2R - 38

# REPORTS

DATE:
JULY 1993

A MEMBER OF THE ENVIRONMENTAL RESOURCES MANAGEMENT GROUP

# PRELIMINARY SITE INVESTIGATION OF THE OLD ARTESIA SITE ARTESIA, NEW MEXICO

July 1, 1993



Prepared for:

**Trico Industries**
3040 E. Slauson Avenue
Huntington Park, CA 90255

Prepared by:

**ERM-Rocky Mountain, Inc.**
2400 Louisiana Boulevard, NE
Bldg. 1, Suite 210
Albuquerque, New Mexico 87110

Dee Wilson
Hydrogeologist

James W. Dawson, R.G.
Hydrogeologist

Alan MacGregor, P.E.
Principal

ERM

ERM-Rocky Mountain, Inc.

2400 Louisiana Blvd., N.E.
Building 1, Suite 210
Albuquerque,
New Mexico 87110
(505) ~~889-3330~~ 243-3330
(505) 889-3341 (Fax)

July 1, 1993

Mr. Jim Dunavant
Trico Industries
3040 E. Slauson Avenue
Huntington Park, CA 90255

Dear Mr. Dunavant:

ERM-Rocky Mountain, Inc. (ERM) is pleased to present the results of our preliminary site investigation of the Old Artesia site located six miles east of Artesia, New Mexico on U.S. Highway 82. As described in our proposal of May 13, 1993, the following tasks were completed as part of this investigation:

- A health and safety plan to ensure the protection of on-site personnel;
- A site inspection of the entire site, with the exception of the two buildings, consisting of observing and photographing items of environmental concern;
- Surface soil sampling and analysis to determine the nature of any contamination; and
- Field screening and sampling of the unknown contents of the drums and other containers to determine the nature of the substances.

## INTRODUCTION

Two environmental professionals from the Albuquerque office of ERM conducted the site inspection on June 10, 1993. Attachment A presents a photographic log from the site inspection.

The site is located approximately six miles east of the city of Artesia on the north side of Lovington Highway. Figure 1 is a site location map. The site is approximately 1.4 acres in size. The site contains two buildings (one large building on the west side and one smaller building on the east side of the property), which are not included in this site inspection. A partially covered, inactive, cesspool is located in the southwest corner of the property. Visual

inspection of the cesspool revealed no soil staining or other apparent contamination and thus, soil samples for laboratory analysis were not collected. The site is not paved and contains vegetated areas overgrown with weeds. Two cement pads and two small cement footings are located north of the large building on the west side of the property. Visual inspection of the property did not indicate the presence of underground storage tanks. The property is fenced on all sides, with access restricted to a locked gate along the south side.

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## SITE INVESTIGATION

Items of concern observed scattered around the site include ten, 55-gallon drums; two, 40-gallon drums; ninety-one 5-gallon containers, one (approximately 80-gallon capacity) empty tank; and, one large hubcap full of used oil. The site also contained other garbage such as a large pile of old tires, coils of wire, pipes, used greasy work clothing, empty motor oil containers, and engine parts. Large patches of stained soil are located predominantly on the north half of the property. Figure 2 is a site map which indicates locations of drums and containers, stained soil, and other garbage.

The drums and containers are grouped into several general locations and designated as DA (drum areas) one through seven with associated stained soil areas. Other stained soil areas were observed and include the areas designated as SS areas (Figure 2).

## SURFACE SOIL SAMPLING

Surface soil samples were collected with the use of a hand auger and shovel. The lateral extent of contamination was visually identified by surface staining. The surface soil staining is indicated in Figure 2. Headspace screening with a flame ionization detector (FID) only detects volatile organics and, while useful to detect constitutes hazardous to site personnel, such as benzene, was not useful in evaluating the stained soils at this site. Volatile organics may not have been present in the soils at the site or may have already volatilized. The vertical depth of contamination was visually identified. Vertical staining was not observed beyond a depth of eight inches. The soil staining appeared to be predominantly from used motor oil.

Four soil samples were collected from three areas which appeared to be the most heavily impacted. Sample locations are indicated by triangles plotted on Figure 2. The soil samples include DA-1-S-0, DA-3-S-0, DA-3-S-2, and PE-1. DA-1-S-0 was collected from Drum Area 1 from 0 to 4 inches below

grade. The auger could not be advanced beyond 4 inches due to the presence of an apparent concrete slab. DA-3-S-0 and DA-3-S-2 were collected from Drum Area 3. DA-3-S-0 was collected from 0 to 4 inches below grade. Contaminated soils were visually identified from 0 to 6 inches below grade. DA-3-S-2 was collected from the same soil boring as DA-3-S-0, but at a depth of approximately two feet, in reddish-brown silty clay which visually did not appear to be contaminated. This sample was collected to confirm the vertical extent of contamination. PE-1 was collected from a stained soil area which was in a topographically low area on the east side of the site. This area appeared to be a dumping area for used motor oil. This sample was collected from 0 to 4 inches below grade. Contaminated soil was detected to a total depth of 8 inches below grade. The soil below the contaminated soil was reddish-brown silty clay which was dry and firm. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1 and Volatile Organic Compounds (VOC's) by EPA Method 8010.

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## DRUM SCREENING AND SAMPLING

Field screening of the unknown contents of the drums and other containers was accomplished with the use of a FID and a coliwase sampler. The coliwase sampler is a small diameter tube which can be inserted into a drum to collect a relatively undisturbed sample of the drum's contents.

Inventory of each drum area includes the number of each type of container and nature of the containerized substances. The drums and containers were visually assessed for stability prior to opening. All drums and containers were safe to open. The FID was used to detect organic vapors in all containers. A coliwase sampler was used to visually inspect the contents of the drums. Each drum area including number of each type of container, contents of containers, and organic vapor readings from the FID are summarized in Table 1. The containerized substances included used motor oil, solvents, gasoline, antifreeze, water, and mixtures of these liquids.

Visual inspection of the contents of the 55-gallon drums, in conjunction with the FID readings, indicated that the liquids in all of the 55-gallon drums at the site most likely consisted of used motor oil. Consequently, only one sample was collected (i.e., DA-1-D) of liquids contained in the 55-gallon drums. Because of variations in the FID readings from the 5-gallon buckets inspected in the different drum areas, three samples were collected (DA-2-B, DA-6-B, and DA-7-B).

All samples were labeled, individually wrapped in bubble wrap, sealed in ziplock bags, and placed on ice in a cooler. A completed Chain-of-Custody

form accompanied the samples. The cooler was security sealed and sent to Mountain States Analytical Laboratory via Federal Express overnight delivery.

## LABORATORY ANALYSES

Laboratory analyses of unknown liquids present in 55-gallon drums and 5-gallon buckets, and stained soil areas were performed by Mountain States Analytical, Salt Lake City, Utah. Copies of the analytical reports are presented in Attachment B, with the analytical results summarized in Table 2. Review of Table 2 indicates that Polychlorinated Biphenols (PCBs, EPA Method 600/4-81-45) were not detected in any of the samples analyzed. The only purgeable aromatics detected (EPA Method 5030/8020 Modified) were m,p-Xylene (914 to 4,530 mg/kg) and o-Xylene (16, 200 mg/kg). Total petroleum hydrocarbon (EPA Method 410.1 Modified) concentrations ranged from 152 mg/kg (DA-1-S-0) to 2,580,000 mg/kg (DA-1-D). The values in excess of 100% TPH (e.g., 2,580,000 mg/kg) are because the calibration standard defined by Method 418.1 is significantly different from the contamination present in the sample.

## DISCUSSION

Based on visual inspection, FID readings, and the results of laboratory analyses, it is apparent that the liquids contained in the 40-gallon and 55-gallon drums and some of the 5-gallon buckets consists of used motor oil (estimated 314 gallons). Liquids contained in the remaining 5-gallon buckets (estimated 65 gallons) probably consists of a mixture of gasoline, kerosene, water and antifreeze. A total of 379 gallons of liquid waste is estimated to be present at the site.

Maximum depth of soil staining observed in hand auger borings was 8 inches (PE-1). Assuming a maximum depth of contamination of one foot, it is estimated that a total of approximately 240 cubic yards of hydrocarbon-impacted soils are present at the site.

## CLEAN-UP ACTION

To provide a rough estimate for budgetary planning, the following action plan is proposed:

- Preparation of a site specific health and safety plan governing the removal action;

- Collection and disposal of used motor oil and other liquids by an oil recycler (approximately 379 gallons);
- Removal of emptied drums and buckets and other refuse at the site with disposal at a landfill (approximately 20 cubic yards);
- Excavation and disposal of hydrocarbon impacted soil to a land treatment facility approved by the New Mexico Oil Conservation Division (approximately 240 cubic yards);
- Soil verification sampling and analysis (3 samples);
- Backfilling of excavated areas with clean soil (approximately 240 cubic yards);
- Closure report preparation and certification.

We anticipate that the cost to execute this corrective action plan will be on the order of $25,000 to $30,000. However, we must emphasize that these are preliminary figures and less expensive alternatives may be available. If you would like a more accurate estimate, we would be more than happy to develop a proposal for your consideration which would provide a detailed cost breakdown for execution of the corrective action plan outlined above.

If you have any questions concerning this report or would like to discuss the corrective action plan in more detail, please call Dee Wilson or Jim Dawson at (505) 889-3330 or Alan MacGregor at (505) 662-3700. ERM appreciates this opportunity to provide environmental services to Trico Industries and we look forward to working with you in the future.

Sincerely,

ERM-Rocky Mountain, Inc.

Dee A. Wilson
Hydrogeologist

James W. Dawson, R.G.
Hydrogeologist

Alan MacGregor, P.E.
Principal

# FIGURE 1

# SITE LOCATION MAP


**Modified from U.S.G.S. topographic map of Spring Lake, New Mexico 7.5' quadrangle, 1955 Photorevised 1975**

## U.S.G.S. TOPOGRAPHIC MAP

Spring Lake, New Mexico

**ERM-ROCKY MOUNTAIN, INC.**
Environmental Resources Management
2400 Louisiana Blvd., NE Bldg. 1, Suite 210
Albuquerque, NM 87110
(505) 889-3330

## OLD ARTESIA SITE
Artesia, New Mexico

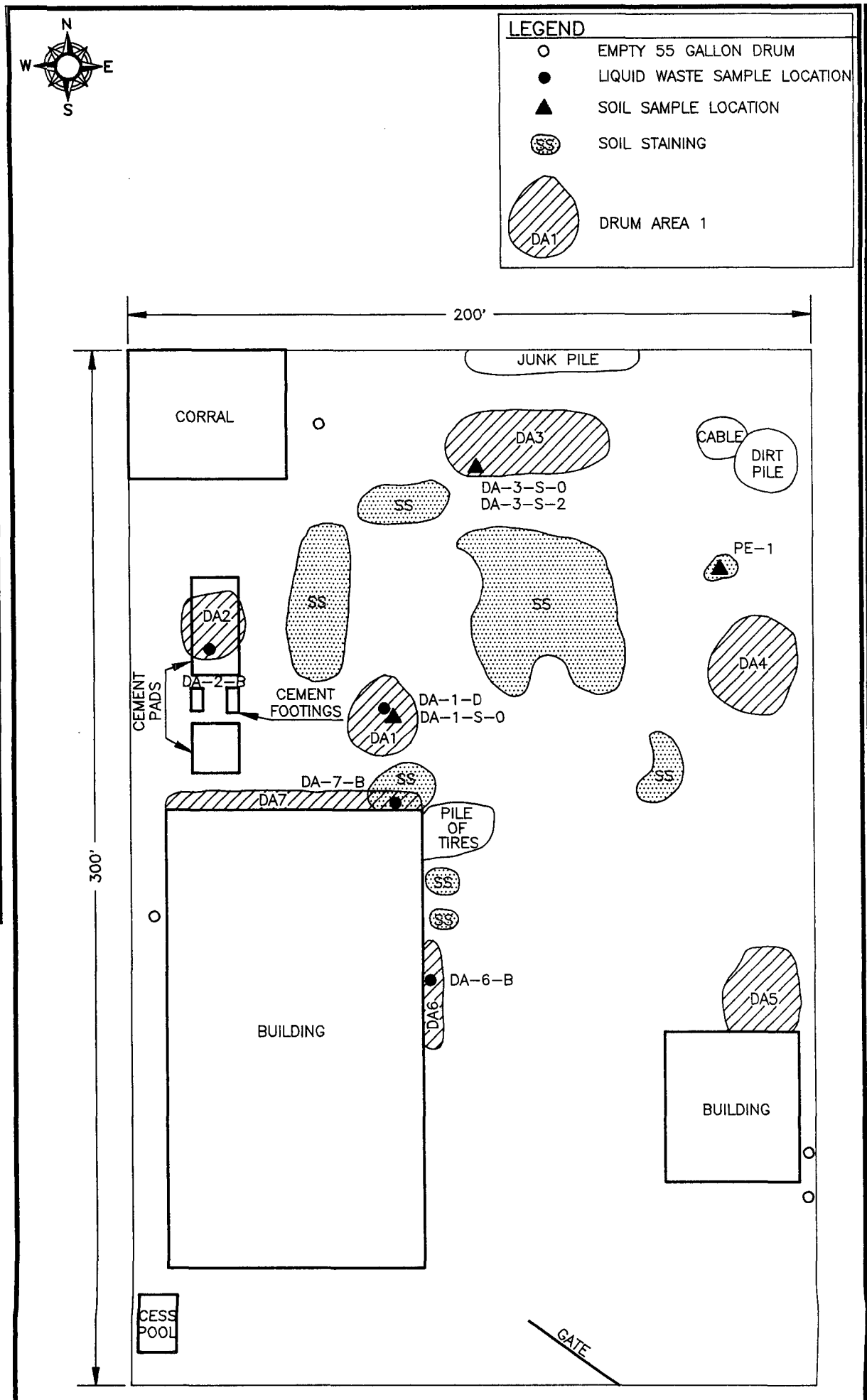
Drawn By: YMG
Checked By: DAW
Date: 6/23/93

Scale: 1:24,000

Job No. N31001.0 Figure: 1

**FIGURE 2**

**SITE MAP**





ERM-Rocky Mountain, Inc.
2400 Louisiana Boulevard, NE
Building 1, Suite 240
Albuquerque, NM 87110
(505) 889-3330


ERM

TRICO INDUSTRIES, INC / 11376 LOVINGTON HIGHWAY
ARTESIA, NEW MEXICO

# SITE LAYOUT DIAGRAM & SAMPLING LOCATIONS

| | |
|---|---|
| DESIGNED | DAW |
| DRAWN | SRL |
| CHECKED | |
| DATE | 06/23/93 |
| JOB NO | N31001.0 |
| FILENAME | FIG-2 |

FIGURE 2

**TABLE 1**

## TABLE 1

## INVENTORY OF CONTAINERS AT THE OLD ARTESIA SITE

| Type of Container | General Contents | Drum Area 1 | Drum Area 2 | Drum Area 3 | Drum Area 4 | Drum Area 5 | Drum Area 6 | Drum Area 7 | Total Estimated Volume |
|---|---|---|---|---|---|---|---|---|---|
| 55 Gallon Drums | Empty Drums | 1 | | | 2 | 1 | | | |
| | Drums with Oil | 1 | | 1 | | 1 | | | |
| | Estimated Volume | 55 gal. | | 55 gal. | | 1 gal. | | | 111 gal. |
| | Drums with Mixed Waste | 1 | 1 | | | | | | |
| | FID Reading | 100 ppm | 200 ppm | | | | | | |
| | Estimated Volume | 27 gal. | 11 gal. | | | | | | 38 gal. |
| | Drums with Organics | | | | | | 1 | | |
| | FID Reading | | | | | | 400 ppm | | |
| | Estimated Volume | | | | | | 18 gal. | | 18 gal. |
| 40 Gallon Drums | Empty Drums | | 1 | | | 1 | | | |
| | Drums with Oil | | 1 | | | | | | |
| | Estimated Volume | | 27 gal. | | | | | | 27 gal. |
| 5 Gallon Buckets or Other Containers with Volume of < 5 gallons | Empty Buckets | 7 | 17 | 7 | 9 | 12 | 1 | 2 | |
| | Oil | 5 | 3 | 4 | 1 | 10 | 1 | | 120 gal. max. |
| | Antifreeze | 1 | | | | | | | 5 gal. max. |
| | Water | 1 | 3 | | | | | 3 | 35 gal. max |
| | Organics | | 2 | | | | 2 | 1 | 25 gal. max. |
| | FID Reading | | 300 ppm<br>400 ppm | | | | 1600 ppm<br>2400 ppm | 8000 ppm | |

**TABLE 2**

## TABLE 2

## SUMMARY OF LABORATORY ANALYTICAL RESULTS
## TRICO INDUSTRIES, ARTESIA, NEW MEXICO

| Sample No. | Matrix | Purgeable Aromatics (EPA Method 5030/8020 mod.) (mg/kg)[1] | PCBs (EPA 600/ 4-81-45) (mg/kg) | TPH (EPA 418.1 mod.) (mg/kg) |
|---|---|---|---|---|
| DA-1-D | Liquid | ND[2] | ND | 2,580,000[3] |
| DA-2-B | Liquid | ND | ND | 1,400,000 |
| DA-6-B | Liquid | m,p-Xylene - 914 | ND | 1,240,000 |
| DA-7-B | Liquid | m,p-Xylene - 4,530<br>o-Xylene - 16,200 | ND | 253,000 |
| DA-1-S-0 | Soil | ND | NA[4] | 152 |
| DA-3-S-0 | Soil | ND | NA | 56,000 |
| DA-3-S-2 | Soil | ND | NA | 8,220 |
| PE-1 | Soil | Toluene - 0.04<br>m,p-Xylene - 0.02 | NA | 74,900 |

Notes:

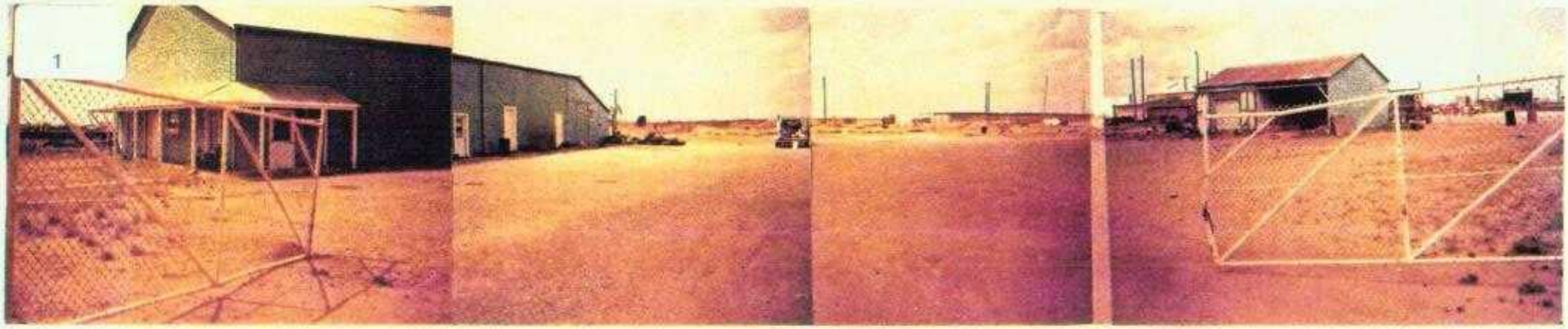
[1] mg/kg = milligrams per kilogram
[2] ND = not detected; Concentration below the detection limit stated on the analytical report.
[3] Volume greater than 100% is because the calibration standard defined by Method 418.1 is significantly different from the contamination present in the sample.
[4] NA = not analyzed

# ATTACHMENT A

# SITE PHOTOGRAPHIC LOG

## SITE PHOTOGRAPH LOG

| PHOTO NO. | DESCRIPTION |
|---|---|
| 1. | Panoramic view of property. |
| 2. | Panoramic view of the north portion of the parking area. Patches of soil staining is clearly visible. |
| 3. | View of the area on the north side of the large building. |
| 4. | Drum Area 1 |
| 5. | Drum Area 2 |
| 6. | Drum Area 3 |
| 7. | Drum Area 4 |
| 8. | Drum Area 5 |
| 9. | Drum Area 6 |
| 10. | Drum Area 7 |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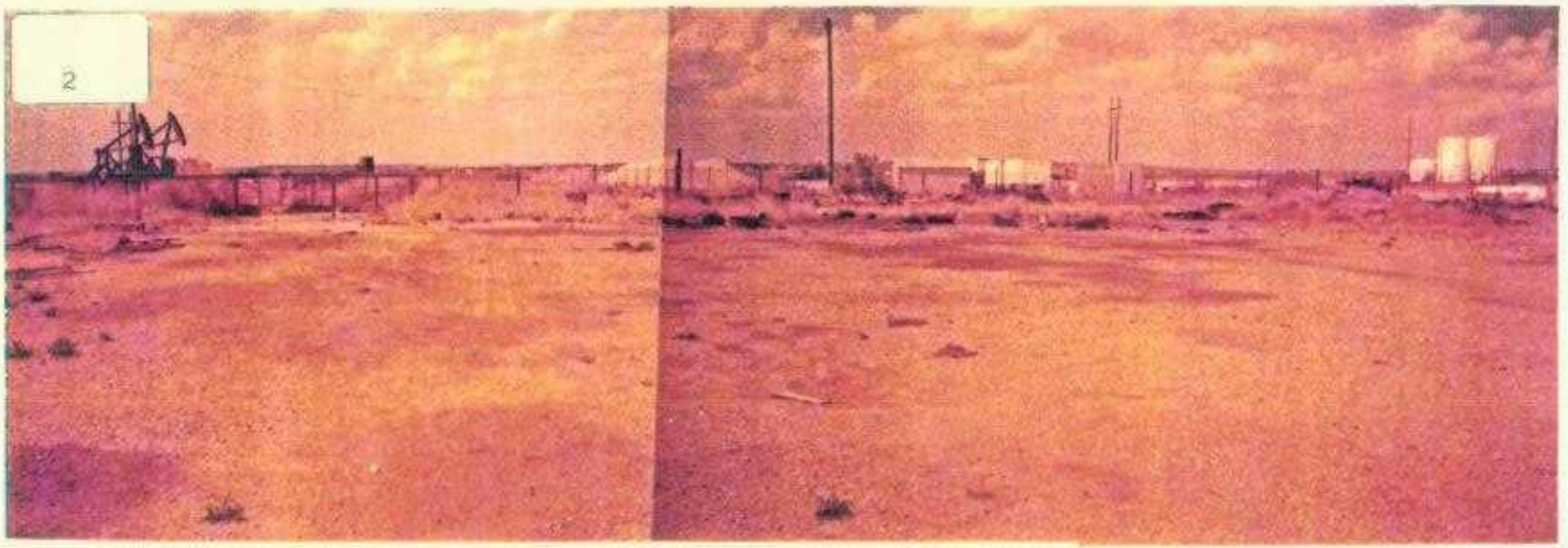
2


3


4


5


6


7


8


9


10

# ATTACHMENT B

# ANALYTICAL REPORTS

**Mountain States Analytical**

*The Quality Solution*

June 29, 1993

Mr. Jim Dawson
ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Reference:
Project: Trico Industries
Project No.: N31001.0
MSAI Group: 2050

Dear Mr. Dawson:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

| | | |
|---|---|---|
| DA-1-D | DA-2-B | DA-6-B |
| DA-7-B | | |

All holding times were met for the tests performed on these samples.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Leon Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-1-D
Matrix: Oil

MSAI Sample: 9241
MSAI Group: 2050
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 1211 | Purgeable Aromatics, GC<br>Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 10 | mg/kg | (1) 10 |
| | Chlorobenzene | < 10 | mg/kg | 10 |
| | 1,2-Dichlorobenzene | < 100 | mg/kg | 100 |
| | 1,3-Dichlorobenzene | < 50 | mg/kg | 50 |
| | 1,4-Dichlorobenzene | < 20 | mg/kg | 20 |
| | Ethylbenzene | < 10 | mg/kg | 10 |
| | Toluene | < 10 | mg/kg | 10 |
| | m,p-Xylene | < 10 | mg/kg | 10 |
| | o-Xylene | < 10 | mg/kg | 10 |
| 0174 | Polychlorinated Biphenyls<br>Method: EPA 600/4-81-45 | | | |
| | Aroclor-1016 | < 1.0 | mg/kg | (2) 1.0 |
| | Aroclor-1221 | < 1.0 | mg/kg | 1.0 |
| | Aroclor-1232 | < 1.0 | mg/kg | 1.0 |
| | Aroclor-1242 | < 1.0 | mg/kg | 1.0 |
| | Aroclor-1248 | < 1.0 | mg/kg | 1.0 |
| | Aroclor-1254 | < 1.0 | mg/kg | 1.0 |
| | Aroclor-1260 | < 1.0 | mg/kg | 1.0 |
| 0348 | Petroleum Hydrocarbons,Total (IR)<br>Method: EPA 418.1 MOD | 2,580,000 | mg/kg | (3) 20.0 |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.
(2) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.
(3) This result ( > 100 %) is because the calibration standard defined by the 418.1 method is significantly different from the contamination present in the sample.

# EXPLANATION OF SYMBOLS AND ABBREVIATIONS

The following defines common symbols and abbreviations used in reporting technical data.

1. **<** means "less than." The number following the sign is the smallest amount which can be quantified using this specific test.

2. **>** means "greater than."

3. **N.D.** means "none detected."
   **BLOQ** means "Below Limit of Quantitation"
   **TNTC** means "Too Numerous to Count."

4. **MPN** means "Most Probable Number." Used in reporting certain bacteriological results which are calculated from a statistical formula related to bacterial count observed in a series of dilutions of the sample.

5. **IU** means "International Units." Used in reporting results on certain Vitamin assays.

6. **CP Units** means "cobalt-chloroplatinate units." Used in reporting color of aqueous solutions.

7. **umhos/cm** means "reciprocal micromhs/cm or microsiemans." Used in reporting specific conductance of solutions.

8. **NTU** means "nephelometric turbidity units."

9. **fib>5 um/ml** means "fibers greater than 5 microns in length, per ml."

10. **C** and **F** represent degrees of temperature and refer to Celsius and Fahrenheit respectively.

11. **Cal** means (diet) calories.

12. **lb.** means pound(s).

13. **meq** means milliequivalents, a chemical term meaning 1/1,000 of the equivalent weight of a substance or element.

14. **g** means "gram(s)." The unit of weight used in the metric system. One gram equals about 1/30th of an ounce.
    **kg** means "kilogram(s)." One kilogram is 1,000 grams.
    **mg** means "milligram(s)." One milligram is 1/1,000 of a gram.
    **ug** means "microgram(s)." One-millionth of a gram.

15. **l** means "liter(s)." The unit of volume used in the metric system.
    **ml** means "milliliter(s)." One milliliter is 1/1,000 of a liter.
    **ul** means "microliter(s)." One microliter is 1/1,000 of a milliliter or one/millionth of a liter.

16. **m3** means "cubic meter(s)." Usually used as a volume unit in air analyses.

17. **ppm** means "parts per million." One ppm is equivalent to one microgram per gram, or one gram per million grams. For aqueous liquids ppm is usually taken to be equivalent to milligrams per liter, because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

18. **ppb** means "parts per billion." One ppb is 1/1,000 of a ppm.

19. **%** means "percent" or part per hundred. This is usually followed by the designation "by weight," meaning grams per hundred grams. If followed by the designation "by volume," it refers to volume per unit volume, e.g., milliliters per hundred milliliters.

* * * * * * *

Clients should be aware that a most important step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

* * * * * * *

**WARRANTY AND LIMITATION OF LIABILITY.** In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, expressed or implied, including a Warranty of Fitness for particular Purpose and Warranty of Merchantability. We accept no legal responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Mountain States Analytical performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

Mountain States Analytical
*The Quality Solution*



ERM-New Mexico

MSAI Sample: 9241
MSAI Group: 2050

Sample ID: DA-1-D

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

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* * * * * * *

Clients should be aware that a most important step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

* * * * * * *

**WARRANTY AND LIMITATION OF LIABILITY.** In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, expressed or implied, including a Warranty of Fitness for particular Purpose and Warranty of Merchantability. We accept no legal responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Mountain States Analytical performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-2-B
Matrix: Oil

MSAI Sample: 9242
MSAI Group: 2050
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 1211 | Purgeable Aromatics, GC<br>Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 100 | mg/kg | (1) 100 |
| | Chlorobenzene | < 100 | mg/kg | 100 |
| | 1,2-Dichlorobenzene | < 2,000 | mg/kg | 2,000 |
| | 1,3-Dichlorobenzene | < 500 | mg/kg | 500 |
| | 1,4-Dichlorobenzene | < 200 | mg/kg | 200 |
| | Ethylbenzene | < 100 | mg/kg | 100 |
| | Toluene | < 100 | mg/kg | 100 |
| | m,p-Xylene | < 100 | mg/kg | 100 |
| | o-Xylene | < 100 | mg/kg | 100 |
| 0174 | Polychlorinated Biphenyls<br>Method: EPA 600/4-81-45 | | | |
| | Aroclor-1016 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1221 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1232 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1242 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1248 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1254 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1260 | < 0.5 | mg/kg | 0.5 |
| 0348 | Petroleum Hydrocarbons,Total (IR)<br>Method: EPA 418.1 MOD | 1,400,000 | mg/kg | 20.0 |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# EXPLANATION OF SYMBOLS AND ABBREVIATIONS

The following defines common symbols and abbreviations used in reporting technical data.

1. **<** means "less than." The number following the sign is the smallest amount which can be quantified using this specific test.

2. **>** means "greater than."

3. **N.D.** means "none detected."
   **BLOQ** means "Below Limit of Quantitation"
   **TNTC** means "Too Numerous to Count."

4. **MPN** means "Most Probable Number." Used in reporting certain bacteriological results which are calculated from a statistical formula related to bacterial count observed in a series of dilutions of the sample.

5. **IU** means "International Units." Used in reporting results on certain Vitamin assays.

6. **CP Units** means "cobalt-chloroplatinate units." Used in reporting color of aqueous solutions.

7. **umhos/cm** means "reciprocal micromhs/cm or microsiemans." Used in reporting specific conductance of solutions.

8. **NTU** means "nephelometric turbidity units."

9. **fib>5 um/ml** means "fibers greater than 5 microns in length, per ml."

10. **C** and **F** represent degrees of temperature and refer to Celsius and Fahrenheit respectively.

11. **Cal** means (diet) calories.

12. **lb.** means pound(s).

13. **meq** means milliequivalents, a chemical term meaning 1/1,000 of the equivalent weight of a substance or element.

14. **g** means "gram(s)." The unit of weight used in the metric system. One gram equals about 1/30th of an ounce.
    **kg** means "kilogram(s)." One kilogram is 1,000 grams.
    **mg** means "milligram(s)." One milligram is 1/1,000 of a gram.
    **ug** means "microgram(s)." One-millionth of a gram.

15. **l** means "liter(s)." The unit of volume used in the metric system.
    **ml** means "milliliter(s)." One milliliter is 1/1,000 of a liter.
    **ul** means "microliter(s)." One microliter is 1/1,000 of a milliliter or one/millionth of a liter.

16. **m3** means "cubic meter(s)." Usually used as a volume unit in air analyses.

17. **ppm** means "parts per million." One ppm is equivalent to one microgram per gram, or one gram per million grams. For aqueous liquids ppm is usually taken to be equivalent to milligrams per liter, because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

18. **ppb** means "parts per billion." One ppb is 1/1,000 of a ppm.

19. **%** means "percent" or part per hundred. This is usually followed by the designation "by weight," meaning grams per hundred grams. If followed by the designation "by volume," it refers to volume per unit volume, e.g., milliliters per hundred milliliters.

* * * * * * *

Clients should be aware that a most important step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

* * * * * * *

**WARRANTY AND LIMITATION OF LIABILITY.** In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, expressed or implied, including a Warranty of Fitness for particular Purpose and Warranty of Merchantability. We accept no legal responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Mountain States Analytical performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-6-B
Matrix: Oil

MSAI Sample: 9243
MSAI Group: 2050
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 1211 | Purgeable Aromatics, GC<br>Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 500 | mg/kg | (1) 500 |
| | Chlorobenzene | < 500 | mg/kg | 500 |
| | 1,2-Dichlorobenzene | < 5,000 | mg/kg | 5,000 |
| | 1,3-Dichlorobenzene | < 2,000 | mg/kg | 2,000 |
| | 1,4-Dichlorobenzene | < 1,000 | mg/kg | 1,000 |
| | Ethylbenzene | < 500 | mg/kg | 500 |
| | Toluene | < 500 | mg/kg | 500 |
| | m,p-Xylene | 914 | mg/kg | 500 |
| | o-Xylene | < 500 | mg/kg | 500 |
| 0174 | Polychlorinated Biphenyls<br>Method: EPA 600/4-81-45 | | | |
| | Aroclor-1016 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1221 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1232 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1242 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1248 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1254 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1260 | < 0.5 | mg/kg | 0.5 |
| 0348 | Petroleum Hydrocarbons,Total (IR)<br>Method: EPA 418.1 MOD | 1,240,000 | mg/kg | 20.0 |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# EXPLANATION OF SYMBOLS AND ABBREVIATIONS

The following defines common symbols and abbreviations used in reporting technical data.

1. **<** means "less than." The number following the sign is the smallest amount which can be quantified using this specific test.

2. **>** means "greater than."

3. **N.D.** means "none detected."
   **BLOQ** means "Below Limit of Quantitation"
   **TNTC** means "Too Numerous to Count."

4. **MPN** means "Most Probable Number." Used in reporting certain bacteriological results which are calculated from a statistical formula related to bacterial count observed in a series of dilutions of the sample.

5. **IU** means "International Units." Used in reporting results on certain Vitamin assays.

6. **CP Units** means "cobalt-chloroplatinate units." Used in reporting color of aqueous solutions.

7. **umhos/cm** means "reciprocal micromhs/cm or microsiemans." Used in reporting specific conductance of solutions.

8. **NTU** means "nephelometric turbidity units."

9. **fib>5 um/ml** means "fibers greater than 5 microns in length, per ml."

10. **C** and **F** represent degrees of temperature and refer to Celsius and Fahrenheit respectively.

11. **Cal** means (diet) calories.

12. **lb.** means pound(s).

13. **meq** means milliequivalents, a chemical term meaning 1/1,000 of the equivalent weight of a substance or element.

14. **g** means "gram(s)." The unit of weight used in the metric system. One gram equals about 1/30th of an ounce.
    **kg** means "kilogram(s)." One kilogram is 1,000 grams.
    **mg** means "milligram(s)." One milligram is 1/1,000 of a gram.
    **ug** means "microgram(s)." One-millionth of a gram.

15. **l** means "liter(s)." The unit of volume used in the metric system.
    **ml** means "milliliter(s)." One milliliter is 1/1,000 of a liter.
    **ul** means "microliter(s)." One microliter is 1/1,000 of a milliliter or one/millionth of a liter.

16. **m3** means "cubic meter(s)." Usually used as a volume unit in air analyses.

17. **ppm** means "parts per million." One ppm is equivalent to one microgram per gram, or one gram per million grams. For aqueous liquids ppm is usually taken to be equivalent to milligrams per liter, because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

18. **ppb** means "parts per billion." One ppb is 1/1,000 of a ppm.

19. **%** means "percent" or part per hundred. This is usually followed by the designation "by weight," meaning grams per hundred grams. If followed by the designation "by volume," it refers to volume per unit volume, e.g., milliliters per hundred milliliters.

* * * * * * *

Clients should be aware that a most important step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

* * * * * * *

**WARRANTY AND LIMITATION OF LIABILITY.** In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. We disclaim any other warranties, expressed or implied, including a Warranty of Fitness for particular Purpose and Warranty of Merchantability. We accept no legal responsibility for the purpose for which the client uses the test results. No purchase order or other order for work shall be accepted by the company with any conditions that vary from our Standard Terms and Conditions. If Mountain States Analytical performs work requested by the client, conditions at variance to our Standard Terms and Conditions are not part of the contract.

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-7-B
Matrix: Oil

MSAI Sample: 9244
MSAI Group: 2050
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 1211 | Purgeable Aromatics, GC | | | |
| | Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 500 | mg/kg | (1) 500 |
| | Chlorobenzene | < 500 | mg/kg | 500 |
| | 1,2-Dichlorobenzene | < 20,000 | mg/kg | 20,000 |
| | 1,3-Dichlorobenzene | < 2,000 | mg/kg | 2,000 |
| | 1,4-Dichlorobenzene | < 1,000 | mg/kg | 1,000 |
| | Ethylbenzene | 1,040 | mg/kg | 500 |
| | Toluene | < 500 | mg/kg | 500 |
| | m,p-Xylene | 4,530 | mg/kg | 500 |
| | o-Xylene | 16,200 | mg/kg | 500 |
| 0174 | Polychlorinated Biphenyls | | | |
| | Method: EPA 600/4-81-45 | | | |
| | Aroclor-1016 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1221 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1232 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1242 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1248 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1254 | < 0.5 | mg/kg | 0.5 |
| | Aroclor-1260 | < 0.5 | mg/kg | 0.5 |
| 0348 | Petroleum Hydrocarbons,Total (IR) | 253,000 | mg/kg | 20.0 |
| | Method: EPA 418.1 MOD | | | |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# Mountain States Analytical

*The Quality Solution*

629

## Sample Chain of Custody

Client Name: ERM-ROCKY MTN. / ABQ. P.O. #

Phone #: 505-889-3330 Fax #:

Project Name/#: TRICO INDUSTRIES / N31001.0

Sampler: JIM DAWSON / DEE WILSON

| Sample Identification | Date Collected | Time Collected | Grab | Composite | Soil | Water | Other | Total of Containers | Analysis Required: PCB's (EPA 8080) | Aromatics (EPA 8020) | TPH (EPA 418.1) | Rush? | Remarks | Temp. of Samples Upon Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DA-1-D | 6/10/93 | 1645 | | ✓ | | | ✓ | 2 | ✓ | ✓ | ✓ | | OIL IN DRUM | |
| DA-2-B | 6/10/93 | 1655 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | | |
| DA-6-B | 6/10/93 | 1785 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | | |
| DA-7-B | 6/10/93 | 1710 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | *DA-7-B TPH 418.1 | |
| DA-1-S-0 | 6/10/93 | 1735 | ✓ | | ✓ | | | 2 | | [redacted] | ✓ | | WAS testing on Ground. | |
| DA-3-S-0 | 6/10/93 | 1750 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | LQC | 06.14.93 |
| DA-3-S-2 | 6/10/93 | 1755 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | | |
| PE-1 | 6/10/93 | 1815 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| Name of Shipper | Airbill No. | Date | Time |
|---|---|---|---|
| FED X | 9931557823 | 6/11/93 | 12:10 |

| Received By (Lab) | Date | Time | Seals Intact? |
|---|---|---|---|
| [signature] | 06.12.93 | 08:30 | Yes |

**Turnaround Time Requested** (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

**Report Results By:** (Date)

Rush results requested by (please circle): Phone Fax

**Report Results to:** JIM DAWSON

| Sample relinquished by: | Date | Time | Sample received by: | Date | Time |
|---|---|---|---|---|---|
| James W. Dawson | 6/10/93 | 12:10 | [signature] | 06.12.93 | 08:30 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Type of Disposal: | Authorized for Disposal by: |
|---|---|
| Date/Time of Disposal: | Disposed of by: |

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

**Mountain States Analytical**

*The Quality Solution*

June 29, 1993

Mr. Jim Dawson
ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Reference:
Project: Trico Industries
Project No.: N31001.0
MSAI Group: 2051

Dear Mr. Dawson:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

DA-1-S-0 DA-3-S-0 DA-3-S-2
PE-1

All holding times were met for the tests performed on these samples.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Leon Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-1-S-0
Matrix: Soil

MSAI Sample: 9245
MSAI Group: 2051
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | | Limit of Quantitation |
|---|---|---|---|---|---|
| 0111 | Moisture | 2.7 | % | | 0.1 |
| | Method: EPA 160.3 | | | | |
| 1211 | Purgeable Aromatics, GC | | | | |
| | Method: SW-846 5030/8020 MOD | | | | |
| | Benzene | < 0.05 | mg/kg | (1) | 0.05 |
| | Chlorobenzene | < 0.05 | mg/kg | | 0.05 |
| | 1,2-Dichlorobenzene | < 0.10 | mg/kg | | 0.10 |
| | 1,3-Dichlorobenzene | < 0.05 | mg/kg | | 0.05 |
| | 1,4-Dichlorobenzene | < 0.05 | mg/kg | | 0.05 |
| | Ethylbenzene | < 0.05 | mg/kg | | 0.05 |
| | Toluene | < 0.05 | mg/kg | | 0.05 |
| | m,p-Xylene | < 0.05 | mg/kg | | 0.05 |
| | o-Xylene | < 0.05 | mg/kg | | 0.05 |
| 1562 | Petroleum Hydrocarbons,Total (IR) | 152 | mg/kg | | 10 |
| | Method: EPA/SW 846 418.1/3550 | | | | |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-3-S-0
Matrix: Soil

MSAI Sample: 9246
MSAI Group: 2051
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 0111 | Moisture | 8.7 | % | 0.1 |
| | Method: EPA 160.3 | | | |
| 1211 | Purgeable Aromatics, GC | | | |
| | Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 0.05 | mg/kg | (1) 0.05 |
| | Chlorobenzene | < 0.05 | mg/kg | 0.05 |
| | 1,2-Dichlorobenzene | < 0.10 | mg/kg | 0.10 |
| | 1,3-Dichlorobenzene | < 0.05 | mg/kg | 0.05 |
| | 1,4-Dichlorobenzene | < 0.10 | mg/kg | 0.10 |
| | Ethylbenzene | < 0.05 | mg/kg | 0.05 |
| | Toluene | < 0.05 | mg/kg | 0.05 |
| | m,p-Xylene | < 0.05 | mg/kg | 0.05 |
| | o-Xylene | < 0.05 | mg/kg | 0.05 |
| 1562 | Petroleum Hydrocarbons,Total (IR) | 56,000 | mg/kg | 2,500 |
| | Method: EPA/SW 846 418.1/3550 | | | |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: DA-3-S-2
Matrix: Soil

MSAI Sample: 9247
MSAI Group: 2051
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 0111 | Moisture | 7.6 | % | 0.1 |
| | Method: EPA 160.3 | | | |
| 1211 | Purgeable Aromatics, GC | | | |
| | Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 0.02 | mg/kg | (1) 0.02 |
| | Chlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,2-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,3-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,4-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | Ethylbenzene | < 0.02 | mg/kg | 0.02 |
| | Toluene | < 0.02 | mg/kg | 0.02 |
| | m,p-Xylene | < 0.02 | mg/kg | 0.02 |
| | o-Xylene | < 0.02 | mg/kg | 0.02 |
| 1562 | Petroleum Hydrocarbons,Total (IR) | 8,280 | mg/kg | 2,500 |
| | Method: EPA/SW 846 418.1/3550 | | | |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

# Analytical Report

**Mountain States Analytical**
*The Quality Solution*

ERM-New Mexico
2400 Lousiana NE Bldg 1 #210
Albuquerque, NM 87110

Attn: Mr. Jim Dawson
Project: Trico Industries

Sample ID: PE-1
Matrix: Soil

MSAI Sample: 9248
MSAI Group: 2051
Date Reported: 06/29/93
Discard Date: 07/29/93
Date Submitted: 06/12/93
Date Sampled: 06/10/93
Collected by: JD
Purchase Order:
Project No.: N31001.0

| Test | Analysis | Results as Received | Units | Limit of Quantitation |
|---|---|---|---|---|
| 0111 | Moisture | 1.6 | % | 0.1 |
| | Method: EPA 160.3 | | | |
| 1562 | Petroleum Hydrocarbons,Total (IR) | 74,900 | | 5,000 |
| | Method: EPA/SW 846 418.1/3550 | | | |
| 1211 | Purgeable Aromatics, GC | | | |
| | Method: SW-846 5030/8020 MOD | | | |
| | Benzene | < 0.02 | mg/kg | (1) 0.02 |
| | Chlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,2-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,3-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | 1,4-Dichlorobenzene | < 0.02 | mg/kg | 0.02 |
| | Ethylbenzene | < 0.02 | mg/kg | 0.02 |
| | Toluene | 0.04 | mg/kg | 0.02 |
| | m,p-Xylene | 0.02 | mg/kg | 0.02 |
| | o-Xylene | < 0.02 | mg/kg | 0.02 |

(1) Due to interferences in the sample, dilution was required. The LOQ was raised accordingly.

Respectfully Submitted,
Reviewed and Approved by:

Leon Peterson
Project Manager

629

# Mountain States Analytical

*The Quality Solution*

## Sample Chain of Custody

Client Name: ERM-ROCKY MTN. / ABQ. P.O. #

Phone #: 505-889-3330 Fax #:

Project Name/#: TRICO INDUSTRIES / N31001.0

Sampler: JIM DAWSON / DEE WILSON

| Sample Identification | Date Collected | Time Collected | Grab | Composite | Soil | Water | Other | Total of Containers | Analysis Required: PCB's (EPA 8080) | Analysis Required: Aromatics (EPA 8020) | Analysis Required: TPH (EPA 418.1) | Rush? | Remarks | Temp. of Samples Upon Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DA-1-D | 6/10/93 | 1645 | | ✓ | | | ✓ | 2 | ✓ | ✓ | ✓ | | OIL IN DRUM | |
| DA-2-B | 6/10/93 | 1655 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | | |
| DA-6-B | 6/10/93 | 1705 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | | |
| DA-7-B | 6/10/93 | 1710 | ✓ | | | | ✓ | 2 | ✓ | ✓ | ✓ | | *DA-7-B TPH 418.1 | |
| DA-1-S-0 | 6/10/93 | 1735 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | WAS leaking on ground. | |
| DA-3-S-0 | 6/10/93 | 1750 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | LQC | 06.14.93 |
| DA-3-S-2 | 6/10/93 | 1755 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | | |
| PE-1 | 6/10/93 | 1815 | ✓ | | ✓ | | | 2 | | ✓ | ✓ | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| Name of Shipper | Airbill No. | Date | Time |
|---|---|---|---|
| FED X | 993155 7823 | 6/11/93 | 12:10 |

| Received By (Lab) | Date | Time | Seals Intact? |
|---|---|---|---|
| [signature] | 06.12.93 | 08:20 | Yes |

| Sample relinquished by: | Date | Time |
|---|---|---|
| [signature] | 6/10/93 | 12:10 |
| | | |
| | | |
| | | |
| | | |
| | | |

| Sample received by: | Date | Time |
|---|---|---|
| [signature] | 06.12.93 | 08:30 |
| | | |
| | | |
| | | |
| | | |
| | | |

**Turnaround Time Requested** (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

**Report Results By:** (Date)

Rush results requested by (please circle): Phone Fax

**Report Results to:** JIM DAWSON

**Type of Disposal:**

**Date/Time of Disposal:**

**Authorized for Disposal by:**

**Disposed of by:**

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler