GW - 219

CLOSED

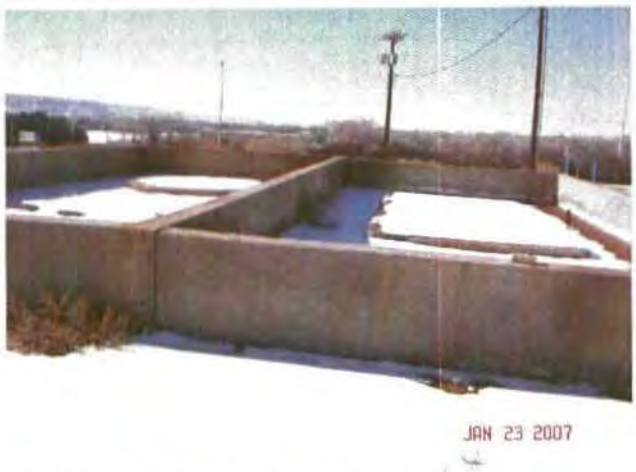
# GENERAL CORRESPONDENCE

YEAR(S):

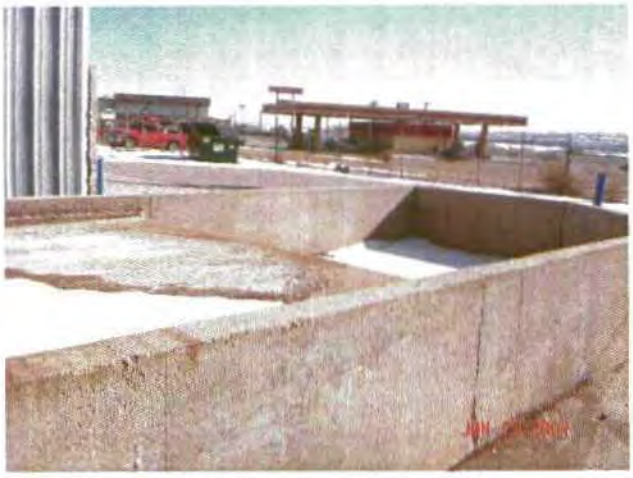
2007-1995

**The "closed" Chemical Distributor, Inc. site; 3911 Monroe Rd., Farmington, NM (GW219)**


3911 Monroe Road, Farmingtion




3900 Monroe Road (across the road)



3900 Monroe Road


3900 Monroe Road


3900 Monroe Road

Brandon Powell inspected the site (3911 Monroe Rd., Farmington, NM) on January 23, 2007. The site appears to be "closed" with no apparent contamination. He also inspected the site across the road (3900 Monroe Rd.). This site had no apparent contamination. Brandon spoke with a businessman at 3910 Monroe Rd. – that person said there was a business at what he thought might be 3911 Monroe Rd., but that business closed ~2 years ago.

Edward J. Hansen tried telephoning Chemical Distributors, Inc.(~1-5-07), but the telephone had been disconnected. Also, Edward J. Hansen spoke to Dave of DB Western (!1-5-07) who informed EJH that Chemical Distributors closed ~2 years ago; in addition, there are no DB Western distributors in the Farmington area.

## Hansen, Edward J., EMNRD

**From:** Hansen, Edward J., EMNRD

**Sent:** Thursday, January 11, 2007 3:36 PM

**To:** Powell, Brandon, EMNRD

**Subject:** Chemical Distributors, Inc.

Brandon,
Wayne has asked me to request a site inspection by you of the "old" Chemical Distributor, Inc. site at 3911 Monroe Road in Farmingtion (I believe it is near the NE corner of Hwy 64 and Hwy 516). Wayne was hoping you could take a couple of photos at that address just to make sure that there is no apparent contamination at the site before we close the discharge permit for that site. Please send the photos to me (no big rush - maybe in the next couple weeks if you happen to be driving by there). Let me know if you have any questions.
Thanks for your help.

Edward J. Hansen
505-476-3489

'E OF NEW MEXICO
:GY MINERALS AND
JRAL RESOURCES DEPARTMENT
SOUTH SAINT FRANCIS DRIVE
'A FE, NEW MEXICO 87505

016H16502007
Hasler
$00.63
12/13/2006
Mailed From 87505
US POSTAGE

NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD

Jerry Hughes
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, NM 87401

UTF

87401 2879 0054

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**
Governor
**Joanna Prukop**
Cabinet Secretary

**Mark E. Fesmire, P.E.**
Director
**Oil Conservation Division**

December 13, 2006

Jerry Hughes
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, NM 87401

RE: Renewal of Discharge Permit (#GW219)

Dear Mr. Hughes:

The Oil Conservation Division's (OCD) records indicate that your discharge plan has expired. New Mexico Water Quality Control Commission regulations (WQCC) Section 3106.F (20.6.2.3106.F NMAC) specifies that if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. You may be operating without a permit. Please submit a permit renewal application with a filing fee (20.6.2.3114 NMAC) of $100.00 by December 31, 2006. Please make all checks payable to the **Water Quality Management Fund** and addressed to the OCD Santa Fe Office. There is also a discharge plan permit fee, based on the type of facility, which OCD will assess after processing your application. An application form and guidance document is attached in order to assist in expediting this process.

In accordance with the public notice requirements (Subsection A of 20.6.2.3108 NMAC) of the newly revised (July 2006) WQCC regulations, "...to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) through (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." You are required to provide the information specified above in your permit renewal application submittal. Attached are a flow chart and the regulatory language pertaining to the new WQCC public notice requirements for your convenience. After the application is deemed administratively complete, the revised public notice requirements of 20.6.2.3108 NMAC must be satisfactory demonstrated to OCD. OCD will provide public notice pursuant to the revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

Please contact me by phone 505-476-3489 or email edwardj.hansen@state.nm.us if you have any questions regarding this matter.

Sincerely,

Edward J. Hansen
Hydrologist, Environmental Bureau

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

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

# DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITES AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☐ Renewal ☐ Modification

1. Type: _____

2. Operator: _____

   Address: _____

   Contact Person: _____ Phone: _____

3. Location: _____/4 _____/4 Section _____ Township _____ Range _____
   Submit large scale topographic map showing exact location.

4. Attach the name, telephone number and address of the landowner of the facility site.

5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.

6. Attach a description of all materials stored or used at the facility.

7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.

8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.

9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.

10. Attach a routine inspection and maintenance plan to ensure permit compliance.

11. Attach a contingency plan for reporting and clean-up of spills or releases.

12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.

13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title: _____

Signature: _____ Date: _____

E-mail Address: _____

# GUIDELINES FOR THE PREPARATION OF DISCHARGE PLANS

# AT NATURAL GAS PLANTS, REFINERIES, COMPRESSOR AND CRUDE OIL PUMP STATIONS

(Revised 12-95)

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
SANTA FE, NEW MEXICO 87505
PHONE: 505-476-3440
FAX: 505-476-3462

Introduction

The New Mexico Oil Conservation Division (OCD) regulates disposal of non-domestic wastes resulting from the activities at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations pursuant to authority granted in the New Mexico Oil and Gas Act and the Water Quality Act. OCD administers, through delegation by the New Mexico Water Quality Control Commission (WQCC), all Water Quality Act regulations pertaining to surface and ground water except sewage. However, if the sewage is in a combined waste stream, the OCD will have jurisdiction.

Sections 3104 and 3106 of the WQCC Regulations stipulate that, unless otherwise provided for by the regulations, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into the ground water unless such discharge is pursuant to a discharge plan approved by the director. The Oil and Gas Act (Section 70-2-12.B(22)) authorizes the OCD to regulate the disposition of non-domestic, non-hazardous wastes at oil field facilities to protect public health and the environment. The OCD has combined these requirements into one document, (a "discharge plan") that will provide protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids.

A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use which will ensure compliance with WQCC regulations and the Oil and Gas Act. The proposed discharge plan must provide the technical staff and the director of the regulating agency (in this case, the OCD) with sufficient information about the operation to demonstrate that the discharger's activities will not cause state regulations or ground water standards (WQCC Section 3103) to be violated.

A facility having no intentional liquid discharges still is required to have a discharge plan. Inadvertent discharges of liquids (ie. leaks and spills, or any type of accidental discharge of contaminants) or improper disposal of waste solids still have a potential to cause ground water contamination or threaten public health and the environment. The discharge plan must address surface facility operations including storage pits, tankage and loading areas.

For new or proposed facilities, WQCC Regulation 3106.B. requires the submittal and approval of a discharge plan prior to the start of discharges. The regulation further specifies that "for good cause shown, the director may allow such a person to discharge without an approved discharge plan for a period not to exceed 120 days."

For existing facilities, WQCC Regulation 3106.A. provides for submittal of a ground water discharge plan within "120 days of receipt of written notice that a discharge plan is required, or such longer time as the director shall for good cause allow." Dischargers not having an approved discharge plan may continue discharging "without an approved discharge plan until 240 days after written notification by the director that a discharge plan is required or such longer time as the director shall for good cause allow."

After a discharge application plan has been received, the OCD must publish a public notice pursuant to Section 3108 of the regulations, and allow 30 days for public comment before a discharge plan may be approved or otherwise resolved. If significant public interest is indicated, a public hearing will be held which will delay a decision on plan approval.

Once a plan has been approved, discharges must be consistent with the terms and conditions of the plan. Similarly, if there is any facility expansion or process change that would result in any significant modification of the approved discharge of water contaminants, the discharger is required to notify this agency, and have the modification approved prior to implementation. Approval of a discharge plan application by OCD will not relieve the operator of the necessity to become familiar with other applicable state and federal regulations, especially EPA's Hazardous Waste Regulations.

The review of a proposed discharge plan can require several months depending on complexity. This includes time for requests to the discharger for additional information and clarification, in-house information gathering and analysis, and field investigations of the discharge site, and a public notice and comment period. Review time will, to a large extent, be dependent on the extent to which a facility has generally self-contained processes to prevent movement of fluids and leaching of solids from the work area into the environment.

For example, the review process will be expedited when effluent, process or other fluids are routed to tanks, or double lined pits with underdrains for leak detection, when accurate monitoring of fluid volumes and pressure and/or integrity testing is performed for leak detection in below grade or underground tanks, and when the possibility of accidental spills and leaks is addressed by adequate contingency plans (e.g. containment by curbing and drainage to properly constructed sumps). Other examples allowing faster review include recycling of used lube oils, proper disposal of dried sludges to minimize potential ground water contamination, and closure of previously used ponds. The more rapid review of discharge plans for such facilities is possible because much less geologic and hydrologic study of the site is required in order to delineate impact.

Similarly, longer review times will be required for operators seeking to continue to use unlined ponds or to utilize other procedures that have a high probability of allowing infiltration and movement of effluent and leachate to the subsurface. For these instances large amounts of technical data generally will be required including: 1) detailed information on site hydrogeology, natural and current water quality, and movement of contaminants; 2) processes expected to occur in the vadose and saturated zones to attenuate constituents to meet WQCC standards at a place of present or reasonably foreseeable future use of ground water; and 3) monitoring of ground water (including post operational monitoring as necessary).

If an operator desires to change or modify effluent or solid waste disposal practices it is not necessary to have completed all such changes prior to plan approval. A commitment to make the changes together with submittal of proposed modification details and a timely completion schedule can be included in the plan. These become plan requirements after the plan is approved.

The following discharge plan application guidelines have been prepared for use by the discharger to aid in fulfilling the requirements of Sections 3106 and 3107 of the WQCC regulations and to expedite the review process by minimizing OCD requests for additional information. It sets up a logical sequence in which to present the information required in a discharge plan for this type of facility. It is suggested that you read the entire document before preparing your application. Not all information discussed may be applicable to your facility. However, all sections of the application must be completed.

**NOTE: A completed "Discharge Application" form including date and signature must be included with the application along with the filing fee described in WQCC 3114. The filing fee should be made payable to - NMED Water Quality Management Fund.**

If there are any questions on the preparation of a discharge plan, please contact OCD's Environmental Bureau. (1220 S. St. Francis Dr., Santa Fe, New Mexico 87505 or by telephone at (505) 476-3440).

# DISCHARGE PLAN GUIDELINES

## 1. Type of Operation

Indicate the major operational purpose(s) of the facility.(i.e. Gas Plant, Refinery, Crude Oil pump station, or Compressor station.) If the facility is a compressor station include the total combined site rated horsepower.

## 2. Name of Operator or Legally Responsible Party and Local Representative

Include address and telephone number.

## 3. Location of the Discharge Plan Facility

Give a legal description of the location (i.e. 1/4. 1/4, Section, Township, Range) and county. Use state coordinates or latitude/longitude on unsurveyed land. Submit a large scale topographic map, facility site plan, or detailed aerial photograph for use in conjunction with the written material. If within an incorporated city, town or village also provide a street location and map.

## 4. Landowners

Attach the name, telephone number, and address of the landowner(s) of record of the facility site.

## 5. Facility Description

Attach description of the facility with a diagram indicating location of fences, pits, berms, and tanks on the facility. The diagrams of the facility should depict the locations of discharges, storage facilities, disposal facilities, processing facilities and other relevant areas including drum storage. Show the facility/property boundaries on the diagram.

## 6. Materials Stored or Used at the Facility

For each category of material listed below provide information on the general composition of the material or specific information (including brand names if requested),whether a solid or liquid, type of container (tank, drum, etc.), estimated volume stored, and location (yard, shop, drum storage, etc.). **MSD sheets need only be provided as requested; sheets for all chemicals should be maintained at the facility.**

A. Process specific chemicals - i.e. TEG, Amine, Lean Oil, etc.

B. Acids/Caustics;

C. Detergents/soaps;

D. Solvents, inhibitors and degreasers;

E. Paraffin Treatment/Emulsion breakers;

F. Biocides;.

G. Others;

**7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility**

A. For each source include types of major effluent (e.g. produced water, spent gas treating fluids, heat media, hydrocarbons, sewage, etc.) estimated quantities in barrels or gallons per month, and types and volumes of major additives (e.g. acids, biocides, detergents from steam cleaner, degreasers, corrosion inhibitors etc.)

1. Separator(s), Scrubber(s), and Slug Catcher(s);

2. Boilers, Waste Heat Recovery Units, cogeneration facilities, and cooling towers/fans;

3. Wash down/Steam out effluent from process and storage equipment internals and externals;

4. Solvent/degreaser use;(Describe)

5. Spent acids or caustics; (Describe).

6. Used engine coolants;(i.e. antifreeze)

7. Used lubrication and motor oils;

8. Used lube oil and process filters;

9. Solids and sludges from tanks (provide description of materials)

10. Painting wastes;

11. Sewage (Indicate if other wastes are mixed with sewage; if no commingling occurs domestic sewage under jurisdiction of the NMED);

12. Laboratory wastes;

13. Other waste liquids; (Describe in detail)

14. Other waste solids; (e.g. used drums, molecular sieve materials, charcoal filter media, etc.)

B. Quality Characteristics.

Provide the following information for each above listed source where applicable:

1. Provide concentration analysis for Total Dissolved Solids (TDS) and Major Cations/Anions (eg. F,Br,Ca,K,Mg,Na,HCO3,CO3,Cl,SO4 in mg/l), Ph, and Conductivity in umhos/cm.

2. Provide hydrocarbon analysis for benzene, ethyl benzene, toluene, and meta-, ortho-, and Para-xylene (i.e. BTEX).

3. Provide analyses for WQCC section 3103 standards not included within above analyses. Exceptions can be approved upon request for certain constituents if not used in processing or not expected to be present in the waste water effluent.

4. Discuss the presence or absence of toxic pollutants (WQCC 1101.TT) in each process where a discharge/possible discharge effluent may be generated. If present, provide volumes and concentrations. Estimates may be used pending Director evaluation of discharge plan submittal and proposed discharge methods.

5. Discuss sampling locations, methods, and procedures used to obtain values for #1, 2, and 3 above. Include information as to whether the sample was "grab" or "time-composite", and sample collection and preservation techniques, laboratory used for the analysis, etc. Sources for sampling and analytical techniques to be used are listed in WQCC 3107.B.

6. Discuss any variations that could produce higher or lower values than those shown by the sampling procedures outlined above in #5 - i.e. flowrate variations, process upsets, etc. If major variations are expected or inherent with a particular process, provide ranges and the expected average.

C. Commingled Waste Streams.

Note: It is recommended that waste streams be segregated as much as possible-especially those wastes that are exempt from RCRA Subtitle C regulations and those that are non-exempt. If hazardous wastes are on site they should never be commingled with exempt wastes or non-exempt non-hazardous wastes. For guidance in dealing with hazardous wastes contact the NMED Hazardous and Radioactive Materials Bureau at 505-827-1558.

1. If produced and process fluids are commingled within the facility, and if individual rates, volumes and concentrations do not vary beyond a set range, and if process units are entirely self-contained to prevent intentional discharges and spills or inadvertent discharges (see B. 3,4 previous page), then chemical characterization of commingled effluent or process streams may be sufficient to satisfy discharge plan requirements.

2. If the discharger wishes to submit information on commingled streams in lieu of submittal of individual stream characteristics, adequate information should be provided to justify the request.

## 8. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

A. Summary Information.

**For each source listed in Part 7**, provide summary information about onsite collection, storage and disposal systems. Indicate whether collection/storage/disposal location is tank or drums, floor drain or sump, lined or unlined pit, onsite injection well, leach field, or offsite disposal.

B. Collection and Storage Systems.

1. For collection and storage systems named in Part A, provide sufficient information to determine what water contaminants may be discharged to the surface and subsurface within the facility. Water and wastewater flow schematics may be used provided they have sufficient detail to show individual treatment units. Information desired includes whether tanks, piping, and pipelines are pressurized, above ground or buried. If fluids are drained to surface impoundments, oil skimmer pits, emergency pits, shop floor drains, sumps, etc. for further transfer and processing, provide size and indicate if these collection units are lined or unlined. If lined describe lining material (e.g. concrete, steel tank, synthetic liner, etc.).

2. Tankage and Chemical Storage Areas - Storage tanks for fluids other than fresh water must be bermed to contain a volume one-third more than the largest tank. If tanks are interconnected, the berm must be designed to contain a volume one-third more than the total volume of the interconnected tanks. All new tank installations must be placed on an impermeable type pad. Chemical and drum storage areas must be paved, curbed and drained such than spills or leaks from drums are contained on the pads or in lined sumps.

3. All facilities must demonstrate the integrity of buried piping. If the facility contains underground process or wastewater pipelines the age and specifications (i.e., wall thickness, fabrication material, etc.) of said pipelines should be submitted. A proposed hydrostatic test method and schedule for testing of piping must be included as part of the submittal. All lines must be tested to a pressure of 3 pounds per square inch above the normal operating pressure in the line, and a duration time for the test will also be proposed for OCD approval. If hydrostatic tests have already been conducted, details of the program and the results should be submitted.

C. Existing Effluent and Solids Disposal.

1. On-Site Facilities

a. Describe existing on-site facilities used for effluent or solids disposal of water, sludges, waste oils, solvents, etc., including surface impoundments, disposal pits, leach fields, floor drains, injection wells, and landfarms etc. (If effluents and solids are shipped off-site for recycling or disposal, see C.2. on pg. 11.) Locate the various disposal areas on the facility site plan or topographic map. Provide technical data on the design elements of each disposal method:

(1) Surface impoundments - date built, use, type and volume of effluent stored, area, volume, depth, slope of pond sides, sub-grade description, liner type and thickness, compatibility of liner and effluent, installation methods, leak detection methods and frequency checked, freeboard, runoff/run on protection.

(2) Leach fields - Type and volume of effluent, leach field are and design layout. If non-sewage or mixed flow from any process units or internal drains is, or has been, sent to the leach fields, include dates of use and disposition of septic tank sludges.

(3) Injection wells - Describe effluent injected, volume, depth, formation, OCD order number and approval date. The effluent must not be classified as a hazardous waste at the time of injection. (Note - Any sump, floor drain or hole deeper than wide used for subsurface emplacement of fluids may be considered an injection well unless its integrity to contain fluids can be (demonstrated). Class II injection wells are required to have an OCD permit and can only inject produced water or other waste fluids brought to the surface that are Exempt from RCRA Subtitle C Hazardous Waste regulations. A Part 5 WQCC Class I Non-Hazardous discharge plan approval will be required if the injection well is used to dispose of Non-Exempt, Non-Hazardous effluent. The effluent can not be classified as a Hazardous Waste by characteristics or listing as spelled out in RCRA Subtitle C.

(4) Drying beds or other pits - Types and volumes of waste, area, capacity, liner, clean-out interval and method, and ultimate disposal location.

(5) Solids disposal - Describe types volumes frequency and location of on-site solids dried disposal. Types solids include sands, sludges, filters, containers, cans and drums.

(6) Landfarms- Describe the surface dimensions of the landfarm area and the operational and monitoring procedures.

**NOTE: The OCD has developed specific guidelines for the construction, operation, and monitoring of landfarms.**

b. For leach fields, pits, and surface impoundments having single liners of any composition, clay liners or that are unlined and not proposed to be modified or closed as part of this discharge plan:

(l) Describe the existing and proposed measures to prevent or retard seepage such that ground water at any place of present or future use will meet the WQCC Standards of Section 3103, and not contain any toxic pollutant as defined in Section 1101.TT.

(2) Provide the location and design of site(s) and method(s) to be available for effluent sampling. and for measurement or calculation of flow rates.

(3) Describe the monitoring system existing or proposed in the plan to detect leakage or failure of the discharge system. If ground water monitoring exists or is proposed, provide information on the number, location, design, and installation of monitoring wells.

2. Off-Site Disposal.

If wastewater, sludges, solids etc. are pumped or shipped off-site, indicate general composition (e.g. waste oils), method of shipment (e.g. pipeline, trucked), and final disposition (e.g. recycling plant, OCD permitted Class II disposal well, or domestic landfill, etc.). Include name, address, and location of receiving facility. If receiving facility is a sanitary or modified landfill show operator approval for disposal of the shipped wastes.

## 9. Proposed Modifications

A. If collection and storage systems do not meet the criteria of Section 8 B. above, or if protection of ground water cannot be demonstrated pursuant to Section 8 C.1.b.(1) above, describe what modification of that particular method (including closure), or what new facility, is proposed to meet the requirements of the Regulations. Describe in detail the proposed changes. Provide the information requested in 8 B, and C.l.a. and b. above for the proposed facility modifications and proposed time schedule for construction and completion. (Note: OCD has developed specific guidelines for lined surface impoundments, land farms, below grade tanks, and closure guidelines that are available on request.)

B. For ponds, pits, leach fields, etc. where protection of ground water cannot be demonstrated, describe the proposed closure of such units so that existing fluids are removed, and emplacement of additional fluids and runoff/run on of precipitation are prevented. Provide a proposed time schedule for closure.( Note: The OCD has closure guidelines and are available upon request.)

## 10. Inspection, Maintenance and Reporting

A. Describe proposed routine inspection procedures for surface impoundments and other disposal units having leak detection systems. Include frequency of inspection, how records are to be maintained and OCD notification in the event of leak detection.

B. If ground water monitoring is used to detect leakage on failure of the surface impoundments, leach fields, or other approved disposal systems provide:

1. The frequency of sampling, and constituents to be analyzed.

2. The proposed periodic reporting of the results of the monitoring and sampling.

3. The proposed actions and procedures (including OCD notification) to be undertaken by the discharger in the event of detecting leaks or failure of the discharge system.

C. Discuss general procedures for containment of precipitation and runoff such that water in contact with process areas does not leave the facility, or is released only after testing for hazardous constituents. Include information on curbing, drainage, disposition, notification, etc.

## 11. Spill/Leak Prevention and Reporting Procedures (Contingency Plans)

It is necessary to include in the discharge plan submittal a contingency plan that anticipates where any leaks or spills might occur. It must describe how the discharger proposes to guard against such accidents and detect them when they have occurred. The contingency plan also must describe the steps proposed to contain and remove the spilled substance or mitigate the damage caused by the discharge such that ground water is protected, or movement into surface waters is prevented. The discharger will be required to notify the OCD Director of significant leaks and spills, and this commitment and proposed notification threshold levels must be included in the contingency plan. In any case the local OCD District field office should be notified by telephone within 24 hours of a significant spill or release as defined in OCD Rule 116 and WQCC Section 1203.

**NOTE: USE NMOCD RULE 116 AND WQCC Section 1203 for spill reporting**

A. Describe proposed procedures addressing containment, cleanup and reporting in case of major and minor spills at the facility. Include information as to whether areas are curbed, paved and drained to sumps; final disposition of spill material; proposed schedule for OCD notification of spills; etc.

B. Describe methods used to detect leaks and ensure integrity of above and below round tanks, and piping. Discuss frequency of inspection and procedures to be undertaken if significant leaks are detected.

C. If an injection well is used for on-site effluent disposal, describe the procedures to be followed to prevent unauthorized discharges to the surface or subsurface in the event the disposal well or disposal line is shut-in for work over or repairs (e.g. extra storage tanks, emergency pond, shipment offsite, etc.). Address actions to be taken in the event of disposal pipeline failure, extended disposal well downtime, etc.

## 12. Site Characteristics

A. The following hydrologic/geologic information is required to be submitted with all discharge plan applications. Some information already may be on file with OCD and can be provided to the applicant on request.

1. Provide the name, description, and location of any bodies of water, streams (indicate perennial or intermittent), or other watercourses (arroyos, canals, drains, etc.); and ground water discharges sites (seeps, springs, marshes, swamps) within one mile of the outside perimeter of the facility. For water wells, locate wells within one-quarter mile of the outside perimeter of the facility and specify use of water (e.g. public supply, domestic, stock, etc.).

2. Provide the depth to and total dissolved solids (TDS) concentration (in mg/l) of the ground water most likely to be affected by any discharge (planned or unplanned). Include the source of the information and how it was determined. Provide a recent water quality analysis of the ground water, if available, including name of analyzing laboratory and sample date.

3. Provide the following information and attach or reference source information as available (e.g. driller's logs):

   a. Soil type(s) (sand, clay, loam, caliche);

   b. Name of aquifer(s);

   c. Composition of aquifer material (e.g. alluvium, sandstone, basalt, etc.); and

   d. Depth to rock at base of alluvium (if available).

4. Provide information on:

   a. The flooding potential at the discharge site with respect to major precipitation and/or run-off events; and

   b. Flood protection measures (berms, channels, etc.), if applicable.

B. Additional Information

Provide any additional information necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of WQCC Section 3103 or the presence of any toxic pollutant (Section ll01.TT.) at any place of withdrawal of water for present or reasonably foreseeable future use. Depending on the method and location of discharge, detailed technical information on site hydrologic and geologic conditions may be required to be submitted for discharge plan evaluation. This material is most likely to be required for unlined surface impoundments and pits, and leach fields. Check with OCD before providing this information. However, if required it could include but not be limited to:

1. Stratigraphic information including formation and member names, thickness, lithologies, lateral extent, etc.

2. Generalized maps and cross-sections;

3. Potentiometric maps for aquifers potentially affected;

4. Porosity, hydraulic conductivity, storativity and other hydrologic parameters of the aquifer;

5. Specific information on the water quality of the receiving aquifer; and

6. Information on expected alteration of contaminants due to sorption, precipitation or chemical reaction in the unsaturated zone, and expected reactions and/or dilution in the aquifer.

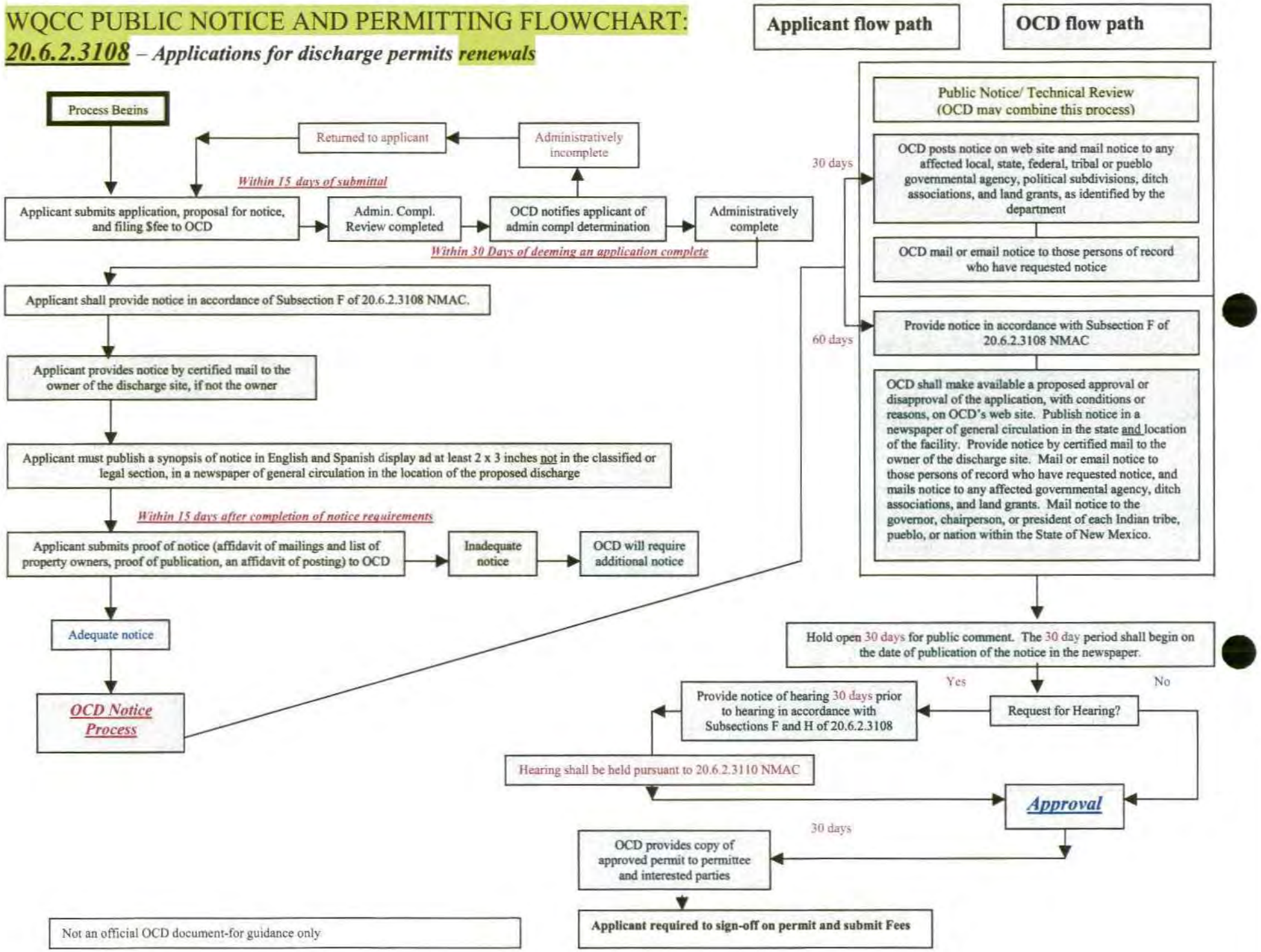
## 13. Other Compliance Information

Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. Examples include previous Division orders or letters authorizing operation of the facility or any surface impoundments at the location.

1. Also include a brief statement committing to NMOCD Rule 116 and WQCC Section 1203 spill/leak reporting.

2. A closure plan as described in WQCC Section 3107.A.11 " Monitoring, Reporting, and other Requirements." The "Closure Plan" shall include all of the information described in WQCC Section 3107.A.11 and can use OCD guidelines for accepted remmediation techniques and unlined surface impoundment closure guidelines.

# WQCC PUBLIC NOTICE AND PERMITTING FLOWCHART:
## *20.6.2.3108 – Applications for discharge permits renewals*




Not an official OCD document-for guidance only

# *Notice Requirements For Discharge Permit Renewals*

**20.6.2.3108 PUBLIC NOTICE AND PARTICIPATION:**

**A.** Within 15 days of receipt of an application for a discharge permit, modification or renewal, the department shall review the application for administrative completeness. To be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC. The department shall notify the applicant in writing when the application is deemed administratively complete. If the department determines that the application is not administratively complete, the department shall notify the applicant of the deficiencies in writing within 15 days of receipt of the application and state what additional information is necessary.

**B.** Within 30 days of the department deeming an application for discharge permit or discharge permit modification administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

(2) providing written notice of the discharge by mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

(3) providing notice by certified mail, return receipt requested, to the owner of the discharge site if the applicant is not the owner; and

(4) publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

**C.** Within 30 days of the department deeming an application for discharge permit renewal administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) providing notice by certified mail to the owner of the discharge site if the applicant is not the owner; and

(2) publishing a synopsis of the notice, in English and in Spanish, in a display ad at least two inches by three inches, not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the discharge.

**D.** Within 15 days of completion of the public notice requirements in Subsections B or C of 20.6.2.3108 NMAC, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

**E.** Within 30 days of determining an application for a discharge permit, modification or renewal is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or e-mail notice to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. The notice shall include the information listed in Subsection F of 20.6.2.3108 NMAC.

**F.** The notice provided under Subsection B, C and E of 20.6.2.3108 NMAC shall include:

(1) the name and address of the proposed discharger;

(2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;

(3) a brief description of the activities that produce the discharge described in the application;

(4) a brief description of the expected quality and volume of the discharge;

(5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge;

(6) the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and

(7) a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

**G.** All persons who submit comments or statements of interest to the department or previously participated in a public hearing and who provide a mail or e-mail address shall be placed on a facility-specific mailing list and the department shall send those persons the public notice issued pursuant to Subsection H of 20.6.2.3108 NMAC, and notice of any public meeting or hearing scheduled on the application. All persons who contact the department to inquire about a specific facility shall be informed of the opportunity to be placed on the facility-specific mailing list.

**H.** Within 60 days after the department makes its administrative completeness determination and all required technical information is available, the department shall make available a proposed approval or disapproval of the application for a discharge permit, modification or renewal, including conditions for approval proposed by the department or the reasons for disapproval. The department shall mail by certified mail a copy of the proposed approval or disapproval to the applicant, and shall provide notice of the proposed approval or disapproval of the application for a discharge permit, modification or renewal by:

(1) posting on the department's website;

(2) publishing notice in a newspaper of general circulation in this state and a newspaper of general circulation in the location of the facility;

(3) mailing or e-mailing to those persons on a facility-specific mailing list;

(4) mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department; and

(5) mailing to the governor, chairperson, or president of each Indian tribe, pueblo or nation within the state of New Mexico, as identified by the department.

**I.** The public notice issued under Subsection H shall include the information in Subsection F of 20.6.2.3108 NMAC and the following information:

(1) a brief description of the procedures to be followed by the secretary in making a final determination;

(2) a statement of the comment period and description of the procedures for a person to request a hearing on the application; and

(3) the address and telephone number at which interested persons may obtain a copy of the proposed approval or disapproval of an application for a discharge permit, modification or renewal.

**J.** In the event that the proposed approval or disapproval of an application for a discharge permit, modification or renewal is available for review within 30 days of deeming the application administratively complete, the department may combine the public notice procedures of Subsections E and H of 20.6.2.3108 NMAC.

**K.** Following the public notice of the proposed approval or disapproval of an application for a discharge permit, modification or renewal, and prior to a final decision by the secretary, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. All comments will be considered by the department. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

**L.** If a hearing is held, pursuant to Subsection K of 20.6.2.3108 NMAC, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection H of 20.6.2.3108 NMAC. The notice shall include the information identified in Subsection F of 20.6.2.3108 NMAC in addition to the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

20.6.2 NMAC 17

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3108 NMAC - Rn, 20 NMAC 6.2.III.3108, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06]

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**
Governor
**Joanna Prukop**
Cabinet Secretary

**Mark E. Fesmire, P.E.**
Director
**Oil Conservation Division**

December 13, 2006

Jerry Hughes
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, NM 87401

RE: Renewal of Discharge Permit (#GW219)

Dear Mr. Hughes:

The Oil Conservation Division's (OCD) records indicate that your discharge plan has expired. New Mexico Water Quality Control Commission regulations (WQCC) Section 3106.F (20.6.2.3106.F NMAC) specifies that if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. You may be operating without a permit. Please submit a permit renewal application with a filing fee (20.6.2.3114 NMAC) of $100.00 by December 31, 2006. Please make all checks payable to the **Water Quality Management Fund** and addressed to the OCD Santa Fe Office. There is also a discharge plan permit fee, based on the type of facility, which OCD will assess after processing your application. An application form and guidance document is attached in order to assist in expediting this process.

In accordance with the public notice requirements (Subsection A of 20.6.2.3108 NMAC) of the newly revised (July 2006) WQCC regulations, "...to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) through (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." You are required to provide the information specified above in your permit renewal application submittal. Attached are a flow chart and the regulatory language pertaining to the new WQCC public notice requirements for your convenience. After the application is deemed administratively complete, the revised public notice requirements of 20.6.2.3108 NMAC must be satisfactory demonstrated to OCD. OCD will provide public notice pursuant to the revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

Please contact me by phone 505-476-3489 or email edwardj.hansen@state.nm.us if you have any questions regarding this matter.

Sincerely,

Edward J. Hansen
Hydrologist, Environmental Bureau

**ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH**

I hereby acknowledge receipt of check No. [redacted] dated 2/19/02,

or cash received on _____ in the amount of $ 50.00

from Albuquerque Resins

for CDI Farmington Facility GW-219.

(Facility Name) (DP No.)

Submitted by: [signature] Date: 3-26-02

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility ____ Renewal ____

Modification ____ Other _____ (specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ____

AN ARTIFICIAL WATERMARK IS PRESENT ON THE REVERSE SIDE

ALBUQUERQUE RESINS, INC.
dba FARMINGTON CHEMICAL DISTRIBUTORS
P.O. BOX 50
NORTH BEND, OR 97459
(541) 756-0533

U.S. BANK
UNITED STATES NATIONAL BANK OF OREGON

24-22
1230

[redacted]

CHECK NO. 001418 DATE 02/19/02 AMOUNT

*FIFTY DOLLARS AND NO CENTS

********50.00*

PAY TO THE ORDER OF:

NM Energy, Mineral & Resource
2040 S. Pacheco
Santa Fe NM 87505

Kim Mast MP

Gary Rins MP

DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

[redacted]

**ALBUQUERQUE RESINS, INC.**
dba FARMINGTON CHEMICAL DISTRIBUTORS

[redacted]

| DATE | INVOICE NO | COMMENT | AMOUNT | DISCOUNT | NET AMOUNT |
|---|---|---|---|---|---|
| 01/10/02 | 011002 | | 50.00 | .00 | 50.00 |

CHECK: 001418 02/19/02 NM Energy, Mineral & Resource CHK TOTAL: 50.00

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**
Governor
**Jennifer A. Salisbury**
Cabinet Secretary

**Lori Wrotenbery**
Director
**Oil Conservation Division**

January 10, 2002

**CERTIFIED MAIL**
**RETURN RECEIPT NO. 3929 7396**

Mr. Jerry Hughes
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, New Mexico 87401

**RE: Discharge Plan Fee GW-219**
**Farmington Service Facility**
**San Juan County, New Mexico**

Dear Mr. Hughes:

On November 27, 2000, Chemical Distributors, Inc., received, via certified mail, an approval dated November 13, 2000 from the New Mexico Oil Conservation Division (OCD) for discharge plan GW-219. Each discharge plan has a filing fee and a flat fee as described in WQCC Section 3114. The OCD has not as of this date (January 10, 2002) received the filing fee. The last check submitted by Chemical Distributors, Inc. was dated August 28, 2000 in the amount of $690.00 for the required flat fee for the discharge plan. The filing fee of $50.00 is due and payable for discharge plan GW-219.

Chemical Distributors, Inc. will submit the remaining $50.00 filing fee in full by February 28, 2002 in order to be in compliance with Water Quality Control Commission Regulation 3114.B.6, or the OCD may initiate enforcement actions which may include fines and/or an order to cease all operations at the facility. Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

If you have any questions regarding this matter, please contact Mr. Jack Ford at (505) 476-3489.

Sincerely,

Roger Anderson
Environmental Bureau Chief

RCA/wjf

xc: Aztec OCD district office

U.S. Postal Service
**CERTIFIED MAIL RECEIPT**
*(Domestic Mail Only; No Insurance Coverage Provided)*

7001 1940 0004 3929 7396

**OFFICIAL USE**

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Return Receipt Fee (Endorsement Required) | |
| Restricted Delivery Fee (Endorsement Required) | |
| **Total Postage & Fees** | **$** |

Postmark Here

37502
JAN 1 2002

*Sent To* J. Hughes

*Street, Apt. No.; or PO Box No.* Chem. Distr.

*City, State, ZIP+ 4* GW-219

PS Form 3800, January 2001 See Reverse for Instructions

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**
Governor
**Jennifer A. Salisbury**
Cabinet Secretary

**Lori Wrotenbery**
Director
**Oil Conservation Division**

November 13, 2000

**CERTIFIED MAIL**
**RETURN RECEIPT NO. 5050 9955**
Mr. Jerry Hughes
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, New Mexico 87401

**RE: Discharge Plan Renewal GW-219**
**Chemical Distributors, Inc.**
**Farmington Service Facility**
**San Juan County, New Mexico**

Dear Mr. Hughes:

The ground water discharge plan renewal application GW-219 for the Chemical Distributors, Inc. Farmington Service Facility located in the SW/4 SW/4 SE/4 of Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The original discharge plan application was submitted on August 8, 1995 and approved November 21, 1995. The discharge plan renewal application, dated June 29, 2000, submitted pursuant to Sections 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Sections 5101.A. and 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Chemical Distributors, Inc. of liability should operations result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., Chemical Distributors, Inc. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this renewal plan is for a period of five years. This renewal will expire on **November 21, 2005**, and Chemical Distributors, Inc. should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

Chemical Distributors, Inc. will submit a storm water run-off plan for approval by the OCD within six (6) months of the date of this approval letter for the Farmington Service Facility facility.

The discharge plan renewal application for the Chemical Distributors, Inc. Farmington Service Facility is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of $50. There is a renewal flat fee assessed for oil field service company equal to one-half of the original flat fee or $690.00. The OCD has received the flat fee. The OCD has not received the filing fee.

**Please make all checks payable to: Water Management Quality Management Fund**
**C/o: Oil Conservation Division**
**2040 South Pacheco**
**Santa Fe, New Mexico 87505.**

If you have any questions please contact Mr. W. Jack Ford at (505) 827-7156. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Aztec Office

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
FORD

Article Sent To:

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $

Postmark Here

SANTA FE NM 87501

7099 3220 0000 5050 9955

Name (Please Print Clearly) (To be completed by mailer)
J. Hughes
Street, Apt. No.; or PO Box No.
C.D.I.
City, State, ZIP+ 4
GW-219

PS Form 3800, July 1999 See Reverse for Instructions

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-219
CHEMICAL DISTRIBUTORS, INC.
FARMINGTON SERVICE FACILITY
DISCHARGE PLAN APPROVAL CONDITIONS
(November 13, 2000)

1. Payment of Discharge Plan Fees: The $50.00 filing fee has not been received by the OCD. The filing fee is due upon receipt of the approved discharge plan. There is a required flat fee equal to one-half of the original flat fee for oil field service companies. The renewal flat fee required for this facility is $690.00 which has been received by the OCD.

2. Chemical Distributors, Inc. Commitments: Chemical Distributors, Inc. will abide by all commitments submitted in the discharge plan renewal application dated June 29, 2000 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: The facility will have an approved storm water run-off plan.

16. Closure: The OCD will be notified when operations of the Farmington Service Facility are discontinued for a period in excess of six months. Prior to closure of the Farmington Service Facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: Chemical Distributors, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Chemical Distributors, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

CHEMICAL DISTRIBUTORS, INC.

by_____
Title

# AFFIDAVIT OF PUBLICATION
## Ad No. 43355

## STATE OF NEW MEXICO
## County of San Juan:

**Alethia Rothlisberger**, being duly sworn says: That she is the Classified Advertising Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Friday, September 15, 2000

And the cost of the publication is $84.38

Alethia Rothlisberger

ON 10/26/2000 Alethia Rothlisberger appeared before me, whom I know personally to be the person who signed the above document.

My Commission Expires April 10, 2004

## COPY OF PUBLICATION

918 Legals

**NOTICE OF PUBLICATION**

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505; Telephone (505) 827-7131:

**(GW-219) - Chemical Distributions, Inc, Mr. Jerry Hughes, 3911 Monroe Road, Farmington, New Mexico 87401, has submitted a discharge plan renewal application for their Farmington facility located in the SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite to an OCD approved disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 52 feet with a total dissolved solids concentrations of approximately 675 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division an may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of the publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held.

A hearing will be held if the director determines that there is significant public interest. If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 1st day of September 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

/s/Roger Cullander
Roger Cullander
for LORI WROTENBERY, Director

SEAL

Legal No. 43355 published in The Daily Times, Farmington, New Mexico, Friday, September 15, 2000.

Flat fee
Paid
Filing fee
NOT PAID

RECEIVED
SEP 15 2000
CONSERVATION DIVISION

3911 Monroe Rd
Farmington, NM 87401
TEL: (505) 327-0274
FAX: (505) 327-6406

# Albuquerque Resins, Inc.
## dba Farmington Chemical Distributors

To: Jack Ford 9/12/00

From: Jerry Hughes

Dear Mr. Ford,

Please be advised that our company name has been changed. Our previous name reads as:
Farmington Chemical Distributors, Inc.
3911 Monroe Rd.
Farmington, NM 87401

Our new operating name reads as:
Albuquerque Resins, Inc.
dba. Farmington Chemical Distributors.
3911 Monroe Rd.
Farmington, NM 87401

There has been no ownership change, just our name. Please make corrections that may be affected by our new name.

If you have any questions please, feel free to call me.

Thank You,
Jerry Hughes

Jerry Hughes

Operations Manager

THE SANTA FE
NEW MEXICAN
Founded 1849

RECEIVED
SEP 14 2000
OIL CONSERVATION DIVISION

NM OIL CONSERVATION DIVISION
ATTN: DONNA DOMINGUEZ
2040 S. PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 170276 ACCOUNT: 56689
LEGAL NO: 68062 P.O.#: 01199000033
174 LINES 1 time(s) at $ 76.71
AFFIDAVITS: 5.25
TAX: 5.12
TOTAL: 87.08

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, B Pierce 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 #68062 a copy of which is hereto attached was published in said newspaper 1 day(s) between 09/13/2000 and 09/13/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 13 day of September, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Betsy Pierce
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 13 day of September A.D., 2000

Notary Janet L. Montoya
Commission Expires 12/30/03

OFFICIAL SEAL
Janet L. Montoya
NOTARY PUBLIC - STATE OF NEW MEXICO
MY COMMISSION EXPIRES 12/30/03

**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, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-219) - Chemical Distributors, Inc, Mr. Jerry Hughes, 3911 Monroe Road, Farmington, New Mexico 87401, has submitted a discharge plan renewal application for their Farmington facility located in the SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite to an OCD approved disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 52 feet with a total dissolved solids concentrations of approximately 675 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request 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 hearing is held, the Director will approve or disapprove the proposed plan based on the information available. If a public hearing is held, the Director will the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, this 1st day of September 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

Legal #68062
Pub. September 13, 2000

## NOTICE OF PUBLICATION

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

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A hearing will be held if the director determines that there is significant public interest.
If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 1st day of September 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

for LORI WROTENBERY, Director

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

4 680.00 Total
Stamps

Revised March 17, 1999

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

# DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS. REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: SAME.
2. Operator: SAME - Farmington Chem Dist.
   Address: SAME - 3911 Monroe. Farmington N.M 87401
   Contact Person: Jerry Hughes Phone: SAME 327-0279
3. Location: SAME /4 SAME. /4 Section SAME Township SAME Range SAME
   Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site. No change.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility. N/C (SAME)
6. Attach a description of all materials stored or used at the facility. N/C
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included. N/C
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures. N/C
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems. N/C
10. Attach a routine inspection and maintenance plan to ensure permit compliance. N/C
11. Attach a contingency plan for reporting and clean-up of spills or releases. N/C
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included. N/C
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. N/C
14. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Jerry Hughes Title: Operations Manager

Signature: Jerry Hughes Date: 6-29-00

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

$60.00 Total
Stamps

Revised March 17, 1999

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

# DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS. REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: SAME.
2. Operator: SAME - Farmington Clean Dist.
   Address: SAME - 3911 Morgan Farmington N.M. 87401
   Contact Person: Jerry Hughes Phone: SAME 327-0274
3. Location: SAME /4 SAME /4 Section SAME Township SAME Range SAME
   Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site. No/change.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility. N/C (SAME)
6. Attach a description of all materials stored or used at the facility. N/C
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included. N/C
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures. N/C
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems. N/C
10. Attach a routine inspection and maintenance plan to ensure permit compliance. N/C
11. Attach a contingency plan for reporting and clean-up of spills or releases. N/C
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included. N/C
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. N/C
14. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Jerry Hughes Title: Operations Manager

Signature: Jerry Hughes Date: 6-29-00

**ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH**

I hereby acknowledge receipt of check No. [redacted] dated 8-25-00,

or cash received on _____ in the amount of $ 690.00

from Farmington Chemical Distributors

for Farmington Facility GW-219
(Facility Name) (DP No.)

Submitted by: [signature] Date: 8-31-00

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee ___ New Facility ___ Renewal ✓

Modification ___ Other _____
(specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

AN ARTIFICIAL WATERMARK IS PRESENT ON THE REVERSE SIDE

ALBUQUERQUE RESINS, INC.
dba FARMINGTON CHEMICAL DISTRIBUTORS
P.O. BOX 50
NORTH BEND, OR 97459
(541) 756-0533

U.S. BANK
UNITED STATES NATIONAL BANK OF OREGON

24-22
1230

[redacted]

CHECK NO. 000211 DATE 08/25/00 AMOUNT

*SIX HUNDRED NINETY DOLLARS AND NO CENTS

*******690.00*

PAY TO THE ORDER OF: NM ENERGY,MINERAL, AND NATURAL
2040 S. Pacheco
Santa Fe NM 87505

Ana Melbourn MP

Tom Pickson MP

DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

[redacted]

**ALBUQUERQUE RESINS, INC.**
dba FARMINGTON CHEMICAL DISTRIBUTORS

[redacted]

| DATE | INVOICE NO | COMMENT | AMOUNT | DISCOUNT | NET AMOUNT |
|---|---|---|---|---|---|
| 07/25/00 | 072500 | | 690.00 | .00 | 690.00 |

CHECK: 000211 08/25/00 NM ENERGY,MINERAL, AND NATURAL [redacted] CHK TOTAL: 690.00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury
CABINET SECRETARY

Oil Conservation Div.
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

March 15, 2000

**CERTIFIED MAIL**
**RETURN RECEIPT NO. 5050 9436**

Mr. Russ Guidry
Farmington Chemical Distributors, LLC
3911 Monroe Road
Farmington, New Mexico 87401

**RE: Discharge Plan Renewal Notice for Farmington Chemical Distributors, LLC Facility**

Dear Mr. Guidry:

Farmington Chemical Distributors, LLC has the following discharge plan which expires during the current calendar year.

**GW-219 expires 11/21/2000 – Farmington Facility**

**WQCC 3106.F.** If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

The discharge plan renewal application for each of the above facilities is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of $50.00 plus a flat fee equal to one-half of the original flat fee for oil field service company facilities. The $50.00 filing fee is to be submitted with the discharge plan renewal application and is nonrefundable.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office. Please submit the original discharge plan renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Aztec District Office. **Note that the completed and signed application form must be submitted with your discharge plan renewal request.** (A copy of the discharge plan application form is enclosed to aid you in preparing the renewal application. A complete copy of the regulations is available on OCD's website at **www.emnrd.state.nm.us/ocd/**).

If the above sited facility no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If the Farmington Chemical Distributors, LLC has any questions, please do not hesitate to contact me at (505) 827-7152.

Sincerely,

Roger C. Anderson
Oil Conservation Division

cc: OCD Aztec District Office

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7099 3220 0000 5050 9436

Article Sent To:

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $

Postmark Here

Name (Please Print Clearly) (To be Completed by mailer) R. Guidry
Street, Apt. No.; or PO Box No. Farmington Chem. Distr.
City, State, ZIP+4 Farmington GW-219

PS Form 3800, July 1999 See Reverse for Instructions

Jerry Hughes
327-0274
CDI Contact now

# FARMINGTON

## Chemical Distributors, L. L. C.

Water Treating Chemicals, Industrial Blending, Amines & Industrial Chemicals

# Memorandum

**To:** OCD

**CC:** Roger Anderson

**From:** Jerry Hughes

**Date:** August 26, 1999

**Re:** Company Name Change

---

Chemical Distributors, INC. has changed their name to Farmington Chemical Distributors, LLC. This name change occurred in 1997. We just wanted to let you know for your records and apologize for the oversight of notifying you before now.

Thank you,

Jerry Hughes

Jerry Hughes
Operations Manager

Rec. 8-31-99

3911 Monroe Rd.
Farmington, New Mexico 87401

Phone: (505) 327-0274
Fax: (505) 327-6406

Email: farmcd@sisna.com

GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo Street
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544

PETER MAGGIORE
SECRETARY

# Inspection Report

Facility: Farmington Chem Dist Location: 3911 Monroe Farmington, NM

EPA ID #: NMR 000000869 Mailing Address: Same

Ownership:

Authorized Agent: Jerry Hughes Facility Contact: Jerry Hughes

Time of Entry 7:40 Date 3/16/99 Access: Granted / Denied

Facility Representative Jerry Hughes Title

Reason(s) for Denial of Access (if applicable)

Jerry Hughes
Facility Representative Signature

John M. Tymkowych
Inspectors Signature

Entry Conference:

Present Credentials to Facility Representative ✓
Cite Statutory Authority to Enter Site (HWA § 74-4-4.3) ✓
Cite Statutory Authority to Conduct Inspection, Obtain Samples and Take Photographs (HWA § 74-4-4.3). ✓
Specify Reason for, and Nature of the Inspection ✓
Specify Objectives and Procedures for Inspection ✓
Schedule Exit Conference ✓

RECEIVED
AUG - 9 1999
OIL CON. DIV.
DIST. 3

Participants:

| Name | Signature | Title | Phone # |
|---|---|---|---|
| Connie Pasteris | Connie Pasteris | Env. Spec. | 505-827-1514 |
| Debby Brinkerhoff | Debby Brinkerhoff | Env. Spec. | 827-1512 |
| Billy BARNES | Billy Barnes | HAZ-WASTE INSPECT. | 827-1513 |
| CHRIS SERAZIO | Chris Serazio | RCRA INSPECTOR | 827-1511 |
| Michael Le Scouarnec | [illegible] | RCRA inspector | 827-1507 |
| JOHN TYMKOWICH | John M. Tymkowych | Program Mgr. | 827-1508 |
| Jerry Hughes | Jerry Hughes | Oper. Mgr. | 327-0274 |

SAMPLING 3/16/99

Exit Conference:

| | |
|---|---|
| Discussion / Explanation of Apparent Violations | ✓ |
| Explain Review Process by NMED / HRMB Managment | ✓ |
| NMED Anticipated Timetable for Letter of Final Determination | ✓ |
| Explain Enforcement Policy and Procedures (incl. pos. penalties) | ✓ |
| Explain Availability of On Site Technical Assistance | ✓ |

Participants:

| Name | Signature | Title | Phone # |
|---|---|---|---|
| JOHN M. TYMKOWYCH | John M. Tymkowych | Plant Mgr | 827-1508 |
| JERRY HUGHES | [illegible] | Operations | 827-0274 |
| Debbie Lundquist | [illegible] | Env Spec. | 827-1512 |

_____ I have been advised that at the time of inspection, no apparent violations of 20 NMAC 4.1 were identified. I also understand that I remain obligated to comply with all applicable laws and regulations.

X I have been advised of the apparent violations identified during the inspection. I understand that in accordance with §74-4-10 NMSA 1978 (Repl. Pamp. 1993), NMED may: (1) issue a compliance order requiring compliance immediatley or within a specified time period or assessing a civil penalty for any past or current violations of up to $10,000 per day of noncompliance with each violation or both; or (2) commence a civil action in district court for appropriate relief, including a temporary or permanent injunction. Any such order issued may include a suspension or revocation of any permit issued by NMED. I also understand that at this time, NMED is suspending the enforcement options listed on the provision of a satisfactory resolution to the violations or a detailed plan of corrective action acceptable to NMED within fifteen (15) working days receipt of the letter of final determination. If NMED does not receive satisfactory information, then NMED reserves the right to initiate formal enforcement action. (per previous site inspection 3/8/99)

[illegible]

Facility Representative

# OIL CONSERVATION DIVISION

**2040 South Pacheco**
**Santa Fe, NM 87505**

November 21, 1995

**CERTIFIED MAIL**
**RETURN RECEIPT NO. Z-765-962-978**

Mr. Russ Guidry
Chemical Distributors Inc.
3911 Monroe Rd.
Farmington, NM 87401

**RE: Approval of Discharge Plan GW-219**
**Chemical Distributors Inc., Farmington Facility**
**San Juan County, New Mexico**

Dear Mr. Guidry:

The **discharge plan GW-219 for the Chemical Distributors Inc. Facility** located in SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico, **is hereby approved** subject to the conditions contained in the enclosed attachment. The discharge plan consists of the application and its contents dated August 8, 1995 and subsequent letter of clarification dated November 15, 1995 both from Chemical Distributors Inc.

The discharge plan application was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. Please note Sections 3-109.E and 3-109.F which provide for possible future amendments or modifications of the plan. Please be advised that the approval of this plan does not relieve Chemical Distributors Inc. of liability should the operations associated with this facility result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open top tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that **"When a plan has been approved, discharges must be consistent with the terms and conditions of the plan."** Pursuant to Section 3-107.C you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3-109.G.4, this plan is for a period of five (5) years. This approval will expire November 21, 2000, and you should submit an application for renewal in six (6) months before this date.

The discharge plan application for the Chemical Distributors Inc. facility is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty dollars ($50) plus the flat fee of one thousand three-hundred and eighty dollars ($1380.00) for Service Company facilities.

The $50 filing fee has been received by the OCD. The flat fee in the amount of $1,380 for an approved Service company discharge plan has also been received by the OCD.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/pws
Attachment

xc: Mr. Denny Foust - Environmental Geologist

**ATTACHMENT TO DISCHARGE PLAN GW-219 APPROVAL**
**Chemical Distributors Inc., Farmington, NM**
**DISCHARGE PLAN REQUIREMENTS**
November 21, 1995

1. Tank Berming: All tanks that contain materials other than fresh water that, if released, could contaminate surface or ground water or the environment will be bermed to contain 1 1/3 times the capacity of the tank or 1 1/3 times the volume of all interconnected tanks.

2. Drum Storage: All drums containing materials other than fresh water must be stored an impermeable pad with curbing. All Empty drums will be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad with curbing.

3. Spills: All spills and/or leaks will be reported to the OCD district office pursuant to WQCC Rule 1-203 and OCD Rule 116. Phone the Aztec District office at 334-6178.

4. Modifications: All proposed modifications that include the construction of any below grade facilities or the excavation and disposal of wastes or contaminated soils will have OCD approval prior to excavation, construction or disposal.

5. Waste Disposal:

   A. All oilfield wastes shall be disposed of at an NMOCD approved facility.
   B. Only oilfield **RCRA Subtitle C Exempt Wastes** can be disposed of down Class II injection wells.

6. Housekeeping: All systems designed for spill collection (i.e. drip pans, pads with curbs, berms, etc) should be inspected frequently and emptied prior to overtopping.

7. Labeling: All chemical storage containers such as drums, tanks, and buckets shall be clearly labeled to identify their contents.

Z 765 952 978

**Receipt for Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

| | |
|---|---|
| Sent to Russ Guidry - CDF | |
| Street and No. GW-219 | |
| P.O., State and ZIP Code | |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, and Addressee's Address | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, March 1993

chemical distributors, inc.

EL PASO, TX 79932
(915) 833-0613
FAX: (915) 833-1029

HENDERSON, NV 89105
(702) 588-4904
FAX: (702) 565-2641

BATON ROUGE (PORT ALLEN), LA 70767
(504) 749-2388
FAX: (504) 749-2302

FARMINGTON, NM 87401
(505) 327-0274
FAX: (505) 327-6406

HOUSTON (ALGOA), TX 77511
(713) 331-2444
(409) 925-4718
FAX: (409) 925-5572

November 15, 1995

Mr. Patricio W. Sanchez
Petroleum Engineer
**Energy, Minerals, and Natural Resources Department**
**Oil Conservation Division**
2040 S. Pacheco
Santa Fe, New Mexico 87505

RECEIVED
NOV 21 1995
Environmental Bureau
Oil Conservation Division

**RE: Discharge Plan GW-219**
**CDI, Farmington Facility**
**San Juan County, New Mexico**

Dear Mr. Sanchez:

Please accept this letter as a formal response to the questions contained in your letter dated September 1, 1995. These responses are listed below in the order in which they were addressed in your letter.

I. As mentioned, the $50 filing fee and $1,380 flat fee have been submitted and received by the NMOCD.

II.A.1. The fluid and crystalline accumulations in the KCl storage areas have been reworked into marketable KCl solution, stored, and sold. The tank with the small leak which contributed to the accumulations was emptied, repaired, leak tested, and put back into service. Any future accumulations will be removed within 24 hours of discovery.

2. All laboratory wastes are stored within secondary containment and are blended back into our dechlorinating product line.

3. All drums that are reconditioned are sent to Layton Drum Company, 608 General Chenault S.E., Albuquerque, NM 87123.

4. All storage tanks have secondary containment so that in the event of a leaking tank or spill inside this secondary containment, the accumulation of fluid would be immediately pumped into another tank also with secondary

a. The source of the spill would be contained.
b. The spill exceeding the secondary containment would be contained.
c. All material (as much as possible) outside of secondary containment would be pumped to another tank within secondary containment immediately.
d. All material inside of secondary containment would be pumped to another tank within secondary containment.
e. If spilled material is inorganic (simple acid, base, or metallic salt), the residue outside of secondary containment would be neutralized, surface soil removed, tested and disposed of to an off-site OCD approved or permitted facility.
f. If the spill is an organic (i.e., petroleum hydrocarbons), the contaminated soil would be excavated to an OCD-approved level. A test on a representative sample of the soil remaining in the spill area would be conducted to determine if the remaining soil is below the contaminant specific remediation level (CSRL). If the contaminant was below this level, no more soil would be excavated. If the contaminant were at or above this level, more soil would be removed and the process would be repeated until the results were below the CSRL. The contaminated soil would then be disposed of to an off-site OCD approved or permitted facility.
g. All incidents would be communicated to the OCD for guidance and approval to terminate remediation. All incidents and actions taken would be summarized in a report to the OCD for approval.

B. We anticipate constructing cemented secondary containment for the MgCl2 storage tank area within the next five years. As soon as economics allow us to construct this containment area, it will be done. It is possible that if an existing tank needs to be replaced, we would construct a pad for one or two tanks at a time.

C.1. All reporting requirements addressed in NMOCD rule 116, WQCC 1-203, and Guidelines for Remediation of Leaks, Spills, and Releases will be a part of our discharge plan. In the event of a spill that is reportable according to these rules, Aztec NMOCD office will be notified at (505) 334-6178.

2. Precipitation/water that comes in contact with process areas is fully contained since all of our processes are contained. The small amount of water that does collect in the secondary containment areas is recycled into our solutions as marketable material.

E. As mentioned in C.1., all spills of a reportable quantity as per NMOCD 116 will be reported to the Aztec NMOCD office. Our contingency plan is mentioned above in II.A.4. Daily and weekly inspections are done to ensure the integrity of storage tanks, secondary containment walls and

sumps along with identifying leaks or potentials for leaks in storage tanks and valves.

Pat, we appreciate your help with this discharge plan. Please contact me at (504) 927-5750 if you have any questions or need any additional information.

Sincerely,

Russ Guidry
Manager Technical Services

RMG/rmg

cc: Jerry Wood
File

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

# OIL CONSERVATION DIVISION

**2040 SOUTH PACHECO**
**Santa Fe, NM 87505**

November 20, 1995

**CERTIFIED MAIL**
**RETURN RECEIPT NO. Z-765-962-977**

Mr. Russ Guidry
Chemical Distributors Inc.
3911 Monroe Rd.
Farmington, NM 87401

**RE: Discharge Plan GW-219**
**Chemical Distributors Inc., Farmington facility**
**San Juan County, New Mexico**

Dear Mr. Guidry:

The NMOCD on September 1, 1995 sent a letter requesting additional information and commitments Pursuant to WQCC Section 3-106 C.7 regarding the Chemical Distributors Inc. discharge plan application for its Farmington facility is located in SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico, submitted on August 10, 1995. The NMOCD has not received the requested additional information and commitments.

Chemical Distributors Inc. is nearing the 240 day time limit (12/22/95) from the time that the Director notified Chemical Distributors Inc. of the "Discharge Plan Requirement," and as stated in WQCC 3-106 A. "... such person may discharge without an approved discharge plan until 240 days after written notification by the director that a discharge plan is required or such longer time as the director shall for good cause allow."

If Chemical Distributors has any questions regarding this matter feel free to call me at (505)-827-7156 or Mr. Roger Anderson, Environmental Bureau Chief at (505)-827-7152.

Sincerely,

Patricio W. Sanchez
Petroleum Engineer, Environmental Bureau.

XC: Mr. Denny Foust - Environmental Geologist

Z 765 962 977

**Receipt for Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

| | |
|---|---|
| Sent to CDI. GW-219 | |
| Street and No. | |
| P.O., State and ZIP Code | |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, and Addressee's Address | |
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PS Form 3800, March 1993

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

| | | |
|---|---|---|
| ☒ Telephone ☐ Personal | Time 1:15 PM | Date 11-8-95 |

| Originating Party | Other Parties |
|---|---|
| Pat Sanchez - NMOCD | Russ Guidry - CDI |

Subject: Discharge Plan GW-219 Additional Information.

Discussion: I asked Mr. Guidry what the status of the additional information is regarding GW-219.

He indicated that he was finishing up the revisions and would submit early next week.

Conclusions or Agreements: Mr. Guidry will submit the additional Information requested on 9-1-95 by NMOCD regarding GW-219 early next week. I told him that sounded good.

Distribution: File

Signed: Patricia W. Sanchez

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

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NOV - 8 1995
OIL CONSERVATION DIVISION

NOV 6 1995

Mr. Benito Garcia, Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Garcia:

This letter is to inform you and your staff of the following scheduled fact-finding meeting and conference calls between the U.S. Environmental Protection Agency (EPA) and the RCRA regulated facilities inspected by EPA this past year. Enviro-Chem of Hobbs, New Mexico, will meet at EPA offices on November 8, 1995. In addition, fact-finding conference calls with Chemical Distributors, Inc., (CDI) of Farmington, New Mexico, and Solv-Ex of Albuquerque, New Mexico, will be held on November 7, 1995, and November 9, 1995, respectively. The objective of the meetings and conference calls is to discuss with each facility the findings from the RCRA Compliance Evaluation Inspection (CEI) conducted at these facilities during April 1995 by EPA. The inspections were part of a regional compliance assurance initiative to address non-compliance among the oil field services and other related industrial sectors subject to regulation under the Toxics Characteristic Rule.

Out of any enforcement that may ensue, we hope to gain broader compliance across the industry by having violating companies sponsor educational outreach. In addition, we will discuss with these companies other supplemental projects that would benefit the surrounding communities.

We have discussed the meeting and conference calls with the facilities and our general objectives with Mr. Coby Muckelroy informally and will coordinate with your office and the Oil Conservation Division on the development and implementation of these beneficial projects.

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Environmental Bureau
Oil Conservation Division

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Should you have any questions, please contact me at (214) 665-6746, or have your staff contact Greg Pashia at (214) 665-2287.

Sincerely yours,

Desi A. Crouther, Chief
Hazardous Waste Enforcement Branch

cc: Mr. Coby Muckelroy
New Mexico Environment Department
Mr. Roger Anderson
Oil Conservation District of New Mexico

***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, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-219)-Chemical Distributors, Inc., Mr. Burt Swank, (505)-327-0274, 3911 Monroe Road, Farmington, NM, 87401 has submitted a Discharge plan application for their Farmington facility located in the SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 52 feet with a total dissolved solids concentration of approximately 675 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/WILLIAM J. LEMAY, Director

Journal: August 25, 1995.

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OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
County of Bernalillo SS

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for one times, the first publication being of the 25th day of August, 1995, and the subsequent consecutive publications on _____, 1995

Bill Tafoya

OFFICIAL SEAL
Megan Garcia
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 25th day of, Aug, 1995

PRICE $33.44
Statement to come at end of month.

Megan Garcia

CLA-22-A (R-1/93) ACCOUNT NUMBER C80932

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# 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, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-222) - Coastal Chemical Company, Inc., Mr. Joe Hudman, (713)-477-6675, P.O. Box 820, Abbeville, La., 70511 has submitted a Discharge plan application for their Farmington facility located in the NE/4 NE/4, Section 24, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluent that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 1125 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 25th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

WILLIAM J. LEMAY, Director

NO EFFECT FINDING
The described action will have no effect on listed species, [redacted]
Date September 8, 1995
Consultation # GWDP95
Approved by
U.S. FISH and WILDLIFE SERVICE
NEW MEXICO ECOLOGICAL SERVICES FIELD OFFICE
ALBUQUERQUE, NEW MEXICO

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# NOTICE OF PUBLICATION

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

OIL CONSERVATION DIVISION
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Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-219)-Chemical Distributors, Inc., Mr. Burt Swank, (505)-327-0274, 3911 Monroe Road, Farmington, NM, 87401 has submitted a Discharge plan application for their Farmington facility located in the SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 52 feet with a total dissolved solids concentration of approximately 675 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

WILLIAM J. LEMAY, Director

**NO EFFECT FINDING**

**The described action will have no effect on listed species.**

Date August 28, 1995

Consultation # GWOCD95-01

Approved by

U.S. FISH and WILDLIFE SERVICE
NEW MEXICO ECOLOGICAL SERVICES FIELD OFFICE
ALBUQUERQUE, NEW MEXICO

# AFFIDAVIT OF PUBLICATION

No. 35185

**STATE OF NEW MEXICO**
**County of San Juan:**

**ROBERT LOVETT** being duly sworn says: That he is the Classified Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Thursday, August 24, 1995

and the cost of publication was: $59.75

Robert Lovett

On 8/24/95 ROBERT LOVETT appeared before me, whom I know personally to be the person who signed the above document.

Mary L. Snead

My Commission Expires March 21, 1998

## COPY OF PUBLICATION

**Legals**

**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, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

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Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
/s/ William J. Lemay
WILLIAM J. LEMAY, Director

SEAL

Legal No. 35185 published in The Daily Times, Farmington, New Mexico, on Thursday, August 24, 1995.

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

# OIL CONSERVATION DIVISION

September 1, 1995

**CERTIFIED MAIL**
**RETURN RECEIPT NO. Z-765-963-044**

Mr. Russ Guidry
Chemical Distributors Inc. (CDI)
3911 Monroe Rd.
Farmington, NM 87401

**RE: Discharge Plan GW-219**
**CDI, Farmington facility**
**San Juan County, New Mexico**

Dear Mr. Guidry:

The NMOCD has received the proposed Chemical Distributors Inc. discharge plan application for the facility located in SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. The NMOCD has prepared and sent out the public notice for the facility as stated in WQCC section 3-108 and has performed a preliminary review of the discharge plan proposed by Chemical Distributors Inc. as signed by Mr. Russ Guidry on August 8, 1995.

The following comments and request for additional information are based on the review of the Chemical Distributors Inc. application. **Please note that unless otherwise stated, response to all comments shall be received and reviewed by the OCD prior to approval of the discharge plan application.**

Refer to the application package submitted by Chemical Distributors on August 8, 1995 as signed by Mr. Russ Guidry.

I. Pursuant to WQCC section 3-114 Chemical Distributors Inc. is subject to the $50 (fifty dollar) filing fee and the $1,380 (One Thousand Three Hundred and Eighty Dollar ) flat fee. **The $50 filing fee and $1,380 flat fee have been received by the NMOCD.**

II. The review that follows will site specific information from your application that needs to be clarified. Enclosed you will find several attachments which will be mentioned throughout this review. The service company guidelines that were provided to Chemical Distributors Inc. at the inspection will be referenced during this process.

A. ITEM VII. of the Guidelines - Sources and Quantities of Effluent and Waste Solids Generated at the Facility.

1. Address fluid accumulations in KCL storage areas as well as crystallized substance also present in the containments. This fluid needs to be evacuated from the containments and either recycled or disposed of in an NMOCD approved manner immediately. In the future such accumulations will be removed within 24 hours of discovery. Note: If the fluid and crystals are to be disposed it will be subject to 40 CFR part 261 hazardous characteristic analysis in order to determine proper disposal options.

2. Lab wastes need to be stored of properly inside of secondary containment. These lab wastes will be subject to 40 CFR part 261 hazardous constituents analysis. The analysis will be completed by October 2, 1995 - with results sent to the NMOCD two weeks after CDI obtains them. Note: If the analysis shows hazardous characteristics per 40 CFR part 261 , CDI will contact NMED Hazardous and Radioactive Materials Bureau at (505) - 827 - 1558 for guidance.

3. Also list disposal or recycling of used drums. ( Include name and address of drum the recycler.)

4. Address how a potential spill stream will be handled and sampled in order to determine proper disposal options - per 40 CFR part 261 Hazardous Characteristics. Also use attachment No. 4 where applicable.

NOTE: Enclosed you find literature that explains exempt and non-exempt wastes in the oil patch. CDI is encouraged to read the information and apply it at the yard as well as on location. ( Attachment No. 1) It should be further noted that very few if any of CDI wastes at the facility would be exempt.

B. ITEM IX. of the guidelines - Proposed modifications.

Include the $MgCl_2$ storage area tanks in this portion - state the course of action CDI proposes over time to address this part of the facility.

C. ITEM X. of the guidelines - Inspection, Maintenance and Reporting.

1. Attachment No. 2 is the NMOCD rule 116 and WQCC 1-203 for spill reporting - include these reporting requirements as part of the discharge plan. In the event of a spill that is reportable according to the above rules - contact the Aztec NMOCD office at 334-6178.

2. Describe how precipitation/runoff will be managed according to part X. C. of the guidelines.

E. ITEM XI. of the guidelines - Spill/Leak prevention and reporting procedures (contingency plans).

Use the guidelines to prepare a "Contingency Plan" for the facility. This is guideline section XI. A, B, and C.

F. ITEM XII. of the guidelines. Site Characteristics.

1. Attachment No. 3 gives hydrogeologic information for the site of GW-219.
2. If CDI chooses the following groundwater report may be purchased from New Mexico Bureau of Mines and Mineral Resources - Phone (505)-835-5410; "Hydrogeology and water resources of San Juan Basin, New Mexico." Hydrologic Report 6, 1983.

G. ITEM XIII. of the guidelines. Other Compliance Information.

Attachment No. 4 - labelled XIII. A. and XIII. B. , include as part of the discharge plan.

H. All potential hazardous waste issues will be addressed by NMED - Hazardous Waste and Radioactive Materials Bureau. (505)-827-1558

**Submit the requested information and commitments within 30 days of receipt of this letter.** This will expedite the final review of the application and approval of the discharge plan. **Submit the information in three copies - two to Santa Fe, and one copy to Aztec.**

If you have any questions, please feel free to call me at (505)-827-7156.

Sincerely,

Patricio W. Sanchez
Petroleum Engineer

xc: Mr. Denny Foust - Environmental Geologist

Z 765 963 044

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PS Form 3800, March 1993

OCD

XII. Site Characteristics

# AVAILABILITY OF HYDROLOGIC DATA IN SAN JUAN COUNTY, NEW MEXICO

OIL CONSERVATION DIVISION

U.S. GEOLOGICAL SURVEY
Open-File Report 84-608

Prepared in cooperation with
SAN JUAN COUNTY COMMISSION, NEW MEXICO

# AVAILABILITY OF HYDROLOGIC DATA IN SAN JUAN COUNTY, NEW MEXICO

By

R. L. Klausing and G. E. Welder

## ABSTRACT

Information collected in San Juan County, New Mexico, at 1,877 water wells, 39 streamflow-gaging stations, and 172 springs are presented. The collection sites and geology are shown on a base map with a scale of 1 inch = 2 miles.

## INTRODUCTION

San Juan County is in the northwestern corner of New Mexico (fig. 1). Surface water from the San Juan, Animas, and La Plata Rivers has been a principal source of water for the county, but the water in these streams is fully appropriated. Ground water is present in San Juan County in several bedrock formations and in the alluvium of the river valleys.

The purpose of this report is to describe the types of hydrologic data that have been collected in San Juan County, to present examples of the data, to show the locations of the data-collection sites, and to indicate where more complete records may be obtained. This report is intended to serve as a data base that may be helpful in assessing the quantity, quality, and availability of the county's water resources.

The study was conducted by the U.S. Geological Survey in cooperation with the San Juan County Commission from July 1, 1983 to July 1, 1984.

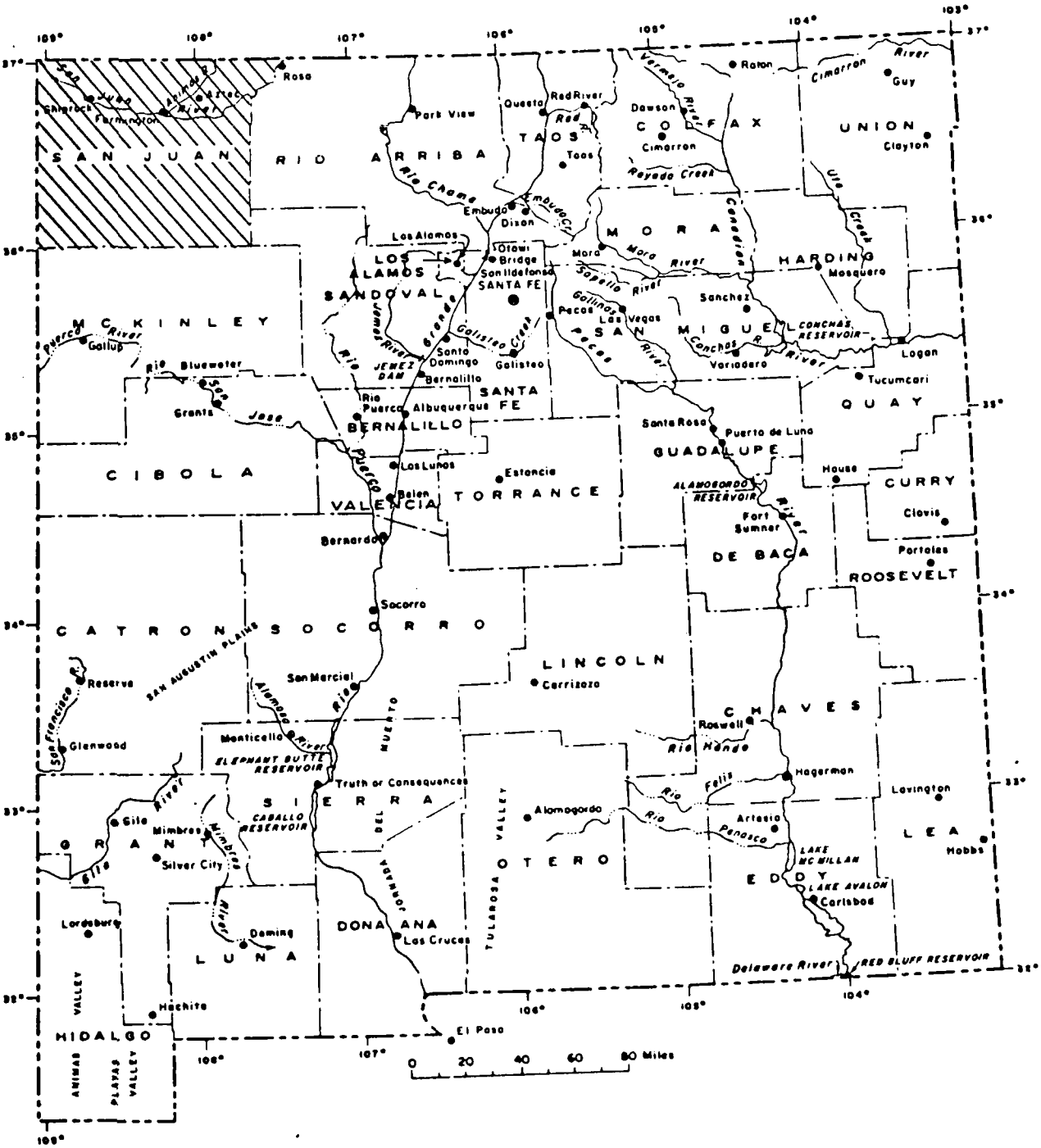



Figure 1.--Location of San Juan County, New Mexico.

## PRESENTATION OF THE DATA

Information is presented in this report about water wells, springs, and streamflow-gaging stations in San Juan County. The locations and descriptive information for 1,877 wells, 172 springs, and 39 streamflow-gaging stations are listed in the tables. The locations of wells and gaging stations are shown on plate 1, as are springs with yields exceeding 10 gallons per minute. The generalized distribution of geologic formations that are exposed at the land surface is also shown on plate 1.

The hydrologic information in table 1 is a duplication of some of the data that were compiled by the U.S. Geological Survey for table 1 of the report by Stone and others (1983). Table 1 is a compilation of information on wells and springs that were in existence in San Juan County prior to 1978. Included in the table are 887 wells and 172 springs; 406 wells and 144 springs are on the Navajo Indian Reservation in the western half of the county. The lines at the left margin of table 1 indicate wells or springs that are a few miles outside of the county; this information may be useful in defining hydrologic conditions near the eastern or southern county boundaries.

Hydrologic data furnished by the New Mexico State Engineer Office are included in table 2. The data are preliminary and subject to revision. Generally, the wells listed in this table were drilled from 1978 to 1983. Included in the table are 990 wells in San Juan County; 43 wells are in the western half of the county on the Navajo Indian Reservation. Most of the wells in the vicinity of the towns of Bloomfield, Farmington, and Aztec are shallow domestic wells drilled in the Animas, La Plata, and San Juan River valleys. The lines at the left margin of table 2 indicate wells that are a few miles east of the county; this well data may be useful in defining hydrologic conditions near the eastern boundary of the county.

Descriptions of 39 streamflow-gaging stations are listed in table 3. Twenty-one of the stations were active in 1984 and the remainder were in use at various times in the past. The stations are located on the Animas, Chaco, La Plata, and San Juan Rivers, and their tributaries which flow through San Juan County. Twenty-eight of the stations are located in San Juan County, New Mexico, four in McKinley County, New Mexico, six in Colorado, and one in Utah. The descriptions include a detailed location, the size of the drainage area upstream from the station, the period of record, the type and altitude of the gage, miscellaneous remarks concerning the quality of the record and the availability of water-quality data, and the average and extreme discharges. Daily discharges are given for the 1982 water year (October 1, 1981, through September 30, 1982) or the last year of record for a discontinued station. The stations listed in the table are the principal collection sites for surface-water data published by the U.S. Geological Survey.

Additional information about many of the wells listed in tables 1 and 2 is available from the sources given in table 1 and from the U.S. Geological Survey and the State Engineer Office in Albuquerque, New Mexico. Stream-discharge data for the period of record of the 39 stations listed in table 3 are available from computer files of the U.S. Geological Survey. Water-quality data that have been collected at the wells and streamflow-gaging stations indicated by the solid symbols on plate 1 are also available from the U.S. Geological Survey or the New Mexico Bureau of Mines and Mineral Resources in Socorro.

## USE OF THE MAP AND DATA TABLES

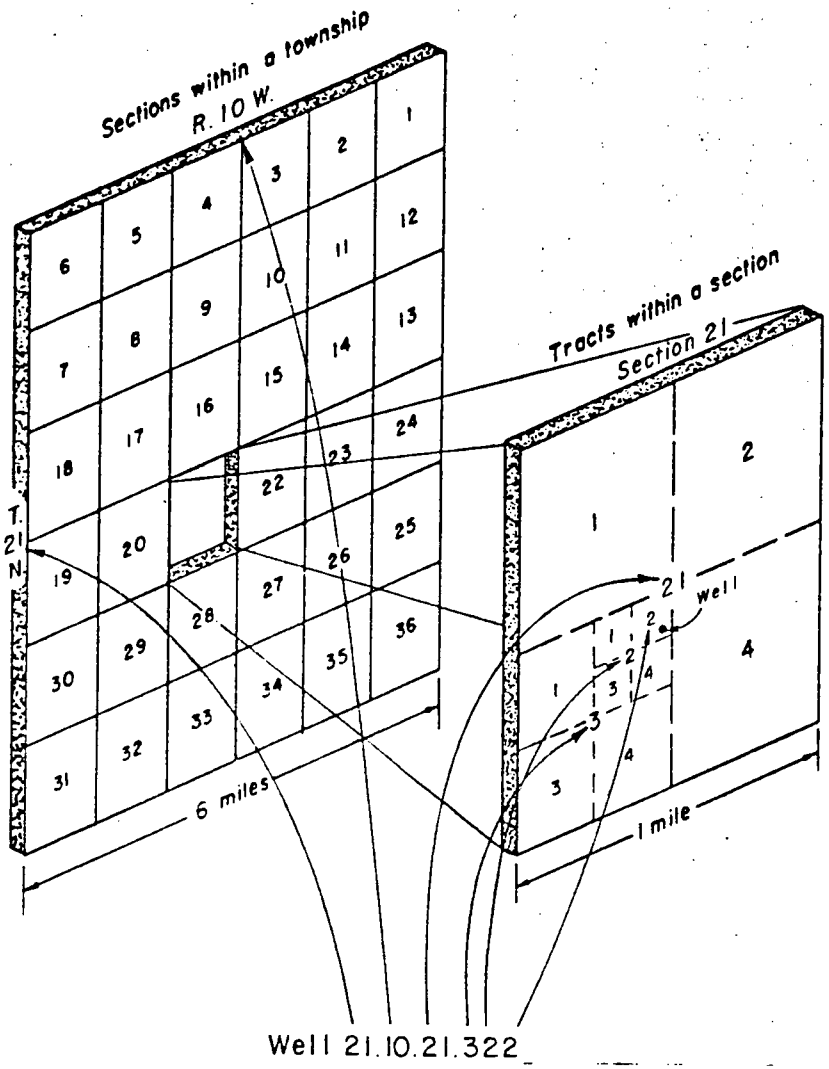
The locations where hydrologic data have been collected are shown on plate 1. The hydrologic conditions at a known well site, for example, may be projected to an adjacent site where new water supplies might be needed, if geologic conditions are similar. Such extrapolations, however, need to be made with caution.

The stream-discharge data given in table 3 (station locations on plate 1) provide information on streamflow characteristics, such as average and peak flows and surface-water quality. This information may be used to determine the relative amounts of water than can be delivered to surface-water users, to estimate quantities of water that may be available for future use, to determine high- and low-water stream stages, and to aid in designing roads, bridges, and other structures.

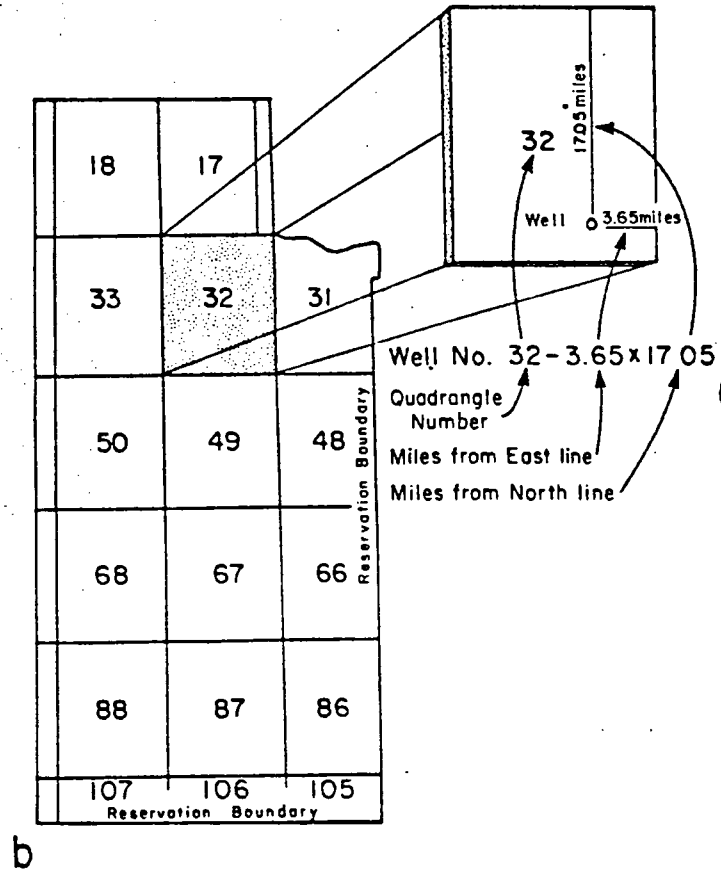
## WELL-NUMBERING SYSTEMS

Two numbering systems are used in this report to locate a well. The first uses the common subdivision of lands into townships, ranges, and sections. In this system, the location number is divided into four segments separated by periods. The first segment indicates the township north of the New Mexico Base Line and the second denotes the range west of the New Mexico Principal Meridian. The third segment indicates the section within the township and the fourth segment indicates the tract within which the well is located. To determine the fourth segment of the location number, the section is divided into quarters numbered 1, 2, 3, and 4 for the NW¼, NE¼, SW¼, and SE¼ respectively. The quarter section may be further subdivided in a similar manner. The number of digits in the fourth segment of the location number indicates the degree of accuracy in locating the well. One digit indicates the location only could be determined to a 160-acre tract; two digits, 40-acre tract; three digits, 10-acre tract; and four digits, 2½-acre tract. A well with a location number 21.07.28.213 is located in the southwest ¼ of the northwest ¼ of the northeast ¼ of section 28, Township 21 North, Range 7 West (fig. 2).

A different numbering system is used for the main part of the Navajo Reservation. This area is divided into 15-minute quadrangles, each of which is assigned a number. The well number consists of the quadrangle number followed by the distance in miles from the east line and the distance in miles from the north line, in that order. Thus, a well numbered 32 - 3.65 x 17.05 is in quadrangle number 32, 3.65 miles from the east line and 17.05 from the north line as shown in figure 2.




Township and Range System of numbering wells in New Mexico




System of numbering wells on the Navajo Indian Reservation

Figure 2.--Well-numbering systems.

## SELECTED REFERENCES


Baltz, E. H., Jr., and West, S. W., 1967, Ground-water resources of the southern part of the Jicarilla Apache Indian Reservation and adjacent areas, New Mexico: U.S. Geological Survey Water-Supply Paper 1576-H, 89 p.

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Brown, D. R., and Stone, W. J., 1979, Hydrogeology of Aztec quadrangle, San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrogeologic Sheet 1.

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Dane, C. H. and Bachman, G. O., 1955, Geologic map of New Mexico: U.S Geological Survey, 2 sheets, scale 1:500,000.

Davis, G. E., Hardt, W. F., Thompson, L. K., and Cooley, M. E., 1963, Records of ground-water supplies, part 1, in Geohydrologic data in the Navajo and Hopi Indian Reservations, Arizona, New Mexico, and Utah: Arizona Land Department, Water Resources Report 12-A, 159 p.

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Kelly, T. E., 1977, Geohydrology of the Westwater Canyon Member, Morrison Formation, of the southern San Juan Basin, New Mexico: New Mexico Geological Society Guidebook, 28th Field Conference, p. 285-290.

Kister, L. R., and Hatchett, J. L., 1963, Selected chemical analyses of ground water, part 2, in Geohydrologic data in the Navajo and Hopi Indian Reservations, Arizona, New Mexico, and Utah, Arizona Land Development: Water Resources Report 12-B, 58 p.

Rapp, J. R., 1959, Reconnaissance of the geology and ground-water resources of the Farmington area, San Juan County, New Mexico: U.S. Geological Survey open-file report, 13 p.

Shomaker, J. W., 1976, Summary of well and spring records near Star Lake Mine area (McKinley County): Consulting report to Genge Environmental Consultants, 14 p.

## SELECTED REFERENCES - Concluded

Stone, W. J., Lyford, F. P., Frenzel, P. F., Mizell, N. H., and Padgett, E. T., 1983, Hydrology and water resources of San Juan basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6, 70 p., 103 figs., 14 tables.

U.S. Geological Survey, various years, Water resources data for New Mexico: U.S. Geological Survey Water-Supply Papers (prior to 1962) and annual water-data reports (1962-83).

Wright, A. F., 1979, Bibliography of the geology and hydrology of the San Juan Basin, New Mexico: U.S. Geological Survey Bulletin 1481, 123 p.

Table 1.--Records of water wells and springs in San Juan County prior to 1978

EXPLANATION

LOCATION.--The location of a well or spring is described by using the system of quartering by sections (example: 24.13.9.134) or the numbering system for the Navajo Reservation (example: 33-7.16x8.96). The systems are explained in the text and shown in figure 2. All locations are defined as accurately as possible with the information available.

LATITUDE-LONGITUDE.--Latitude and longitude are reported in degrees, minutes, and seconds (example: 363010 1084525 = lat 36° 30' 10" N, long 108° 45' 25" W). If the exact location of a well or spring is unknown, the latitude and longitude at the center of the smallest subdivision of a section as indicated in the location number is given. Latitudes and longitudes were not computed for sites that could not be located more accurately than a quarter section.

NUMBER OR NAME.--The number or name assigned to a well may be the owner's name or number, the BIA or Navajo name or number, a traditional name, or the name of a nearby landmark. Springs and dug wells are identified under this heading.

DEPTH.--Depth is the total depth of a well (in feet) below land surface that was obtained from driller's records, measured (M) by U.S. Geological Survey, reported by individuals, or estimated (E). Wells that have been plugged back or deepened have the original depth noted in "Remarks". If the depth is questionable, it is marked with a "Q".

ALTITUDE.--Altitude of the land surface (in feet) above sea level at the well or spring. If an altitude was not recorded in field data or a location was not precise, the altitude reported was at the center of the smallest subdivision of a section as indicated in the location number. Altitudes are estimated (E) at sites with vague locations.

DEPTH TO WATER.--Depth to water below land surface (in feet). Values with decimal point accuracy were measured, others reported (R) or estimated (E). A plus sign (+) indicates the water level is above the land surface. "F" indicates the well was flowing on the date given.

DATE.--The date given is that of the water-level measurement noted on the same line. If no water level is noted, a date in this column is given to establish the well's existence at that particular time.

PRODUCING INTERVAL.--Producing interval is the depth (in feet) below land surface in the well that is open to the water-bearing unit.

PRINCIPAL WATER-BEARING UNIT(S).--The abbreviations of the geologic formation(s) that contain the water-bearing units are as follows:

Quaternary:
- Qal - Alluvium
- Qc - Colluvium (landslide, talus)

Tertiary:
- Tc - Chuska Sandstone
- Tsq - San Jose Formation
- Tn - Nacimiento Formation

Tertiary-Cretaceous:
- TKoa - Ojo Alamo Sandstone
- TKi - Intrusives

Cretaceous:
- Kk - Kirtland Shale
- Kkm - Farmington Sandstone Member
- Kkf - Kirtland Shale, Fruitland Formation, undivided
- Kf - Fruitland Formation
- Kpc - Pictured Cliffs Sandstone
- Kch - Cliff House Sandstone
- Kmf - Menefee Formation
- Kpl - Point Lookout Sandstone
- Kg - Gallup Sandstone
- Kd - Dakota Sandstone

Jurassic:
- Jm - Morrison Formation
- Jmb - Brushy Basin Shale Member
- Jmw - Westwater Canyon Sandstone Member
- Jmr - Recapture Shale Member
- Jms - Salt Wash Sandstone Member
- Jb - Bluff Sandstone
- Js - Summerville Formation
- Je - Entrada Sandstone

Triassic:
- T w - Wingate Sandstone

Permian:
- Pdc - De Chelly Sandstone

Pennsylvanian:
- Penn - Pennsylvanian rocks undivided

SPECIFIC CONDUCTANCE.--Specific conductance of the water, which is a function of dissolved solids, is reported in micromhos per centimeter at 25° Celsius. An asterisk (*) indicates that a chemical analysis of common constituents is reported in table 2 of Stone and others (1983). A double asterisk (**) indicates that an analysis, which includes trace elements, is reported in table 3 of Stone and others (1983).

DATE.--The sampling date.

LOGS AVAILABLE.--The types of logs available are indicated below. Many are in the files of the U.S. Geological Survey.

DLR, driller; TOP, formation tops; COR, core analysis; SAND, sand analysis; LTH, lithologic logs; N, neutron; GR, gamma ray; RES, resistivity; IND, induction; MIC, microlog; SP, spontaneous potential; DEN, density; CAL, caliper

REFERENCE.--Much of the data in this table was compiled from sources listed below. Lower case letters indicate the sources as follows:

h, Waring and Andrews (1935); j, Baltz and West (1967); l, Shomaker, J. W., (U.S. Geological Survey) (written commun., 1967); m, Rapp (1959); n, Callahan and Harshbarger (1955); o, Halpenny and Harshbarger (1950); q, Kister and Hatchett (1963); r, Davis, Hardt, Thompson, and Cooley (1963); s, Brimhall (1973); u, Kelly (1977); a*, Shomaker (1976); c*, Brown and Stone (1979).

DRAWDOWN, DISCHARGE, DURATION.--These values are reported unless followed by an asterisk (*) which indicates that more complete aquifer-test data are available in table 4 of Stone and others (1983). Discharges are reported (R), measured (M), or estimated (E); artesian flow is indicated by "F".

REMARKS.--This column may include the following abbreviations:

R, reported; M, measured by U.S. Geological Survey; E, estimated; DST, drill-stem test; Q, quadrangle or questionable, depending on context; WBF, water-bearing formation; QW, quality of water; SWL, static water level; F, flow or flowing; WL, water level; SPC, specific conductance in micromhos at 25° Celsius, TDS, dissolved solids in milligrams per liter; TD, total depth.

FORMATION CONTACT -- Approximately located

## HYDROLOGIC DATA EXPLANATION

20/Qal WATER WELL--Number is depth of well below land surface, in feet; letters indicate geologic source of water. (See principal water-bearing unit(s) in table 1, and aquifer in table 2.)

2 32x WATER WELLS--Underlined symbol with number indicates the number of closely spaced wells at one location. Number with "x" is the number of wells in that section (one square mile)

OBSERVATION WELL--Water-level measurements have been made periodically*

Tc SPRING--Discharge generally greater than 10 gallons per minute (tables 1 and 2); letters indicate probable geologic source of water. (See geologic formation abbreviation in tables 1 and 2.)

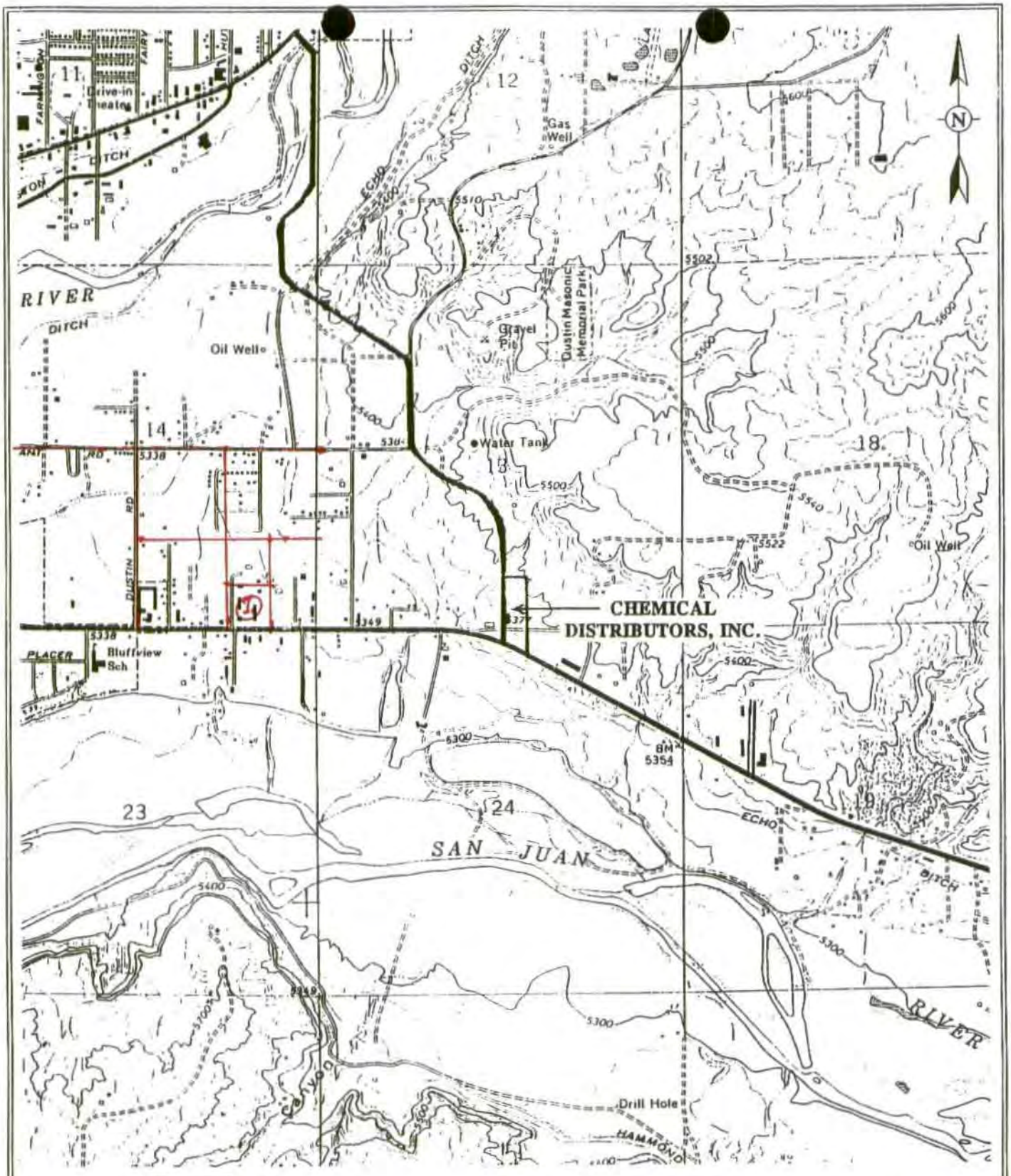
36° 15'

12 STREAMFLOW GAGING STATION--Active in 1982; number refers to station description and period of record in table 3*

STREAMFLOW GAGING STATION--Discontinued prior to 1982, number refers to station description and period of record in table 3

NOTE: Solid symbols ( ● ▲ ) indicate water-quality data are available *

* Ground-water level and surface-water discharge measurements, and water-quality data available from Water Resources Division of U.S. Geological Survey, Albuquerque, New Mexico.





QUADRANGLE LOCATION

0 1000 2000

SCALE IN FEET

SOURCE: MODIFIED FROM USGS, FARMINGTON SOUTH, NEW MEXICO QUADRANGLE, 1979

CHEMICAL DISTRIBUTORS, INC.
FARMINGTON, NEW MEXICO

**FIGURE A-1**
FACILITY LOCATION MAP

PRC Environmental Management, Inc.



(1) Depth to Groundwater at 29.13.443 = 15'
Depth to Groundwater at CDI = (5,370' - 5,340') + 15' = 52'

Table 1.--Records of water wells and springs in San Juan County prior to 1978 - Continued

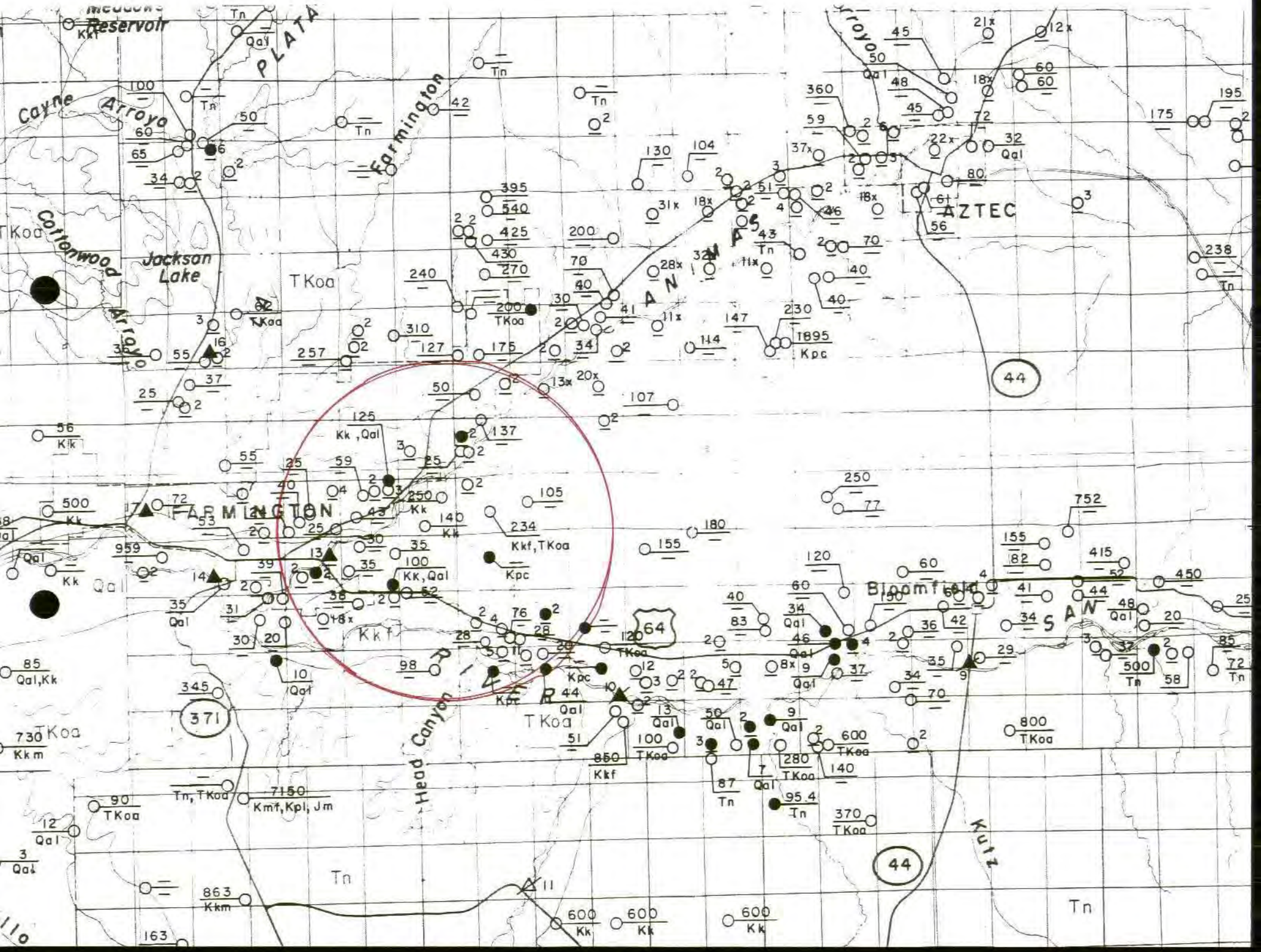
| Location | Latitude-Longitude | Number or name | Depth (feet) | Altitude (feet) | Depth to Water (feet) | Date | Producing interval (feet) | Principal water-bearing unit(s) | Specific conductance (umhos at 25°C) | Date | Logs available | Reference | Drawdown (feet) | Discharge (gal/min) | Duration (hours) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29.12.35.342a | 364042 1080410 | Bureau of Reclamation #27 | 6M | 5,390 | 3.5 | 04-18-68 | - | Qal | 2,140 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.35.3434 | 364034 1080412 | J. L. Mangum | 74M | 5,415 | 45.2 | 04-09-68 | - | Qal | 2,230 * | 04-09-68 | - | - | - | - | - | - |
| 29.12.35.344 | 364035 1080408 | Bureau of Reclamation #28 | 14M | 5,400 | 9.9 | 04-18-68 | - | Qal | 2,190 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.35.4443 | 364033 1080339 | E. D. Brimhall | 50 | 5,420 | 28.0 | 10-09-74 | - | Qal | 4,020 | 10-09-74 | - | - | - | - | - | - |
| 29.12.36.144 | 364102 1080305 | Bureau of Reclamation #88 | 9M | 5,390 | 7.8 | 04-18-68 | - | Qal | 5,620 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.36.311 | 364055 1080330 | Bureau of Reclamation #23 | 13M | 5,385 | 6.1 | 04-18-68 | - | Qal | 1,410 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.36.311a | 364055 1080330 | Bureau of Reclamation #89 | 7M | 5,380 | 1.8 | 04-18-68 | - | Qal | 10,500 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.36.332 | 364042 1080322 | Bureau of Reclamation #22 | 18M | 5,405 | 14.3 | 04-18-68 | - | Qal | 872 * | 04-18-68 | - | - | - | - | - | Stovepipe casing. |
| 29.12.36.4343 | 364034 1080249 | C. J. Burnham | 280 | 5,425 | 40 | 10-10-74 | - | TKoa | 4,700 | 10-10-74 | - | - | - | - | - | - |
| 29.13 | - | Brimhall Ranch | 365 | - | 280 | 07-21-52 | - | - | - | - | - | - | - | 3 | - | - |
| 29.13.1Q | - | H. L. Baily | - | - | - | - | - | Kk | - | - | - | m | - | - | - | - |
| 29.13.7.1442 | 364430 1081450 | Dept. of Interior | 72 | 5,250 | 17.6 | 10-29-74 | - | Kk | 5,200 | 11-05-65 | - | - | - | - | - | - |
| 29.13.11.221 | 364450 1081008 | F. L. Lee | 125 | 5,380 | 15 | 02-19-59 | - | Kk, Qal | 1,000 * | 02-19-59 | - | m | - | - | - | - |
| 29.13.12.2344 | 364428 1080912 | Dr. Williams | 250M | 5,566 | - | - | - | Kk | - | - | - | - | - | - | - | Well is plugged with sand. |
| 29.13.12.3441 | 364406 1080930 | Full Gospel Revival | 140 | 5,470 | 59.0 | 10-07-74 | - | Kk | - | - | - | - | - | - | - | Poor producer; water is hauled in. |
| 29.13.14.443 | 364312 1081010 | Dowell Inc. | 100 | 5,330 | 15 | 02-23-59 | 90-100 | Kk, Qal | 901 * | 02-23-59 | - | m | - | - | - | - |
| 29.13.15.324 | 364325 1081138 | Carl Kennedy | 40 | 5,305 | 8 | 02-23-59 | - | Qal | 929 * | 02-23-59 | - | m | - | - | - | - |
| 29.13.15.413 | 364325 1081130 | McCormick School | 80 | 5,315 | 8 | 02-23-59 | - | Qal | 598 * | 02-23-59 | - | m | - | - | - | Sample questionable. |
| 29.13.17.441 | 364319 1081322 | An Navajo Mission | 35 | 5,420 | 6 | 02-23-59 | - | Qal | - | - | - | m | - | - | - | Analysis incomplete. |
| 29.13.18.2414 | 364342 1081425 | - | 959 | 5,249 | - | - | - | - | - | - | TOP | - | - | - | - | Source for injection $H_2O$; plugged back. |
| 29.13.28.2 | - | O. J. Carson | 10 | 5,300E | 6 | 11-25-33 | - | Qal | - * | 11-25-33 | - | m | - | - | - | - |
| 29.13.36.322 | 364054 1080926 | Spring | - | 5,460 | - | - | - | Tn | 3,000 | 04-10-68 | - | - | - | - | - | No discharge observed 4-10-68. |
| 29.14.02.1422 | 364533 1081642 | Locke Arroyo Well | 56M | 5,460 | 46.4 | 11-19-74 | - | Kk | - | - | - | - | - | - | - | Abandoned. |

TDS (Total Dissolved Solids) = 0.75 × Specific Conductance

∴ TDS = 0.75 × 901 = 675 mg/l

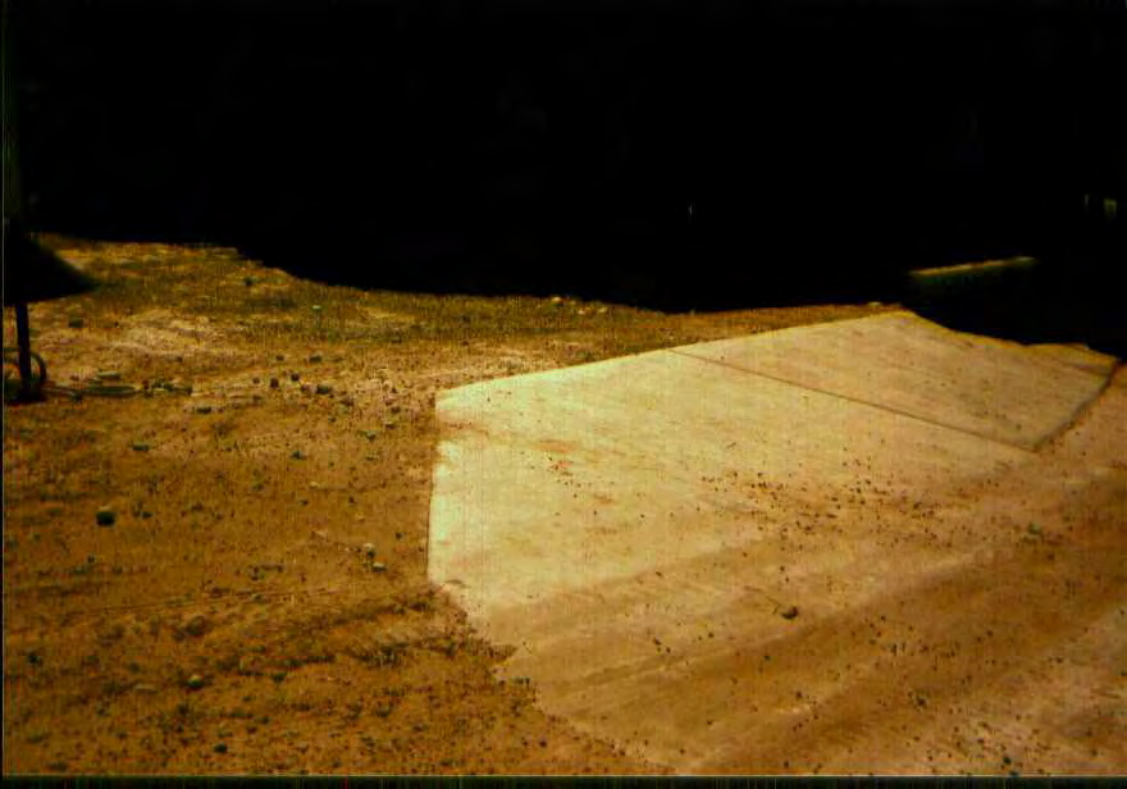
Table 2.--Records of water wells in San Juan County, 1978-83 - Continued

| LOCATION | NAME | WELL NUMBER | USE | DEPTH | PERFORATIONS | AQUIFER |
|---|---|---|---|---|---|---|
| 29.13.11.231 | Hodges, Robert E. | SJ-0310 | dom | 45 | | |
| 29.13.11.3 | Deyapp, Lawrence | SJ-0301 | dom, stk | 43 | | |
| 29.13.14.1 | Tenski, Steve L. | SJ-0716 | dom | 30 | | |
| 29.13.14.24 | Rice, Ivan M. | SJ-1635 | dom | 35 | | |
| 29.13.14.313 | Valley Drive In Inc. | SJ-0176 | dom, stk | 35 | 28-34 | |
| 29.13.15.3 | El Paso Natural Gas | SJ-0030 | ind | 29 | | |
| 29.13.15.3 | El Paso Natural Gas | SJ-0031 | | 75 | | |
| 29.13.16.34 | Drake, J. A. | SJ-0453 | stk | 44 | | |
| 29.13.16.344 | Bell, Llyod | SJ-1443 | dom, stk | 40 | | |
| 29.13.18.322 | Lower Valley MDWCA | SJ-0172 | exp | 30 | | |
| 29.13.18.322 | Lower Valley MDWCA | SJ-0172-X | exp | 30' | | |
| 29.13.21.21 | Garcia, James | SJ-0167 | dom | 31 | 19-25 | |
| 29.13.21.22 | Graham, Feliberto | SJ-1689 | dom | 39 | | |
| 29.13.21.422 | Vigil, Horacio | SJ-0737 | dom, stk | 20 | | |
| 29.13.22.134 | Maestas, Florencio E | SJ-0891 | dom | 33 | | |
| 29.13.22.14 | Esparza, Betty R. | SJ-1765 | dom | 39 | | |
| 29.13.22.21 | Graham, Arnold M. | SJ-0784 | dom | 43 | | |
| 29.13.22.22 | Burke, Dennis R. | SJ-1673 | dom | 46 | | |
| 29.13.22.311 | Sanchez, Benny | SJ-0719 | dom, stk | 23 | | |
| 29.13.22.312 | Denny, Lee L. | SJ-0757 | dom | 32 | | |
| 29.13.22.313 | D'A Gastino, Peter | SJ-0725 | dom | 26 | | |
| 29.13.22.313 | Freeman, David R. | SJ-0724 | dom | 28 | | |
| 29.13.22.314 | Head, Harry | SJ-1151 | dom | 32 | | |
| 29.13.22.314 | Norton, Emmett | SJ-1525 | dom | 35 | | |
| 29.13.22.34 | Kimbell, Lloyd | SJ-0972 | dom,stk | 35 | | |
| 29.13.23.1 | Kannard, Tom | SJ-1562 | dom | 38 | | |
| 29.13.23.22 | Barkley, Mary A. | SJ-0352 | dom | 62 | | |
| 29.13.23.22 | Pratt, Tim | SJ-1376 | dom | 15 | | |
| 29.13.24.111 | Neidish, Raymond W. | SJ-1087 | irr | 52 | | |
| 29.13.25.233 | Bolack, Tommy | SJ-1665 | dom | 98 | | |
| 29.13.29.4 | Four States Televisi | SJ-1371 | san | 345 | | |
| 29.14.06.333 | Hansen, Paul F. | SJ-1407 | dom | 70 | | |
| 29.14.07.11 | Helmer, Grodon | SJ-1568 | dom | 72 | | |
| 29.14.07.113 | Swearingen, Jack M. | SJ-0226 | dom, stk | 100 | | |
| 29.14.07.413 | Harris, Lowell | SJ-0451 | dom,stk | 24 | | |
| 29.14.08. | Sterling, Hugh | SJ-0947 | dom, stk | 370 | | |


Meadows Reservoir
PLATA
Cayne Arroyo
Farmington
Cottonwood Arroyo
Jackson Lake
TKoa
FARMINGTON
AZTEC
Bloomfield
SAN JUAN
Head Canyon
Kutz
64
44
371

① Barrel Containment Area.
4/12/95

(2.) Magnesium Chloride Sump.



(3.) $MgCl_2$ TANKS.

4/12/95

(4.) $MgCl_2$ TANKS

4/12/95

(5.) $MgCl_2$ TANKS.
4/12/95

(6.) Drain from KCl area to $MgCl_2$ Area.

4/12/95

(7) KCl Storage TANKS
4/12/95

(8) KCl Storage TANKS -
2NDRY Containment.
4/12/95.

(9.) KCl Storage Tanks - Loading in Progress.

4/12/95

(10) KCI TANK AREA - Note
2 NDRY.
4/12/95

(11.) KCI Area - Note: Load Line.
4/12/95


METHANOL
UN 1230

(12.) Methanol Storage.
4/12/95

(13) $CH_3OH$ & EDTA Storage.

4/12/95

(14) Empty Drums.
4/12/95

(15) Acid Tank.
4/12/95

(16.) Out of Service fertilizer blender.

4/12/95

(17) Excavation - at (16)
4/12/95

(18) Empty drum Storge.
4/12/95

(19) $NaHSO_3$ Battery.
4/12/95

(20) $NaHSO_3$ Sump.

4/12/95

(21) $NaHSO_3$ - Containment.
4/12/95

(22) Storage Bldg.
4/12/95

(23) $NaHSO_3$ - pump / Transfer Area
4/12/95

(24) Lab Area.
4/12/95

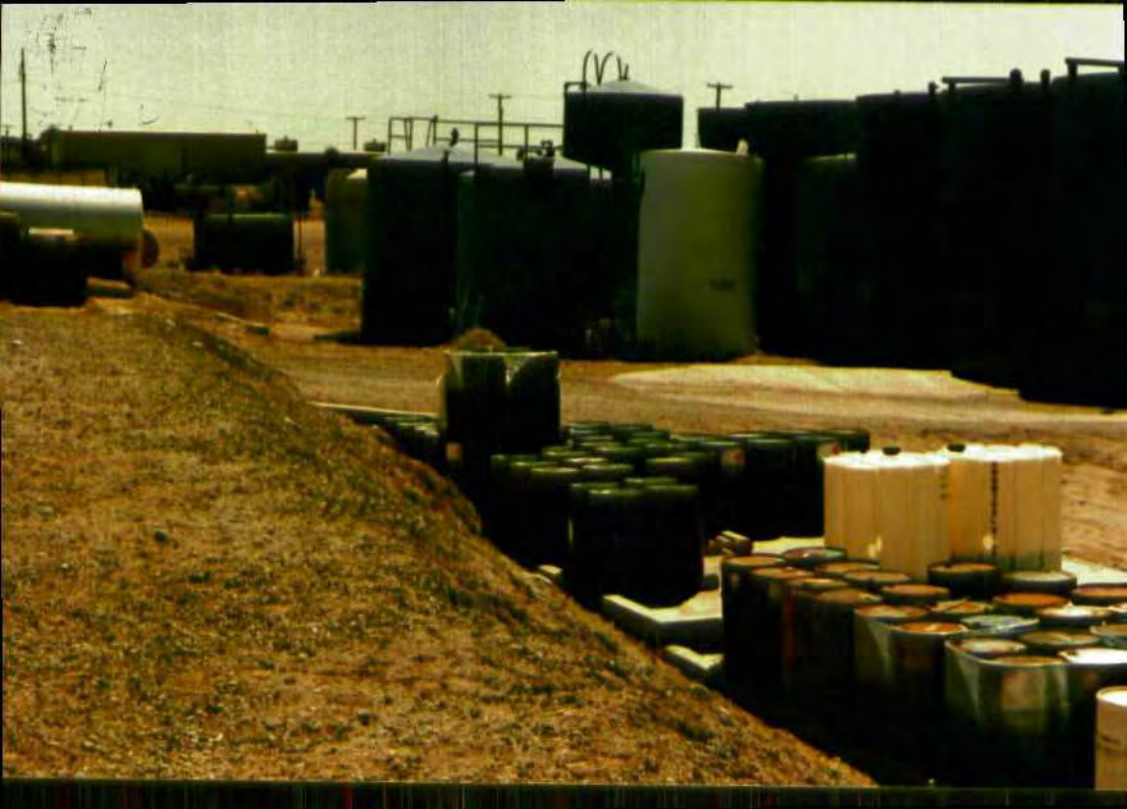
(25) Lab Area.
4/12/95

(26) open Pit - used for
Stormwater.
4/12/95

(27) Backside of Warehouse.
4/12/95

(28) Backside of Warehouse.
4/12/95

(29) Backside of Warehouse.
4/12/45



(30.) Backside of warehouse
4/12/95

(31) Backside of warehouse.
4/12/95

(32) Backside of warehouse.
4/12/95.

8/17/95.

To: Denny Faust
From: Pat Sanchez
SUBJECT: Additional CDI-GW-219 info.

Enclosed,
Find the following:
1. EPA Region 6 Report.
2. USGS Hydro. Data. RPT: 84-608.

Please review along with the copy of GW-219 you have already recieved — provide written comment by next Thursday August. 24, 1995 by E-Mail.

Thanks.

PWS.

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

**ACKNOWLEDGEMENT OF RECEIPT**
**OF CHECK/CASH**

I hereby acknowledge receipt of check No. [redacted] dated 8/11/95,

or cash received on 8/18/95 in the amount of $ 1430.00

from Chemical Distributors Inc

for Farmington facility (Facility Name) GW-219 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Roger Anderson Date: 8/29/95

Received in ASD by: [illegible] Date: 9/1/95

Filing Fee X New Facility X Renewal ____

Modification ____ Other _____ (specify)

Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ____

---

**CHEMICAL DISTRIBUTORS, INC.**
3911 MONROE
FARMINGTON, NM 87401
PH. 505-327-0274

CITIZENS BANK
FARMINGTON, NM 87401
95-207-1022

[redacted]

| CHECK NO. | CHECK DATE | VENDOR NO. |
|---|---|---|
| 29755 | 8-11-95 | |

| CHECK AMOUNT |
|---|
| $1430.00 |

PAY One thousand four hundred thirty + 00/100

TO THE ORDER OF NMED Water Quality Mgmt.

Lina Smyth

[redacted]

**CHEMICAL DISTRIBUTORS, INC.**

[redacted]

| ACCOUNT NO. | | VENDOR | | | CHECK NO. |
|---|---|---|---|---|---|
| VOUCHER | INVOICE NUMBER | INVOICE DATE | INVOICE AMOUNT | AMOUNT PAID | DISCOUNT TAKEN |
| | GW-219 | | | 1430.00 | |
| | Ck# 29755 | 8/11/95 | | | |
| | | | | CHECK TOTAL 1430.00 | |

# 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, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-219)-Chemical Distributors, Inc., Mr. Burt Swank, (505)-327-0274, 3911 Monroe Road, Farmington, NM, 87401 has submitted a Discharge plan application for their Farmington facility located in the SW/4 SW/4 SE/4, Section 13, Township 29 North, Range 13 West, NMPM, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 52 feet with a total dissolved solids concentration of approximately 675 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director

chemical distributors, inc.

EL PASO, TX 79932
(915) 833-0613
FAX: (915) 833-1029

HENDERSON, NV 89105
(702) 588-4904
FAX: (702) 565-2641

BATON ROUGE (PORT ALLEN), LA 70767
(504) 749-2388
FAX: (504) 749-2302

FARMINGTON, NM 87401
(505) 327-0274
FAX: (505) 327-6406

HOUSTON (ALGOA), TX 77511
(713) 331-2444
(409) 925-4718
FAX: (409) 925-5572

August 10, 1995

RECEIVED

AUG 16 1995

Environmental Bureau
Oil Conservation Division

Mr. Patricio W. Sanchez
Petroleum Engineer
**Energy, Minerals, and Natural Resources Department**
**Oil Conservation Division**
2040 S. Pacheco
Santa Fe, New Mexico 87505

**RE: Discharge Plan Application For CDI - Farmington, New Mexico Facility**

GW-219

Dear Mr. Sanchez:

Attached is our Discharge Plan Application for our Farmington, New Mexico facility. Please refer to the supplemental material included to get our responses to items 3 through 13. Also enclosed is a check made out to NMED Water Quality Management for $1,430 which covers the flat rate and filing fees.

We appreciate your assistance with this matter. Please contact me at (504) 749-2388 if you have any questions or need any additional information.

Sincerely,

Russ Guidry
Manager Technical Services

RMG/rmg

cc: Jerry Wood
File

**CHEMICAL DISTRIBUTORS, INC.**

[redacted]

| ACCOUNT NO. | | VENDOR | | | CHECK NO. |
|---|---|---|---|---|---|
| VOUCHER | INVOICE NUMBER | INVOICE DATE | INVOICE AMOUNT | AMOUNT PAID | DISCOUNT TAKEN |
| | GW-219 | | | | |
| | | | | CHECK TOTAL | |

**CHEMICAL DISTRIBUTORS, INC.**
3911 MONROE
FARMINGTON, NM 87401
PH. 505-327-0274

**CITIZENS BANK**
FARMINGTON, NM 87401
95-207-1022

[redacted]

| CHECK NO. | CHECK DATE | VENDOR NO. |
|---|---|---|
| 29755 | 8-11-95 | |

| CHECK AMOUNT |
|---|
| $1430.00 |

PAY One thousand four hundred thirty + 00/100

TO THE ORDER OF NMED Water Quality Mgmt.

Tina Smyth

[redacted]

District I - (505) 393-6161
P. O. Box 1940
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88211-0719
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

# State of New Mexico

Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Revised 4/18/95

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to appropriate
District Office

## DISCHARGE PLAN APPLICATION FOR OILFIELD SERVICE FACILITIES

*(Refer to the OCD Guidelines for assistance in completing the application)*

☒ New ☐ Renewal ☐ Modification

1. Type: CHEMICAL BLENDING, REPACKAGING, AND DISTRIBUTION

2. Operator: CHEMICAL DISTRIBUTORS INC.

   Address: 3911 MONROE RD. FARMINGTON N.M. 87401

   Contact Person: DEBBIE BYRD- BURT SWANK Phone: 505-327-0274

* 3-13 See Attached

3. Location: _____/4 _____/4 Section _____ Township _____ Range _____
   Submit large scale typographic map showing exact location.

4. Attach the name and address of the landowner of the facility site.

5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.

6. Attach a description of all materials stored or used at the facility.

7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.

8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures. We have no

9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.

10. Attach a routine inspection and maintenance plan to ensure permit compliance.

11. Attach a contringency plan for reporting and clean-up of spills or releases.

12. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water. Depth to and quality of ground water must be included.

13. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Russ Gudry Title: Manager of Technical Services

Signature: Russ Gudry Date: August 8, 1995

**CHEMICAL DISTRIBUTORS, INC.**
3911 Monroe
Farmington, New Mexico 87401
(505) 327-0274

## DISCHARGE PLAN APPLICATION RESPONSE FOR FARMINGTON FACILITY

I. Type of Operation
Chemical blending, bulk chemical repackaging, and chemical distribution of oilfield and water treatment related products.

II. Name of Operator or Legally Responsible Party and Local Representative
Chemical Distributors, Inc.
3911 Monroe Road
Farmington, New Mexico 87401
Contact(s): Debbie Byrd - District Manager
Burt Swank - Regional Manager
Phone: (505) 327-0274

III. Location of Discharge
No discharge will be made from this facility which is located as described below:
Legal Description:
A three acre tract of land in the SW 1/4 SW 1/4 of the SE 1/4 of Section 13, T29N, R13W, N.M.P.M., San Juan County, New Mexico, more particularly described as follows:

Beginning at a point which is the Southwest corner of the SW 1/4 SW 1/4 SE 1/4 of said Section 13:
THENCE: North 653.4'
THENCE: East 250'
THENCE: South 653.4'
THENCE: West 250' to the point of beginning.

NOTE: The actual tract used by Chemical Distributors, Inc. is located in the southwest corner of the above tract of land and measures approximately 120' x 340'. It is a one acre lease of the larger tract described above.

IV. Landowner
Charles H. McDonald
2825 West Maryland Avenue
Phoenix, Arizona 85017

V. Facility Description

Describing the facility from south to north, a parking area approximately 150' x 40' is directly in the front of two warehouses positioned side by side. As shown in Figure 1, Warehouse I includes our offices in addition to chemical storage, both dry goods and liquid products in drums. In the rear of Warehouse I , a bagging machine is used to bag sodium carbonate in 50 lb and 2000 lb super sacks. The sodium carbonate and potassium chloride silos are located outside at the rear of the building. Behind Warehouse I is the drum containment area which is just south of the sodium bisulfite area and laboratory.

In Warehouse II, more dry chemicals are stored. Directly behind Warehouse II is the magnesium chloride storage area which is the only area without concrete tank pads and concrete containment. Behind the magnesium chloride area we have the potassium chloride solution, glycols, methanol and EDTA storage areas. Centrally located in the northern part of our plant is our hydrochloric acid area.

The northwest part of the property is used for empty tanker and flatbed parking. Finally, at newly reconditioned drums are located along the back fence line of the property. See Figures 2 and 3 for details on property boundaries.

VI. Materials Stored or Used at the Facility

| Compound | Solid or Liquid | Container Type | Estimated Volume Stored | Location |
|---|---|---|---|---|
| Ethylene Glycol (100%) | Liquid | Bulk | 5,000 gal | Glycol Area |
| Methanol (100%) | Liquid | Bulk | 45,000 gal | Methanol Area |
| Potassium Chloride (20%) | Liquid | Bulk | 38,000 gal | KCl Area |
| Potassium Chloride (100%) | Solid | Bulk | 50,000 lbs | KCl Silo |
| Toluene (100%) | Liquid | Drum | 5,000 gal | Drum Storage |
| Xylene (100%) | Liquid | Drum | 5,000 gal | Drum Storage |
| Hydrochloric Acid (36%) | Liquid | Bulk | 10,000 gal | HCl Area |
| Magnesium Chloride (32%) | Liquid | Bulk | 148,000 gal | MgCl Area |
| Sodium Bisulfite (30-38%) | Liquid | Bulk | 40,000 gal | NaHSO3 Area |
| Ferric Sulfate (50%) | Liquid | Drums | 4,000 gal | Warehouse I |
| Calcium Chloride (94-97%) | Solid | 80 lb Bags | 45,000 lbs | Warehouse I |
| Sodium Hydroxide (50%) | Liquid | Drums | 550 gal | Drum Storage |
| Sodium Hydroxide (100%) | Solid | 50 lb Bags | 20,000 lbs | Warehouse I |
| Diethylene Glycol (100%) | Liquid | Bulk | 5,000 gal | Glycol Area |
| Triethylene Glycol (100%) | Liquid | Bulk | 5,000 gal | Glycol Area |
| Sodium Carbonate (100%) | Solid | Bulk | 100,000 lbs | Na2CO3 Area |
| EDTA (38%) | Liquid | Bulk | 5,000 gal | Methanol Area |
| Sodium Hypochlorite (12%) | Liquid | Drums | 4,000 gal | Warehouse I |
| Sodium Chloride (100%) | Solid | 50 lb Bags | 150,000 lbs | Warehouse I |
| Sodium Hexametaphosphate (100%) | Solid | 50 lb Bags | 20,000 lbs | Warehouse II |

Note: See Material Safety Data Sheets attached at end of application.

VII. Sources and Quantites of Effluent and Waste Solids Generated at the Facility

Currently, the only liquid waste generated at this facility is the rain water that collects in the secondary containment areas and the slight amount of product caught in the drip pans used during the loading and unloading of bulk liquid tankers. Total estimated volume of liquid is < 3,000 gallons per year.

The only solid waste that is generated at this facility is the used cartridge filters with a small amount of solid sodium sulfate crystals from the sodium bisulfite solution filtering process. About 2000 of these used filter cartridges per year are disposed by Waste Management.

VIII. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

All liquids from loading and unloading spillage along with rain water collecting in our secondary containment areas are blended back into our raw materials for shipment as product. The used filter cartridges are placed in a special waste dumpster and disposed of by Waste Management to an approved landfill for special waste.

IX. Proposed Modifications

Not Applicable.

X. Routine Inspection, Maintenance and Reporting

All precipitation that comes in contact with a process area is contained by secondary containment. This small amount of water is blended with our products.

XI. Spill/Leak Prevention and Reporting Procedures (Contingency Plans)

All of the secondary containment areas are designed to hold 1 1/3 of the maximum capacity held by the tanks within the containment area with the exception of the magnesium chloride storage area. In the event that any tank is replaced in this area, a pad with containment will be constructed for that particular tank.

All spills will be contained and pumped back into a storage tank designated for that product. Any spill outside of a containment area of a reportable quantity will be reported to the OCD within 8 hours.

XII. Site Characteristics

The San Juan River is the only body of water located within one mile from the perimeter of the facility. Based on a typical soil profile, the soil consists of a mixture of silty sand and clay sand with interlaid river cobbles. * Depth to ground water is approximately 30 to 50 feet with the total dissolved solids measuring less than 10,000 milligrams per liter. The aquifer beneath the facility has not officially been named. The general composition of aquifer material is alluvium. This data is based on work done by Rob Young with Envirotech, Inc.

* Called Rob Young at 8:45 am on 8/17/95 - He indicated the GW Depth at about 50' and TDS < 1,000 mg/l - I told him I used USGS info. & TDS = 675 mg/l & Depth ≈ 52' - He agreed with these figures and said CDI had misunderstood him. PWB

XIII. Other Compliance Information

Regarding the Discharge Plan Requirement Inspection follow-up letter dated April 24, 1995, the following list are the actions that have been taken or plan to be taken in the future.

A. Plastic septic pipeline at the front of the office has been replaced with stainless steel pipe with cap and guard.

B. Cracked floor in Warehouse I has been re-cemented to prevent leakage in the event of a spill.

C. All rainwater from secondary containment is and will continue to be used in our product blending.

D. All existing sumps are inspected and cleaned semi-annually. All inspections and cleanings are documented and kept on file.

E. Any new sumps installed after April 1, 1995 will have secondary containment and leak detection.

F. All secondary containment areas are designed to hold 1 1/3 of the total volume held by the storage tanks within the area with the exception of the magnesium chloride area. The magnesium chloride area will be designed in this way as tanks are replaced as needed.

G. All leaking lines and tanks noted during inspection have been repaired by changing applicable fittings and welding tanks where needed.

H. The holes in the side of the wall of Warehouse I have been covered by sheet metal.

I. The open pit that was noted during the inspection has been completely filled with dirt and covered with limestone.

J. Drip pans are used for all loading and unloading applications in the glycol, potassium chloride, and magnesium chloride areas. A cement pad will be poured in front of these areas when economics allow.

K. The sumps between the magnesium chloride, potassium chloride, and glycol areas are no longer interconnected. This pipeline has been permanently capped.

L. All future construction will meet the NMOCD guidelines for pad, curb, secondary containment, and leak detection.

# CHEMICAL DISTRIBUTORS, INC.
3911 Monroe Road
Farmington, New Mexico 87401

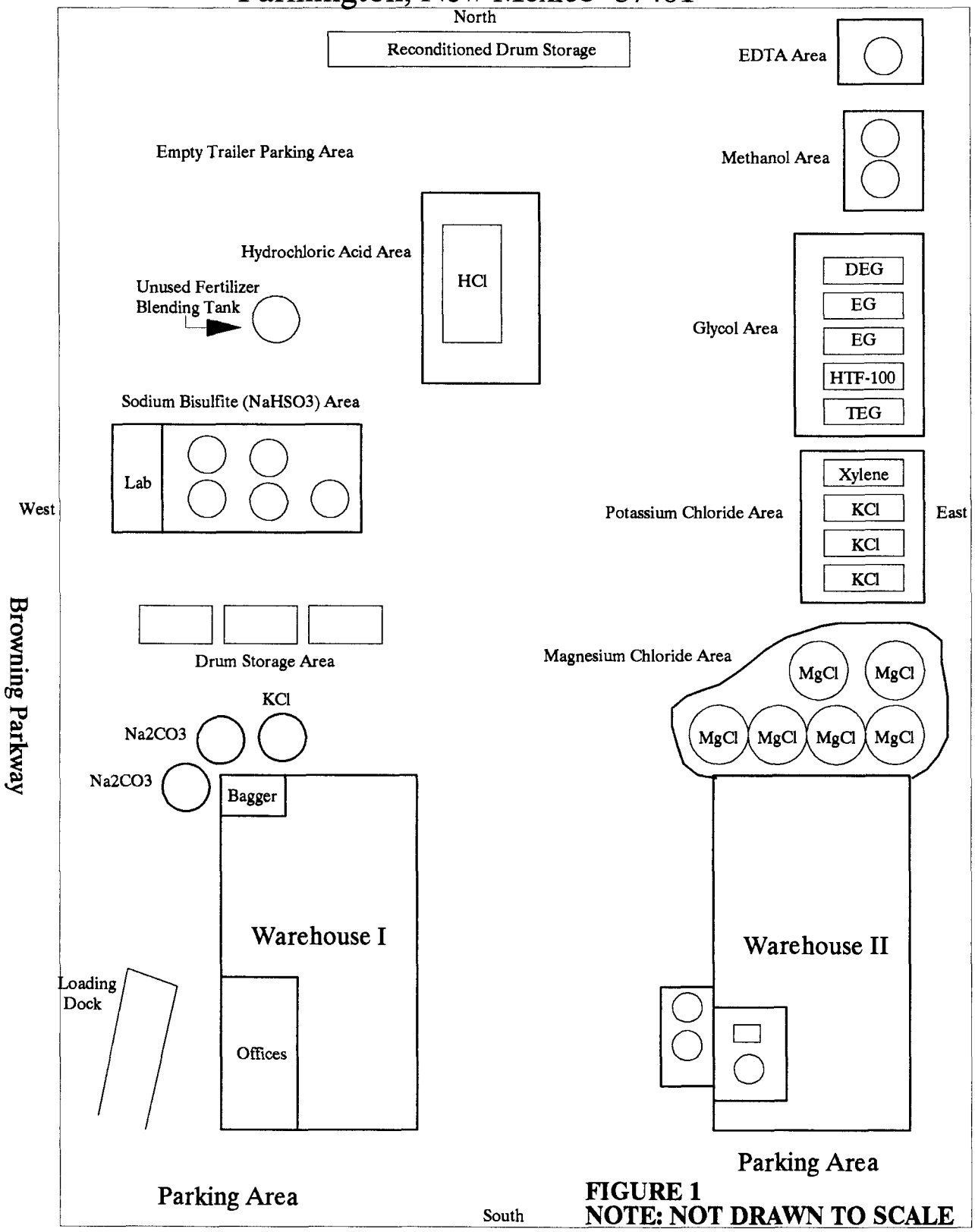



**FIGURE 1**
**NOTE: NOT DRAWN TO SCALE**

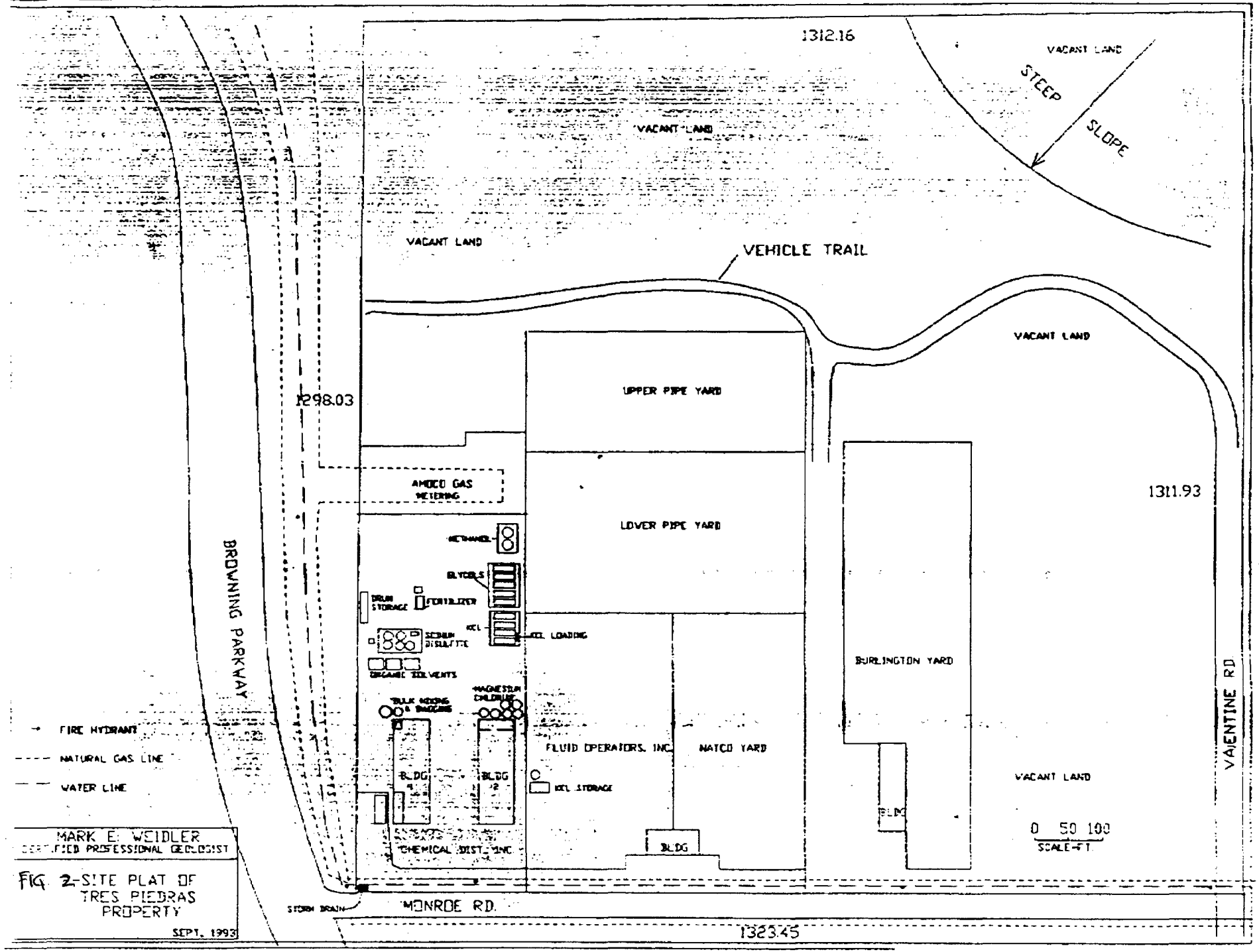



FIG 2-SITE PLAT OF TRES PIEDRAS PROPERTY

SEPT. 1993

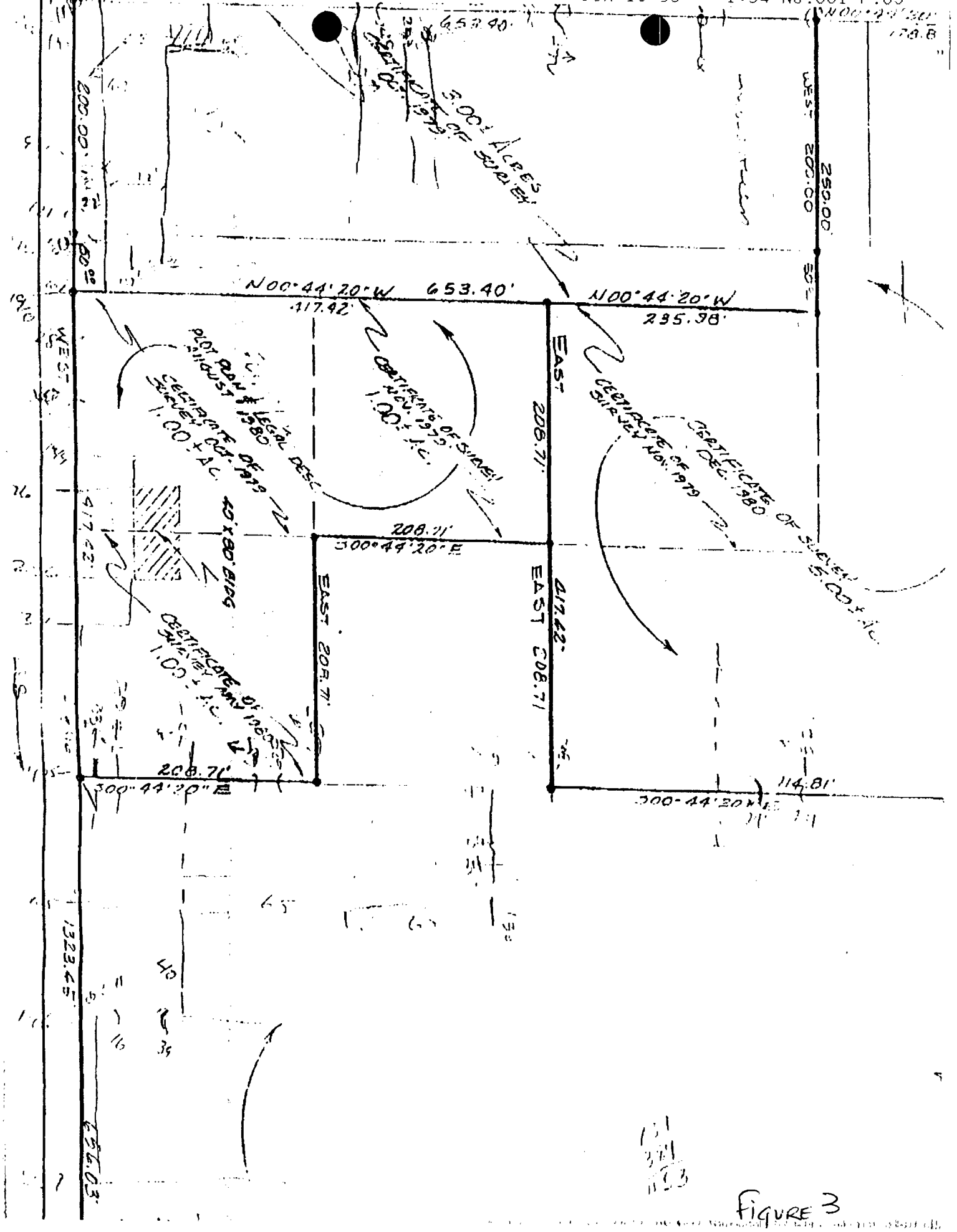

N00°44'20"W 653.40'
N00°44'20"W
235.98'
417.42'
WEST 200.00'
WEST 250.00'
EAST 208.71'
EAST 417.42'
EAST 208.71'
208.71'
S00°44'20"E
208.71'
S00°44'20"E
114.81'
S00°44'20"E
1323.45'
PLOT PLAN & LEGAL DESC. AUGUST 1980
CERTIFICATE OF SURVEY OCT. 1979 1.00± AC.
CERTIFICATE OF SURVEY NOV. 1979 1.00± AC.
CERTIFICATE OF SURVEY DEC. 1980 5.00± AC.
40'x80' BLDG
CERTIFICATE OF SURVEY 1.00± AC.
3.00± ACRES OF SURVEY

FIGURE 3

chemical distributors, inc.
MAIN OFFICE: FARMINGTON, NEW MEXICO (505) 327-0274
HENDERSON, NEVADA • EL PASO, TEXAS • BAKERSFIELD, CALIFORNIA

# Magnesium Chloride

Used extensively by the mining industry, counties, cities, and many other industries as a dust control agent and stabilizer to help control dips, rough spots, etc. in roads.

Depending on the type of base you are dealing with, and each road is different. A typical application is one half gallon per square yard of road.

For the magnesium chloride to give your road the maximum protection we recommend you first grade the road to eliminate potholes, ect., then apply water right before spreading the magnesium chloride. We also recommend you apply magnesium chloride at one quarter per square yard and wait at least one half hour before the final application.

## MATERIAL SAFETY DATA SHEET

Effective Date: 20 August 1982

Product Name: $MgCl_2$ Solution 10-35% Magnesium Chloride Solution

Ingredients (Typical Values-Not Specifications)

| | | |
|---|---|---|
| $MgCl_2$ (Magnesium Chloride) | 20 to | 35% |
| Mg $(NO_3)_2$ (Magnesium Nitrate) | 3 to | 10% |
| $CaCl_2$ (Calcium Chloride) | 1 to | 5% |
| NaCl (Sodium Chloride) | 0 to | 2% |
| $NH_4Cl$ (Ammonium Chloride) | 0 to | 1% |
| $Xso_4$ (Sulfates) | 0 to | 1% |
| Other | 0 to | 3% |
| Ph | 3 to | 7 |
| Density | 1250 to | 1400 Gr/1 |

### Section 1 — Physical Data

Boiling Point: 230-250F, 110-121C
Sol. Inwater: Completely Miscible
Vap Press: 7-15 mmHg @ 25C/77F
Sp. Gravity: 1.29-1.43 25C/77F
Vap Density (Air = 1): Not Applic.
Volatile by Vol. 60-70 (Water)
Appearance and Odor: Clear to Straw Liquid Solution under ambient conditions, mild acid odor.

### Section 2 — Fire and Explosion Hazard Data

Flash Point: Not applicable
Flammable Limits (% F in Air)
Method Used: ——
LFL: Not Applic. UFL: Not Applic.
Extinguishing Media: Non-Combustible
Special Fire Fighting Equipment and Hazards: None

### Section 3 — Reactivity Data

Stability: ——

Incompatibility: Metals will slowly corrode in aqueous solution. Aluminum (and its alloys) and yellow brass not suitable for use.

Hazardous Decomposition Products: ——

Hazardous Polymerization: Will Not Occur

## Section 4 — Spill, Leak, and Disposal Procedures

Action to take for spills ( use appropriate safety equipment): Flush area with plenty of water. May be slick on hard surfaces.

Disposal Method: Keep out of drinking water sources. Dispose in accordance with local, state and federal environmental regulations.

## Section 5 — Health Hazard Data

Ingestion: Low single dose oral toxicity.

Eye Contact: Moderate irritation and possible transient corneal injury.

Skin Contact: Single short exposure--no irritation likely. Repeated prolonged exposure--moderate to severe irritation, even a minor chemical burn.

Skin Absorption: Not likely to be absorbed through the skin in toxic amounts.

Inhalation: TLV 10 mg/m3 for magnesium chloride. 8 hours time weighted average.

Effects of Overexposure: Moderate to severe irriation, even a minor chemical burn.

## Section 6 First Aid--Note to Physician

First Aid Procedures:

Eyes: Irrigation of the eye immediately with water for five minutes is good safety practice.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician. Wash clothing before reuse.

Inhalation: Remove to fresh air if effects occur. Consult medical personnel.

Ingestion: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician.

Note to Physician:

Eyes: May cause corneal injury or burn. Stain for evidence of corneal injury. If cornea is burned, instill antibotic steriod preparation frequently. Consult ophthalmologist.

Skin: May cause moderate irritation. Treat as contact dermatitis. If burn is present, treat as chemical burn.

Respiratory: May cause mild irritation.

Oral: Low in toxicity.

General: Consult standard literature. No specific antidote. Treatment based on the sound judgement of the physician and the individual reactions of the patient.

## Section 7 — Special Handing Information

Ventilation: If needed, use general or local ventilation to control mists and aerosols.

Respiratory Protection: None normally needed. If required, use an approved acid mist respirator.

Eye Protection: Safety glasses with side shields; for severe exposure, chemical workers goggles. Eye fountain near work area.

Protective clothing: Clean, body-covering clothing. Hands and face covering may be required depending upon severity of possible exposure.

# MATERIAL SAFETY DATA SHEET

# METHANOL

CELANESE CHEMICAL COMPANY, INC.
1250 W. MOCKINGBIRD LANE, DALLAS, TEXAS 75247
EMERGENCY TELEPHONE NO: 806-665-5522
INFORMATION TELEPHONE NO: 214-689-4000

REVISION DATE: JULY, 1984

## IDENTIFICATION

**PRODUCT NAME:** Methanol

**CHEMICAL NAME:** Methanol

**CHEMICAL FAMILY:** Alcohol

**FORMULA:** $CH_3OH$

**MOLECULAR WEIGHT:** 32.04

**SYNONYMS:** Carbinol; Methyl Hydroxide; Monohydroxymethane; Methyl Alcohol.

**CHEMICAL ABSTRACT SERVICE NAME:**
Methanol

**CHEMICAL ABSTRACT SERVICE NUMBER:** 67-65-1

**DEPARTMENT OF TRANSPORTATION INFORMATION**

**HAZARD CLASSIFICATION:** Flammable Liquid.

**SHIPPING NAME:** Methanol

**UNITED NATIONS NUMBER:** 1230

**D.O.T. EMERGENCY RESPONSE GUIDE NO:** 28

## PHYSICAL DATA

**BOILING POINT (760 mm Hg):** 64.6°C

**FREEZING POINT:** −97.8°C

**SPECIFIC GRAVITY ($H_2O$ = 1 at 20/20°C):** 0.7925

**VAPOR PRESSURE (20°C):** 96.0 mm Hg

**VAPOR DENSITY (AIR = 1 at 20°C):** 1.11

**SOLUBILITY IN WATER (% by WT @ 20°C):** Complete.

**PERCENT VOLATILES BY VOLUME:** 100

**EVAPORATION RATE (BuAc = 1):** 2.0

**APPEARANCE AND ODOR:** Water-white liquid with a mild odor.

## HAZARDOUS INGREDIENTS

**MATERIAL:** Methanol, 99.85%

## FIRE AND EXPLOSION HAZARD DATA

**FLAMMABLE LIMITS IN AIR, % BY VOLUME**

**LOWER:** 5.5

**UPPER:** 36.5

**FLASH POINT (TEST METHOD):**

**TAG OPEN CUP (ASTM D1310):** 60°F

**TAG CLOSED CUP (ASTM D56):** 54°F

**EXTINGUISHING MEDIA:**
Use dry chemical, "alcohol foam", or $CO_2$; water may be ineffective, but should be used to keep fire-exposed containers cool.

**SPECIAL FIRE FIGHTING PROCEDURES:**
Wear self-contained breathing apparatus (SCBA) and complete personal protective equipment. Use water spray to cool fire-exposed structures and tanks and to disperse vapor cloud if fire is not present. Dilution of burning liquid with water spray will reduce intensity of flames.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**
Vapor is heavier than air and may travel considerable distance to a source of ignition and flashback.

**NATIONAL FIRE PROTECTION ASSOCIATION SECTION 325M & 704M DESIGNATIONS:**

**HEALTH:** 1

**FLAMMABILITY:** 3

**REACTIVITY:** 0

## REACTIVITY DATA

**STABILITY:** Stable.

**CONDITIONS TO AVOID:** Sparks, heat and flame.

**INCOMPATIBILITY**

**MATERIALS TO AVOID:** None.

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:**
Thermal decomposition may produce carbon dioxide and/or carbon monoxide.

**HAZARDOUS POLYMERIZATION:**
Will not occur.

## HEALTH HAZARD DATA

**PERMISSIBLE EXPOSURE LIMITS**

**OSHA STANDARD:** 200 ppm, 8-hour time-weighted average.

**ACGIH: THRESHOLD LIMIT VALUE (TLV®):** 200 ppm, 8-hour time-weighted average; 250 ppm, Short-Term Exposure Limit; potential contribution to overall exposure possible via skin absorption.

**ACUTE EFFECTS OF EXPOSURE**

**INGESTION (SWALLOWING):** Poisonous if swallowed. Causes blindness, narcosis, headache, nausea and vomiting leading to severe illness and perhaps death.

**INHALATION (BREATHING):** Extremely high levels produce narcosis, headache, nausea, giddiness, and loss of consciousness.

**SKIN (DERMAL):** Repeated or prolonged contact causes drying, brittleness, cracking and irritation.

**EYE CONTACT:** High vapor concentrations or liquid contact causes irritation, tearing and burning sensation.

**CHRONIC EFFECTS OF EXPOSURE:**
Repeated exposures by inhalation or absorption may cause systemic poisoning.

**ACUTE ANIMAL TOXICITY DATA:**
Oral, rats:
$LD_{50}$ = 6.2 g/kg
Inhalation, rats:
$LC_{50}$ = 100,000 ppm
Dermal, rabbits:
$LD_{50}$ = 20 ml/kg

**CHRONIC ANIMAL TOXICITY DATA:**
Rats and monkeys exposed for 28 days (6 hours/day) to vapor levels up to 5000 ppm showed no adverse effects. A lifetime skin-painting study in mice did not indicate any carcinogenic potential.
Additional information concerning toxicity testing is available by contacting the Industrial Hygiene and Toxicology Department at 214/689-4000.

**EMERGENCY AND FIRST AID PROCEDURES**

**INGESTION (SWALLOWING):** Induce vomiting of conscious patient immediately by giving 2 glasses of water and pressing finger down throat. Contact a physician immediately.

**INHALATION (BREATHING):** Remove patient from contaminated area. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact a physician.

**SKIN CONTACT:** Remove contaminated clothing and wash with large amounts of water. If irritation persists, contact a physician.

**EYE CONTACT:** Flush eyes with water for at least 15 minutes. Contact a physician immediately.

**NOTES TO PHYSICIAN:** Signs and symptoms of the poisoning are not evident immediately after ingestion.

## SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**
Place leaking containers in a well ventilated area. Eliminate ignition sources. Use foam to control vapors. Flush area with water sparingly or use an absorbant to contain and/or remove spill. Dike the spill to minimize contaminated area and facilitate salvage or disposal. Avoid run-off into storm sewers and ditches which lead to natural waterways. Call the National Response Center (800/424-8802) if spill is in or over the reportable quantity (1 lb/day) under "Superfund". If required, state and local authorities should be notified.

**WASTE DISPOSAL METHOD:**
Incineration, biological treatment of dilute solution, or landfill if solidified prior to disposal. Use of injection wells may provide an alternate means of disposal for compatible materials.

## SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (SPECIFY TYPE):**
Use full-face NIOSH approved self-contained breathing apparatus (SCBA) or other air-supplying full-face respirator.

**VENTILATION**

**LOCAL EXHAUST:** Recommended when appropriate to control employee exposure.

**MECHANICAL (GENERAL):** Not recommended as the sole means of controlling employee exposure.

**PROTECTIVE GLOVES:**
Neoprene or rubber gloves.

**EYE PROTECTION:**
Chemical safety goggles.

**OTHER PROTECTIVE EQUIPMENT:**
For operations where spills or splashing may occur, use an impervious body covering and boots. A safety shower and eye bath should be available.

## SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**
May be fatal or cause blindness if ingested. Cannot be made non-poisonous. Prolonged or repeated breathing of vapor is harmful. Use of spark-resistant tools is recommended.

**OTHER PRECAUTIONS:**
Keep away from heat, sparks and flames. Keep container closed. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling.

## Safe Handling Procedures

Methyl alcohol is a flammable liquid; it exhibits a potential fire hazard wherever it is stored, handled or used. It should be kept away from heat, sparks, and open flame. The vapors are toxic and heavier than air. Adequate ventilation of work and storage areas is essential. The concentration of the vapor should be kept outside the flammable limits.

Building and equipment design for handling methyl alcohol should conform to all applicable National Fire Protection Association standards. Electrical equipment should conform to Section 500 of the National Electrical Code.[4] No apparatus capable of providing an ignition source should be used. Because sparks from static electricity can ignite methyl alcohol vapor and air mixtures, it is imperative that safe handling procedures, such as adequate grounding and bonding, be developed and strictly observed.

The practices recommended in the M.C.A.[3] Manuals, TC-29, "Loading And Unloading Flammable Liquid Chemicals-Tank Cars," TC-8, "Recommended Practices For Bulk Loading And Unloading Flammable Liquid Chemicals To And From Tank Trucks," and Safety Guide SG-3 "Flammable Liquids: Storage And Handling Drum Lots And Smaller Quantities" and the M.C.A.[3] Chemical Safety Data Sheet SD-22 should be used as guidelines for handling methyl alcohol.

Small containers should be protected from physical damage and stored in a cool, well-ventilated flammable liquids storage area. Bulk storage tanks should be located outside and detached from other buildings. All sources of flame, sparks, ignition or excessive heat should be removed from storage areas. Storage of methyl alcohol should be in accordance with the provisions of the National Fire Protection Association[4] Pamphlet No. 30, "Flammable And Combustible Liquids Code."

Carbon steel (lined or unlined), 304SS, brass or copper are acceptable materials for construction for use with methyl alcohol. Aluminum is not acceptable from a color and contamination standpoint.

In the event of a spill, remove all sources of ignition. Keep personnel away from spill area. Dilute spilled material with large volumes of water. If spill is contained in a relatively safe location, cover with an approved foam as a precautionary measure for fire and fume protection. Dike large spills and dump into salvage tanks. Prevent washings from entering all waterways. Disposal should be carried out in compliance with federal, state, and local regulations regarding health, air, and water pollution. Notify authorities in the event of major spills. Incinerate waste in chemical incinerator.

## PRODUCT SHIPPING INFORMATION

| | | | |
|---|---|---|---|
| D.O.T. CLASS | Flammable Liquid | D.O.T. LABEL | Red(3) |
| FLASH POINT °F TAG OPEN CUP | 60 | TAG CLOSED CUP | 54 |
| CELANESE LABEL NUMBER | | | |
| DRUM | | OCD-47 | |
| SAMPLE | | OCD-47-1 | |
| TANK CAR-TANK TRUCK | | OCD-47-2 | |
| FREIGHT CLASSIFICATION | | Methanol | |

I. BULK SHIPMENTS
- Tank truck (Full) 40,000 Pounds Minimum
- Tank car (Full) 10,000 to 30,000 Gallons

II. Filling Points
- San Pedro, California
- Chicago, Illinois
- Newark, New Jersey
- Cincinnati, Ohio
- New Kensington, Pennsylvania
- Rock Hill, South Carolina
- Bay City, Texas
- Bayport, Texas
- Bishop, Texas
- Clear Lake, Texas
- Pampa, Texas

II. DRUM SHIPMENTS
Are not presently available.

(3) Manufacturing Chemists Association, Inc. 1825 Connecticut Avenue, N.W. Washington, D.C. 20009

(4) National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210

DYESTUFFS & CHEMICALS DIVISION
CIBA-GEIGY CORPORATION
P.O. BOX 18300
GREENSBORO, NORTH CAROLINA 27419-8300

EMERGENCY TELEPHONE
800-888-8372

# MATERIAL SAFETY DATA SHEET

REVISION: 8 02/14/89
PRINTED: 02/06/92

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TRADE NAME: SEQUESTRENE 30A BULK

CHEMICAL FAMILY: EDTA TETRASODIUM

OSHA HAZARDOUS SUBSTANCE? YES X NO _

BASIS: REFER TO SECTIONS I AND IV

FOR STATE RIGHT-TO-KNOW INFORMATION, SEE SECTION XI

HMIS RATING: HEALTH 2* FLAMMABILITY 1 REACTIVITY 0 PERS. PROTECT. EQUIP D

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## SECTION I - OSHA HAZARDOUS SUBSTANCE(S)

PRODUCT AS TESTED
CAS NO:
PERCENT: 100.00
OSHA PEL: NOT ESTABLISHED — NTP CARCINOGEN: NOT LISTED
ACGIH TLV: NOT ESTABLISHED — IARC CARCINOGEN: NOT LISTED

SODIUM HYDROXIDE
CAS NO: 1310-73-2
PERCENT: 1.23
OSHA PEL: 2 MG/M3 C — NTP CARCINOGEN: NOT LISTED
ACGIH TLV: 2 MG/M3 C — IARC CARCINOGEN: NOT LISTED

NITRILOTRIACETIC ACID
CAS NO: 139-13-9
PERCENT: .90
OSHA PEL: NOT ESTABLISHED — NTP CARCINOGEN: LISTED
ACGIH TLV: NOT ESTABLISHED — IARC CARCINOGEN: LISTED

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## SECTION II - PHYSICAL DATA

APPEARANCE AND ODOR: LIQUID; ODORLESS
BOILING POINT: APPROX 212 F
DECOMPOSITION TEMPERATURE: NOT EVALUATED
EVAPORATION RATE: NOT EVALUATED
MELTING POINT: NOT EVALUATED
PERCENT VOLATILE: APPROX 60%
PH: 10% SOLUTION = 11.5 - 12.5
SOLUBILITY IN WATER: SOLUBLE
SPECIFIC GRAVITY: 1.29 - 1.31

VAPOR DENSITY: NOT EVALUATED
VAPOR PRESSURE: NOT EVALUATED

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## SECTION III - FIRE, EXPLOSION, AND REACTIVITY INFORMATION

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PHYSICAL HAZARD(S): NONE KNOWN
FLASH POINT: AN AQUEOUS SOLUTION - NOT FLAMMABLE.
FLAMMABLE LIMITS IN AIR-LOWER: NOT EVALUATED
FLAMMABLE LIMITS IN AIR-UPPER: NOT EVALUATED
EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, WATER.
SPECIAL FIRE FIGHTING PROCEDURES: NONE REQUIRED.
HAZARDOUS DECOMPOSITION PRODUCTS:
BURNING MAY PRODUCE OXIDES OF CARBON, NITROGEN OR SULFUR.
FIRE AND EXPLOSION HAZARDS: NO UNUSUAL HAZARDS.
STABILITY: STABLE
INCOMPATIBILITY:
THIS PRODUCT IS CORROSIVE TO ALUMINUM. DO NOT STORE IN ALUMINUM CONTAINERS.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

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## SECTION IV - HEALTH HAZARD INFORMATION

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PRIMARY ROUTE(S) OF EXPOSURE: INHALATION AND DERMAL
EFFECTS OF OVEREXPOSURE: MAY CAUSE EYE AND SKIN IRRITATION.
NITRILOTRIACETIC ACID IS AN NTP CARCINOGEN. CIBA-GEIGY DOES NOT CONSIDER NTA AS POSING A SIGNIFICANT RISK TO HUMAN HEALTH DUE TO THE MECHANISM AND LEVELS REQUIRED TO PRODUCE AN ADVERSE EFFECT.
DERMAL: NOT EVALUATED
INGESTION: (RATS) LD50 = 4,100 MG/KG
EYE IRRITATION: (RABBITS) IRRITANT
SKIN IRRITATION: (RABBITS) IRRITANT
INHALATION: NOT EVALUATED
ADDITIONAL HEALTH DATA: NONE

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## SECTION V - EMERGENCY AND FIRST AID PROCEDURES

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EYES: FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES.
GET MEDICAL ATTENTION.
SKIN: WASH WITH MILD SOAP AND WATER.
IF IRRITATION OCCURS GET MEDICAL ATTENTION.
IF CLOTHING IS CONTAMINATED, REMOVE AND WASH BEFORE REUSE.
INHALATION: REMOVE TO FRESH AIR. GET MEDICAL ATTENTION.
INGESTION: IF CONSCIOUS, GIVE PLENTY OF WATER TO DRINK.
GET MEDICAL ATTENTION.
IF UNCONSCIOUS, DO NOT GIVE ANYTHING TO DRINK.
GET IMMEDIATE MEDICAL ATTENTION.

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## SECTION VI - PRECAUTIONS FOR SAFE HANDLING

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PRODUCT LABEL INFORMATION: WARNING! SKIN AND EYE IRRITANT.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING. CONTAINS
NITRILOTRIACETIC ACID OR ITS SALT AS A BY-PRODUCT.
KEEP CONTAINER CLOSED. FOR INDUSTRIAL USE ONLY.

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## SECTION VII - CONTROL MEASURES

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RESPIRATORY PROTECTION:
USE NIOSH APPROVED RESPIRATOR WHERE THERE IS LIKELIHOOD OF
INHALATION OF THE PRODUCT MIST.
PROTECTIVE GLOVES:
WEAR IMPERVIOUS GLOVES AS A STANDARD HANDLING PROCEDURE.
EYE PROTECTION: WEAR SPLASH-PROOF CHEMICAL GOGGLES.
EMERGENCY RESPONSE PROTECTION: NONE
OTHER PROTECTIVE EQUIPMENT:
WEAR APPROPRIATE EQUIPMENT TO PREVENT PROBABILITY
OF EXPOSURE AND PERSONAL CONTACT. DELUGE SAFETY SHOWER
AND EYE WASH SHOULD BE LOCATED NEAR WORK AREA.
VENTILATION: LOCAL EXHAUST RECOMMENDED, MECHANICAL EXHAUST ACCEPTABLE.

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## SECTION VIII - SPILL AND DISPOSAL PROCEDURES

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SPILL PROCEDURES:
SOAK UP WITH INERT ABSORBENT MATERIAL. SHOVEL INTO CLOSABLE CONTAINER
FOR DISPOSAL. WEAR PROTECTIVE EQUIPMENT SPECIFIED (SEC. VII).
EMERGENCY RESPONSE GUIDEBOOK PAGE: NONE
WASTE DISPOSAL METHOD:
BURY OR INCINERATE IN APPROVED SITE OR FACILITY IN
ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
CONTAINER REUSE:
EMPTIED CONTAINER MAY CONTAIN PRODUCT RESIDUE AND SHOULD NOT
BE REUSED.

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## SECTION IX - ENVIRONMENTAL DATA

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BOD 5: 0.01 G/G
COD: 0.25 G/G
FISH TOXICITY: (BLUEGILL) LC50 = 550 MG/L (96 HOUR)
SEED TOXICITY: NO INHIBITION @ 300 MG/L
ACTIVATED SLUDGE RESPIRATION INHIBITION TEST: NOT EVALUATED
CWA TOXIC POLLUTANTS: NONE KNOWN
ADDITIONAL ENVIRONMENTAL DATA: NONE

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## SECTION X - FEDERAL REGULATORY INFORMATION

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TSCA: ALL COMPONENTS ARE LISTED IN TSCA INVENTORY.
CERCLA STATUS: NOT A HAZARDOUS SUBSTANCE UNDER CERCLA (40 CFR 302.4).
RCRA STATUS: IF PH IS EQUAL TO OR GREATER THAN 12.5, THE PRODUCT MAY
BY CONSIDERED A HAZARDOUS WASTE UNDER RCRA

(40 CFR 261.22) CORROSIVITY D002
DOT STATUS: NOT REGULATED
SARA: SECTION 311/312 HAZARD CATEGORY: IMMEDIATE/DELAYED
SARA 313 CHEMICAL(S):
NITRILOTRIACETIC ACID, 139-13-9
PERCENT: .90

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## SECTION XI - STATE RIGHT-TO-KNOW INFORMATION

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HAZARDOUS INGREDIENT(S):
SODIUM HYDROXIDE, 1310-73-2, Sodium hydroxide (Na(OH))
WITHIN THE FOLLOWING STATES: MA- NJ- PA-E

NITRILOTRIACETIC ACID, 139-13-9, Glycine, N,N-bis(carboxymethyl)-
WITHIN THE FOLLOWING STATES: CA-65 MA- NJ-S PA-S

NON-HAZARDOUS INGREDIENT(S):
WATER, 7732-18-5, Water

TETRASODIUM EDTA, 64-02-8,
Glycine, N,N'-1,2-ethanediylbis(N-(carboxymethyl)-, tetrasodium salt

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FOR FURTHER INFORMATION, PLEASE CONTACT:

SAFETY AND ENVIRONMENTAL AFFAIRS DEPARTMENT (919) 632-7551

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND EXPRESSED OR IMPLIED IS MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN. THIS MATERIAL SAFETY DATA SHEET WAS PREPARED TO COMPLY WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

THIS SUPERCEDES ANY PREVIOUS INFORMATION.

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# Material Safety Data Sheet
## Toluene

PHIBRO ENERGY USA, INC.
500 DALLAS AVE., SUITE 3200
HOUSTON, TX 77002

PHIBRO ENERGY, INC.
500 NYALA FARMS RD
WESTPORT, CT 06880

Emergency Phone Numbers
24 Hour Emergency 713-923-6641
Chemtrec Emergency 800-424-9300

General Assistance
Medical Assistance 713-797-0395
General Assistance 713-646-5135

## I. GENERAL INFORMATION

Trade Name
Toluene
Chemical Family
Aromatic Hydrocarbon
Synonyms
Toluol, Nitration Grade
Toluene, Methyl Benzene

CAS Registry Number
108-88-3
DOT Proper Shipping Name
Toluene
DOT Hazard Class/Packaging Group
3 Flammable Liquid/II
DOT Identification Number
UN 1294
Reportable Quantity
Toluene-1000 lb

## II. SUMMARY OF HAZARDS

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid liquid, mist and vapor contact. Flammable Liquid. Vapors may explode.

## III. HAZARDOUS INGREDIENTS

| Component | CAS No. | Concentration (%) |
|---|---|---|
| Toluene | 108-88-3 | 99+% |

## IV. PHYSICAL DATA

Boiling Point: 230°F
Melting Point: not applicable
Vapor Density (air=1): 3.1
Specific Gravity: 0.87 @ 60°F
Vapor Pressure: 1.05 psi @ 100°F
Percent Volatile: essentially 100%
Solubility in Water: Negligible (<0.1%)
Appearance and Odor: Colorless liquid with aromatic hydrocarbon odor

## V. FIRE AND EXPLOSION HAZARD DATA

Flash Point: 40°F
Autoignition Temperature: 896°F
Flammability Limits in Air
Lower Explosive Limit: 1.2%
Upper Explosive Limit: 7.1%
NFPA Classification
Health: Moderate (2)
Reactivity: Stable (0)
Fire: High (3)
Specific Hazard: not applicable
Basic Firefighting Procedures
Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media,

## V. FIRE AND EXPLOSION HAZARD DATA (cont'd)

Basic Firefighting Procedures (cont'd)
application rates and water/foam ratio. Water can be used to cool fire-exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.
Unusual Fire and Explosion Hazards
Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly grounded containers.

## VI. REACTIVITY INFORMATION

Stability: Stable under normal conditions of use
Incompatibility: Avoid strong oxidizing agents (peroxide, dichromate, permanganate, chlorine, etc.), strong acids, caustics and halogens.
Hazardous Polymerization: Will not occur
Hazardous Reactions/Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide and reactive hydrocarbons (aldehydes, aromatics, etc.)
Conditions to Avoid: Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation. Do not switch load.

## VII. HEALTH HAZARD INFORMATION

Product Listed as a Carcinogen or Potential Carcinogen by:
NTP - No IARC - No OSHA - No Other - No
Target Organs: Respiratory system, skin
Primary Routes of Entry: Inhalation, ingestion, dermal or eye contact
Occupational Exposure Limits

| Compound | Source | Year | Adopted Value for Time Period | | |
|---|---|---|---|---|---|
| Toluene | OSHA-PEL | 1989 | TWA | 100 ppm | 8 hour |
| | ACGIH-TLV | 1989 | TWA | 100 ppm | 8 hour |
| | NIOSH-REL | 1989 | TWA | 100 ppm | 8 hour |
| | OSHA-PEL | 1989 | STEL | 150 ppm | 15 min |
| | ACGIH-TLV | 1989 | STEL | 150 ppm | 15 min |
| | NIOSH-REL | 1989 | CL | 200 ppm | 10 min |

VII. HEALTH HAZARD INFORMATION (cont'd)

Effects and Hazards of Eye Contact
May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.
Effects and Hazards of Skin Contact
Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section.
Effects and Hazards of Inhalation
Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.
Effects and Hazards of Ingestion
This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".
Medical Conditions Aggravated by Exposure
Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.
Toxicological Information
TOLUENE can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. Toluene vapors cause narcosis. Controlled exposures of human subjects to 200 ppm for 8 hours produced mild fatigue, weakness, confusion, lacrimation and paresthesia. At 600 ppm for 8 hours, there was euphoria, headache, dizziness, dilated pupils and nausea. At 800 ppm for 8 hours, symptoms were more pronounced, and after effects included nervousness, muscular fatigue and insomnia persisting for several days. In workers exposed for many years to concentrations in the range of 80 to 300 ppm, there was no clinical or laboratory evidence of altered liver function. Toluene exposure does not result in the same chronic injury to bone marrow caused by benzene. Liquid splashed in the eyes of workers has caused transient corneal damage and conjunctival irritation, complete recovery occurred within 48 hours. Animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This later effect was shown to be enhanced by hypoxia or the injection of adrenalin-like agents. Workers exposed at less than 200 ppm have complained of headache, lassitude and nausea, but physical findings were essentially negative. At concentrations between 200 and 500 ppm, impairment of coordination, momentary loss of memory and anorexia were present. Between 500 and

## VII. HEALTH HAZARD INFORMATION (cont'd)

Toxicological Information (cont'd)
1500 ppm, palpitation, extreme weakness, pronounced loss of coordination and impairment of reaction time were noted. The red cell count fell in many instances and there were cases of aplastic anemia in which recovery followed intensive hospital treatment (although some of the effects may have been due to benzene impurity). Toluene has been reported to decrease immunological responses and cause recordable hearing loss in test animals. Damages genetic material in mamalian test systems. May cause adverse reproductive effects based on animal testing.

## VIII. EMERGENCY AND FIRST AID INFORMATION

Treatment for Eye Contact
Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.
Treatment for Skin Contact
Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.
Treatment for Inhalation
Remove to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm, quiet and get medical attention.
Treatment for Ingestion
Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.
Notes to Physician
In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

## IX. PRECAUTIONARY MEASURES

Respiratory Protection
If workplace exposure limits for product or components are exceeded, NIOSH equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

Eye Protection
Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles. Do not wear contact lenses when working around this product.

Skin Protection
Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.

Ventilation
Avoid breathing mists and vapor. Use in well ventilated area. In confined space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.

Other Precautionary Measures
Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked with an explosimeter for safety and an oxygen meter to ensure a safe breathing atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.

Precautions to be Taken in Handling and Storing
Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

## X. SPILL AND LEAK PROCEDURES

Precautions in Case of a Spill or Release
If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area

## X. SPILL AND LEAK PROCEDURES (cont'd)

Precautions in Case of a Spill or Release (cont'd)
and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment/drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424-8802. For highway or railway spills, contact Chemtrec at 800-424-9300.

Waste Disposal Method
Dispose of material in accordance with local, county, state and federal regulations. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

## XI. SARA TITLE III INFORMATION

Section 302/304 Extremely Hazardous Substances
None

Section 311 Hazard Category

| Acute | Chronic | Fire | Pressure | Reactive | Not Applicable |
|---|---|---|---|---|---|
| X | X | X | | | |

Section 313 Toxic Chemicals

| | |
|---|---|
| Toluene | 99+% |

## XII. LABELING INFORMATION

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid liquid, mist and vapor contact. Flammable Liquid. Vapors may explode.

If swallowed, do not induce vomiting, aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder,

XII. LABELING INFORMATION (cont'd)

drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

DISCLAIMER

The information, recommendations and suggestions herein were compiled from reference material and other sources believed to be reliable. However, the MSDS's accuracy or completeness is not guaranteed by Phibro Energy, Inc. or its affiliates, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, no warranties of merchantability or fitness for a particular purpose are expressed or implied. This MSDS is not intended as a license to operate under, or recommendation to infringe on, any patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

Prepared By:

Sue Bottom
Health, Safety and Environmental

# Material Safety Data Sheet
## Mixed Xylenes

PHIBRO ENERGY USA, INC.
500 DALLAS AVE., SUITE 3200
HOUSTON, TX 77002

Emergency Phone Numbers
24 Hour Emergency 713-923-6641
Chemtrec Emergency 800-424-9300

General Assistance
Medical Assistance 713-797-0395
General Assistance 713-646-5135

## I. GENERAL INFORMATION

Trade Name
Xylene
Chemical Family
Aromatic Hydrocarbon
Synonyms
o-, m- and p-xylene, Xylol, Dimethyl Benzene

CAS Registry Number
1330-20-7
DOT Proper Shipping Name
Xylene
DOT Hazard Class/Packaging Group
3 Flammable Liquid/III
DOT Identification Number
UN 1307
Reportable Quantity
Xylene/Ethylbenzene-1000 lb

## II. SUMMARY OF HAZARDS

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Flammable Liquid. Vapors may explode.

## III. HAZARDOUS INGREDIENTS

| Component | CAS No. | Concentration (%) |
|---|---|---|
| Ethylbenzene | 100-41-4 | 2 - 35% |
| Hexane Isomers | | 1 - 4% |
| 1,2,4 Trimethylbenzene | 95-63-6 | 10 - 15% |
| Xylene | 1330-20-7 | 60 - 95% |

## IV. PHYSICAL DATA

Boiling Point: 280°F
Melting Point: not applicable
Vapor Density (air=1): 3.7
Specific Gravity: 0.86 @ 60°F
Vapor Pressure: 0.4 psi @ 100°F
Percent Volatile: essentially 100%
Solubility in Water: Negligible (<0.1%)
Appearance and Odor: Clear, colorless liquid with sweet aromatic odor

## V. FIRE AND EXPLOSION HAZARD DATA

Flash Point: 80 - 90°F
Autoignition Temperature: 870-980°F
Flammability Limits in Air
Lower Explosive Limit: 1.0%
Upper Explosive Limit: 7.0%
NFPA Classification
Health: Moderate (2)
Fire: High (3)
Reactivity: Stable (0)
Specific Hazard: not applicable

Material Safety Data Sheet
Mixed Xylenes

## V. FIRE AND EXPLOSION HAZARD DATA (cont'd)

Basic Firefighting Procedures
Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Water can be used to cool fire-exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.
Unusual Fire and Explosion Hazards
Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly grounded containers.

## VI. REACTIVITY INFORMATION

Stability: Stable under normal conditions of use
Incompatibility: Avoid strong oxidizing agents (peroxide, dichromate, permanganate, chlorine, etc.), strong acids, caustics and halogens.
Hazardous Polymerization: Will not occur
Hazardous Reactions/Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide and reactive hydrocarbons (aldehydes, aromatics, etc.)
Conditions to Avoid: Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation. Do not switch load.

## VII. HEALTH HAZARD INFORMATION

Product Listed as a Carcinogen or Potential Carcinogen by:
NTP - No IARC - No OSHA - No Other - No
Target Organs: Respiratory system, skin
Primary Routes of Entry: Dermal or eye contact, inhalation, ingestion
Occupational Exposure Limits

| Compound | Source | Year | Adopted Value for Time Period | | |
|---|---|---|---|---|---|
| Ethylbenzene | OSHA-PEL | 1989 | TWA | 100 ppm | 8 hour |
| | ACGIH-TLV | 1989 | TWA | 100 ppm | 8 hour |
| | OSHA-PEL | 1989 | STEL | 125 ppm | 15 min |
| | ACGIH-TLV | 1989 | STEL | 125 ppm | 15 min |

Material Safety Data Sheet
Mixed Xylenes

VII. HEALTH HAZARD INFORMATION (cont'd)

Occupational Exposure Limits (cont'd)

| | | | | | |
|---|---|---|---|---|---|
| Hexane (all isomers) | OSHA-PEL | 1989 | TWA | 500 ppm | 8 hour |
| | ACGIH-TLV | 1989 | TWA | 500 ppm | 8 hour |
| | NIOSH-REL | 1989 | TWA | 100 ppm | 8 hour |
| | OSHA-PEL | 1989 | STEL | 1000 ppm | 15 min |
| | ACGIH-TLV | 1989 | STEL | 1000 ppm | 15 min |
| | NIOSH-REL | 1989 | CL | 510 ppm | 15 min |
| Trimethyl Benzene (Pseudocumene) | OSHA-PEL | 1989 | TWA | 25 ppm | 8 hour |
| | ACGIH-TLV | 1989 | TWA | 25 ppm | 8 hour |
| | NIOSH-REL | 1989 | TWA | 100 ppm | 8 hour |
| | OSHA-PEL | 1989 | STEL | 150 ppm | 15 min |
| | ACGIH-TLV | 1989 | STEL | 150 ppm | 15 min |
| | NIOSH-REL | 1989 | CL | 200 ppm | 10 min |
| Xylene (o-, m- and p- isomers) | OSHA-PEL | 1989 | TWA | 100 ppm | 8 hour |
| | ACGIH-TLV | 1989 | TWA | 100 ppm | 8 hour |
| | NIOSH-REL | 1989 | TWA | 100 ppm | 8 hour |
| Xylene (o-, m- and p- isomers) | OSHA-PEL | 1989 | STEL | 150 ppm | 15 min |
| | CGIH-TLV | 1989 | STEL | 150 ppm | 15 min |
| | NIOSH-REL | 1989 | CL | 200 ppm | 10 min |

Effects and Hazards of Eye Contact
May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.

Effects and Hazards of Skin Contact
Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section.

Effects and Hazards of Inhalation
Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.

Effects and Hazards of Ingestion
This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

Medical Conditions Aggravated by Exposure
Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

## IX. PRECAUTIONARY MEASURES (cont'd)

Other Precautionary Measures (cont'd)
contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.

Precautions to be Taken in Handling and Storing
Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

## X. SPILL AND LEAK PROCEDURES

Precautions in Case of a Spill or Release
If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment/drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424-8802. For highway or railway spills, contact Chemtrec at 800-424-9300.

Waste Disposal Method
Dispose of material in accordance with local, county, state and federal regulations. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

## XI. SARA TITLE III INFORMATION

Section 302/304 Extremely Hazardous Substances
None

## VIII. EMERGENCY AND FIRST AID INFORMATION (cont'd)

Treatment for Ingestion (cont'd)
cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

Notes to Physician
In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

## IX. PRECAUTIONARY MEASURES

Respiratory Protection
If workplace exposure limits for product or components are exceeded, NIOSH equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

Eye Protection
Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles. Do not wear contact lenses when working around this product.

Skin Protection
Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.

Ventilation
Avoid breathing mists and vapor. Use in well ventilated area. In confined space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.

Other Precautionary Measures
Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked with an explosimeter for safety and an oxygen meter to ensure a safe breathing atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that

IX. PRECAUTIONARY MEASURES (cont'd)

Other Precautionary Measures (cont'd)
contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.
Precautions to be Taken in Handling and Storing
Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

X. SPILL AND LEAK PROCEDURES

Precautions in Case of a Spill or Release
If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment/drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424-8802. For highway or railway spills, contact Chemtrec at 800-424-9300.
Waste Disposal Method
Dispose of material in accordance with local, county, state and federal regulations. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

XI. SARA TITLE III INFORMATION

Section 302/304 Extremely Hazardous Substances
None

Material Safety Data Sheet
Mixed Xylenes

XI. SARA TITLE III INFORMATION (cont'd)

Section 311 Hazard Category

| Acute | Chronic | Fire | Pressure | Reactive | Not Applicable |
|---|---|---|---|---|---|
| X | X | X | | | |

Section 313 Toxic Chemicals

| | |
|---|---|
| Ethylbenzene | 35% Maximum |
| Xylene | 95% Maximum |

XII. LABELING INFORMATION

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Flammable Liquid. Vapors may explode.

If swallowed, do not induce vomiting, aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

DISCLAIMER

The information, recommendations and suggestions herein were compiled from reference material and other sources believed to be reliable. However, the MSDS's accuracy or completeness is not guaranteed by Phibro Energy, Inc. or its affiliates, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, no warranties of merchantability or fitness for a particular purpose are expressed or implied. This MSDS is not intended as a license to operate under, or recommendation to infringe on, any patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

Prepared By:

Sue Bottom
Health, Safety and Environmental

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

| | |
|---|---|
| MANUFACTURER'S NAME: UNITED SALT CORPORATION | EMERGENCY TELEPHONE NO.: 713/877-2600 |
| ADDRESS (Number, Street, City, State, and ZIP Code): 2000 WEST LOOP SOUTH, HOUSTON, TX. 77027 | |
| CHEMICAL NAME AND SYNONYMS: Sodium Chloride, Salt, Halite, Solar salt | TRADE NAME AND SYNONYMS: Brine Washed Solar Crystals |
| CHEMICAL FAMILY: Inorganic salt (alkali metal-halogen) | FORMULA: NACL |

## SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS | % | TLV (Units) | ALLOYS AND METALLIC COATINGS | % | TLV (Units) |
|---|---|---|---|---|---|
| PIGMENTS | | None | BASE METAL | | None |
| CATALYST | | None | ALLOYS | | None |
| VEHICLE | | None | METALLIC COATINGS | | None |
| SOLVENTS | | None | FILLER METAL PLUS COATING OR CORE FLUX | | None |
| ADDITIVES | | None | OTHERS | | None |
| OTHERS Not considered toxic - | MLD | I.V. | in rats 2.5 g/kg. | | |

| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES | % | TLV (Units) |
|---|---|---|
| Not applicable | | |
| | | |
| | | |
| | | |

## SECTION III - PHYSICAL DATA

| | | | |
|---|---|---|---|
| BOILING POINT (°F.) | 2575 | SPECIFIC GRAVITY ($H_2O$=1) | 2.165 |
| VAPOR PRESSURE (mm Hg.) 2.7mm at 746 | 9 Deg.C | PERCENT, VOLATILE BY VOLUME (%) | None |
| VAPOR DENSITY (AIR=1) | NA | EVAPORATION RATE (_____ =1) | None |
| SOLUBILITY IN WATER 35.7 g/100 cc | @ 32 Deg. | F. --36.0 g/100 cc @ 68 Deg. F. | |
| APPEARANCE AND ODOR Solid, white or off white crystaline material, no odor | | | |

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | |
|---|---|---|---|
| FLASH POINT (Method used) None | FLAMMABLE LIMITS None | Lel | Uel |
| EXTINGUISHING MEDIA | | | |
| SPECIAL FIRE FIGHTING PROCEDURES Not combustible | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS None | | | |

(Continued on reverse side)

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Oral $LD_{50}$ in white rats 3000 mg/kg

EFFECTS OF OVEREXPOSURE

No acute systemic, chronic systemic or chronic local toxicity. Acute local exposure as an irritant and through ingestion are possible but effects are reversal after exposure.

EMERGENCY AND FIRST AID PROCEDURES

Skin-flush with water; Eyes-Flush with water.

Ingestion of large amounts ( more than 0.1 pound ) may cause vomiting.

## SECTION VI - REACTIVITY DATA

| STABILITY | | | CONDITIONS TO AVOID |
|---|---|---|---|
| | UNSTABLE | | Store under dry conditions, preferably below |
| | STABLE | | 75% relative humidity. |

INCOMPATABILITY (Materials to avoid): Concentrated acids such as sulfuric or nitric.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrochloric acid

| HAZARDOUS POLYMERIZATION | | | CONDITIONS TO AVOID |
|---|---|---|---|
| | MAY OCCUR | | |
| | WILL NOT OCCUR | X | |

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Sweep up and flush with water. No special hazards connected with leaks or spills.

WASTE DISPOSAL METHOD: Dry land fill or dissolve in sufficient amounts of water to meet exixting water quality standards.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): Respirator unnecessary, but may be used for comfort.

| VENTILATION | LOCAL EXHAUST | SPECIAL |
|---|---|---|
| | Not necessary | |
| Normal | MECHANICAL (General): Control dust collector may be used | OTHER |

| PROTECTIVE GLOVES | EYE PROTECTION |
|---|---|
| Desirable, but not required | Gorgles are desirable but not necessary |

OTHER PROTECTIVE EQUIPMENT

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in dry area to avoid caking

OTHER PRECAUTIONS: None

# TEXACO INC.
## INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

NOTE: NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE INFORMATION HEREIN. SEE PAGE 7 FOR CONDITIONS UNDER WHICH DATA ARE FURNISHED.

Trade Name and Synonyms
75022 DIETHYLENE GLYCOL

Manufacturer's Name: Texaco Chemical Company
Emergency Telephone No.: (409) 722-8381

Address: 4800 Fournace Place P.O. Box 430 Bellaire, TX 77401

Chemical Name and/or Family or Description: Glycol

THIS PRODUCT IS CLASSIFIED AS:
X HAZARDOUS BY DEFINITION NO.(S) 7
___ NOT HAZARDOUS:
___ ON ATTACHED EXPLANATION SHEETS

**WARNING STATEMENT:**
WARNING! HARMFUL OR FATAL IF SWALLOWED

## OCCUPATIONAL CONTROL PROCEDURES

Protective Equipment (Type)

Eyes: Chemical type goggles or face shield optional.

Skin: Exposed employes should exercise reasonable personal cleanliness; this includes cleansing exposed skin areas several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.

Inhalation: None required when handling at minimum feasible temperatures.

Ventilation: Normal

Permissible Concentrations:

Air: None established

## EMERGENCY AND FIRST AID PROCEDURES

First Aid

Eyes: As with most foreign materials, should eye contact occur, flush eyes with plenty of water.

Skin: Wash exposed areas with soap and water.

Ingestion: Give large quantities of water, then induce vomiting immediately. Get immediate medical attention. Do not make an unconscious person vomit. Never give anything by mouth to an unconscious person.

Inhalation: None considered necessary.

Other Instructions: None.

N.D. - Not Determined
N.A. - Not Applicable
< - Less Than
> - Greater Than

## PHYSIOLOGICAL EFFECTS:

Code No. 75022

Effects of Exposure

Acute:

Eyes: Believed to cause slight eye irritation.

Skin: Believed to be slightly irritating upon prolonged contact.

Respiratory System: Believed to be minimally irritating.

Chronic: Repeated ingestion over 2 years produced liver and kidney damage and bladder stones in laboratory rats.

Other: -See additional comments pg. 6.

Sensitization Properties:

Skin: Yes ___ No ___ Unknown X  Respiratory: Yes ___ No ___ Unknown X

Median Lethal Dose ($LD_{50}$ $LC_{50}$ )(Species)

Oral: Believed to be 5.0-8.0 g/kg (rat); moderately toxic

Inhalation: Sat. atmosphere (170 C) & fog (70°C), 8-hour = no deaths in rats

Dermal: Believed to be 13.3g/kg (rabbit); practically non-toxic

Other: N. D.

Irritation Index, Estimation of Irritation (Species)

Skin: Believed to be < 0.5/8.0 (rabbit); no appreciable effect

Eyes: Believed to be < 15/110 (rabbit); no appreciable effect

Symptoms of Exposure: See above and additional comments pg. 6.

## FIRE PROTECTION INFORMATION

Ignition Temp.°F. N.D.  Flash Point °F. (Method) 290°F(COC)

Flammable Limits (%) Lower 1.6  Upper 10.8

Products Evolved When Subjected to Heat or Combustion:

Carbon monoxide and carbon dioxide may be formed on burning in limited air supply.

Recommended Fire Extinguishing Agents And Special Procedures:

According to the National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide.
Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:

None.

N.D. - Not Determined  N.A. - Not Applicable
< - Less Than  > - Greater Than

## ENVIRONMENTAL PROTECTION

Code No. 75022

Waste Disposal Method:
Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixture, processes, etc. may render the resulting material hazardous. (See Remarks for Waste Classification.)

Procedures in Case of Breakage or Leakage: (Transportation Spills Call CHEMTREC (800) 424-9300)
Contain spill if possible. Wipe up or absorb on suitable material and shovel up.

Remarks:
Waste Classification: Product has been evaluated for RCRA characteristics and does not meet criteria of a hazardous waste if discarded in its purchased form.

## PRECAUTIONS

WARNING! HARMFUL OR FATAL IF SWALLOWED

Do not drink solution.
Do not store in open or unlabeled containers.
Wash thoroughly after handling.
KEEP OUT OF REACH OF CHILDREN.
CONTAINS DIETHYLENE GLYCOL.

Requirements for Transportation, Handling and Storage:
Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

DOT Proper Shipping Name: Not regulated
DOT Hazard Class (if applicable): N.A.

## CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (°F) 473 Vapor Pressure low (mmHg)

Specific Gravity 1.12 ($H_2O$=1) Vapor Density 3.66 (Air=1)

Appearance and Odor Colorless liquid, slight odor

pH of undiluted product 7.0 Solubility Apprec

Percent Volatile by Volume nil Evaporation N.D. ( )=1

Viscosity 36 cP @ 20°C Other -

Hazardous Polymerizations ____ Occur X Do not occur

The Material Reacts Violently With: (If others is checked below, see additional comments on page 6 for futher details)

| Air | Water | Heat | Strong Oxidizers | Others | None of These |
|---|---|---|---|---|---|
| | | | X | | |

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

4

## COMPOSITION

Code No. 75022

| Chemical/Common Name | CAS No. | Exposure Limit | Range in % |
|---|---|---|---|
| *Ethanol, 2,2'-oxybis- | 111466 | | 100.00 |

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

**PRODUCT SHIPPING LABEL** Code No. 75022

75022 DIETHYLENE GLYCOL

WARNING! HARMFUL OR FATAL IF SWALLOWED

Do not drink solution.
Do not store in open or unlabeled containers.
Wash thoroughly after handling.
KEEP OUT OF REACH OF CHILDREN.
CONTAINS DIETHYLENE GLYCOL.

If swallowed, INDUCE vomiting immediately.
Call a doctor.
NEVER give anything by mouth to an unconscious person.

| Chemical/Common Name | CAS No. | Range in % |
|---|---|---|
| *Ethanol, 2,2'-oxybis- | 111466 | 100.00 |

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

HMIS

| | | | |
|---|---|---|---|
| Health | : 1 | Reactivity | : 0 |
| Flammability | : 1 | Special | : - |

**CAUTION:** Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

HEALTH EMERGENCY TELEPHONE: (914) 831-3400 (EXT. 204)

Texaco Inc.
2000 Westchester Avenue
White Plains, New York 10650

For Additional Information Concerning:

Fuels/Lubricants/Antifreezes
call (914) 831-3400 (EXT.204)
Chemicals/Additives
call (408) 722-8381
Transportation Spills
call CHEMTREC (800) 424-9300

## ADDITIONAL COMMENTS

Code No. 75022

TEXACO INTENDS TO COMPLY FULLY WITH PROVISIONS OF THE TOXIC SUBSTANCES CONTROL ACT
STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1985)
No critical materials present.

Estimated singles lethal oral dose (Human); 1.0 ML/KG
Symptoms of ingestion: Behavioral changes, Drowsiness, Kidney
Failure and Coma Aquatic toxicity rating: TLM 96 HRS. over 1000
PPM: Insignificant hazard.

To determine applicability or effect of any law or regulation with respect to the product, users should consult his legal advisor or the appropriate government agency. Texaco does not undertake to furnish advice on such matters.

By F. E. Bentley Title Coordinator of Product Safety

Date 04-15-86 ☐ New ☒ Revised, Supersedes 11-20-85

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

# TEXACO INC.
## INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

NOTE: NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE INFORMATION HEREIN. SEE PAGE 7 FOR CONDITIONS UNDER WHICH DATA ARE FURNISHED.

DN-1142

Trade Name and Synonyms
75018 ETHYLENE GLYCOL

Manufacturer's Name: Texaco Inc.
Emergency Telephone No.: (914) 831-3400 ext. 204

Address: P.O. Box 509 Beacon, NY 12508

Chemical Name and/or Family or Description: Glycol

THIS PRODUCT IS CLASSIFIED AS: X HAZARDOUS BY DEFINITION NO.(S) 2,5,7,12 ON ATTACHED EXPLANATION SHEETS
_____ NOT HAZARDOUS:

**WARNING STATEMENT:**
WARNING! HARMFUL OR FATAL IF SWALLOWED
MAY CAUSE IRRITATION TO EYES

## OCCUPATIONAL CONTROL PROCEDURES

Protective Equipment (Type)

Eyes: Chemical type goggles or face shield optional.

Skin: Exposed employes should exercise reasonable personal cleanliness; this includes cleansing exposed skin areas several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.

Inhalation: Supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.

Ventilation: Normal

Permissible Concentrations:

Air: 10mg/cubic meter for particulate mist; 50 ppm(125 mg/cubic meter) ceiling limit for ethylene glycol (ACGIH 1984-85)

## EMERGENCY AND FIRST AID PROCEDURES

First Aid

Eyes: Flush with water for fifteen minutes.

Skin: Wash exposed areas with soap and water.

Ingestion: Give large quantities of water, then induce vomiting immediately. Get immediate medical attention.Do not make an unconscious person vomit. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air; if not breathing apply artificial respiration.Get medical attention.Keep affected person warm and at rest.

Other Instructions: None.

N.D. - Not Determined  N.A. - Not Applicable
< - Less Than  > - Greater Than

## PHYSIOLOGICAL EFFECTS:

Code No. 75018

Effects of Exposure

Acute:

Eyes: Believed to cause slight eye irritation.

Skin: Believed to be slightly irritating upon prolonged contact.

Respiratory System: Drowsiness, narcosis, and unconsciousness possible upon exposure to high concentrations in poorly ventilated confined spaces.

Chronic: Liver and kidney damage in 2 year rat feeding study using 1-2% ethylene glycol.
Oral administration of very high doses of ethylene glycol produced birth defects in laboratory animals.

Other: See Additional Comments pg. 6.

Sensitization Properties:

Skin: Yes ___ No ___ Unknown X  Respiratory: Yes ___ No ___ Unknown X

Median Lethal Dose ($LD_{50}$ $LC_{50}$)(Species)

Oral: Believed to be 4.7-8.5 g/kg (rat); moderately toxic

Inhalation: N.D.

Dermal: Believed to be 1-3 g/kg (rabbit); slightly toxic

Other: N. D.

Irritation Index, Estimation of Irritation (Species)

Skin: Believed to be 0.5-1.0/8.0 (rabbit); slightly irritating

Eyes: Believed to be 15-25/110 (rabbit); slightly irritating

Symptoms of Exposure: See above and Additional Comments pg. 6.

## FIRE PROTECTION INFORMATION

Ignition Temp. °F. N.D.  Flash Point °F. (Method) 244 F (PM)

Flammable Limits (%) Lower 3.2  Upper N.D.

Products Evolved When Subjected to Heat or Combustion:
Carbon monoxide and carbon dioxide may be formed on burning in limited air supply.

Recommended Fire Extinguishing Agents And Special Procedures:
According to the National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide.
Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:
None.

N.D. - Not Determined  N.A. - Not Applicable
< - Less Than  > - Greater Than

## ENVIRONMENTAL PROTECTION

Code No. 75018

Waste Disposal Method:
Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixture, processes, etc. may render the resulting material hazardous. (See Remarks for Waste Classification.)

Procedures in Case of Breakage or Leakage: (Transportation Spills Call CHEMTREC (800) 424-9300)
Avoid contact with eyes. Contain spill if possible. Wipe up or absorb on suitable material and shovel up.

Remarks:
Waste Classification: Product has been evaluated for RCRA characteristics and does not meet criteria of a hazardous waste if discarded in its purchased form.

## PRECAUTIONS

WARNING: HARMFUL OR FATAL IF SWALLOWED
MAY CAUSE IRRITATION TO EYES

Do not take internally. Avoid contact with eyes.
Avoid breathing vapor or mist.
Wash thoroughly after handling.
CONTAINS ETHYLENE GLYCOL
Ethylene glycol has produced birth defects in rodents.

Requirements for Transportation, Handling and Storage:
Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

DOT Proper Shipping Name: N.A.
DOT Hazard Class (if applicable): N.A.

## CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (°F) 388 Vapor Pressure LT 0.1 (mmHg)

Specific Gravity 1.13 ($H_2O$=1) Vapor Density 2.14 (Air=1)

Appearance and Odor Clear colorless liquid; mild odor

pH of undiluted product 11.0 Solubility Sol.

Percent Volatile by Volume nil Evaporation LT 1.0 ( )=1

Viscosity 24 cP @ 20 C Other –

Hazardous Polymerizations ____ Occur X Do not occur

The Material Reacts Violently With: (If others is checked below, see additional comments on page 6 for futher details)

| Air | Water | Heat | Strong Oxidizers | Others | None of These |
|---|---|---|---|---|---|
| | | | X | | |

N.D. – Not Determined N.A. – Not Applicable
< – Less Than > – Greater Than

## COMPOSITION

Code No. 75018

| Chemical/Common Name | CAS No. | Exposure Limit | Range in % |
|---|---|---|---|
| *1,2-Ethanediol | 107211 | 50 ppm Ceiling-ACGIH | 100.00 |

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

| PRODUCT SHIPPING LABEL | Code No. 75018 |
|---|---|

75018 ETHYLENE GLYCOL

WARNING! HARMFUL OR FATAL IF SWALLOWED
MAY CAUSE IRRITATION TO EYES

Do not take internally. Avoid contact with eyes.
Avoid breathing vapor or mist.
Wash thoroughly after handling.
CONTAINS ETHYLENE GLYCOL
Ethylene glycol has produced birth defects in rodents.

If swallowed, INDUCE vomiting immediately.
Call a doctor. In case of contact flush eyes with plenty of water for at least fifteen minutes. NEVER give anything by mouth to an unconscious person. FOR INDUSTRIAL USE ONLY.

| Chemical/Common Name | CAS No. | Range in % |
|---|---|---|
| *1,2-Ethanediol | 107211 | 100.00 |

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

HMIS

| | | | |
|---|---|---|---|
| Health | : 1 | Reactivity | : 0 |
| Flammability | : 1 | Special | : - |

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

HEALTH EMERGENCY TELEPHONE: (914) 831-3400 (EXT. 204)

Texaco Inc.
2000 Westchester Avenue
White Plains, New York 10650

For Additional Information Concerning:

Fuels/Lubricants/Antifreezes
call (914) 831-3400 (EXT.204)
Chemicals/Additives
call (409) 722-8381
Transportation Spills
call CHEMTREC (800) 424-9300

## ADDITIONAL COMMENTS

Code No. 75018

TEXACO INTENDS TO COMPLY FULLY WITH PROVISIONS OF THE TOXIC SUBSTANCES CONTROL ACT
STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1986)
No critical materials present.

Lethal dose (human) 1.0-1.5 g/kg. Symptoms of ingestion: Behavioral changes, Drowsiness, Vomiting, Diarrhea, Thirst, Convulsions, Cyanosis, Rapid Heart Rate, Pulmonary edema and renal failure. Acute or chronic oral consumption for products containing ethylene glycol can produce adverse health effects in humans. Such products should NOT be used in potable water systems or other systems where contamination of potable water supplies is possible. This product, when introduced into water systems will be degraded biologically in both surface waters and waste treatment plants, and would therefore present no aquatic toxicity.

To determine applicability or effect of any law or regulation with respect to the product, users should consult his legal advisor or the appropriate government agency. Texaco does not undertake to furnish advice on such matters.

By R. T. Richards Title Mgr. Env. Conservation & Toxicology

Date 05-09-86 ☐ New ☒ Revised, Supersedes 04-15-86

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

# EXPLANATION OF THE INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

## PRODUCT INFORMATION

### Trade Name and Synonyms

Refer to the code number and name under which the product is marketed and the common commercial name of the product.

### Manufacturer's Name and Address

Self explanatory.

### Chemical Name and/or Family or Description

Refer to chemical, generic, or descriptive name of single elements and compounds.

For purposes of this form, a product is defined as hazardous if it possesses one or more of the following characteristics. (1) has a flash point below 200 degrees Fahrenheit, closed cup or subject to spontaneous heating; (2) has a threshold limit value as established by the American Conference of Governmental Industrial Hygenists and/or the Occupational Safety and Health Administration (with exception to petroleum oil mist). (3) a single dose oral LD50 below 500 mg/kg; (4) causes burns to the skin in the short-term exposure or is systemically toxic by skin contact; (5) has been demonstrated to be a skin or eye irritant or causes respiratory irritation; (6) may cause skin or respiratory sensitization; (7) has teratogenic, mutagenic or other toxic effects; (8) may cause asphyxia or pneumoconiosis; (9) in the course of normal operations may produce dusts, gases, fumes, vapor, mist, or smoke which have one or more of the above characteristics; (10) contains a component which may be carcinogenic according to NTP (National Toxicology Program), IARC (International Agency for Research on Cancer), OSHA (Occupational Safety and Health Administration), EPA (Environmental Protection Agency) and/or NCI (National Cancer Institute.); (11) has a median LC50 (RATS) in air of 200 ppm or less by volume of gas or vapor or 2.0 mg/l or less of mist, fume or dust when administered by continuous inhalation for one hour; (12) is a hazard as identified in the Product Shipping Label on page 5.

## OCCUPATIONAL CONTROL PROCEDURES

(Consult your Industrial Hygienist or Occupational Health Specialist.)

### Protective Equipment

Type of protective equiment that is necessary for the safe handling and use of this product.

### Ventilation

Normal means adequate to maintain permissible concentrations.
Ventilation: type, i.e. local exhaust, mechanical, etc.

### Permissible Concentrations

Indicates Threshold Limit Value (TLV) and/or Time Weighted Average (TWA) as established by the American Conference of Governmental Industrial Hygienists and/or standards promulgated by the Occupational Safety and Health Administration.

## EMERGENCY AND FIRST AID PROCEDURES

Administer first aid and emergency procedures in case of eye and/or skin contact, ingestion and inhalation.

## PHYSIOLOGICAL EFFECTS

### Acute Exposures (Eye, Skin, Respiratory System)

Refers to the most common effects that would be expected to occur from direct contact with the product.

### Chronic

Refers to the effects that are most likely to occur from repeated or prolonged exposure.

### Sensitizer

Means a substance which will cause on or in normal living tissue, through an allergic or photodynamic process, a hypersensitivity which becomes evident on reapplication of, or exposure to, the same substance.

### Median Lethal Dose or Concentration (LD50,LC50)

Refers to that dose or concentration of the material which will produce death in 50 per cent of the animals. For inhalation, exposure time is indicated.

### Irritation Index

Refers to an empirical score (Draize Method) for eye and skin irritation when tested by the method described. If numbers are not available, an estimated score indicates whether or not the material is an irritant.

## FIRE PROTECTION INFORMATION

### Ignition Temperature

Refers to the temperature in degrees Fahrenheit, at which a liquid will give off enough flammable vapor to ignite and burn continuously for 5 seconds.

### Flash Point (Method used)

Refers to the temperature in degrees Fahrenheit, at which a liquid will give off enough flammable vapor to ignite.

Flammable Limits

Refers to the range of gas or vapor concentration (percent by volume in air) which will burn or explode if an ignition source is present. Lower means the lower flammable limit and upper means the upper flammable limit given in percent.

Products Evolved When Subjected to Heat or Combustion.

The products evolved when this material is subjected to heat or combustion. Includes temperature at which oxidation or other forms of degradation occurs.

Recommended Fire Extinguishing Agents and Special Procedures

Specifies the fire fighting agents that should be used to extinguish fires. If unusual fire hazards are involved or special procedures indicated, this is specified.

Unsusual Fire or Explosive Hazards

Specifies hazards to personnel in case of fire, explosive danger.

ENVIRONMENTAL PROTECTION

Specifies how this product may be disposed.

Indicates precautions necessary in the event that leakage or breakage occurs. Included are (a) clean-up procedures, (b) personal protective equipment if necessary, (c) hazards that may be created, i.e. fire, explosion, etc.

PRECAUTIONS

Label that is required or recommended.

Requirements for Transportation, Handling and Storage

Specifies handling and storage procedures. Gives ICC, DOT, or other regulations related to safety and health for transportation.

CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (or Range)

In degrees Fahrenheit or Celsius Boiling Point at 760 mmHg.

Vapor Pressure

Pressure exerted when a solid or liquid is in equilibrium with its own vapor.

Specific Gravity

The ratio of the density of the product to the density of water.

Vapor Density

The ratio of the density of the vapor at saturation concentration ( 20 degrees Celsius or 68 degrees Fahrenheit ) to the density of air at 760 mmHg.

Appearance and Odor

Refers to the general characterization of the material, e.g. powder, colorless liquid, aromatic odor, etc.

pH

Refers to the degree of acidity or basicity of the material in a specific concentration.

pH1-5 - STRONGLY ACIDIC
pH5-7 - WEAKLY ACIDIC
pH7-9 - WEAKLY BASIC
pH9-14 - STRONGLY BASIC

Solubility

Refers to the solubility of a material by weight in water at room temperature. The term negligible, less than 0.1 %; slight, 0.1 to 1%; moderate, 1 to 10%; appreciable, 10% or greater. Gives solubility in organic solvents where appropriate.

Percent Volatile By Volume

Refers to the amount volatilized at 20 degrees Celsius or 68 degrees Fahrenheit when allowed to evaporate.

Evaporation

Gives the rate of evaporation compared to a standard

Viscosity

Measure of flow characteristics in Kinematic viscosity in Centistokes.

Hazardous Polymerization

Hazardous polymerization is that reaction which takes place at a rate which produces large amounts of energy. Indicates whether it may or may not occur and under what storage conditions.

Does the Material React Violently

Indicates whether the material will react violently, releasing large amounts of energy when exposed under conditions listed.

Composition

Components of the product as required by OSHA (1910.1200) and one or more state Right to Know laws.

**Texaco Inc.**
**2000 Westchester Avenue**
**White Plains, New York 10650**
**Phone (914) 831-3400 (Beacon)**

HARCROS CHEMICALS INC
KANSAS CITY, KANSAS

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME: POTASH CARBONATE 50# DATE: 06/04/92 PAGE 01
PRODUCT CODE: 16-01259-03

CAS # 000584-08-7

FORMULA: K(2)CO(3)

CHEMICAL FAMILY: Alkali

CHEMICAL NAME AND SYNONYMS: Potassium Carbonate, Anhydrous; Hydrated or Calcined Potassium Carbonate; Pearl Ash; Potash; Potcarb; Carbonic Acid; Dipotassium Salt

SUPPLIERS NAME: Harcros Chemicals Inc
5200 Speaker Rd
Kansas City Ks 66106
SUPPLIERS PHONE NUMBER: 913-321-3131
TRANSPROTATION EMERGENCY PHONE NUMBER: 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS: Fire:No Pressure:No Reactivity:No Acute: Yes Chronic:Yes
PHYSICAL DATA: Mixture:No Pure:Yes Solid:Yes Liquid:No Gas:No

## SECTION I Hazardous Ingredients

| Ingredient | Percent | TLV |
|---|---|---|
| Potassium Carbonate (CAS # 584-08-7) | 100% | NUISANCE DUST PEL-TWA 15mg/m(3) Total Dust OSHA PEL-TWA 5mg/m(3) Respirable Dust OSHA TLV-TWA 10mg/m(3) Total Dust ACGIH |

## SECTION II Health Hazards

Threshold Limit Value: As in Section I.

Potential Effects of Exposure:

Eyes: Severely irritating and may cause conjunctivitis and corneal destruction if not promptly treated.

Skin: Moderately irritating. May cause 1st, 2nd, or 3rd degree chemical exothermic burns depending on concentration and duration of contact. Sensitivity reactions may occur from repeated topical use.

Inhalation: Airborne concentrations of dust, mist or spray may cause damage to the upper respiratory tract and even to the lung tissue proper which could produce chemical pneumonia, depending upon severity of exposure.

Ingestion: Burning pain from mouth to stomach, swallowing difficult and then impossible; mucous membranes soapy and white but become brown edematous, ulcerated; vomitus is bloody, pulse feeble and rapid; collapse may ensue.

Acute Oral LD(50) (rat) = 1870 mg/kg.

Acute - May be severely irritating to all body tissue with which it comes in contact. Tissue destruction may follow if not promptly treated.

CONTINUED ON PAGE 02

SECTION II Health Hazards CONTINUED

Chronic - The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illnesses.

First aid:

Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within one minute is essential to achieve maximum effectiveness. Seek medical attention immediately.

Skin: Wash contaminated areas with plenty of water. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Seek medical attention immediately.

Inhalation: Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is labored, administer oxygen. (Use qualified personel.) Seek medical attention immediately.

Ingestion: DO NOT induce vomiting. Give large quantities of water or milk. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical attention immediately.

Other Information: Practice good industrial hygiene.

Product not listed as Carcinogenic by IARC, NTP, OSHA, or ACGIH.

## SECTION III Special Protection Information

Respiratory Protection: Use a NIOSH/MSHA approved respirator following manufacturer's recommendations if PEL/TLV exceeded for dust, mist or spray.

Ventilation Required: Work in well-ventilated area. Where engineering controls are not feasible, use adequate local exhaust ventilation.

Protective Clothing:

Eyes: Wear face shield and goggles or chemical goggles, plus full face shield to protect against splashing when appropriate.

Skin: Wear rubber gloves, standard work clothing and chemically-resistant safety shoes.

Additional Protective Measures: Wash with soap and water before eating, drinking, smoking or using toilet facilities. Safety shower, eyebath and washing facilities should be available.

CONTINUED ON PAGE 03

## SECTION IV Fire & Explosion Hazard Data

Flash Point (Method): N/A

Flammable Limits (% Volume in Air):

Upper: Non Combustible

Lower: Non Combustible

Extinguishing Media: Use extinguishing agent appropriate to surrounding fire.

Special Fire Fighting Procedures: Avoid inhalation, skin, eye contact with irritating dust, fumes and liquid through use of appropriate full cover clothing and air purifying respirator. Use a pressure demand, self contained breathing apparatus if large concentrations are present in the atmosphere or if Potassium Carbonate is exposed to temperatures above 900 deg. C causing release of significant levels of Carbon dioxide (asphyxiant).

Unusual Fire and Explosion Hazards: None

## SECTION V Physical Data

Boiling Point: N/A

Specific Gravity (H(2)O=1): 2.428 @ 66 deg. F

Vapor Pressure (MM HG.): N/A

Vapor Density (AIR=1): N/A

Evaporation Rate (___=1): N/A

Solubility in Water: @ 32 deg. F: 50%, @ 212 deg. F: 60%

Percent Volatile by Volume: Not Volatile

pH: 11.0 (0.02 moles/liter)

Appearance and Odor: White, granular solid, free-flowing with no distinct odor.

## SECTION VI Reactivity Data

Stability: Stable under normal conditions.

Incompatibility: Avoid acids and excessive heat. Avoid simultaneous presence of this product with lime dust (CaO). The combination of these chemicals in the presence of water or perspiration will cause the formation of irritating caustic potash.

Hazardous Decomposition Products: Carbon dioxide is generated when reacted with acids or exposed to high temperatures > 900 deg. C.

CONTINUED ON PAGE 04

SECTION VI Reactivity Data CONTINUED

Hazardous Polymerization: Will not occur.

## SECTION VII Spill and Leak Procedures

Steps to e taken if material is released or spilled:

Stop leaks. Spills, after containment, should be shoveled up or removed by vacuum truck (if liquid) to chemical waste area. Flush area with large amount of water and dispose of wash water according to federal, state, and local regulation.

Waste Disposal Method:

The materials resulting from clean-up operations may be hazardous wastes and therefore, subject to specific regulations. Package, store, transport, and dispose of all clean-up materials and any contaminated equipment in accordance with all applicable federal, state, and local health and environmental regulations. Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be performed by competent and properly permitted contractors. Ensure that all responsible federal, state, and local agencies receive proper notification of disposal.

## SECTION VIII D.O.T. Shipping Information

| | |
|---|---|
| Proper Shipping Name: | NONE |
| Hazard Class: | NONE |
| ID Number: | NONE |
| Label Requirements: | NONE |
| Reportable Quantity: | NONE |

Other Information:

## SECTION IX Additional Information

This information may be of importance to you:

PRECAUTIONARY STATEMENTS:

Keep storage area dry and separate from acids. Avoid handling procedures that lead to dusting or spills. Drains should have retention basins to allow for recovery of liquid material during wash down of spills. Material is hygroscopic and will absorb moisture.

Avoid contact with eyes, skin, and clothing. Avoid breathing

CONTINUED ON PAGE 05

MATERIAL SAFETY DATA SHEET



SECTION IX Additional Information CONTINUED

dust, mist, or spray. Use with adequate ventilation and employ respiratory protection when exposure to dust, mist, or spray is possible. Wear chemical splash goggles, rubber gloves, and protective clothing when handling. Wash thoroughly after handling. Avoid contact with lime (CaO) to prevent formation of corrosive Caustic Potash (KOH). Keep container closed and dry.

References: 1) The Condensed Chemical Dictionary, Tenth Edition, VanNostrand Reinhold.

HMIS RATING:

Health-2
Flammability-0
Reactivity-0
Special Protection-K

********* E N D O F R E P O R T *********

NAME: GENE TURNER DATE ISSUED: 02/10/1986
DATE REVISED: 06/30/1988

< = LESS THAN N/A = NOT APPLICABLE UNK = UNKNOWN
> = MORE THAN N/D = NOT DETERMINED
N/E = NOT ESTABLISHED

The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. Harcros Chemicals Inc provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Harcros Chemicals Inc knows of no medical condition, other than those noted on this material safety data sheet, which aregenerally recognized as being aggravated by exposure to this product.

TETRA CHEMICALS
P.O. BOX 73087
HOUSTON, TEXAS 77273

DATE: JUNE 1, 1989
EMERGENCY TELEPHONE (800) 327-7817
SUPERCEDES MSDS DATED MARCH 1, 1989

## SECTION I: PRODUCT INFORMATION

| | |
|---|---|
| PRODUCT NAME: | Calcium Chloride Anhydrous |
| SHIPPING NAME: | Not Regulated |
| HAZARD CLASS: | Not Classified |
| D.O.T. WARNING LABEL: | None Required |
| INGREDIENTS: (not specifications) | CAS #: |
| Calcium Chloride 94%-97% | 010043-52-4 |
| Water (balance) | 007732-18-5 |

## SECTION II: HAZARDOUS INGREDIENTS

No Hazardous Ingredients

## SECTION III: PHYSICAL DATA

| | |
|---|---|
| BOILING POINT: | 3515 deg. F, 1935 deg. C |
| VAPOR PRESSURE: | not applicable |
| % VOLATILES BY VOLUME: | not applicable |
| SOLUBILITY IN WATER: | Freely Soluble |
| BULK DENSITY: | 64 lbs/cu. ft. |
| ODOR: | None |
| APPEARANCE: | Small, white, hygroscopic deliquescent granules |

## SECTION IV: FIRE AND EXPLOSION HAZARD DATA

| | |
|---|---|
| FLASH POINT: | not applicable |
| FLAMMABLE LIMITS: | not applicable |
| EXTINGUISHING MEDIA: | non-combustible |
| FIRE and EXPLOSION HAZARDS: | none |
| FIRE-FIGHTING EQUIPMENT: | Wear positive pressure, self-contained breathing apparatus |

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## SECTION V: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Airborne limit is 10 mg/cu.m

EYE: May cause moderate to severe eye irritation with corneal injury, which may be slow to heal.

SKIN CONTACT: Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if confined to skin or if skin is abraded (scratched or cut).

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. The LD50 for skin absorbtion in rabbits is >5,000 mg/kg for calcium chloride.

INGESTION: Single dose oral toxicity is believed to be low. The oral LD50 for calcium chloride in rats is 967 mg/kg. Ingestion may cause gastrointestinal irritation or ulceration.

INHALATION: Vapors are unlikely due to physical properties. Mist may cause irritation to upper respiratory tract.

SYSTEMIC & OTHER EFFECTS: Results of in vitro mutagenicity tests have been negative for calcium chloride.

## FIRST AID

EYES: Irrigate with flowing water immediately and continuously for fifteen (15) minutes. Consult medical personnel.

SKIN: Wash off in free flowing water or shower continuously for fifteen (15) minutes. Consult medical personnel.

INGESTION: If swallowed, induce vomiting immediately. Call a physician. (Never give anything by mouth or attempt to induce vomiting in an unconscious person.)

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

TETRA CHEMICALS
P.O. BOX 73087
HOUSTON, TEXAS 77273

DATE: JUNE 1, 1989
EMERGENCY TELEPHONE (800) 327-7817
SUPERCEDES MSDS DATED MARCH 1, 1989

## SECTION VI: REACTIVITY DATA

STABILITY: Stable. Will absorb water when exposed to atmosphere.

INCOMPATIBILITY: (Specific materials to avoid): Metals will slowly corrode in aqueous solution. Aluminum (and its alloys) and yellow brass will be attacked by calcium chloride. Addition of alkaline compounds may result in the release of ammoniacal vapors.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

## SECTION VII: SPILL AND LEAK PROCEDURES

REQUIRED ACTION: Sweep up granules and discard in proper manner. Calcium chloride can corrode steel containers. Flush area with plenty of water. Walking surfaces may remain wet longer due to moisture being held by spilled material.

DISPOSAL METHOD: Wash away with large excess of water. Keep out of drinking water sources. Comply with local, state and federal regulations.

## SECTION VIII: SPECIAL PROTECTION INFORMATION

Exposure Guidlines: IHG is 10 mg/cu.m for calcium chloride.

Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

Skin Protection: For brief contact, no precautions other than clean body-covering clothing should be needed. Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron or full body suit will depend upon operations. If skin comes in contact with contaminated clothing, remove the clothing immediately, wash skin area with soap and water, and launder clothing before reuse.

Eye Protection: Use chemical goggles. Eye wash fountain should be located in immediate work area.

TETRA CHEMICALS
P.O. BOX 73087
HOUSTON, TEXAS 77273

DATE: JUNE 1, 1989
EMERGENCY TELEPHONE (800) 327-7817
SUPERCEDES MSDS DATED MARCH 1, 1989

## SECTION IX: ADDITIONAL INFORMATION

Special precautions to be taken in handling and storage:

Avoid eye and prolonged skin contact. Always use cool water (temperature less than 80 degree F., 27 degree C.) when dissolving calcium chloride into solution. Considerable heat is generated during mixing. Leather clothing and shoes will be damaged by calcium chloride. Avoid raising pH of solution. Addition of akaline agents, e.g. lime, to substantially raise the pH will result in the evolution of ammoniacal vapors. In the absence of adequate ventilation, care should be exercised to limit exposure of personnel to the vapors. Where threshhold limit values may be exceeded, ventilation should be provided and NIOSH/MSHA approved respirators and goggles used.

TLV'S for ammonia (CAS# 7664-41-7) are listed by ACIH:

| | | |
|---|---|---|
| TWA: | 25 ppm | (18 mg/cu.m) |
| STEL: | 36 ppm | (27 mg/cu.m) |

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. This information herein is given in good faith, but no warranty, of any kind, expressed or implied, is made. Consult Tetra Chemicals for further information.

This MSDS meets the requirements specified in 29 CFR 1910.1200. Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.

FINI ENTERPRISES, INC.
P.O. BOX 808
CELINA, TEXAS 75009
(214) 382-2381
(800) 441-2659
(214) 382-3211 (FAX)

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

| | |
|---|---|
| Manufacturer's Name: Fe-3, Inc. | Regular Telephone No. 1 (214) 382-2381<br>Emergency Telephone No. 1 (214) 382-2381 |
| Address: Business Rt. 289 North, Celina Texas 75009 | |
| Trade Name: $Fe^3$ | |
| Synonyms: FERRIC SULFATE SOLUTION | |
| Shipping Name: DOT: CORROSIVE LIQUID, N.O.S. CORROSIVE MATERIAL (LIQUID FERRIC SULFATE — 40% WATER NA 1760) | |

## II. HAZARDOUS INGREDIENTS

| Material or Component (Typical) | Cas No. | % w/w | Hazard Data |
|---|---|---|---|
| Ferric Sulfate | 10028-22-5 | 59.0 | **Health hazard:** Product is toxic orally, is corrosive to the eye, and will burn the skin. |
| Free Sulfuric Acid | 7664-93-9 | 1.0 | |
| Water (balance of formulation) | | | **Aquatic toxicity:** Ferric sulfate is listed as toxic to aquatic life, Category C. 40 CFR Parts 116-118. |

## III. PHYSICAL DATA

| | | |
|---|---|---|
| Boiling Point, 750 mm hg | Approx. 212° F | Freezing Point: Does not freeze at 0° F |
| Specific Gravity ($H_2O$=1) | 1.58 to 1.60 | Vapor Pressure: NA |
| Vapor Density (Air=1) | NA | Solubility in $H_2O$% by Wt. Infinite |
| % Volatiles by Vol. | NA | Evaporation Rate (Butyl Acetate - 1) |
| Appearance and Odor | Red-Brown solution.<br>No detectable odor. | Ph (as is) Approximately 1.0<br>Ph (1% soln) Approximately 4.8 |

## IV. FIRE AND EXPLOSION DATA

| | | | |
|---|---|---|---|
| Flash Point (Test Method) | N.A. | Autoignition Temperature | N.A. |
| Flammable Limits in Air, % by Vol. | Lower N.A. | Upper N.A. | |
| Extinguishing Media | Product does not burn or support flame. If product is present in a fire, water, $CO_2$ or dry chemical may be used. Product is highly acidic and if in open container avoid splashing. | | |
| Special Fire Fighting Proc. | Do not allow product or water containing product to enter a navigable stream. At temperatures above 600° C, product decomposes to iron oxide and surfur trioxide. | | |
| Unusual Fire & Explosion Hazard | None known. | | |

## V. HEALTH HAZARD INFORMATION

| Health Hazard Data | Hazard Classification | Basis for Classification | Source |
|---|---|---|---|
| **Routes of Exposure** Inhalation | Not determined, but expected to be low due to other toxicological tests, physical and chemical characteristics. | NA | NA |
| Skin Contact | Not a primary skin irritant by FHSA standards. | Primary dermal irritation index = 0.0 for 24 and 72 hours. | Laboratory test in accord with FHSA procedure. |
| Skin Absorption | Not toxic dermally by FHSA standards. | Est. dermal $LD_{50}$ (Rabbit) = (Male) Greater than 2.0 g/kg body weight (Female) Greater than 2.0 g/kg body weight | Laboratory test in accord with FHSA procedure. |
| Eye Contact | Corrosive to the eye by by FHSA standards. | Eye irritation scores:<br>24 hours. . . . . 45.2<br>48 hours. . . . . 56.2<br>72 hours. . . . . 56.3<br>7 days . . . . . 63.4 | Laboratory tests in accord with FHSA procedure. |
| Ingestion | Toxic by FHSA standards. | Oral $LD_{50}$:<br>(Rats-male) = Between 2.5 and 5.0 g/kg body weight.<br>(Rats-female) = Between 2.5 and 5.0 g/kg body weight. | Laboratory tests accord with FHSA procedure. |

**EFFECTS OF OVEREXPOSURE:**

Acute Overexposure: None known except as listed in Section V above.
Chronic Overexposure: None known except as listed in Section V above.

**EMERGENCY AND FIRST AID PROCEDURES**

| | |
|---|---|
| EYES | Immediately irrigate with large amounts of water for at least 15 minutes. Hold eyelids apart during irrigation. Send patient to a physician immediately. |
| SKIN | Flush with water while removing clothing and shoes. Continue to flush for at least 15 minutes. Call a physician. Wash clothes before reuse. |
| INHALATION | Remove from area and give artificial respiration if needed and seek medical assistance. |
| INGESTION | Treat as a corrosive liquid. Drink large quantities of water or milk to reduce concentration and neutralize acid. Do not induce vomiting. Call physician immediately. |

## VI. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:
None Known.

INCOMPATIBILITY:
Product solution is corrosive to mild steel, copper, copper alloys and galvanized steel. May be corrosive to paints, enamels, and concrete. Reacts with lime and other basic materials to form insoluble iron salts.

HAZARDOUS DECOMPOSITION PRODUCTS:
None normally. At temperatures above 600° C, sulfur trioxide may be released.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:
None known.

## VII. DISPOSAL, SPILL OR LEAK PROCEDURE:

AQUATIC TOXICITY (e.g., 96 HR. TLM):
No data is known to be available. EPA has rated ferric sulfate in Category C in the Waters Program hazardous substance list in 40 CFR Parts 116-118.

WASTE DISPOSAL METHOD:
Neutralize with lime, soda ash, or bicarbonate and remove to approved landfill.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Prohibit product from running into streams or navigable waters. Neutralize and remove to approved landfill. Wash down spill area with water. Check with waste treatment plant before flushing down large amounts of spilled product.

NEUTRALIZING CHEMICALS:
Lime (calcium carbonate, calcium hydroxide, calcium oxide), soda ash or sodium bicarbonate.

## VIII. SPECIAL PROTECTION INFORMATION:

VENTILATION REQUIREMENTS:
No special ventilation is believed to be necessary under normal use conditions.

SPECIFIC PERSONAL PROTECTION EQUIPMENT:

RESPIRATORY:
None known necessary under normal use. If mists occur, or may occur, use a respirator having an activated carbon filter suitable for sulfuric acid mists.

EYE:
Chemical goggles should be worn when handling this product as it is corrosive to the eye.

GLOVES
Chemical or rubber gloves should be worn.

OTHER CLOTHING AND EQUIPMENT:
Acid resistant clothing is recommended. Safety shoes are recommended when handling product in drums.

## IX. SPECIAL PRECAUTIONS:

PRECAUTIONARY STATEMENTS:

Product is corrosive to mild steel and containers should bear a corrosive D.O.T. label. There should be a substance placard with UN1760.

OTHER HANDLING AND STORAGE REQUIREMENTS:

Liquid Ferric Sulfate solution is corrosive to mild steel. Storage and equipment materials should include fiberglass, reinforced plastics, plastics, rubber, lead, type 304 or better grades of stainless steel.

ADDITIONAL REGULATORY CONCERNS:

FEDERAL:

FDA:

USDA:

CPSC:

TSCA: Is this product, or all its ingredients, being certified for inclusion on the Toxic Substances Control Act inventory of chemical substances? YES.

OTHER: The ferric sulfate meets the AWWA standard for Ferric Sulfate in potable water. Standard AWWA B406-87.

STATE:

OSHA: Product is a hazardous material as defined by 29 CFR Paragraph 1910, 1200 because it is corrosive to the eye.
Product *is not* listed by the National Toxicology Program, the International Agency for Research on Cancer, nor the Registry of Toxic Effects of Chemical Substances (1981-82) as a carcinogen or potential carcinogen.

SARA TITLE III: Product contains the following listed toxic chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 1986 (SARA TITLE III) and 40 CFR, Part 372.

| Listed Toxic Chemical | CAS# | Max % By Wgt. |
|---|---|---|
| Sulfuric Acid | 7664-93-9 | .5 |

UNION CARBIDE CHEMICALS AND PLASTICS COMPANY INC.

Industrial Chemicals Division

# MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE 12/10/93

Union Carbide urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) request its customers to notify their employees, customers, and other users of the product of this information.

## I. IDENTIFICATION

| | |
|---|---|
| PRODUCT NAME: | TRIETHYLENE GLYCOL |
| CHEMICAL NAME: | Triethylene Glycol |
| CHEMICAL FAMILY: | Ethylene Glycol |
| FORMULA: | HO(C2H4O)3H |
| MOLECULAR WEIGHT: | 150.17 |
| SYNONYMS: | TEG, Glycol-bis(hydroxyethyl)ether |
| CAS # AND NAME: | 112-27-6<br>Ethanol, 2,2'-{1,2-ethanediylbis(oxy)}bis- |

## II. PHYSICAL DATA (Determined on Typical Material)

| | | |
|---|---|---|
| BOILING POINT, 760 mm Hg: | 288°C | (550°F) |
| SPECIFIC GRAVITY(H2O = 1): | 1.126 | AT 20/20°C |
| FREEZING POINT: | -4.3°C | (24°F) |
| VAPOR PRESSURE AT 20°C: | <0.01 | mmHg |

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EMERGENCY PHONE NUMBERS: 1-800-UCC-HELP (NUMBER AVAILABLE AT ALL TIMES) OR (304) 744-3487

UNION CARBIDE CHEMICALS AND PLASTICS COMPANY INC
Industrial Chemicals Division
39 Old Ridgebury Road, Danbury, CT 06817-0001

PRODUCT NAME: TRIETHYLENE GLYCOL

EVAPORATION RATE (Butyl Acetate = 1): <0.001

VAPOR DENSITY (AIR = 1): 5.2

SOLUBILITY IN WATER by wt: 100%

APPEARANCE: Transparent colorless

ODOR: Mild

PHYSICAL STATE: Liquid

## III. INGREDIENTS

| % | MATERIAL | CAS# | EXPOSURE LIMIT |
|---|---|---|---|
| >99.5 | Triethylene Glycol | 112-27-6 | None established |
| 0.1 | Ethylene Glycol | 107-21-1 | 50 PPM ceiling OSHA & ACGIH |

## IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT(test method(s)): 342°F
Pensky-Martens Closed Cup ASTM D 93
330°F
Cleveland Open Cup ASTM D 92

FLAMMABLE LIMITS IN AIR % by volume: LOWER: 0.9 (Calculated)
UPPER: 9.2 (Estimated)

SPECIAL FIRE FIGHTING PROCEDURES: Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.
Use self-contained breathing apparatus and protective clothing.

EXTINGUISHING MEDIA: Apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

PRODUCT NAME: TRIETHYLENE GLYCOL

## V. HEALTH HAZARD DATA

EXPOSURE LIMIT(S): See Section III.

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: Abdominal discomfort, nausea and vomiting may occur.

SKIN ABSORPTION: No evidence of harmful effects from available information.

INHALATION: Short-term harmful health effects are not expected from vapor generated at ambient temperature.
No evidence of short-term harmful effects from respirable aerosol based on available information.

SKIN CONTACT: Sustained contact may cause mild local redness.

EYE CONTACT: No harmful effects expected from liquid.
Vapor or mist may be irritating, experienced as discomfort, excess blinking and tear production, with excess redness of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE:
Exposure to high concentrations of aerosol generated at room temperature may cause lung injury and liver dysfunction.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:

Triethylene glycol was given to rats by inclusion in the diet for 90 days at concentrations of 10,000, 20,000 or 50,000 ppm. At the highest dose, there were decreases in body weight. Physiologic responses to these high doses were observed in kidney weight and urinalysis. No specific organ toxicity was seen.
In a 9-day repeated inhalation exposure (6 hours/day) study with rats, mortality occurred at 4284 mg/m3; at 2011 mg/m3 effects included eye irritation and increased alanine aminotransferase and alkaline phosphatase activities; at 494 mg/m3 there was slightly increased alkaline phosphatase activity.
There was no evidence in developmental toxicity studies for either embryotoxic or teratogenic effects in mice or rats given triethylene glycol by gavage.
Maternal toxicity was seen as reduced body weight and food comsumption, increased water comsumption, and increased relative kidney weight with rats, and clinical signs and increased relative kidney weight with mice.
There was no histologic evidence of damage to the kidneys in either species.
The no-observable effects doses for maternal toxicity were 1126 mg/kg/day for rats and 5630 mg/kg/day for mice. Minor fetotoxicity (reduced fetal body weights and increased skeletal variations) was present with doses of 11260 mg/kg/day for rats and 5630 and 11260 mg/kg/day for mice. The no-observable effect dose for fetotoxicity was 5630 mg/kg/day for rats and 563 mg/kg/day for mice.

PRODUCT NAME: TRIETHYLENE GLYCOL

OTHER EFFECTS OF OVEREXPOSURE:
Overexposure to vapor generated at high temperatures may result in eye and respiratory tract irritation, dizziness, nausea and the inhalation of harmful amounts of material.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING: No emergency care anticipated.

SKIN: Wash skin with soap and water.

INHALATION: Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

EYES: Flush eyes thoroughly with water for several minutes.

NOTES TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## VI. REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (materials to avoid):
Explosive decomposition may occur if combined with strong acids or strong bases and subjected to elevated temperatures. Therefore, avoid strong acids and strong bases at elevated temperatures. Avoid contamination with strong oxidizing agents and materials reactive with hydroxyl compounds.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:
Burning can produce the following combustion products:
Carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: None known.

## VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Small spills can be flushed with large amounts of water; larger spills should be collected for disposal.

WASTE DISPOSAL METHOD:
Incinerate in a furnace where permitted under Federal, State, and local

regulations.

## VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type):
At ambient temperature none needed for vapor.
Wear full face respirator when recurrent exposures to high aerosol concentrations may occur.

VENTILATION: General (mechanical) room ventilation is expected to be satisfactory.

PROTECTIVE GLOVES: PVC-coated
Rubber

EYE PROTECTION: Monogoggles or Faceshield

OTHER PROTECTIVE EQUIPMENT:
Eye Bath, Safety Shower

## IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Caution! Repeated breathing of mist in high concentrations is harmful.
Avoid breathing mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
FOR INDUSTRY USE ONLY

OTHER PRECAUTIONS: WARNING: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions.

Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapors."

## X. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:
The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations.
Trade Secrets are indicated by "TS".

FEDERAL EPA

Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable

quantities (RQs) in 40 CFR 302.4.

Components present in this product at a level which could require reporting under the statute are:

| CHEMICAL | CAS NUMBER | UPPER BOUND CONCENTRATION % |
|---|---|---|
| Ethylene Glycol | 107-21-1 | 0.1 |

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312).

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

Toxic Substances Control Act (TSCA) STATUS:

The ingredients of this product are on the TSCA inventory.

## STATE RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product contains less than 1ppm Dioxane which the State of California has found to cause cancer, birth defects or other reproductive harm.

MASSACHUSETTS Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

PENNSYLVANIA Right-to-Know, Hazardous Substance List Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products.

Components present in this product at a level which could require reporting under the statue are:

HAZARDOUS SUBSTANCES ( => 1%)

| CHEMICAL | CAS NUMBER | UPPER BOUND CONCENTRATION % |
|---|---|---|
| Triethylene Glycol | 112-27-6 | 100 |

CALIFORNIA SCAQMD RULE 443.1 VOC'S:

Vapor Pressure <0.01 mmHg at 20'c
VOC 2 g/L
VOC 2 g/L less water and less exempted solvents

NOTE ----

The opinions expressed herein are those of qualified experts within Union Carbide. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

| | | |
|---|---|---|
| ☒ Telephone ☐ Personal | Time 2:40 pm | Date 7-10-95 |

| Originating Party | Other Parties |
|---|---|
| Pat Sanchez - NMOCD | Russ Guidry CDI (505) - 749 - 2388 |

Subject: Russ wanted to talked about Discharge Plan.

Discussion: Told Russ to use Guidelines & NRCC information - also gave him state Engineer phone & phone to Bureau of Mines at NMIMT - So he could obtain groundwater data. I explained permitting process & told him about fees & public notice & period of 30 days.

Conclusions or Agreements: Russ will obtain information / submit plan.

Distribution

Signed Patricia M. Sanchez

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
525 Camino De Los Marquez
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-4358
Fax (505) 827-4389

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

May 23, 1995

Walter Biggins, Grants Section Chief
RCRA Programs Branch (6H-HS)
U.S. Environmental Protection Agency
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Biggins:

This letter is in response to your verbal request during our meeting in Santa Fe on May 17, 1995 concerning the grant workplan mid-year review. Specifically, you requested a list of the facilities in New Mexico recently inspected by the Region VI Hazardous Waste Division. Enclosed is a list of the facilities that Region VI and contractor staff inspected or had planned to inspect. We have not received any copies of inspection reports or letters from Region VI as a result of the inspections.

Members of my staff accompanied Region VI staff on some of the inspections and are available to answer any questions you may have concerning them. Mr. Roger Anderson of the New Mexico Oil Conservation Division brought some matters of concern to Benito Garcia concerning the Region VI inspection team. Should you have any questions you wish to direct to Mr. Anderson directly, he can be reached at (505) 827-7152. Please feel free to contact me concerning this or any other matter at (505) 827-4308.

Sincerely,

Coby Muckelroy

Coby Muckelroy
RCRA Inspection/Enforcement Program Manager
Hazardous and Radioactive Materials Bureau

Enclosure

xc: Benito Garcia, Chief, HRMB
John Tymkowych, RCRA Inspection Group Supervisor, HRMB
✓Roger Anderson, Oil Conservation Division

XC: CDI File (AZTEC)

| 170-R06032 | FACILITY/LOCATION | EPA SITE ID NO. | INSPECTION DATE | PRC CEI INSPECTION TEAM | SAMPLES COLLECTED | REPORT AUTHOR | REPORT DUE DATE | DATE DELIVERED |
|---|---|---|---|---|---|---|---|---|
| 01 | Multi-site | | | | | | | |
| Farmington, NM | | | | | | | | |
| 02 | Enertek (no report due) | – | 4/3 | Ayers, Butler, Vega, Hess | – | – | None | – |
| 03 | Unichem International | NMD102790128 | 4/3 | Ayers, Butler, Vega, Hess | No | Czechowski | 5/3 | |
| 04 | Weakem-Hall Inc. | NMD097971626 | 4/3 | Ayers, Butler, Vega, Hess | No | Czechowski | 5/3 | |
| * 05 | CDI Chemical Distributors | – | 4/4, 4/5 | Ayers, Butler, Vega, Hess | yes | | 6/2 | |
| 06 | Coastal Chemical Co., Inc. | NMD130100155 | 4/5 | Butler, Hess | No | Senkayi | 5/5 | |
| Aztec, NM | | | | | | | | |
| 16 | Triple S, Totah Rental, Aztec Drilling | – | 4/6 | Butler, Hess, Ayers, Vega | Yes | | 6/5 | |
| Albuquerque, NM | | | | | | | | |
| 07 | National Research Laboratories | NMD130100155 | 4/17 | Ayers, Butler, Vega, Hess | Yes | | 6/16 | |
| 08 | Van Waters & Rogers, Inc. | NMD076467364 | 4/11 | Butler, Collins, Ayers, Vega | No | | 5/11 | |
| 09 | Layton Drum Co. | NMD980868608 | 4/10 | Butler, Hess, Ayers, Vega | Yes | | 6/9 | |
| 10 | Fleming Chemical Company | – | 4/11 | Butler | No | | 5/11 | |
| 11 | Organic Plus | – | 4/13 | Butler | No | | 5/12 | |
| 17 | Solv-Ex | NMD986683597 | 4/12, 4/13 | Butler, Collings Ayers, Vega | Yes | | 6/12 | |
| Artesia, NM | | | | | | | | |
| * 12 | SES — NMED | – | 4/18 | Ayers, Butler, Vega, Hess | Yes | | 6/16 | |
| Carlsbad, NM | | | | | | | | |
| 18 | IMC Fertilizer | NMD035718634 | 4/19 | Butler, Hess, Ayers, Vega | No | | 5/19 | |
| Hobbs, NM | | | | | | | | |
| * 13 | Enviro-Chem | – | 4/25 | Ayers, Butler, Vega, Collins | Yes | | 6/23 | |
| * 14 | B J Western | NMD052377637 | 4/24, 4/25 | Butler, Ayers, Collins, Vega | Yes | | 6/23 | |
| * 15 | Cobra Oil Industries Co. | – | 4/26 | Ayers, Butler, Collins, Vega | Yes | | 6/5 | |

* Possible RCRA problems per Greg Pushin w/ EPA Region Six. (7/6/95)

OIL CONSERVATION DIVISION
RECEIVED
'95 MAY 8 AM 8 52

chemical distributors, inc. 3911 MONROE RD. • FARMINGTON, NEW MEXICO 87401 • PHONE: (503) 327-0274

APRIL 27, 1995

STATE OF NEW MEXICO OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NM 87505

ATTN: MR. PATRICIO W. SANCHEZ

RE: Actions taken to meet NMOCD Guidelines
Farmington Facility
San Juan County, NM

Dear Mr. Sanchez:

Outlines below ar the action that Chemical Distributors, Inc. facility, located at 3911 Monroe Rd. Farmington, NM, will take in regards to the findings by the NMOCD team recently.

1. Clean out for septic will be covered and guarded.
2. Cracked floor in warehouse #1 will be recemented.
3. Rainwater from secondary containment will be used in our product blending.
4. All existing sumps will be cleaned and inspected, at the very least, annually and documented.
5. All new sumps will have a secondary containment and leak detection.
6. All tanks at CDI now have 1 and 1/3 secondary containment cement floors and walls except Magnesium Chloride which is gravel and dirt. As we replace tanks or have funds, cement containments will be done.
7. Leaking lines noted, will be addressed promptly.
8. Leaking tanks will also be addressed with priority.
9. Holes in the side of the wall of warehouse #1 will be addressed in our new office construction.
10. The open pit will be lined with Bentonite and will not hold water for more than 24 hours. We will use water in our Sodium Bisulfite blend.
11. CDI now uses drip pans for any leaks while loading or unloading KCL - TEG storage area. We will pour cement when economics allow.

12. The interconnected sumps between the Magnesium Chloride/KCL/TEG tank farms will be closed.
13. All future construction will meet NMOCD Guidelines for pad, curb, secondary containment, and leak detection.

Sincerely,

Burt Swank
Regional Manager

cc: Jerry Wood
Russ Guidry
Debbie Byrd

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

April 24, 1995

**CERTIFIED MAIL**
**RETURN RECEIPT NO.Z-765-962-662**

Mr. Burt Swank
Chemical Distributors, inc.
3911 Monroe Rd.
Farmington, NM 87401

**RE: Discharge Plan Requirement Inspection**
**Farmington Facility**
**San Juan County, New Mexico**

Dear Mr. Swank:

Outlined below are the observations and findings made by the NMOCD team that recently inspected the Chemical Distributors, inc. facility located at 3911 Monroe Rd. in Farmington, New Mexico.

1. Clean out for septic needs to be covered and guarded.
2. Cracked floor in warehouse I needs to be addressed.
3. Rainwater from secondary containment area needs to be addressed.
4. Sumps - all existing sumps need to be cleaned and visually inspected at least annually.
5. Sumps - any new sumps need 2ndry containment and leak detection.
6. Tank area - all tanks need at least 1 1/3 volume 2ndry containment- address over time as economics allow.
7. Several leaking lines were noted throughout the facility and need to be addressed.
8. Leaking tanks also need to be addressed over time as economics and priority will allow.
9. Warehouse I - holes in the side of the walls may allow precipitation to come into the building and needs to be addressed.
10. Open pit can stay but cannot hold water for more than 24 hours - notify NMOCD District III office in Aztec.

11. Some sort of pad is needed for the loading/unloading area in front of the KCL and TEG storage area.
12. The two interconnected sumps between the MgCl2 and KCL/TEG tank farms will probably have to be closed.
13. All future construction shall meet NMOCD guidelines for pad/curb, 2ndry Containment, and leak detection, as well as other parameters listed in the guidelines where applicable.
14. Note: the Attached diagram.

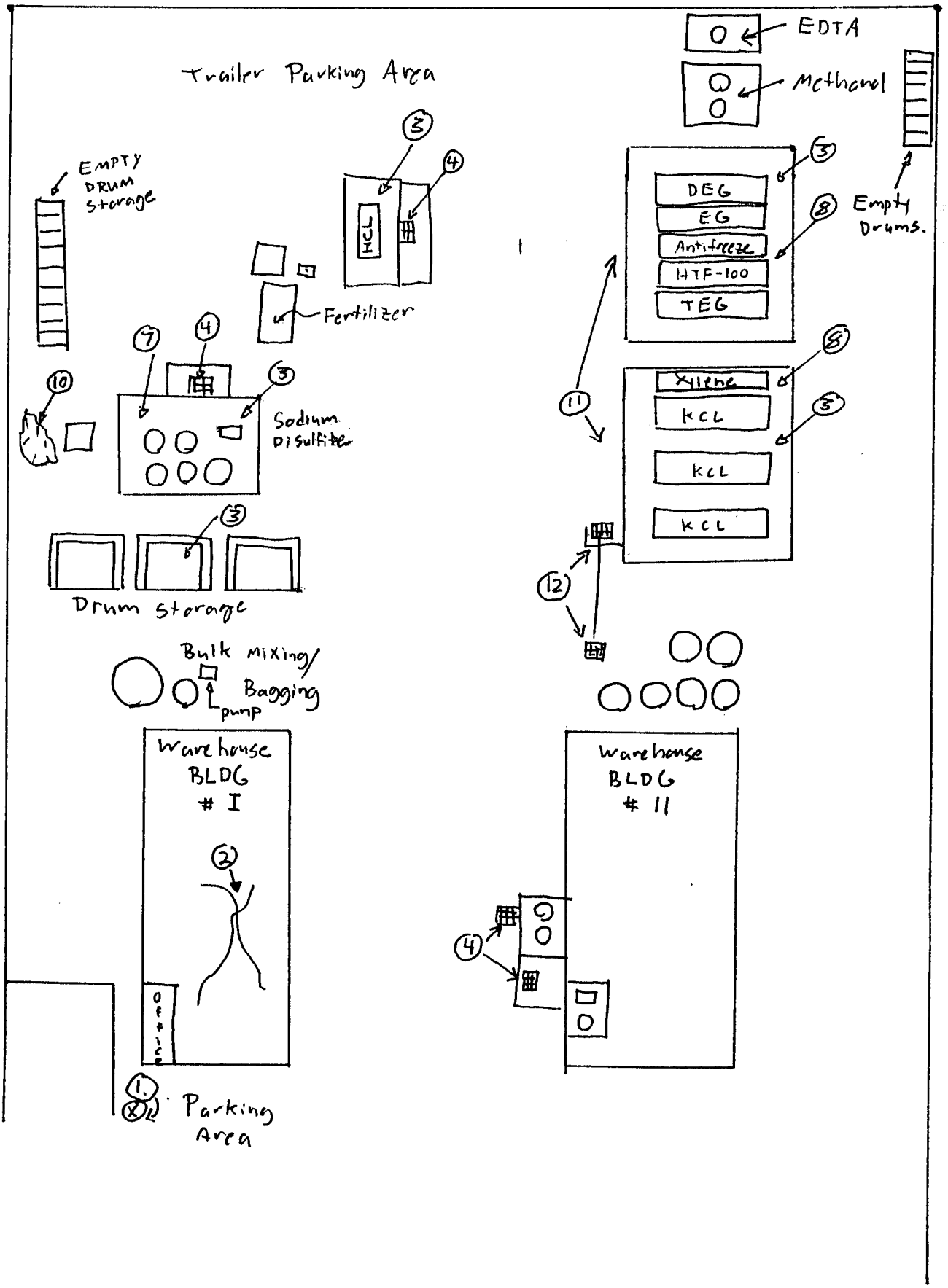
Sincerely,

Patricio W. Sanchez
Petroleum Engineer

XC: Denny Foust

CDI | 4/12/95 | Drawn by PWS.

CHEMICAL DISTRIBUTORS, inc.




NOTE: Not drawn to scale.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

April 21, 1995

**CERTIFIED MAIL**
**RETURN RECEIPT NO.Z-765-962-655**

Mr. Burt Swank
Chemical Distributors, inc.
3911 Monroe Rd.
Farmington, NM 87401

**RE: Discharge Plan Requirement**
**Farmington Facility**
**San Juan County, New Mexico**

Dear Mr. Swank:

Under the provision of the Water Quality Control Commission (WQCC) Regulations, Chemical Distributors, inc. is hereby notified that the filing of a discharge plan is required for the Chemical Distributors, inc. facility located at 3911 Monroe Rd. in Farmington, New Mexico.

The discharge plan is required pursuant to Section 3-104 and 3-106 of the WQCC regulations. The discharge plan, defined in Section 1.101.Q of the WQCC regulations should cover all discharges of effluent or leachate at the facility site or adjacent to the facility site. Included in the plan should be plans for controlling spills and accidental discharges at the facility, including detection of leaks in buried underground tanks and\or piping.

Pursuant to Section 3-106.A, a discharge plan should be submitted for approval to the OCD Director within 120 days of receipt of this letter. Three copies of the discharge plan should be submitted.

A copy of the regulations and guidelines have been provided to Chemical Distributors, inc. at a recent field inspection by OCD staff. Enclosed Chemical Distributors, inc. will find an application form to be used with the guidelines for the preparation of discharge plans at oil & gas service companies. The guideline addresses berming of tanks, curbing and paving of process areas susceptible to leaks or spills and the disposition of any solid wastes.

The discharge plan is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus the flat rate of one thousand, three hundred and eighty ($1380) dollars for oil & gas service companies. The fifty (50) dollar filing fee is due when the discharge plan is submitted. The flat rate fee is due upon approval of the discharge plan.

Please make all checks payable to: **NMED Water Quality Management** and addressed to the OCD Santa Fe office.

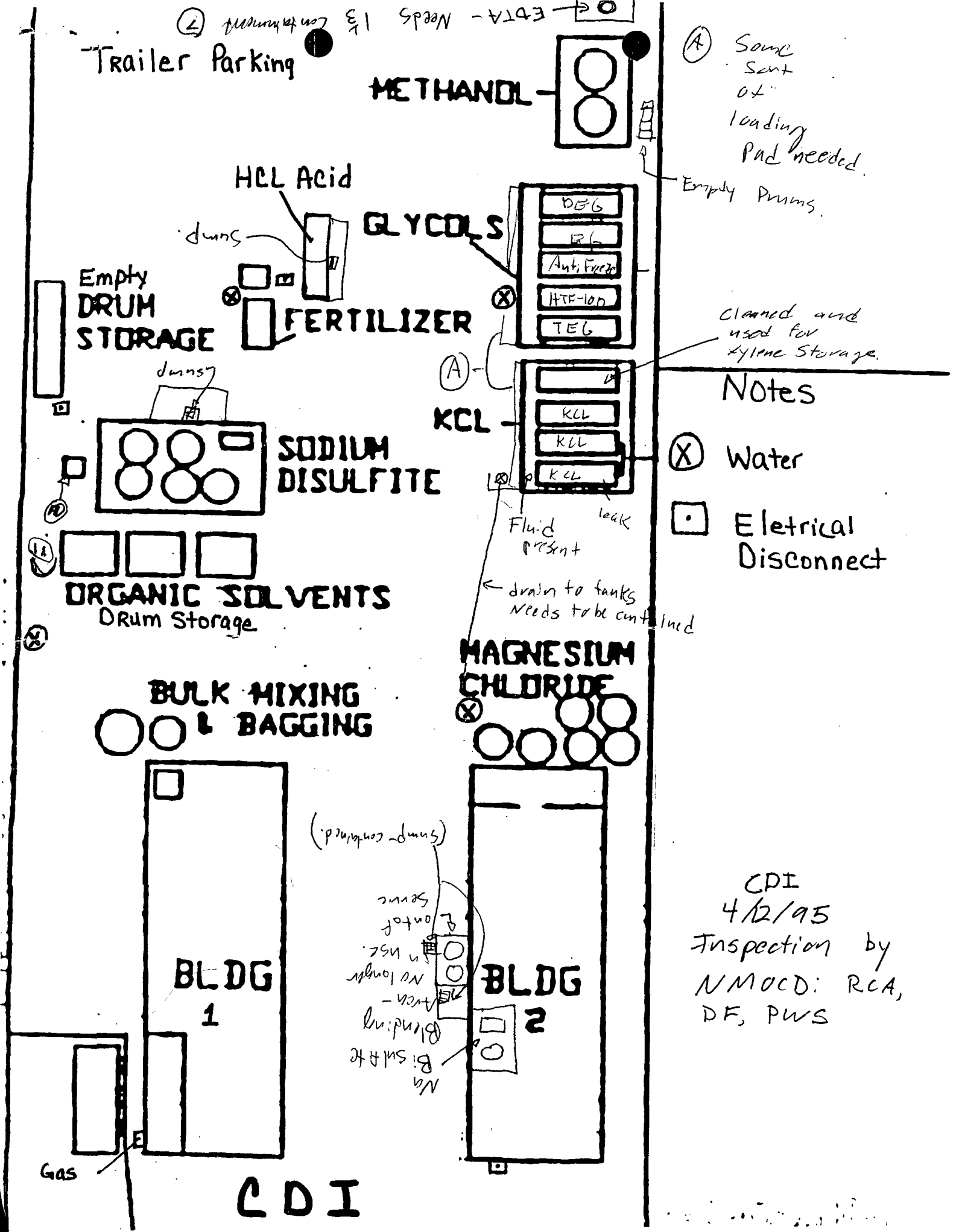
If there are any questions on this matter, please feel free to contact Patricio Sanchez at 827-7156 or Roger Anderson at 827-7152.

Sincerely,

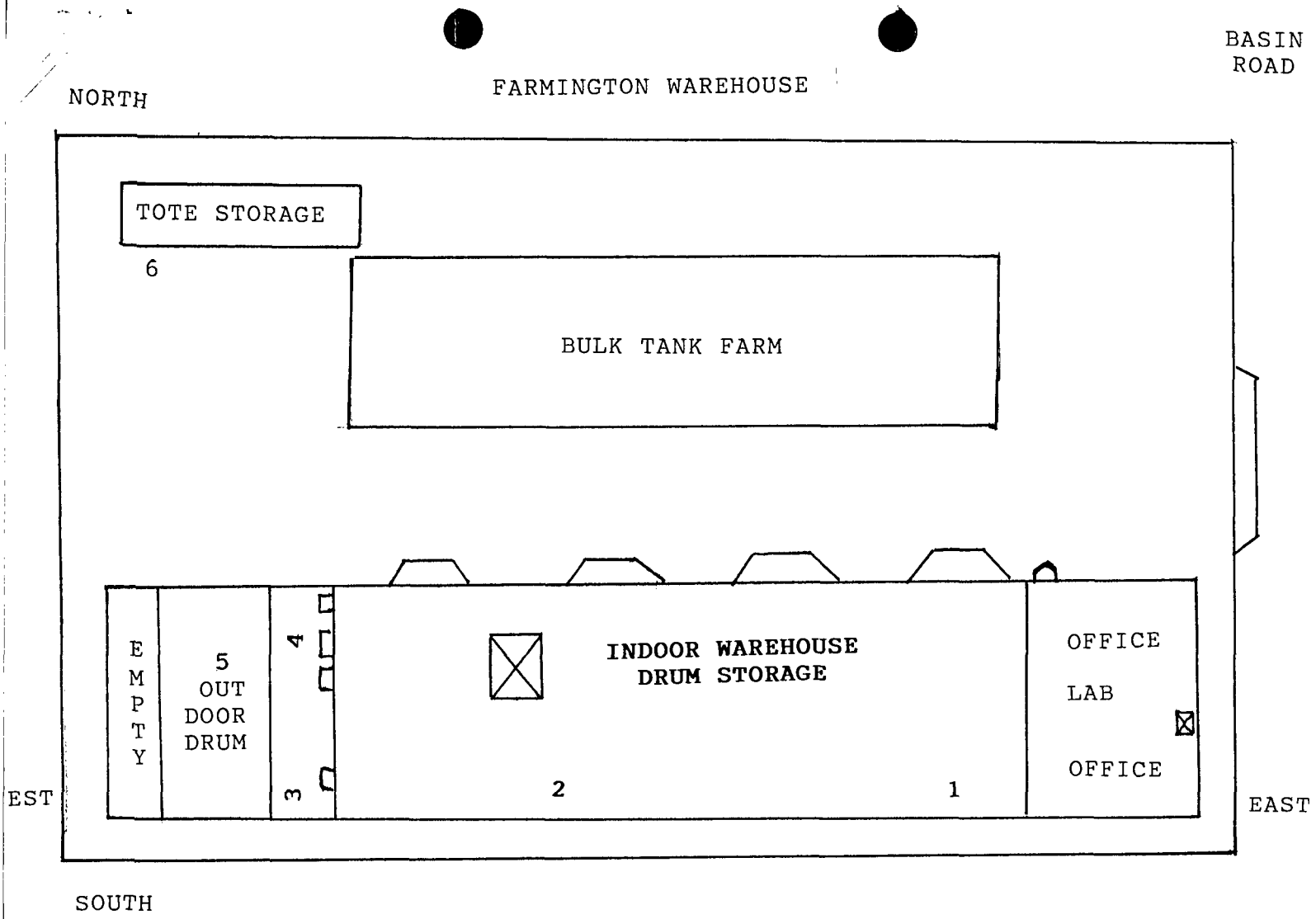
William J. LeMay
Director

WJL/pws

XC: OCD Aztec Office


Trailer Parking
METHANOL
Some Sort of loading Pad needed.
Empty Drums
HCL Acid
dump
GLYCOLS
DEG
EG
Anti Freeze
HTF-100
TEG
Empty DRUM STORAGE
FERTILIZER
Cleaned and used for Xylene Storage.
Notes
KCL
KCL
KCL
KCL
leak
Fluid present
Water
Eletrical Disconnect
dump
SODIUM DISULFITE
ORGANIC SOLVENTS
Drum Storage
drain to tanks Needs to be contained
MAGNESIUM CHLORIDE
BULK MIXING & BAGGING
BLDG 1
BLDG 2
Gas
CDI
CDI 4/12/95 Inspection by NMOCD: RCA, DF, PWS
1995 update

FARMINGTON WAREHOUSE

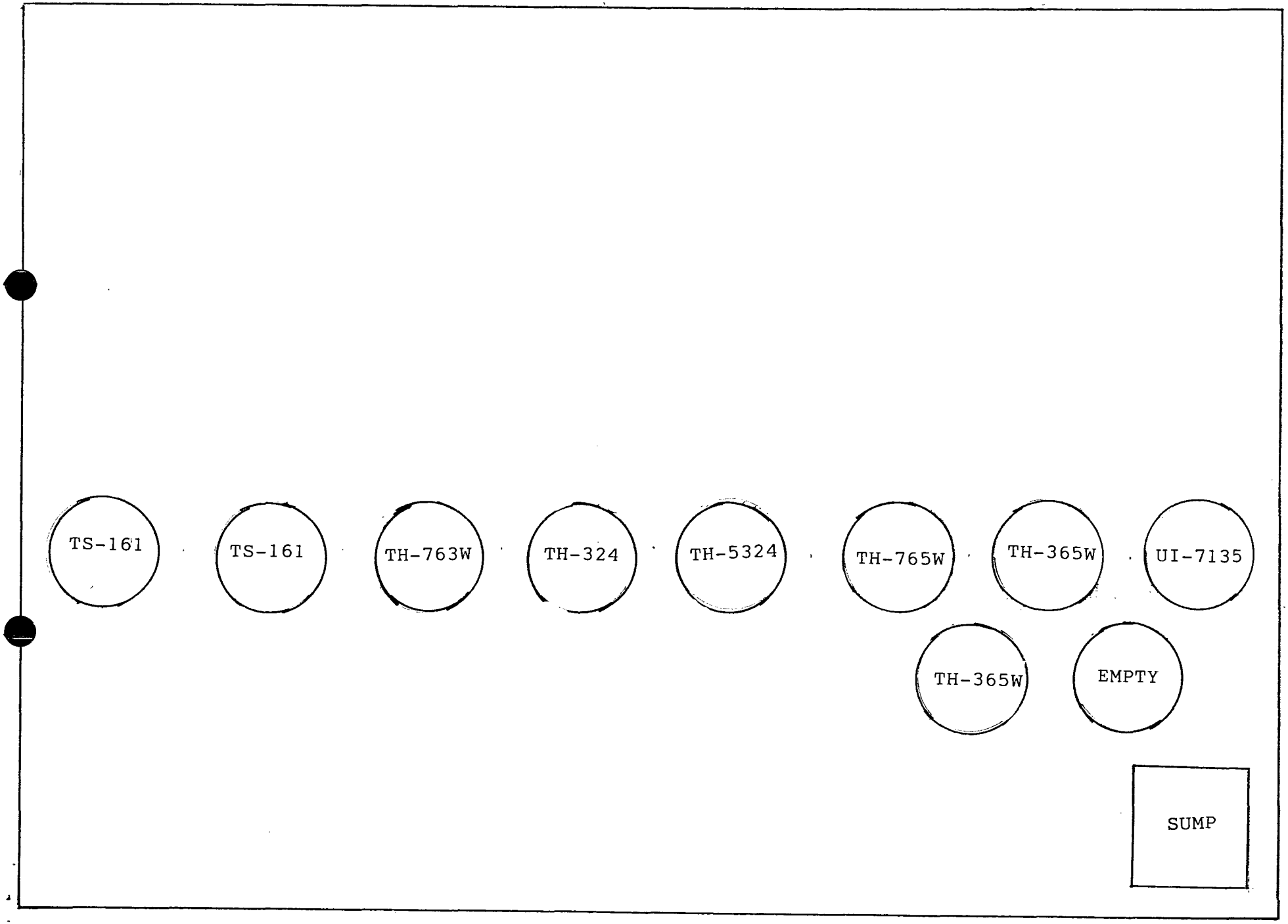



NOTE: Inside warehouse area codes 1, 2, 3, 4, 5, 6

Doors

Hazardous waste storage drum area (55 gal)

FARMINGTON BULK TANK FARM




ALL BULK TANKS ARE 2,000 GALLONS

-CDI GW-219 -

EPA

# U.S. Environmental Protection Agency

Contract No. 68-W4-0007

# RCRA Enforcement, Permitting, and Assistance Contract–EPA Zone II

RECEIVED

AUG 16 1995

Environmental Bureau
Oil Conservation Division

PRC

PRC Environmental Management, Inc.

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# CASE DEVELOPMENT INSPECTION

## CHEMICAL DISTRIBUTORS, INC.
## FARMINGTON, NEW MEXICO

## INSPECTION REPORT

**Prepared for**

**U.S. ENVIRONMENTAL PROTECTION AGENCY**
**Office of Solid Waste**
**Washington, DC 20460**

| | | |
|---|---|---|
| Work Assignment No. | : | R06032 |
| EPA Region | : | 6 |
| Date Prepared | : | July 10, 1995 |
| Contract No. | : | 68-W4-0007 |
| Prepared by | : | PRC Environmental Management, Inc. |
| Telephone No. | : | 214/754-8765 |
| EPA Work Assignment Manager | : | Mr. Greg Pashia |
| Telephone No. | : | 214/665-2287 |

## CONTENTS

# 1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. R06032 from the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) Enforcement, Permitting, and Assistance (REPA) Contract No. 68-W4-0007. Under this work assignment, PRC is assisting EPA in conducting unannounced compliance evaluation inspections and case development inspections at various facilities in New Mexico. To accomplish this task, PRC (1) performed file reviews, (2) provided technical assistance to EPA in conducting unannounced on-site inspections, (3) collected samples of waste streams, if necessary, and (4) generated inspection reports to document inspection activities. The inspections were conducted in conjunction with the EPA Region 6 RCRA Enforcement Branch Pesticide Toxicity Characteristic Leaching Procedure (TCLP) Enforcement Initiative.

This report summarizes the case development inspection of the Chemical Distributors, Inc. (CDI), facility in Farmington, New Mexico (Appendix A, Figure A-1). Section 2.0 provides background facility data; Section 3.0 describes inspection activities and waste management units; and Section 4.0 is a summary. Appendices A through I contain information compiled by PRC, and Attachments A and B contain information provided to PRC during the inspection.

# 2.0 BACKGROUND

The CDI facility consists of an office, warehouse, chemical storage, and chemical blending complex located at the northwest corner of Monroe Road and Browning Parkway in Farmington, San Juan County, New Mexico (Appendix B, Figure B-1). The facility blends and stores oil field production chemicals, and sells them by the drum and truckload (bulk). The company began operating at its current location about 9 years ago. According to facility personnel, CDI is classified as a RCRA conditionally exempt small-quantity generator.

Following are the facility data:

- Facility Address—3911 Monroe Road
  Farmington, NM 87401

- Telephone—(505) 327-0274
- EPA Identification Number—None

## 3.0 VISUAL SITE INSPECTION ACTIVITIES

On April 4, 1995, at 0815, EPA and PRC personnel arrived at the CDI facility, unannounced, to conduct a case development inspection. The inspection concluded on April 5, 1995. The purpose of the case development inspection was to (1) inspect the facility's waste management practices, (2) identify whether the facility was potentially managing hazardous waste, and, if necessary, (3) collect samples from specific waste streams to support potential enforcement actions.

Mr. Greg Pashia, the EPA enforcement officer, began the inspection by explaining the purpose of the visit and introducing the team members. The following personnel participated in the case development inspection:

- Gregory Pashia — EPA
- Mark Butler — PRC
- Jeff Ayers — PRC
- Luis Vega — PRC
- Cynthia Hess — PRC
- Kelly Stock — CDI Vice President
- Burt Swank — CDI Western Regional Manager
- Debbie Byrd — CDI District Manager
- Clancy Calhoun — CDI Operations Supervisor

The following subsections document the site reconnaissance and sampling activities.

## 3.1 SITE RECONNAISSANCE ACTIVITIES

After the introductory meeting, EPA and PRC personnel began the inspection by conducting a site reconnaissance. The team inspected the two warehouses that were used to store bagged chemical products, and all outdoor chemical storage and blending areas. The following subsections document the inspection team's observations during the site reconnaissance.

Appendices C and D contain photographs and inspection notes, respectively. Appendix E contains the RCRA generator checklists.

### 3.1.1 Warehouses 1 and 2

CDI used warehouse 1 to bag and store products—including drums of caustic (sodium hydroxide) (Appendix C, Photographs 2 and 3). Outside the northwest corner of warehouse 1, CDI used two silos to store soda ash and potash, which are bagged inside of warehouse 1 (Appendix C, Photograph 5). PRC observed soda ash sweepings on the floor in the northwest corner of warehouse 1. Most of the floor sweepings are returned to the hopper and bagged. However, a small amount is placed in the special waste dumpster for disposal.

Outside the southwest corner of warehouse 1 is a loading dock (Appendix C, Photograph 6). A sump along the west side of warehouse 1 drains into the loading dock. A field pH of the standing water in the loading dock indicated that the water was not corrosive.

Warehouse 2 contained (1) bags and drums of product material, and (2) vertical tanks that were formerly used to recycle sodium bisulfite. The sodium bisulfite recycling process is now located north of the organic solvent product drum storage area.

### 3.1.2 Organic Solvent Product Drum Storage Area

CDI stores about 50 drums of organic solvents in an area north of warehouse 1 (Appendix C, Photograph 7). The drums are stored on concrete pads; six-inch-high containment curbs are located

on the east and west sides of the concrete pads. Facility personnel stated that (1) a product drum inventory was not available for the storage area, and (2) the unlabeled drums contained ketones.

### 3.1.3 Product Storage Tanks

CDI stores potassium chloride, magnesium chloride, sodium bisulfite, hydrochloric acid, methanol, and glycol products in large vertical storage tanks (Appendix C, Photographs 4, 8, 9, 10, and 12). The storage tanks are located on concrete pads with containment walls that are about 2 feet high. The containment areas for the potassium chloride, magnesium chloride, and sodium bisulfite storage tanks had accumulated varying amounts of liquids. According to facility personnel, all the liquids in the containment areas would be returned to their respective tanks.

In the sodium bisulfite product storage tank area, CDI recycles sodium thiosulfate to sodium bisulfite. The sodium thiosulfate is picked up from the San Juan County generating station. The sodium bisulfite is sold to the City of Phoenix, Arizona, for wastewater processing. The filters used during the recycling process are placed in the special waste dumpster when they are no longer usable. According to facility personnel, (1) CDI tested the filters for TCLP metals, (2) the analysis did not detect any TCLP metals, (3) on the basis of process knowledge, the filters have a pH of about 5, and (4) no analysis was performed for corrosivity (pH).

### 3.1.4 Empty Drum Storage Area

CDI stores newly refurbished drums in the northeast corner of the facility. CDI will fill the drums with its products and sell them to its customers. CDI used to store refurbished drums in the west drum storage area. However, because the west drum storage area was also used to store drums that required refurbishing, CDI created this new storage area for refurbished drums only. Layton Drum of Albuquerque, New Mexico, supplies CDI with refurbished drums.

### 3.1.5 West Drum Storage Area

During the week before the inspection, CDI was storing about 200 to 250 drums along its western fenceline. However, during that week, Layton Drum of Albuquerque, New Mexico, picked up about

100 to 150 empty drums to refurbish them. According to facility personnel, Layton Drum typically picks up about 50 drums from the west drum storage area once every 2 months.

The remaining 100 drums in the west drum storage area were partially filled and stored on wooden pallets (Appendix C, Photographs 13 and 14). According to facility personnel, Layton Drum will not pick up drums unless they are empty. Because almost all of the drums contained at least 1 inch of material, Layton Drum refused to pick up these drums.

The drums in the west drum storage area originally held products that CDI had sold to its customers. CDI picked up the drums—including the partially-filled drums—from its customers and stored them in the west drum storage area. According to facility personnel, the drums (1) had been stored in this area for several years, (2) contained solidified sodium bisulfite or magnesium chloride in the southern end of the storage area, and (3) required refurbishing or disposal. Facility personnel also stated that they were in the process of characterizing the drums in the west drum storage area.

### 3.1.6 Northeast Drum Storage Area

CDI was storing 10 55-gallon drums in the northeast corner of the facility, next to the empty drum storage area (Appendix B, Figure B-1) (Appendix C, Photograph 11). According to facility personnel, the drums (1) contained used chain oil, (2) have been at the facility for about 8 years, and (3) had no market value. Some of the drums did not have any labels. Facility personnel stated that the drums contained waste and would require disposal.

### 3.1.7 Special Waste Dumpster

CDI uses a 3-cubic-yard dumpster to store (1) soda ash sweepings from warehouse 1, and (2) spent sodium bisulfite filters (Appendix C, Photograph 15). The northwest corner of warehouse 1 is used to bag soda ash. If the swept-up soda ash is too contaminated, it is disposed of in the dumpster. Otherwise, the soda ash is placed back into the hopper that is used for bagging. According to facility personnel, Waste Management, Inc., disposes of the waste in the dumpster in the San Juan County landfill about once every 3 to 4 months.

## 3.2 SAMPLING ACTIVITIES

On April 4, 1995, at 1315, PRC began to inventory the drums in the west drum storage area. On April 5, 1995, PRC (1) continued its inventory of the west drum storage area, (2) collected samples from drums in the west and northeast drum storage areas, and (3) provided CDI with split samples in containers provided by CDI. PRC's samples were shipped to PDP Analytical Services for analysis.

Appendix F contains a sampling location map. Appendix G contains a copy of the chain-of-custody forms. Appendix H summarizes the analytical results. Appendix I contains an estimate of the volume and weight of the liquid waste in the drums that were sampled. Attachment A contains the analytical data summary sheets compiled by PDP Analytical Services, PRC's subcontractor laboratory. In June 1995, PRC delivered a complete analytical data package to EPA for data validation.

The following subsections summarize the sampling activities.

### 3.2.1 West Drum Storage Area

Before sampling began, PRC inventoried about 38 of the 100 drums in the west drum storage area (Appendix C, Photographs 16 and 17). PRC documented the inventory in its field logbook (Appendix D). Based on field pH testing, about one-half of the drums appeared to contain small amounts of hydrochloric acid. Five of the drums contained a caustic material (sodium hydroxide) that had a pH of about 14. Many of the drums in the area—including the drums that contained sodium hydroxide—contained solid materials. Drums with high and low pH materials were stored next to each other.

In its inventory, PRC assigned a unique number to 35 drums, and identified the remaining three drums on the basis of their unique exterior markings—such as hazardous waste (F001), xylene, or acetone. The inventory documented the (1) drum type (steel or polyethylene [poly]), color, and exterior marking, (2) height of the material in the drums, (3) pH, and, when readily identifiable, (4) visual description of the contents—including color, and the presence of solids or phased liquids.

On April 5, 1995, EPA and PRC selected Drums 30, 33, 34 and 35 for sampling (Appendix C, Photographs 17 through 21). Each of the sampled drums contained solid material at the base of the drum. Drums 30, 33, and 35 had about 9, 6, and 17 inches, respectively, of solid material. The samples—designated as CDI-DR30-01, CDI-DR33-02, CDI-DR34-03, and CDI-DR35-04—were analyzed for corrosivity (pH) only; the laboratory analysis indicated that the pH was greater than 13. The total weight of the waste in these drums was 1,226 kilograms (Appendix I).

EPA and PRC sampled three additional drums that were located in the northern part of the west drum storage area. Markings on the exterior of the three drums indicated that the drums contained hazardous waste (F001), acetone, and xylene.

PRC collected two grab samples of a clear viscous liquid from the drum marked as hazardous waste (F001) (Appendix C, Photograph 22). The sample, which was designated as CDI-DRHW-05, was analyzed for (1) total and F-listed volatile organic compounds (VOC) (SW-846 Method 8240), (2) TCLP VOCs (SW-846 Methods 1311 and 8240), (3) TCLP semivolatile organic compounds (SVOC) (SW-846 Methods 1311 and 8270), (4) TCLP metals (SW-846 Methods 1311, 6010,and 7000 series), (5) ignitability (flash point) (SW-846 Method 1010), and (6) specific gravity (American Society for Testing and Materials [ASTM] D1429). Total VOCs, TCLP VOCs, and TCLP SVOCs were not detected in the sample. The TCLP metals analysis detected only lead at a concentration that is lower than the RCRA regulatory threshold concentration of 5.0 milligrams per liter. The flash point was greater than 200°F, and the specific gravity was 1.09. The total weight of the waste in the drum was 188 kilograms (Appendix I).

The second grab sample—designated CDI-DRHW-06—was also collected from the drum marked as hazardous waste. This sample was a duplicate of sample 05. The sample was analyzed for (1) TCLP VOCs, (2) TCLP SVOCs, and (3) TCLP metals. No TCLP constituents were detected in the sample.

PRC collected a grab sample of a rust-colored aqueous liquid from the drum that was marked as containing acetone (Appendix C, Photograph 23). The sample, which was designated as CDI-DRACE-07, was analyzed for total VOCs, flash point, and specific gravity. The drum (1) contained 9,800,000 micrograms per liter ($\mu$g/l) of acetone, (2) had a flash point of 130°F, and

(3) had a specific gravity of 0.982. The weight of the waste in the drum was 8 kilograms (Appendix I).

PRC collected a grab sample of a brownish-green phased liquid from the drum that was marked as containing xylene (Appendix C, Photograph 24). The sample, which was designated as CDI-DRXYL-08, was analyzed for total VOCs, ignitability, and specific gravity. The drum (1) contained 820 and 1,200 $\mu$g/l of ethylbenzene and xylene, respectively, (2) had a flash point of 120°F, and (3) had a specific gravity of 0.898. The weight of the waste in the drum was 91 kilograms (Appendix I).

### 3.2.2 Northeast Drum Storage Area

According to facility personnel, the 10 drums in this area contained chain oil. PRC (1) opened seven of the drums, and (2) documented, in the field logbook, HNu readings, pH, and visual observations of the waste. Of the remaining three drums, Drums 1 and 9 were not opened because they had holes, and Drum 7 could not be opened. Drums 2, 3, 4, and 8 had HNu readings above 1,300 units (Appendices D and F). PRC determined that Drum 2 had a field pH of about 14. EPA and PRC sampled drums 2, 4, and 5.

Drum 2 was a black polyethylene drum that was painted blue over most of its surface. The drum contained a clear liquid (Appendix C, Photograph 27). Based on the laboratory's case narrative, the waste stream had a strong ammonia smell (Attachment A). The sample, which was designated as CDI-DRW02-11, was analyzed for total VOCs, TCLP VOCs, corrosivity (pH), flash point, and specific gravity. No total VOCs or TCLP VOCs were detected in this sample. The waste had a pH of greater than 13, a flash point of greater than 200°F, and a specific gravity of 0.980. The total weight of the waste in the drum was 230 kilograms (Appendix I).

Drum 4 was a black steel drum that was marked as containing a scale inhibitor. The drum contained a dark greenish-brown sludge (Appendix C, Photograph 26). The sample, which was designated as CDI-DRSI-10, was analyzed for total VOCs, TCLP VOCs, TCLP metals, flash point, and specific gravity. The analysis for total VOCs detected toluene, ethylbenzene, and xylene at concentrations of 28,000,000; 15,000,000; and 160,000,000 $\mu$g/kg, respectively. The analysis for TCLP VOCs

detected only benzene at a concentration (1,050 $\mu$g/L) that exceeded the RCRA regulatory threshold concentration of 500 $\mu$g/L. The analysis for TCLP metals detected only barium at a concentration that was less than the RCRA regulatory threshold concentration. The flash point was 90°F, and the specific gravity was 0.990. The total weight of the waste in the drum was 210 kilograms (Appendix I).

Drum 5 was a brown steel drum that contained a thick, oily, multi-phased waste (Appendix C, Photograph 25). The sample, which was designated as CDI-DRW01-09, was analyzed for TCLP VOCs, TCLP metals, flash point, and specific gravity. No TCLP VOCs and TCLP metals were detected in this sample. The TCLP metals analysis detected only barium at a concentration that is lower than the RCRA regulatory threshold concentration. The flash point was greater than 200°F, and the specific gravity was 0.984. The total weight of the waste in the drum was 208 kilograms (Appendix I).

## 4.0 SUMMARY

PRC provided technical assistance to EPA Region 6 in conducting a case development inspection of the CDI facility in Farmington, New Mexico. The facility blends and stores oil field production chemicals, and sells them by the drum and truckload (bulk). The company began operating at this location about 9 years ago. According to facility personnel, CDI is classified as a RCRA conditionally exempt small-quantity generator.

In the west and northeast drum storage areas, CDI was apparently storing materials in drums that will be discarded. In the west drum storage area, CDI was storing about 100 partially-filled drums. CDI picked up the drums from its customers, and has stored the drums on site for several years. Many of the drums in the southern part of this area contained solidified materials. In the northeast drum storage area, CDI had stored 10 drums for over 8 years. Facility representatives stated that they believed that the drums contained used chain oil. However, after PRC opened up seven of the drums, they observed several different waste streams—including waste oil.

PRC collected samples from seven drums in the west drum storage area. Based on field pH measurements, EPA and PRC collected samples from drums 30, 33, 34, and 35 in the west drum

storage area. All four drums contained solid material at the base of the drum. Laboratory analysis indicated that the pH in these drums was greater than 13. In the northern part of the west drum storage area, PRC collected samples from three more drums. Two samples—CDI-DRACE-07 and CDI-DRXYL-08—had a flash point of less than 140°F. Based on specific gravity and waste volume measurements, the total weight of the waste sampled in the west drum storage area equaled 1,513 kilograms.

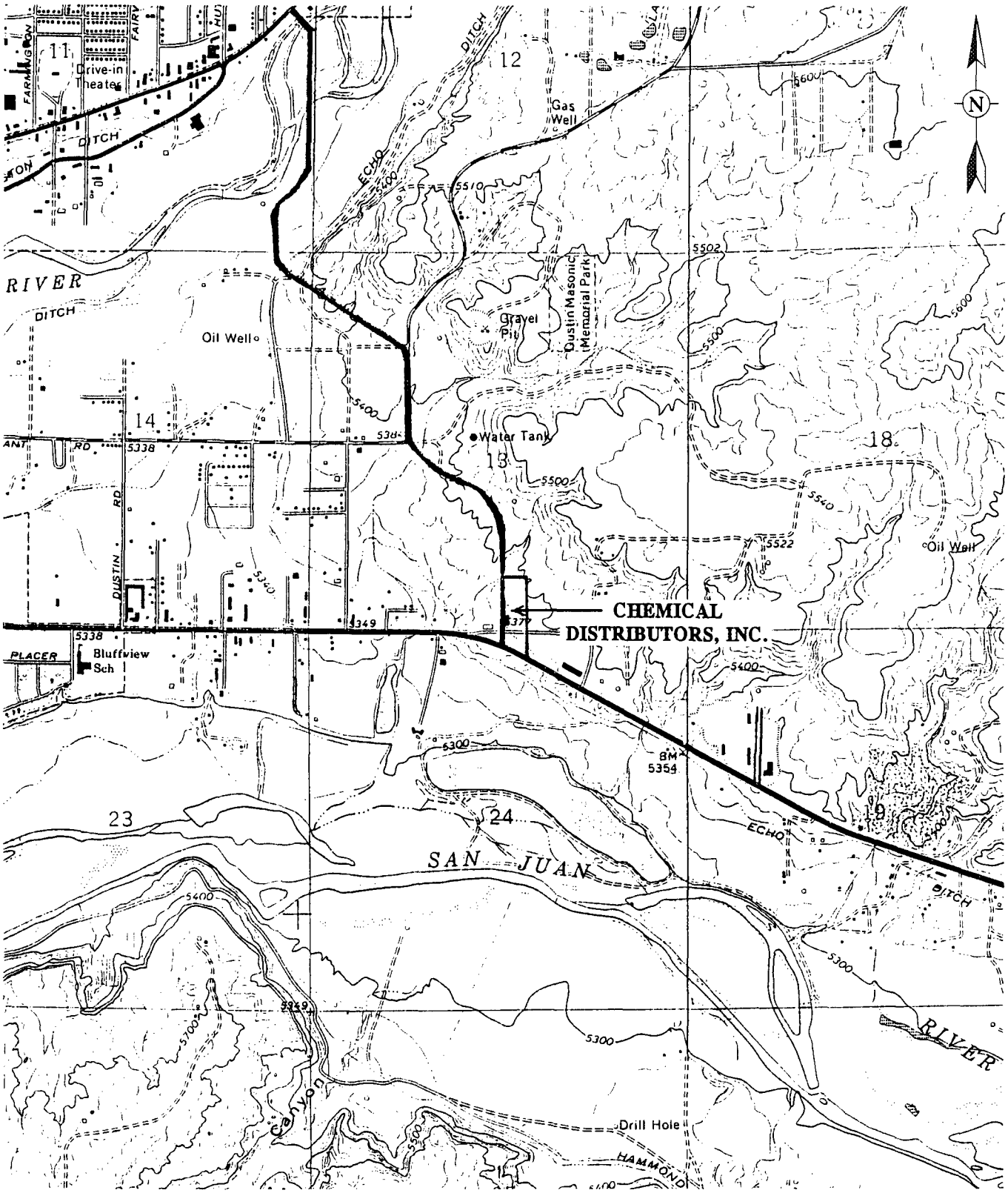
PRC collected samples from three drums in the northeast drum storage area. Sample CDI-DRSI-10 had a flash point of less than 140°F, and contained 28,000,000; 15,000,000; and 160,000,000 $\mu$g/kg of toluene, ethylbenzene, and xylene, respectively. Sample CDI-DRW02-11 had a pH of greater than 13. Based on specific gravity and waste volume measurements, the total weight of the waste sampled in the northeast drum storage area equaled 648 kilograms.

Appendix H summarizes the analytical results. Appendix I contains calculations of waste volume and weight. Attachment A contains the analytical data summary sheets. In June 1995, PRC delivered a complete analytical data package to EPA for data validation.

# APPENDIX A

## FACILITY LOCATION MAP

(One Sheet)





QUADRANGLE LOCATION

0 1000 2000

SCALE IN FEET

SOURCE: MODIFIED FROM USGS, FARMINGTON SOUTH, NEW MEXICO QUADRANGLE, 1979

CHEMICAL DISTRIBUTORS, INC.
FARMINGTON, NEW MEXICO

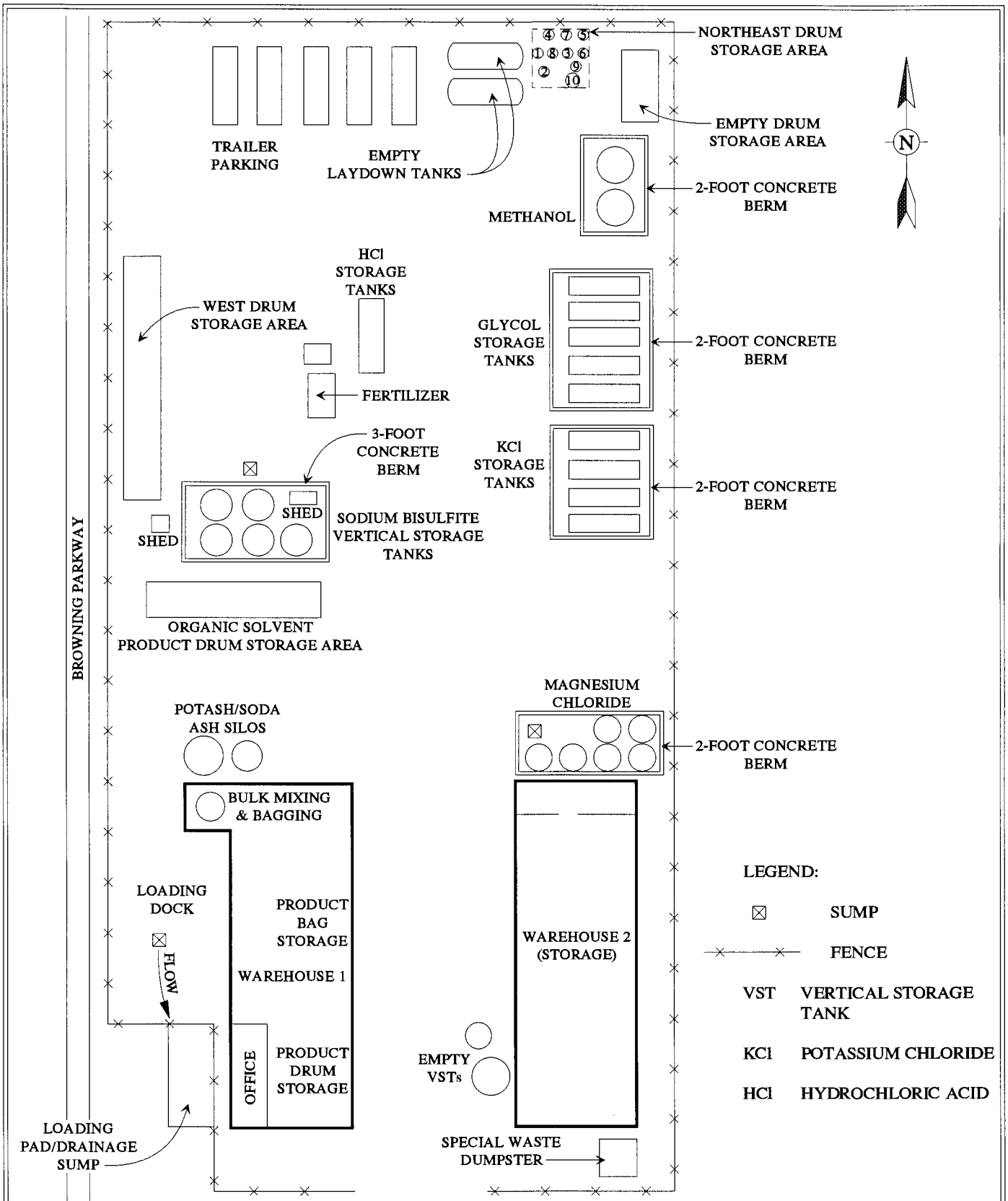
**FIGURE A-1**
FACILITY LOCATION MAP

PRC Environmental Management, Inc.

# APPENDIX B

## FACILITY LAYOUT MAP

(One Sheet)




CHEMICAL DISTRIBUTORS, INC.
FARMINGTON, NEW MEXICO

**FIGURE B-1**
FACILITY LAYOUT MAP

SOURCE: MODIFIED FROM CDI 1995 UPDATE NOT TO SCALE

PRC Environmental Management, Inc.

# APPENDIX C

# PHOTOGRAPHS

(14 Sheets)

**PHOTOGRAPH NO. 1**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: N
Picture Description: Entrance to Chemical Distributors, Inc. (CDI)

**PHOTOGRAPH NO. 2**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: NE
Picture Description: Product storage area in warehouse 1

**PHOTOGRAPH NO. 3**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: SW
Picture Description: Caustic drum storage area in warehouse 1

**PHOTOGRAPH NO. 4**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: SE
Picture Description: Magnesium chloride product tanks and sump

**PHOTOGRAPH NO. 5**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: N
Picture Description: Soda ash and potash silos that are used for the bagging operation in warehouse 1

**PHOTOGRAPH NO. 6**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: S
Picture Description: Loading dock sump along west side of warehouse 1

**PHOTOGRAPH NO. 7**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: W
Picture Description: Organic solvent product drum storage area

**PHOTOGRAPH NO. 8**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: SE
Picture Description: Truck loading sump for sodium bisulfite product tanks

**PHOTOGRAPH NO. 9**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: E
Picture Description: Liquids within the containment area for the potassium chloride storage tanks

**PHOTOGRAPH NO. 10**

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: N
Picture Description: Liquids within the containment area for the glycol product storage tanks

PHOTOGRAPH NO. 11

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: NW
Picture Description: The 10 "chain oil" drums in the northeast drum storage area

PHOTOGRAPH NO. 12


Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: E
Picture Description: Liquids within the containment area for sodium bisulfite product storage tanks

PHOTOGRAPH NO. 13

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: W
Picture Description: Drums in the west drum storage area

PHOTOGRAPH NO. 14

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: NW
Picture Description: Drums in the west drum storage area

PHOTOGRAPH NO. 15

Date: 04/04/95 Picture Taken by: Jeff Ayers, PRC Direction Facing: W
Picture Description: Special waste dumpster containing sodium bisulfite filters

**PHOTOGRAPH NO. 16**

Date: 04/04/95 Picture Taken by: Mark Butler, PRC Direction Facing: N
Picture Description: PRC sampling team characterizing the drums in the west drum storage area

**PHOTOGRAPH NO. 17**

Date: 04/05/95 Picture Taken by: Luis Vega, PRC Direction Facing: NW
Picture Description: pH field test of Drum 35 in the west drum storage area

**PHOTOGRAPH NO. 18**


Date: 04/05/95 Picture Taken by: Luis Vega, PRC Direction Facing: SE
Picture Description: PRC collecting sample CDI-DR30-01 from Drum 30

**PHOTOGRAPH NO. 19**

Date: 04/05/95 Picture Taken by: Luis Vega, PRC Direction Facing: NW
Picture Description: PRC collecting sample CDI-DR33-02 from Drum 33

**PHOTOGRAPH NO. 20**

Date: 04/05/95 Picture Taken by: Mark Butler, PRC Direction Facing: NW
Picture Description: PRC collecting sample CDI-DR34-03 from Drum 34

**PHOTOGRAPH NO. 21**

Date: 04/05/95 Picture Taken by: Luis Vega, PRC Direction Facing: NW
Picture Description: PRC collecting sample CDI-DR35-04 from Drum 35

**PHOTOGRAPH NO. 22**


Date: 04/05/95 Picture Taken by: Lynette Collins, PRC Direction Facing: WNW
Picture Description: PRC collecting samples CDI-DRHW-05 and CDI-DRHW-06 (duplicate) from the drum labeled as containing hazardous waste

**PHOTOGRAPH NO. 23**

Date: 04/05/95 Picture Taken by: Cynthia Hess, PRC Direction Facing: SW
Picture Description: PRC collecting sample CDI-DRACE-07 from the drum marked as containing acetone

**PHOTOGRAPH NO. 24**


Date: 04/05/95 Picture Taken by: Cynthia Hess, PRC Direction Facing: W
Picture Description: PRC collecting sample CDI-DRXYL-08 from the drum marked as containing xylene

**PHOTOGRAPH NO. 25**

Date: 04/05/95 Picture Taken by: Cynthia Hess, PRC Direction Facing: NW
Picture Description: PRC collecting sample CDI-DRW01-09 from the drum marked as containing waste oil

**PHOTOGRAPH NO. 26**

Date: 04/05/95 Picture Taken by: Mark Butler, PRC Direction Facing: W
Picture Description: PRC collecting sample CDI-DRSI-10 from the drum marked as containing a scale inhibitor

PHOTOGRAPH NO. 27

Date: 04/05/95 Picture Taken by: Cynthia Hess, PRC Direction Facing: W

Picture Description: PRC collecting sample CDI-DRW02-11 from Drum 2

# APPENDIX D

# INSPECTION NOTES

(24 Sheets)

Field Logbook No. _____ Date 4.4.95

Project No. _____

Project Name CEI - CDI

0815 CDI ARRIVE AT SITE.
0840 INSPECTION BEGINS. ABOUT
~~50~~ 64. 5 TRUCKS, EXCLUSIVE
TO CHEMICALS, WASHED AT
SITE. CDI RECYCLES
THIOSULPHATE → SODIUM
BISULPHITE TAKES THIS
FROM PNM GENERATING STATION
CITY OF PHOENIX FOR WW
~~METHANOL~~ ? PROCESSING.
USES IT
SPECIAL DUMPSTER FOR
SODIUM BISULPHITE FILTERS. CITY
PICKS UP; DUMPSTER IS
DEDICATED. "SALT CAKE."
ACIDIC. HE GUESSES A
pH OF 5. NEED TO
CONFIRM.



Field Logbook No. _____ Date 4.4.95

Project No. _____

Project Name CEI - CDI

CLANCEY CALHOUN, OPERATIONS
SUPERVISOR. DEBBIE BYRD
DISTRICT MANAGER TO ARRIVE
LAYTON
~~LATENT~~ HAULED OFF DRUMS LAST
WEEK. TOOK APPROXIMATELY A
50 LOAD.
DRUMS HAVE BEEN
DRUMS ~~WERE~~ STACKED ON
WEST SIDE MOVING TO EAST
SIDE. AT THIS TIME, DRUMS ON BOTH
SIDES OF FACILITY.
MAGNESIUM CHLORIDE & SODIUM
BISULPHITE DRUMS WITH
SOLIDS. CURRENTLY STACKED.
MAGNESIUM CHLORIDE IS FOR
DUST SUPPRESANT

Field Logbook No. _____ Date 4.4.95

Project No. _____

Project Name CEI-CDI

SETTING INTO HYDROCHLORIC ACID & CAUSTIC SODA BUSINESS. THESE HAVE LOW & HIGH pH.

OFFICE IS HOOKED UP TO SEWER. THE PLANT ~~IS~~ @ CH FACILITY IS NOT HOOKED UP.

SELLS ANTIFREEZE, GLYCOLS, BLEACHES, CAUSTIC SODA EMPTIES. SELLS HYDROCHLORIC ACID, BLEACHES. SELLS CAUSTIC SODA BEADS.

BUSINESS: 9 YEARS OLD



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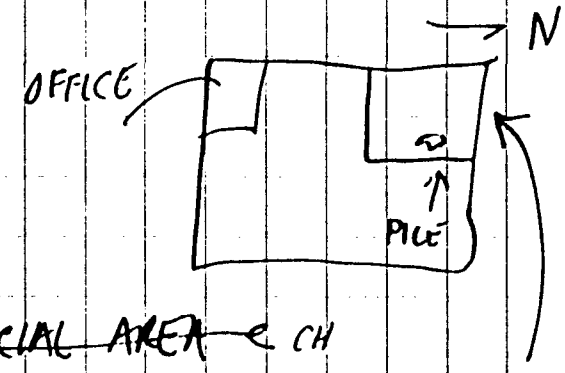
ACCEPTS ONLY CDI DRUMS. SUMP WATER IS PUT BACK IN TANKS.

NO OIL CHANGES DONE HERE.

LEFT OVER SODA ASH IS USED TO CLEAN UP SPILLS, AS A NEUTRALING AGENT.




~~SPECIAL AREA~~ @ CH

~~A DRUM~~ @ CH

CLANCEY STATES THAT ~~SPEC~~ @ ANY

SODA ASH BAGGER

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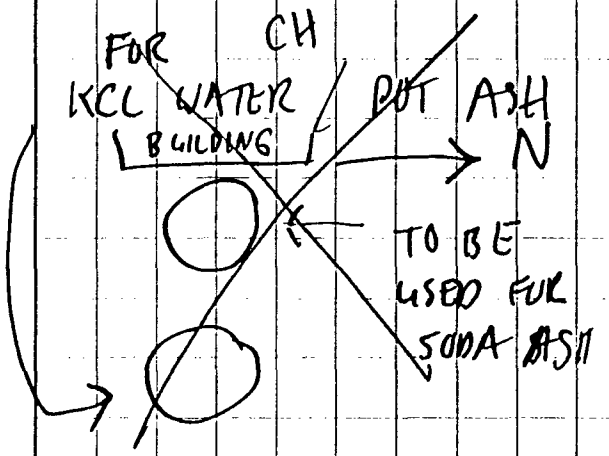
THAT ~~GOES~~ IS THROWN OUT (NOT ANCIA) GOES INTO SPECIAL DUMPSTER.




SODA ASH HOPPER HAS RESIDUE UNDERNEATH IT, SUMP DRAIN AT LOADING DOCK.



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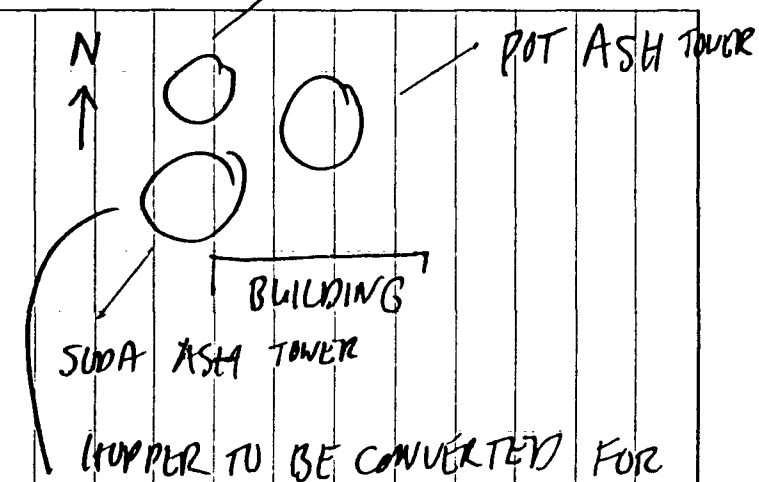
Project Name CEI-CDI, SODA ASH TOWER




HOPPER TO BE CONVERTED FOR SODA ASH

DRUMS ON WEST FENCELINE: A NUMBER OF PRODUCT DRUMS WITHOUT LABELS, MARK ASKS WHAT THESE ARE? KETONES. THEY STATE THAT THE PRODUCT IS STILL USABLE. CLANCY STATED THAT THERE IS NO INVENTORY OF THIS AREA.

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PRODUCT STORAGE TANKS. WATER STANDING UNDER ALL TANKS, DISCOLORED. CATCHMENT UNDER A COUPLE OF TANKS (DEG, ANTIFREEZE).

SERIES OF "EMPTIES" FROM ~~"LATENT"~~ LAYTON IN NE CORNER.

IN NE CORNER. DRUMS WITH "CHAIN OIL". "BEEN HERE AS LONG AS I CAN REMEMBER" DEBBIE. SHE STATES THAT "THERE IS NO MARKET." 10 DRUMS NO LABELS ON SOME.



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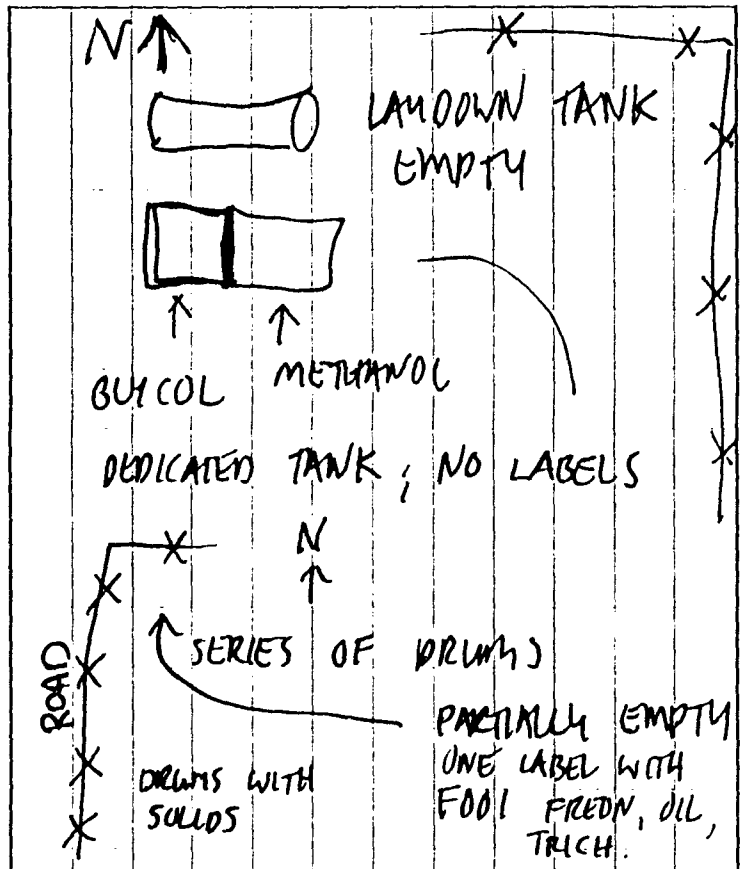


MARK ASKS WHAT THE WASTE IS. CLANCEY STATES THAT "THERE ARE OTHER THINGS" BESIDES SOLIDS OF SODIUM BISULPHITE.

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Project Name CEI-CDI

CH ~~THESE ARE~~ CH
50-80 DRUMS
SOME HAVE LIQUID, SORTING
EMPTIES, MOVING SOME TO
NE CORNER ~~& THO~~ CH
THERE ARE EMPTIES IN THE
NE CORNER. LAYTON ~~LATENT~~ CH ~~WENT~~
PICKED UP 50 EMPTIES LAST
WEEK. THE DRUMS ON THE
WEST SIDE ARE "REJECTS"
FROM CH ~~LATENTE~~ LAYTON
"CHAIN OIL" DRUMS IN NE CORNER.
DEBBIE HAS BEEN HERE.
APPROXIMATELY 8 YEARS.
DRUMS HAVE BEEN HERE
THAT LONG.



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Project Name CEI-CDI

1040 KELLY STOCK, VICE PRESIDENT
ARRIVES. KELLY STATES
THAT "WHEN WE GET SOMETHING
WE DON'T KNOW ABOUT, WE
PUT IT IN A DRUM."

FARMINGTON (HEADQUARTERS)
EL PASO
ALGOA (?), TX
PT. ARLEN, LA
IN STORAGE BUILDING ON EASTSIDE:
ANTIFREEZE PUMP STARTED
LEAKING. LARGE OIL SPILL
IN ~~WEARHOUSE~~ WAREHOUSE CH ON EAST
SIDE OF PROPERTY.

SODIUM BISULPHITE RECYCLING
OPERATION (ON TAPE). ~~OPERA~~ CH

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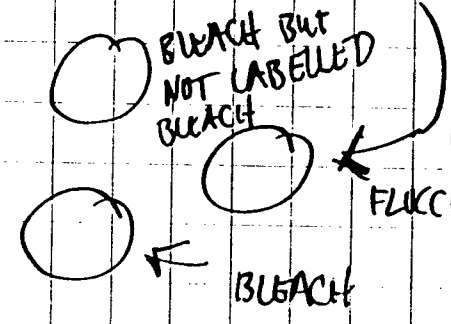
Project Name CEI - CDI

LIQUID FORM
& ARRIVES W/ 4 1/2 pH.
THEY CUT IT WITH WATER.
SPECIFIC GRAVITY &
PERCENTAGE SPECS BEFORE
SELLING. LEAVES WITH
A pH OF ABOUT 5.

~~POLYMER~~
POLYMER + BLEACH




DRUMS UP AGAINST EAST
~~WAREHOUSE~~ WAREHOUSE.



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Project Name CEI - CDI

MURIATIC ACID = HYDROCHLORIC ACID
FERRIC SULFATE CORROSIVE MATERIAL
UN 1789 UN 1760

1215 LEFT SITE FOR LUNCH.
MARKED DRUMS TO BE ~~RE~~ CH
SAMPLED IN THE P.M.

1315 RETURN TO SITE. PREPARE
TO SAMPLE; CDI STAFF
WILL OPEN DRUMS. JEFF &
LUIS STAGE DRUMS.

PRC: MARK BUTLER, CYNTHIA HESS,
LUIS VEGA, JEFF AYERS

EPA: GREG PASHA

Field Logbook No. _____ Date 4.4.95

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Project Name CDI-CEI

1442 : 3.9-4.0 ppm (BG)
MICROTIP PHOTOVAC READING (HNU)

DRUM 1 POLY, BLACK, CORROSIVE STICKER, CDI LABEL:
FERRIC SULFATE
pH = ≤1
VOLUME DEPTH = 2.5 IN

SAMPLING LOCATION DESCRIPTION
DRUMS LOCATED ALONG WEST FENCELINE. ALL 55 GALLON DRUMS

DRUM 2 POLY, BLACK, CORROSIVE STICKER, CDI LABEL:
FERRIC SULFATE
pH = ≤1
VOLUME DEPTH = 1.5 IN



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Project Name CDI-CEI

DRUM 3 SAME DESCRIPTION AS DRUM 2
pH = ≤1
VOLUME DEPTH = 1.5 IN

DRUM 4 POLY, BLUE, HYDROCHLORIC ACID LABEL (CDI)
pH = ≤1
VOLUME DEPTH = 1.5 IN

DRUM 5 POLY, BLACK, MURIATIC ACID LABEL (CDI)
pH = ≤1
VOLUME DEPTH = 1.5 IN

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Project Name CEI - CDI

DRUM 6 POLY, BLACK, CORROSIVE STICKER, NO CHEMICAL LABEL pH = ≤1
VOLUME DEPTH = 1 IN

DRUM 7 POLY BLACK, FERRIC SULFATE LABEL (CDI)
pH = ≤1
VOLUME DEPTH = 1 IN

DRUM 8 HYDROCHLORIC ACID LABEL (CDI), POLY, BLUE, pH = ≤1
VOLUME DEPTH = 1 IN

DRUM 9 POLY, BLUE, HYDROCHLORIC ACID LABEL (CDI)
pH = ≤1, VOL. DEPTH = 2.5 IN



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Project Name CEI - CDI

DRUM 10 POLY, BLUE, HYDROCHLORIC ACID LABEL (CDI), pH = ≤1
VOLUME DEPTH (VD) = 3 IN

DRUM 11 POLY, BLUE, HYDROCHLORIC ACID LABEL (CDI)
pH = ≤1 VD = 1.5 IN

DRUM 12 POLY, BLUE, WITH BLACK PEELING PAINT, NO LABEL
~~pH = 1 e~~ CH VD = 7.5 IN
pH = 7

DRUM 13 POLY, BLACK, ~~NA 2693 ON~~
~~FADED e~~ pH = 5
VD = 4.5 IN (LIQUID)
SOLID AT BOTTOM
SODIUM ~~SULFITE e~~ ~~BLe~~ CH CH LABEL
(CDI) BISULFITE V

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Project Name CEI - CDI

DRUM 14 POLY, BLUE, NO LABEL
pH = 14 VD = 10.5 IN

DRUM 15 POLY, BLUE, NO LABEL
pH = 5 VD = 3 IN

DRUM 16 POLY, BLACK, NO LABEL,
pH = 5 VD = 7 IN
COLOR: CLEAR & CRYSTALLINE

DRUM 17 POLY, BLUE, NO LABEL
pH = 5 VD = 7 IN
CLEAR & CRYSTALLINE

DRUM 18 POLY, BLACK, NaOH STENCIL
pH 5 VD = 4 IN
CLEAR LIQUID



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Project Name CEI - CDI

DRUM 19 POLY, BLACK, NO PAPER LABEL, ON LID: MC-CL
pH = 6 VD = 1 IN

DRUM 20 POLY, BLACK, NO LABEL
pH = ≤2 VD = 4 IN
CRYSTALLINE PRIMARILY

DRUM 21 POLY, BLACK, MURIATIC ACID LABEL, pH = 3
VD = ≤1 IN
CLEAR LIQUID

DRUM 22 POLY, BLUE, MURIATIC ACID LABEL, pH = ≤1, VD = 1.5 IN
CLEAR LIQUID

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Project Name CDI-CEI

DRUM 23 POLY, BLACK
pH = ≤1 VD = 1
HYDROCHLORIC ACID
LABEL

DRUM 24 POLY, BLACK, MURIATIC
ACID, CLEAR LIQUID
pH = 1 VD = 2 IN

DRUM 25 POLY, BLACK, CLEAR
LIQUID, HYDROCHLORIC ACID
pH = 1 VD = 1.5

DRUM 26 POLY, BLUE, CLEAR LIQUID
pH = 5 VD = 3
NO LABEL



Field Logbook No. _____ Date 4.4.95

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Project Name CDI-CEI

DRUM 27 POLY, BLACK, MURIATIC ACID
pH = 1 VD = 1.5
CLEAR LIQUID

DRUM 28 POLY, BLACK, NO LABEL
pH = 6 VD = 3.5 IN
CLEAR LIQUID

DRUM 29 POLY, BLACK, NO LABEL
pH = 3 VD = 4.5
CLEAR W/ CRYSTALLINE

1550 : LUIS TAKES HNU READING
AT VARIOUS DRUM BUNG HOLES
AMBIENT LEVELS ONLY

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Project Name CEI - CDI

DRUM 30 POLY, BLUE, SODIUM HYDROXIDE LABEL, CLEAR LIQUID PLUS SOLID pH = 14
VD (LIQUID) = 19 IN
VD (SOLID) = 9 IN

DRUM 31 POLY, BLUE, FERRIC SULFATE, STENCIL POLYMER BLEND
OILY, THICK, YELLOW LIQUID W/ RESIDUE ON BOTTOM. ~~pH = 1~~ VD = 22 IN.
LIQUID HAD A pH = 1 (SOLIDS ALTERED pH)

DRUM 32 POLY, BLUE, NO LABEL
pH = 1 VD = 8.5 IN
CLEAR LIQUID



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DRUM ~~32~~ 33 POLY, BLACK, SODIUM HYDROXIDE LABEL
pH = 14 VD = 25.5" (LIQUID)
VD = 6" (SOLID)

1640: SAMPLING STOPS. SUPPLIES ORDERED. CUSTODY LABELS PLACED ON BUNG HOLES OF DRUMS PRC OPENED. RETURN TO HOTEL.

4-4-95

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Project Name CEI - CDI

0845 INTERVIEW WITH BURT SWANK. SODA ASH SWEEPINGS & SODIUM BISULFITE FILTERS PLACED IN "SPECIAL" DUMPSTER & HAULED TO HIS KNOWLEDGE TO THE SAN JUAN COUNTY LANDFILL. SWANK IS WESTERN REGIONAL MANAGER.

BURT & CYNTHIA FILLING OUT CHECKLIST (GENERATOR).

QUESTION 3(b)

THE WASTE MANAGEMENT, INC. TESTED THE BISULFITE FILTERS APPROXIMATELY A YEAR AGO. FOCUS WAS METAL CONTENT. BURT STATES THAT pH WAS NOT AN ISSUE. MATERIAL WAS NOT HIGH ENOUGH FOR METALS



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HOWEVER WASTE IS HAULED OFF SEPARATELY FROM OTHER SOLID WASTE STREAMS. "SPECIAL" DUMPSTER IS DISPOSED OF APPROXIMATELY EVERY 3-4 MONTHS. WASTES ARE SODA ASH SWEEPINGS & PRIMARILY SODIUM BISULFITE FILTERS. THE DUMPSTER IS CHA 3 CUBIC YARDS IN SIZE.

QUESTION 4 SODA ASH, UNLESS TOO "DIRTY," IS RECYCLED INTO THE HOPPER. BACK SUMP WATER FROM THE SODIUM BISULFITE RECYCLING PROCESS IS PLACED BACK INTO THE TANKS.

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Project Name CEI-CDI

0930 INTERVIEW ENDS.

0920 SAMPLING TEAM: JEFF A. & MARK B; LUIS VEGA LOGGING SAMPLES. CINDY HESS RETURNS ~~& FUME~~ FROM GENERATOR CHECKLIST (INTERVIEW TO ASSIST WITH NOTETAKING CH

0920 DRUM NO. 34
33" OF CAUSTIC MATERIAL
LABEL SODIUM HYDROXIDE
pH = 14
SAMPLING SCHEME: CDI-DR30-01
CDI-DR31-02

0922 DRUM NO. 35
30" OF MATERIAL, NO LABEL, pH=14 (PHOTO)



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Project Name CEI-CDI

0930 PRC WILL SAMPLE DRUM NO. 30, 33, 34, AND 35 FOR CORROSIVITY FIELD TESTING ENDS. PRC PREPARES TO TAKE SAMPLES FOR ~~ANALYTICAL~~ CH ~~AN~~ LAB ANALYSIS.

0950 TAPING OF FIRST SAMPLE, DRUM 30

0950 CDI-DR30-01; CORROSIVITY, COLLECTED BY J.A. & M.B., FUMES EMITTED

~~0100~~ CH 1000 CDI-DR33-02; CORROSIVITY, COLLECTED BY J.A. & M.B. SPLIT SAMPLE W/ CDI.

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Project No. _____

Project Name CEI - CDI

1000 ~~0100~~ CH ~~DRUM 30 PHOTO~~ CH

CH FRAME 13, PHOTO 18 CH

DRUM NO. 30 JUST SAMPLING COMPLETED SAMPLING

CH ~~01~~

1005 FRAME 14, PHOTO 19, SAMPLING OF DRUM NO. 33

1010 CDI - DR34 - Ø3; CORROSIVITY, COLLECTED BY J.A. & M.B., 12 IN. OF SOLID MATERIAL AT ~~BT~~ DRUM BOTTOM, SPLIT SAMPLE W/ CDI

1012 FRAME 15, PHOTO ~~19~~ 20 CH, SAMPLING OF DRUM NO. 34



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Project Name CEI - CDI

1015 CDI - DR35 - Ø4; CORROSIVITY, COLLECTED BY J.A & MB, 17 IN OF SOLID MATERIAL, SPLIT SAMPLE W/ CDI, NO LABEL

1015 FRAME 16, PHOTO 21, SAMPLING OF DRUM NO. 35

1030 ANALYTICAL SAMPLING FOR CORROSIVITY END. PRC PREPARES TO SAMPLE REMAINING ~~TOTAL~~ CH SELECTED DRUMS

~~CDI - DRHW - 06~~ CH

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Project Name CEI - CDI

~~1030~~ CH

1045 SAMPLING OF F001 HW DRUM (CDI - DRHW - XX) HNU READING < 5 PPM IN DRUM; BACKGROUND READING IN BREATHING ZONE.

1050 CDI - DRHW - 05; WILL BE A SAMPLE AND A MS ~~AND DUPLICATE~~ CH COLLECTED BY J.A. & M.B. ~~ANALYSIS FOR TCLP METALS, SVOC, IGNITABILITY~~ SYRUP CLEAR LIQUID, 26" VD, pH = 7

1055 FRAME 17, PHOTO 22 SAMPLING OF F001 DRUM (CDI - DRHW - 05)

1115 CDI - DRHW - 06; DUPLICATE SAMPLE OF F001 HW DRUM.



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Project Name CEI - CDI

1120 CDI - DRHW - 05 AND CDI - DRHW - 06 WILL BE SAMPLED FOR TCLP VOAS, SVOCS, METALS, TOTAL VOAS, AND IGNITABILITY

1145 ~~CDI - DRACE - 06~~ CDI - DRACE - 07; CH VD = 1.5 IN HNU = > 500 PPM IN THE DRUM. SAMPLING FOR TOTAL VOAS & IGNITABILITY RUST COLOR, AQUEOUS - LIKE

1150 FRAME 18, PHOTO 23 SAMPLING OF ACETONE DRUM (CDI - DRACE - 07) CH

1155 FRAME 19, PHOTO 24 SAMPLING OF XYLENE DRUM (CDI - DRXYL - 08)

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Project Name CEI - CDI

1200 YD=15 IN, HNU = >460 PPM IN DRUM, BROWNISH GREEN, ~~WITH~~ CH PHASED LIQUID
CDI - DRXYL - Ø8

1215 HNU READING >1300 PPM OF ~~5~~ CH DRUM LABELLED "SCALE INHIBITOR"

1216 HNU READING >1700 PPM OF DRUM ~~LABELLED~~ WITH NO LABEL, BLACK POLY DRUM W/ BLUE

1218 HNU READING >2000 PPM OF DRUM LABELLED 183

1220 BASED ON READINGS, ~~PRC~~ PRC CH IS CHECKING VARIOUS DRUMS TO DETERMINE SAMPLING



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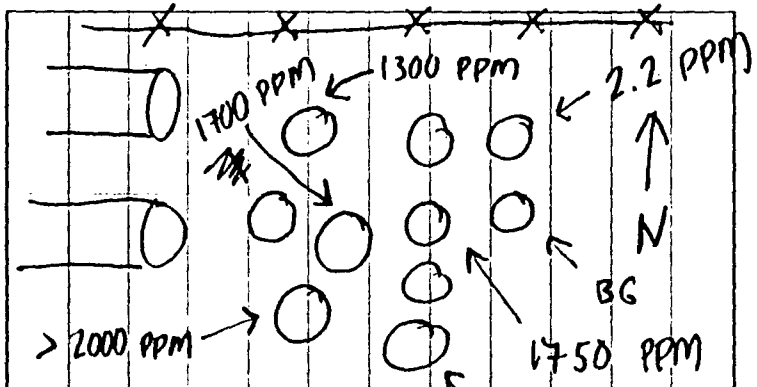


DRUMS ON PALLETS

2 DRUMS WITH NO READINGS BECAUSE CH ~~TCLP VOAS~~, CH

CH ~~TCLP VOAS & METALS AND CONTAINERS~~ CH

HOLE IN DRUM IN THE NORTH PORTION OF THE PALLETS & SOUTHERN DRUM COULD NOT BE OPENED

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Project Name CEI - CDI

3 DRUMS WILL BE SAMPLED.
pH WILL BE TESTED IN THE FIELD.

1235 pH = 6, POLY BLACK DRUM w/ BLUE PAINT (1) (8) MB

pH = 14, POLY BLACK DRUM (2)

pH = 6 STEEL BLACK DRUM (3)

pH = 6 SCALE INHIBITER, STEEL BLACK DRUM (4)

pH = 7 WASTE OIL DRUM (5)

pH = 7 STEEL BLUE DRUM (6)



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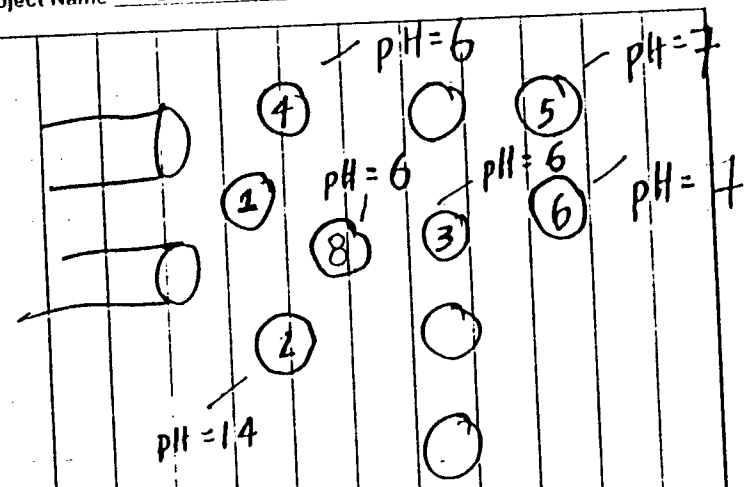


~~WSOI~~ CH TCLP VOAS, TCLP METALS CH, ~~IGNITABILITY~~ CH.

1250 CDI - ~~WO1~~ DRW01 - 09 (#5 ON MAP) CH
OILY, MULTI PHASE, THICK, FULL DRUM, SOME SOLIDS, MILKY BROWN IN COLOR, COLLECTED BY MB & JA. SAMPLE HAS CLEAR PHASE. TO BE SAMPLED FOR

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Project Name CEI-CDI

TCLP VOAs, TCLP METALS, AND IGNIT.

1255 FRAME 20, PHOTO 25 SAMPLING OF OIL DRUM ~~(CDI-WO1-09)~~ (CDI-DRW01-09)

1310 ~~CDI-SI-10~~ CH ~~CDI-SI-10~~ CH; TO BE SAMPLED FOR TCLP VOAs, TCLP METALS, TOTAL VOAs, IGNITIBILITY (#4 ON MAP) DARK GREENISH BROWN SLUDGE, FREE ~~LIQ~~ CH LIQUID VD = 32"
CDI-DRSI-10

1315 FRAME 21, PHOTO 26 CH SAMPLING OF SCALE INHIBITOR ~~(CDI-WO~~ CH ~~SI-10)~~ (CDI-DRSI-10)



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Project Name CEI-CDI

1325 ~~CDI-WO2-11~~ CDI-DRW02-11; CH TO BE SAMPLED FOR TCLP VOAs, TOTAL VOAs, IGNITIBILITY, AND CORRUSIVITY (#2 ON MAP); CLEAR LIQUID; HNU READING = 1200 PPM VD = 36"

1330 FRAME 22, PHOTO 27 SAMPLING OF CLEAR LIQUID ~~(CDI-WO2~~ CH ~~11)~~ (CDI-DRW02-11)

1335 SAMPLING COMPLETED. PRC PREPARES TO LEAVE.
FRAME 23, PHOTO 28 END OF SAMPLING AT NE CORNER OF PROPERTY. ALL SAMPLES COLLECTED BY J.A. & M.B., AT CDI.

Field Logbook No. M. Butler Date 4/4/95

Project No. 170R0603205

Project Name CHEMICAL DISTRIBUTORS (CDI)

815 ARRIVE AT CDI (OPERATIONS SUPERVISOR)

830 CLANCY CALHOUN PROVIDES DESCRIPTION OF PROCESS.

- DO NOT MANIFEST OR GENERATE HAZARDOUS WASTE.
- EXTRA CHEMICALS ARE SHIPPED BACK
- RESIDUAL MATERIAL IN DRUMS
- BULK MACHINE DRUMMED, SENT TO CUSTOMERS, AND RETURN DRUMS TO CDI. DRUMS ARE RECYCLED AT LAYTON.
- THREE TRUCKS. TRUCKS ARE NOT CLEANED - SPECIFIC TO A PRODUCT.
- ABOUT 50 PRODUCTS ON SITE.

Field Logbook No. M. Butler Date 4-4-95

Project No. 170R06032205

Project Name CDI

- TANKS WASHED on site
- WW IN SUMP AND REUSED
- SAM JOHN generating station → THIOSULFATE (SODIUM BISULFITE) → DEDICATED TRUCK reprocess and sell to water treatment. Do not mix w/ sulfuric acid.
- Spill incidents → minimized
- BISULFITE → Filters may be HAZARDOUS WASTE. IDENTIFIED AS A SPECIAL WASTE (CITY OF FARMINGTON HANDLES WASTE).

(THERE IS NO TREATMENT)

(SAT CAKE THIOSULFATE) (ACIDIC OFFICES) *



Field Logbook No. M. Butler Date 4-4-95

Project No. 170R06032205

Project Name CDI

0846 - DEDICATED SUMPS FOR EACH PROCESS. ALL TANKS ARE IN CONTAINMENT, AND SOME MORE ARE BEING BUILT.

- LAYTON RECEIVES ABOUT 50 OR 60 DRUMS. @ TIME INTERVAL B/W LAYTON SHIPMENTS ARE ABOUT 2 MOS.
- ABOUT 100 TO 150 DRUMS ARE SHIPPED TO LAYTON DURING THE LAST SHIPMENT.
- SOME DRUMS ON WEST SIDE CONTAIN SOLIDS (MONO CHLORIDE AND BISULFITE). SOME DRUMS HAVE SOLVENTS THAT MAY BE SOLIDIFIED.
- STRETCH TO SELL ITCL, AND CAUSTIC SODA TO (14).

Field Logbook No. M. Butler Date 4-4-95

Project No. 170R0603205

Project Name CDI

900 OFFICE HOOKED UP TO SEWER SYSTEM. PLANT is NOT (UNDERGROUND SUMPS). CITY HANDLES ~~MOST~~ THE TRASH. (MS)

* will check DUMPSTER.

- SOME CAUSTIC SODA BEADS.
- CUSTOMERS: ~~WATER TREATMENT~~ CHEMICALS, OIL FIELD, CITY CUSTOMERS.
- DEBBIE BYRD ARRIVES.
- CDI HAS BEEN in OPERATION FOR ≈ 9 yrs.

~~LAYTON MAY~~ (MS)

- LAYTON MAY TAKE SOME DRUMS w/ MATERIAL in IT. CDI TRIES NOT TO TAKE BAGGED ITEMS.



Field Logbook No. M. Butler Date 4-4-95

Project No. 170R0603205

Project Name CDI

LAYTON DRIVERS will not PICK UP DRUMS IF THE DRUM is NOT EMPTY, OR AT LEAST THEY will check THEM. However SOME DRUMS MAY NOT BE REALLY EMPTY (COULD ~~BURN~~ OUT).

- SOME SODA ASH ~~[illegible]~~ (MS) MIGHT get THROWN in THE SPECIAL DUMPSTER IF TRASHED

* MSDS OF SODA ASH.

- 2 SODA ASH AND ONE POTASH SILOS. AREA DRAINS INTO A SUMP ~~A [illegible]~~ WEST OF (MS) THE SILO 1. will TEST pH LATER. MAY INSTALL A (HOLLOW) BARRIER TO CATCH DUST FROM EMPTYING TRUCK.

Field Logbook No. M. Butler Date 4-4-95

Project No. 170R0603205

Project Name CDI

KETONES STORED IN ORGANIC AREA STORAGE AREA. CORROSION ON DRUMS.

- PRODUCT BULK STORAGE CONTAINMENT AREAS HAVE WATER IN THEM. PHOTOGRAPH TAKEN. EBT CONTAINMENT & KCl containment full.
- METHANOL CONTAINMENT AREA DRY
- METHANOL DRUM SUPPOSEDLY LOCATED BY THE METHANOL CONTAINMENT.
- DRUMMED WASTE OIL DRUMS IN NE CORNER. WILL NEED TO RECYCLE. 10 DRUMS AND 4 5-GAL BUCKETS IN AREA.



Field Logbook No. M. Butler Date 4-4-95

Project No. 170R0603205

Project Name CDI

- NO MARKER FOR OIL IN BARREL (10 DRUMS).
- DEDICATED TANKS IN BARN FOR METHANOL & GLYCOLS.
- DRUMS ALONG WEST FENCE ARE INSPECTED. ONE DRUM IN SOUTH SECTION OF DRUMS IS MARKED HAZARDOUS WASTE. (Rec'd) OTHER DRUMS IN THE AREA.
- THIS DRUM AREA TO THE WEST CONTAINS DRUMS THAT LAYTON PICKED UP.
- LAYTON PICKED UP DRUMS FROM THIS AREA LAST WEEK. LAYTON PICKED UP ALL THE EMPTY DRUMS FROM THIS AREA. OTHER DRUMS W/ RESIDUAL MATERIAL. MATERIAL DISPOSITION IS UNKNOWN

Field Logbook No. Mark Butler Date 4-4-95

Project No. 170R0603205

Project Name COI

- Kelly Stock, Vice President of COI, joins the inspection. He states that they do not manufacture in drums that they do not know what to do with.
- Bldg II - oil spill w/ oil & wood shavings.
- Special waste: sodium bisulfate filters.
- MCS takes thiosulfate recycling activity.
- Dennis describes the three drums by the front that MCS takes their customer returned.

1100 EPA and PRC identify drums for sampling.



Field Logbook No. Mark Butler Date 4/4/95

Project No. 170R0603205

Project Name COI

- Team identifies the drums that will be sampled.
- Passin meets w/ COI pres. Jeff & Luis prepare to collect drum samples (after lunch).

1215 Break for lunch

1315 Arrive on site. Prepare to sample drums.

1415 Luis and Jeff don level C. to inspect waste levels and pH's in the drums.

1600 Luis gets out of tyvek to order more drum thiefs.

1630 Jeff is through w/ investigation.

1700 Depart site.

Field Logbook No. Mark Butler Date 4-5-95

Project No. 170 R0603205

Project Name CDI

0815 ARRIVE AT THE FACILITY PREPARE TO SAMPLE. FIRST WE IDENTIFIED FOUR DRUMS TO ANALYZE FOR CORROSIVITY

0950 BEGIN SAMPLING DRUM 30.

1020 FINISHED SAMPLING CORROSIVE SAMPLES

1035 ASKED DEBBIE WHETHER SHE WANTED TO SPLIT SAMPLES WITH US OF THE THREE ALCOHOLS (CHCl, ACETONE, AND XYLENE). SHE SAID YES, AND WOULD PROVIDE US W/ THE CONTAINERS. THE SAMPLE CONTAINERS SHE WANTED US TO USE WERE THE SMALL PLASTIC ONES (SEE PHOTOS). I TOLD HER THAT THE SAMPLE VOLUME SHE WANTED WOULD NOT BE ENOUGH TO RUN ALL THE ANALYSES.



Field Logbook No. Mark Butler Date 4-5-95

Project No. 170 R0603205

Project Name CDI

(cont) DEBBIE SAID SHE WAS NOT SURE WHAT HER BOSS WANTED TO DO WITH THE SAMPLES, SO I SAID THE CONTAINERS WOULD BE OKAY. ACC WILL PROBABLY PROVIDE HER W/ 16-OUNCE CONTAINERS.

1040 MARK AND JEFF PREPARE TO COLLECT HCl, ACE, AND XYL SAMPLES.

1345 FINISHED SAMPLING ALL DRUMS.

1350 DEPART BACK AT THE FACILITY. MCB AND CH WAIT FOR GREG W/ FRANT. STA AND W DEPART FOR HOTEL TO WRAP SAMPLES.

1400 DEPART THE FACILITY.

# APPENDIX E

## RESOURCE CONSERVATION AND RECOVERY ACT GENERATOR CHECKLISTS

(12 Sheets)

INTERVIEW WITH BURT SWANK, WESTERN REGIONAL MANAGER, 4.5.95, PRC - CYNTHIA HESS

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

# RCRA COMPLIANCE INSPECTION REPORT
## GENERATORS CHECKLIST

NOTE: On multiple part questions, circle those not in compliance.

**EPA Identification NO. (262.12)**

1. Does the Generator have an EPA I.D. No.? ___Yes X No
   A. If yes, what is that number?

   _____

**Hazardous Waste Determination (262.11)**

1. Does the generator generate hazardous waste(s) listed in Subpart D? (261.30 - 261.33 - List of Hazardous Waste) ___Yes X No

   a. If yes, list wastes and quantities on attachment (Include EPA Hazardous Waste Number, waste name and description).

2. Does the generator generate solid waste(s) that exhibit hazardous characteristics? (circle those applicable - corrosivity, ignitability, reactivity, EP toxicity) (261.20 - 261.24 - Characteristics of Hazardous Waste) ___Yes X No

   a. If yes, list wastes and quantities on attachment (Include EPA Hazardous Waste Number, Waste Name and Description.)

   b. Does the generator determine characteristics by testing or by applying knowledge of processes? APPLYING KNOWLEDGE

      i. If determined by testing, did the generator use test methods in Part 261, Subpart C (or Equivalent)? ___Yes___No

      ii. If equivalent test were methods used, attach copy of equivalent methods used.

3. Are there any other solid wastes deemed non-hazardous generated by the generator? (i.e. process waste streams, collected matter from air pollution control equipment, water treatment sludge, etc.) X Yes___No

   a. If yes, did the generator determine non-hazardous characteristics by testing or knowledge of process? APPLYING KNOWLEDGE & A ONE-TIME TESTING OF SODIUM BISULFITE FILTERS TESTING WAS DONE ONCE, APPROXIMATEL ONE YEAR AGO.

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

i. If determined by testing, did the generator use test methods in Part 261, Subpart C (or Equivalent)? X Yes ___ No

ii. If equivalent test methods were used, attach copy of equivalent methods used.

b. List wastes and quantities deemed non-hazardous or processes from which non-hazardous wastes were produced. (Use narrative explanations sheet)

SEE HESS NOTEBOOK, p. 42
SODA ASH SWEEPINGS & SODIUM BULFITE FILTERS, PLACED IN ~~"SPECIAL"~~ CH "SPECIAL" DUMPS?

4. Are any wastes recycled, reused or reclaimed on-site? X Yes ___ No

If yes, use narrative sheet to describe the type and quantity of the waste and the method used for reclamation.

SEE HESS NOTEBOOK, p. 43

5. Are any wastes shipped off-site for reclamation? ___ Yes ___ No

If yes, use narrative to describe the type and quantity of the waste and its destination. Also give a description of storage prior to shipment.

6. Is the total quantity of hazardous wastes generated?

a. Less than 100 kg/month? X* Yes ___ No

b. More than 1000 kg/month? ___ Yes ___ No

c. More than 100 but less than 1000 kg/month? ___ Yes ___ No

**Manifest**

1. Does the generator ship hazardous waste off-site? ___ Yes X No

a. If no, do not fill out Section C and D.

b. If yes, identify primary off-site facility(s). (Use narrative explanations sheet)

2. Has the generator shipped hazardous waste off-site since November 19, 1980? ___ Yes X No

3. Is the generator exempted from regulation because of:

Small quantity generator (261.5 - Special requirements) X* Yes ___ No

OR

* SITE CLAIMS TO HAVE THIS STATUS

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

Produces only non-hazardous solid waste at this time (261.4 - Exclusions) ___Yes X No

4. If the generator is exempted as a small quantity generator are the following requirements met?

a. The waste is reclaimed under a contractual agreement in which:

NOT APPLICABLE

i. The type of waste and frequency of shipments specified in the agreement? ___Yes___No

ii. The vehicles used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste? ___Yes___No

b. The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement? ___Yes___No

**Required Information (262.21)**

NOT APPLICABLE

5. If not exempted does the generator use manifest? ___Yes___No

a. If yes, does manifest include the following information (262.21 - Required information) ___Yes___No

(Circle those not on manifest)

i. Manifest Document No.

ii. Generators Name, Mailing Address, Tele. No.

iii. Generator EPA I.D. No.

iv. Transporter(s) Name and EPA I.D. No.

v. Facility Name, Address and EPA I.D. No.

vi. DOT description of the waste

vii. a. Quantity (weight or volume)
b. Containers (type and number)

viii. Emergency Information (optional) (Special handling instructions, Phone No.)

FACILITY NAME: COI - FARMINGTON NM

EPA ID NUMBER: —

ix. Waste minimization certification

x. Is the following certification on each manifest form? ___Yes___No

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the EPA.

**Uses of the Manifest (263.23)** NOT APPLICABLE

6. Does the generator retain copies of manifests? ___Yes___No

(Check completed manifests at random. Indicate how many manifests were inspected, how many violations were noted and the type of violation.)

If yes, complete a through e. If questions contain more than one item, circle those not in compliance.

a. i. Did the generator sign and date all manifests inspected? ___Yes___No

ii. Who signed for the generator?
Name:_____
Title:_____
I.D. Number_____

b. i. Did the generator obtain handwritten signature and date of acceptance from initial transporter? ___Yes___No

ii. Who signed for the transporter?
Name:_____
Title:_____
I.D. Number:_____

c. Does the generator retain one copy of manifest signed by generator and transporter? ___Yes___No

d. Do returned copies of manifest include facility owner/operator signature and date of acceptance? ___Yes___No

e. If copy of manifest from facility was not returned within 45 days, did the generator file an exception report? (262.42 - Exception reporting) ___Yes___No

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

i. If yes, did it contain the following information:

Legible copy of manifest ___Yes___No

AND

Cover letter explaining generators efforts to locate waste. ___Yes___No

f. Does (will) the generator retain copies for 3 years? ___Yes___No

Pre-Transport Requirements

NOT APPLICABLE

1. Does the generator package waste? ___Yes___No

If no, skip to question 9.
If yes, complete the following questions.

Inspect containers ready for immediate shipment.
If there are no such containers, skip to question 8.

2. Does the generator package waste in accordance with 49 CFR 173, 178, and 179? (DOT requirements) (262.30 - Packaging) ___Yes___No

3. Are containers to be shipped leaking, corroding or bulging? ___Yes___No

Use narrative explanations sheet to describe containers and condition.

4. Does the generator use DOT labeling requirements in accordance with 49 CFR 172 when containers are offered for shipment? (262.31 - Labeling) ___Yes___No

5. Does the generator mark each package in accordance with 49 CFR 172 when containers are offered for shipment? (262.32 - Marking) ___Yes___No

6. a. Is each container of 110 gallons or less marked with the following label when containers are offered for shipment? ___Yes___No

HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address _____

Manifest Document Number_____

b. If other labels exist, list in narrative.

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

7. If there are any vehicles present on site loading or unloading hazardous waste, inspect for presence of placards. Note this instance on narrative explanation sheet.

8. Satellite Accumulation (effective June 20, 1985)

NOT APPLICABLE

a. Does the generator accumulate waste in containers at or near "Satellite" generation points? ___Yes___No

If no, skip to question 9.
If yes, complete the following.

b. Are containers in good condition? ___Yes___No

c. Is the waste compatible with the containers? ___Yes___No

d. Is waste transferred from leaking containers or otherwise managed to control leakage? ___Yes___No

e. Are containers closed? ___Yes___No

f. Are containers marked with the words "hazardous waste" or identification of the contents? ___Yes___No

g. Has waste accumulation exceeded one (1) quart of acutely hazardous waste (261.33 e.) or 55 gallons of other hazardous waste? ___Yes___No

If yes,

i. Has the container holding the excess amount been marked with the date the excess began accumulating? ___Yes___No

ii. Have excess amounts remained in the satellite accumulation area longer than three (3) days? ___Yes___No

9. Accumulation Time (262.34 - Accumulation Time for Small Quantity Generators)

NOT APPLICABLE

a. Is waste generated > 100 kg/month, but < 1000 kg/month? ___Yes___No

If yes, answer rest of question #9.
If no, skip to question #10.

b. Is hazardous waste shipped offsite within 180 days? ___Yes___No

c. Has the quantity of waste accumulated on-site exceeded 6000 kilograms? ___Yes___No

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

d. Does the generator comply with the requirements of Part 265 Subpart C, Preparedness and Prevention? ___Yes___No

10. Accumulation Time (262.34 - Accumulation Time) NOT APPLICABLE

a. Is the site a permitted/interim status storage facility? ___Yes___No

If yes, skip to Section E, and complete and attach the TSD checklist and appropriate supplemental checklists. If no, answer rest of question #8.

b. Is hazardous waste shipped offsite within 90 days? ___Yes___No

c. Is waste stored in containers or tanks? ___Yes___No

d. Is the beginning date of accumulation time clearly indicated on each container? ___Yes___No

e. Is each container or tank marked with the words "Hazardous Waste"? ___Yes___No

f. Complete and attach the containers/tanks supplemental checklists as appropriate.

g. If the generator accumulates waste on-site for less than 90 days, complete RCRA Generators Checklist Supplement.

Recordkeeping and Report

1. Is the generator keeping the following reports for a minimum of three (3) years? (262.40 - Recordkeeping): NOT APPLICABLE

a. Manifests and signed copies from designated facilities? ___Yes___No

b. Biennial reports (or reports as required by state agencies) ___Yes___No

c. Exception Reports ___Yes___No

d. Test results, where applicable. ___Yes___No

2. Where are records kept (at facility or elsewhere)?

_____

FACILITY NAME: CDI - FARMINGTON, NM

EPA ID NUMBER: —

3. Who is in charge of keeping the records?

Name: DEBBIE BYRD

Title: DISTRICT MANAGER

DEBBIE RETAINS VARIOUS RECORDS FOR WASTE MANAGEMENT

**Special Condition**

1. Has the generator received from or transported to a foreign source any hazardous waste? (262.50 - International Shipments) ___Yes___No

If yes,

a. Has a note been filed with the R.A.? ___Yes___No

b. Is this waste manifested and signed by Foreign Consignee? ___Yes___No

c. If the generator transported wastes out of the country has he received confirmation of delivered shipment? ___Yes___No

d. Has the generator filed an annual report (by March 1 of each year) giving the type, quantity, frequency and destination of all exported hazardous waste? (Per HSWA 1984) ___Yes___No

FACILITY NAME: CDI FARMINGTON, NM

EPA ID NUMBER: —

# RCRA GENERATORS CHECKLIST SUPPLEMENT

## Personnel Training (265.16)

NOT APPLICABLE

1. Have facility personnel successfully completed a program of classroom or on-the-job training? ___Yes X No CH

   a. Does the training program include instructions in the following:

      (1) procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment? ___Yes___No

      (2) key parameters for automatic waste feed cut-off systems? ___Yes___No

      (3) operation of communication or alarm systems? ___Yes___No

      (4) response to fires, explosions and groundwater contamination incidents? ___Yes___No

      (5) shutdown of operations? ___Yes___No

      (6) general hazardous waste management procedures? ___Yes___No

   b. Is the program directed by a person trained in hazardous waste management procedures? ___Yes___No

   c. Have personnel completed annual training reviews? ___Yes___No

   d. Does the owner/operator maintain the following documents:

      (1) Job title, job description and name of employee for each position at the facility related to hazardous waste management? ___Yes___No

      (2) Written description of the type and amount of both introductory and continuing training? ___Yes___No

      (3) Written documentation that the training has been completed by facility personnel? ___Yes___No

FACILITY NAME: CDI FARMINGTON, NM

EPA ID NUMBER: —

**Preparedness and Prevention (265.30)**

1. Is there evidence of fire, explosion or contamination of the environment? (265.31 - Maintenance and operation of facility) NOT APPLICABLE ___Yes X No CH

If yes, use narrative explanations sheet to explain.

2. Is the facility equipped with (265.32 - Required equipment)

   a. Internal communications or alarm system ___Yes___No

   b. Telephone or two-way radio to call emergency response personnel ___Yes___No

   c. Portable fire extinguishers, fire control equipment spill control equipment and decontamination equipment ___Yes___No

      1. Is this equipment tested to assure its proper operation? ___Yes___No

   d. Water of adequate volume for hoses, sprinklers or water spray system ___Yes___No

      1. Describe source of water

         _____

         _____

         _____

      2. Indicate flow rate and/or pressure and storage capacity, if available.

         _____

         _____

         _____

3. Is there sufficient aisle space to allow unobstructed movement of personnel and emergency equipment? (265.35-Required Aisle Space) ___Yes___No

4. Has the owner/operator made arrangements with the local authorities to familiarize them with characteristics of the facility? (layout of facility, properties of hazardous waste handled and associated hazards, places where facility personnel would normally be working, entrances to roads inside facility, possible evacuation routes.) (265.37 - Arrangements with local authorities) ___Yes___No

   If no, has the owner/operator attempted to make such arrangements? ___Yes___No

FACILITY NAME: CDI FARMINGTON, NM

EPA ID NUMBER: —

5. In the case that more than one police or fire department might respond, is there a designated primary authority? (265.37 - Arrangements with local authorities) ___Yes___No

If yes, indicate primary authority:

_____

a. Is the fire department a city or volunteer fire department?

_____

6. Does the owner/operator have phone numbers or and agreements with State emergency response teams, emergency response contractors and equipment suppliers? ___Yes___No

Are they readily available to the emergency coordinator? (265.37 - Arrangements with local authorities) ___Yes___No

7. Has the owner/operator arranged to familiarize local hospitals with the properties of hazardous waste handled and types of injuries that could result from fires, explosions, or releases at the facility? ___Yes___No

If no, has the owner/operator attempted to do this? (265.37 - Arrangements with local authorities) ___Yes___No

<u>Contingency Plan and Emergency Procedures (265.50)</u> (

NOT APPLICABLE

1. Does the facility have a contingency plan? (265.52 Content of Contingency Plan) ~~___Yes___No~~ CH

a. If yes, does it contain:

1. actions to be taken in response to emergencies? ___Yes___No

2. description of arrangements with police, fire and hospital officials? ___Yes___No

3. list of names, addresses, phone numbers of persons qualified to act as emergency coordinator? ___Yes___No

4. list, including the location and physical description of all emergency equipment? ___Yes___No

FACILITY NAME: CDI FARMINGTON, NM

EPA ID NUMBER: —

5. evacuation plan for facility personnel including signals, primary and alternate routes? ___Yes___No

2. Is a copy of the contingency plan maintained at the facility? (265.53 - Copies of contingency plan) ___Yes___No

3. Has a copy been supplied to the local police, fire depts., and hospitals? (265.53 - Copies of contingency plan) ___Yes___No

4. Has the contingency plan been updated and amended as necessary? ___Yes___No

5. Is the plan a revised SPCC Plan? (265.52 - Content of contingency plan) ___Yes___No

6. Is there an emergency coordinator on-site or within short driving distance of the plant at all times? ___Yes___No

If yes, list primary emergency coordinator:

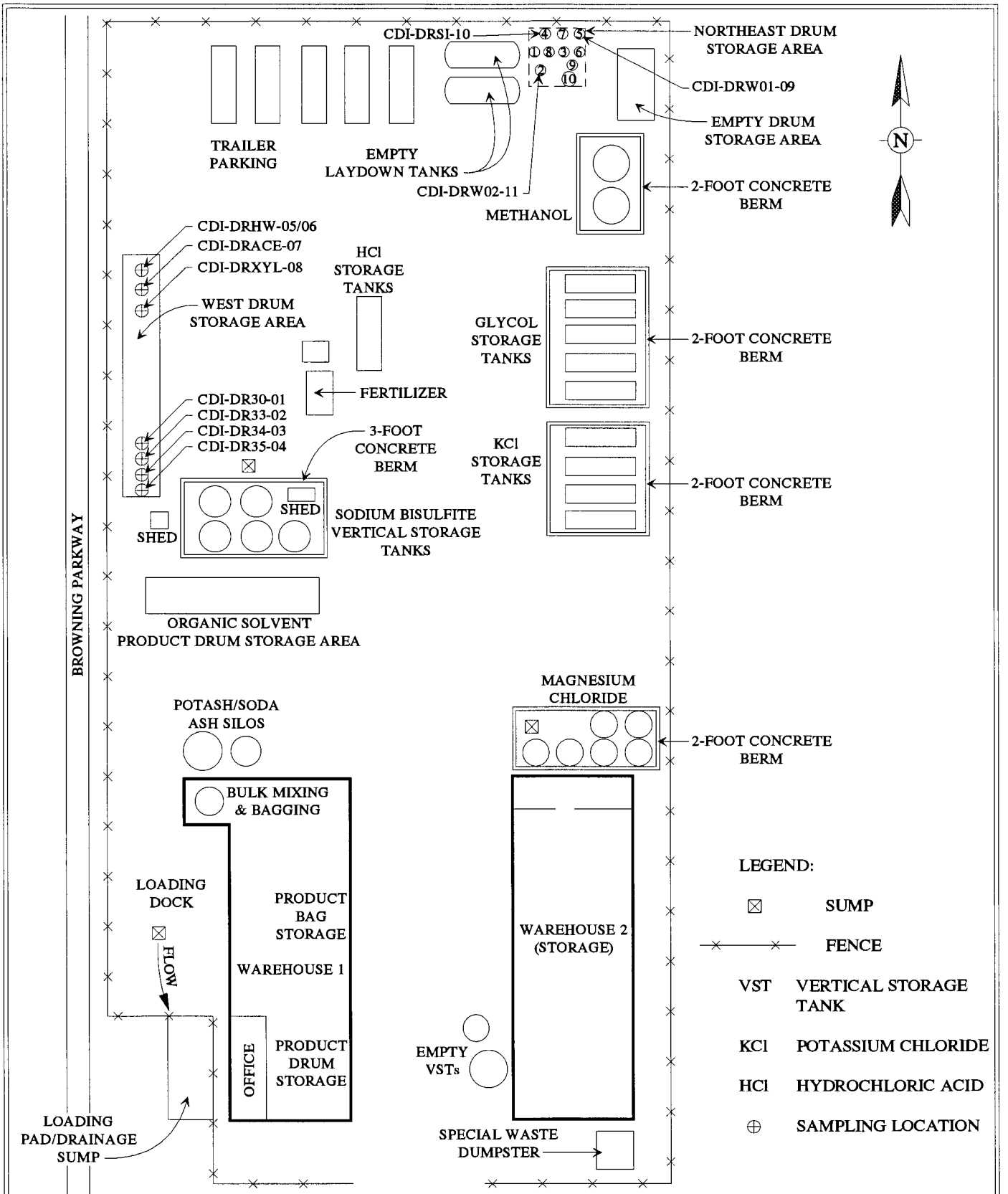
_____

_____

# APPENDIX F

## SAMPLING LOCATION MAP

(One Sheet)




CHEMICAL DISTRIBUTORS, INC.
FARMINGTON, NEW MEXICO

**FIGURE F-1**
SAMPLING LOCATION MAP

SOURCE: MODIFIED FROM CDI 1995 UPDATE NOT TO SCALE

PRC Environmental Management, Inc.

# APPENDIX G

## CHAIN-OF-CUSTODY FORMS

(Four Sheets)

# Chain of Custody Record

**PDP Analytical Services**
1680 Lake Front Circle, Suite B ▪ The Woodlands, Texas 77380 ▪ Phone (713) 363-2233 ▪ Fax (713) 298-5784

Client Name / Address: PRC ENVIRONMENTAL MANAGEMENT, INC.
350 N. ST. PAUL ST., SUITE 2600
DALLAS, TX 75201 (214) 754-8765

Send Report to: MARK BUTLER
c/o PRC

Project Number: 170R06032

Project Name: CDI CHEMICALS
FARMINGTON, NM

Samplers (Signature): Mark F. Butler

P.O. Number:

| Sta. No. | Date | Time | Comp. | Grab | Station Location | Number of Containers | Matrix | TOTAL VOA | TCLP VOA | TCLP ABN | TCLP METALS | CORROSIVITY | IGNITABILITY | SPECIFIC GRAVITY | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 4/5/95 | 0950 | | X | CDI-DR30-01 | 1 | WASTE | | | | | X | | | |
| 02 | | 1000 | | X | CDI-DR33-02 | 1 | | | | | | X | | | |
| 03 | | 1010 | | X | CDI-DR34-03 | 1 | | | | | | X | | | |
| 04 | | 1015 | | X | CDI-DR35-04 | 1 | | | | | | X | | | |
| 05 | | 1050 | | X | CDI-DRHW-05 | 11 | | X | X | X | X | | X | X | MS/MSD {EXTRA VOLUME FOR TOTAL VOA, NOT TCLP VOA |
| 06 | | 1115 | | X | CDI-DRHW-06 | 4 | | | X | X | X | | | | |
| 07 | | 1145 | | X | CDI-DRAGE-07 | 3 | | X | | | | | X | X | |
| 08 | | 1200 | | X | CDI-DRXYL-08 | 3 | | X | | | | | X | X | |
| 09 | | 1250 | | X | CDI-DRW01-09 | 4 | | | X | | X | | X | X | |
| 10 | | 1310 | | X | CDI-DRSI-10 | 6 | | X | X | | X | | X | X | |
| 11 | | 1325 | | X | CDI-DRW02-11 | 6 | | X | X | | | X | X | X | |
| TB01 | — | — | | X | CDI-TB01 | 2 | WATER | X | | | | | | | TRIP BLANK |

| Relinquished by (Signature) | Date / Time | Received by (Signature) | Date / Time |
|---|---|---|---|
| [signature] | 4/6/95 1600 | FEDEX | |
| Relinquished by (Signature) | Date / Time | Received by (Signature) | Date / Time |
| | | | |
| Relinquished by (Signature) | Date / Time | Received for Laboratory by (Signature) | Date / Time |
| | | | |

Remarks:
FEDEX AIRBILLS NO.
STA. 1-4 2464627233Ø
STA. 5-11 ~~[illegible]~~ 444424011
4444244022

Method of Shipment:

PDP Quote Number:

**Distribution:** Original accompanies shipment; Copy to coordinator and field files

FEDERAL EXPRESS

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

PACKAGE TRACKING NUMBER 4646272330

4646272330 90M

**SENDER'S COPY**

1 Sender's Federal Express Account Number: 1307-8937-5 | Date: 4/6/95

From (Your Name) Please Print: MARK BUTLER | Your Phone Number (Very Important): (214-754-8769)

Company: P.R.C. | Department/Floor No.

Street Address: 350 N ST PAUL STE 2600

City: DALLAS | State: TX | ZIP Required: 75201

2 To (Recipient's Name) Please Print: MARK BOURGEOIS | Recipient's Phone Number (Very Important): (713) 622-2233

Company: PDP ANALYTICAL SERVICES | Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 1650 LONGPOINT CIRCLE SUITE B

City: THE WOODLANDS | State: TX | ZIP Required: 77380

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.): 170RZED3205LA

H IF HOLD FOR PICK-UP, Print FEDEX Address Here (Not available at all locations): Street Address | City | State | ZIP Required

3 PAYMENT 1 ☐ Bill Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☒ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card 5 ☐ Cash/Check
Acct./Credit Card No. 1CIE-4677-6 Exp. Date

4 SERVICES (Check only one box).
11 ☒ Priority Overnight (Delivery by next business morning!) | 51 ☐ Standard Overnight (Delivery by next business afternoon!)
30 ☐ Economy Two-Day (Delivery by second business day!) | 41 ☐ Government Overnight (Restricted to authorized users only)
Freight Service (for Extra Large or any package over 150 lbs.)
70 ☐ OVERNIGHT FREIGHT ** | 80 ☐ TWO-DAY FREIGHT **
† Delivery commitment may be later in some areas. ** Declared Value Limit $100. Call for delivery schedule.

DELIVERY AND SPECIAL HANDLING (Check services required)
1 ☐ HOLD FOR PICK-UP (Fill in Box H)
2 ☒ DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations)
4 ☒ DANGEROUS GOODS (Extra charge)
6 ☐ DRY ICE
• Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, 10 kg
7 ☐ OTHER SPECIAL SERVICE
11 ☐ DESCRIPTION
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

| PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE (See right) |
|---|---|---|
| 1 | 8 | |
| Total | Total 8 | Total |

DIM SHIPMENT (Chargeable Weight) ☐ _____ lbs.

Received At: 1 ☐ Regular Stop | 2 ☐ On-Call Stop | 3 ☐ Drop Box | 4 ☐ B.S.C. | 5 ☐ Station

FedEx Emp. No. | Date/Time

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $100.00.

In the event of untimely delivery, Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use: Base Charges | Declared Value Charge | Other 1 | Other 2 | Total Charges

REVISION DATE 2/91 PART #107211 FORMAT #069 MBFAN 4/92

069

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INSTRUCTIONS (Mark appropriate boxes)
Dangerous Goods as per attached Shipper's Declaration ☐
Dangerous Goods Shipper's Declaration not required ☐
• Cargo Aircraft only ☐

4646272330 AIRBILL NUMBER

SHIPPER'S CERTIFICATION FOR RESTRICTED ARTICLES/DANGEROUS GOODS
CHECK ONE ➡ ☐ 49 CFR ☒ IATA/ICAO (TYPE OR PRINT)

| DANGEROUS GOODS IDENTIFICATION: PROPER SHIPPING NAME | CLASS OR DIVISION | UN OR ID NO | SUBSIDIARY RISK | QUANTITY AND TYPE OF PACKING | PACKING INST | AUTHORIZATION |
|---|---|---|---|---|---|---|
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. | 9 | UN3082 | — | 4X1-LITER POLYETHYLENE BOTTLES IN FIBERBOARD BOX (TOTAL OF 4 LITERS) | 914 | LIMITED QUANTITY |

ADDITIONAL HANDLING INFORMATION

| TRANSPORT DETAILS | THIS SHIPMENT IS WITHIN THE LIMITATIONS PRESCRIBED FOR ➡ | ~~PASSENGER AIRCRAFT~~ | CARGO AIRCRAFT ONLY | (DELETE-NONAPPLICABLE) |
|---|---|---|---|---|
| AIRPORT OF DEPARTURE: FARMINGTON, NM | AIRPORT OF DESTINATION: HOUSTON, TX | SHIPMENT TYPE ➡ | NON-RADIOACTIVE | ~~RADIOACTIVE~~ (DELETE-NONAPPLICABLE) |

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS OR TREATMENT.

I HEREBY DECLARE THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED, AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR TRANSPORT BY AIR ACCORDING TO THE APPLICABLE INTERNATIONAL AND NATIONAL GOVERNMENT REGULATIONS.

NAME AND TITLE OF SHIPPER: LUIS VEGA, ENVIR. SCIENTIST, PRC | PLACE AND DATE: FARMINGTON, NM 4/6/95

EMERGENCY TELEPHONE NUMBER: 505-327-2611 | SIGNATURE OF SHIPPER | SEE WARNING ON BACK

FEDERAL EXPRESS

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

PACKAGE TRACKING NUMBER 4444244011

4444244011

SENDER'S COPY

Sender's Federal Express Account Number | Date 4/6/95

From (Your Name) Please Print: MARVIN BUTLER | Your Phone Number (Very Important): (714) 154-1765

Company: RC | Department/Floor No.

Street Address: 30 [illegible]

City | State | ZIP Required

To (Recipient's Name) Please Print: [illegible] | Recipient's Phone Number (Very Important): 713-[illegible]2233

Company: PDP | Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes): [illegible] SUITE B

City: THE WOODLANDS | State: TX | ZIP Required: 77380

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.): [illegible]

IF HOLD FOR PICK-UP, Print FEDEX Address Here (Not available at all locations): Street Address | City | State | ZIP Required

Payment: 1 ☐ Bill Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☒ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card 5 ☐ Cash/Check | Acct./Credit Card No. [illegible] | Exp. Date

**SERVICES (Check only one box)**: Priority Overnight (Delivery by next business morning) ☒ | Standard Overnight (Delivery by next business afternoon) 51 ☐ | Economy Two-Day (Delivery by second business day) | Government Overnight (Restricted to authorized users only) 41 ☐ | Freight Service (for Extra Large or any package over 150 lbs.) OVERNIGHT FREIGHT ** 80 ☐ TWO-DAY FREIGHT ** (Commercial reservation required. Delivery commitment may be later in some areas. **Declared Value Limit $100. **Call for delivery schedule.

**DELIVERY AND SPECIAL HANDLING (Check services required)**: 1 ☐ HOLD FOR PICK-UP (Fill in Box H) | 2 ☒ DELIVER WEEKDAY | 3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations) | 4 ☒ DANGEROUS GOODS (Extra charge) | 5 ☐ DRY ICE (Dry Ice, UN 1845) ● Dangerous Goods Shipper's Declaration not required | 7 ☐ OTHER SPECIAL SERVICE | 11 ☐ DESCRIPTION | 12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

| PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE (See right) |
|---|---|---|
| 1 | 25 | |
| Total | Total 25 | Total |

DIM SHIPMENT (Chargeable Weight) ☐ lbs.

Received At: 1 ☐ Regular Stop | 2 ☐ On-Call Stop | 3 ☐ Drop Box | 4 ☐ B.S.C. | 5 ☒ Station

FedEx Emp. No. | Date/Time

**SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY**

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $100.00.

In the event of untimely delivery, Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use: Base Charges | Declared Value Charge | Other 1 | Other 2 | Total Charges

REVISION DATE 2/91 PART #137211 MBFAN FORMAT #069 1/92

069

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**INSTRUCTIONS (Mark appropriate boxes)**: Dangerous Goods as per attached Shipper's Declaration ☐ | Dangerous Goods Shipper's Declaration not required ☐ | Cargo Aircraft only ☐

4444244011 AIRBILL NUMBER

SHIPPER'S CERTIFICATION FOR RESTRICTED ARTICLES/DANGEROUS GOODS

CHECK ONE ➡ ☐ 49 CFR ☒ IATA/ICAO (TYPE OR PRINT)

| DANGEROUS GOODS IDENTIFICATION: PROPER SHIPPING NAME | CLASS OR DIVISION | UN OR ID NO. | SUBSIDIARY RISK | QUANTITY AND TYPE OF PACKING | PACKING INST. | AUTHORIZATION |
|---|---|---|---|---|---|---|
| [illegible] NAME TALLY [illegible] N.O.S. | | | | 28 X 4 OZ GLASS IN 1-GALLON CANS IN PLASTIC BUCKETS (TOTAL OF 3 LITERS) | 914 | LIMITED QUANTITY |

ADDITIONAL HANDLING INFORMATION

| TRANSPORT DETAILS | THIS SHIPMENT IS WITHIN THE LIMITATIONS PRESCRIBED FOR ➡ | PASSENGER AIRCRAFT | CARGO AIRCRAFT ONLY | (DELETE-NONAPPLICABLE) |
|---|---|---|---|---|
| AIRPORT OF DEPARTURE: [illegible] | AIRPORT OF DESTINATION: [illegible] TX | SHIPMENT TYPE ➡ NON-RADIOACTIVE | RADIOACTIVE | (DELETE-NONAPPLICABLE) |

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO RESEARCH, MEDICAL DIAGNOSIS OR TREATMENT.

I HEREBY DECLARE THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED, AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR TRANSPORT BY AIR ACCORDING TO THE APPLICABLE INTERNATIONAL AND NATIONAL GOVERNMENT REGULATIONS.

NAME AND TITLE OF SHIPPER: [illegible] | PLACE AND DATE: [illegible] 1/6/95

EMERGENCY TELEPHONE NUMBER: [illegible] | SIGNATURE OF SHIPPER: [illegible]

SEE WARNING ON BACK

FEDERAL EXPRESS

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.

QUESTIONS? CALL 800-238-5355-TOLL-FREE.

PACKAGE TRACKING NUMBER 4444244022

4444244022

# SENDER'S COPY

Sender's Federal Express Account Number | Date

From (Your Name) Please Print | Your Phone Number (Very Important)

Company | Department/Floor No.

Street Address

City | State | ZIP Required

To (Recipient's Name) Please Print | Recipient's Phone Number (Very important)

Company | Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.)

City | State | ZIP Required

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.)

IF HOLD FOR PICK-UP, Print FEDEX Address Here (Not available at all locations)

Street Address | City | State | ZIP Required

Method of Payment: 1 ☐ Bill Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☒ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card ☐ Cash/Check

Acct./Credit Card No. | Exp. Date

**SERVICES** (Check only one box)

Priority Overnight (Delivery by next business morning) ☒
Standard Overnight (Delivery by next business afternoon) 51 ☐
Economy Two-Day (Delivery by second business day) ☐
Government Overnight (Restricted to authorized users only) 41 ☐

Freight Service (For Extra Large or any package over 150 lbs.)
OVERNIGHT FREIGHT ** ☐ 80 TWO-DAY FREIGHT ** ☐
(Confirmed reservation required. Delivery commitment may differ in some areas.) *Declared Value Limit $100. **Call for delivery schedule.

**DELIVERY AND SPECIAL HANDLING** (Check services required)

1 ☐ HOLD FOR PICK-UP (Fill in Box H)
2 ☒ DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) 49 ☐
4 ☒ DANGEROUS GOODS (Extra charge)
5 ☐ DRY ICE (Extra charge) ● Dangerous Goods Shipper's Declaration not required
6 ☐ Dry Ice & UN Tag
7 ☐ OTHER SPECIAL SERVICE
11 ☐ DESCRIPTION
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

| PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE (See rates) |
|---|---|---|
| 1 | 59 | |
| Total | Total 59 | Total |

DIM SHIPMENT (Chargeable Weight)

Received At: 1 ☐ Regular Stop 2 ☐ On-Call Stop 3 ☐ Drop Box 4 ☐ B.S.C. 5 ☒ Station

FedEx Emp. No. | Date/Time

**SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY**

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details. We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $100.00. In the event of untimely delivery, Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

Federal Express Use: Base Charges | Declared-Value Charge | Other 1 | Other 2 | Total Charges

REVISION DATE 2/91 PART# 137211 FORMAT# 8069 MBFAN 1/92

069

SIGNATURE RELEASE UNAVAILABLE

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4444244022 AIRBILL NUMBER

SHIPPER'S CERTIFICATION FOR RESTRICTED ARTICLES/DANGEROUS GOODS

CHECK ONE ➡ ☐ 49 CFR ☒ IATA/ICAO (TYPE OR PRINT)

| DANGEROUS GOODS IDENTIFICATION: PROPER SHIPPING NAME | CLASS OR DIVISION | UN OR ID NO. | SUBSIDIARY RISK | QUANTITY AND TYPE OF PACKING | PACKING INST. | AUTHORIZATION |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | UN 2[illegible] | | [illegible] | 914 | [illegible] |

ADDITIONAL HANDLING INFORMATION

| TRANSPORT DETAILS | THIS SHIPMENT IS WITHIN THE LIMITATIONS PRESCRIBED FOR ➡ | PASSENGER AIRCRAFT | CARGO AIRCRAFT ONLY | (DELETE-NONAPPLICABLE) |
|---|---|---|---|---|
| PORT OF DEPARTURE: [illegible] | AIRPORT OF DESTINATION: [illegible] | SHIPMENT TYPE ➡ | NON-RADIOACTIVE | ~~RADIOACTIVE~~ (DELETE-NONAPPLICABLE) |

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS OR TREATMENT.

I HEREBY DECLARE THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED, AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR TRANSPORT BY AIR ACCORDING TO THE APPLICABLE INTERNATIONAL AND NATIONAL GOVERNMENT REGULATIONS.

NAME AND TITLE OF SHIPPER: [illegible] | PLACE AND DATE: [illegible]

EMERGENCY TELEPHONE NUMBER: [illegible] | SIGNATURE OF SHIPPER: [illegible]

SEE WARNING ON BACK

# APPENDIX H

## SUMMARY OF ANALYTICAL RESULTS

(Two Sheets)

TABLE H-1

SUMMARY OF ANALYTICAL RESULTS

Sheet 1 of 2

| Waste Unit | West Drum Storage Area | | | | | | | | Northeast Drum Storage Area | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Designation | CDI-DR30-01 | CDI-DR33-02 | CDI-DR34-03 | CDI-DR35-04 | CDI-DRHW-05 (MS/MSD) | CDI-DRHW-06 (Duplicate) | CDI-DRACE-07 | CDI-DRXYL-08 | CDI-DRW01-09 | CDI-DRSI-10 | CDI-DRW02-11 |
| **Detected Constituent** | **TCLP Volatile Organic Compounds (SW-846 Methods 1311/8240)** | | | | | | | | | | |
| Benzene | NA | NA | NA | NA | ND | ND | NA | NA | ND | **1,030[a]** | ND |
| **Detected Constituent** | **TCLP Semivolatile Organic Compounds (SW-846 Methods 1311/8270)** | | | | | | | | | | |
| None | NA | NA | NA | NA | ND | ND | NA | NA | NA | NA | NA |
| **Detected Constituent** | **TCLP Metals (SW-846 Methods 1311/6010/7000)** | | | | | | | | | | |
| Barium | NA | NA | NA | NA | ND | ND | NA | NA | 0.18 | 1.49 | NA |
| Lead | NA | NA | NA | NA | 0.39 | ND | NA | NA | ND | ND | NA |
| **Detected Constituent** | **Total and F-Listed Volatile Organic Compounds (SW-846 Method 8240)** | | | | | | | | | | |
| Acetone | NA | NA | NA | NA | ND | NA | 9,800,000 D | ND | NA | ND | ND |
| Toluene | NA | NA | NA | NA | ND | NA | ND | ND | NA | 28,000,000 | ND |
| Ethylbenzene | NA | NA | NA | NA | ND | NA | ND | 820 | NA | 15,000,000 | ND |
| Xylene | NA | NA | NA | NA | ND | NA | ND | 1,200 | NA | 160,000,000 | ND |
| **General Chemistry** | | | | | | | | | | | |
| Corrosivity (SW-846 Method 1010) | **>13.0[c]** | **>13.0[c]** | **>13.0[c]** | **>13.0[c]** | NA | NA | NA | NA | NA | NA | **>13.0[c]** |
| Flash point (°F) (SW-846 Method 9040/9045) | NA | NA | NA | NA | >200 | NA | **130[b]** | **120[b]** | >200 | **90[b]** | >200 |
| Specific gravity (ASTM D1429) | NA | NA | NA | NA | 1.09 | NA | 0.982 | 0.898 | 0.984 | 0.990 | 0.980 |

TABLE H-1

SUMMARY OF ANALYTICAL RESULTS

Sheet 2 of 2

Notes:

All concentrations are reported in parts per billion (micrograms per liter or micrograms per kilogram)

ASTM = American Society for Testing and Materials
D = Diluted analysis
NA = Not analyzed
ND = Not detected
TCLP = Toxicity characteristic leaching procedure

[a] Concentration exceeds allowable maximum Resource Conservation and Recovery Act (RCRA) toxicity characteristic regulatory threshold concentration for benzene, which is 500 micrograms per liter.
[b] Exhibits RCRA characteristic of ignitability with a flash point of lower than 140°F.
[c] Exhibits RCRA characteristic of corrosivity with a pH of greater than or equal to 12.5.

# APPENDIX I

## CALCULATIONS OF WASTE VOLUME AND WEIGHT

(One Sheet)

## TABLE I-1

## CALCULATIONS OF WASTE VOLUME AND WEIGHT

| Drum Sample Designation (Matrix) | Waste Height[a] (ft) | Waste Volume[b] ($ft^3$) | Specific Gravity of Waste[c] | Weight of Waste[d] (kg) |
|---|---|---|---|---|
| CDI-DR30-01 (Liquid) | 2.3 | 6.4 | 1.535 | 277 |
| CDI-DR33-02 (Liquid) | 2.6 | 7.2 | 1.535 | 312 |
| CDI-DR34-03 (Liquid) | 2.8 | 7.8 | 1.535 | 338 |
| CDI-DR35-04 (Liquid) | 2.5 | 6.9 | 1.535 | 299 |
| CDI-DRHW-05/06 (Liquid) | 2.2 | 6.1 | 1.09 | 188 |
| CDI-DRACE-07 (Liquid) | 0.1 | 0.3 | 0.982 | 8 |
| CDI-DRXYL-08 (Liquid) | 1.3 | 3.6 | 0.898 | 91 |
| CDI-DRWO1-09 (Liquid) | 2.7 | 7.5 | 0.984 | 208 |
| CDI-DRSI-10 (Sludge) | 2.7 | 7.5 | 0.990 | 210 |
| CDI-DRWO2-11 (Liquid) | 3.0 | 8.3 | 0.980 | 230 |

Notes:

ft = Foot (feet)
$ft^3$ = Cubic foot (feet)
kg = Kilogram(s)
$m^3$ = Cubic meter(s)

[a] Height of waste in each drum is documented in the field logbook (Appendix D). When applicable, the total height of the waste included the solid phase at the base of the drum.
[b] Waste volume ($ft^3$) = (Waste height [ft]) x (radius of one drum [0.94 ft])$^2$ x ($\pi$)
[c] Specific gravity for samples 01 through 04 is based on the material safety data sheets provided by Chemical Distributors, Inc., for liquid caustic soda. The remaining specific gravities were determined by the PRC-subcontracted laboratory.
[d] Weight (kg) = (Waste volume [$ft^3$]) x (0.02832 $m^3/ft^3$) x (density of water at 25°C [997 $Kg/m^3$]) x (specific gravity)

# ATTACHMENT A

## ANALYTICAL DATA SUMMARY SHEETS COMPILED BY PDP ANALYTICAL SERVICES

(45 Sheets)

# PDP ANALYTICAL SERVICES

1680 Lake Front Circle, The Woodlands, Texas 77381 • Phone (713)363-2233

| | |
|---|---|
| Client: PRC Environmental<br>Episode No.: 2883 | Project Name: CDI Chemicals<br>Project No.: 170R06032 |

## CASE NARRATIVE

Ten liquid samples, one water sample and one sludge sample were received for analysis on 04/07/95.

All batch quality control (QC) results (Duplicates, Matrix Spikes, Matrix Spike Duplicates) are included in this data package. Batch QC may or may not have been performed on your samples.

### SAMPLE RECEIPT AND LOG-IN:

All volatiles samples, except trip blanks, were collected in wide mouth jars and were not filled completely.

### TCLP VOLATILES:

Due to the nature of the samples, "CDI-DRHW-05" and "CDI-DRHW-06" required 1:10 and 1:20 dilution. Due to strong ammonia odor, sample "CDI-DRW02-11" was analyzed at a 1:20 dilution.

### TCLP SEMIVOLATILES:

The sample extracts could not be concentrated down to 1 ml and were left at 10 mls. The surrogates and matrix spikes were diluted out.

Low internal standard areas were obtained for sample "CDI-DRHW-06" and matrix spike. Matrix effects are suspected.

### TCLP METALS:

Some samples required dilutions due to matrix interferences.

### TOTAL VOLATILES:

Due to the nature of the samples, dilutions were required. some surrogates were outside the QC limits. Some matrix spike recoveries were outside the QC limits.

# PDP ANALYTICAL SERVICES

1680 Lake Front Circle, The Woodlands, Texas 77381 • Phone (713)363-2233

| | |
|---|---|
| Client: PRC Environmental<br>Episode No.: 2883 | Project Name: CDI Chemicals<br>Project No.: 170R06032 |

CASE NARRATIVE

**VOLATILES-F LIST:**

Due to the nature of the samples, dilutions were required.

**GENERAL CHEMISTRY:**

No problems were encountered.

# 2. CHAIN-OF-CUSTODY

# Chain of Custody Record

**PDP Analytical Services**
1680 Lake Front Circle, Suite B ▪ The Woodlands, Texas 77380 ▪ Phone (713) 363-2233 ▪ Fax (713) 298-5784

Client Name / Address: PRC ENVIRONMENTAL MANAGEMENT, INC.
350 N. ST. PAUL ST., SUITE 2600
DALLAS, TX 75201 (214)754-8765

Send Report to: MARK BUTLER
c/o PRC

Project Number: 170R06032

Project Name: CDI CHEMICALS
FARMINGTON, NM

Samplers (Signature): Mark F. Butler

P.O. Number:

2683

| | Sta. No. | Date | Time | Comp. | Grab | Station Location | Number of Containers | Matrix | TOTAL VOA | TCLP VOA | TCLP ABN | TCLP METALS | CORROSIVITY | IGNITABILITY | SPECIFIC GRAVITY | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .01 | 01 | 4/5/95 | 0950 | | X | CDI-DR30-01 | 1 | WASTE | | | | | X | | | |
| .02 | 02 | | 1000 | | X | CDI-DR33-02 | 1 | | | | | | X | | | |
| .03 | 03 | | 1010 | | X | CDI-DR34-03 | 1 | | | | | | X | | | |
| .04 | 04 | | 1015 | | X | CDI-DR35-04 | 1 | | | | | | X | | | |
| .05 | 05 | | 1050 | | X | CDI-DRHW-05 | 11 | | X | X | X | X | | X | X | MS/MSD {EXTRA VOLUME FOR TOTAL VOA, NOT TCLP VOA} |
| .06 | 06 | | 1115 | | X | CDI-DRHW-06 | 4 | | | X | X | X | | | | |
| .07 | 07 | | 1145 | | X | CDI-DRACE-07 | 3 | | X | | | | | X | X | |
| .08 | 08 | | 1200 | | X | CDI-DRXYL-08 | 3 | | X | | | | | X | X | |
| .09 | 09 | | 1250 | | X | CDI-DRW01-09 | 4 | | | X | | X | | X | X | |
| .10 | 10 | | 1310 | | X | CDI-DRSI-10 | 6 | | X | X | | X | | X | X | |
| .11 | 11 | | 1325 | | X | CDI-DRW02-11 | 6 | | X | X | | | X | X | X | |
| .12 | TB01 | — | — | | X | CDI-TB01 | 2 | WATER | X | | | | | | | TRIP BLANK |

| Relinquished by (Signature) | Date / Time | Received by (Signature) | Date / Time |
|---|---|---|---|
| [signature] | 4/6/95 1600 | FEDEX | |
| Relinquished by (Signature) | Date / Time | Received by (Signature) | Date / Time |
| | | | |
| Relinquished by (Signature) | Date / Time | Received for Laboratory by (Signature) | Date / Time |
| | | Jennifer Cushman | 4/7/95 0900 |

Method of Shipment:

Remarks:
FEDEX AIRBILLS NO.
STA. 1-4 } 4646272330
STA. 5-11 } 4444244011
4444244022
[signature]

PDP Quote Number:

Distribution: Original accompanies shipment; Copy to coordinator and field files

000005

PDP ANALYTICAL SERVICES
SAMPLE LOG-IN SHEET

LOGGED BY: JENNIFER CUSHMAN DATE OF PHYSICAL LOG-IN: 4/7/95 

Lab Code #: 2883 DATE OF COMPUTER LOG-IN: 07-Apr-95
Client ID: PRC ENVIRONMENTAL COMPUTER LOG-IN BY: JC
Project ID: CDI CHEMICALS COMPUTER ID: QA
Project #: 17WR06032
PO Number:
Courier/No.: FED-EX/4646272338,444244022,011

| Lab ID | Client ID | Testing Required | No. Cont. | Sample Matrix | Date Sampled | Date Received | Date Due | Remarks |
|---|---|---|---|---|---|---|---|---|
| 2883.01 | CDI-DR30-01 | CORROSIVITY | 1 | LIQUID | 4/5/95 | 4/7/95 | 5/8/95 HC | |
| 2883.02 | CDI-DR33-02 | CORROSIVITY | 1 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.03 | CDI-DR34-03 | CORROSIVITY | 1 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.04 | CDI-DR35-04 | CORROSIVITY | 1 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.05 | CDI-DRHW-05 | TOTAL VOA+F LIST<br>TCLP VOA<br>TCLP SVOA<br>TCLP METALS<br>IGNITABILITY<br>SPECIFIC GRAVITY | 11 | LIQUID | 4/5/95 | 4/7/95 | ##MS/MSD ON EVERYTHING EXCEPT TCLP VOA | |
| 2883.06 | CDI-DRHW-06 | TCLP VOA<br>TCLP SVOA<br>TCLP METALS | 4 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.07 | CDI-DRACE-07 | TOTAL VOA+F LIST<br>IGNITABILITY<br>SPECIFIC GRAVITY | 3 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.08 | CDI-DRXYL-08 | SAME AS ABOVE | 3 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.09 | CDI-DRW01-09 | TCLP VOA<br>TCLP METALS<br>IGNITABILITY<br>SPECIFIC GRAVITY | 4 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.10 | CDI-DRSI-10 | TOTAL VOA+F LIST<br>TCLP VOA<br>TCLP METALS<br>IGNITABILITY<br>SPECIFIC GRAVITY | 6 | SLUDGE | 4/5/95 | 4/7/95 | * | |
| 2883.11 | CDI-DRW02-11 | TOTAL VOA+F LIST<br>TCLP VOA<br>CORROSIVITY<br>IGNITABILITY<br>SPECIFIC GRAVITY | 6 | LIQUID | 4/5/95 | 4/7/95 | | |
| 2883.12 | CDI-TB01 | TOTAL VOA+F LIST | 2 | WATER | NA | 4/7/95 | | |

TOTAL VOA - 8240
TCLP SVOA - 8270
TCLP VOA - 8240

Weight basis: X wet ___ dry

Deliverables: ___ norm X CLP-like ___ CLP

___ raw data ___ electronic

APPROVED BY/DATE: 4-10-95

SEND REPORT TO: MARK BUTLER, DALLAS

0000006A

*TCLP VOLATILES*

PDP ANALYTICAL SERVICES

1680 Lake Front Circle, Ste. 8; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-ORHM-05 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | PDP Sample ID: | 2883.05 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | E2837 | Date Reported: | 05/16/95 |

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 10.0 | Method Ref.: | SW846-8240 |
| Multiplying Factor: | 10.0 | Date TCLP Extracted: | 04/19/95 | GC/MS File ID: | E2837 |
| Sample Volume: | 5.0 ml | Date Analyzed: | 05/03/95 | Analyst: | SK |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,1-Dichloroethene | 700 | 50 | ND |
| 1,2-Dichloroethane | 500 | 50 | ND |
| 2-Butanone | 200000 | 100 | ND |
| Benzene | 500 | 50 | ND |
| Carbon tetrachloride | 500 | 50 | ND |
| Chlorobenzene | 100000 | 50 | ND |
| Chloroform | 6000 | 50 | ND |
| Tetrachloroethene | 700 | 50 | ND |
| Trichloroethene | 500 | 50 | ND |
| Vinyl chloride | 200 | 100 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | (76-114) | 101 |
| Toluene-d8 | 50 | (88-110) | 103 |
| Bromofluorobenzene | 50 | (86-115) | 91 |

Method Blank ID: 2883V.MBLK1 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA

TCLP Blank ID: 2883V.FBLK1 TCLP LCS ID: 2883V.TLCS1 TCLP MS ID: 2894.04MS TCLP MSD ID: NA TCLP DUP ID: NA

* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

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POP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste. 8; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-DRHM-06 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | POP Sample ID: | 2883.06 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | E2861 | Date Reported: | 05/16/95 |

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 20.0 | Method Ref.: | SW846-8240 |
| Multiplying Factor: | 20.0 | Date TCLP Extracted: | 04/19/95 | GC/MS File ID: | E2861 |
| Sample Volume: | 5.0 ml | Date Analyzed: | 05/04/95 | Analyst: | SK |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,1-Dichloroethene | 700 | 100 | ND |
| 1,2-Dichloroethane | 500 | 100 | ND |
| 2-Butanone | 200000 | 200 | ND |
| Benzene | 500 | 100 | ND |
| Carbon tetrachloride | 500 | 100 | ND |
| Chlorobenzene | 100000 | 100 | ND |
| Chloroform | 6000 | 100 | ND |
| Tetrachloroethene | 700 | 100 | ND |
| Trichloroethene | 500 | 100 | ND |
| Vinylchloride | 200 | 200 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | (76-114) | 99 |
| Toluene-d8 | 50 | (88-110) | 101 |
| Bromofluorobenzene | 50 | (86-115) | 90 |

Method Blank ID:2883V.MBLK2 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA

TCLP Blank ID: 2883V.FBLK1 TCLP LCS ID: 2883V.TLCS2 TCLP MS ID:2894.04MS TCLP MSD ID:NA TCLP DUP ID:NA

* = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

POP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste. 8; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-DRW01-09 | Date Sampled: | 04/05/95 |
| Subject Name: | CDI CHEMICALS | POP Sample ID: | 2883.09 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | E2838 | Date Reported: | 05/16/95 |

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 5.0 | Method Ref.: | SW846-8240 |
| Multiplying Factor: | 5.0 | Date TCLP Extracted: | 04/19/95 | GC/MS File ID: | E2838 |
| Sample Volume: | 5.0 ml | Date Analyzed: | 05/03/95 | Analyst: | SK |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,1-Dichloroethene | 700 | 25 | ND |
| 1,2-Dichloroethane | 500 | 25 | ND |
| 2-Butanone | 200000 | 50 | ND |
| Benzene | 500 | 25 | ND |
| Carbon tetrachloride | 500 | 25 | ND |
| Chlorobenzene | 100000 | 25 | ND |
| Chloroform | 6000 | 25 | ND |
| Tetrachloroethene | 700 | 25 | ND |
| Trichloroethene | 500 | 25 | ND |
| Vinylchloride | 200 | 50 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | (76-114) | 97 |
| Toluene-d8 | 50 | (88-110) | 97 |
| Bromofluorobenzene | 50 | (86-115) | 86 |

Method Blank ID: 2883V.MBLK1 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA

TCLP Blank ID: 2883V.FBLK1 TCLP LCS ID: 2883V.TLCS2 TCLP MS ID: 2894.04MS TCLP MSD ID: NA TCLP DUP ID: NA

* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

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PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste. 8; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-DRSI-10 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | PDP Sample ID: | 2883.10 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | E2841 | Date Reported: | 05/16/95 |

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | SLUDGE | Dilution: | 20.0 | Method Ref.: | SW846-8240 |
| Multiplying Factor: | 20.0 | Date TCLP Extracted: | 04/19/95 | GC/MS File ID: | E2841 |
| Sample Volume: | 5.0 ml | Date Analyzed: | 05/03/95 | Analyst: | SK |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,1-Dichloroethene | 700 | 100 | ND |
| 1,2-Dichloroethane | 500 | 100 | ND |
| 2-Butanone | 200000 | 200 | ND |
| Benzene | 500 | 100 | 1030 |
| Carbon tetrachloride | 500 | 100 | ND |
| Chlorobenzene | 100000 | 100 | ND |
| Chloroform | 6000 | 100 | ND |
| Tetrachloroethene | 700 | 100 | ND |
| Trichloroethene | 500 | 100 | ND |
| Vinylchloride | 200 | 200 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | (76-114) | 93 |
| Toluene-d8 | 50 | (88-110) | 95 |
| Bromofluorobenzene | 50 | (86-115) | 86 |

Method Blank ID: 2883V.W8LX1 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA

TCLP Blank ID: 2883V.T8LX1 TCLP LCS ID: 2883V.TLCS2 TCLP MS ID: 2894.04MS TCLP MSD ID: NA TCLP DUP ID: NA

* : Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

POP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste. 8; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-DRW02-11 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | POP Sample ID: | 2883.11 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | E2839 | Date Reported: | 05/16/95 |

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 20.0 | Method Ref.: | SW846-8240 |
| Multiplying Factor: | 20.0 | Date TCLP Extracted: | 04/19/95 | GC/MS File ID: | E2839 |
| Sample Volume: | 5.0 ml | Date Analyzed: | 05/03/95 | Analyst: | SK |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,1-Dichloroethene | 700 | 100 | ND |
| 1,2-Dichloroethane | 500 | 100 | ND |
| 2-Butanone | 200000 | 200 | ND |
| Benzene | 500 | 100 | ND |
| Carbon tetrachloride | 500 | 100 | ND |
| Chlorobenzene | 100000 | 100 | ND |
| Chloroform | 6000 | 100 | ND |
| Tetrachloroethene | 700 | 100 | ND |
| Trichloroethene | 500 | 100 | ND |
| Vinylchloride | 200 | 200 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 50 | (76-114) | 96 |
| Toluene-d8 | 50 | (88-110) | 97 |
| Bromofluorobenzene | 50 | (86-115) | 86 |

Method Blank ID:2883V.MBLK1 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA

TCLP Blank ID: 2883V.FBLK1 TCLP LCS ID: 2883V.TLCS2 TCLP MS ID:2894.04MS TCLP MSD ID:NA TCLP DUP ID:NA

* = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

*TCLP SEMIVOLATILES*

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Suite 3, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-ORHW-05 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | PDP Sample ID: | 2883.05 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | A6772 | Date Reported: | 05/17/95 |

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 1.0 | Method Ref.: | SW846-8270 |
| Multiplying Factor: | 50.0 | Date TCLP Extracted: | 04/17/95 | GC/MS File ID: | A6772 |
| Sample Volume: | 200 ml | Date Extracted: | 04/26/95 | Analyst: | RRP |
| Extract Volume: | 10.0 ml | Date Analyzed: | 05/16/95 | | |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,4-Dichlorobenzene | 7500 | 500 | ND |
| 2,4,5-Trichlorophenol | 400000 | 500 | ND |
| 2,4,6-Trichlorophenol | 2000 | 500 | ND |
| 2,4-Dinitrotoluene | 130 | 500 | ND |
| 2-Methylphenol | 200000 | 500 | ND |
| 3+4-Methylphenols | 200000 | 500 | ND |
| Hexachlorobenzene | 130 | 500 | ND |
| Hexachlorobutadiene | 500 | 500 | ND |
| Hexachloroethane | 3000 | 500 | ND |
| Nitrobenzene | 2000 | 500 | ND |
| Pentachlorophenol | 100000 | 1250 | ND |
| Pyridine | 5000 | 500 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery | Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|---|---|---|---|
| Nitrobenzene-d5 | 2500 | (35-114) | 0 | Phenol-d5 | 3750 | (10-94) | 0 |
| 2-Fluorobiphenyl | 2500 | (43-116) | 0 | 2-Fluorophenol | 3750 | (21-100) | 0 |
| Terphenyl-d14 | 2500 | (33-141) | 0 | 2,4,6-Tribromophenol | 3750 | (10-123) | 0 |

Method Blank ID: 2883S.WBLK1 LCS ID: 2883S.WLCS1 MS ID: NA MSD ID: NA

TCLP Blank ID: 2883S.TBLK1 TCLP LCS ID: NA TCLP MS ID: 2883.05MS TCLP MSD ID: NA

* : Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-ORHW-06 | Date Sampled: | 04/05/95 |
| Project Name: | CDI CHEMICALS | PDP Sample ID: | 2883.06 | Date Received: | 04/07/95 |
| Project No.: | 170R06032 | Report No.: | A6774 | Date Reported: | 05/17/95 |

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

| | | | | | |
|---|---|---|---|---|---|
| Sample Matrix: | LIQUID | Dilution: | 1.0 | Method Ref.: | SW846-8270 |
| Multiplying Factor: | 50.0 | Date TCLP Extracted: | 04/17/95 | GC/MS File ID: | A6774 |
| Sample Volume: | 200 ml | Date Extracted: | 04/26/95 | Analyst: | RRP |
| Extract Volume: | 10.0 ml | Date Analyzed: | 05/16/95 | | |

| COMPOUND | REGULATORY LEVEL (ug/L) * | QUANTITATION LIMIT (ug/L) | RESULTS (ug/L) |
|---|---|---|---|
| 1,4-Dichlorobenzene | 7500 | 500 | ND |
| 2,4,5-Trichlorophenol | 400000 | 500 | ND |
| 2,4,6-Trichlorophenol | 2000 | 500 | ND |
| 2,4-Dinitrotoluene | 130 | 500 | ND |
| m-Methylphenol | 200000 | 500 | ND |
| m/p-4-Methylphenols | 200000 | 500 | ND |
| Hexachlorobenzene | 130 | 500 | ND |
| Hexachlorobutadiene | 500 | 500 | ND |
| Hexachloroethane | 3000 | 500 | ND |
| Nitrobenzene | 2000 | 500 | ND |
| Pentachlorophenol | 100000 | 1250 | ND |
| Pyridine | 5000 | 500 | ND |

QUALITY ASSURANCE/QUALITY CONTROL

| Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery | Surrogate | Spike Added (ug/L) | QC Limits (Recovery) | % Recovery |
|---|---|---|---|---|---|---|---|
| Nitrobenzene-d5 | 2500 | (35-114) | 0 | Phenol-d5 | 3750 | (10-94) | 0 |
| 2-Fluorobiphenyl | 2500 | (43-116) | 0 | 2-Fluorophenol | 3750 | (21-100) | 0 |
| Terphenyl-d14 | 2500 | (33-141) | 0 | 2,4,6-Tribromophenol | 3750 | (10-123) | 0 |

Method Blank ID: 2883S.MBLX1 LCS ID: 2883S.MLCS1 MS ID: NA MSD ID: NA

TCLP Blank ID: 2883S.TBLX1 TCLP LCS ID: NA TCLP MS ID: 2883.05MS TCLP MSD ID: NA

* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

*TCLP METALS*

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| lient: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-ORHW-05 | | Date Sampled: 04-05-95 |
| ro ct Name: | CDI CHEMICALS | PDP Sample ID: | 2883.05 | | Date Received: 04-07-95 |
| roject Number: | 170R06032 | Report Number: | I88305 | | Date Reported: 05-16-95 |

TCLP METALS (DATA SHEET)

ample Matrix: SOIL — Units: mg/L

| NALYTE | METHOD | DATE EXTRACTED | DATE PREPARED | DATE ANALYZED | QUANTITATION LIMIT | RESULT | ANALYST |
|---|---|---|---|---|---|---|---|
| rs ic | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 50 | ND | RB |
| arium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |
| admium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 1.25 | ND | RB |
| hr ium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |
| ea | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 12.5 | ND | RB |
| ercury | SW846-7470 | 04-17-95 | 05-05-95 | 05-05-95 | 0.004 | ND | KW |
| al ium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 25 | ND | RB |
| il r | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |

QUALITY ASSURANCE/QUALITY CONTROL

| | | | |
|---|---|---|---|
| | | ICP LCS ID: ICPL64 | ICP MS ID: NA |
| P Method Blank ID: | ICPB64 | CVAA LCS ID: HGL68 | CVAA MS ID: 2883.05MS |
| AA Method Blank ID: | HGB68 | | |
| LP Extraction Blank ID: | 2883.E1F1 | ICP LCSD ID: ICPL64D | ICP MSD ID: NA |
| | | CVAA LCSD ID: HGL68D | CVAA MSD ID: NA |

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POP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

| | | | | | |
|---|---|---|---|---|---|
| Client: | PRC ENVIRONMENTAL | Client Sample ID: | CDI-ORHM-05 | | Date Sampled: 04-05-95 |
| Project Name: | CDI CHEMICALS | POP Sample ID: | 2883.05D | | Date Received: 04-07-95 |
| Project Number: | 170R06032 | Report Number: | I88305D | | Date Reported: 05-16-95 |

TCLP METALS (DATA SHEET)

Sample Matrix: SOIL — Units: mg/L

| ANALYTE | METHOD | DATE EXTRACTED | DATE PREPARED | DATE ANALYZED | QUANTITATION LIMIT | RESULT | ANALYST |
|---|---|---|---|---|---|---|---|
| Arsenic | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 1 | ND | RB |
| Barium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |
| Cadmium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.025 | ND | RB |
| Chromium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |
| Lead | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.25 | 0.39 | RB |
| Mercury | SW846-7470 | 04-17-95 | 05-05-95 | 05-05-95 | 0.004 | ND | KW |
| Selenium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.5 | ND | RB |
| Silver | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |

QUALITY ASSURANCE/QUALITY CONTROL

| | | | |
|---|---|---|---|
| | | ICP LCS ID: ICPL64 | ICP MS ID: NA |
| ICP Method Blank ID: | ICP864 | CVAA LCS ID: HGL68 | CVAA MS ID: 2883.05MS |
| CVAA Method Blank ID: | HG868 | | |
| TCLP Extraction Blank ID: | 2883.E1F1 | ICP LCSD ID: ICPL64D | ICP MSD ID: NA |
| | | CVAA LCSD ID: HGL68D | CVAA MSD ID: NA |

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL
Project Name: CDI CHEMICALS
Project Number: 170R06032

Client Sample ID: CDI-ORHW-06
PDP Sample ID: 2883.06
Report Number: I88306

Date Sampled: 04-05-95
Date Received: 04-07-95
Date Reported: 05-16-95

TCLP METALS (DATA SHEET)

Sample Matrix: SOIL

Units: mg/L

| ANALYTE | METHOD | DATE EXTRACTED | DATE PREPARED | DATE ANALYZED | QUANTITATION LIMIT | RESULT | ANALYST |
|---|---|---|---|---|---|---|---|
| Arsenic | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 50 | ND | RB |
| Barium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |
| Cadmium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 1.25 | ND | RB |
| Chromium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |
| Lead | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 12.5 | ND | RB |
| Mercury | SW846-7470 | 04-17-95 | 05-05-95 | 05-05-95 | 0.004 | ND | KW |
| Selenium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 25 | ND | RB |
| Silver | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 2.5 | ND | RB |

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICPB64
CVAA Method Blank ID: HGB68
TCLP Extraction Blank ID: 2883.E1F1

ICP LCS ID: ICPL64
CVAA LCS ID: HGL68
ICP LCSD ID: ICPL64D
CVAA LCSD ID: HGL68D

ICP MS ID: NA
CVAA MS ID: 2883.05MS
ICP MSD ID: NA
CVAA MSD ID: NA

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PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.B; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL
Project Name: CDI CHEMICALS
Project Number: 170R06032

Client Sample ID: CDI-DRM01-09
PDP Sample ID: 2883.09
Report Number: I88309

Date Sampled: 04-05-95
Date Received: 04-07-95
Date Reported: 05-16-95

TCLP METALS (DATA SHEET)

Sample Matrix: SOIL

Units: mg/L

| ANALYTE | METHOD | DATE EXTRACTED | DATE PREPARED | DATE ANALYZED | QUANTITATION LIMIT | RESULT | ANALYST |
|---|---|---|---|---|---|---|---|
| Arsenic | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 1 | ND | RB |
| Barium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | 0.18 | RB |
| Cadmium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.025 | ND | RB |
| Chromium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |
| Lead | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.25 | ND | RB |
| Mercury | SW846-7470 | 04-17-95 | 05-05-95 | 05-05-95 | 0.004 | ND | KW |
| Selenium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.5 | ND | RB |
| Silver | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP864
CVAA Method Blank ID: HG868
TCLP Extraction Blank ID: 2883.E1F1

ICP LCS.ID: ICPL64
CVAA LCS ID: HGL68
ICP LCSD ID: ICPL64D
CVAA LCSD ID: HGL68D

ICP MS ID: NA
CVAA MS ID: 2883.05MS
ICP MSD ID: NA
CVAA MSD ID: NA

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL
Project Name: CDI CHEMICALS
Project Number: 170R06032

Client Sample ID: CDI-ORSI-10
PDP Sample ID: 2883.10
Report Number: I88310

Date Sampled: 04-05-95
Date Received: 04-07-95
Date Reported: 05-16-95

TCLP METALS (DATA SHEET)

Sample Matrix: SOIL

Units: mg/L

| ANALYTE | METHOD | DATE EXTRACTED | DATE PREPARED | DATE ANALYZED | QUANTITATION LIMIT | RESULT | ANALYST |
|---|---|---|---|---|---|---|---|
| Arsenic | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 1 | ND | RB |
| Barium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | 1.49 | RB |
| Cadmium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.025 | ND | RB |
| Chromium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |
| Lead | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.25 | ND | RB |
| Mercury | SW846-7470 | 04-17-95 | 05-05-95 | 05-05-95 | 0.004 | ND | KW |
| Selenium | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.5 | ND | RB |
| Silver | SW846-6010 | 04-17-95 | 04-26-95 | 05-02-95 | 0.05 | ND | RB |

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP864
CVAA Method Blank ID: HG868
TCLP Extraction Blank ID: 2883.E1F1

ICP LCS ID: ICPL64
CVAA LCS ID: HGL68
ICP LCSD ID: ICPL64D
CVAA LCSD ID: HGL68D

ICP MS ID: NA
CVAA MS ID: 2883.05MS
ICP MSD ID: NA
CVAA MSD ID: NA

*TOTAL VOLATILES*

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRHW05

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_05

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E2447

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. ____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 10

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100 | U |
| 74-83-9 | Bromomethane | 100 | U |
| 75-01-4 | Vinyl Chloride | 100 | U |
| 75-00-3 | Chloroethane | 100 | U |
| 75-09-2 | Methylene Chloride | 50 | U |
| 67-64-1 | Acetone | 100 | U |
| 75-15-0 | Carbon Disulfide | 50 | U |
| 75-35-4 | 1,1-Dichloroethene | 50 | U |
| 75-34-3 | 1,1-Dichloroethane | 50 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 50 | U |
| 67-66-3 | Chloroform | 50 | U |
| 107-06-2 | 1,2-Dichloroethane | 50 | U |
| 78-93-3 | 2-Butanone | 100 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 50 | U |
| 56-23-5 | Carbon Tetrachloride | 50 | U |
| 108-05-4 | Vinyl Acetate | 100 | U |
| 75-27-4 | Bromodichloromethane | 50 | U |
| 78-87-5 | 1,2-Dichloropropane | 50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 50 | U |
| 79-01-6 | Trichloroethene | 50 | U |
| 124-48-1 | Dibromochloromethane | 50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 50 | U |
| 71-43-2 | Benzene | 50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 50 | U |
| 75-25-2 | Bromoform | 50 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100 | U |
| 591-78-6 | 2-Hexanone | 100 | U |
| 127-18-4 | Tetrachloroethene | 50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 50 | U |
| 108-88-3 | Toluene | 50 | U |
| 108-90-7 | Chlorobenzene | 50 | U |
| 100-41-4 | Ethylbenzene | 50 | U |
| 100-42-5 | Styrene | 50 | U |
| 1330-20-7 | Xylene (total) | 50 | U |



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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRACE07

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_07

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E2449

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. ____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 100

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1000 | U |
| 74-83-9 | Bromomethane | 1000 | U |
| 75-01-4 | Vinyl Chloride | 1000 | U |
| 75-00-3 | Chloroethane | 1000 | U |
| 75-09-2 | Methylene Chloride | 500 | U |
| 67-64-1 | Acetone | 4700000 | E |
| 75-15-0 | Carbon Disulfide | 500 | U |
| 75-35-4 | 1,1-Dichloroethene | 500 | U |
| 75-34-3 | 1,1-Dichloroethane | 500 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 500 | U |
| 67-66-3 | Chloroform | 500 | U |
| 107-06-2 | 1,2-Dichloroethane | 500 | U |
| 78-93-3 | 2-Butanone | 1000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 500 | U |
| 56-23-5 | Carbon Tetrachloride | 500 | U |
| 108-05-4 | Vinyl Acetate | 1000 | U |
| 75-27-4 | Bromodichloromethane | 500 | U |
| 78-87-5 | 1,2-Dichloropropane | 500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 500 | U |
| 79-01-6 | Trichloroethene | 500 | U |
| 124-48-1 | Dibromochloromethane | 500 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U |
| 71-43-2 | Benzene | 500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U |
| 75-25-2 | Bromoform | 500 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1000 | U |
| 591-78-6 | 2-Hexanone | 1000 | U |
| 127-18-4 | Tetrachloroethene | 500 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 | U |
| 108-88-3 | Toluene | 500 | U |
| 108-90-7 | Chlorobenzene | 500 | U |
| 100-41-4 | Ethylbenzene | 500 | U |
| 100-42-5 | Styrene | 500 | U |
| 1330-20-7 | Xylene (total) | 500 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRACE07DL

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_07DL

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E453

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. _____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 100000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1000000 | U |
| 74-83-9 | Bromomethane | 1000000 | U |
| 75-01-4 | Vinyl Chloride | 1000000 | U |
| 75-00-3 | Chloroethane | 1000000 | U |
| 75-09-2 | Methylene Chloride | 500000 | U |
| 67-64-1 | Acetone | 9800000 | D |
| 75-15-0 | Carbon Disulfide | 500000 | U |
| 75-35-4 | 1,1-Dichloroethene | 500000 | U |
| 75-34-3 | 1,1-Dichloroethane | 500000 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 500000 | U |
| 67-66-3 | Chloroform | 500000 | U |
| 107-06-2 | 1,2-Dichloroethane | 500000 | U |
| 78-93-3 | 2-Butanone | 1000000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 500000 | U |
| 56-23-5 | Carbon Tetrachloride | 500000 | U |
| 108-05-4 | Vinyl Acetate | 1000000 | U |
| 75-27-4 | Bromodichloromethane | 500000 | U |
| 78-87-5 | 1,2-Dichloropropane | 500000 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500000 | U |
| 79-01-6 | Trichloroethene | 500000 | U |
| 124-48-1 | Dibromochloromethane | 500000 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 500000 | U |
| 71-43-2 | Benzene | 500000 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 500000 | U |
| 75-25-2 | Bromoform | 500000 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1000000 | U |
| 591-78-6 | 2-Hexanone | 1000000 | U |
| 127-18-4 | Tetrachloroethene | 500000 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500000 | U |
| 108-88-3 | Toluene | 500000 | U |
| 108-90-7 | Chlorobenzene | 500000 | U |
| 100-41-4 | Ethylbenzene | 500000 | U |
| 100-42-5 | Styrene | 500000 | U |
| 1330-20-7 | Xylene (total) | 500000 | U |



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1A
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EPA SAMPLE NO.

CDIDRXYL08

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_08

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E2455

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. ____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 100

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1000 | U |
| 74-83-9 | Bromomethane | 1000 | U |
| 75-01-4 | Vinyl Chloride | 1000 | U |
| 75-00-3 | Chloroethane | 1000 | U |
| 75-09-2 | Methylene Chloride | 500 | U |
| 67-64-1 | Acetone | 1000 | U |
| 75-15-0 | Carbon Disulfide | 500 | U |
| 75-35-4 | 1,1-Dichloroethene | 500 | U |
| 75-34-3 | 1,1-Dichloroethane | 500 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 500 | U |
| 67-66-3 | Chloroform | 500 | U |
| 107-06-2 | 1,2-Dichloroethane | 500 | U |
| 78-93-3 | 2-Butanone | 1000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 500 | U |
| 56-23-5 | Carbon Tetrachloride | 500 | U |
| 108-05-4 | Vinyl Acetate | 1000 | U |
| 75-27-4 | Bromodichloromethane | 500 | U |
| 78-87-5 | 1,2-Dichloropropane | 500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U |
| 79-01-6 | Trichloroethene | 500 | U |
| 124-48-1 | Dibromochloromethane | 500 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U |
| 71-43-2 | Benzene | 500 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U |
| 75-25-2 | Bromoform | 500 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1000 | U |
| 591-78-6 | 2-Hexanone | 1000 | U |
| 127-18-4 | Tetrachloroethene | 500 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 | U |
| 108-88-3 | Toluene | 500 | U |
| 108-90-7 | Chlorobenzene | 500 | U |
| 100-41-4 | Ethylbenzene | 820 | |
| 100-42-5 | Styrene | 500 | U |
| 1330-20-7 | Xylene (total) | 1200 | |

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1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRXYL08DL

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_08DL

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E454

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. _____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 1000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10000 | U |
| 74-83-9 | Bromomethane | 10000 | U |
| 75-01-4 | Vinyl Chloride | 10000 | U |
| 75-00-3 | Chloroethane | 10000 | U |
| 75-09-2 | Methylene Chloride | 5000 | U |
| 67-64-1 | Acetone | 10000 | U |
| 75-15-0 | Carbon Disulfide | 5000 | U |
| 75-35-4 | 1,1-Dichloroethene | 5000 | U |
| 75-34-3 | 1,1-Dichloroethane | 5000 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5000 | U |
| 67-66-3 | Chloroform | 5000 | U |
| 107-06-2 | 1,2-Dichloroethane | 5000 | U |
| 78-93-3 | 2-Butanone | 10000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5000 | U |
| 56-23-5 | Carbon Tetrachloride | 5000 | U |
| 108-05-4 | Vinyl Acetate | 10000 | U |
| 75-27-4 | Bromodichloromethane | 5000 | U |
| 78-87-5 | 1,2-Dichloropropane | 5000 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5000 | U |
| 79-01-6 | Trichloroethene | 5000 | U |
| 124-48-1 | Dibromochloromethane | 5000 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5000 | U |
| 71-43-2 | Benzene | 5000 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5000 | U |
| 75-25-2 | Bromoform | 5000 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10000 | U |
| 591-78-6 | 2-Hexanone | 10000 | U |
| 127-18-4 | Tetrachloroethene | 5000 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5000 | U |
| 108-88-3 | Toluene | 5000 | U |
| 108-90-7 | Chlorobenzene | 5000 | U |
| 100-41-4 | Ethylbenzene | 5000 | U |
| 100-42-5 | Styrene | 5000 | U |
| 1330-20-7 | Xylene (total) | 5000 | U |



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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRSI10

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) SOIL Lab Sample ID: _____

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E2474

Level: (low/med) MED Date Received: 04/07/95

% Moisture: not dec. _____ Date Analyzed: 04/20/95

Column: (pack/cap) CAP Dilution Factor: 10000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 12000000 | U |
| 74-83-9 | Bromomethane | 12000000 | U |
| 75-01-4 | Vinyl Chloride | 12000000 | U |
| 75-00-3 | Chloroethane | 12000000 | U |
| 75-09-2 | Methylene Chloride | 6200000 | U |
| 67-64-1 | Acetone | 12000000 | U |
| 75-15-0 | Carbon Disulfide | 6200000 | U |
| 75-35-4 | 1,1-Dichloroethene | 6200000 | U |
| 75-34-3 | 1,1-Dichloroethane | 6200000 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 6200000 | U |
| 67-66-3 | Chloroform | 6200000 | U |
| 107-06-2 | 1,2-Dichloroethane | 6200000 | U |
| 78-93-3 | 2-Butanone | 12000000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 6200000 | U |
| 56-23-5 | Carbon Tetrachloride | 6200000 | U |
| 108-05-4 | Vinyl Acetate | 12000000 | U |
| 75-27-4 | Bromodichloromethane | 6200000 | U |
| 78-87-5 | 1,2-Dichloropropane | 6200000 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 6200000 | U |
| 79-01-6 | Trichloroethene | 6200000 | U |
| 124-48-1 | Dibromochloromethane | 6200000 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 6200000 | U |
| 71-43-2 | Benzene | 6200000 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 6200000 | U |
| 75-25-2 | Bromoform | 6200000 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12000000 | U |
| 591-78-6 | 2-Hexanone | 12000000 | U |
| 127-18-4 | Tetrachloroethene | 6200000 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6200000 | U |
| 108-88-3 | Toluene | 28000000 | |
| 108-90-7 | Chlorobenzene | 6200000 | U |
| 100-41-4 | Ethylbenzene | 15000000 | |
| 100-42-5 | Styrene | 6200000 | U |
| 1330-20-7 | Xylene (total) | 160000000 | |



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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDIDRW0211

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883_11

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E2456

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. _____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 100

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1000 | U |
| 74-83-9 | Bromomethane | 1000 | U |
| 75-01-4 | Vinyl Chloride | 1000 | U |
| 75-00-3 | Chloroethane | 1000 | U |
| 75-09-2 | Methylene Chloride | 500 | U |
| 67-64-1 | Acetone | 1000 | U |
| 75-15-0 | Carbon Disulfide | 500 | U |
| 75-35-4 | 1,1-Dichloroethene | 500 | U |
| 75-34-3 | 1,1-Dichloroethane | 500 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 500 | U |
| 67-66-3 | Chloroform | 500 | U |
| 107-06-2 | 1,2-Dichloroethane | 500 | U |
| 78-93-3 | 2-Butanone | 1000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 500 | U |
| 56-23-5 | Carbon Tetrachloride | 500 | U |
| 108-05-4 | Vinyl Acetate | 1000 | U |
| 75-27-4 | Bromodichloromethane | 500 | U |
| 78-87-5 | 1,2-Dichloropropane | 500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U |
| 79-01-6 | Trichloroethene | 500 | U |
| 124-48-1 | Dibromochloromethane | 500 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U |
| 71-43-2 | Benzene | 500 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U |
| 75-25-2 | Bromoform | 500 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1000 | U |
| 591-78-6 | 2-Hexanone | 1000 | U |
| 127-18-4 | Tetrachloroethene | 500 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 | U |
| 108-88-3 | Toluene | 500 | U |
| 108-90-7 | Chlorobenzene | 500 | U |
| 100-41-4 | Ethylbenzene | 500 | U |
| 100-42-5 | Styrene | 500 | U |
| 1330-20-7 | Xylene (total) | 500 | U |

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CDI-TB01

Lab Name: PDP ANALYTICAL Contract: _____

Lab Code: _____ Case No.: PRC SAS No.: _____ SDG No.: 2883

Matrix: (soil/water) WATER Lab Sample ID: 2883 12

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E2446

Level: (low/med) LOW Date Received: 04/07/95

% Moisture: not dec. ____ Date Analyzed: 04/19/95

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |



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*VOLATILES-F LIST*

CDI-DRHW-05

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEM Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: V288305

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4004.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 4/19/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 100 | UD |
| | Ethyl ether | 100 | UD |
| | 1,1,2-Trichlorotrifluoroethane | 100 | UD |
| | Ethyl acetate | 500 | UD |
| | 2-Nitropropane | 500 | UD |
| | 1,2-Dichlorobenzene | 100 | UD |
| | Nitrobenzene | 100 | UD |

CDI-DRACE-07

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEM Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: V288307

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4005.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 4/19/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 100000.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 1E+06 | UD |
| | Ethyl ether | 1E+06 | UD |
| | 1,1,2-Trichlorotrifluoroethane | 1E+06 | UD |
| | Ethyl acetate | 5E+06 | UD |
| | 2-Nitropropane | 5E+06 | UD |
| | 1,2-Dichlorobenzene | 1E+06 | UD |
| | Nitrobenzene | 1E+06 | UD |

CDI-DRAFT-03

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEM Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: V288308

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4006.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 4/19/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 100.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 1000 | UD |
| | Ethyl ether | 1000 | UD |
| | 1,1,2-Trichlorotrifluoroethane | 1000 | UD |
| | Ethyl acetate | 5000 | UD |
| | 2-Nitropropane | 5000 | UD |
| | 1,2-Dichlorobenzene | 1000 | UD |
| | Nitrobenzene | 1000 | UD |

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEMLocation: Group:

Matrix: (soil/water) WATER Lab Sample ID: V288310

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4008.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 4/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1250000.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 1E+07 | UD |
| | Ethyl ether | 1E+07 | UD |
| | 1,1,2-Trichlorotrifluoroethane | 1E+07 | UD |
| | Ethyl acetate | 6E+07 | UD |
| | 2-Nitropropane | 6E+07 | UD |
| | 1,2-Dichlorobenzene | 1E+07 | UD |
| | Nitrobenzene | 1E+07 | UD |

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEMI Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: V288311

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4007.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 4/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 100.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 1000 | UD |
| | Ethyl ether | 1000 | UD |
| | 1,1,2-Trichlorotrifluoroethane | 1000 | UD |
| | Ethyl acetate | 5000 | UD |
| | 2-Nitropropane | 5000 | UD |
| | 1,2-Dichlorobenzene | 1000 | UD |
| | Nitrobenzene | 1000 | UD |

000444

Lab Name: PDP ANALYTICAL SERVICES Contract: PRC ENVIRONMENTAL

Project No.: 170R06032 Site: CDI CHEMLocation: Group:

Matrix: (soil/water) WATER Lab Sample ID: V288312

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B4000.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 4/19/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

| CAS No. | Compound | | Q |
|---|---|---|---|
| | Trichlorofluoromethane | 10 | U |
| | Ethyl ether | 10 | U |
| | 1,1,2-Trichlorotrifluoroethane | 10 | U |
| | Ethyl acetate | 50 | U |
| | 2-Nitropropane | 50 | U |
| | 1,2-Dichlorobenzene | 10 | U |
| | Nitrobenzene | 10 | U |

FORM I VOA

*GENERAL CHEMISTRY*

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Ste.B; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL
Project Name: CDI CHEMICALS
Project No: 170R86032

Date Reported: 05-16-95
Report No: 1883IGNT
Analyst: KW

WET CHEMISTRY PARAMETER: Ignitability

Method Reference: SW-846 1010 UNITS: Degrees F

| PDP LABORATORY ID | CLIENT ID | MATRIX | DATE SAMPLED | DATE RECEIVED | DATE PREPARED | DATE ANALYZED | QUANT LIMIT | RESULT | SPIKE ADDED OR TRUE VALUE | RELATIVE PERCENT DIFF(20) | PERCENT RECOVERY (75-125) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1883.05 | CDI-DRHW-05 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | >200 | | | |
| 1883.07 | CDI-DRACE-07 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | 130 | | | |
| 2883.08 | CDI-DRXYL-08 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | 120 | | | |
| 1883.09 | CDI-DRW01-09 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | >200 | | | |
| 1883.10 | CDI-DRSI-10 | SLUDGE | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | 90 | | | |
| 2883.11 | CDI-DRW02-11 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-02-95 | >200 | >200 | | | |
| | | | | QUALITY ASSURANCE/QUALITY CONTROL | | | | | | | |
| 2883.PBW | METHOD BLANK | NA | NA | NA | NA | 05-02-95 | >200 | >200 | | | |
| 2883.LCS1 | LAB CONTROL STD | NA | NA | NA | NA | 05-02-95 | >200 | 84 | 84 | | 100 |
| 1883.LCS2 | LAB CONTROL STD | NA | NA | NA | NA | 05-02-95 | >200 | 84 | 84 | 0.0 | 100 |
| 1883.07 | SAMPLE | NA | NA | NA | NA | 05-02-95 | >200 | 130 | | | |
| 2883.07D | DUPLICATE | NA | NA | NA | NA | 05-02-95 | >200 | 127 | | 2.3 | |

PDP ANALYTICAL SERVICES

1680 Lake Front Circle, Ste.3; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL
Project Name: CDI CHEMICALS
Project No: 170R06032

Date Reported: 05-16-95
Report No: I883CORR
Analyst: KW

WET CHEMISTRY PARAMETER: Corrosivity pH

Method Reference: SW-846 9040/9045

UNITS: NA

| PDP LABORATORY ID | CLIENT ID | MATRIX | DATE SAMPLED | DATE RECEIVED | DATE PREPARED | DATE ANALYZED | QUANT LIMIT | RESULT | SPIKE ADDED OR TRUE VALUE | RELATIVE PERCENT DIFF(20) | PERCENT RECOVERY (75-125) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2883.01 | CDI-DR30-01 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-04-95 | NA | >13.0 | | | |
| 2883.02 | CDI-DR33-02 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-04-95 | NA | >13.0 | | | |
| 2883.03 | CDI-DR34-03 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-04-95 | NA | >13.0 | | | |
| 2883.04 | CDI-DR35-04 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-04-95 | NA | >13.0 | | | |
| 2883.11 | CDI-DRW02-11 | LIQUID | 04-05-95 | 04-07-95 | NA | 05-04-95 | NA | >13.0 | | | |
| QUALITY ASSURANCE/QUALITY CONTROL | | | | | | | | | | | |
| 2883.LCS1 | LAB CONTROL STD | NA | NA | NA | NA | 05-04-95 | NA | 8.98 | 9.09 | | 99 |
| 2883.LCS2 | LAB CONTROL STD | NA | NA | NA | NA | 05-04-95 | NA | 8.94 | 9.09 | 0.4 | 98 |
| 2902.01 | SAMPLE | NA | NA | NA | NA | 05-04-95 | NA | >13.0 | | | |
| 2902.01D | DUPLICATE | NA | NA | NA | NA | 05-04-95 | NA | >13.0 | | NC | |

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-1
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.05
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

| MISCELLANEOUS ANALYSES | | |
|---|---|---|
| TEST REQUESTED | DETECTION LIMIT | RESULTS |
| Specific Gravity at 20 C /1 | | 1.09 |
| Analyzed using ASTM D1429 on 1-MAY-1995 by KPP<br>QC Batch No : 405004A | | |

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592


DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-2
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.07
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

MISCELLANEOUS ANALYSES

| TEST REQUESTED | | DETECTION LIMIT | RESULTS |
|---|---|---|---|
| Specific Gravity at 20 C | /1 | | 0.982 |

Analyzed using ASTM D1429 on 1-MAY-1995 by KPO
QC Batch No : 405004A

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-258-5591
Fax. 214-258-5592

DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-3
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.08
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

| MISCELLANEOUS ANALYSES | | | |
|---|---|---|---|
| TEST REQUESTED | | DETECTION LIMIT | RESULTS |
| Specific Gravity at 20 C | /1 | | 0.898 |
| Analyzed using ASTM D1429 on 1-MAY-1995 by KPP<br>QC Batch No : 405004A | | | |

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-3591
Fax. 214-238-3592


DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-4
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.09
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

| MISCELLANEOUS ANALYSES | | |
|---|---|---|
| TEST REQUESTED | DETECTION LIMIT | RESULTS |
| Specific Gravity at 20 C /1 | | 0.984 |
| Analyzed using ASTM D1429 on 1-MAY-1995 by KPP<br>QC Batch No : 405004A | | |

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592


DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-5
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.10
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

| MISCELLANEOUS ANALYSES | | | |
|---|---|---|---|
| TEST REQUESTED | | DETECTION LIMIT | RESULTS |
| Specific Gravity at 20 C | /1 | | 0.990 |
| Analyzed using ASTM D1429 on 1-MAY-1995 by KPP<br>QC Batch No : 405004A | | | |

# Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-258-5591
Fax. 214-258-5592


DATE RECEIVED : 26-APR-1995

REPORT NUMBER : D95-3774-6
REPORT DATE : 3-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services
ADDRESS : 1680 Lake Front Circle
: Woodlands, TX 77380
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid
ID MARKS : 2883.11
PURCHASE ORDER NO : 94819
DATE SAMPLED : 25-APR-1995

| MISCELLANEOUS ANALYSES | | | |
|---|---|---|---|
| TEST REQUESTED | | DETECTION LIMIT | RESULTS |
| Specific Gravity at 20 C | /1 | | 0.980 |
| Analyzed using ASTM D1429 on 1-MAY-1995 by KPP<br>QC Batch No : 405004A | | | |

# ATTACHMENT B

## MATERIAL SAFETY DATA SHEETS FOR HYDROCHLORIC ACID AND CAUSTIC SODA LIQUID

(Seven Sheets)

000636

# CAUSTIC SODA LIQUID 50% INDUST



THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

**********

Product Name: CAUSTIC SODA LIQUID 50% INDUST
CAS NUMBER: 1310-73-2

Data Sheet No: 0000721-007.002
Prepared: 05/06/94
Supersedes: 12/22/93
Print Date: 09/10/94

CDI-CHEMICAL DISTRIBUTORS
3911 MONROE ROAD
**ATTN: TINA SMYTH***
FARMINGTON NM 87401

ATTN: PLANT MGR./SAFETY DIR.

05 50 028 1429900-

PRODUCT: 3150000
INVOICE: 771024
INVOICE DATE: 09/03/94
TO: CDI-CHEMICAL DISTRIBUTORS
18501 EAST HWY 6
ALGOA TX 77511

## SECTION I-PRODUCT IDENTIFICATION

General or Generic ID: ALKALI

## SECTION II-COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION. SEE DEFINITION PAGE FOR CLARIFICATION

| INGREDIENT | Percent | PEL | TLV | Note |
|---|---|---|---|---|
| SODIUM HYDROXIDE<br>CAS #: 1310-73-2 | 50 | 2 MG/M3 - CEILING | 2 MG/M3 - CEILING | |
| WATER<br>CAS #: 7732-18-5 | 50 | | | |

## SECTION III-PHYSICAL DATA

| | | |
|---|---|---|
| Boiling Point | for PRODUCT | 288.00 Deg F<br>( 142.22 Deg C)<br>@ 760.00 mm Hg |
| Vapor Pressure | for PRODUCT | 3.00 mm Hg<br>@ 100.00 Deg F<br>( 37.77 Deg C) |
| Specific Vapor Density | AIR = 1 | .60 |
| Specific Gravity | | 1.535<br>@ 60.00 Deg F<br>( 15.55 Deg C) |
| Percent Volatiles | | 50.00% |
| Evaporation Rate | | SLOWER THAN ETHER |
| pH | | 14.0 |
| Appearance | | CLEAR & COLORLESS |
| State | | LIQUID |
| Form | | HOMOG SOLN |

## SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT NOT APPLICABLE

EXPLOSIVE LIMIT NOT APPLICABLE

EXTINGUISHING MEDIA: NOT APPLICABLE

HAZARDOUS DECOMPOSITION PRODUCTS: NOT APPLICABLE

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE AND FULL BODY PROTECTION WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: CAN REACT WITH CHEMICALLY REACTIVE METALS SUCH AS ALUMINUM, ZINC, MAGNESIUM, COPPER ETC. TO RELEASE HYDROGEN GAS WHICH CAN FORM EXPLOSIVE MIXTURES WITH AIR.

NFPA CODES: HEALTH- 3 FLAMMABILITY- 1 REACTIVITY- 0

## SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 2 MG/M3 - CEILING

THRESHOLD LIMIT VALUE 2 MG/M3 - CEILING

EFFECTS OF ACUTE OVEREXPOSURE:

EYES - EXPOSURE TO LIQUID OR VAPOR CAUSES IRREVERSIBLE EYE DAMAGE. SYMPTOMS MAY INCLUDE STINGING, TEARING, REDNESS, SWELLING, CORNEAL DAMAGE AND BLINDNESS.
SKIN - EXPOSURE CAUSES IRREVERSIBLE SKIN DAMAGE. SYMPTOMS MAY INCLUDE REDNESS, SWELLING, BURNS, AND SEVERE SKIN DAMAGE. PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.
BREATHING - MIST CAN CAUSE DAMAGE TO NASAL AND RESPIRATORY PASSAGES.
SWALLOWING - RESULTS IN SEVERE DAMAGE TO MUCOUS MEMBRANES AND DEEP TISSUES.

CONTINUED ON PAGE: 2

# DEFINITIONS

This definition page is intended for use with Material Safety Data Sheets supplied by the Ashland Chemical Company. Recipients of these data sheets should consult the OSHA Safety and Health Standards (29 CFR 1910), particularly subpart G - Occupational Health and Environmental Control, and subpart I - Personal Protective Equipment, for general guidance on control of potential Occupational Health and Safety Hazards.

## SECTION I
## PRODUCT IDENTIFICATION

**GENERAL OR GENERIC ID:** Chemical family or product description.

**DOT HAZARD CLASSIFICATION:** Product meets DOT criteria for hazards listed.

## SECTION II
## COMPONENTS

Components are listed in this section if they present a physical or health hazard and are present at or above 1% in the mixture. If a component is identified as a CARCINOGEN by NTP, IARC, or OSHA as of the date on the MSDS, it will be listed and footnoted in this section when present at or above 0.1% in the product. Negative conclusions concerning carcinogenicity are not reported. Additional health information may be found in Section V. Components subject to the reporting requirements of Section 313 of SARA Title III are identified in the footnotes in this section, along with typical percentages. Other components may be listed if deemed appropriate.

Exposure recommendations are for components. OSHA Permissible Exposure Limits (PELS) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) appear on the line with the component identification. Other recommendations appear as footnotes.

## SECTION III
## PHYSICAL DATA

**BOILING POINT:** Of product if known. The lowest value of the components is listed for mixtures.

**VAPOR PRESSURE:** Of product if known. The highest value of the components is listed for mixtures.

**SPECIFIC VAPOR DENSITY:** Compared to AIR = 1. If the Specific Vapor Density of a product is not known, the value is expressed as lighter or greater than air.

**SPECIFIC GRAVITY:** Compared to WATER = 1. If Specific Gravity of product is not known, the value is expressed as less than or greater than water.

**pH:** If applicable.

**PERCENT VOLATILES:** Percentage of material with initial boiling point below 425 degrees Fahrenheit and vapor pressure above 0.1mm Hg at 68 F.

**EVAPORATION RATE:** Indicated as faster or slower than ETHYL ETHER, unless otherwise stated.

## SECTION IV
## FIRE AND EXPLOSION DATA

**FLASH POINT:** Method identified.

**EXPLOSION LIMITS:** For product if known. The lowset value of the components is listed for mixtures.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Known or expected hazardous products resulting from heating, burning or other reactions.

## SECTION IV (cont.)

**EXTINGUISHING MEDIA:** Following National Fire Protection Association criteria.

**FIREFIGHTING PROCEDURES:** Minimum equipment to protect firefighters from toxic products of vaporization, combustion or decomposition in fire situations. Other firefighting hazards may also be indicated.

**SPECIAL FIRE AND EXPLOSION HAZARDS:** States hazards not covered by other sections.

**NFPA CODES:** Hazard ratings assigned by the National Fire Protection Association.

## SECTION V
## HEALTH HAZARD DATA

**PERMISSIBLE EXPOSURE LIMIT:** For product.

**THRESHOLD LIMIT VALUE:** For product.

**EFFECTS OF ACUTE OVEREXPOSURE:** Potential local and systemic effects due to single or short term overexposure to the eyes and skin or through inhalation or ingestion.

**EFFECTS OF CHRONIC OVEREXPOSURE:** Potential local and systemic effects due to repeated or long term overexposure to the eyes and skin or through inhalation or ingestion.

**FIRST AID:** Procedures to be followed when dealing with accidental overexposure.

**PRIMARY ROUTE OF ENTRY:** Based on properties and expected use.

## SECTION VI
## REACTIVITY DATA

**HAZARDOUS POLYMERIZATION:** Conditions to avoid to prevent hazardous polymerization resulting in a large release of energy.

**STABILITY:** Conditions to avoid to prevent hazardous or violent decomposition.

**INCOMPATIBILITY:** Materials and conditions to avoid to prevent hazardous reactions.

## SECTION VII
## SPILL OR LEAK PROCEDURES

Reasonable precautions to be taken and methods of containment, clean-up and disposal. Consult federal, state and local regulations for accepted procedures and any reporting or notification requirements.

## SECTION VIII
## PROTECTIVE EQUIPMENT TO BE USED

Protective equipment which may be needed when handling the product.

## SECTION IX
## SPECIAL PRECAUTIONS OR OTHER COMMENTS

Covers any relevant points not previously mentioned.

# ADDITIONAL COMMENTS

Containers should be either reconditioned by CERTIFIED firms or properly disposed of by APPROVED firms. Disposal of containers should be in accordance with applicable laws and regulations. "EMPTY" drums should not be given to individuals. Serious accidents have resulted from the misuse of "EMPTIED" containers (drums,pails,etc.). Refer to Sections IV and IX.

# MATERIAL SAFETY DATA SHEET

Dow Chemical U.S.A.* Midland, MI 48674 Emergency Phone: 517-636-4400

Product Code: 40500 Page: 1

PRODUCT NAME: HYDROCHLORIC ACID, TECHNICAL 20 BAUME'

Effective Date: 11/22/89 Date Printed: 03/21/90 MSDS:000631

## 1. INGREDIENTS: (% w/w, unless otherwise noted)

| | | |
|---|---|---|
| Hydrogen chloride | CAS# 007647-01-0 | 31.5% |
| Water | CAS# 007732-18-5 | Balance |

## 2. PHYSICAL DATA:

BOILING POINT: 178F (81.5C)
VAP PRESS: 25 mmHg, 3.3 kpa @ 20C
VAP DENSITY: (Air=1) 11.0
SOL. IN WATER: Infinite.
SP. GRAVITY: 1.16
APPEARANCE: White to yellow clear liquid.
ODOUR: A pungent odor.

## 3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: None
METHOD USED: TCC

FLAMMABLE LIMITS
LFL: Not applicable
UFL: Not applicable

EXTINGUISHING MEDIA: Non-flammable.

FIRE & EXPLOSION HAZARDS: Hydrochloric acid itself is non-flammable. There is, however, a latent fire or explosion hazard due to hydrogen gas generated when acid is in contact with metals.

FIRE-FIGHTING EQUIPMENT: Wear positive pressure self-contained breathing apparatus.

(Continued on Page 2)
(R) Indicates a Trademark of The Dow Chemical Company

* An Operating Unit of The Dow Chemical Company

## 4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Contact with metals may cause generation of flammable concentrations of hydrogen gas.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Avoid base and corrosive materials. Avoid contact with most metals. Avoid oxidizing material, can oxidize to chlorine.

HAZARDOUS DECOMPOSITION PRODUCTS: None.

HAZARDOUS POLYMERIZATION: Will not occur.

## 5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Small quantities may be flushed with copious quantities of water; in case of larger amounts, contain liquid. Use limestone, lime or soda ash to cautiously neutralize since considerable amounts of heat and steam may be generated on neutralization.

DISPOSAL METHOD: Contact The Dow Chemical Company for further instructions.

## 6. HEALTH HAZARD DATA:

EYE: May cause pain, lachrymation (tears), and severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

SKIN CONTACT: Short single exposure may cause severe skin burns.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The dermal LD50 has not been determined.

INGESTION: Ingestion may cause gastrointestinal irritation or ulceration and severe burns of the mouth and throat.

(Continued on Page 3)

(R) Indicates a Trademark of The Dow Chemical Company

## 6. HEALTH HAZARD DATA: (CONTINUED)

INHALATION: Excessive vapor concentrations are readily attainable and may cause serious adverse effects, even death. Excessive exposure may cause severe irritation and injury to upper respiratory tract and lungs.

SYSTEMIC & OTHER EFFECTS: Repeated excessive exposure may cause erosion of teeth and bleeding and ulceration of nose, mouth and gums. Did not cause cancer in long-term animal studies.

## 7. FIRST AID:

EYES: Immediate and continuous irrigation with flowing water at least 30 minutes is imperative. Prompt medical consultation is essential.

SKIN: Immediate continued and thorough washing in flowing water for 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential.

INGESTION: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility.

INHALATION: Remove to fresh air. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

NOTE TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopic control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the paitient.

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## 8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE(S): ACGIH TLV and OSHA PEL are 5 ppm ceiling.

VENTILATION: Control airborne concentrations below the exposure guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation. Safety shower should be located in immediate work area. Wash contaminated clothing before reuse. Dispose of contaminated shoes.

EYE PROTECTION: Use chemical goggles. If vapor exposure causes eye irritation, use a full-face respirator. Wear a face-shield which allows use of chemical goggles, or a full-face respirator, to protect face and eyes when there is any likelihood of splashes. Eye wash fountain and safety shower should be located in immediate work area.

## 9. ADDITIONAL INFORMATION:

REGULATORY REQUIREMENTS:

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the

following categories:

An immediate health hazard

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## 9. ADDITIONAL INFORMATION: (CONTINUED)

A delayed health hazard

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Prevent all contact with eyes and skin. Avoid breathing irritating vapors.

MSDS STATUS: Revised Section 7.

SARA 313 INFORMATION:
This product contains the following substances subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| CHEMICAL NAME | CAS NUMBER | CONCENTRATION |
|---|---|---|
| HYDROCHLORIC ACID | 007647-01-0 | 32 % |

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The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.

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