surr: 2-Fluorobiphenyl | 3.71 | | 4.000 | | 92.7 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 3.96 | | 4.000 | | 99.1 | 40 | 140 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS6_090818A

| Sample ID: | 0908100-09B-MS | Batch ID: | 36581 | TestNo: | SW8270C | Units: | mg/Kg-dry | | | |
|------------------------|----------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MS | Run ID: | GCMS6_090818A | Analysis Date: | 08/18/09 07:41 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.914 | 0.0554 | 1.108 | 0 | 82.5 | 40 | 140 | | | N |
| 2-Methylnaphthalene | 0.919 | 0.0554 | 1.108 | 0 | 82.9 | 47 | 128 | | | |
| Acenaphthene | 0.915 | 0.0554 | 1.108 | 0 | 82.5 | 56 | 114 | | | |
| Acenaphthylene | 0.931 | 0.0554 | 1.108 | 0 | 84.0 | 56 | 116 | | | |
| Anthracene | 0.880 | 0.0554 | 1.108 | 0 | 79.4 | 40 | 113 | | | |
| Benzo[a]anthracene | 0.848 | 0.0554 | 1.108 | 0 | 76.6 | 52 | 108 | | | |
| Benzo[a]pyrene | 0.892 | 0.0554 | 1.108 | 0 | 80.5 | 48 | 115 | | | |
| Benzo[b]fluoranthene | 0.910 | 0.0554 | 1.108 | 0 | 82.1 | 43 | 115 | | | |
| Benzo[g,h,i]perylene | 0.913 | 0.0554 | 1.108 | 0 | 82.4 | 47 | 123 | | | |
| Benzo[k]fluoranthene | 0.909 | 0.0554 | 1.108 | 0 | 82.0 | 54 | 118 | | | |
| Chrysene | 0.914 | 0.0554 | 1.108 | 0 | 82.5 | 56 | 115 | | | |
| Dibenz[a,h]anthracene | 0.909 | 0.0554 | 1.108 | 0 | 82.0 | 43 | 120 | | | |
| Fluoranthene | 0.950 | 0.0554 | 1.108 | 0 | 85.7 | 41 | 108 | | | |
| Fluorene | 0.954 | 0.0554 | 1.108 | 0 | 86.1 | 47 | 128 | | | |
| Indeno[1,2,3-cd]pyrene | 0.896 | 0.0554 | 1.108 | 0 | 80.9 | 46 | 119 | | | |
| Naphthalene | 0.880 | 0.0554 | 1.108 | 0 | 79.4 | 55 | 113 | | | |
| Phenanthrene | 0.915 | 0.0554 | 1.108 | 0 | 82.5 | 55 | 114 | | | |
| Pyrene | 0.913 | 0.0554 | 1.108 | 0 | 82.4 | 42 | 125 | | | |
| Surr: 2-Fluorobiphenyl | 4.23 | | 4.433 | | 95.5 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 4.27 | | 4.433 | | 96.4 | 40 | 140 | | | |

| Sample ID: | 0908100-09B-MSD | Batch ID: | 36581 | TestNo: | SW8270C | Units: | mg/Kg-dry | | | |
|------------------------|-----------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MSD | Run ID: | GCMS6_090818A | Analysis Date: | 08/18/09 08:12 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.848 | 0.0556 | 1.113 | 0 | 76.2 | 40 | 140 | 7.50 | 25 | N |
| 2-Methylnaphthalene | 0.853 | 0.0556 | 1.113 | 0 | 76.7 | 47 | 128 | 7.39 | 25 | |
| Acenaphthene | 0.848 | 0.0556 | 1.113 | 0 | 76.2 | 56 | 114 | 7.54 | 25 | |
| Acenaphthylene | 0.846 | 0.0556 | 1.113 | 0 | 76.0 | 56 | 116 | 9.55 | 25 | |
| Anthracene | 0.808 | 0.0556 | 1.113 | 0 | 72.6 | 40 | 113 | 8.56 | 25 | |
| Benzo[a]anthracene | 0.797 | 0.0556 | 1.113 | 0 | 71.6 | 52 | 108 | 6.27 | 25 | |
| Benzo[a]pyrene | 0.835 | 0.0556 | 1.113 | 0 | 75.1 | 48 | 115 | 6.63 | 25 | |
| Benzo[b]fluoranthene | 0.852 | 0.0556 | 1.113 | 0 | 76.6 | 43 | 115 | 6.55 | 25 | |
| Benzo[g,h,i]perylene | 0.838 | 0.0556 | 1.113 | 0 | 75.4 | 47 | 123 | 8.55 | 25 | |
| Benzo[k]fluoranthene | 0.800 | 0.0556 | 1.113 | 0 | 71.9 | 54 | 118 | 12.7 | 25 | |
| Chrysene | 0.838 | 0.0556 | 1.113 | 0 | 75.3 | 56 | 115 | 8.65 | 25 | |
| Dibenz[a,h]anthracene | 0.850 | 0.0556 | 1.113 | 0 | 76.4 | 43 | 120 | 6.68 | 25 | |
| Fluoranthene | 0.908 | 0.0556 | 1.113 | 0 | 81.6 | 41 | 108 | 4.50 | 25 | |
| Fluorene | 0.870 | 0.0556 | 1.113 | 0 | 78.2 | 47 | 128 | 9.25 | 25 | |
| Indeno[1,2,3-cd]pyrene | 0.845 | 0.0556 | 1.113 | 0 | 75.9 | 46 | 119 | 5.92 | 25 | |
| Naphthalene | 0.816 | 0.0556 | 1.113 | 0 | 73.3 | 55 | 113 | 7.58 | 25 | |
| Phenanthrene | 0.858 | 0.0556 | 1.113 | 0 | 77.1 | 55 | 114 | 6.37 | 25 | |
| Pyrene | 0.864 | 0.0556 | 1.113 | 0 | 77.6 | 42 | 125 | 5.56 | 25 | |
| Surr: 2-Fluorobiphenyl | 3.82 | | 4.450 | | 85.8 | 40 | 140 | 0 | 25 | |
| Surr: 4-Terphenyl-d14 | 3.90 | | 4.450 | | 87.6 | 40 | 140 | 0 | 25 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS6_090818A

| Sample ID: | ICV-090818 | Batch ID: | R44945 | TestNo: | SW8270C | Units: | mg/Kg | | | |
|------------------------|------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | ICV | Run ID: | GCMS6_090818A | Analysis Date: | 08/18/09 03:36 PM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 2.04 | 0.0500 | 2.000 | 0 | 102 | 80 | 120 | | | N |
| 2-Methylnaphthalene | 2.07 | 0.0500 | 2.000 | 0 | 103 | 80 | 120 | | | |
| Acenaphthene | 1.98 | 0.0500 | 2.000 | 0 | 99.1 | 80 | 120 | | | |
| Acenaphthylene | 2.05 | 0.0500 | 2.000 | 0 | 102 | 80 | 120 | | | |
| Anthracene | 1.97 | 0.0500 | 2.000 | 0 | 98.6 | 80 | 120 | | | |
| Benzo[a]anthracene | 1.76 | 0.0500 | 2.000 | 0 | 87.9 | 80 | 120 | | | |
| Benzo[a]pyrene | 1.85 | 0.0500 | 2.000 | 0 | 92.5 | 80 | 120 | | | |
| Benzo[b]fluoranthene | 1.87 | 0.0500 | 2.000 | 0 | 93.5 | 80 | 120 | | | |
| Benzo[g,h,i]perylene | 1.91 | 0.0500 | 2.000 | 0 | 95.5 | 80 | 120 | | | |
| Benzo[k]fluoranthene | 1.96 | 0.0500 | 2.000 | 0 | 97.9 | 80 | 120 | | | |
| Chrysene | 1.85 | 0.0500 | 2.000 | 0 | 92.4 | 80 | 120 | | | |
| Dibenz[a,h]anthracene | 1.90 | 0.0500 | 2.000 | 0 | 94.9 | 80 | 120 | | | |
| Fluoranthene | 2.00 | 0.0500 | 2.000 | 0 | 99.9 | 80 | 120 | | | |
| Fluorene | 2.06 | 0.0500 | 2.000 | 0 | 103 | 80 | 120 | | | |
| Indeno[1,2,3-cd]pyrene | 1.89 | 0.0500 | 2.000 | 0 | 94.4 | 80 | 120 | | | |
| Naphthalene | 1.99 | 0.0500 | 2.000 | 0 | 99.7 | 80 | 120 | | | |
| Phenanthrene | 1.93 | 0.0500 | 2.000 | 0 | 96.5 | 80 | 120 | | | |
| Pyrene | 1.89 | 0.0500 | 2.000 | 0 | 94.7 | 80 | 120 | | | |
| Surr: 2-Fluorobiphenyl | 2.07 | | 2.000 | | 103 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 2.00 | | 2.000 | | 100 | 40 | 140 | | | |

| | | | | |
|--------------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS8_090813A

| Sample ID: | LCS-36499 | Batch ID: | 36499 | TestNo: | SW8270C | Units: | mg/Kg | | | |
|------------------------|-----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | GCMS8_090813A | Analysis Date: | 08/13/09 01:34 PM | Prep Date: | 08/12/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.729 | 0.0500 | 1.000 | 0 | 72.9 | 40 | 140 | | | N |
| 2-Methylnaphthalene | 0.714 | 0.0500 | 1.000 | 0 | 71.4 | 47 | 128 | | | |
| Acenaphthene | 0.612 | 0.0500 | 1.000 | 0 | 61.2 | 56 | 114 | | | |
| Acenaphthylene | 0.562 | 0.0500 | 1.000 | 0 | 56.2 | 56 | 116 | | | |
| Anthracene | 0.562 | 0.0500 | 1.000 | 0 | 56.2 | 40 | 113 | | | |
| Benzo[a]anthracene | 0.598 | 0.0500 | 1.000 | 0 | 59.8 | 52 | 108 | | | |
| Benzo[a]pyrene | 0.556 | 0.0500 | 1.000 | 0 | 55.6 | 48 | 115 | | | |
| Benzo[b]fluoranthene | 0.666 | 0.0500 | 1.000 | 0 | 66.6 | 43 | 115 | | | |
| Benzo[g,h,i]perylene | 0.619 | 0.0500 | 1.000 | 0 | 61.9 | 47 | 123 | | | |
| Benzo[k]fluoranthene | 0.676 | 0.0500 | 1.000 | 0 | 67.6 | 54 | 118 | | | |
| Chrysene | 0.620 | 0.0500 | 1.000 | 0 | 62.0 | 56 | 115 | | | |
| Dibenz[a,h]anthracene | 0.609 | 0.0500 | 1.000 | 0 | 60.9 | 43 | 120 | | | |
| Fluoranthene | 0.651 | 0.0500 | 1.000 | 0 | 65.1 | 41 | 108 | | | |
| Fluorene | 0.565 | 0.0500 | 1.000 | 0 | 56.5 | 47 | 128 | | | |
| Indeno[1,2,3-cd]pyrene | 0.613 | 0.0500 | 1.000 | 0 | 61.3 | 46 | 119 | | | |
| Naphthalene | 0.640 | 0.0500 | 1.000 | 0 | 64.0 | 55 | 113 | | | |
| Phenanthrene | 0.615 | 0.0500 | 1.000 | 0 | 61.5 | 55 | 114 | | | |
| Pyrene | 0.634 | 0.0500 | 1.000 | 0 | 63.4 | 42 | 125 | | | |
| Surr: 2-Fluorobiphenyl | 4.43 | | 4.000 | | 111 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 3.71 | | 4.000 | | 92.7 | 40 | 140 | | | |

| Sample ID: | MB-36499 | Batch ID: | 36499 | TestNo: | SW8270C | Units: | mg/Kg | | | |
|------------------------|----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | GCMS8_090813A | Analysis Date: | 08/13/09 02:07 PM | Prep Date: | 08/12/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | ND | 0.0500 | | | | | | | | N |
| 2-Methylnaphthalene | ND | 0.0500 | | | | | | | | |
| Acenaphthene | ND | 0.0500 | | | | | | | | |
| Acenaphthylene | ND | 0.0500 | | | | | | | | |
| Anthracene | ND | 0.0500 | | | | | | | | |
| Benzo[a]anthracene | ND | 0.0500 | | | | | | | | |
| Benzo[a]pyrene | ND | 0.0500 | | | | | | | | |
| Benzo[b]fluoranthene | ND | 0.0500 | | | | | | | | |
| Benzo[g,h,i]perylene | ND | 0.0500 | | | | | | | | |
| Benzo[k]fluoranthene | ND | 0.0500 | | | | | | | | |
| Chrysene | ND | 0.0500 | | | | | | | | |
| Dibenz[a,h]anthracene | ND | 0.0500 | | | | | | | | |
| Fluoranthene | ND | 0.0500 | | | | | | | | |
| Fluorene | ND | 0.0500 | | | | | | | | |
| Indeno[1,2,3-cd]pyrene | ND | 0.0500 | | | | | | | | |
| Naphthalene | ND | 0.0500 | | | | | | | | |
| Phenanthrene | ND | 0.0500 | | | | | | | | |
| Pyrene | ND | 0.0500 | | | | | | | | |
| Surr: 2-Fluorobiphenyl | 4.12 | | 4.000 | | 103 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 3.71 | | 4.000 | | 92.8 | 40 | 140 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|--|---|---------------------------------------|-------------------------------------|
| DF | Dilution Factor | RL | Reporting Limit | |
| J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits | |
| MDL | Method Detection Limit | J | Analyte detected between SDL and RL | |
| ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified | |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS8_090813A

| Sample ID: | 0908100-05B-MS | Batch ID: | 36499 | TestNo: | SW8270C | Units: | mg/Kg-dry | | | |
|------------------------|----------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MS | Run ID: | GCMS8_090813A | Analysis Date: | 08/13/09 03:48 PM | Prep Date: | 08/12/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.747 | 0.0543 | 1.087 | 0 | 68.8 | 40 | 140 | | | N |
| 2-Methylnaphthalene | 0.771 | 0.0543 | 1.087 | 0 | 70.9 | 47 | 128 | | | |
| Acenaphthene | 0.614 | 0.0543 | 1.087 | 0 | 56.5 | 56 | 114 | | | |
| Acenaphthylene | 0.733 | 0.0543 | 1.087 | 0 | 67.5 | 56 | 116 | | | |
| Anthracene | 0.573 | 0.0543 | 1.087 | 0 | 52.7 | 40 | 113 | | | |
| Benzo[a]anthracene | 0.616 | 0.0543 | 1.087 | 0 | 56.7 | 52 | 108 | | | |
| Benzo[a]pyrene | 0.641 | 0.0543 | 1.087 | 0 | 59.0 | 48 | 115 | | | |
| Benzo[b]fluoranthene | 0.655 | 0.0543 | 1.087 | 0 | 60.3 | 43 | 115 | | | |
| Benzo[g,h,i]perylene | 0.717 | 0.0543 | 1.087 | 0 | 66.0 | 47 | 123 | | | |
| Benzo[k]fluoranthene | 0.646 | 0.0543 | 1.087 | 0 | 59.5 | 54 | 118 | | | |
| Chrysene | 0.658 | 0.0543 | 1.087 | 0 | 60.6 | 56 | 115 | | | |
| Dibenz[a,h]anthracene | 0.720 | 0.0543 | 1.087 | 0 | 66.3 | 43 | 120 | | | |
| Fluoranthene | 0.685 | 0.0543 | 1.087 | 0 | 63.0 | 41 | 108 | | | |
| Fluorene | 0.432 | 0.0543 | 1.087 | 0 | 39.8 | 47 | 128 | | | S |
| Indeno[1,2,3-cd]pyrene | 0.732 | 0.0543 | 1.087 | 0 | 67.4 | 46 | 119 | | | |
| Naphthalene | 0.695 | 0.0543 | 1.087 | 0 | 63.9 | 55 | 113 | | | |
| Phenanthrene | 0.601 | 0.0543 | 1.087 | 0 | 55.3 | 55 | 114 | | | |
| Pyrene | 0.693 | 0.0543 | 1.087 | 0 | 63.8 | 42 | 125 | | | |
| Surr: 2-Fluorobiphenyl | 4.49 | | 4.347 | | 103 | 40 | 140 | | | |
| Surr: 4-Terphenyl-d14 | 3.61 | | 4.347 | | 83.1 | 40 | 140 | | | |

| Sample ID: | 0908100-05B-MSD | Batch ID: | 36499 | TestNo: | SW8270C | Units: | mg/Kg-dry | | | |
|------------------------|-----------------|-----------|---------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| SampType: | MSD | Run ID: | GCMS8_090813A | Analysis Date: | 08/13/09 04:22 PM | Prep Date: | 08/12/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1-Methylnaphthalene | 0.787 | 0.0527 | 1.055 | 0 | 74.6 | 40 | 140 | 5.18 | 25 | N |
| 2-Methylnaphthalene | 0.784 | 0.0527 | 1.055 | 0 | 74.4 | 47 | 128 | 1.75 | 25 | |
| Acenaphthene | 0.699 | 0.0527 | 1.055 | 0 | 66.2 | 56 | 114 | 13.0 | 25 | |
| Acenaphthylene | 0.637 | 0.0527 | 1.055 | 0 | 60.4 | 56 | 116 | 14.0 | 25 | |
| Anthracene | 0.554 | 0.0527 | 1.055 | 0 | 52.5 | 40 | 113 | 3.27 | 25 | |
| Benzo[a]anthracene | 0.609 | 0.0527 | 1.055 | 0 | 57.7 | 52 | 108 | 1.25 | 25 | |
| Benzo[a]pyrene | 0.613 | 0.0527 | 1.055 | 0 | 58.1 | 48 | 115 | 4.46 | 25 | |
| Benzo[b]fluoranthene | 0.597 | 0.0527 | 1.055 | 0 | 56.6 | 43 | 115 | 9.20 | 25 | |
| Benzo[g,h,i]perylene | 0.704 | 0.0527 | 1.055 | 0 | 66.7 | 47 | 123 | 1.86 | 25 | |
| Benzo[k]fluoranthene | 0.677 | 0.0527 | 1.055 | 0 | 64.2 | 54 | 118 | 4.69 | 25 | |
| Chrysene | 0.639 | 0.0527 | 1.055 | 0 | 60.5 | 56 | 115 | 3.04 | 25 | |
| Dibenz[a,h]anthracene | 0.707 | 0.0527 | 1.055 | 0 | 67.0 | 43 | 120 | 1.90 | 25 | |
| Fluoranthene | 0.587 | 0.0527 | 1.055 | 0 | 55.6 | 41 | 108 | 15.5 | 25 | |
| Fluorene | 0.604 | 0.0527 | 1.055 | 0 | 57.3 | 47 | 128 | 33.3 | 25 | R |
| Indeno[1,2,3-cd]pyrene | 0.705 | 0.0527 | 1.055 | 0 | 66.9 | 46 | 119 | 3.76 | 25 | |
| Naphthalene | 0.697 | 0.0527 | 1.055 | 0 | 66.1 | 55 | 113 | 0.343 | 25 | |
| Phenanthrene | 0.604 | 0.0527 | 1.055 | 0 | 57.2 | 55 | 114 | 0.475 | 25 | |
| Pyrene | 0.589 | 0.0527 | 1.055 | 0 | 55.8 | 42 | 125 | 16.3 | 25 | |
| Surr: 2-Fluorobiphenyl | 4.68 | | 4.220 | | 111 | 40 | 140 | 0 | 25 | |
| Surr: 4-Terphenyl-d14 | 3.77 | | 4.220 | | 89.4 | 40 | 140 | 0 | 25 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS8_090813A

| Sample ID: | ICV-090813 | Batch ID: | R44856 | TestNo: | SW8270C | Units: | mg/Kg | | | | |
|------------------------|------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|--|
| SampType: | ICV | Run ID: | GCMS8_090813A | Analysis Date: | 08/13/09 12:58 PM | Prep Date: | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual | |
| 1-Methylnaphthalene | 1.76 | 0.0500 | 2.000 | 0 | 88.0 | 80 | 120 | | | N | |
| 2-Methylnaphthalene | 1.78 | 0.0500 | 2.000 | 0 | 89.0 | 80 | 120 | | | | |
| Acenaphthene | 1.82 | 0.0500 | 2.000 | 0 | 91.0 | 80 | 120 | | | | |
| Acenaphthylene | 1.64 | 0.0500 | 2.000 | 0 | 82.2 | 80 | 120 | | | | |
| Anthracene | 1.72 | 0.0500 | 2.000 | 0 | 85.8 | 80 | 120 | | | | |
| Benzo[a]anthracene | 1.71 | 0.0500 | 2.000 | 0 | 85.5 | 80 | 120 | | | | |
| Benzo[a]pyrene | 1.69 | 0.0500 | 2.000 | 0 | 84.5 | 80 | 120 | | | | |
| Benzo[b]fluoranthene | 2.17 | 0.0500 | 2.000 | 0 | 109 | 80 | 120 | | | | |
| Benzo[g,h,i]perylene | 1.66 | 0.0500 | 2.000 | 0 | 83.0 | 80 | 120 | | | | |
| Benzo[k]fluoranthene | 2.25 | 0.0500 | 2.000 | 0 | 113 | 80 | 120 | | | | |
| Chrysene | 1.84 | 0.0500 | 2.000 | 0 | 92.0 | 80 | 120 | | | | |
| Dibenz[a,h]anthracene | 1.75 | 0.0500 | 2.000 | 0 | 87.6 | 80 | 120 | | | | |
| Fluoranthene | 1.95 | 0.0500 | 2.000 | 0 | 97.7 | 80 | 120 | | | | |
| Fluorene | 1.78 | 0.0500 | 2.000 | 0 | 89.2 | 80 | 120 | | | | |
| Indeno[1,2,3-cd]pyrene | 1.74 | 0.0500 | 2.000 | 0 | 86.9 | 80 | 120 | | | | |
| Naphthalene | 1.80 | 0.0500 | 2.000 | 0 | 90.0 | 80 | 120 | | | | |
| Phenanthrene | 1.81 | 0.0500 | 2.000 | 0 | 90.6 | 80 | 120 | | | | |
| Pyrene | 1.90 | 0.0500 | 2.000 | 0 | 95.1 | 80 | 120 | | | | |
| Surr: 2-Fluorobiphenyl | 1.83 | | 2.000 | | 91.6 | 40 | 140 | | | | |
| Surr: 4-Terphenyl-d14 | 1.79 | | 2.000 | | 89.4 | 40 | 140 | | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_090817A

| Sample ID: | LCS-36587 | Batch ID: | 36587 | TestNo: | SW8260B | Units: | mg/Kg | | | |
|-----------------------------|-----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | LCS | Run ID: | GCMS1_090817A | Analysis Date: | 08/17/09 12:12 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1,1-Trichloroethane | 0.0264 | 0.00500 | 0.0232 | 0 | 114 | 68 | 130 | | | |
| 1,1,2,2-Tetrachloroethane | 0.0227 | 0.00500 | 0.0232 | 0 | 97.9 | 59 | 140 | | | |
| 1,1,2-Trichloroethane | 0.0281 | 0.00500 | 0.0232 | 0 | 121 | 62 | 127 | | | |
| 1,1-Dichloroethane | 0.0268 | 0.00500 | 0.0232 | 0 | 115 | 73 | 125 | | | |
| 1,1-Dichloroethene | 0.0263 | 0.00500 | 0.0232 | 0 | 113 | 65 | 136 | | | |
| 1,2-Dibromoethane | 0.0223 | 0.00500 | 0.0232 | 0 | 96.1 | 70 | 124 | | | |
| 1,2-Dichloroethane | 0.0269 | 0.00500 | 0.0232 | 0 | 116 | 72 | 137 | | | |
| Benzene | 0.0269 | 0.00500 | 0.0232 | 0 | 116 | 75 | 125 | | | |
| Carbon tetrachloride | 0.0260 | 0.00500 | 0.0232 | 0 | 112 | 67 | 133 | | | |
| Chloroform | 0.0268 | 0.00500 | 0.0232 | 0 | 115 | 72 | 124 | | | |
| Ethylbenzene | 0.0221 | 0.00500 | 0.0232 | 0 | 95.1 | 75 | 125 | | | |
| Methylene chloride | 0.0287 | 0.00500 | 0.0232 | 0 | 124 | 63 | 137 | | | |
| Tetrachloroethene | 0.0241 | 0.00500 | 0.0232 | 0 | 104 | 67 | 139 | | | |
| Toluene | 0.0265 | 0.00500 | 0.0232 | 0 | 114 | 75 | 125 | | | |
| Trichloroethene | 0.0277 | 0.00500 | 0.0232 | 0 | 119 | 77 | 124 | | | |
| Vinyl chloride | 0.0267 | 0.00500 | 0.0232 | 0 | 115 | 58 | 126 | | | |
| Surr: 1,2-Dichloroethane-d4 | 50.9 | | 50.00 | | 102 | 78 | 125 | | | |
| Surr: 4-Bromofluorobenzene | 49.2 | | 50.00 | | 98.3 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 52.9 | | 50.00 | | 106 | 84 | 116 | | | |
| Surr: Toluene-d8 | 45.4 | | 50.00 | | 90.8 | 84 | 118 | | | |

| Sample ID: | MB-36587 | Batch ID: | 36587 | TestNo: | SW8260B | Units: | mg/Kg | | | |
|-----------------------------|----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | GCMS1_090817A | Analysis Date: | 08/17/09 01:16 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1,1-Trichloroethane | ND | 0.00500 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.00500 | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.00500 | | | | | | | | |
| 1,1-Dichloroethane | ND | 0.00500 | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.00500 | | | | | | | | |
| 1,2-Dibromoethane | ND | 0.00500 | | | | | | | | |
| 1,2-Dichloroethane | ND | 0.00500 | | | | | | | | |
| Benzene | ND | 0.00500 | | | | | | | | |
| Carbon tetrachloride | ND | 0.00500 | | | | | | | | |
| Chloroform | ND | 0.00500 | | | | | | | | |
| Ethylbenzene | ND | 0.00500 | | | | | | | | |
| Methylene chloride | ND | 0.00500 | | | | | | | | |
| Tetrachloroethene | ND | 0.00500 | | | | | | | | |
| Toluene | ND | 0.00500 | | | | | | | | |
| Trichloroethene | ND | 0.00500 | | | | | | | | |
| Vinyl chloride | ND | 0.00500 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 50.5 | | 50.00 | | 101 | 78 | 125 | | | |
| Surr: 4-Bromofluorobenzene | 48.7 | | 50.00 | | 97.5 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 52.1 | | 50.00 | | 104 | 84 | 116 | | | |
| Surr: Toluene-d8 | 45.4 | | 50.00 | | 90.9 | 84 | 118 | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_090817A

| Sample ID: | 0908100-09AMS | Batch ID: | 36587 | TestNo: | SW8260B | Units: | mg/Kg-dry | | | |
|-----------------------------|---------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MS | Run ID: | GCMS1_090817A | Analysis Date: | 08/17/09 03:58 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1-Dichloroethene | 0.0537 | 0.00531 | 0.0531 | 0 | 101 | 65 | 136 | | | |
| Benzene | 0.0589 | 0.00531 | 0.0531 | 0 | 111 | 75 | 125 | | | |
| Chlorobenzene | 0.0519 | 0.00531 | 0.0531 | 0 | 97.7 | 75 | 123 | | | |
| Toluene | 0.0604 | 0.00531 | 0.0531 | 0 | 114 | 75 | 125 | | | |
| Trichloroethene | 0.0543 | 0.00531 | 0.0531 | 0 | 102 | 77 | 124 | | | |
| Surr: 1,2-Dichloroethane-d4 | 57.0 | | 53.09 | | 107 | 78 | 125 | | | |
| Surr: 4-Bromofluorobenzene | 55.7 | | 53.09 | | 105 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 57.1 | | 53.09 | | 108 | 84 | 116 | | | |
| Surr: Toluene-d8 | 47.9 | | 53.09 | | 90.2 | 84 | 118 | | | |

| Sample ID: | 0908100-09AMSD | Batch ID: | 36587 | TestNo: | SW8260B | Units: | mg/Kg-dry | | | |
|-----------------------------|----------------|-----------|---------------|----------------|-------------------|------------|-----------|-------|-----------|------|
| SampType: | MSD | Run ID: | GCMS1_090817A | Analysis Date: | 08/17/09 04:32 PM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1-Dichloroethene | 0.0530 | 0.00504 | 0.0504 | 0 | 105 | 65 | 136 | 1.18 | 30 | |
| Benzene | 0.0595 | 0.00504 | 0.0504 | 0 | 118 | 75 | 125 | 1.03 | 30 | |
| Chlorobenzene | 0.0535 | 0.00504 | 0.0504 | 0 | 106 | 75 | 123 | 2.99 | 30 | |
| Toluene | 0.0609 | 0.00504 | 0.0504 | 0 | 121 | 75 | 125 | 0.891 | 30 | |
| Trichloroethene | 0.0534 | 0.00504 | 0.0504 | 0 | 106 | 77 | 124 | 1.53 | 30 | |
| Surr: 1,2-Dichloroethane-d4 | 52.6 | | 50.40 | | 104 | 78 | 125 | 0 | 0 | |
| Surr: 4-Bromofluorobenzene | 52.0 | | 50.40 | | 103 | 82 | 125 | 0 | 0 | |
| Surr: Dibromofluoromethane | 53.8 | | 50.40 | | 107 | 84 | 116 | 0 | 0 | |
| Surr: Toluene-d8 | 45.5 | | 50.40 | | 90.4 | 84 | 118 | 0 | 0 | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_090817A

| Sample ID: | ICV-090817 | Batch ID: | R44898 | TestNo: | SW8260B | Units: | mg/Kg | | | |
|-----------------------------|------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | ICV | Run ID: | GCMS1_090817A | Analysis Date: | 08/17/09 11:37 AM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1,1-Trichloroethane | 0.0536 | 0.00500 | 0.0464 | 0 | 116 | 70 | 130 | | | |
| 1,1,2,2-Tetrachloroethane | 0.0429 | 0.00500 | 0.0464 | 0 | 92.5 | 70 | 130 | | | |
| 1,1,2-Trichloroethane | 0.0559 | 0.00500 | 0.0464 | 0 | 121 | 70 | 130 | | | |
| 1,1-Dichloroethane | 0.0544 | 0.00500 | 0.0464 | 0 | 117 | 70 | 130 | | | |
| 1,1-Dichloroethene | 0.0529 | 0.00500 | 0.0464 | 0 | 114 | 80 | 120 | | | |
| 1,2-Dibromoethane | 0.0440 | 0.00500 | 0.0464 | 0 | 94.7 | 70 | 130 | | | |
| 1,2-Dichloroethane | 0.0552 | 0.00500 | 0.0464 | 0 | 119 | 70 | 130 | | | |
| Benzene | 0.0541 | 0.00500 | 0.0464 | 0 | 117 | 70 | 130 | | | |
| Carbon tetrachloride | 0.0535 | 0.00500 | 0.0464 | 0 | 115 | 70 | 130 | | | |
| Chloroform | 0.0536 | 0.00500 | 0.0464 | 0 | 116 | 80 | 120 | | | |
| Ethylbenzene | 0.0435 | 0.00500 | 0.0464 | 0 | 93.7 | 80 | 120 | | | |
| Methylene chloride | 0.0573 | 0.00500 | 0.0464 | 0 | 123 | 70 | 130 | | | |
| Tetrachloroethene | 0.0443 | 0.00500 | 0.0464 | 0 | 95.4 | 70 | 130 | | | |
| Toluene | 0.0529 | 0.00500 | 0.0464 | 0 | 114 | 80 | 120 | | | |
| Trichloroethene | 0.0555 | 0.00500 | 0.0464 | 0 | 120 | 70 | 130 | | | |
| Vinyl chloride | 0.0523 | 0.00500 | 0.0464 | 0 | 113 | 80 | 120 | | | |
| Surr: 1,2-Dichloroethane-d4 | 51.6 | | 50.00 | | 103 | 78 | 125 | | | |
| Surr: 4-Bromofluorobenzene | 48.7 | | 50.00 | | 97.4 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 53.2 | | 50.00 | | 106 | 84 | 116 | | | |
| Surr: Toluene-d8 | 44.5 | | 50.00 | | 89.0 | 84 | 118 | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_090813A

| Sample ID: | LCS-36525 | Batch ID: | 36525 | TestNo: | SW8260B | Units: | mg/Kg | | | | |
|-----------------------------|-----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|--|
| SampType: | LCS | Run ID: | GCMS2_090813A | Analysis Date: | 08/13/09 10:18 AM | Prep Date: | 08/13/09 | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual | |
| 1,1,1-Trichloroethane | 0.0252 | 0.00500 | 0.0232 | 0 | 109 | 68 | 130 | | | | |
| 1,1,2,2-Tetrachloroethane | 0.0246 | 0.00500 | 0.0232 | 0 | 106 | 59 | 140 | | | | |
| 1,1,2-Trichloroethane | 0.0230 | 0.00500 | 0.0232 | 0 | 99.1 | 62 | 127 | | | | |
| 1,1-Dichloroethane | 0.0248 | 0.00500 | 0.0232 | 0 | 107 | 73 | 125 | | | | |
| 1,1-Dichloroethene | 0.0207 | 0.00500 | 0.0232 | 0 | 89.4 | 65 | 136 | | | | |
| 1,2-Dibromoethane | 0.0229 | 0.00500 | 0.0232 | 0 | 98.5 | 70 | 124 | | | | |
| 1,2-Dichloroethane | 0.0275 | 0.00500 | 0.0232 | 0 | 119 | 72 | 137 | | | | |
| Benzene | 0.0230 | 0.00500 | 0.0232 | 0 | 99.0 | 75 | 125 | | | | |
| Carbon tetrachloride | 0.0246 | 0.00500 | 0.0232 | 0 | 106 | 67 | 133 | | | | |
| Chloroform | 0.0244 | 0.00500 | 0.0232 | 0 | 105 | 72 | 124 | | | | |
| Ethylbenzene | 0.0232 | 0.00500 | 0.0232 | 0 | 100 | 75 | 125 | | | | |
| Methylene chloride | 0.0234 | 0.00500 | 0.0232 | 0 | 101 | 63 | 137 | | | | |
| Tetrachloroethene | 0.0226 | 0.00500 | 0.0232 | 0 | 97.6 | 67 | 139 | | | | |
| Toluene | 0.0215 | 0.00500 | 0.0232 | 0 | 92.8 | 75 | 125 | | | | |
| Trichloroethene | 0.0224 | 0.00500 | 0.0232 | 0 | 96.6 | 77 | 124 | | | | |
| Vinyl chloride | 0.0262 | 0.00500 | 0.0232 | 0 | 113 | 58 | 126 | | | | |
| Total Xylenes | 0.0691 | 0.00500 | 0.0696 | 0 | 99.3 | 75 | 125 | | | | |
| Surr: 1,2-Dichloroethane-d4 | 62.1 | | 50.00 | | 124 | 78 | 125 | | | | |
| Surr: 4-Bromofluorobenzene | 50.9 | | 50.00 | | 102 | 82 | 125 | | | | |
| Surr: Dibromofluoromethane | 51.6 | | 50.00 | | 103 | 84 | 116 | | | | |
| Surr: Toluene-d8 | 49.3 | | 50.00 | | 98.6 | 84 | 118 | | | | |

| Sample ID: | MB-36525 | Batch ID: | 36525 | TestNo: | SW8260B | Units: | mg/Kg | | | | |
|-----------------------------|----------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|--|
| SampType: | MBLK | Run ID: | GCMS2_090813A | Analysis Date: | 08/13/09 11:26 AM | Prep Date: | 08/13/09 | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual | |
| 1,1,1-Trichloroethane | ND | 0.00500 | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.00500 | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.00500 | | | | | | | | | |
| 1,1-Dichloroethane | ND | 0.00500 | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.00500 | | | | | | | | | |
| 1,2-Dibromoethane | ND | 0.00500 | | | | | | | | | |
| 1,2-Dichloroethane | ND | 0.00500 | | | | | | | | | |
| Benzene | ND | 0.00500 | | | | | | | | | |
| Carbon tetrachloride | ND | 0.00500 | | | | | | | | | |
| Chloroform | ND | 0.00500 | | | | | | | | | |
| Ethylbenzene | ND | 0.00500 | | | | | | | | | |
| Methylene chloride | ND | 0.00500 | | | | | | | | | |
| Tetrachloroethene | ND | 0.00500 | | | | | | | | | |
| Toluene | ND | 0.00500 | | | | | | | | | |
| Trichloroethene | ND | 0.00500 | | | | | | | | | |
| Vinyl chloride | ND | 0.00500 | | | | | | | | | |
| Total Xylenes | ND | 0.00500 | | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 59.0 | | 50.00 | | 118 | 78 | 125 | | | | |
| Surr: 4-Bromofluorobenzene | 51.8 | | 50.00 | | 104 | 82 | 125 | | | | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_090813A

| | | | | | |
|----------------------------|------|-------|------|----|-----|
| Surr: Dibromofluoromethane | 50.9 | 50.00 | 102 | 84 | 116 |
| Surr: Toluene-d8 | 49.8 | 50.00 | 99.6 | 84 | 118 |

| | | | | | | | | | | |
|-----------------------------|-----------------------|----------------------------------|---------------------|---------|------|----------|-----------|------|-----------|------|
| Sample ID: 0908100-05AMS | Batch ID: 36525 | TestNo: SW8260B | Units: mg/Kg-dry | | | | | | | |
| SampType: MS | Run ID: GCMS2_090813A | Analysis Date: 08/13/09 04:57 PM | Prep Date: 08/13/09 | | | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1-Dichloroethene | 0.0464 | 0.00521 | 0.0521 | 0 | 89.2 | 65 | 136 | | | |
| Benzene | 0.0535 | 0.00521 | 0.0521 | 0 | 103 | 75 | 125 | | | |
| Chlorobenzene | 0.0575 | 0.00521 | 0.0521 | 0 | 110 | 75 | 123 | | | |
| Toluene | 0.0525 | 0.00521 | 0.0521 | 0 | 101 | 75 | 125 | | | |
| Trichloroethene | 0.0520 | 0.00521 | 0.0521 | 0 | 99.9 | 77 | 124 | | | |
| Surr: 1,2-Dichloroethane-d4 | 69.3 | | 52.06 | | 133 | 78 | 125 | | | S |
| Surr: 4-Bromofluorobenzene | 53.5 | | 52.06 | | 103 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 54.2 | | 52.06 | | 104 | 84 | 116 | | | |
| Surr: Toluene-d8 | 51.1 | | 52.06 | | 98.1 | 84 | 118 | | | |

| | | | | | | | | | | |
|-----------------------------|-----------------------|----------------------------------|---------------------|---------|------|----------|-----------|------|-----------|------|
| Sample ID: 0908100-05AMSD | Batch ID: 36525 | TestNo: SW8260B | Units: mg/Kg-dry | | | | | | | |
| SampType: MSD | Run ID: GCMS2_090813A | Analysis Date: 08/13/09 05:31 PM | Prep Date: 08/13/09 | | | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1-Dichloroethene | 0.0432 | 0.00493 | 0.0493 | 0 | 87.6 | 65 | 136 | 7.19 | 30 | |
| Benzene | 0.0496 | 0.00493 | 0.0493 | 0 | 101 | 75 | 125 | 7.57 | 30 | |
| Chlorobenzene | 0.0538 | 0.00493 | 0.0493 | 0 | 109 | 75 | 123 | 6.57 | 30 | |
| Toluene | 0.0495 | 0.00493 | 0.0493 | 0 | 100 | 75 | 125 | 5.98 | 30 | |
| Trichloroethene | 0.0485 | 0.00493 | 0.0493 | 0 | 98.3 | 77 | 124 | 7.08 | 30 | |
| Surr: 1,2-Dichloroethane-d4 | 66.6 | | 49.31 | | 135 | 78 | 125 | 0 | 0 | S |
| Surr: 4-Bromofluorobenzene | 51.7 | | 49.31 | | 105 | 82 | 125 | 0 | 0 | |
| Surr: Dibromofluoromethane | 51.7 | | 49.31 | | 105 | 84 | 116 | 0 | 0 | |
| Surr: Toluene-d8 | 48.3 | | 49.31 | | 97.9 | 84 | 118 | 0 | 0 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_090813A

| Sample ID: | ICV-090813 | Batch ID: | R44844 | TestNo: | SW8260B | Units: | mg/Kg | | | |
|-----------------------------|------------|-----------|---------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | ICV | Run ID: | GCMS2_090813A | Analysis Date: | 08/13/09 09:46 AM | Prep Date: | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| 1,1,1-Trichloroethane | 0.0501 | 0.00500 | 0.0464 | 0 | 108 | 70 | 130 | | | |
| 1,1,2,2-Tetrachloroethane | 0.0480 | 0.00500 | 0.0464 | 0 | 103 | 70 | 130 | | | |
| 1,1,2-Trichloroethane | 0.0449 | 0.00500 | 0.0464 | 0 | 96.7 | 70 | 130 | | | |
| 1,1-Dichloroethane | 0.0487 | 0.00500 | 0.0464 | 0 | 105 | 70 | 130 | | | |
| 1,1-Dichloroethene | 0.0411 | 0.00500 | 0.0464 | 0 | 88.6 | 80 | 120 | | | |
| 1,2-Dibromoethane | 0.0451 | 0.00500 | 0.0464 | 0 | 97.3 | 70 | 130 | | | |
| 1,2-Dichloroethane | 0.0547 | 0.00500 | 0.0464 | 0 | 118 | 70 | 130 | | | |
| Benzene | 0.0458 | 0.00500 | 0.0464 | 0 | 98.6 | 70 | 130 | | | |
| Carbon tetrachloride | 0.0493 | 0.00500 | 0.0464 | 0 | 106 | 70 | 130 | | | |
| Chloroform | 0.0475 | 0.00500 | 0.0464 | 0 | 102 | 80 | 120 | | | |
| Ethylbenzene | 0.0453 | 0.00500 | 0.0464 | 0 | 97.6 | 80 | 120 | | | |
| Methylene chloride | 0.0456 | 0.00500 | 0.0464 | 0 | 98.3 | 70 | 130 | | | |
| Tetrachloroethene | 0.0446 | 0.00500 | 0.0464 | 0 | 96.1 | 70 | 130 | | | |
| Toluene | 0.0427 | 0.00500 | 0.0464 | 0 | 91.9 | 80 | 120 | | | |
| Trichloroethene | 0.0448 | 0.00500 | 0.0464 | 0 | 96.5 | 70 | 130 | | | |
| Vinyl chloride | 0.0523 | 0.00500 | 0.0464 | 0 | 113 | 80 | 120 | | | |
| Total Xylenes | 0.135 | 0.00500 | 0.139 | 0 | 97.2 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 59.7 | | 50.00 | | 119 | 78 | 125 | | | |
| Surr: 4-Bromofluorobenzene | 50.3 | | 50.00 | | 101 | 82 | 125 | | | |
| Surr: Dibromofluoromethane | 52.0 | | 50.00 | | 104 | 84 | 116 | | | |
| Surr: Toluene-d8 | 48.9 | | 50.00 | | 97.9 | 84 | 118 | | | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: IC_090814A

| | | | |
|-----------------------|--------------------|----------------------------------|---------------------|
| Sample ID: ICV-090814 | Batch ID: R44853 | TestNo: E300 | Units: mg/Kg |
| SampType: ICV | Run ID: IC_090814A | Analysis Date: 08/14/09 09:16 AM | Prep Date: 08/14/09 |
| Analyte | Result | RL | SPK value |
| Fluoride | 10.3 | 1.00 | 10.00 |
| | | Ref Val | %REC |
| | | 0 | 103 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | |
|------------------------|--------------------|----------------------------------|---------------------|
| Sample ID: CCV1-090814 | Batch ID: R44853 | TestNo: E300 | Units: mg/Kg |
| SampType: CCV | Run ID: IC_090814A | Analysis Date: 08/14/09 12:14 PM | Prep Date: 08/14/09 |
| Analyte | Result | RL | SPK value |
| Fluoride | 3.63 | 1.00 | 4.000 |
| | | Ref Val | %REC |
| | | 0 | 90.8 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | |
|------------------------|--------------------|----------------------------------|---------------------|
| Sample ID: CCV2-090814 | Batch ID: R44853 | TestNo: E300 | Units: mg/Kg |
| SampType: CCV | Run ID: IC_090814A | Analysis Date: 08/14/09 01:36 PM | Prep Date: 08/14/09 |
| Analyte | Result | RL | SPK value |
| Fluoride | 3.61 | 1.00 | 4.000 |
| | | Ref Val | %REC |
| | | 0 | 90.2 |
| | | LowLimit | HighLimit |
| | | 90 | 110 |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
Work Order: 0908100
Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090817A

| Sample ID: | 0908100-05B-DUP | Batch ID: | 36580 | TestNo: | D2216 | Units: | WT% | | | |
|------------------|-----------------|-----------|----------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | DUP | Run ID: | PMOIST_090817A | Analysis Date: | 08/18/09 11:05 AM | Prep Date: | 08/17/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Percent Moisture | 10.6 | 0 | 0 | 10.74 | | | | 1.75 | 30 | |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090819A

| | | | | | | | | | | |
|----------------------------|------------------------|----------------------------------|---------------------|---------|------|----------|-----------|------|-----------|------|
| Sample ID: 0908182-02A-DUP | Batch ID: 36671 | TestNo: D2216 | Units: WT% | | | | | | | |
| SampType: DUP | Run ID: PMOIST_090819A | Analysis Date: 08/20/09 09:30 AM | Prep Date: 08/19/09 | | | | | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Percent Moisture | 7.48 | 0 | 0 | 7.605 | | | | 1.63 | 30 | |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_090814A

| Sample ID: | MB-36551 | Batch ID: | 36551 | TestNo: | SW9014 | Units: | mg/Kg | | | |
|----------------|-----------------|-----------|------------------|----------------|-------------------|------------|-----------|------|-----------|------|
| SampType: | MBLK | Run ID: | UV/VIS_2_090814A | Analysis Date: | 08/15/09 03:46 PM | Prep Date: | 08/14/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Cyanide, Total | ND | 0.500 | | | | | | | | |
| Sample ID: | LCS-36551 | Batch ID: | 36551 | TestNo: | SW9014 | Units: | mg/Kg | | | |
| SampType: | LCS | Run ID: | UV/VIS_2_090814A | Analysis Date: | 08/15/09 03:46 PM | Prep Date: | 08/14/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Cyanide, Total | 5.52 | 0.500 | 5.000 | 0 | 110 | 85 | 115 | | | |
| Sample ID: | 0908100-05B-MS | Batch ID: | 36551 | TestNo: | SW9014 | Units: | mg/Kg-dry | | | |
| SampType: | MS | Run ID: | UV/VIS_2_090814A | Analysis Date: | 08/15/09 03:46 PM | Prep Date: | 08/14/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Cyanide, Total | 6.94 | 0.541 | 5.412 | 0 | 128 | 75 | 125 | | | S |
| Sample ID: | 0908100-05B-MSD | Batch ID: | 36551 | TestNo: | SW9014 | Units: | mg/Kg-dry | | | |
| SampType: | MSD | Run ID: | UV/VIS_2_090814A | Analysis Date: | 08/15/09 03:46 PM | Prep Date: | 08/14/09 | | | |
| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPD Limit | Qual |
| Cyanide, Total | 7.03 | 0.557 | 5.574 | 0 | 126 | 75 | 125 | 1.36 | 30 | S |

| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
|-------------|-----|---|----|---------------------------------------|
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

CLIENT: Larson & Associates
 Work Order: 0908100
 Project: Hobbs Test Shop

ANALYTICAL QC SUMMARY REPORT
 RunID: UV/VIS_2_090814A

| | | | |
|-----------------------|--------------------------|----------------------------------|--------------|
| Sample ID: ICV-090815 | Batch ID: R44866 | TestNo: SW9014 | Units: mg/Kg |
| SampType: ICV | Run ID: UV/VIS_2_090814A | Analysis Date: 08/15/09 03:28 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Cyanide, Total | 0.107 | 0.500 | 0.1000 |
| | | Ref Val | %REC |
| | | 0 | 107 |
| | | LowLimit | HighLimit |
| | | 85 | 115 |
| | | %RPD | RPD Limit |
| | | | Qual |

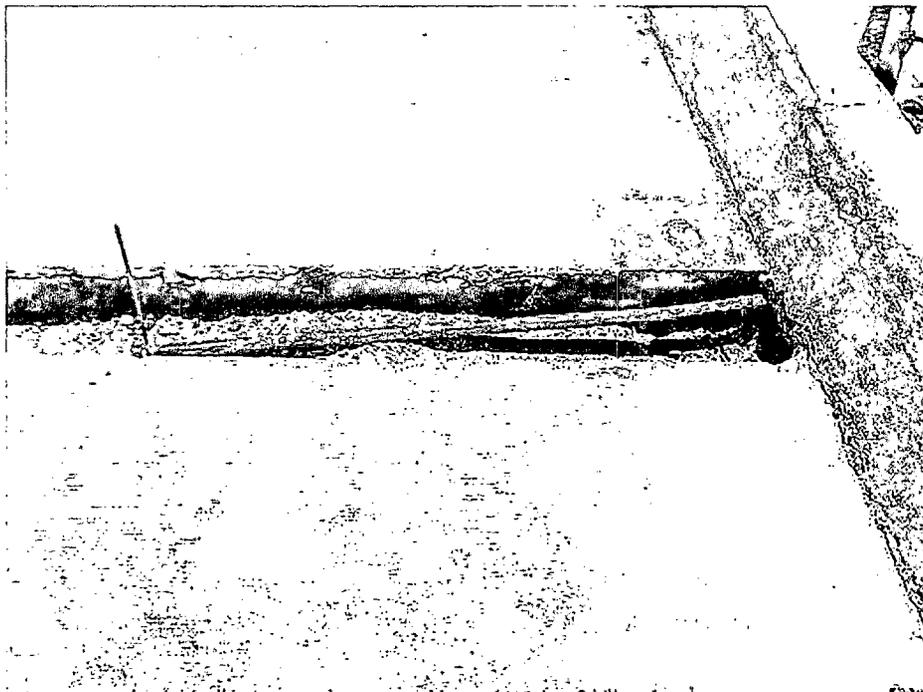
| | | | |
|------------------------|--------------------------|----------------------------------|--------------|
| Sample ID: CCV1-090815 | Batch ID: R44866 | TestNo: SW9014 | Units: mg/Kg |
| SampType: CCV | Run ID: UV/VIS_2_090814A | Analysis Date: 08/15/09 04:04 PM | Prep Date: |
| Analyte | Result | RL | SPK value |
| Cyanide, Total | 0.226 | 0.500 | 0.2000 |
| | | Ref Val | %REC |
| | | 0 | 113 |
| | | LowLimit | HighLimit |
| | | 85 | 115 |
| | | %RPD | RPD Limit |
| | | | Qual |

| | | | | |
|-------------|-----|---|----|---------------------------------------|
| Qualifiers: | B | Analyte detected in the associated Method Blank | R | RPD outside accepted control limits |
| | DF | Dilution Factor | RL | Reporting Limit |
| | J | Analyte detected between MDL and RL | S | Spike Recovery outside control limits |
| | MDL | Method Detection Limit | J | Analyte detected between SDL and RL |
| | ND | Not Detected at the Method Detection Limit | N | Parameter not NELAC certified |

Photo Documentation



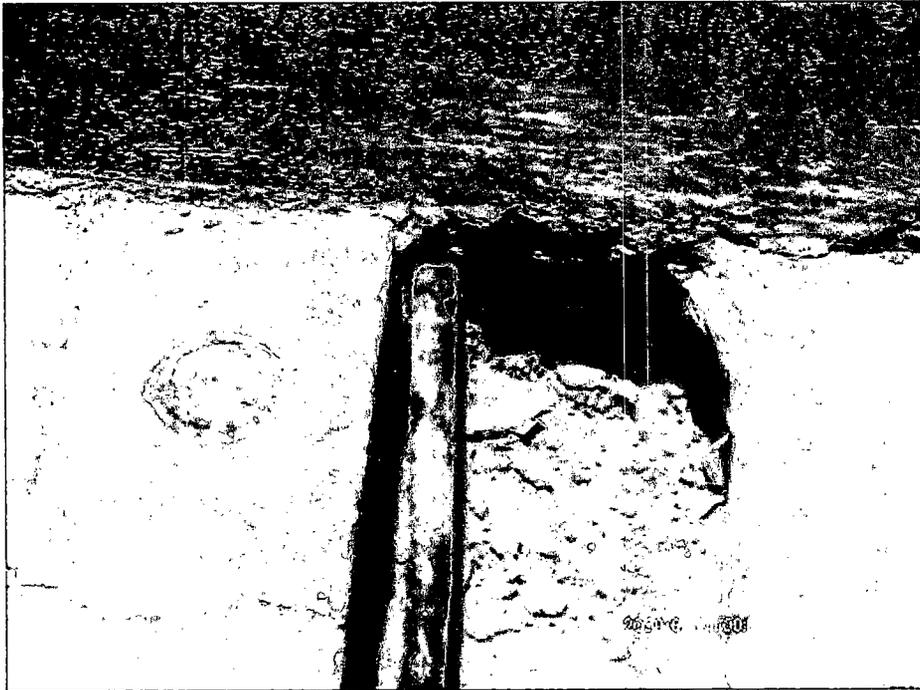
Viewing north: the trenched transfer line to the secondary containment.



View of exposed transfer line at the secondary containment.

Wood Group ESP
Hobbs Test Facility (GW-164)
8426 N Dal Paso
Hobbs, New Mexico
July 17, 2009

Photo Documentation



View of discolored soil and rusting pipe at the secondary containment sidewall.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

| | |
|---|---|
| Name of Company: Wood Group ESP, Inc. | Contact: Mike Schornick, Environmental Engineer |
| Address: 8426 Dal Paso, Hobbs, New Mexico 88240 | Telephone No.: (405) 671-2145 |
| Facility Name: Hobbs Test Facility | Facility Type: Electric Submersible Pump Service Center |
| Surface Owner: Wood Group ESP, Inc. | Mineral Owner: N/A |
| | Lease No.: N/A |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| D | 35 | 17S | 38E | | | | | Lea |

Latitude: N 32° 47' 51.0" Longitude: W 103° 07' 38.5"

NATURE OF RELEASE

| | | |
|--|---|--|
| Type of Release: Storm Water Containing Organic/Inorganic Compounds | Volume of Release: Unknown | Volume Recovered: None |
| Source of Release: Underground Transfer Line | Date and Hour of Occurrence: Unknown | Date and Hour of Discovery: 06/11/2009 |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |
| If a Watercourse was Impacted, Describe Fully.* | | |
| Describe Cause of Problem and Remedial Action Taken.* Underground transfer line from drum storage area sump to discharge tank was pressure tested, as required by condition of discharge permit (GW-164) and failed to hold pressure. Transfer pump was disconnected and underground line was excavated to expose the point of failure which appears to be under a concrete containment structure. No further excavation was performed and excavation was secured. | | |
| Describe Area Affected and Cleanup Action Taken.* Soil conditions appeared moist where underground line is routed under the concrete secondary containment. Pump was disconnected and notification initiated with OCD – Santa Fe Environmental Bureau personnel. | | |

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | | |
|--|--|-----------------------------------|------------------|
| Signature: | | OIL CONSERVATION DIVISION | |
| Printed Name: Mike Schornick, P.E. | | Approved by District Supervisor: | |
| Title: Environmental Engineer | | Approval Date: | Expiration Date: |
| E-mail Address: Mike.Schornick@woodgroup.com | | Conditions of Approval: | |
| Date: 07/09/2009 Phone: (405) 671-2145 | | Attached <input type="checkbox"/> | |

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

| | |
|---|---|
| Name of Company: Wood Group ESP, Inc. | Contact: Mike Schornick, Environmental Engineer |
| Address: 8426 Dal Paso, Hobbs, New Mexico 88240 | Telephone No.: (405) 671-2145 |
| Facility Name: Hobbs Test Facility | Facility Type: Electric Submersible Pump Service Center |
| Surface Owner: Wood Group ESP, Inc. | Mineral Owner: N/A |
| | Lease No.: N/A |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| D | 35 | 17S | 38E | | | | | Lea |

Latitude: N 32° 47' 51.0" Longitude: W 103° 07' 38.5"

NATURE OF RELEASE

| | | |
|--|---|--|
| Type of Release: Storm Water Containing Organic/Inorganic Compounds | Volume of Release: Unknown | Volume Recovered: None |
| Source of Release: Underground Transfer Line | Date and Hour of Occurrence: Unknown | Date and Hour of Discovery: 06/11/2009 |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Underground transfer line from drum storage area sump to discharge tank was pressure tested, as required by condition of discharge permit (GW-164) and failed to hold pressure. Transfer pump was disconnected and underground line was excavated to expose the point of failure which appears to be under a concrete containment structure. No further excavation was performed and excavation was secured.

Describe Area Affected and Cleanup Action Taken.* Soil conditions appeared moist where underground line is routed under the concrete secondary containment. Pump was disconnected and notification initiated with OCD – Santa Fe Environmental Bureau personnel.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | | |
|--|-------------------------|----------------------------------|-----------------------------------|
| | | OIL CONSERVATION DIVISION | |
| Signature: | | Approved by District Supervisor: | |
| Printed Name: Mike Schornick, P.E. | | | |
| Title: Environmental Engineer | Approval Date: | Expiration Date: | |
| E-mail Address: Mike.Schornick@woodgroup.com | Conditions of Approval: | | Attached <input type="checkbox"/> |
| Date: 9/10/09 | Phone: (405) 671-2145 | | |

Attach Additional Sheets If Necessary

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of **THE LOVINGTON LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of **THE LOVINGTON LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of August 13, 2009 and ending with the issue of August 13, 2009.

And that the cost of publishing said notice is the sum of \$ 80.61 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 13th day of August 2009

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2010

LEGAL NOTICE PUBLIC NOTICE

Wood Group ESP, Inc., 6205 Sooner Road, Oklahoma City, Oklahoma, 73135 has submitted an application to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for renewal of a discharge plan permit (GW- 164) for their Hobbs Service Facility located in the NW 1/4, NW 1/4 of Section 35, Township 17 South, Range 38 East in Lea County, New Mexico. The physical address of the facility is 8426 North Dal Paso, Hobbs, New Mexico, 88240. The facility is located approximately 5 miles north of Hobbs, New Mexico.

The facility is a local service center for reconditioning electric submersible pumps used in oil and gas production. The pumps are cleaned to remove oil and scale residues, tested for pumping performance and repaired, if necessary. The pumps external surface is cleaned with a high-pressured steam cleaner. The wash water is collected in a collection sump and transferred to an above ground storage tank. A phosphoric acid based solution is used for removing scale within the internal cavities of the pump in a closed loop system. The acid solution is returned to a fiberglass vat and is re-used until it loses its efficiency. The spent solution is then neutralized with soda ash and transferred to a 330 gallon tote. The facility uses a degreaser for mopping floors on a daily basis. The wash water is captured in a sump and transferred to a 1,000 gallon aboveground storage tank. Used oil is removed from the pump gear housing and placed in drums for pickup in a blend fuels recycling program. Parts washers utilizing petroleum naphtha and commercial solvent are used to clean nuts and bolts. The waste parts washing fluid is disposed off site by a commercial disposal company. Approximately 6 bbls/day of pump and floor wash water, 10 gallons/day of dilute phosphoric acid based solution, 4 gallons/month of parts cleaning solution and 2 gallons/month of used motor oil and hydraulic fluid is generated at the facility. All liquids utilized at the facility are stored in dedicated above ground storage tanks or drums prior to offsite disposal or recycling at an OCD approved site. All storage tanks are within properly engineered and OCD approved secondary containments.

The aquifer most likely to be affected is between 55 and 60 feet below ground surface, and the total dissolved solids concentration of this aquifer is approximately 600 mg/l.

Any interested person or persons may obtain information; submit comments or request to be placed on a facility-specific mailing list for future notices by contacting Leonard Lowe at the New Mexico OCD at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3492. The OCD will accept comments and statements of interest regarding the renewal and will create a facility-specific mailing list for persons who wish to receive future notices.

Published in the Lovington Leader August 13, 2009.

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
EDITOR

of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).

Beginning with the issue dated
August 07, 2009
and ending with the issue dated
August 07, 2009



EDITOR

Sworn and subscribed to before me
this 10th day of
August, 2009


Notary Public

My commission expires

June 16, 2013
(Seal)



This newspaper is duly qualified to
publish legal notices or
advertisements within the meaning of
Section 3, Chapter 167, Laws of
1937 and payment of fees for said
publication has been made.

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-048) Mr. Bob Stewart, Environmental Coordinator, Davis Gas Processing Inc. 211 North Colorado, Midland Texas, 79701, has submitted a renewal application for the previously approved discharge plan for their Denton Davis Gas Plant located in NW/4 SW/4 of Section 2, Township 15 South, Range 37E East, NMPM, Lea County. The facility compresses, treats, dehydrates and performs natural gas recovery. Approximately 750 gallons/day of produced water and 210 bbls/day of condensate are generated and stored on site. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 40 - 105 feet, with a total dissolved solids concentration of approximately 610 - 1600 mg/L.

(GW-355) Transwestern Pipeline Company P.O. Box 1717, Roswell N.M. 88202-1717, has submitted a renewal application for the previously approved discharge plan for their Abatement of ground water and vadose zone contamination at oil and gas sites, identified at the non-operational Bell Lake Gas Plant located in the SW/4 NE/4 of Section 1, Township 24 South, Range 33 East, NMPM, Lea County. The remediation consists of pumping groundwater with elevated concentrations of Benzene in to yet to be approved ponds. Proposed effluents to be located on site will be stored in the ponds. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 90 - 95 feet, with a total dissolved solids concentration of approximately 800 mg/L.

(GW-164) Mr. Mike Schornick, Environmental Engineer, Wood Group ESP, Inc. 6205 Sooner Road, Oklahoma City, Oklahoma 73135 has submitted a renewal application for the previously approved discharge plan for their Oil and Gas Service Company at 8426 N. Dal Paso, Hobbs, located in the NW/4 WW/4 of Section 35, Township 17 South, Range 38 East, NMPM, Lea County. The facility is a service center for reconditioning electric submersible pumps used in the oil and gas industry. Approximately 6000 gal/month of rinsate waste water, 1000 gal/month of waste water, 275 gallons of neutralized acid waste are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 56 feet, with a total dissolved solids concentration of approximately 458 mg/L.

Ms. Diane Kocis, Senior Environmental Specialist, DCP Midstream LP, 370 17th Street, Suite 2500, Denver CO 80202 has submitted a renewal application for the previously approved discharge plan for their:

(GW-162) Antelope Ridge Gas Plant located in SW/4 SE/4 of Section 15, Township 23 South, Range 34 East, NMPM, Lea County. The facility is a natural gas processing plant that removes liquids from natural gas. Approximately 10 bbls/month of waste water, 10 bbls/year of waste oil, and 10 bbls/month of wash water are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 400 feet, with a total dissolved solids concentration of approximately 55 mg/L. (GW-167) Malaga Compressor Station, located in the SW/4 NE/4 of Section 3, Township 24 South, Range 28 East, NMPM, Eddy County. The facility is currently non operational but is capable to provide compression of natural gas for the Carlsbad gathering system. Storm water is the only effluent produced at this facility and is properly stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 39 feet, with a total dissolved solids concentration of approximately 5140 mg/L.

The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The administrative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m. Monday through Friday, or may also be viewed at the NMOCD web site <http://www.emnrd.state.nm.us/ocd/>. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energía, Minerales y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New Mexico (Contacto: Dorothy Phillips, 505-476-3461)

THE SANTA FE
NEW MEXICAN

Founded 1849

RECEIVED

2009 AUG 13 AM 11 53

NM EMNRD OIL CONSERV
1220 S ST FRANCIS DR
SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00294153 ACCOUNT: 00002212
LEGAL NO: 87815 P.O. #: 52100-00000206
470 LINES 1 TIME(S) 460.53
AFFIDAVIT: 7.00
TAX: 37.69
TOTAL: 505.22

AFFIDAVIT OF PUBLICATION

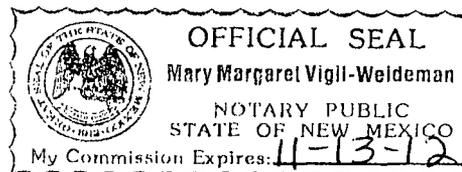
STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, V. Wright, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 87815 a copy of which is hereto attached was published in said newspaper 1 day(s) between 08/12/2009 and 08/12/2009 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 12nd day of August, 2009 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

ISI V Wright
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 12nd day of August, 2009

Notary Mary Margaret Vigil-Weideman
Commission Expires: 11-13-2012



NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106, NMAC), the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-048) Mr. Bob Stewart, Environmental Coordinator, Davis Gas Processing, Inc. 211 North Colorado, Midland Texas 79701, has submitted a renewal application for the previously approved discharge plan for their Denton Davis Gas Plant located in NW/4 SW/4 of Section 2, Township 15 South, Range 37E East, NMPM, Lea County. The facility compresses, treats, dehydrates and performs natural gas recovery. Approximately 750 gallons/day of produced water and 210 bbls/day of condensate are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 40 - 105 feet, with a total dissolved solids concentration of approximately 610 - 1600 mg/L.

(GW-355) Transwestern Pipeline Company P.O. Box 1717, Roswell N.M. 88202-1717, has submitted a renewal application for the previously approved discharge plan for their Abatement of ground water and vadose zone contamination at oil and gas sites, identified at the non-operational Bell Lake Gas Plant located in the SW/4 NE/4 of Section 1, Township 24, South, Range 33 East, NMPM, Lea County. The remediation consists of pumping groundwater with elevated concentrations of Benzene in to yet to be approved ponds. Proposed effluents to be located on site will be stored in the ponds. Groundwater most likely to be affected by a spill, leak or acci-

dental discharge is at a depth of approximately 90 - 95 feet with a total dissolved solids concentration of approximately 800 mg/L.

(GW-171) Ms. Jennifer Lange of BP America Production Company, 200 Energy Court, Farmington NM 87401 has submitted a renewal application for the previously approved discharge plan permit for their 3-C Compressor Station located in the SW/4 SE/4 of Section 29, Township 29 North, Range 12 West, NMPM, San Juan County, approximately one mile southwest of McGee Park and on the west side of Gallegos Canyon. The facility compresses gas from 50 psi to 300 psi and is able to handle 10 million SCF of gas per day. Approximately 300 gallons of lube oil, 400 bbls of produced water and 21 bbls of waste water are stored and/or generated onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 200 - 250 feet, with a total dissolved solids concentration of approximately 1000 mg/L.

(GW-164) Mr. Mike Schornick, Environmental Engineer, Wood Group ESP, Inc. 6205 Sooner Road, Oklahoma City, Oklahoma 73135 has submitted a renewal application for the previously approved discharge plan for their Oil and Gas Service Company at 8426 N. Dal Paso, Hobbs, located in the NW/4 WW/4 of Section 35, Township 17 South, Range 38 East, NMPM, Lea County. The facility is a service center for reconditioning electric submersible pumps used in the oil and gas industry. Approximately 6000 gal/month of rinsate waste water, 1000 gal/month of waste water, 275 gallons of neutralized acid waste are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 56 feet, with a total dissolved solids concentration of approximately 458 mg/L.

(GW-051) Val Verde Gas Gathering Company L.P., has submitted a renewal application for the previously approved discharge plan for their Val Verde Gas Plant located in the SE/4 SE/4 of Section 11, Township 29 North, Range 11 West, NMPM, San Juan County. The facility removes CO2 from natural gas. Approximately 250 gallons/month of used oil, 300 bbls/year of pigging liquids, and 1000 bbls/month of waste water are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 26.5 - 55.5 feet, with a total dissolved solids concentration of approximately 5330 - 7620 mg/L.

Ms. Diane Kocis, Senior Environmental Specialist, DCP Midstream LP, 370 17th Street, Suite 2500, Denver CO 80202 has submitted a renewal application for the previously approved discharge plan for their:

(GW-162) Antelope Ridge Gas Plant located in SW/4 SE/4 of Section 15, Township 23 South, Range 34 East, NMPM, Lea County. The facility is a natural gas processing plant that removes liquids from natural gas. Approximately 10 bbls/month of waste water, 10 bbls/year of waste oil, and 10 bbls/month of wash water are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 400 feet, with a total dissolved solids concentration of approximately 55 mg/L. (GW-167)

Malaga Compressor Station, located in the SW/4 NE/4 of Section 3, Township 24 South, Range 28 East, NMPM, Eddy County. The facility is currently non operational but is capable to provide compression of natural gas for the Carlsbad gathering system. Storm water is the only effluent produced at this facility and is properly stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 39 feet, with a total dissolved solids concentration of approximately 5140 mg/L.

Mr. John Cannon, Environmental Specialist, Chevron USA, 332 Road 3100, Aztec N.M. 87410 has submitted a renewal application for the previously approved discharge plan for their:

(GW-165) La Plata CDP # 2 compressor station located in the NE/4 SW/4 of Section 25, Township 32 North, Range 13 West, NMPM, San Juan County. The facility compresses field natural gas. Approximately 30 bbls/month of produced water, 75 gallons/6 months of wash down water and 80 gallons/month of waste oil are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 26 feet, with a total dissolved solids concentration of approximately 748 mg/L. (GW-166) La Plata CDP # 7 compressor station located in the NE/4 SE/4 of Section 1, Township 31 North, Range 13 West, NMPM, San Juan County. The facility compresses field natural gas. Approximately 30 bbls/month of produced water, 70 gallons/3 months of wash down water and 50 gallons/month of waste oil are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 26 feet, with a total dissolved solids concentration of approximately 748 mg/L.

The discharge plan addresses how oil-field products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given

trative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the NMOCD web site <http://www.emnrd.state.nm.us/ocd/>. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energía, Minerales y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New Mexico (Contacto: Dorothy Phillips, 505-476-3461)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 5th day of August 2009.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

SEAL Mark Fesmire, Director Legal#87815 Pub. August 12, 2009

✓ ①
PUBLIC NOTICE

Wood Group ESP, Inc., 6205 Sooner Road, Oklahoma City, Oklahoma, 73135 has submitted an application to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for renewal of a discharge plan permit (GW- 164) for their Hobbs Service Facility located in the NW ¼, NW ¼ of Section 35, Township 17 South, Range 38 East in Lea County, New Mexico. The physical address of the facility is 8426 North Dal Paso, Hobbs, New Mexico, 88240. The facility is located approximately 5 miles north of Hobbs, New Mexico. ✓ ②

The facility is a local service center for reconditioning electric submersible pumps used in oil and gas production. The pumps are cleaned to remove oil and scale residues, tested for pumping performance and repaired, if necessary. The pumps external surface is cleaned with a high-pressured steam cleaner. The wash water is collected in a collection sump and transferred to an above ground storage tank. A phosphoric acid based solution is used for removing scale within the internal cavities of the pump in a closed loop system. The acid solution is returned to a fiberglass vat and is re-used until it loses its efficiency. The spent solution is then neutralized with soda ash and transferred to a 330 gallon tote. The facility uses a degreaser for mopping floors on a daily basis. The wash water is captured in a sump and transferred to a 1,000 gallon aboveground storage tank. Used oil is removed from the pump gear housing and placed in drums for pickup in a blend fuels recycling program. Parts washers utilizing petroleum naphtha and commercial solvent are used to clean nuts and bolts. The waste parts washing fluid is disposed off site by a commercial disposal company. Approximately 6 bbls/day of pump and floor wash water, 10 gallons/day of dilute phosphoric acid based solution, 4 gallons/month of parts cleaning solution and 2 gallons/month of used motor oil and hydraulic fluid is generated at the facility. All liquids utilized at the facility are stored in dedicated above ground storage tanks or drums prior to offsite disposal or recycling at an OCD approved site. All storage tanks are within properly engineered and OCD approved secondary containments. ✓ ③ ✓ ④

The aquifer most likely to be affected is between 55 and 60 feet below ground surface, and the total dissolved solids concentration of this aquifer is approximately 600 mg/l. ✓ ⑤

Any interested person or persons may obtain information; submit comments or request to be placed on a facility-specific mailing list for future notices by contacting Leonard Lowe at the New Mexico OCD at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3492. The OCD will accept comments and statements of interest regarding the renewal and will create a facility-specific mailing list for persons who wish to receive future notices. ✓ ⑥ ⑦

Approved 8.6.9

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Thursday, August 06, 2009 1:56 PM
To: 'Schornick, Mike'
Subject: RE: Wood Group ESP, Inc. Hobbs Test Facility (GW-164) Cover Letter, Release Notification (C-141) and Sampling Plan

Mr. Schornick,

The OCD approves your submitted work plan.

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Schornick, Mike [mailto:Mike.Schornick@woodgroup.com]
Sent: Thursday, July 16, 2009 1:41 PM
To: Lowe, Leonard, EMNRD
Cc: VonGonten, Glenn, EMNRD; Baron, Sam; Mark Larson
Subject: Wood Group ESP, Inc. Hobbs Test Facility (GW-164) Cover Letter, Release Notification (C-141) and Sampling Plan
Importance: High

Mr. Lowe:

Pursuant to your request, attached please find my cover letter, Form C-141, and Sampling Plan in regards to the WGESP Hobbs Test Facility.

Please note in Item 3 of the Sampling and Analysis Plan that our consultant has recommended an extensive list of constituents be evaluated based on review of the materials which could have been historically present in the area of concern. We feel this is a conservative list and will more than include all possible or potential constituents of concern.

With your concurrence, we are prepared to initiate the investigation next week. I plan to send the original version of the attachments to you and the district office via overnight mail today.

Please let me know if you have questions or require modifications.

Sincerely,

Mike Schornick, P.E.
Environmental Engineer
Wood Group ESP, Inc.
6205 Sooner Road
Oklahoma City, Oklahoma 73135
(405) 671-2145 (office)
(405) 290-8523 (cell)

This email and any files attached to it contain confidential information. Please notify the sender if you have received this email in error. If you are not the intended recipient, any use or disclosure of this email or any attached files is prohibited.

This inbound email has been scanned by the MessageLabs Email Security System.

Wood Group ESP Inc.



July 16, 2009

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
State of New Mexico
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Wood Group ESP Inc.
6500 S.E. 153rd St (73135)
P.O. Box 15070 (73155)
Oklahoma City, OK USA

Tel: 011 1 (405) 670-1431
Fax: 011 1 (405) 670-5463
www.woodgroup-esp.com

RECEIVED
OCD
JUL 17 AM 12:25

**Re: Release Notification and Sampling Plan for Transfer Line Investigation
Wood Group ESP, Inc., Hobbs Test Facility (GW-164)
8426 North Dal Paso, Hobbs, New Mexico**

Dear Mr. Lowe:

The enclosed release notification (C-141) and sampling plan is submitted to the New Mexico Oil Conservation Division (OCD) by Wood Group ESP, Inc. (Wood Group) transfer line release investigation at the Wood Group Hobbs Test Facility located at 8426 North Dal Paso in Hobbs, New Mexico. The transfer line failed a pressure test that was required as a condition of the discharge permit (GW-164). Wood Group proposes to perform an investigation that includes collecting soil samples for laboratory analysis during the week of July 20, 2009. The laboratory analytical results will be submitted to the OCD within 45 days after receiving the final laboratory report. I will contact you as soon as possible if there is a change in the field schedule. Please contact me at (405) 671-2145 or email Mike.Schornick@woodgroup.com if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mike Schornick', is written over a light blue horizontal line.

Mike Schornick, P.E.,
Environmental Engineer
Mike.Schornick@woodgroup.com

Encl.

cc: Larry Hill, OCD District 1 – Hobbs

**Sampling and Analysis Plan
Underground Transfer Line Release
Wood Group ESP, Inc., Hobbs Test Facility
July 15, 2009**

The following sampling and analysis plan is submitted to the New Mexico Oil Conservation Division (OCD) by Wood Group ESP, Inc. (Wood Group) for a potential release of liquids from an underground transfer line at its Hobbs Test Facility (Facility) located at 8426 North Dal Paso, in Hobbs, New Mexico. The legal description for the Facility is Unit D (NW/4, NW/4), Section 35, Township 17 South and Range 38 East. The latitude and longitude is 32° 47' 51.0" north and 103° 07' 38.5" west, respectively. The Facility is a regional center that services electrical submersible pumps used in the oil and gas industry and operated under discharge permit GW-164 administered by the OCD.

On June 11, 2009, Wood Group personnel pressure tested a subsurface transfer line that conveys liquid from a sump in a covered drum storage area to a non-hazardous waste water tank, as a condition of the discharge permit. The transfer line failed to the test and the buried line was excavated to isolate the release point. The line was excavated to the point where the line extends beneath a concrete containment structure. Moist soil conditions were observed near point where transfer line disappeared beneath the concrete containment. An initial form C-141 (*Release Notification and Corrective Action*) is attached and Wood Group proposes the following actions:

1. Wood Group will remove the transfer line from service and manage liquid inside the secondary containment as allowed under the discharge permit;
2. Wood Group proposes to collect samples to assess the release. Soil samples will be collected from a boring to be installed using a TerraProbe® direct-push sampler near the point where the transfer line disappears beneath the concrete containment and moist soil conditions were observed. The boring will be advanced to refusal depth or approximately 12 feet below ground surface (BGS), whichever occurs first. Soil samples will be collected in 4-foot increments using a stainless steel core barrel equipped with a dedicated polyethylene liners. The polyethylene liners will be split length wise to expose the soil core sample for physical examination and screening using a calibrated photoionization detector (PID). Wood Group will initially select two (2) samples exhibiting visual contamination or highest PID values for laboratory analysis. The samples will be placed in clean glass sample containers to near-zero headspace, sealed labeled and placed in an ice-filled chest for transport under chain of custody control to an environmental laboratory. The laboratory will analyze the sample for the New Mexico Water Quality Control Commission (WQCC) constituents (20.6.2.3103(A) NMAC) excluding nitrate, uranium, radium 226 and radium 228. Additional samples may be analyzed depending on the results of the initial samples;
3. Wood Group will evaluate the initial sample results to determine if additional samples should be analyzed;
4. Wood Group will prepare a report for submittal to the OCD within 45 days following receipt of the final laboratory report;
5. Wood Group will provide notification to OCD environmental staff in Santa Fe and Hobbs, New Mexico at least 48 hours before commencing field investigations.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

| | |
|---|---|
| Name of Company: Wood Group ESP, Inc. | Contact: Mike Schornick, Environmental Engineer |
| Address: 8426 Dal Paso, Hobbs, New Mexico 88240 | Telephone No.: (405) 671-2145 |
| Facility Name: Hobbs Test Facility | Facility Type: Electric Submersible Pump Service Center |
| Surface Owner: Wood Group ESP, Inc. | Mineral Owner: N/A |
| | Lease No.: N/A |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| D | 35 | 17S | 38E | | | | | Lea |

Latitude: N 32° 47' 51.0" Longitude: W 103° 07' 38.5"

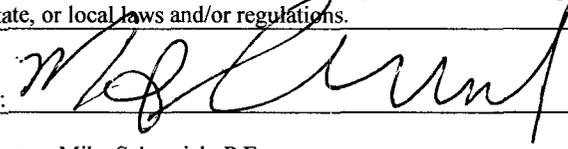
NATURE OF RELEASE

| | | |
|--|---|--|
| Type of Release: Storm Water Containing Organic/Inorganic Compounds | Volume of Release: Unknown | Volume Recovered: None |
| Source of Release: Underground Transfer Line | Date and Hour of Occurrence: Unknown | Date and Hour of Discovery: 06/11/2009 |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |
| If a Watercourse was Impacted, Describe Fully.* | | |

Describe Cause of Problem and Remedial Action Taken.* Underground transfer line from drum storage area sump to discharge tank was pressure tested, as required by condition of discharge permit (GW-164) and failed to hold pressure. Transfer pump was disconnected and underground line was excavated to expose the point of failure which appears to be under a concrete containment structure. No further excavation was performed and excavation was secured.

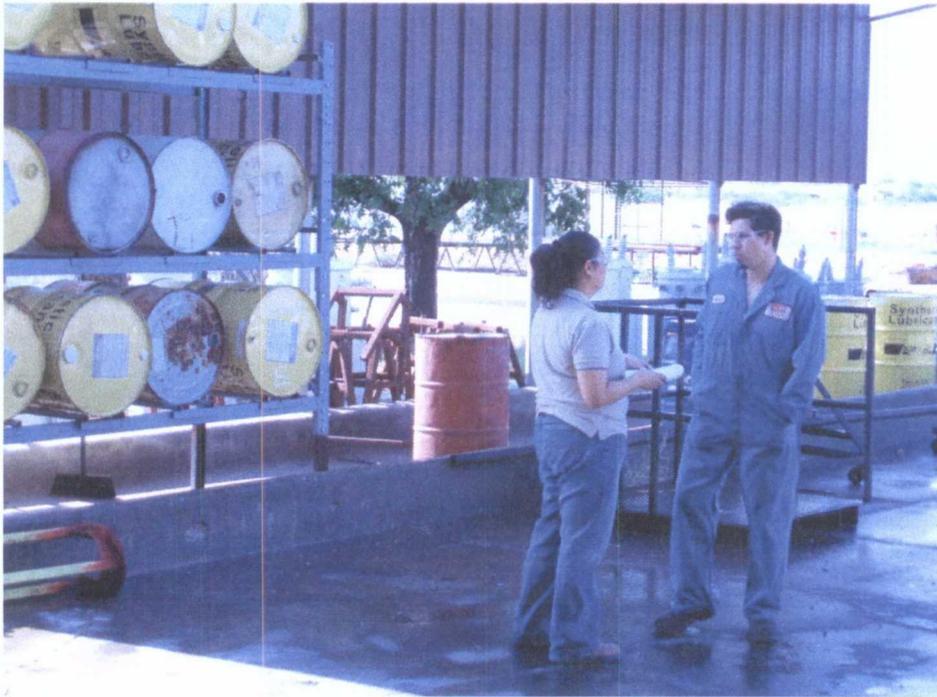
Describe Area Affected and Cleanup Action Taken.* Soil conditions appeared moist where underground line is routed under the concrete secondary containment. Pump was disconnected and notification initiated with OCD - Santa Fe Environmental Bureau personnel.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|--|----------------------------------|-----------------------------------|
| Signature:  | OIL CONSERVATION DIVISION | |
| Printed Name: Mike Schornick, P.E. | Approved by District Supervisor: | |
| Title: Environmental Engineer | Approval Date: | Expiration Date: |
| E-mail Address: Mike.Schornick@woodgroup.com | Conditions of Approval: | Attached <input type="checkbox"/> |
| Date: 07/09/2009 | Phone: (405) 671-2145 | |

* Attach Additional Sheets If Necessary

Photo Documentation

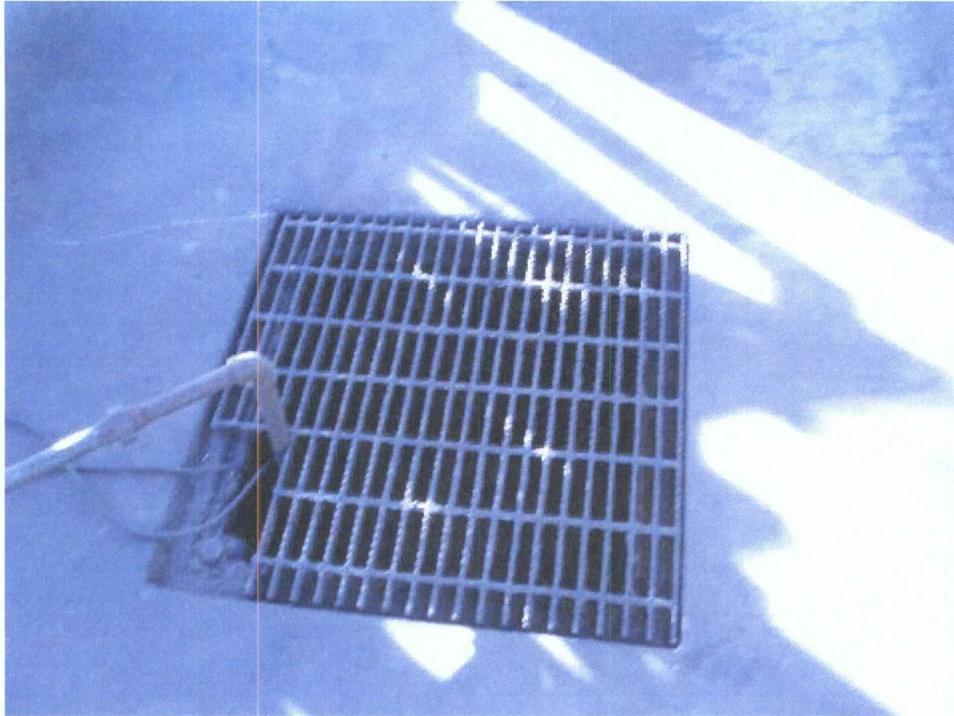


Viewing south covered secondary containment.



Viewing south containment with sump.

Photo Documentation



View of sump with transfer line.



View of sump, transfer line, and pump in the secondary containment.

Photo Documentation



Viewing north of secondary containment with Mop Wash Water Tank.

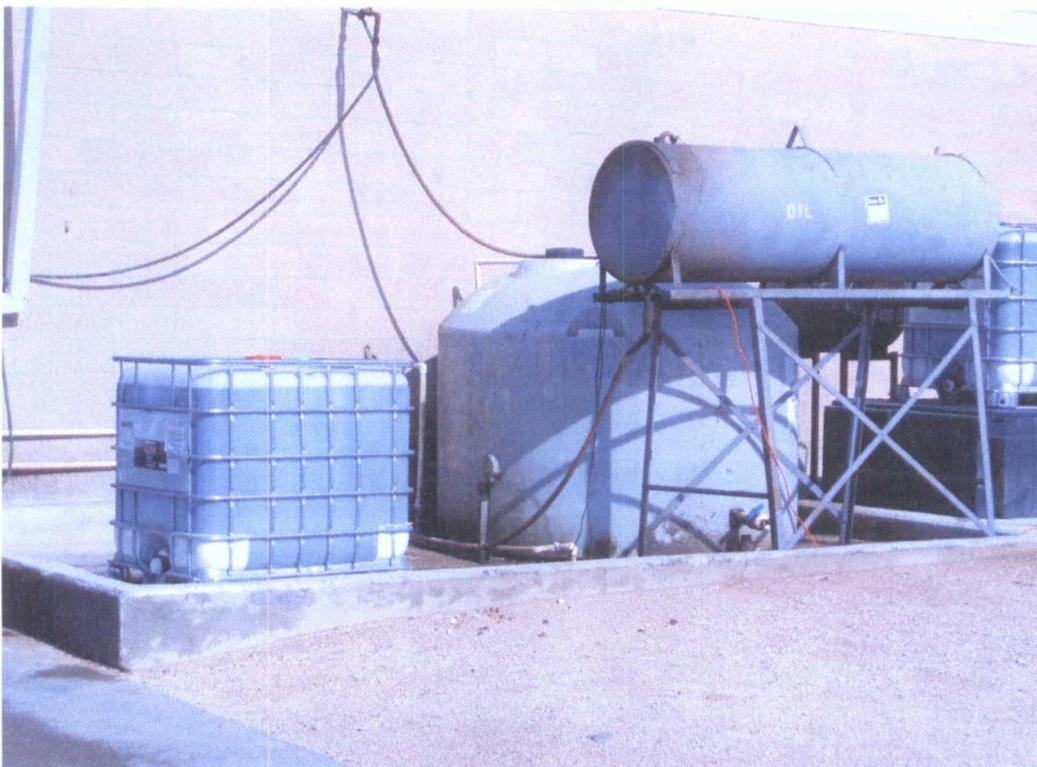


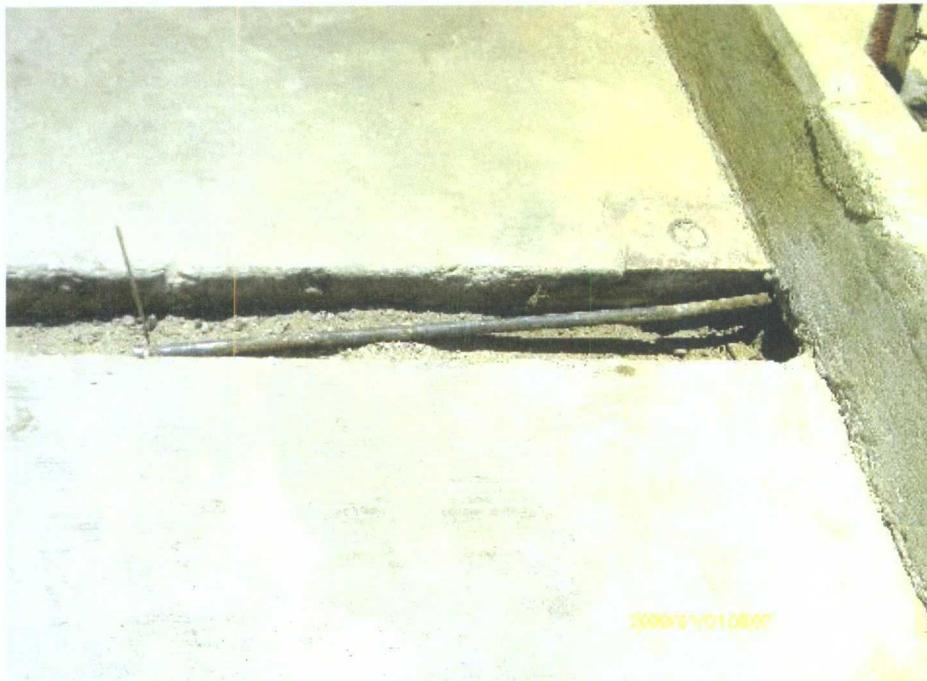
Photo Documentation

Another view of containment with Mop Wash Water Tank (white poly tank).

Photo Documentation



Viewing north: the trenched transfer line to the secondary containment.



View of exposed transfer line at the secondary containment.

Wood Group ESP
Hobbs Test Facility (GW-164)
8426 N Dal Paso
Hobbs, New Mexico
July 17, 2009

Photo Documentation



View of discolored soil and rusting pipe at the secondary containment sidewall.

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Tuesday, June 23, 2009 2:01 PM
To: 'Michelle Green'
Subject: RE: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

Michelle,

As discussed per our conversation this afternoon.

The OCD approves your prescribed sampling and analysis plan, but would like to include the following:

1. Verify what type of fluids are and were stored in the containment area previously.
2. Verify what type of constituents in those items held within the containment area are noted within WQCC 3103.
3. Submit a plan to test for those criteria.
4. Submit a full view of photographs describing the set up pertaining to these sumps/drain lines.

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Michelle Green [mailto:michelle@laenvironmental.com]
Sent: Monday, June 22, 2009 4:48 PM
To: Lowe, Leonard, EMNRD
Subject: RE: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

Thank you I will think about them in my sleep. Have a good evening. I am on my way out. Talk to you tomorrow.

Thank you,

Michelle

From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Monday, June 22, 2009 5:45 PM
To: Michelle Green
Subject: RE: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

A few questions to ponder over until tomorrow:

1. The report indicates the line went from "the sump in the covered drum storage containment to an above ground non-hazardous waste water tank", what are the fluids in the barrels in this storage area?

2. How big is that sump, volume? Pictures?
3. Has the fluids that's been taken to the Class II well ever been tested? If so, when? What was in the fluids?
4. When was the last test? Did that test pass?

More questions tomorrow.

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Michelle Green [mailto:michelle@laenvironmental.com]
Sent: Monday, June 22, 2009 4:32 PM
To: Lowe, Leonard, EMNRD
Subject: RE: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

Hello Leo,

I have not heard from Glenn yet.

I will be in the office all day tomorrow.

Just let me know.

Thank you,

Michelle L. Green
Larson & Associates, Inc.
507 N Marienfeld, Suite 200
Midland, TX 79701

Office: 432.687.0901
Fax: 432.687.0789
Cell: 432.934.3231



From: Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]
Sent: Monday, June 22, 2009 5:31 PM
To: Michelle Green

Subject: RE: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

Michelle Green,

Has Glenn von Gonten gotten with you on this?

If not, can we discuss this tomorrow morning.
I have a few questions.

Thanks

llowe

Leonard Lowe

Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

From: Michelle Green [mailto:michelle@laenvironmental.com]
Sent: Wednesday, June 17, 2009 10:04 AM
To: VonGonten, Glenn, EMNRD; Johnson, Larry, EMNRD; Lowe, Leonard, EMNRD
Cc: Schornick, Mike; Mark Larson
Subject: Notification of Transfer Line Test Results, Wood Group ESP, Inc., Hobbs Test Facility (GW-164), Hobbs, New Mexico

Good morning Mr. Von Gonten,

Attached is the notification of the Transfer Line Test Results for the Wood Group ESP Facility located in Hobbs, NM.

If you have any questions or require additional information please let me know.

Thank you,

Michelle L. Green
Larson & Associates, Inc.
507 N Marienfeld, Suite 200
Midland, TX 79701

Office: 432.687.0901
Fax: 432.687.0789
Cell: 432.934.3231



This inbound email has been scanned by the MessageLabs Email Security System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the MessageLabs Email Security System.

This inbound email has been scanned by the MessageLabs Email Security System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the MessageLabs Email Security System.

This inbound email has been scanned by the MessageLabs Email Security System.
