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## SUMMARY

### Testing OSE II on De-icing Agent At DFW International Airport. January 8, 2003

OSEI, Corp along with KnightCo Oil and Lancer Environmental (United Industries) met with the Vice President of Environmental for DFW Airport.

The meeting covered the potential use of OSE II to remediate De-icing Agent to CO<sub>2</sub> and water. Using De-icing Agent effluent is a persistent problem for airports with virtually no means to solve this problem 100% in place rather than moving the problem.

It was determined that OSE II could be tested on effluent from two different retention ponds at DFW Airport. One retention pond contained 5450 parts per million of de-icing agents and the other retention pond 14,720 ppm.

The vice president of Environmental a DFW Airport further determined that he wanted the 5450 part per million de-icing effluent test at 10 degrees C since de-icing agent is utilized during cold temperatures.

De-icing agent effluent was extracted by DFW Airport officials for Lancer Environmental Services. Lancer delivered the effluent along with OSE II to Dallas Laboratories. The protocol for the test was also delivered to Dallas Laboratories, which is enclosed.

The 15,000 parts per million effluent initial test determined the de-icing agent level was actually 14,720 parts per million. On Day 3 the de-icing agent level reduced to 10,830 ppm. On Day 7 the de-icing agent had reduced to 4680 ppm. On Day 10 the de-icing agent reduced to 1180 ppm. Finally on day 21 the de-icing agent level reduced to 80 parts per million.

- c. Wash this effluent to the drains leading to retaining ponds.
- d. If OSE II is mixed with water in a water truck or mobile tank, all the contents should be used within 24 hours.

2. Eductor System

- a. Set eductor at 2%.
- b. Apply enough diluted OSE II to gain a 1 part mixed OSE II to 1 part of deicing agent.  
*Note: You will know how many gallons of deicing agent have been used; apply that same amount of OSE II mixed with water.*
- c. Wash this effluent to the drains leading to retaining ponds.

V. Retaining Ponds

- 1. Once the first retaining pond is 1/2 to 3/4 full, or after 2 weeks, transfer effluent to second retention pond.
- 2. Start refilling first retaining pond.
  - a. In the second retention pond, once 21 days have elapsed, extract 4 - 50 ml samples from various areas of the pond, each at a different depth, and put in a 250 ml brown jar with a teflon sealed cap.
  - b. Put a label on sample with date, time, who extracted the sample, and from where in the DFW retention pond the samples were taken.
  - c. Place sample in an ice chest and transport the sample to the lab. Have the lab perform an EPA 8015 modified.
  - d. Once the effluent level reaches background/non-detect, then the second retention pond can be dumped into the sewer or Trinity River.
  - e. If levels are not low enough for effluent disposal, wait 14 more days and perform a second round of tests.

VI. Cleanup Expectations and Estimations

- 1. By applying mixed OSE II directly where the deicing agent is applied, not only is the free product (deicing agent) addressed, the deicing agent that potentially absorbs into the concrete will be lifted up and washed to the retention ponds as well for a complete cleanup of the concrete.

2. You will need to have enough OSE II on hand to address at least 4 weeks worth of potential deicing agent used. We can deliver from our warehouse at DFW in an emergency.
3. DFW needs to estimate the quantity of deicing agent used on a monthly basis during the winter months. This will determine how much OSE II they should have on hands. (A one month supply.)

If there are any questions regarding application or other questions, please call us.

Sincerely,

A handwritten signature in dark ink, appearing to read "Steven Pedigo", written in a cursive style.

Steven Pedigo  
Chairman

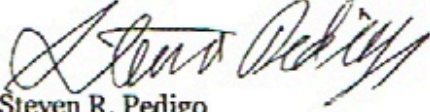
SP/eem



August 9, 2002

**TEST TIMES:**

1. Day 1: Extract 3-10 ml samples from the control. Have the lab perform an EPA modified 8015 on each.
2. Day 3: Extract three (3) 10 ml samples from the OSEI II/DFW Glycol effluent and have the lab perform an EPA modified 8015 on each.
3. Day 7: Extract three (3) ml samples from the OSE II/DFW Glycol effluent and have the lab perform an EPA modified 8015 on each.
4. Day 10: Extract three (3) 10 ml samples from the control and extract three (3) 10 ml samples from the OSE II/DFW Glycol effluent and have the lab perform an EPA modified 8015 on each.
5. **If needed** - Day 15: Extract three (3) 10 ml samples from the control and three (3) 10 ml samples from the OSE II/DFW Glycol effluent and have the lab perform an EPA modified 8015 on each.
6. **If needed** - Day 30: Extract three (3) 10 ml samples from control and three (3) 10 ml samples from the OSE II/DFW Glycol effluent and have the lab perform an EPA modified 8015 on each.



Steven R. Pedigo  
Chairman/OSEI, Corp.

## DALLAS LABORATORIES, INC.

CONSULTANTS AND TECHNOLOGISTS

ANALYTICAL AND RESEARCH CHEMISTS —

CHEMICAL ENGINEERS — PETROLEUM ENGINEERS

P. O. BOX 152837

1323 WALL ST.

DALLAS, TEXAS 75315

## MEMBERS

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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS  
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ASM INTERNATIONAL  
SOCIETY OF PETROLEUM ENGINEERS OF AIME

## MEMBERS

AMERICAN CHEMICAL SOCIETY  
AMERICAN SOCIETY FOR TESTING MATERIAL  
AMERICAN NATIONAL STANDARDS INSTITUTE  
AMERICAN SOCIETY FOR QUALITY CONTROLSubmitted by: Lancer Industries, Inc.  
3608 South Main St.  
Euless, TX 76040

Date: September 9, 2002

Attn: Gregory T. Orrell

Report No.: 32449A

## REPORT

Lab Sample No.

32449

Oil Spill Eater II.

## PROCEDURE

Fourteen ounces of DFW glycol effluent was mixed with four ounces of a 25% OSE II solution by hand stirring, placed in a refrigerator, and aerated using a low output aquarium aerator. The test temperature is  $50 \pm 5^\circ\text{F}$ . A control sample of the DFW effluent is placed in the refrigerator also. Aliquots are extracted and tested for ethylene glycol content by modified EPA 801S.

## RESULTS

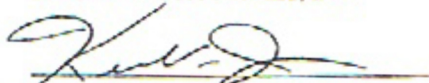
<u>Test Day</u>	<u>Control</u>	Ethylene Glycol, mg/l
		<u>OSE II/DFW Glycol</u>
1	5,450	-
3	-	2,680
7	-	860
10	5,380	160

Note: Results are based on triplicate determination.

## DISCUSSION

The OSE II treated sample exhibits a significant reduction of ethylene glycol over the test period.

DALLAS LABORATORIES, INC.

  
Kevan W. Jones, Vice President
Analyst: KJ  
KWJ:td

765 0543  
965 7194  
421 1400

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AMERICAN NATIONAL STANDARDS INSTITUTE  
AMERICAN SOCIETY FOR QUALITY CONTROLSubmitted by: Lancer Industries, Inc.  
3608 South Main St.  
Euless, TX 76040

Date: September 10, 2002

Attn: Gregory T. Orrell

Report No.: 32449B

## REPORT

Lab Sample No.

32449

Oil Spill Eater II.

## PROCEDURE

Fourteen ounces of DFW glycol effluent was mixed with four ounces of a 25% OSE II solution by hand stirring and aerated using a low output aquarium aerator. The test temperature is  $75 \pm 5^\circ\text{F}$ . A control sample of the DFW effluent is set up also. Aliquots are extracted and tested for ethylene glycol content by modified EPA 801S.

## RESULTS

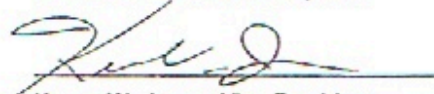
<u>Test Day</u>	<u>Control</u>	Ethylene Glycol, mg/l
		<u>OSE II/DFW Glycol</u>
1	14,720	-
3	-	10,830
7	-	4,680
10	-	1,180
21	14,560	80

Note: Results are based on triplicate determination.

## DISCUSSION

The OSE II treated sample exhibits a significant reduction of ethylene glycol over the test period.

DALLAS LABORATORIES, INC.

  
Kevan W. Jones, Vice PresidentAnalyst: KJ  
KWJ:td

THE ANALYSES OF THE ABOVE SAMPLE OR SAMPLES DO NOT IMPLY AN ENDORSEMENT. THIS REPORT, OR ANY PART THEREOF, MAY NOT BE REPRODUCED OR USED FOR ADVERTISING PURPOSES WITHOUT OUR EXPRESS WRITTEN CONSENT.





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## DFW CLEANUP OF DEICING AGENT USING OIL SPILL EATER II (OSE II)

- I. Once deicing is completed for a plane or as soon as possible, begin applying OSE II.
- II. Keep track of how much deicing agent has been used.
- III. Materials Needed
  1. OSE II.
  2. Log of how much deicing agent is used.
  3. Water truck with spray apparatus or mobile tank with spray apparatus, an eductor system.
  4. Source for water.
  5. 4 - 50 ml sample bottles.
  6. 1 - 250 ml sample bottle with teflon sealed cap.
  7. Label for sample bottle.
  8. Ice chest (small).
- IV.
  1. Water Truck or Mobile Water Tank
    - a. Mix OSE II 50 parts water to 1 part OSE II.  
*Example: 1,000 gallons of deicing agent on the ground.  
Use 1,000 gallon water tank and 20 gallons of OSE II.*
    - b. Apply mixed OSE II and water to area covered with deicing agent.  
Apply 1 part mixed OSE II to 1 part used deicing agent.  
*Note: You will know how many gallons of deicing agent were used;  
apply that amount of OSE II mixed with water.*

- c. Wash this effluent to the drains leading to retaining ponds.
- d. If OSE II is mixed with water in a water truck or mobile tank, all the contents should be used within 24 hours.

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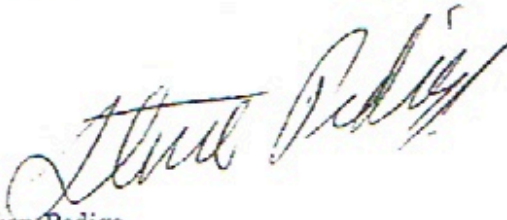
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Steven Pedigo  
Chairman

SP/eem