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September 21, 2004

GeoInsight Project 3871-000

Richard Packard  
Massachusetts Department of Environmental Protection  
Southeast Regional Office  
Bureau of Waste Site Cleanup  
20 Riverside Drive  
Lakeville, Massachusetts

Re: Proposed IRA Cleanup Activities  
Leisure Shores Beach  
DEP RTN 4-17786  
Barge B120 Spill  
Buzzards Bay, Massachusetts

Dear Mr. Packard:

GeoInsight, Inc. (GeoInsight) prepared this letter to present proposed additional cleanup activities planned at Leisure Shores Beach in Mattapoisett, Massachusetts. Refer to Figure 1 for the approximate location of Leisure Shores Beach. These cleanup activities will be conducted as part of response actions proposed in the September 15, 2003 Immediate Response Action (IRA) Plan (as modified) to remove residual oil on the shoreline associated with the release from Bouchard Barge No. 120 (B120). GeoInsight, as the Licensed Site Professional (LSP) under the Massachusetts Contingency Plan (MCP), prepared this letter on behalf of Bouchard Transportation Company, Inc.

## 1.0 INTRODUCTION

The Leisure Shores Beach is a portion of shoreline segment W1F-02 (Brandt Island West) and this segment is periodically inspected for the presence of surficial and buried oil as part of IRA response actions proposed in the September 15, 2004 IRA Plan. Discrete patches of oil, primarily in the form of small (approximately 1-inch diameter or smaller) tarballs, have been encountered at this segment and cleanup activities were conducted on April 1, April 8, April 16, May 17, and August 10, 2004 to remove the detected oil. Refer to IRA Status Reports dated February 10 and September 16, 2004 for additional information regarding these inspection and cleanup activities.



In September 2004, oil was encountered in the lower intertidal zone at the Leisure Shores Beach in an area bounded by a rock groin to the west (with a small stream crossing the groin), and a smaller groin to the east, near a grill in the shape of a torpedo. The oil consisted primarily of small particles ranging in size from approximately 1 millimeter (mm) to 7 mm in diameter. These small particles were found as either discrete particles in the subtidal sediment, adhered to small rocks or shells, or floating on the water surface in trenches excavated by the inspection team. Initial evaluation indicated that the oil distribution appeared to be discontinuous, with some areas of the beach containing oil particles and other areas apparently free of oil particles.

In response to the detection of oil in this area, GeoInsight and ENTRIX, Inc. (ENTRIX) excavated a series of trenches aligned on a grid pattern to delineate the extent of oiling. Figure 2 shows the approximate location of the trenches and includes a row and column numbering system to identify individual trench locations. Visual observations for each trench location are summarized in Table 1.

A total of 113 trenches were manually excavated within the intertidal zone in the area of concern. In general, the oiling was found to be discontinuous, with oil encountered in approximately 40 percent of the trenches. The observed oiling conditions primarily consisted of small “pinhead” to “pepper flake” size particles, measuring approximately 1mm to 2mm in diameter. These small oil particles were observed floating on the water surface within the trench and were often surrounded by a rainbow sheen. Slightly larger oil particles, termed “globules,” measured 5mm to 7mm in diameter and were found in a smaller proportion of the oiled trenches. The number of oil particles observed in the individual trenches was generally low, ranging from 1 to 6 oil particles per trench.

## **2.0 PROPOSED CLEANUP ACTIVITIES**

The small size of the oil particles and the limited number of particles encountered during this investigation indicates that the total volume of B120 oil in this area is relatively small. Due to the small size of the observed particles and the discontinuous nature of the oil distribution, GeoInsight proposes to conduct the cleanup activities initially using oil absorbent materials. Based upon the outcome of the initial absorbent cleanup activities, other cleanup strategies will be evaluated and implemented, if necessary.

The initial cleanup activities will consist of digging and turning over the beach sediment using rakes and shovels to expose residual oil. Shoreline sediment will not be removed from the Leisure Shores Beach during this cleanup operation. Oil absorbent pads or “sweep” (rolls of oil absorbent material) will then be placed in areas of observed oil to remove the small oil particles. Oil absorbent pads will also be placed in trenches where oil particles are observed on the water surface to remove floating oil particles. Rocks and shells with observed oil will also be wiped with absorbent material.



### 3.0 SCHEDULE

Because the oil observed is present primarily in the lower portion of the lower intertidal zone, cleanup and post-cleanup inspection activities must be conducted at low tide. GeoInsight proposes to initiate cleanup activities on Thursday, September 23, 2004, with September 24, 2004 available if additional cleanup is required. An initial post-cleanup inspection, consisting of trenching and test-pitting using hand tools, will be conducted on Monday, September 27, 2004. Additional cleanup, using the methodology described above, will be conducted on Tuesday, September 28, 2004, if required, with a post-cleanup inspection on Thursday, September 30, 2004. GeoInsight will evaluate alternative cleanup strategies, in consultation with the Massachusetts Department of Environmental Protection, if the September 30, 2004 inspection indicates that additional cleanup activities are necessary.

Please feel free to call Kevin Trainer at (978) 692-1114 if you have any questions or if you would like to discuss this project.

Sincerely,  
GEOINSIGHT, INC.

Kevin D. Trainer, P.G., C.P.G., L.S.P.  
Senior Project Geologist

Richard J. Wozmak, P.E., P.H., L.S.P.  
Principal

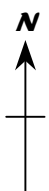
Attachments: Figure 1 – Site Locus  
Figure 2 – Trench Excavation Locations  
Table 1 – Leisure Shores Trench Locations and Descriptions


cc: Victor Corso, Bouchard Transportation Company, Inc.  
Andrew Davis, LeBoeuf, Lamb, Greene & MacRae LLP

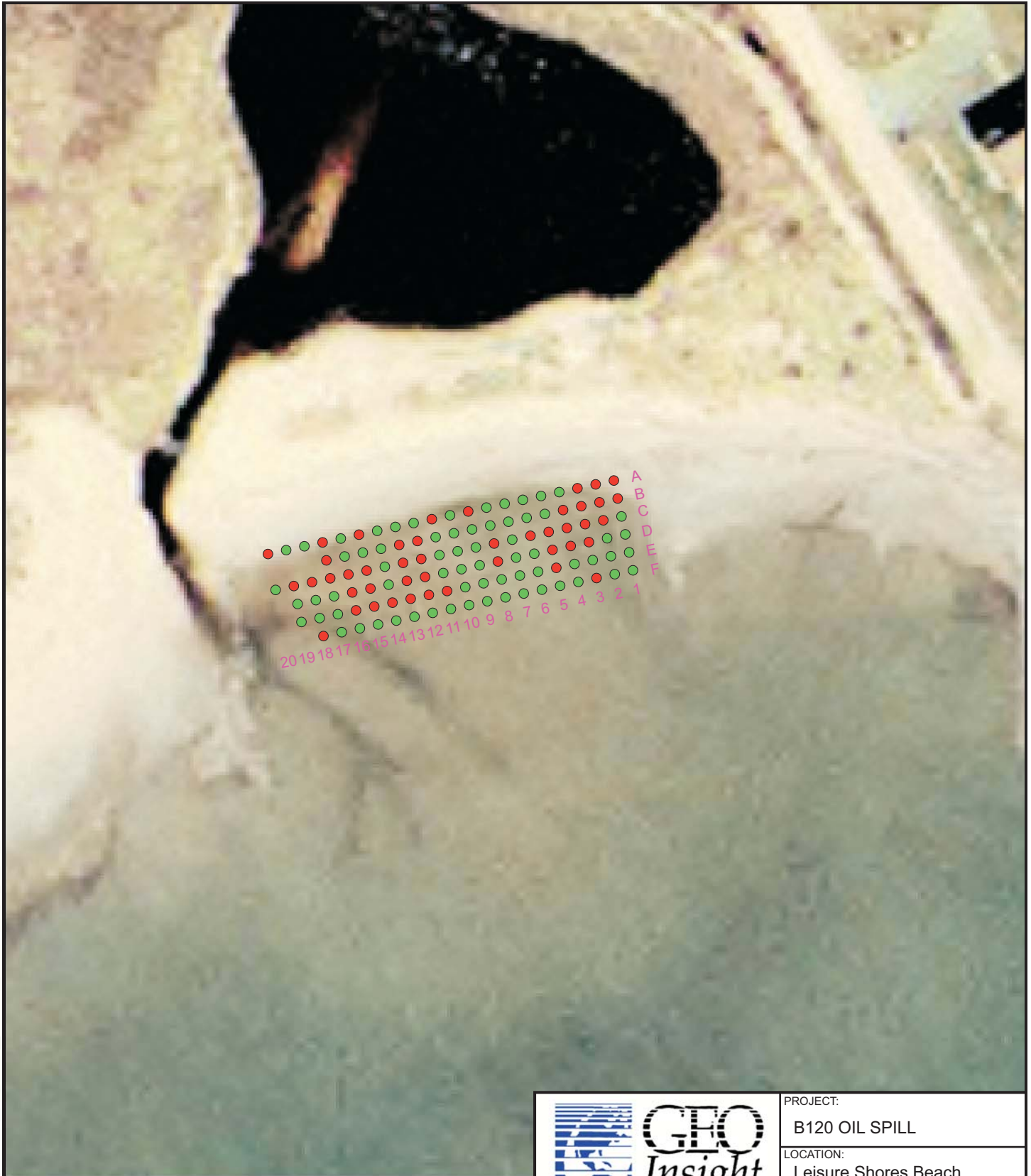


SITE LOCUS

SOURCE:  
USGS Marion and Scotcut Neck Quadrangles



|  |                  |   |                  |                     |
|--|------------------|---|------------------|---------------------|
|  |                  | PROJECT: Bouchard B120 Oil Spill<br>Buzzards Bay, Massachusetts |                  |                     |
|  |                  | LOCATION: Leisure Shores<br>Mattapoisett, Massachusetts         |                  |                     |
| TITLE: SITE LOCUS  |                  |   |                  |                     |
| CONTOUR INTERVAL:<br>3 meters  | DRAWN:<br>KDT    | CHECKED:<br>KDT   | APPROVED:<br>RJW | FIGURE:<br><b>1</b> |
| SCALE:<br>AS SHOWN   | DATE:<br>9/16/04 | FILE NO.:   | PROJECT NO.:     |                     |
|  |                  | Figure 1-<br>Leisure Shores                                     | 3871-000         |                     |



**LEGEND**

- OILED TRENCH
- UNOILED TRENCH

0      50      100  
 APPROXIMATE SCALE  
 (feet)

NORTH

|                             |         |           |            |   |
|-----------------------------|---------|-----------|------------|---|
|                             |         | PROJECT:  |            | B120 OIL SPILL                                      |
|                             |         | LOCATION: |            | Leisure Shores Beach<br>Mattapoisset, Massachusetts |
| TITLE:                      |         |           |            |   |
| TRENCH EXCAVATION LOCATIONS |         |           |            |   |
| DESIGNED:                   | DRAWN:  | CHECKED:  | APPROVED:  | FIGURE #:   |
| KDT                         | KDT/LAC | LAC       | KDT        |   |
| SCALE:                      | DATE:   | FILE:     | PROJECT #: |   |
| As Shown                    | 9/17/04 | 3871LS    | 3871-000   | 2   |

**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row A** (Approximately 30' south of high tide/ wrack line)

East Row Endpoint: 41°37.719' N 70°49.426' W

West Row Endpoint: 41°37.714' N 70°49.467' W

| Trench # | Length (feet) | Depth (inches) | Field Team Observation   | Coordinates North | Coordinates West |
|----------|---------------|----------------|--|-------------------|------------------|
| 1        | 2.5'          | 3"             | 1 pinhead-size fleck of oil encircled with sheen floating in water within trench   | 41°37.719' N      | 70°49.426' W     |
| 2        | 1.5'          | 2"             | 2 pinhead-size flecks of oil encircled with sheen (2mm diameter) floating in water within trench   | 41°37.719' N      | 70°49.429' W     |
| 3        | 2'            | 3"             | 2 pinhead-size flecks of oil (one encircled with sheen and one with a 3"-long rainbow sheen streamer) floating in water within trench. 1 globule (5mm diameter) encircled with a sheen (0.5" diameter) floating in water within trench. Rainbow tint apparent in an area of soil along the border of the trench (1 square inch area) | 41°37.719' N      | 70°49.433' W     |
| 4        | 2'            | 4"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 5        | 2'            | 5"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 6        | 2'            | 5"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 7        | 1.5'          | 5"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 8        | 2'            | 5"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 9        | 1.5'          | 4"             | 1 pinhead-size fleck of oil with associated rainbow sheen streamer (1" long) floating in water within trench   | 41°37.718' N      | 70°49.412' W     |
| 10       | 2'            | 4"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 11       | 1.5'          | 4"             | 1 pinhead-size fleck of oil encircled with sheen (<1cm diameter) floating in water within trench   | 41°37.716' N      | 70°49.446' W     |
| 12       | 2.5'          | 4"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 13       | 2.5'          | 3"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 14       | 1.5'          | 2"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 15       | 2'            | 3"             | 2 pinhead-size flecks of oil encircled with sheen (<1" diameter) floating in water within trench   | 41°37.714' N      | 70°49.451' W     |
| 16       | 2.5'          | 3"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 17       | 2.5'          | 3"             | 1 pinhead-size fleck of oil encircled with sheen (0.5" diameter) floating in water within trench   | 41°37.717' N      | 70°49.458' W     |
| 18       | 2'            | 2"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 19       | 2'            | 3"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 20       | 2.5'          | 2"             | Several streamers of sheen (<1" long)  | 41°37.714' N      | 70°49.461' W     |

Notes:

1. NT: Not Taken (if no evidence of oil observed by inspection team).
2. Length and Depth are approximate values.
3. Trenches are adjacent approximately 5 to 8 feet apart. Trench 1 is the eastern-most trench.

**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row B** (Approximately 40' south of high tide/ wrack line)

East Row Endpoint: 41°37.719' N 70°49.424' W

West Row Endpoint: 41°37.706' N 70°49.452' W

| <b>Trench #</b> | <b>Length (feet)</b> | <b>Depth (inches)</b> | <b>Field Team Observation</b>  | <b>Coordinates North</b> | <b>Coordinates West</b> |
|-----------------|----------------------|-----------------------|--|--------------------------|-------------------------|
| 1               | 2'                   | 2"                    | 7 pinhead-size flecks of oil each encircled with sheen (up to 0.5" diameter) floating in water within trench                     | 41°37.719' N             | 70°49.425' W            |
| 2               | 2'                   | 2"                    | Trace sheening (1" diameter)   | 41°37.719' N             | 70°49.427' W            |
| 3               | 3.5'                 | 2"                    | 3 pinhead-size flecks of oil, each encircled with sheen (1cm- 2" diameter) and one oil streamer, floating in water within trench | 41°37.718' N             | 70°49.430' W            |
| 4               | 3.5'                 | 2"                    | 3 pinhead-size flecks of oil encircled with sheen area (4.5"x3" diameter) floating in water within trench                        | 41°37.716' N             | 70°49.433' W            |
| 5               | 3.5'                 | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 6               | 2'                   | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 7               | 3'                   | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 8               | 3.5'                 | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 9               | 4'                   | 3"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 10              | 4'                   | 3"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 11              | 4'                   | 3"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 12              | 4'                   | 3"                    | 4 pinhead-size flecks of oil and 1 globule (5mm) encircled with sheen (0.5" diameter) floating in water within trench            | 41°37.716' N             | 70°49.445' W            |
| 13              | 3'                   | 2"                    | 1 pinhead-size fleck of oil encircled with sheen (1cm diameter) floating in water within trench                                  | 41°37.713' N             | 70°49.445' W            |
| 14              | 3.5'                 | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 15              | 4'                   | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 16              | 4'                   | 2"                    | No evidence of oil in trench or spoils pile  | NT                       | NT                      |
| 17              | 4'                   | 2"                    | 1 pinhead-size fleck of oil with associated rainbow sheen streamer floating in water within trench                               | 41°37.710' N             | 70°49.452' W            |

Notes:

1. NT: Not Taken (if no evidence of oil observed by inspection team).
2. Length and Depth are approximate values.
3. Trenches are adjacent approximately 5 to 8 feet apart. Trench 1 is the eastern-most trench.

**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row C** (Approximately 50' south of high tide/ wrack line)

East Row Endpoint: 41°37.716' N 70°49.425' W

West Row Endpoint: 41°37.706' N 70°49.452' W

| Trench # | Length (feet) | Depth (inches) | Field Team Observation  | Coordinates North | Coordinates West |
|----------|---------------|----------------|---|-------------------|------------------|
| 1        | 3'            | 2"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide   | NT                | NT               |
| 2        | 2.5'          | 2"             | Trace sheening (1" diameter)  | 41°37.716' N      | 70°49.427' W     |
| 3        | 2.5'          | 2"             | 1 fleck (5mm diameter) with associated rainbow sheen streamer, and several pinhead-size flecks of oil encircled with sheen (1cm to 2" diameter) floating in water within trench | 41°37.713' N      | 70°49.431' W     |
| 4        | 2'            | 2"             | 4 pinhead-size flecks of oil each encircled with sheen (up to 3cm diameter) floating in water within trench   | 41°37.714' N      | 70°49.432' W     |
| 5        | 2'            | 2"             | 4 pinhead-size flecks of oil each encircled with sheen (1cm diameter) floating in water within trench   | 41°37.714' N      | 70°49.433' W     |
| 6        | 2'            | 2"             | 3 pinhead-size flecks of oil each encircled with sheen (2cm diameter) floating in water within trench   | 41°37.714' N      | 70°49.433' W     |
| 7        | 2'            | 2"             | No evidence of oil in trench or spoils pile   | NT                | NT               |
| 8        | 2'            | 2"             | 1 pinhead-size fleck of oil encircled with sheen (1cm diameter) floating in water within trench   | 41°37.712' N      | 70°49.435' W     |
| 9        | 2'            | 2"             | No evidence of oil in trench or spoils pile   | NT                | NT               |
| 10       | 1.5'          | 2"             | No evidence of oil in trench or spoils pile   | NT                | NT               |
| 11       | 1.5'          | 2"             | No evidence of oil in trench or spoils pile   | NT                | NT               |
| 12       | 2'            | 2"             | 1 fleck of oil (5mm) encircled with sheen (1cm diameter) floating in water within trench  | 41°37.710' N      | 70°49.440' W     |
| 13       | 3.5'          | 2"             | 1 pinhead-size fleck of oil encircled with sheen (1cm diameter) floating in water within trench   | 41°37.711' N      | 70°49.442' W     |
| 14       | 4'            | 2"             | No evidence of oil in trench or spoils pile   | NT                | NT               |
| 15       | 4'            | 2"             | Trace sheening (0.5" diameter)  | 41°37.710' N      | 70°49.447' W     |
| 16       | 3'            | 2"             | 3 pinhead-size flecks of oil and 3 globules (7mm diameter) each encircled with sheen (up to 1" diameter) floating in water within trench  | 41°37.709' N      | 70°49.447' W     |
| 17       | 2'            | 2"             | 3 pinhead-size flecks of oil each encircled with sheen (1cm diameter) floating in water within trench   | 41°37.708' N      | 70°49.446' W     |
| 18       | 3'            | 2"             | 3 pinhead-size flecks of oil each encircled with sheen (1" diameter) floating in water within trench  | 41°37.707' N      | 70°49.451' W     |
| 19       | 4'            | 2"             | 4 pinhead-size flecks of oil each encircled with sheen (1cm diameter) floating in water within trench   | 41°37.708' N      | 70°49.453' W     |
| 20       | 2'            | 3"             | No evidence of oil in trench or spoils pile   | 41°37.706' N      | 70°49.452' W     |

Notes:

1. NT: Not Taken (if no evidence of oil observed by inspection team).
2. Length and Depth are approximate values.
3. Trenches are adjacent approximately 5 to 8 feet apart. Trench 1 is the eastern-most trench.



**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row D** (Approximately 60' south of high tide/ wrack line)

East Row Endpoint: 41°37.715' N 70°49.426' W

West Row Endpoint: 41°37.704' N 70°49.452' W

| Trench # | Length (feet) | Depth (inches) | Field Team Observation   | Coordinates North | Coordinates West |
|----------|---------------|----------------|--|-------------------|------------------|
| 1        | 1'            | 2"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 2        | 1'            | 2"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 3        | 1-2'          | 1-2"           | Area of 5 adjacent and parallel trenches (labeled 3a - 3e) where sediment sample LS-OS-S01 was taken by GeoInsight with MADEP on 8/31/04. Trenches 3a- 3e are approximately 0.5'- 1' apart. See associated descriptions below. The eastern-most trench is 3a | 41°37.714' N      | 70°49.432' W     |
| 3a       |               |                | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 3b       |               |                | Several pinhead and few globules (up to 5mm diameter) each encircled with sheen (up to 1cm diameter) floating in water within trench   | 41°37.714' N      | 70°49.432' W     |
| 3c       |               |                | Several pinhead and few globules of oil (up to 5mm diameter) each encircled with sheen (up to 1cm diameter) floating in water within trench  | 41°37.714' N      | 70°49.432' W     |
| 3d       |               |                | 50% cover of floating globules of oil and associated sheening floating in water within trench  | 41°37.714' N      | 70°49.432' W     |
| 3e       |               |                | 50% cover of floating globules of oil and associated sheening floating in water within trench  | 41°37.714' N      | 70°49.432' W     |
| 4        | 3.5'          | 2"             | 1 pinhead-size fleck of oil encircled with sheen (1cm diameter) floating in water within trench.   | 41°37.710' N      | 70°49.434' W     |
| 5        | 3.5'          | 1"             | 1 pinhead-size fleck of oil with associated rainbow sheen streamer (4"x1") floating in water within trench. Some sheen is organic  | 41°37.709' N      | 70°49.440' W     |
| 6        | 3.5'          | 1"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 7        | 3.5'          | 1"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 8        | 3.5'          | 2"             | 2 pinhead-size flecks of oil encircled with sheen (1cm diameter) floating in water within trench   | 41°37.699' N      | 70°49.435' W     |
| 9        | 3.5'          | 1"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 10       | 3.5'          | 1"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 11       | 3.5'          | 1"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 12       | 3.5'          | 1"             | 2 pinhead-size flecks of oil each encircled with sheen (up to 2cm diameter) floating in water within trench- slight flooding in trench due to incoming tide  | 41°37.709' N      | 70°49.440' W     |
| 13       | 3.5'          | 1"             | Trace sheen (<5mm diameter) floating in water within trench  | 41°37.709' N      | 70°49.442' W     |
| 14       | 3.5'          | 1"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 15       | 3.5'          | 1"             | 4 globules of oil each encircled with slight sheen (5mm diameter) floating in water within trench  | 41°37.707' N      | 70°49.444' W     |
| 16       | 5'            | 2"             | 1 B120 tar patty in sand within trench hardened and slightly plastic (0.5" diameter)- slight flooding in trench due to incoming tide   | 41°37.706' N      | 70°49.444' W     |
| 17       | 5'            | 2"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |
| 18       | 5'            | 2"             | No evidence of oil in trench or spoils pile  | NT                | NT               |
| 19       | 5'            | 2"             | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide  | NT                | NT               |

Notes:

1. NT: Not Taken (if no evidence of oil observed by inspection team).
2. Length and Depth are approximate values.
3. Trenches are adjacent approximately 5 to 8 feet apart. Trench 1 is the eastern-most trench.

**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row E** (Approximately 70' south of high tide/ wrack line)

East Row Endpoint: 41°37.713' N 70°49.425' W

West Row Endpoint: Not Recorded

| <b>Trench #</b> | <b>Length (feet)</b> | <b>Depth (inches)</b> | <b>Field Team Observation</b>   | <b>Coordinates North</b> | <b>Coordinates West</b> |
|-----------------|----------------------|-----------------------|---|--------------------------|-------------------------|
| 1               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 2               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 3               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 4               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 5               | 1.5'                 | 2"                    | Trace sheening (12" diameter)   | 41°37.711' N             | 70°49.428' W            |
| 6               | 1.5'                 | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 7               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 8               | 1'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 9               | 1.5'                 | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 10              | 1.5'                 | 2"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                 | NT                       | NT                      |
| 11              | 1.5'                 | 2"                    | 1 pinhead-size fleck of oil with associated rainbow sheen streamer floating in water within trench          | 41°37.708' N             | 70°49.438' W            |
| 12              | 1.5'                 | 2"                    | 1 pinhead-size fleck of oil encircled with sheen (1cm diameter) floating in water within trench             | 41°37.706' N             | 70°49.440' W            |
| 13              | 2'                   | 2"                    | 5 pinhead-size flecks of oil each encircled with sheen (up to 1cm diameter) floating in water within trench | 41°37.706' N             | 70°49.442' W            |
| 14              | 2.5'                 | 2"                    | 6 pinhead-size flecks of oil each encircled with sheen (up to 1cm diameter) floating in water within trench | 41°37.709' N             | 70°49.444' W            |
| 15              | 3'                   | 2"                    | 3 pinhead-size flecks of oil each encircled with sheen (up to 2cm diameter) floating in water within trench | 41°37.704' N             | 70°49.447' W            |
| 16              | 2'                   | 2"                    | 1 pinhead-size fleck of oil encircled with sheen (5mm diameter) floating in water within trench             | 41°37.703' N             | 70°49.448' W            |
| 17              | 2'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 18              | 2'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 19              | 2'                   | 2"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |

Notes:

1. NT: Not Taken (if no evidence of oil observed by inspection team).
2. Length and Depth are approximate values.
3. Trenches are adjacent approximately 5 to 8 feet apart. Trench 1 is the eastern-most trench.

**TABLE 1  
LEISURE SHORES TRENCH LOCATIONS AND DESCRIPTIONS**

**BOUCHARD B120 OIL SPILL  
BUZZARDS BAY, MASSACHUSETTS  
SEPTEMBER 8, 2004**

**Row F** (Approximately 80' south of high tide/ wrack line)

East Row Endpoint: 41°37.713' N 70°49.421' W

West Row Endpoint: 41°37.699' N 70°49.453' W

| <b>Trench #</b> | <b>Length (feet)</b> | <b>Depth (inches)</b> | <b>Field Team Observation</b>   | <b>Coordinates North</b> | <b>Coordinates West</b> |
|-----------------|----------------------|-----------------------|---|--------------------------|-------------------------|
| 1               | 2'                   | 3"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 2               | 2'                   | 3"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 3               | 2'                   | 3"                    | 1 fleck of oil (5mm diameter) with associated rainbow sheen streamer floating in water                                  | NT                       | NT                      |
| 4               | 2.5'                 | 3"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 5               | 2'                   | 3"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 6               | 2.5'                 | 3"                    | No evidence of oil in trench or spoils pile   | NT                       | NT                      |
| 7               | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 8               | 1.5"                 | 2"                    | No evidence of oil in trench or spoils pile- flooded trench due to incoming tide. Black algae spot on gravel and shell: | NT                       | NT                      |
| 9               | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 10              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 11              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 12              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 13              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 14              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 15              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 16              | 2'                   | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 17              | 1.5'                 | 3"                    | No evidence of oil in trench or spoils pile- slight flooding in trench due to incoming tide                             | NT                       | NT                      |
| 18              | 2'                   | 3"                    | 3 pinhead- size flecks encircled by rainbow sheens (4cm x 2cm) floating in water within trench                          | 41°37.697' N             | 70°49.453' W            |