Exhibit A

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.



| | | |
|---|---|---|
| In re: | ) | |
| Sunoco Partners Marketing & Terminals, LP | ) | UIC Appeal No. 05-01 |
| UIC Permit No. MI-163-3G-A002 | ) | |

## ORDER GRANTING MOTION TO PARTICIPATE

By motion filed on August 15, 2005, Sunoco Partners Marketing & Terminals, L.P. ("SPMT"), the permittee in the above-captioned proceeding, requests leave to participate in this proceeding and to file a response to the petition for review filed by Environmental Disposal Systems, Inc. ("EDS").

In support of its motion, SPMT states that "[as] permittee, SPMT has a strong interest in the defense of its permit" and that "the permitted cavern expansion is integral to SPMT's business." Furthermore, SPMT states that it "can assist the Environmental Appeals Board in its review of this matter as SPMT is familiar with the permit and the business to which it pertains."

SPMT's motion is granted. SPMT's response must be received by the Board no later than September 15, 2005.

So ordered.

ENVIRONMENTAL APPEALS BOARD

Dated: 8/19/05

By: _____
For Kathie A. Stein
Environmental Appeals Judge

Exhibit B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

# FACT SHEET FOR ISSUANCE OF UNDERGROUND INJECTION CONTROL (UIC) CLASS III PERMIT - SOLUTION MINING OF SALT

Permit Number: MI-163-3G-A002

Facility Name: Sunoco Inkster Facility

Sunoco Partners Marketing & Terminals L.P. of Taylor, Michigan, has applied to the United States Environmental Protection Agency (USEPA) for an area permit to operate four existing wells for solution mining of salt to enlarge existing caverns for hydrocarbon storage in Wayne County, Michigan.

Review of the permit application indicates that no significant environmental impact should result from the proposed injection. The USEPA, therefore, intends to issue a permit for the injection wells. Under the authority of Title 40, Code of Federal Regulations (40 CFR) Parts 144 and 146, USEPA permits must specify conditions for construction, operation, monitoring, reporting, and plugging and abandonment of injection well so as to prevent the movement of fluids into any underground sources of drinking water (USDW). General provisions for USEPA UIC permit requirements are found at 40 CFR Parts 144 and 146, while regulations specific to Michigan injection operations are found at 40 CFR Part 147 Subpart X. In accordance with 40 CFR 124.8, general information and highlighted permit conditions specific to this well are as follows:

Area of Review (AOR) and Corrective Action: In accordance with 40 CFR 144.55, 146.6 and 146.7, this is the area in and around the permit area within which the applicant must research, examine and develop a program to address, with a corrective action plan, wells which penetrate the injection zone that are improperly sealed, completed or abandoned and may, therefore, provide a conduit for fluid migration. The applicant has provided documentation on the well population within 1/4 mile of the permit area (i.e., the AOR). There are no producing, four injection, four hydrocarbon storage, no temporarily abandoned, and one plugged and abandoned wells within the AOR which penetrate the injection zone.

Underground Sources of Drinking Water (USDWs): USDWs are defined by the UIC regulations as aquifers or portions thereof which contain less than 10,000 milligrams per liter of total dissolved solids and which are being or could be used as a source of drinking water. The base of the lowermost possible USDW in the vicinity of the injection well has been identified at approximately 220 feet below ground surface. This water bearing formation is the Dundee limestone.

Injection and Confining Zones: Injection of fluids for solution mining of salt is limited by the permit to the F, E, D, C and B units of the Salina Group in the interval between 1150 and 1800 feet below ground surface. This injection zone is separated from the lowermost USDW by approximately 930 feet of sedimentary rock strata.

Construction Requirements: Pursuant to 40 CFR 146.32, all new Class III wells shall be cased and cemented to prevent the migration of fluids into or between underground sources of drinking water (USDWs). The permittee shall not commence construction, including drilling or conversion, of any injection well until a final permit has been issued. Pursuant to 40 CFR 144.52(a)(1), all existing wells shall demonstrate the absence of fluid movement behind the casing within five (5) months of the permit's effective date by running a noise, temperature or oxygen activation log. The operator will be required to repeat this test at least once every five (5) years, thereafter.

Injection Fluid: The injected fluid shall be restricted to fresh water from the Municipality or from water wells on-site. The maximum daily volume of injected fluid is expected to be 17,143 barrels per well.

Maximum Injection Pressure: The maximum wellhead injection pressure shall be limited to 502 pounds per square inch gauge (psig) (as described in Page A-1 of 1 of the permit). This limitation will ensure that the pressure during injection does not initiate new fractures or propagate existing fractures in the injection zone during injection operations. This in turn ensures that the injection pressure will not cause the movement of injection or formation fluids into a USDW as prohibited by 40 CFR 146.33(a)(1).

Monitoring and Reporting Requirements: In accordance with 40 CFR 144.54 and 146.33, the applicant will be responsible for observing and recording injection pressure semi-monthly and reporting this to the USEPA on a quarterly basis. The cumulative injected and produced volumes shall be monitored daily and shall be reported quarterly. The specific gravity of the injected fluid shall be monitored monthly and shall be reported quarterly. An analysis of the injected fluid must be submitted on a quarterly basis. In addition, the applicant is required to conduct and pass a two part mechanical integrity (MI) test in accordance with 40 CFR 146.8. The applicant will be required to repeat the first part of MI (i.e., absence of significant leaks in the casing or tubing) and the second part of MI (i.e., the absence of fluid movement behind the casing) at least once every sixty (60) months from the last approved demonstration. These tests will provide USEPA with an evaluation of the integrity of the casing, as well as a determination of the absence or presence of fluid movement behind the casing.

Plugging and Abandonment: In accordance with 40 CFR 146.10 and 146.34(c), the

permit includes a plugging and abandonment plan for environmentally protective well closure at the time of cessation of operations. Sunoco Partners Marketing & Terminals L.P. has demonstrated adequate financial responsibility to close, plug, and abandon this underground injection operation. A State bond in the amount of $30,000 for each well has been established for this purpose with the State of Michigan through the Liberty Mutual Insurance Company of Owings Mills, Maryland.

Issuance and Effective Date of Permit: In accordance with 40 CFR 124.15, the permit will become effective immediately upon issuance if no public comments were received that requested a change in the draft permit. However, in the event that public comments are received and request a change in the draft permit, then the permit will become effective thirty (30) days after the date of issuance unless the permit is appealed. In accordance with 40 CFR 144.36(a), the permit will be in effect for the life of the operation unless it is otherwise modified, revoked and reissued, or terminated as provided at 40 CFR 144.39, 144.40 and 144.41. The permit will be reviewed by the USEPA at least once every five (5) years from its effective date for consistency with new or revised Federal regulations.

Questions and requests for additional information or for a public hearing may be submitted in writing to the contact person listed below or made verbally to Roger Hall at (312) 353-5228 or hall.roger@epa.gov via the internet. The public comment period on this permitting action will close thirty (30) days after the date of the public notice. If the USEPA receives written comments of substantial public interest that warrant a hearing on this action, a public notice of a scheduled hearing will be published locally and mailed to interested parties.

To preserve the right to appeal any final permit decision that may be made in this matter under 40 CFR Part 124, you must either participate in the USEPA public hearing or send in written comments on the draft permit decision. This first appeal must be made to the Environmental Appeals Board of the USEPA; only after all agency review procedures have been exhausted may you file an action in the appropriate Circuit Court of Appeals for review.

U.S. Environmental Protection Agency
Region 5 (WU-16J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Attn: Pamela Blakley, Acting Chief
Direct Implementation Section

Pamela Blakley

Pamela Blakley, Acting Chief
Direct Implementation Section

Exhibit C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 3 2005

**CERTIFIED MAIL 7001 0320 0005 9027 2138**
**RETURN RECEIPT REQUESTED**

REPLY TO THE ATTENTION OF
**WU-16J**

Mr. Jonathan O Ojany
Sunoco Pipeline L.P.
7155 Inkster Road
Taylor, Michigan 48180

**RE: United States Environmental Protection Agency (USEPA) Draft Permit #MI-163-3G-A002**

Dear Mr. Ojany:

In accordance with Federal Underground Injection Control Program permitting procedures enclosed is a copy of the following draft permit.

**Wayne County, Michigan**
**Solution Mining of Salt for Hydrocarbon Storage**
**LPG Storages #4-#5-#7-#9**
**MDEQ Permits #20404-#21521-#26443-#29090**
**USEPA Draft Permit #MI-163-3G-A002**

To preserve your right to appeal any final permit decision that may be made in this matter under Title 40 of the Code of Federal Regulations (40 CFR) §124.19, you must either participate in a public hearing or send in written comments on the draft permit decision. Following such participation, the first appeal for review of any condition of the final permit decision must be made to the Environmental Appeals Board of the USEPA. Such a petition must include a statement of the reasons supporting review of the decision, including a demonstration that the issue(s) being raised for review were raised during the public comment period (including any public hearing). The petition should, when appropriate, show that each condition being appealed is based on either, (1) a finding of fact or conclusion of law which is clearly erroneous, or (2) an exercise of discretion or an important policy demonstration which the Environmental Appeals Board should, in its discretion, review. If you wish to request an administrative review, you must submit such a request by **regular mail** to the USEPA, Environmental Appeals Board, (MC 1103B), Ariel Rios Building, NW., Washington, D.C. 20460. Requests sent by **express mail** or **hand delivered** must be sent to the USEPA, Environmental Appeals Board, 607 14th Street, N.W., Suite 500, Washington, D.C. 20005.

The request must arrive at the Board's office within 30 days of the receipt of the notice of decision. The request will be timely if received within this time period. For this request to be valid, it must conform to the requirements of 40 CFR §124.19.

According to Title 40 of the Code of Federal Regulations (40 CFR) §142.10(b), a public notice of the preparation of a draft permit shall allow at least 30 days public comment period. At the end of the public comment period you will be notified if any significant change in the draft permit is required. If no changes are made, the final permit will be issued without prior notification.

Sincerely yours,

Charles T. Elly

Charles T. Elly, Chief
Underground Injection Control Branch

Enclosures

cc: Thomas Wellman, Michigan Department of Environmental Quality/with copy
Charles Brown, c/o Talib Syed/TSA, Inc.

Exhibit D

United States
Environmental Protection
Agency, Region 5

77 West Jackson Boulevard
Chicago, Illinois 60604-3590
Mail Code WU-16J

Water Division

MAR 11 2005

Underground Injection Control Branch

# PUBLIC NOTICE

The United States Environmental Protection Agency (USEPA), Region 5 office, plans to issue an injection well permit. This is your chance to send written comments on this proposed Class III solution mining area permit.

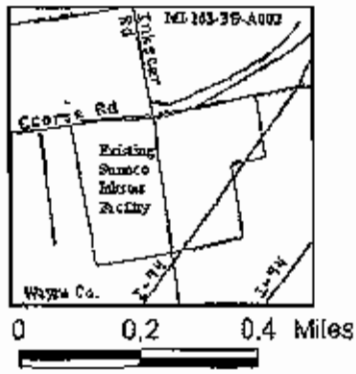
The Safe Drinking Water Act requires us to regulate underground injection of fluids through wells to protect the quality of underground sources of drinking water. This is done in part by issuing permits to owners/operators of underground injection wells. The regulations governing underground injection wells are at Title 40 of the Code of Federal Regulations (40 C.F.R.) Parts 144 and 146. The procedure for the permit process is at 40 C.F.R. § 124.5. More information about our program is on the Internet at **http://www.epa.gov/r5water/uic/uic.htm.**

**FACTS**

Sunoco Partners Marketing & Terminals L.P. of Taylor, Michigan, has applied to the USEPA for a permit to operate four existing wells. This will be for injection of fresh water into a rock formation 1150ft to 1800 ft below the ground surface; facilitating the enlargement of existing salt caverns for hydrocarbon storage in Wayne County, Michigan.

**LOCATION:** The W/2 of NE/4 & SW/4 & NW/4 of the NW/4 of the NW/4 of Section 7, Township 3 South, Range 10 East and the NE/4 & SE/4 of the NE/4 of the NE/4 of Section 12, Township 3 South, Range 9 East in Wayne County, Michigan. **(See Map)**

**Wayne County:** Sunoco Inkster Facility:
EPA Area Permit #MI-163-3G-A002, (Well #4, MDNR Permit #20404)
(Well #5, MDNR Permit #21521)
(Well #7, MDNR Permit #26443)
(Well #9, MDNR Permit #29090)




**Permit Writer:** Roger Hall (312) 353-5228, or hall.roger@epa.gov via the internet.

You may see the draft permit at: . **Henry Ford Centennial Library, 16301 Michigan Avenue, Dearborn, Michigan; Monday-Thursday 9 a.m. to 9 p.m., Friday 9 a.m. to 5 p.m. and Saturday 1 p.m. to 5 p.m.** The draft permit is also on the Internet at **http://www.epa.gov/r5water/uic/uic.htm.**

Send your written comments to the Permit Writer at the Internet address listed above, or to this address.

**U.S. Environmental Protection Agency**
**DI Section (Attn: Lisa Perenchio)**
**77 West Jackson Boulevard, (WU-16J)**
**Chicago, Illinois 60604-3590**

We must receive your comments within 30 days after the date at the top of this notice. During the public comment period, you may request a public hearing in writing. You must state the issues you propose to raise at the hearing. If we receive many comments on this draft permit decision, we will hold a hearing, and publish a notice of the hearing at least 30 days before the hearing. If there is a hearing, you may make your comments then. We will consider all comments received and then issue a final permit decision.

If you wish to visit the Region 5 office, please call the Permit Writer first. The office is at the address listed above, and is open between the hours of 9 a.m. and 4 p.m. You may view the administrative record, including all data submitted by Sunoco Partners Marketing & Terminals L.P. at the Region 5 office.

Exhibit E

WARNER NORCROSS & JUDD LLP
ATTORNEYS AT LAW
900 FIFTH THIRD CENTER
111 LYON STREET, N.W.
GRAND RAPIDS, MICHIGAN 49503-2487
TELEPHONE 616.752.2000
FAX 616.752.2500



WILLIAM C. FULKERSON

616.752.2438
Direct Fax: 616.222.2438
wfulkerson@wnj.com

April 6, 2005

Attention: Lisa Perenchio
DI Section
U.S. Environmental Protection Agency
77 West Jackson Boulevard
WU-16J
Chicago, Illinois 60604-3590

Re: **EPA Area Permit No. MI-163-3G-A002**
**Well #4, MDNR Permit #20404**
**Well #5, MDNR Permit #21521**
**Well #7, MDNR Permit #26443**
**Well #9, MDNR Permit #29090**

To Whom It May Concern:

We represent Environmental Disposal Systems, Inc. (EDS) which has a facility near the proposed wells that will inject hazardous waste into the Mount Simon Formation. EDS is concerned about the proposal to use the above wells to solution mine a larger cavern for LPG storage.

The notice is unclear as to the interval involved in the project. The notice states there will be injection into a rock formation from "1,150 ft to 1800 feet below the ground surface". Is there going to be an attempt to solution mine between the two vertically separated caverns? We understood the wells are completed at 1,499 to 1570 feet and were developed in the "B" Salt which is separated by shale and anhydrite from the upper cavern. Is there to be solution mining of the upper level which is the "D" Salt? The notice appears to inaccurately describe the project.

EDS is concerned about the mining and the operation of the caverns. LPG is a highly volatile material that is both flammable and potentially explosive. Should that gas migrate out of the injection zone it will be under reduced pressure and change to a gaseous phase which is more mobile than the liquid. Any potential for migration out of the injection zone raises significant concerns both as to the potential contamination of USDW's or migration to a point where the gas could escape to the surface where it possibly could ignite or explode.

Based upon the information available to us we understand the wells to be used are nearly 50 years old and constructed well before modern completion techniques were employed and the U.I.C. casing and sealing requirements were developed. The historic, long term use of the caverns can lead to spalling of the cavern roof. This can cause caving in some places. If the caving occurs near the casing it can threaten the integrity of the cement sealing the casing string. What measures have been taken to ensure the integrity of the cavern ceiling? We also have a concern about corrosion. These wells have been exposed to saturated brine for decades which could cause corrosion and threaten the integrity of the wells. What efforts will be made to monitor strata above the injection zone to ensure that LPG has not migrated behind the casing cement upward?

According to our engineers up to 400 million gallons of fresh water could be consumed to solution mine the caverns. This water is to be from the municipal system which is a part of the Metropolitan Detroit Sewer and Water Authority. Once the water is used in solution mining the caverns it will become saturated with salt and will be injected into the Mount Simon Formation. This water is no longer useable. The City water is obtained from Lake Huron. A consumptive use of this large a volume of Great Lakes water raises issues under the 2001 Great Lakes Charter Annex And the Great Lakes Charter of 1985. This is a significant volume of water to be lost from the Great Lakes Basin. Before this kind of use is to be permitted it should be determined whether or not the use violates the applicable requirements for large volume Great Lakes water usage.

This proposed use is one that requires close scrutiny because of its potential to harm the water resources of the area. It should be denied until such time as the safety of the project can be insured and the water use for mining determined to be consistent with the law.

Very truly yours,

William C. Fulkerson

ka/kks
c: Douglas F. Wicklund, President, Environmental Disposal Systems, Inc

061564.061564 GR1103772-1

Exhibit F

# David A. Bower
Attorney at Law

10600 West Jefferson Ave. • River Rouge, Michigan 48218




April 5, 2005

7002 2410 0000 4846 0976

**VIA CERTIFIED MAIL**
Attention: Lisa Perenchio
United States Environmental Protection Agency
DI Section
77 West Jackson Boulevard (WU-16J)
Chicago, Illinois 60604-3590

Re: EPA Area Permit No. MI-163-3G-A002
Well #4, MDNR Permit #20404
Well #5, MDNR Permit #21521
Well #7, MDNR Permit #26443
Well #9, MDNR Permit #29090

To Whom It May Concern:

Sunoco Partners Marketing & Terminals, LP of Taylor, Michigan has applied for a permit to operate the above four existing wells. These wells are to be used to inject fresh water into a rock formation and solution mine a salt layer to enlarge existing storage caverns. These underground caverns are to be used for liquid petroleum gas storage (LP gas). I represent clients who have considerable concerns about this activity. We request a public hearing because of the potential for serious impact on the property adjoining the facility and residents in the immediate area.

It is our understanding that the wells proposed to be used for injection are decades old and were not constructed to modern completion standards. We are informed that a limited amount of cement was used to secure the casing to the objective formation. We also understand that the casing was not cemented to the surface to prevent upward migration of fluids. We understand that the method of operation for these caverns was to use salt water to displace the stored LPG and then run the salt water out of the caverns as it is displaced by stored LPG. Over time this activity has the potential to dissolve the salt that is a containment barrier in the upper most part of the cavern. As the salt dissolves, the layer of rock above the cavern is exposed to the LPG and salt water. Salt water is highly corrosive of the well casing. Exposure of the cavern roof to salt water and LPG can lead to deterioration of the rock and caving which would damage the cement bond.


Phone: (313) 842-1292 • Cell: (313) 333-0309 • Fax: (313) 842-5290
e-mail: davidboweratlaw@hotmail.com

When deterioration and caving is added to the corrosion of casing that could be expected, there is a substantial possibility that fluids will migrate through the very short increment of cement separating the casing from the well bore. Any fluid that escapes the small, confining cement zone would be free to travel and migrate upward around the well casing. Because these wells are relatively shallow, there is a probability that either LPG or salt water could migrate to a potential, usable source of drinking water. Salt water will render the USDW non-potable. Should LP gas reach a USDW it, too, can be a source of contamination. If LP gas were to migrate outward and find an avenue to reach the surface, it is highly explosive.

In sum, because of the potential to contamination USDWs and a concern for the integrity of the well case and its cement, we request that there be a public hearing to fully Discuss these important issues.

Very Truly Yours,

David A. Bower

DB/TS

Exhibit G

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

June 6, 2005

CERTIFIED MAIL 7001 0320 0005 9027 2114
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF
WU-16J

Mr. Jonthan O. Ojany
Sunoco Pipeline L.P.
7155 Inkster Road
Taylor, Michigan 48180

**RE: Final Letter for the LPG Storages #4-#5-#7-#9, (United States Environmental Protection Agency (USEPA) Permit #MI-163-3G-A002 , MDEQ Permit s #20404-#21521-#26443-#29090) Wells in Wayne County, Michigan**

Dear Mr. Ojany:

In accordance with permit conditions, operation of the injection wells are authorized to continue. Please send notification within 30 days of the receipt of this letter that you have read and are familiar with conditions of the enclosed final EPA permit.

In accordance with Title 40 of the Code of Federal Regulations (40 CFR) §124.19 (a), any person who comments on the draft permit may petition the Environmental Appeals Board to review any condition of the final permit decision. The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations, and when appropriate, a showing that the condition in question is based on a finding of fact or conclusion of law which is clearly erroneous, or an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review. If you wish to request an administrative review, you must submit such a request by **regular mail** to the USEPA, Environmental Appeals Board, ( MC 1103B), Ariel Rios Building, NW, Washington, D.C. 20460. Requests sent by **express mail** or **hand delivered** must be sent to the USEPA, Environmental Appeals Board, 607 14th Street, N.W., Suite 500, Washington D.C. 20005, within 30 days of receipt of this letter. The request will be timely if received within this time period. This request for review must be prior to seeking judicial review of any final permit decision.

The Environmental Appeals Board may also decide on its initiative to review any condition of any permit issued under this part. The Environmental Appeals Board must act within 30 days of notice of the Regional Administrator's action. Within a reasonable time following the filing of the petition for review, the Environmental Appeals Board shall issue an order either granting or denying the petition for review. To the extent review is denied, the conditions of the final permit decision become final agency action.

As specified in the permit, monitoring reports must be submitted to our Direct Implementation (DI) Section to keep these wells in compliance. The monthly and quarterly monitoring reports and EPA Forms 7520-12, **Well Rework Record**, have been enclosed for this purpose.

If you have any questions, please call Roger Hall of the Direct Implementation Section at (312) 353-5228.

Sincerely yours,

Charles T. Elly

Charles T. Elly, Chief
Underground Injection Control Branch

Enclosures

cc: Thomas Wellman, Michigan Department of Environmental Quality/with copy
Charles Brown, c/oTalib Syed/TSA, Inc.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)
# UNDERGROUND INJECTION CONTROL CLASS III PERMIT

Permit Number: MI-163-3G-A002

Facility Name: Sunoco Inkster Facility

Pursuant to the provisions of the Safe Drinking Water Act, as amended (42 U.S.C. 300f et seq., commonly known as the SDWA) and implementing regulations promulgated by the United States Environmental Protection Agency (USEPA) at Parts 124, 144, 146 and 147 of Title 40 of the Code of Federal Regulations (40 CFR), Sunoco Partners Marketing & Terminals L.P. of Taylor, Michigan is authorized to operate four existing wells located in a permit area limited to the W/2 of NE/4 & SW/4 & NW/4 of the NW/4 of the NW/4 of Section 7, Township 3 South, Range 10 East and the NE/4 & SE/4 of the NE/4 of the NE/4 of Section 12, Township 3 South, Range 9 East in Wayne County, Michigan. Injection shall be limited to the F, E, D, C and B units of the Salina Group between 1150 and 1800 feet, upon the express condition that the permittee meet the restrictions set forth herein. The names and locations of wells authorized under this permit and a map of the permit area are provided in Part III(D) of this permit. Additional injection wells may be constructed and operated within the permit area provided that the permittee notifies the Director prior to construction and all permit requirements are met. Injection shall not commence into any newly drilled or converted well until the operator has received authorization in accordance with Part I(E)(10) of this permit.

The purpose of the injection is limited to solution mining of salt to enlarge existing salt caverns for hydrocarbon storage.

All references to 40 CFR are to all regulations that are in effect on the date that this permit is effective.

This permit shall become effective on JUL 6 2005 and shall remain in full force and effect during the operating life of the field, unless this permit is otherwise revoked, terminated, modified or reissued pursuant to 40 CFR 144.39, 144.40 and 144.41. This permit shall also remain in effect upon delegation of primary enforcement responsibility to the State of Michigan unless that State chooses to adopt this permit as a State permit. This permit will be reviewed at least every five (5) years from the effective date specified above.

Signed and dated: June 6, 2005

for Charles J. Elly

Jo Lynn Traub
Director, Water Division

## PART I
## GENERAL PERMIT COMPLIANCE

### A. EFFECT OF PERMIT

The permittee is allowed to engage in underground injection in accordance with the conditions of this permit. The underground injection activity, otherwise authorized by this permit or rule, shall not allow the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any Primary Drinking Water Regulation found in 40 CFR Part 142 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in this permit or otherwise authorized by permit or rule is prohibited. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment.

### B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 144.39, 144.40, and 144.41. The filing of a request for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.

### C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

### D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and Section 144.5, any information submitted to the USEPA pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, USEPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

(1) The name and address of the permittee; and

(2) Information which deals with the existence, absence or level of contaminants in drinking water.

## E. DUTIES AND REQUIREMENTS

1. **Duty to Comply** - The permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit pursuant to 40 CFR 144.34. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, permit termination, revocation and reissuance or modification.

2. **Penalties for Violations of Permit Conditions** - Any person who operates this well in violation of permit conditions is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions under the Resource Conservation and Recovery Act. Any person who willfully violates a permit condition may be subject to criminal prosecution.

3. **Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action to state that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate** - The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

5. **Proper Operation and Maintenance** - The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

6. **Duty to Provide Information** - The permittee shall furnish to the Director, within thirty (30) days, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required by this permit to be retained.

7. **Inspection and Entry** - The permittee shall allow the Director or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

   (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;

   (b) Have access to and copy at reasonable times any records that must be retained under the conditions of this permit;

   (c) Inspect at reasonable times any facilities, equipment (including monitoring equipment), practices, or operations regulated or required under this permit; and

   (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any facilities, equipment or operations regulated or required under this permit.

8. **Records**

   (a) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all records required by this permit for a period of at least three (3) years from the date of the sample, measurement or report. The permittee shall also maintain records of all data required to complete this permit application and any supplemental information submitted under 40 CFR 144.31 and 144.51. These periods may be extended by request of the Director at any time by written notice to the permittee.

   (b) The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of plugging and abandonment in accordance with the plugging and abandonment plan, contained in Part III(B) of this permit. The owner or operator shall continue to retain the records after the three (3) year retention period unless he delivers the records to the Regional Administrator or obtains written approval from the Regional Administrator to discard the records.

   (c) Records of monitoring information shall include:

      (i) The date, exact place, and the time of sampling or measurements;

(ii) The name(s) of the individual(s) who performed the sampling or measurements;

(iii) A precise description of both sampling methodology and the handling of samples;

(iv) The date(s) analyses were performed;

(v) The name(s) of the individual(s) who performed the analyses;

(vi) The analytical techniques or methods used; and

(vii) The results of such analyses.

9. **Notification Requirements**

(a) **Planned Changes** - The permittee shall notify and obtain the Director's approval at least thirty (30) days prior to any planned physical alterations or additions to the permitted facility or changes in the injection fluids. Within ten (10) days prior to injection, an analysis of new injection fluids shall be submitted to the Director in accordance with Parts II(B)(2) and II(B)(3) of this permit.

(b) **Anticipated Noncompliance** - The permittee shall give at least thirty (30) days advance notice to the Director for his/her approval of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) **Transfer of Permits** - This permit is not transferrable to any person except after notice is sent to the Director at least thirty (30) days prior to transfer and the requirements of 40 CFR §144.38 have been met. The Director may require modification or revocation of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the SDWA.

(d) **Compliance Schedules** - Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted to the Director no later than thirty (30) days following each schedule date.

(e) **Twenty-Four (24) Hour Reporting**

(i) The permittee shall report to the Director any noncompliance which may endanger health or the

environment. This information shall be provided orally within twenty-four(24)hours from the time the permittee becomes aware of the circumstances and shall include the following information:

(a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water; or

(b) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

(ii) A written submission shall also be provided as soon as possible but no later than five (5) days from the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(f) Other Noncompliance - All other instances of noncompliance shall also be reported by the permittee in accordance with Part I(E)(9)(e)(i) and (ii) of this permit.

(g) Other Information - If or when the permittee becomes aware that the permittee failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit such facts or corrected information in accordance with 40 CFR 144.51(l)(8).

(h) Report on Permit Review - Within thirty (30) days of receipt of the final issued permit, the permittee shall report to the Director that the permittee has read and is personally familiar with all terms and conditions of this permit.

10. Commencing Injection - The permittee shall not commence injection into any newly drilled or converted well until:

(a) Formation data and injection fluid analysis have been submitted in accordance with Part II(A)(5) and II(B)(2)(c), respectively;

(b) A report on any logs and tests required under Part II(A)(4) of this permit has been submitted;

(c) Mechanical integrity of the well has been demonstrated in accordance with Part I(E)(18);

(d) Any required corrective action has been performed in accordance with Parts I(E)(17) and III(C); and

(e) Construction is complete and the permittee has submitted to the Director, by certified mail with return receipt requested, a notice of completion of construction using EPA Form 7520-10, a plugging and abandonment plan, a copy of the State permit and either:

(i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or

(ii) The permittee has not received, within thirteen (13) days of the date of the Director's receipt of the report required above, notice from the Director of his or her intent to inspect or otherwise review the new injection well, in which case prior inspection or review is waived and the permittee may commence injection.

11. **Signatory Requirements** - All reports or other information requested by the Director shall be signed and certified according to 40 CFR 144.32.

12. **Notice of Plugging and Abandonment** - The permittee shall notify the Director at least forty-five (45) working days before conversion or abandonment of the injection well.

13. **Plugging and Abandonment** - The permittee shall plug and abandon the well as provided in the plugging and abandonment plan contained in Part III(B) of this permit. Within sixty (60) working days after plugging a well, or at the time of the next quarterly report (whichever is later), the permittee shall submit a report to the Director. The report shall be certified as accurate by the person who performed the plugging operation and shall consist of either:

(a) A statement that the well was plugged in accordance with the plan previously submitted to the Director; or

(b) If the actual plugging differed from the approved plan, a statement defining the actual plugging and explaining why the Director should approve such deviation. Any deviation from a previously approved plan which may endanger underground sources of drinking water is cause for the Director to require the operator

to replug the well.

14. Inactive Wells - After cessation of injection for two (2) years the permittee shall plug and abandon a well in accordance with the plan and 40 CFR 144.52 (a)(6) unless the permittee has:

(a) Provided notice to the Director; and

(b) Described actions or procedures, which are deemed satisfactory by the Director, that the permittee will take to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived, in writing, by the Director.

15. **Financial Responsibility** - The permittee shall maintain financial responsibility and resources to plug and abandon the underground injection well in accordance with 40 CFR 144.52(a)(7) as provided in Attachment R of the administrative record corresponding to this permit action which is hereby incorporated by reference as if it appeared fully set forth herein. The permittee shall not substitute an alternative demonstration of financial responsibility from that which the Director has approved unless the permittee has previously submitted evidence of that alternative demonstration to the Director and the Director has notified the permittee in writing that the alternative demonstration of financial responsibility is acceptable. The financial responsibility mechanism shall be updated periodically, upon request of the Director, except when Financial Statement Coverage is used as the financial mechanism; this coverage must be updated on an annual basis.

16. **Insolvency**

(a) In the event of the bankruptcy of the trustee or issuing institution of the financial mechanism, or a suspension or revocation of the authority of the trustee institution to act as trustee or the institution issuing the financial mechanism to issue such an instrument, the permittee must submit an alternative demonstration of financial responsibility acceptable to the Director within sixty (60) days after such event. Failure to do so will result in the termination of this permit pursuant to 40 CFR 144.40(a)(1).

(b) An owner or operator must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor of a corporate guarantee must make such a notification if he or she is named as debtor, as required under the terms of the guarantee.

17. Corrective Action

The permittee shall shut-in the injection well whenever the permittee or USEPA determines that operation thereof may be causing upward fluid migration through the well bore of any improperly plugged or unplugged well in the area of review and shall take such steps as the permittee can to properly plug the offending well(s). Any operation of the well which may cause upward fluid migration from an improperly plugged or unplugged well will be considered a violation of this permit. If the permittee or USEPA determines that the permitted well is not in compliance with 40 CFR 146.8, the permittee will immediately shut-in the well until such time as appropriate repairs can be effected and written approval to resume injection is given by the Director. In addition, the permittee shall not commence injection until any and all corrective action has been taken in accordance with any plan contained in Part III(C) of this permit and the requirements in Part I(E)(10) of this permit have been met.

18. Mechanical Integrity (MI) - The permittee must establish and shall maintain mechanical integrity of this well in accordance with 40 CFR 146.8. The mechanical integrity demonstration consists of two parts: Part I demonstrates no significant leaks in the casing, tubing, or packer and Part II demonstrates no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the wellbore. The permittee is required to pass both parts of the mechanical integrity demonstration in accordance with Part I(E)(18)(a) and (b) of this permit and thereafter once every sixty (60) months from the date of the last approved demonstration.

(a) Pursuant to 40 CFR 146.8(a)(1), prior to commencing injection into any newly drilled well, the permittee shall demonstrate the first part of MI by using the standard annulus pressure test or another approved method.

(b) Pursuant to 40 CFR 146.8(a)(2), prior to commencing injection, the permittee shall demonstrate the second part of MI by running a noise, temperature or oxygen activation log. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the Director. However, should the nature of the casing preclude the use of a noise, temperature or oxygen activation log, then pursuant to 40 CFR 146.8(c)(3), cementing records may be used to demonstrate the presence of adequate cement to prevent fluid migration behind the outermost casing and the wellbore.

(c) The permittee shall cause all gauges used in mechanical integrity demonstrations to be calibrated to an accuracy of not less than one-half percent (0.5%) of full scale. A copy of the calibration certificate shall be submitted to the Director or his/her representative at the time of

demonstration.

(d) The permittee shall cease injection in a well if a loss of mechanical integrity occurs or is discovered during a test, or a loss of mechanical integrity as defined by 40 CFR 146.8 becomes evident during operation. Operation of the well shall not resume until the Director gives approval to recommence.

(e) The permittee shall notify the Director of the loss of mechanical integrity in accordance with the reporting procedures in Part I (E)(9)(e) and II (B)(3)(b) of this permit.

(f) The permittee shall report the results of a satisfactory mechanical integrity demonstration as provided in Part II (B)(3)(b) of this permit.

19. **Restriction on Injected Substances** - The permittee shall be restricted to the injection of fresh water from the Municipality or from water wells on-site. No fluids other than those from sources noted in the administrative record and approved by the Director shall be injected. Each year, the permittee shall submit, a certified statement attesting to compliance with this requirement.

20. **Construction, conversion, operation and plugging & abandonment within the permit area** - The permittee may construct, operate, convert, or plug and abandon wells within the permit area, provided that all permit conditions are met and :

(a) The permittee notifies the Director at such times as specified in the permit, and,

(b) Any additional wells are:

(i) Described and identified by location;

(ii) Located within the same well field, facility site, reservoir project, or similar unit in the same State, and injecting in the same formation; and,

(iii) Operated by the permittee.

## PART II

## WELL SPECIFIC CONDITIONS FOR UNDERGROUND INJECTION CONTROL PERMITS

### A. CONSTRUCTION REQUIREMENTS

1. **Siting** - Notwithstanding any other provision of this permit, the injection well shall inject only into a formation which is separated from any USDW by a confining zone that is free of known open faults or fractures within the area of the review.

2. **Casing and Cementing** - Injection wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The casing and cement used in the construction of the well shall be as contained in Attachments L and M of the administrative record corresponding to this permit action which are hereby incorporated by reference as if they appeared fully set forth herein.

3. **Wellhead Specifications** - A female coupling and valve shall be installed at the wellhead to be used for independent injection pressure readings.

4. **Logs and Tests** - Upon approval of the surface casing and cementation records by the Director, any logs and tests noted in Part III of this permit shall be performed, unless already provided. Prior to commencement of injection, the permittee shall submit to the Director for approval a descriptive report prepared by a knowledgeable log analyst interpreting the results of those logs and tests, along with the notice of completion required in Part I(E)(10) of this permit.

5. **Formation Data** - If not already provided, the permittee shall determine or calculate the following information concerning the injection formation and submit it to the Director for review and approval, prior to operation:

   (a) Formation fluid pressure;

   (b) Fracture pressure; and,

   (c) Physical and chemical characteristics of the formation fluids

6. **Prohibition of Unauthorized Injection** - Any underground injection, except as authorized by permit or rule issued under the UIC program, is prohibited. The construction, including drilling, of any well required to have a permit is prohibited until a permit has been issued and is effective.

B. OPERATING, MONITORING AND REPORTING REQUIREMENTS

1. Operating Requirements

Beginning on the effective date of this permit, the permittee is authorized to operate the injection well, subject to the limitations and monitoring requirements set forth herein. Except during stimulation, injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water. The injection pressure and injected fluid shall be limited and monitored as specified in Parts I(E)(19) and III(A) of this permit.

2. Monitoring Requirements

(a) Samples and measurements taken for the purpose of monitoring as required in Part II(B)(3) shall be representative of the monitored activity. Grab samples shall be used to obtain a representative sample of the fluid to be analyzed. Part III(A) of this permit describes the sampling location and required parameters for injection fluid analysis. The permittee shall identify the types of tests and methods used to generate the monitoring data. The monitoring program shall conform to the one described in Part III(A) of this permit.

(b) **Analytical Methods** - Monitoring of the nature of injected fluids shall comply with applicable analytical methods cited and described in Table I of 40 CFR Section 136.3 or in Appendix III of 40 CFR Part 261 or by other methods that have been approved by the Director.

(c) **Injection Fluid Analysis** - The nature of the injection fluids shall be monitored as specified in Part III(A) of this permit. An initial analysis of the injection fluid is contained in Attachment H of the administrative record corresponding to this permit action which is hereby incorporated by reference as if it appeared fully set forth herein. Whenever the injection fluid is modified to the extent that the analysis required by 40 CFR 146.34(a)(7)(iii) is incorrect or incomplete a new analysis shall be provided to the Director at the time of the next quarterly report. The Director may, by written notice, require the permittee to sample and analyze the injection fluid at any time.

(d) **Injection Pressure and Cumulative Volume** - The injection pressure shall be monitored semi-monthly and shall be reported quarterly as

specified in Part III(A) of this permit. The injected and produced fluid volumes shall be monitored daily and shall be reported quarterly. All gauges used in monitoring shall be calibrated according to Part I E(18)(c) of this permit.

3. Reporting Requirements - Copies of the monitoring results and all other reports shall be submitted to the Director at the following address:

**U.S. Environmental Protection Agency**
**Region 5**
**77 West Jackson Boulevard**
**Chicago, Illinois 60604-3590**
**Attn: UIC Branch, Direct Implementation Section (WU-16J)**

(a) Quarterly Reports - The permittee shall submit the results of the injection fluid analyses specified in permit conditions in Part (II)(B)(2)(c) and in Attachment A no later than the 10th day of the month following the end of the reporting period. Monitoring results shall be recorded on a form which has been signed and certified according to 40 CFR 144.32. Forms shall be submitted at the end of each quarter and shall be postmarked no later than the 10th day of the month following the reporting period. The first report shall be sent no later than the 10th day of the month following the quarter in which injection commences. This report shall include monthly average, maximum and minimum values for injection pressure, injected and produced volumes and the specific gravity of the injected fluids.

b) Reports on Well Tests, Workovers, and Plugging and Abandonment - The applicant shall provide the Director with the following reports and test results within sixty (60) days of completion of the activity:

(i) Mechanical integrity tests, except tests which the well fails, in which case twenty-four (24) hour reporting under Part I(9)(e) is applicable;

(ii) Logging or other test data;

(iii) Well workovers (using EPA Form 7520-12); and

(iv) Plugging and abandonment.

## PART III
## SPECIAL CONDITIONS

These special conditions include, but are not limited to, plans for maintaining correct operating procedures, monitoring conditions and reporting, as required by 40 CFR Parts 144 and 146. These plans are described in detail in the permittee's application for a permit, and the permittee is required to adhere to these plans as approved by the Director, as follows:

A. OPERATING, MONITORING AND REPORTING REQUIREMENTS (ATTACHED)

B. PLUGGING AND ABANDONMENT PLAN (ATTACHED)

C. CORRECTIVE ACTION PLAN (ATTACHED)

D. ADDITIONAL REQUIREMENTS (IF REQUIRED)

## OPERATING, MONITORING AND REPORTING REQUIREMENTS

| | LIMITATION | MINIMUM MONITORING REQUIREMENTS | | MINIMUM REPORTING REQUIREMENTS |
|---|---|---|---|---|
| Characteristic | | FreqType | | |
| *Injection Pressure 382 psig (MAXIMUM) | | semi-monthly | | quarterly |
| Cumulative Injected Volume | | daily | | quarterly |
| Cumulative Produced Volume | | daily | | quarterly |
| Specific Gravity | | monthly | grab | quarterly |
| **Chemical Composition of Injected Fluid | | quarterly | grab | quarterly |

**SAMPLING LOCATION:** wellhead

*The limitation on wellhead pressure serves to prevent injection formation fracturing. The maximum wellhead pressure is dependent upon injection formation fracture gradient, depth and specific gravity of the injected fluid. This limitation was calculated using the following formula: [{0.8 psi/ft - 0.433 psi/ft)(specific gravity)} x depth] - 14.7 psi]. The F member of the Salina formation at 1150 feet was used as the depth, a specific gravity of 1.05 was used for the injected fluid and a fracture gradient of 0.8 psi/ft was determined from a default value for Michigan.

**Chemical composition analysis shall include, but not be limited to, the following: Sodium, Calcium, Magnesium, Total Iron, Chloride, Sulfate, Carbonate, Bicarbonate, Sulfide, Total Dissolved Solids, pH, Resistivity (ohm-meters @ 75°F).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

# PLUGGING AND ABANDONMENT PLAN

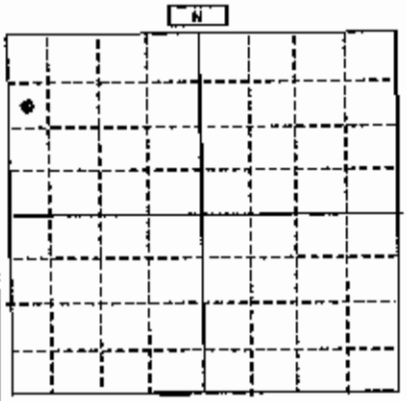
**WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER**

LPG Storage #4

**NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR**

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres




| STATE | COUNTY | STATE PERMIT NUMBER |
|---|---|---|
| Michigan | Wayne | 20404 |

SURFACE LOCATION DESCRIPTION

SW 1/4 of NW 1/4 of NW 1/4 of Section 7 Township 3S Range 10E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 680 ft. From (N/S) North Line of Quarter Section
And 420 ft. From (E/W) West Line of Quarter Section

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

**WELL ACTIVITY**

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

**CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT**

| Size | Wt.(lb/ft) TBG/CSG | Original Amount (CSG) | CSG to be Left in Well | Hole Size | Sacks Cement Used | Type |
|---|---|---|---|---|---|---|
| 16" | 55&65 | 240 | 240 | 20" | 235 | Class A |
| 10 3/4" | 32.75 | 1570 | 1570 | 13 3/4" | 800 | Class A |
| | | | | | | |
| | | | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

| CEMENT TO PLUG AND ABANDON DATA | Plug # | Plug # | Plug # | Plug# | Plug # | Plug # | Plug # |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in Which Plug Will Be Placed (inches) | 10.19" | 10 1/5 | | | | | |
| Calculated Top of Plug (ft.) | | 0 | | | | | |
| Measured Top of Plug (ft.) | | 0 | | | | | |
| Depth to Bottom of Plug (ft.) | 1565' | 1565' | | | | | |
| Sacks of Cement to be Used | | 770 | | | | | |
| Slurry Volume to be Used (cu. Ft.) | | 908 | | | | | |
| Slurry Weight (lb./gal.) | | 15.6 | | | | | |
| Type of Cement, Spacer or Other Material Used | Bridge Plug | Class A | | | | | |
| Type of Preflush Used | | Fresh | | | | | |

## DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1565'
3. Trip in hole with tubing and spot 770 sxs Class A cement in 500' stages from 1565-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

## ESTIMATED COST OF PLUGGING AND ABANDONMENT

| | | | | | |
|---|---|---|---|---|---|
| Cement | $ - | 12,240 | Cast Iron Bridge Plug | $ - | 2,800 |
| Logging | $ - | 0 | Cement Retainer | $ - | 0 |
| Rig or Pulling Unit | $ - | 5,700 | Miscellaneous | $ - | 8,612 |
| | $ - | | Total | $ - | 29,352 |

## CERTIFICATION

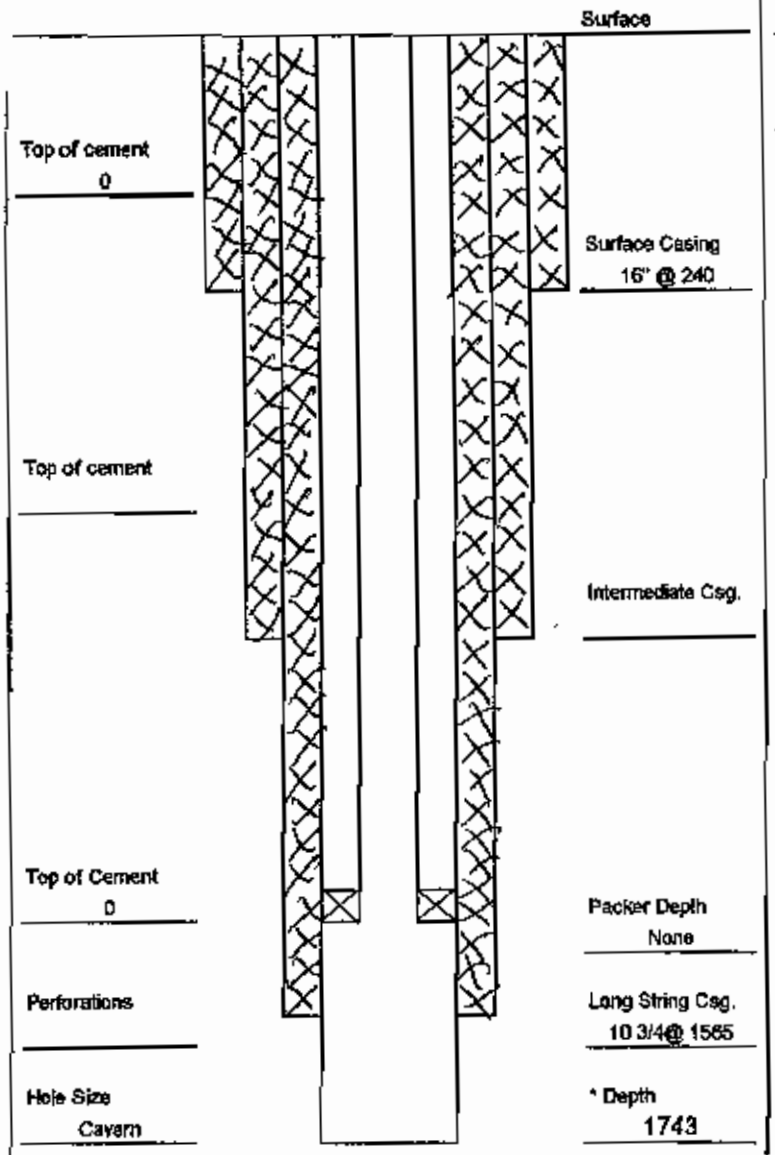
*I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)*

| NAME AND OFFICIAL TITLE | SIGNATURE | DATE SIGNED |
|---|---|---|
| Dave Justin Vice President | | 7/27/2004 |

EPA Form 7520-14

## ORIGINAL WELL CONSTRUCTION DURING OPERATION

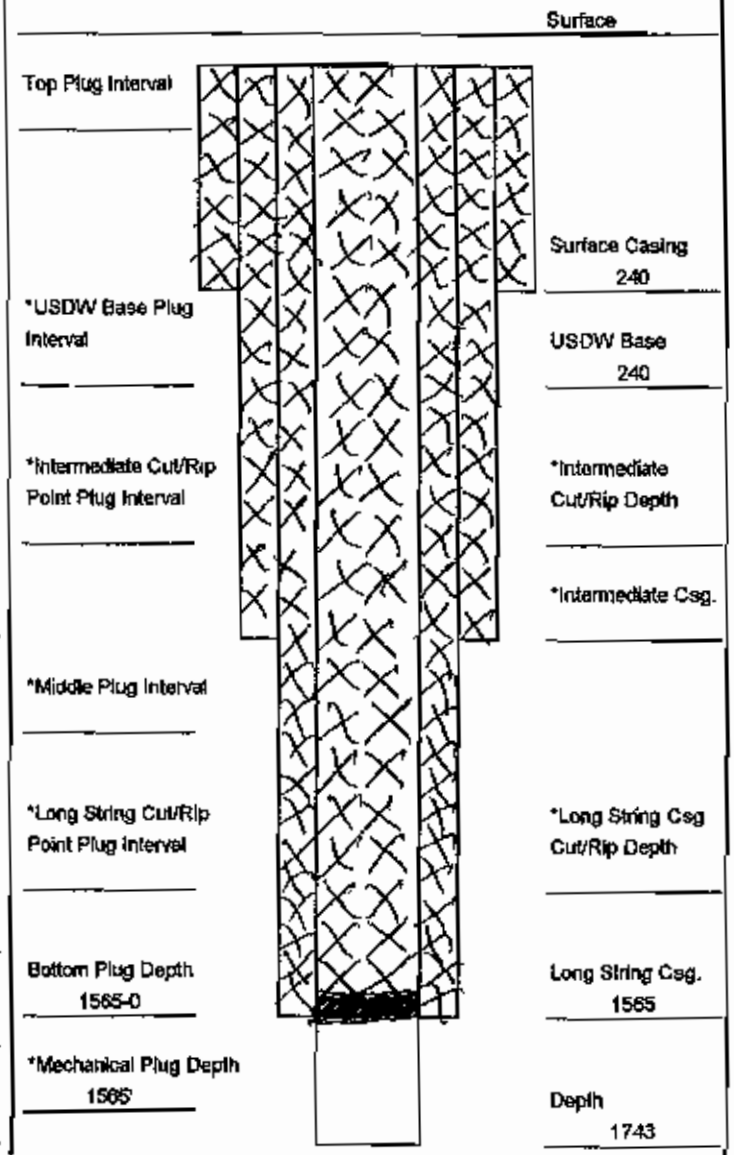
LPG #4




** Add Any Additional Information

* May not Apply

## PLUGGING AND ABANDONMENT CONSTRUCTION




** Add Any Additional Information

* May not Apply

## LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

| Specify Open Hole/ Perforations/ Varied Casing | From | To | Formation Name |
|---|---|---|---|
| Open Hole | 1570 | 1743 | B- Salt |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

# PLUGGING AND ABANDONMENT PLAN

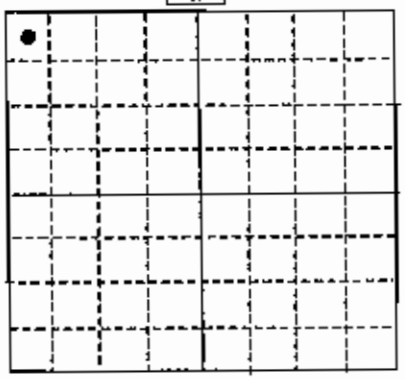
**WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER**

LPG Storage #5

**NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR**

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres




| STATE | COUNTY | STATE PERMIT NUMBER |
|---|---|---|
| Michigan | Wayne | 21521 |

SURFACE LOCATION DESCRIPTION

NW 1/4 of NW 1/4 of NW 1/4 of Section 7 Township 3S Range 10E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 440 ft. From (N/S) North Line of Quarter Section
And 575 ft. From (E/W) West Line of Quarter Section

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

**WELL ACTIVITY**

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

**CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT**

| Size | Weight/ TBG/CSG | Original Amount (CSG) | CSG to be Left in Well | Hole Size | Sacks Cement Used | Type |
|---|---|---|---|---|---|---|
| 16" | 55 | 240 | 240 | 20" | 600 | Class A |
| 10 3/4" | 32.75 | 1540 | 1540 | 13 3/4" | 800 | Class A |
| | | | | | | |
| | | | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

| CEMENT TO PLUG AND ABANDON DATA | Plug # | Plug # | Plug # | Plug# | Plug # | Plug # | Plug # |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in Which Plug Will Be Placed (inches) | 10.16" | 10 1/5 | | | | | |
| Calculated Top of Plug (ft.) | | 0 | | | | | |
| Measured Top of Plug (ft.) | | 0 | | | | | |
| Depth to Bottom of Plug (ft.) | 1530' | 1530 | | | | | |
| Sacks of Cement to be Used | | 730 | | | | | |
| Slurry Volume to be Used (cu. Ft.) | | 861 | | | | | |
| Slurry Weight (lb./gal.) | | 15.6 | | | | | |
| Type of Cement, Spacer or Other Material Used | Bridge Plug | Class A | | | | | |
| Type of Preflush Used | | Fresh | | | | | |

**DESCRIPTION OF PLUGGING PROCEDURE**

1. Pull Tubing
2. Set Bridge Plug at 1530'
3. Trip in hole with tubing and spot 730 sxs Class A cement in 500' stages from 1530-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

**ESTIMATED COST OF PLUGGING AND ABANDONMENT**

| | | | | | |
|---|---|---|---|---|---|
| Cement | $ - | 11,760 | Cast Iron Bridge Plug | $ - | 2,800 |
| Logging | $ - | 0 | Cement Retainer | $ - | 0 |
| Rig or Pulling Unit | $ - | 5,700 | Miscellaneous | $ - | 9,612 |
| | $ - | | Total | $ - | 29,827 |

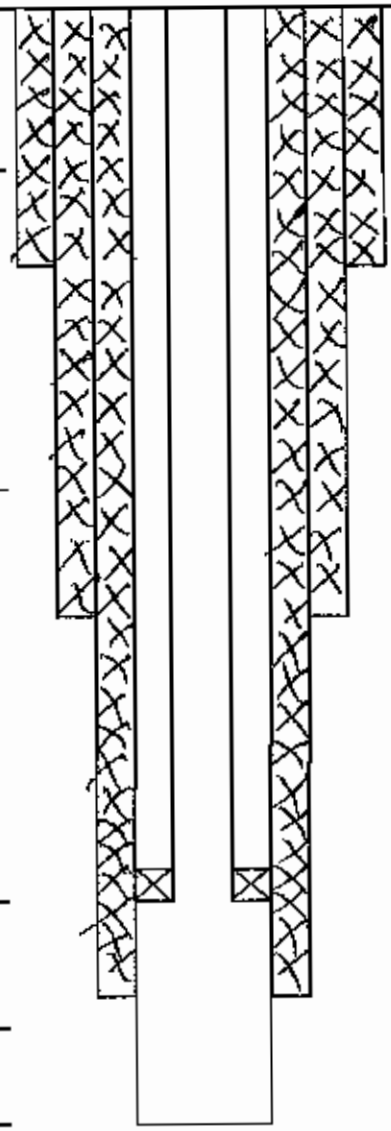
**CERTIFICATION**

*I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)*

| NAME AND OFFICIAL TITLE | SIGNATURE | DATE SIGNED |
|---|---|---|
| Dave Justin Vice President | | 7/27/2004 |

## ORIGINAL WELL CONSTRUCTION DURING OPERATION

LPG #5



Surface

Top of cement
0

Surface Casing
16" @ 240

Top of cement

Intermediate Csg.

Top of Cement
0

Packer Depth
None

Perforations

Long String Csg
10 3/4@ 1540

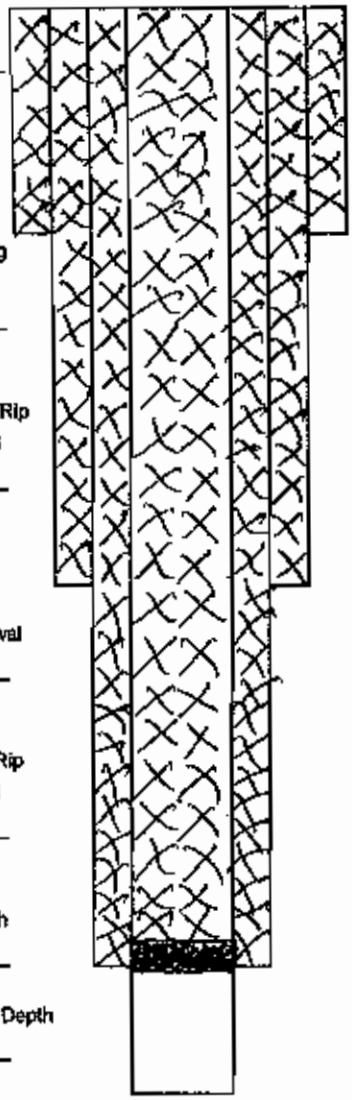
Hole Size
Cavern

* Depth
1735

** Add Any Additional Information

* May not Apply

## PLUGGING AND ABANDONMENT CONSTRUCTION



Surface

Top Plug Interval

Surface Casing
240

*USDW Base Plug Interval

USDW Base
240

*Intermediate Cut/Rip Point Plug Interval

*Intermediate Cut/Rip Depth

*Intermediate Csg.

*Middle Plug Interval

*Long String Cut/Rip Point Plug Interval

*Long String Csg Cut/Rip Depth

Bottom Plug Depth
1530-0

Long String Csg.
1540

*Mechanical Plug Depth
1530

Depth
1735

** Add Any Additional Information

* May not Apply

## LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

| Specify Open Hole/ Perforations/ Varied Casing | From | To | Formation Name |
|---|---|---|---|
| Open Hole | 1540 | 1735 | B- Salt |
| | | | |
| | | | |
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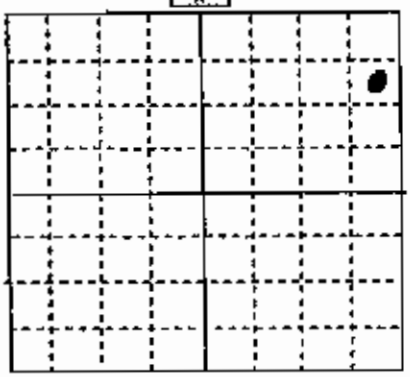
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

# PLUGGING AND ABANDONMENT PLAN

| WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER | NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR |
|---|---|
| LPG Storage #7 | Sunoco Partners Marketing and Terminals LLp<br>7155 Inkster Rd<br>Taylor Michigan 48180<br>313-292-9822 |

Locate Well and Outline Unit on Section Plat - 640 Acres




| STATE | COUNTY | STATE PERMIT NUMBER |
|---|---|---|
| Michigan | Wayne | 26443 |

SURFACE LOCATION DESCRIPTION
SE 1/4 of NE 1/4 of NE 1/4 of Section 12 Township 3S Range 9E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location: 846 ft. From (N/S) North Line of Quarter Section
And: 237 ft. From (E/W) East Line of Quarter Section

**TYPE OF AUTHORIZATION**
- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit: ____

US EPA Permit Number: ____

**WELL ACTIVITY**
- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

**CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT**

| Size | Wt (lb/ft) TBG/CSG | Original Amount (CSG) | CSG to be Left in Wel | Hole Size | Sacks Cement Used | Type |
|---|---|---|---|---|---|---|
| 16" | 55 | 258 | 258 | 20" | 400 | Class A |
| 10 3/4" | 32.75 | 1507 | 1507 | 13 3/4" | 800 | Class A |
| | | | | | | |
| | | | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**
- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

| CEMENT TO PLUG AND ABANDON DATA | Plug # | Plug # | Plug # | Plug# | Plug # | Plug # | Plug # |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in Which Plug Will Be Placed (inches) | 10.19" | 10 1/5 | | | | | |
| Calculated Top of Plug (ft.) | | 0 | | | | | |
| Measured Top of Plug (ft.) | | 0 | | | | | |
| Depth to Bottom of Plug (ft.) | 1497 | 1497 | | | | | |
| Sacks of Cement to be Used | | 720 | | | | | |
| Slurry Volume to be Used (cu. Ft.) | | 849 | | | | | |
| Slurry Weight (lb./gal.) | | 15.6 | | | | | |
| Type of Cement, Spacer or Other Material Used | Bridge Plug | Class A | | | | | |
| Type of Preflush Used | | Fresh | | | | | |

## DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1497'
3. Trip in hole with tubing and spot 720 sxs Class A cement in 500' stages from 1497-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

## ESTIMATED COST OF PLUGGING AND ABANDONMENT

| | | | | | |
|---|---|---|---|---|---|
| Cement | $ - | 11,640 | Cast Iron Bridge Plug | $ - | 2,800 |
| Logging | $ - | 0 | Cement Retainer | $ - | 0 |
| Rig or Pulling Unit | $ - | 5,700 | Miscellaneous | $ - | 8,612 |
| | $ - | | Total | $ - | 28,734 |

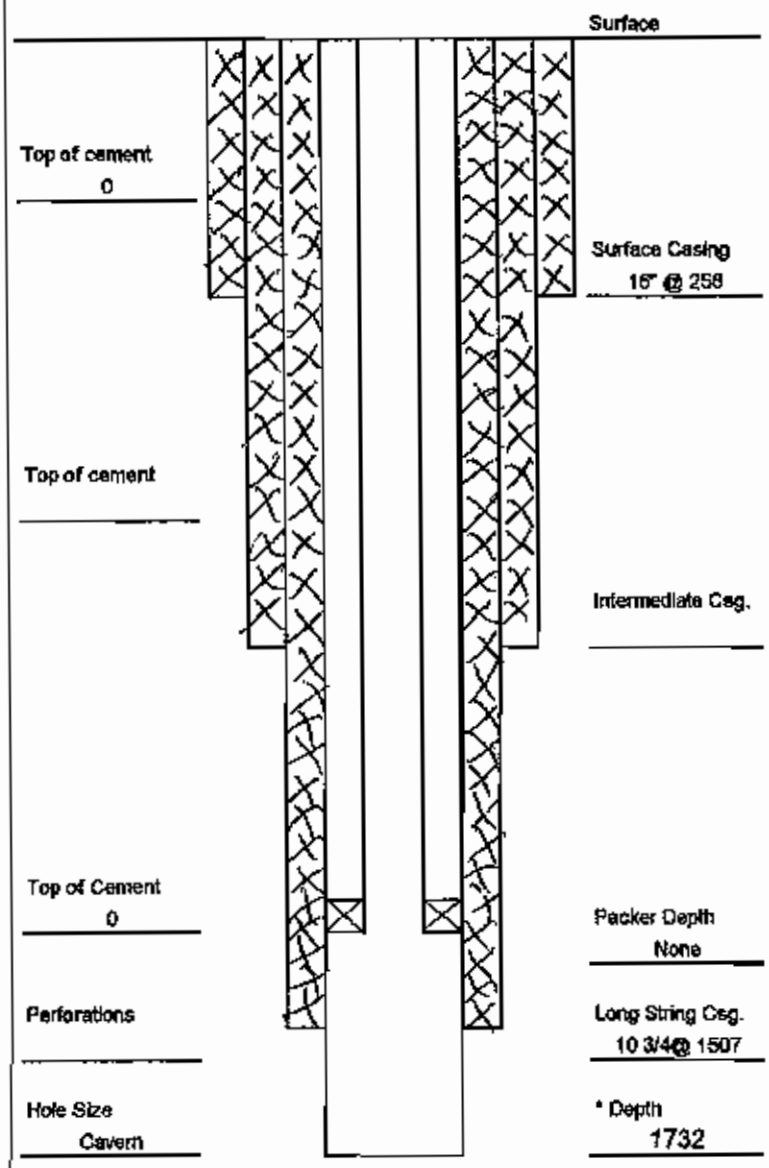
## CERTIFICATION

*I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)*

| NAME AND OFFICIAL TITLE | SIGNATURE | DATE SIGNED |
|---|---|---|
| Dave Justin Vice President | | 7/27/2004 |

## ORIGINAL WELL CONSTRUCTION DURING OPERATION

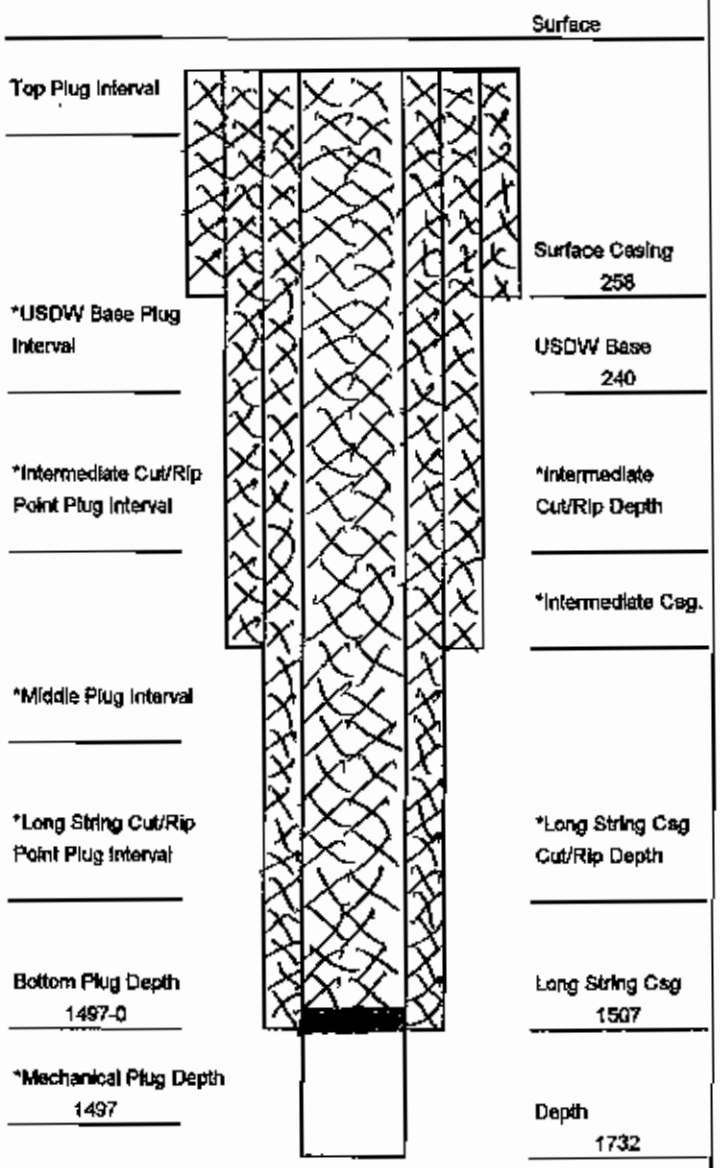
LPG #7




** Add Any Additional Information

* May not Apply

## PLUGGING AND ABANDONMENT CONSTRUCTION




** Add Any Additional Information

* May not Apply

## LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

| Specify Open Hole/ Perforations/ Varied Casing | From | To | Formation Name |
|---|---|---|---|
| Open Hole | 1507 | 1732 | B- Salt |
| | | | |
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

# PLUGGING AND ABANDONMENT PLAN

**WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER**

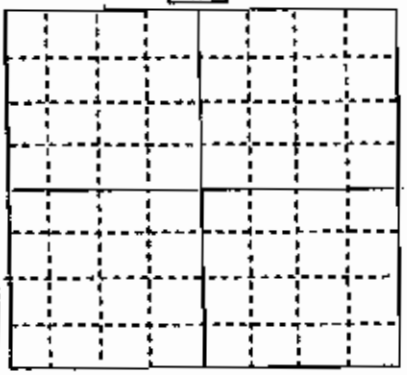
PG Storage #9

**NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR**

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres

N



| STATE | COUNTY | STATE PERMIT NUMBER |
|---|---|---|
| Michigan | Wayne | 29090 |

SURFACE LOCATION DESCRIPTION
SE 1/4 of NE 1/4 of NE 1/4 of Section 12 Township 3S Range 9E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location: 1286 ft. From (N/S) North Line of Quarter Section
And: 233 ft. From (E/W) East Line of Quarter Section

**TYPE OF AUTHORIZATION**

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit: _____

US EPA Permit Number: _____

**WELL ACTIVITY**

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

**CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT**

| Size | Wt (lb/ft) TBG/CSG | Original Amount (CSG) | CSG to be Left in Well | Hole Size | Sacks Cement Used | Type |
|---|---|---|---|---|---|---|
| 16" | 55 | 247 | 247 | 20" | 550 | Class A |
| 10 3/4" | 32.75 | 1499 | 1499 | 13 3/4" | 755 | Class A |
| | | | | | | |
| | | | | | | |

**METHOD OF EMPLACEMENT OF CEMENT PLUGS**

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

| CEMENT TO PLUG AND ABANDON DATA | Plug # | Plug # | Plug # | Plug# | Plug # | Plug # | Plug # |
|---|---|---|---|---|---|---|---|
| Size of Hole or Pipe in Which Plug Will Be Placed (inches) | 10.19" | 10 1/5 | | | | | |
| Calculated Top of Plug (ft.) | | 0 | | | | | |
| Measured Top of Plug (ft.) | | 0 | | | | | |
| Depth to Bottom of Plug (ft.) | 1482 | 1482 | | | | | |
| Sacks of Cement to be Used | | 720 | | | | | |
| Slurry Volume to be Used (cu. Ft.) | | 849 | | | | | |
| Slurry Weight (lb./gal.) | | 15.8 | | | | | |
| Type of Cement, Spacer or Other Material Used | Bridge Plug | Class A | | | | | |
| Type of Preflush Used | | Fresh | | | | | |

## DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1482'
3. Trip in hole with tubing and spot 720 sxs Class A cement in 500' stages from 1482-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports

## ESTIMATED COST OF PLUGGING AND ABANDONMENT

| | | | | | |
|---|---|---|---|---|---|
| Cement | $ - | 11,640 | Cast Iron Bridge Plug | $ - | 2,800 |
| Logging | $ - | 0 | Cement Retainer | $ - | 0 |
| Rig or Pulling Unit | $ - | 5,700 | Miscellaneous | $ - | 8,612 |
| | $ - | | Total | $ - | 28,734 |

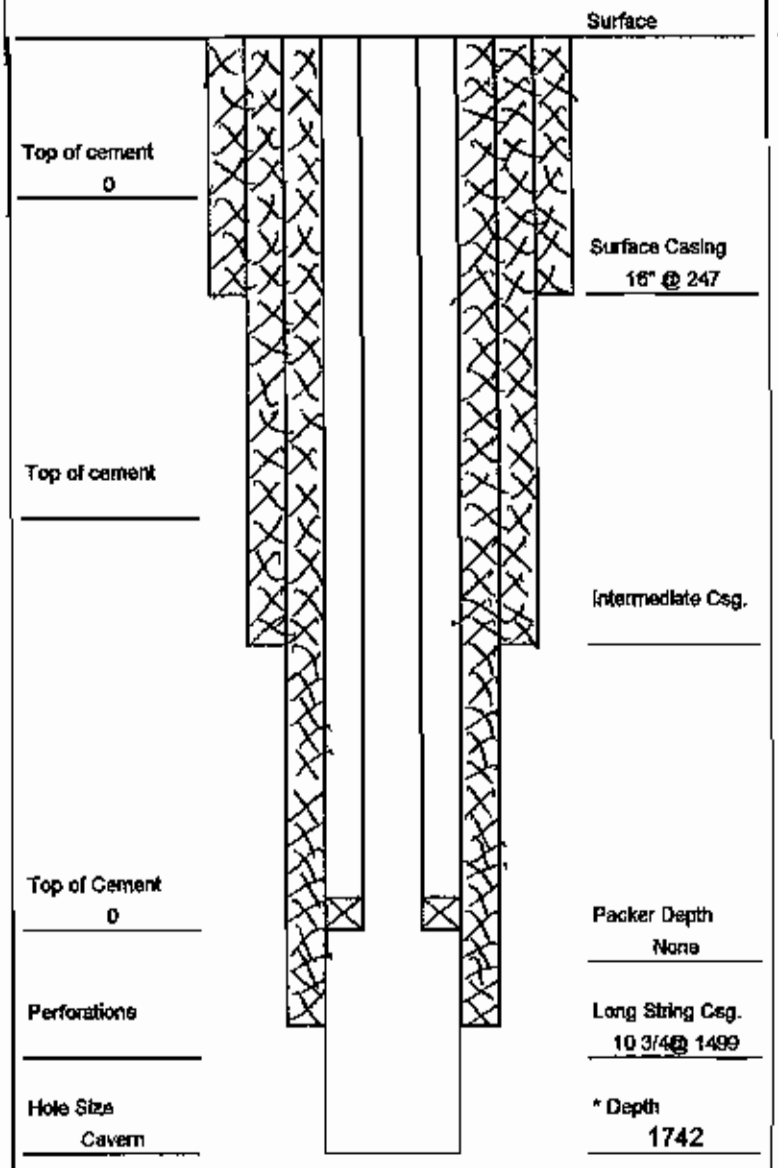
## CERTIFICATION

*I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)*

| NAME AND OFFICIAL TITLE | SIGNATURE | DATE SIGNED |
|---|---|---|
| Dave Justin Vice President | | 7/27/2004 |

## ORIGINAL WELL CONSTRUCTION DURING OPERATION

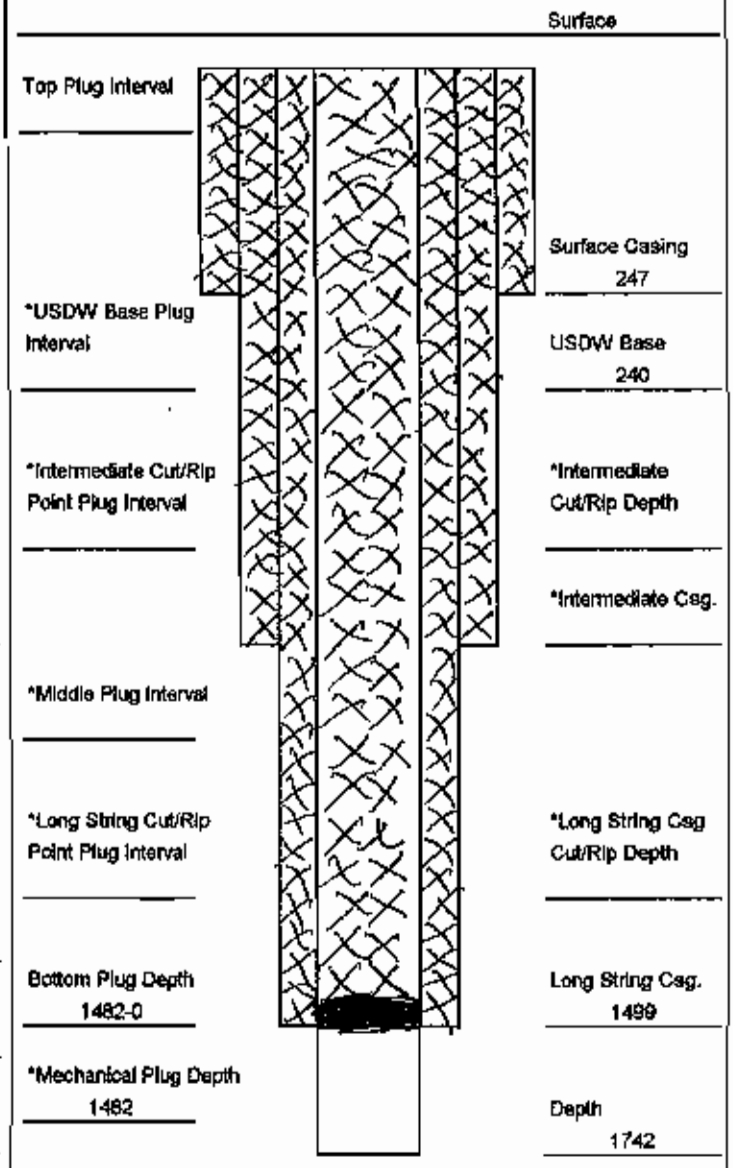
LPG #9




** Add Any Additional Information

* May not Apply

## PLUGGING AND ABANDONMENT CONSTRUCTION




** Add Any Additional Information

* May not Apply

## LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

| Specify Open Hole/ Perforations/ Varied Casing | From | To | Formation Name |
|---|---|---|---|
| Open Hole | 1499 | 1742 | B- Salt |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

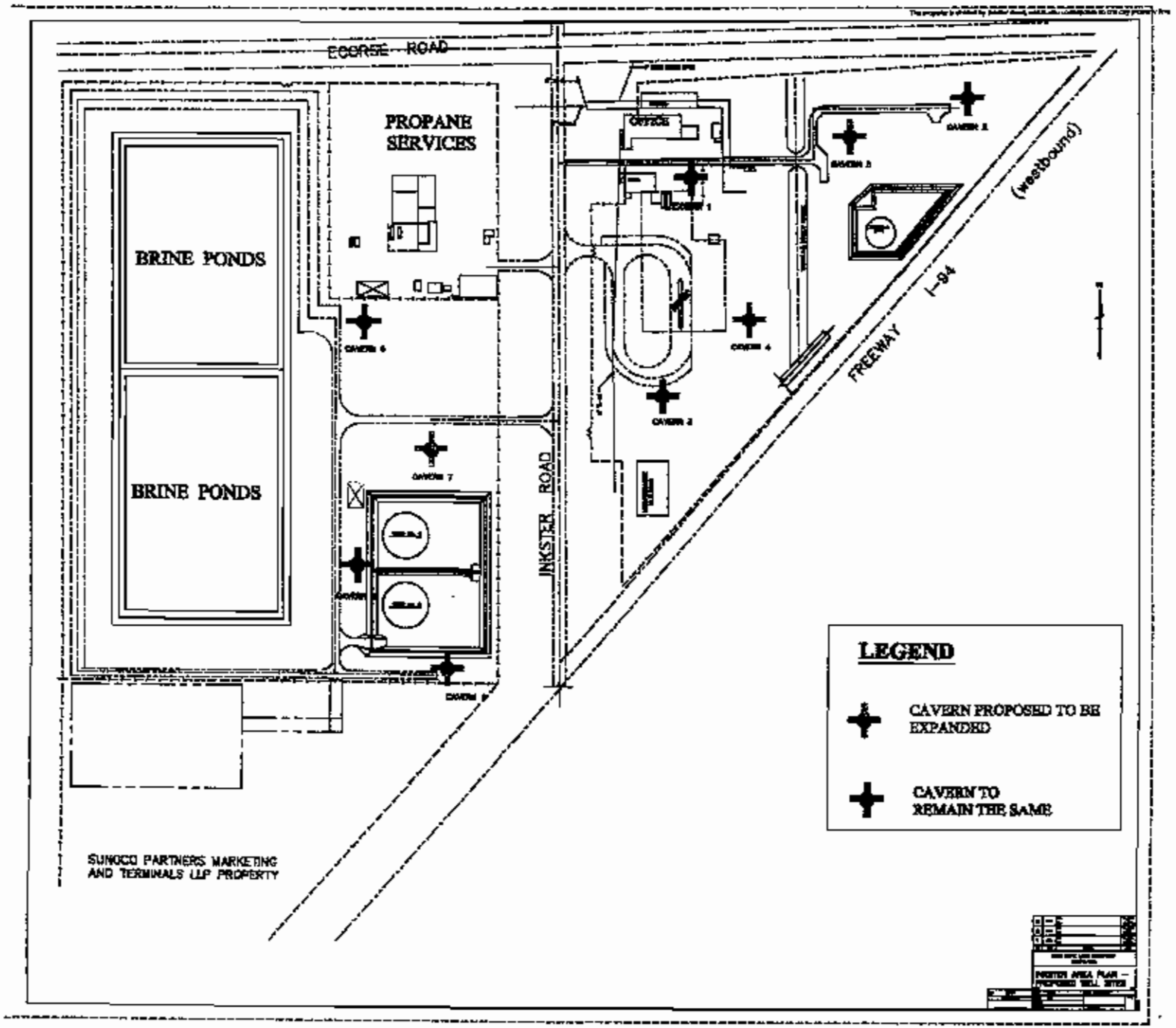
# CORRECTIVE ACTION PLAN

No corrective action is required at this time.

## Name and locations of wells authorized under this permit

| Well Name | Surface Location | Formation |
|---|---|---|
| 1.LPG Storage #4 | SW/4 of NW/4 of NW/4 Section 7-T3S-R10E | "B" Unit of the Salina Group |
| 2.LPG Storage #5 | NW/4 of NW/4 of NW/4 Section 7-T3S-R10E | "B" Unit of the Salina Group |
| 3.LPG Storage #7 | SE/4 of NE/4 of NE/4 Section 12-T3S-R9E | "B" Unit of the Salina Group |
| 4.LPG Storage #9 | SE/4 of NE/4 of NE/4 Section 12-T3S-R9E | "B" Unit of the Salina Group |

The property is divided by Inkster Road, which also corresponds to the city property line.



**Sunoco Logistics**

**SUMMARY: INJECTION PROCEEDURE**
**Sunoco Partners Terminal and Marketing LLP.**
**7155 Inkster Road, Taylor, MI 48180.**

---

**PRESENTLY:** Brine is used to displace the LPG's (propane, butane, iso-butane) stored in the existing 8 operational caverns (numbered #1 to #9 with #8 being out of service).

The existing facility has two 500,000BBL brine ponds located within the property. These act as brine supplies and reservoirs.

When LPG deliveries are made to the facility, they are pumped into the caverns via an existing network of pipelines. This product displaces the brine resident in the caverns, which is then piped into the brine ponds via a flow through 10,000BBL brine tank that acts like a transition vessel.

When LPG movement out of the caverns is desired, brine from the existing above ground ponds is pumped, via two existing pumps, P11 and P14, into the caverns. This displaces the LPG's from the caverns into the existing pipeline system, which are in turn piped to various locations throughout the pipeline system.

**PROPOSED:** Use fresh water to displace the LPG's in the caverns targeted for expansion ONLY.
All other caverns shall remain in the existing BRINE / LPG service under same conditions. One pond shall be designated to accommodate the caverns not slated for expansion.

When LPG movements are required out of the caverns, we shall inject fresh water into the existing caverns slated for expansion via the existing pumps, P11 and P14. This fresh water shall displace the LPG's, which will then be piped to their final destination.

The fresh water will reside in the cavern for a period of time (+/- 6 months) causing leeching of the caverns and thus expand them. The leeching will convert the fresh water into water containing leeched salt, becoming (leeched) brine from the cavern formation. Cavern characteristics including pressure shall be monitored at all times and fluid movement controlled to facilitate safe cavern operations. Brine concentrations and scheduled sonar tests will determine the actual cavern growth rate and volume.

Months later when LPG deliveries into the (same) caverns are desired, the leeched brine (originally fresh water) resident in the caverns shall be displaced by the LPG's from the pipeline. The leeched brine shall be pumped into the existing ponds via the flow through tank.

However, since the existing facility can only accommodate approximately 1,000,000 BBLS of brine storage, it will be necessary to dispose of this brine into the proposed 'Brine Disposal Well" permitted under MI-DEQ and US-EPA.

Any additional brine not available from the ponds shall be obtained from a proposed brine production well.


**BRIEF BUSINESS DESCRIPTION**

COMPANY: Sunoco Logistics Partners L.P. (NYSE: SXL)

ADDRESS: 10 Penn Center
1801 Market St.
Philadelphia, PA 19103-1699
Phone: 215-977-3000
Fax: 215-977-3409

Sunoco Logistics is a Master Limited Partnership formed by Sunoco, Inc., to acquire, own, and operate a geographically diverse group of crude oil and refined product pipelines, terminalling, and storage facilities. As a part of Sunoco, Inc., we have over 110 years experience in transportation, terminalling, and the storage services. Our business is made up of three segments: the Eastern Pipeline System, Terminal Facilities, and the Western Pipeline System.

Sunoco Logistics Partners owns and operates a large swath of its midstream and downstream assets. This includes nearly 5,000 miles of crude oil and refined product pipelines, located primarily in eastern half of the US, as well as more than 30 terminals and other storage assets related to Sunoco's refining and marketing operations in the Midwest, Gulf Coast, and Eastern seaboard states. Sunoco Logistics Partners also purchases domestic crude and resells it to Sunoco's refining and marketing division. Sunoco subsidiary Sunoco Partners controls about 75% of the company.

**FACT SHEET:**

**I. EASTERN PIPELINE SYSTEM**

Our Eastern Pipeline System primarily serves the Northeast and Midwest United States operations of Sunoco, Inc. (R&M) and comprises of, among other assets, approximately 1,700 miles of refined product pipelines. Our refined product pipelines transport refined products from Sunoco, Inc. (R&M)'s Philadelphia, PA, Marcus Hook, PA, Eagle Point, NJ, and Toledo, OH refineries, as well as from third parties, to markets in New York, New Jersey, Pennsylvania, Ohio, and Michigan.

The refined products transported in these pipelines include multiple grades of gasoline, low-octane gasoline for ethanol blending, distillates that include high- and low-sulfur diesel and jet fuel, LPGs (such as propane, butane, iso-butane, and a butane/butylene mixture), refining feed-stocks, and other hydrocarbons (such as toluene and xylene).

A 123-mile wholly owned crude oil pipeline, from Maryville, Michigan to refineries in the Toledo, Ohio area, including a Sunoco, Inc. owned refiner.

Sunoco Logistics

## II. FACILITY SPECIFIC:

Sunoco Logistics L.P. has a facility addressed at 7155 Inkster Road, Taylor, MI 48180. This facility is physically located at the junction of Ecorse and Inkster Roads within the cities of Romulus and Taylor in Wayne County, southeast Michigan.

The facility is a pipeline terminal used for the storage and distribution of Liquified Petroleum Gasses (LPG's). Storage is in eight (8) working caverns, which have a total storage capacity of about ONE MILLION BARRELS of LPG's. The caverns range in size from 60,000 BBLS to 165,000 BBLS. The first cavern was leached in 1946 and the last capacity enlargement was in 1973. The bulk source of the LPG's stored at this facility originate from Sunoco's Toledo Refinery.

The site has nine (9) caverns solution mined from the SALINAS salt formation. Four of the operating caverns are in the "F" salt layer at 1,175 feet to 1,280 feet and four are in the "B" salt layer at 1,510 feet to 1,730 feet. Sunoco is looking at expanding the latter group. One cavern, # 8, has been plugged and abandoned.

SIC Code that best describes this activity is 2911 – PETROLEUM REFINING.

Form Approved. OMB No. 2040-0042. Expires 6-30-98

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON DC 20460

EPA

# WELL REWORK RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CONTRACTOR

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES

N

W E

S

STATE | COUNTY | PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location ____ ft. from (N/S) ____ Line of quarter section

and ____ ft. from (E/W) ____ Line of quarter section

| WELL ACTIVITY | Total Depth Before Rework | TYPE OF PERMIT |
|---|---|---|
| ☐ Brine Disposal<br>☐ Enhanced Recovery<br>☐ Hydrocarbon Storage | Total Depth After Rework | ☐ Individual<br>☐ Area<br>Number of Wells ____ |
| Lease Name | Date Rework Commenced | Well Number |
| | Date Rework Completed | |

## WELL CASING RECORD — BEFORE REWORK

| Casing | | Cement | | Perforations | | Acid or Fracture Treatment Record |
|---|---|---|---|---|---|---|
| Size | Depth | Sacks | Type | From | To | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## WELL CASING RECORD — AFTER REWORK *(Indicate Additions and Changes Only)*

| Casing | | Cement | | Perforations | | Acid or Fracture Treatment Record |
|---|---|---|---|---|---|---|
| Size | Depth | Sacks | Type | From | To | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

| DESCRIBE REWORK OPERATIONS IN DETAIL USE ADDITIONAL SHEETS IF NECESSARY | WIRE LINE LOGS, LIST EACH TYPE | |
|---|---|---|
| | Log Types | Logged Intervals |
| | | |
| | | |
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## CERTIFICATION

*I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).*

| NAME AND OFFICIAL TITLE *(Please type or print)* | SIGNATURE | DATE SIGNED |
|---|---|---|
| | | |

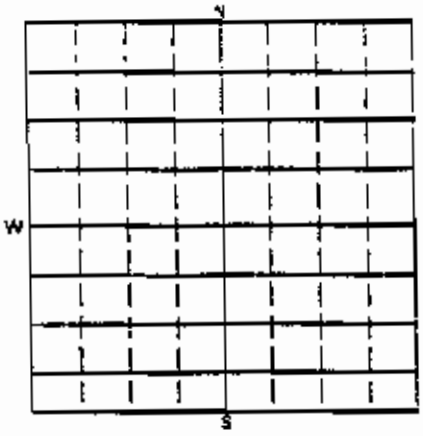
Form Approved. OMB No. 2040-0042. Expires 6-30-98

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

# EPA ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

| NAME AND ADDRESS OF EXISTING PERMITTEE | NAME AND ADDRESS OF SURFACE OWNER |
|---|---|
| | |

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES




| STATE | COUNTY | PERMIT NUMBER |
|---|---|---|
| | | |

SURFACE LOCATION DESCRIPTION
___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface
Location ____ ft. from (N/S) ____ Line of quarter section

and ____ ft. from (E/W) ____ Line of quarter section

| WELL ACTIVITY | TYPE OF PERMIT |
|---|---|
| ☐ Brine Disposal | ☐ Individual |
| ☐ Enhanced Recovery | ☐ Area |
| ☐ Hydrocarbon Storage | Number of Wells ____ |

Lease Name Well Number

| | INJECTION PRESSURE | | TOTAL VOLUME INJECTED | | TUBING — CASING ANNULUS PRESSURE (OPTIONAL MONITORING) | |
|---|---|---|---|---|---|---|
| MONTH YEAR | AVERAGE PSIG | MAXIMUM PSIG | BBL | MCF | MINIMUM PSIG | MAXIMUM PSIG |
| | | | | | | |
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## CERTIFICATION

*I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).*

| NAME AND OFFICIAL TITLE *(Please type or print)* | SIGNATURE | DATE SIGNED |
|---|---|---|
| | | |

FOR SAMPLE USE ONLY - COMPARABLE FORMAT ACCEPTABLE

Year _____ Quarter _____

# U. S. ENVIRONMENTAL PROTECTION AGENCY QUARTERLY MONITORING REPORT FOR CLASS II INJECTION WELLS

UIC PERMIT NUMBER _____

Please complete and submit this report at the end of each quarter. This report must be postmarked no later than the 10th day of the following months:

April-end of 1st quarter October-end of 3rd quarter
July- end of 2nd quarter January-end of 4th quarter

check one --> [ ] EOR [ ] SWD [ ] HS

OPERATOR NAME _____

ADDRESS _____

CITY/STATE/ZIP _____

_____

(AREA CODE) PHONE _____

WELL NAME _____

WELL COUNTY _____

## QUARTERLY REQUIREMENTS

Attach the actual laboratory analysis of the following parameters:

Total Dissolved Solids: in parts per million (ppm)
pH: no units
Resistivity: in ohm - meters at 75° Farenheit
Chemical Composition of Injected Fluids:

- Sodium: in ppm
- Calcium: in ppm
- Magnesium: in ppm
- Barium: in ppm
- Iron (total): in ppm
- Chloride: in ppm
- Sulfate: in ppm
- Carbonate: in ppm
- Bicarbonate: in ppm
- Sulfide: in ppm
- Other Chemicals: in ppm

Comments: _____

_____

Date of Sampling: _____

Sample Location: _____

## CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR Section 144.32).

| NAME AND OFFICIAL TITLE (please type or print) | SIGNATURE | DATE SIGNED |
|---|---|---|
| | | |

FOR SAMPLE USE ONLY - COMPARABLE FORMAT ACCEPTABLE

# U. S. ENVIRONMENTAL PROTECTION AGENCY MONTHLY MONITORING REPORT FOR CLASS II INJECTION WELLS

Year _____ Month _____

UIC PERMIT NUMBER _____

Please complete and submit this report at the end of each month. This report must be postmarked no later than the 10th day of the following month.

check one --> |___| EOR |___| SWD |___| HS

OPERATOR NAME _____

ADDRESS _____

CITY/STATE/ZIP _____

_____

(AREA CODE) PHONE _____

WELL NAME _____

WELL COUNTY _____

## MONTHLY REQUIREMENTS

| WEEK & DATE | INJECTION PRES. (psig) | ANNULUS PRES. (psig) | FLOW RATE (Barrels per day) | CUMMULATIVE VOLUME (Barrels) |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| AVERAGE | | | | TOTAL MONTHLY VOLUME |
| HIGHEST VALUE | | | | XXXXXXXXXXXXXXXXXXX |
| LOWEST VALUE | | | | XXXXXXXXXXXXXXXXXXX |

## CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR Section 144.32).

| NAME AND OFFICIAL TITLE (please type or print) | SIGNATURE | DATE SIGNED |
|---|---|---|
| | | |

Exhibit H

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
WU-16J

MAY 1 0 2005

**CERTIFIED MAIL 7001 0320 0006 1560 5309**
**RETURN RECEIPT REQUESTED**

Mr. William C. Fulkerson
Warner Norcross & Judd LLP
Attorneys at Law
900 Fifth Third Center
111 Lyon Street, N.W.
Grand Rapids, Michigan 49503-2487

**Re: Public Comments On United States Environmental Protection Agency (USEPA) Underground Injection Control (UIC) Draft Permit #MI-163-3G-A002**

Dear Mr. Fulkerson:

Thank you for your comment letter on the above-referenced draft permit. We appreciate you taking the time to express your client's concerns regarding the injection for the solution mining of salt to enlarge existing salt caverns for hydrocarbon storage at the Sunoco Inkster Facility by Sunoco Partners Marketing & Terminals L.P. (SPMT) of Taylor, Michigan.

In the second paragraph of your letter you expressed concerns about the injection interval to be involved in the proposed cavern expansion. At this present time SPMT only intends to expand the four caverns/wells (Nos. 4, 5, 7 and 9), as specified in Part III, page D-1 of the permit, completed in the "B" unit or Salt of the Salina Group from approximately 1510 - 1730 feet. The upper interval or "F" unit from 1175 - 1280 feet was included to cover the other four existing gas storage caverns/wells (Nos. 1, 2, 3 and 6), since SPMT indicated they might expand those caverns also sometime in the near future.

In the third and fourth paragraphs of your letter you expressed concerns about well/cavern integrity issues causing gas migration into the underground source of drinking water (USDW) or to the surface where it could possibly ignite or explode. According to the SPMT permit application, the salt caverns are non-pressurized, solution-mined voids in the natural salt stratum. Liquified petroleum gases (LPG) are added or removed from the caverns by means of brine displacement. Brine fills the bottom of the cavern; LPG product fills the upper area of the cavern. Because the specific gravity of the brine is approximately twice that of the LPG, the weight of the brine tube contains the LPG in the cavern. The brine tube or tubing is set at least 100 feet below the long string casing in all the subject wells. The caverns are normally considered empty when there is 2000 barrels of LPG remaining in the cavern. The risk of introducing brine into the pipeline or exposing the long string casing to lengthy exposure, resulting in contamination or corrosion problems, is possible if inventories are taken below the 2000 barrel level. Any movement in or out of the caverns, above or below, these limits requires

management approval and a "cavern watch" (physical presence at the wellhead to monitor pressure gauges).

The wells have surface casing set below the USDW and are cemented to surface; the longstring casings are set at 1499 - 1570 feet and are also cemented to the surface. The USEPA will require that each well be tested for Part I and Part II of mechanical integrity (MI) prior to issuing the authorization to inject for each well. Part I involves the pressure testing of the casing and tubing by a standard annular pressure test or by the water-brine interface test. Part II of the MI test (MIT) for integrity of the longstring cement could be done by an oxygen activation log, temperature log, or by a noise log. Parts I and II of the MIT are required initially and every five years thereafter. Also SPMT indicates that the caverns and mechanical appurtenances are on a 10-year inspection cycle. Included in the inspection would be to sonar the caverns, inspection of the casing and tubing, and repair, replace, or update wellhead equipment. During freshwater injection or cavern expansion, sonar on each cavern will be done at shorter intervals to accurately determine cavern expansion rates. Each cavern wellhead has an emergency shut down valve that is set up to close the associated piping should any abnormal conditions occur in the cavern or associated piping. In addition, there are sensors or detectors on the brine lines that sense the presence of any LPG in the atmosphere. They alarm the facility activating the appropriate response including but not limited to shutdown. In addition, there are perimeter vapor detectors that act as secondary detectors through-out the facility.

The Sunoco Inkster facility has emergency procedures and response including the following. All operators are Level II, first responders under the hazardous waste operations and emergency response regulations. Interactive training involving employees covers recognition of a release, alert operations, area evacuation, spill containment or control, selection of personal protective equipment, and decontamination. Also there are routine walk throughs from local emergency response crews including the cities of Taylor and Romulus.

SPMT is responsible for ensuring the groundwater is protected from contamination due to injection activities. The USEPA, under the Safe Drinking Water Act, and the Michigan Department of Environmental Quality (MDEQ), under Section 307, can require owners/operators to clean-up any contamination due to injection activities, and/or supply alternative water supplies to affected parties. The USEPA only has authority over the injection activity. A USEPA permit for an injection well gives permission to inject fresh water based on USEPA's finding that injection will be done in an environmentally safe manner. By copy of this letter, we are forwarding your comments on this matter to the MDEQ's Lansing District Office. If you should have any questions regarding the surface facilities, such as the location of the proposed injection well or leak containment, you should contact:

Mr. Ray Vugrinovich
MDEQ Minerals & Mapping Unit
525 West Allegan
Lansing, Michigan 48933
(517) 241-1532

One of your concerns was about the large volume of fresh water used to solution mine the caverns. The Great Lakes Charter Annex and the Great Lakes Charter of 1985 are outside

USEPA purview and questions in this regard should be referred to the Council of Great Lakes Governors, 35 East Wacker Drive, Suite 1850, Chicago, Illinois 60601, telephone: (312) 407-0177 or fax: (312) 407-0038. According to SPMT representatives, fresh water wells may be drilled to augment the supply of fresh water needed. If you have any questions regarding the specifics of the proposed wells, such as additional fresh water wells drilled, you should contact Mr. Jonathan O. Ojany, Regional Engineer, Sunoco Pipeline L.P., at (313) 292-9822.

Since the proposed injection operations at the Sunoco Inkster facility meet all Federal UIC requirements for environmental protection, the USEPA intends to issue a final permit for this area permit.

In accordance with Title 40 of the Code of Federal Regulations (40 CFR) §124.19, any person who filed comments on the draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the final permit decision. Such a petition must include a statement of the reasons supporting review of the decision, including a demonstration that the issue(s) being raised for review were raised during the public comment period to the extent required by these regulations. The petition should, when appropriate, show that the permit condition(s) being appealed are based upon either, (1) a finding of fact or conclusion of law which is clearly erroneous, or (2) an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review. If you wish to request an administrative review, you must submit such a request by regular mail to the United States Environmental Protection Agency, Environmental Clerk of the Board, Environmental Appeals Board (MC 1103B), Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460-0001. Requests sent by express mail, UPS, or hand-delivered must be sent to the United States Environmental Protection Agency, Clerk of the Board Environmental Appeals Board, Colorado Building, 1341 G Street, N.W., Suite 600, Washington D.C. 20005. The request must arrive at the Board's office within 30 days of the receipt of the notice of decision. We are taking the opportunity in this letter to serve notice to you that we are proceeding with the issuance of the permit referenced above. The request will be timely if received within this time period. For this request to be valid, it must conform to the requirements of 40 CFR §124.19. A copy of these requirements is attached. This request for review must be made prior to seeking judicial review of any permit decision.

If you have any further questions or concerns, please feel free to contact Roger Hall of my staff at (312) 353-5228.

Sincerely yours,

Stephen Rood

for Lisa Perenchio, Chief
Direct Implementation Section

Enclosure

cc: Ray Vugrinovich, MDEQ
Jonathan O. Ojany, Sunoco Pipeline L.P.

Exhibit I

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
WU-16J

**CERTIFIED MAIL** 7001 0320 0006 1560 5316
**RETURN RECEIPT REQUESTED**

Mr. David A. Boyer
Attorney at Law
10600 West Jefferson Avenue
River Rouge, Michigan 48218

**Re: Public Comments On United States Environmental Protection Agency (USEPA) Underground Injection Control (UIC) Draft Permit #MI-163-3G-A002**

Dear Mr. Boyer:

Thank you for your comment letter on the above-referenced draft permit. We appreciate you taking the time to express your client=s concerns regarding the injection for the solution mining of salt to enlarge existing salt caverns for hydrocarbon storage at the Sunoco Inkster Facility by Sunoco Partners Marketing and Terminals L.P. (SPMT) of Taylor, Michigan.

In your letter you expressed concerns about well/cavern integrity issues causing gas migration into the underground source of drinking water (USDW) or to the surface where it could possibly ignite or explode. According to the SPMT permit application, the salt caverns are non-pressurized, solution-mined voids in the natural salt stratum. Liquified petroleum gases (LPGs) are added or removed from the caverns by means of brine displacement. Brine fills the bottom of the cavern; LPG product fills the upper area of the cavern. Because the specific gravity of the brine is approximately twice that of the LPGs, the weight of the brine tube contains the LPGs in the cavern. The brine tube or tubing is set at least 100 feet below the long string casing in all the subject wells. The caverns are normally considered empty when there is 2000 barrels of LPG remaining in the cavern. The risk of introducing brine into the pipeline or exposing the long string casing to lengthy exposure, resulting in contamination or corrosion problems, is possible if inventories are taken below the 2000 barrel level. Any movement in or out of the caverns, above or below , these limits requires management approval and a Acavern watch@ (physical presence at the wellhead to monitor pressure gauges).

The wells have surface casing set below the USDW and cemented to surface; the longstring casings are set at 1499 - 1570 feet and are also cemented to the surface. The USEPA would require that each well be tested for Part I and Part II of mechanical integrity testing (MIT) prior to issuing the authorization to inject for each well. Part I involves the pressure testing of the casing

and tubing by a standard annular pressure test or by the water-brine interface test. Part II of the MIT for integrity of the longstring cement could be done by an oxygen activation log, temperature log, or by a noise log. Parts I and II of the MIT are required initially and every five years thereafter. Also SPMT indicates that the caverns and mechanical appurtenances are on a 10-year inspection cycle. Included in the inspection would be to sonar the caverns, inspection of the casing and tubing, repair, replace, update wellhead equipment. During freshwater injection or cavern expansion, sonar on each cavern will be done at shorter intervals to accurately determine cavern expansion rates. Each cavern wellhead has an emergency shut down valve that is set up to close the associated piping should any abnormal conditions occur in the cavern or associated piping. In addition, there are sensors or detectors on the brine lines that sense the presence of any LPGs in the atmosphere. They alarm the facility activating the appropriate response including but not limited to shutdown. In addition, there are perimeter vapor detectors that act as secondary detectors through-out the facility.

The Sunoco Inkster facility has emergency procedures and response including the following. All operators are Level II, first responders under the hazardous waste operations and emergency response regulations. Interactive training involving employees covers recognition of a release, alert operations, area evacuation, spill containment or control, selection of personal protective equipment, and decontamination. Also there are routine walk through from local emergency response crews including the cities of Taylor and Romulus.

SPMT is responsible for ensuring the groundwater is protected from contamination due to injection activities. The USEPA, under the Safe Drinking Water Act, and the Michigan Department of Environmental Quality (MDEQ), under Section 307, can require owners/operators to clean-up any contamination due to injection activities, and/or supply alternative water supplies to affected parties. The USEPA only has authority over the injection activity. A USEPA permit for an injection well gives permission to inject fresh water based on USEPA=s finding that injection will be done in an environmentally safe manner. By copy of this letter, we are forwarding your comments on this matter to the MDEQ=s Lansing District Office. If you should have any questions regarding the surface facilities, such as the location of the proposed injection well or leak containment, you should contact:

Mr. Ray Vugrinovich
MDEQ Minerals & Mapping Unit
525 West Allegan
4th Floor North Tower
Lansing, Michigan 48933
(517) 241-1532

Since the proposed injection operations at the Sunoco Inkster facility meet all Federal UIC requirements for environmental protection, the USEPA intends to issue a final permit for this facility.

In accordance with Title 40 of the Code of Federal Regulations (40 CFR) ' 124.19, any person who filed comments on the draft permit or participated in the public hearing may petition the

Environmental Appeals Board to review any condition of the final permit decision. Such a petition must include a statement of the reasons supporting review of the decision, including a demonstration that the issue(s) being raised for review were raised during the public comment period to the extent required by these regulations. The petition should, when appropriate, show that the permit condition(s) being appealed are based upon either, (1) a finding of fact or conclusion of law which is clearly erroneous, or (2) an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review. If you wish to request an administrative review, you must submit such a request by regular mail to the United States Environmental Protection Agency, Environmental Clerk of the Board, Environmental Appeals Board (MC 1103B), Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460-0001. Requests sent by express mail, UPS, or hand-delivered must be sent to the United States Environmental Protection Agency, Clerk of the Board Environmental Appeals Board, Colorado Building, 1341 G Street, N.W., Suite 600, Washington D.C. 20005. The request must arrive at the Board's office within 30 days of the receipt of the notice of decision. We are taking the opportunity in this letter to serve notice to you that we are proceeding with the issuance of the permit for the well referenced above. The request will be timely if received within this time period. For this request to be valid, it must conform to the requirements of 40 CFR ' 124.19. A copy of these requirements is attached. This request for review must be made prior to seeking judicial review of any permit decision.

If you have any further questions or concerns, please feel free to contact Roger Hall of my staff at (312) 353-5228.

Sincerely yours,

Lisa Perenchio, Chief
Direct Implementation Section

Enclosure

cc: Ray Vugrinovich, MDEQ
Jonathan O. Ojany, Sunoco Pipeline L.P.

Exhibit J

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C.

In re:

SUNOCO PARTNERS MARKETING & TERMINALS, LP ("Sunoco"); Inkster Facility; Underground Injection Control Class III Permit
Permit No. MI-163-30-A002

UIC Appeal No. _____

**PETITION FOR ADMINISTRATIVE REVIEW**

ENVIRONMENTAL DISPOSAL SYSTEMS, INC., (EDS) files this Petition for Administrative Review as an interested entity having underground injection control permits within one-half mile of the Sunoco Partners Marketing & Terminals, LP (Sunoco) Inkster facility. EDS also submitted comments on the draft permits (Exhibit A) Sunoco was issued permits on June 6, 2005. (Exhibit B) We are aware that David A. Bower, attorney, filed comments on behalf of his clients. (Exhibit C)

**A Public Hearing Should Have Been Held To Receive Comments**

Public participation in environmental protection agency decision-making is governed by 40 C.F.R. 25.1, *et seq.* The objectives of public participation are set forth at 40 C.F.R. § 25.3(c)(1), "to assure the public has the opportunity to understand official programs and proposed actions and the government fully considers the public's concerns." Mr. Bower requested a public hearing, stating, "We request a public hearing because of the potential for serious impact on the property adjoining the facility and residents in the immediate area." Both Mr. Bower and EDS raised concerns about the flammability and potential for explosion of liquid petroleum gas. A public hearing would have provided an opportunity to address the public's concerns about the large scale storage of this dangerous material in the midst of an urbanized

area. The Petitioner asserts that failure to provide for public comment at a public hearing is arbitrary and capricious.

**The Well Monitoring Program is Inadequate**

In its comments EDS raised questions concerning the integrity of the caverns and well integrity. EDS is concerned about the mining operations of the caverns, particularly considering the age of the injection wells we utilized. In the EPA response to comments, the EPA pointed out the MIT regulations, which are reiterated in the draft permits, specifically Parts 1 and 2 of the MIT are required initially and every five years. (Response to EDS Comments, Exhibit D) EDS asserts that these requirements are adequate to ensure the casing strings and cavern roof are maintaining proper integrity to prevent migration of fluids. EPA relies upon voluntary action by SPMT to monitor the caverns. "Also, SPMT indicates that the caverns and mechanical pertinences are on a 10 year inspection cycle. Included in the inspection would be to sonar the caverns, inspection of the casing and tubing, and repair, replace or update wellhead equipment." This important activity is not incorporated as a permit requirement. EDS asserts that the Region decision to leave such important inspections to the discretion of the permittee was clearly erroneous. It was clearly erroneous to not include specific requirements for the inspection of casing and tubing and repair and replacement or updating of wellhead equipment in the permit.

**Cavern Monitoring Should Have Been Required**

The commenters expressed concern about the integrity of the cavern. EPA again relied upon SPMT to perform its own inspections and verify the integrity of the cavern. This is a very large cavern expansion project to be initiated with wells that are nearly 50 years old. The requirements set forth in the regulations were not intended to be adequate for every project. In this case cavern roof monitoring in the vicinity of the wells and at least annual mechanical integrity testing should be required. The Region's actions were clearly erroneous in that it failed to include requirements for monitoring to ensure the integrity of the storage caverns.

**The Permit Failed to Impose Construction Requirements**

The commenters expressed concern about the potential for corrosion from exposure to saturated brines. An industry recognized method of addressing potential corrosion issues is to specify the well construction materials, such as packers and tubing. This permit contains no requirements for the construction or materials to be used for down hole equipment. Decisions concerning the nature of the equipment to be used are left to the operator. This permit does not assure that the proper well construction will be employed or that it will be maintained. The critical well components to prevent escape of fluids and control corrosion are not addressed in this permit. The Petitioner asserts that the Region's decision to not include specific well construction requirements for equipment such as packers and tubing was clearly erroneous.

Based on the foregoing, the Petitioner requests the following relief:

1. That the permits be set aside and the matter remanded to the Region for further action. Specifically, a public hearing should be held to receive comments.
2. The permit should be modified to add the additional specific requirements suggested by this Petition.

Dated: July 1, 2005

WARNER NORCROSS & JUDD LLP

By 
William C. Fulkerson (P13758)

900 Fifth Third Center
111 Lyon Street, N.W.
Grand Rapids, Michigan 49503
616.752.2438
616.222.2438 (Fax)

Attorneys for Environmental Disposal Systems, Inc.

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