Response Action Plan and Construction Contingency Plan

Former Oasis Market, Leak # 7470
14550 Armstrong Blvd NW
Ramsey, Minnesota

Prepared for

Anoka County Highway Department

Professional Certification
I hereby certify that this plan, specification or report was prepared under my direct supervision and that I am a duly Licensed Professional Geologist under the laws of the State of Minnesota.

James L. DeLuca, PG
Associate Principal
License Number: 30740
November 16, 2009

Project SP-09-03784A

Braun Intertec Corporation

BRAUN
INTERTEC

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November 16, 2009

Project SP-09-03784A

Ms. Stacey Hendry-Van Patten
Petroleum Brownfields Program
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Re: Response Action Plan and Construction Contingency Plan
Former Oasis Market, Leak # 7470
14550 Armstrong Blvd NW
Ramsey, Minnesota

Dear Ms. Hendry-Van Patten:

Braun Intertec Corporation (Braun Intertec) has prepared this Response Action Plan and Construction Contingency Plan (RAP/CCP) for the proposed demolition activities at the referenced site. The RAP/CCP summarizes previous work conducted at the site and provides a description of the methods that will be used to evaluate and manage petroleum-impacted soil encountered during demolition and grading activities at the Site.

If you have questions regarding this RAP/CCP, or if we can provide additional information, please call George Beatty at 651.487.7037 or Jim DeLuca at 651.487.7005.

Sincerely,

BRAUN INTERTEC CORPORATION

George E. Beatty
Environmental Scientist

James L. DeLuca, PG
Associate Principal

c: Mr. Andy Witter, Anoka County Highway Department
Mr. Brian Olson, Cit of Ramsey

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1.0 Introduction

Anoka County Highway Department (Anoka County) is preparing to demolish the existing Oasis Market and strip mall buildings located at 14550 Armstrong Blvd NW, Ramsey, Anoka County, Minnesota (Site) in preparation for roadway improvements in the area. A Site location map is included as Figure 1 and a Site plan as Figure 2.

This Response Action Plan and Construction Contingency Plan (RAP/CCP) summarizes previous work conducted at the Site. It also provides a description of the methods that will be used to evaluate and manage petroleum-impacted soils that may be encountered during demolition and roadway construction activities.

2.0 Responsibilities

The following are the key personnel involved in the project:

Property Owner:	Anoka County Highway Department	**Environmental Consultant:**	Braun Intertec Corporation
Owner Representative:	Andrew Witter (Assistant County Engineer)	**Project Manager:**	George E. Beatty
Phone:	763.862.4249	**Phone:**	651.487.7037
Fax:	763.862.4201	**Fax:**	651.487.1812
Future Property Owner:	City of Ramsey	**MPCA Emergency (State Duty Officer)**	651.649.5451
Owner Representative:	Brian Olson (Director of Public Works)		
Phone:	763.438.9825		
Fax:		**Local Emergency**	911

3.0 Project Background

3.1. Previous Subsurface Investigation Results

A limited subsurface investigation was conducted by DPRA in 1994 to evaluate site soils as part of an environmental due diligence project for Scrivner/Gateway Foods. One soil boring was advanced adjacent to and south of the underground storage tank (UST) basin and pump islands. One soil sample was collected at 5 feet below ground surface (bgs) and analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), total recoverable petroleum hydrocarbons (TRPH), and total hydrocarbons as gasoline (THCG). All concentrations were below laboratory method reporting limits except TRPH, which was detected at 90 mg/kg. The State Duty Officer was notified of the release, and the site assigned Leak # 7470 by the Minnesota Pollution Control Agency (MPCA) on June 27, 1994. The results of the limited subsurface investigation were submitted to the MPCA (DPRA, 1994). Based on the results of the subsurface investigation, the MPCA issued a No Corrective Action Required letter on September 30, 1994.

Petroleum-impacted soil was encountered during piping and dispenser upgrade activities in 1999. Approximately 15 cubic yards of petroleum-impacted soil was stockpiled, then screened with a photo-ionization detector (PID) and sampled for petroleum volatile organic compounds (PVOCs), diesel range organics (DRO), gasoline range organics (GRO), and total lead by Liesch & Associates. Stockpiled soils had a maximum PID reading of 40.2 parts per million (ppm). Soil analytical results were compared with Tier 2 Residential Soil Reference Values (SRVs). With the exception of GRO and DRO, for which Tier 2 SRVs have not been established, all compounds were at least one order of magnitude below their applicable Tier 2 Residential SRVs. A total of 8.14 cubic yards of the petroleum-impacted soil was taken to C.S. McCrossen for thermal treatment; the remaining petroleum-impacted soil was re-used as backfill during upgrade activities. The results were reported in Liesch, 1999.

A Limited Site Investigation (LSI) was conducted by R.J. Rykken Consulting, Inc. in 2004 (RJR, 2004) to evaluate soil and groundwater in the vicinity of the UST basin, which was described as containing two 10,000-gallon USTs, and pump islands. The LSI consisted of three soil borings located adjacent to and east, west, and south of the UST basin and pump islands. No visual and olfactory indications of soil impacts were observed, and PID readings did not exceed 0.0 ppm. No soil analytical samples were collected; however, groundwater samples were collected from each soil boring at 17 feet bgs. Groundwater samples were analyzed for BTEX and GRO, but did not exceed laboratory method reporting limits for the parameters tested.

3.2. Phase I ESA

A Phase I Environmental Site Assessment (Phase I ESA) was completed for the Site by Northern Technologies (Northern) in March 2006 (Northern 2006). Northern completed the Phase I ESA for the city of Ramsey, and reported that the site contained one building and a canopy area covering the gasoline dispenser area. The Phase I ESA was also reported that the ground surface was paved around the gas dispensers and east and west of the store building for vehicle traffic and parking; that the remainder of the Site was covered with native prairie vegetation; and that some fill soil existed on the west end of the Site where a mound system for a septic drain field existed. The Phase I ESA concluded that there were no recognized environmental conditions associated with the Site, because the identified LUST facility at the Site had received regulatory closure and Northern concluded minimal environmental threat based on distance from the Site and groundwater flow direction. We conclude that the closed LUST facility would be considered a historic REC.

3.3. UST Removal Results

R.J. Rykken Consulting, Inc. observed the removal of two 10,000-gallon gasoline USTs from the site in July 2009. The USTs were observed to be in good condition with no significant holes or corrosion. No visual or olfactory indications of soil impacts were observed in soils, and PID readings did not exceed 0.0 ppm. A total of four soil samples, one from each end of the two USTs, were collected from 1 foot below the bottom of the USTs and analyzed for PVOCs and GRO. The only compound detected was 1,2,4-Trimethylbenzene, with concentrations ranging from 0.030 mg/kg to 0.071 mg/kg. 1,2,4-Trimethylbenzene concentrations were at least two orders of magnitude less than the applicable Tier 2 Residential SRV of 8 mg/kg. The results were submitted to the MPCA in RJR, 2009.

The following recommendations were included in a file review document completed by Braun Intertec in September 2009:

- Prepare a Response Action Plan/Construction Contingency Plan (RAP/CCP) for demolition activities in the vicinity of the Site.

- The site should be enrolled in the MPCA Petroleum Brownfields Program (PBP) and a copy of the RAP/CCP submitted to PBP staff for approval a minimum of 30-days prior to starting demolition and/or redevelopment activities.

4.0 Response Action Plan

4.1 Planned Activities

Proposed construction activities in the vicinity of the Site include the following:

- Demolition of the former Oasis Mart building and related improvements, including removal of the floor slab.
- Grading of the Site for future redevelopment.

A pre-demolition Site plan is included as Figure 2.

4.2 Petroleum Impacted Soil

An environmental technician will observe excavations related to demolition in the vicinity of the building and pump islands. Soils will be screened in accordance with the procedures in Section 5.1, and managed on Site as follows:

1. No petroleum-contaminated soils (PCS) will be excavated outside of the demolition areas. PCS will be excavated only to the depth necessary for demolition activities.
2. For purposes of soil disposal or re-use, unrestricted soils are defined as soils with no detectable field readings, no visual indications or olfactory indications of contamination, no debris, and analytical results of less than 10 milligrams per kilogram (mg/kg) DRO or below the laboratory method reporting limit.
3. The applicant will notify the MPCA of the disposal location if PCS are to be removed from the site. Transportation and handling manifests will be included with the final implementation report.
4. A RAP Implementation Report will be submitted to the PBP upon completion of response actions.
5. If redevelopment is planned for the site, an addendum to this RAP/CCP addressing the redevelopment will be prepared and submitted to PBP staff for review.

Based on the previous reuse of soil with residual petroleum contamination and the former LUST faclity at the site, it is likely PCS will be encountered during demolition activities.

4.3 Confirmation Testing

Based on the soil impacts identified during the previous UST system work and during the LSI, we anticipate collecting up to 3 confirmation/disposal samples during demolition activities ; however, the number of samples collected may change based on field conditions. Soil samples will be analyzed at the Braun Intertec Laboratory for the following parameters:

- PVOCs using Wisconsin Department of Natural Resources (WDNR) methods. The WDNR PVOC method was chosen so that 1,2,4-Trimethylbenzene, which was detected during the UST removal effort, would be reported.
- GRO using WDNR methods
- DRO using WDNR methods

If PID readings exceed 10 parts per million (ppm) and/or other types of contamination are observed as discussed in the CCP described below (Section 5.0), soil samples will be collected and analyzed both for characterization/disposal purposes and for cleanup confirmation. The number of confirmation soil samples will be collected as shown in Table 4-1.

Table 4-1. Confirmation Sampling Schedule

Area of Excavation Floor (square feet)	Number of Grab Samples	Area of Excavation Sidewall (square feet)	Number of Grab Samples
Less than 500	2	Less than 500	4
500 - 1,000	3	500 - 1,000	5
1,000 - 1,500	4	1,000 - 1,500	6
1,500 - 2,500	5	1,500 - 2,0 00	7
2,500 - 4,000	6	2,000 - 3,000	8
4,000 - 6,000	7	3,000 - 4,000	9
6,000 - 8,500	8	4,000	1/45 lineal feet

5.0 Construction Contingency Plan

Unexpected but reasonably foreseeable contingencies may occur during site remediation and construction and include the following:

- Underground storage tanks
- Asbestos-containing materials in the fill, particularly in areas with demolition debris
- Unexpected types of contamination
- Strong or unusual odors
- Discolored soils
- Unlabelled drums or containers
- Unexpected buried or aboveground objects
- Workers becoming ill

In the event that one of the contingencies listed above or other unanticipated circumstance is encountered, work will stop in the immediate area. Work may continue in other areas as long as they are not impacted by the contingency. The Braun Intertec project manager will be notified and will mobilize appropriate staff to evaluate the contingency and secure the area. The Braun Intertec project manager will notify the MPCA staff and State Duty Officer within 24 hours. If it is a potential emergency, the Duty Officer and appropriate local emergency responders will be notified immediately.

Wastes, tanks, drums, containers, etc., will not be reburied. If it is necessary to excavate soils, screening, excavation, stockpiling and sampling will be conducted as discussed in the previous sections, with all stockpiles kept separate from the planned excavation stockpiles discussed in the preceding sections.

Anoka County and Braun Intertec representatives will work together to assemble a response team, which will initially consist of the representatives in Section 2.0. The Site Health and Safety Plan used for the RAP will be employed for activities in the CCP.

If soil screening and segregation are necessary, the procedures in Sections 5.1 through 5.4 will be followed. If asbestos containing materials are encountered, the procedures in Section 5.5 will be followed.

5.1. Soil Screening

A Braun Intertec environmental technician will be on-Site during demolition activities to document subsurface conditions. The technician will observe demolition excavation activities in the vicinity of the Oasis Mart building and pump islands for the presence of visual and incidental olfactory indications of contamination that are different from that which we have already observed. The technician will screen suspect areas using MPCA-approved headspace methodology utilizing a photoionization detector (PID) equipped with a 10.6-eV lamp to monitor soil for organic vapors.

A minimum of one sample for headspace analysis will be collected for approximately every 50 cubic yards of impacted material removed. Screening results will be documented. The technician will monitor the subsurface continuously for indications of suspect ACM. Based on prior Site evaluations, we do not anticipate encountering ACM.

The headspace analytical procedure is used to field-screen organic vapor levels in soils. The procedure consists of half-filling a new quart-sized sealable bag with a soil sample. The bag is quickly closed and headspace development proceeds for at least 10 minutes. The bag is shaken vigorously for 15 seconds, both at the beginning and the end of headspace development. After headspace development, the PID probe is inserted into the bag to one-half the headspace depth. The highest reading observed on the PID is then recorded.

In the event that the construction contractor encounters contaminated soils (based on visual, olfactory and/or PID measurements) materially different from those observed and tested during previous Site evaluations, those soils will be excavated and stockpiled as follows:

- Soils that exhibit PID headspace readings above background concentrations and/or display visual or olfactory indications of contamination will be segregated and stockpiled on polyethylene sheeting or an impermeable surface such as asphalt or concrete. Materially different fill/waste will be stockpiled separately. Direct olfactory evaluation of potentially contaminated soil is not recommended for safety reasons, but incidental observations will be noted and acted on.

- Braun Intertec will discuss the laboratory analytical tests to characterize the stockpiled soils with Anoka County and the MPCA prior to initiating any laboratory analyses. Potential parameters include GRO by Wisconsin GRO Method, DRO by Wisconsin DRO Method, VOCs by Method SW-846 8260B, PAHs by Method SW-846 8270, and RCRA metals by Method SW-846 6000/7000 series.

- The number of soil stockpile samples to be analyzed for selected parameters will be in accordance with the stockpile sampling schedule in Table 5-1

Table 5-1: Soil Stockpile Sampling Schedule

Cubic Yards of Soil in Stockpile	Number of Grab Samples
Less than 500	1 per 100 cubic yards
501 - 1,000	1 per 250 cubic yards
1,000 or more	1 per 500 cubic yards

5.2. Confirmation Soil Sampling for Unexpected Contamination

If contaminated soils (based on visual, olfactory, or headspace/PID indications of contamination) are encountered and excavated that are different from those described in the RAP, confirmation soil samples will be collected from the excavation base and sidewalls in the area of contaminated soil after the contaminated soil is removed. The number of samples will be based on Table 4-1 and the parameters will be selected based on the results of the characterization samples discussed in Section 5.1. Braun Intertec will discuss specific confirmation sampling tests for unexpected impacts with Anoka County and the MPCA prior to initiating any laboratory analyses.

Routine Braun Intertec laboratory quality assurance/quality control will be followed.

5.3. Soil Stockpile Management

Stockpiled soils suspected to be contaminated will be placed in a staging area of the construction site. Stockpiled soils suspected to be contaminated will be placed on polyethylene sheeting, or an impermeable surface such as asphalt or concrete, and covered with polyethylene sheeting at the end of each workday and will be secured in place. The stockpile(s) will be bermed, if necessary, to prevent stormwater run-on and/or runoff.

5.4. Soil Disposal and Reuse

Pending the results of laboratory analysis, stockpiled soils different from those described in the RAP may be used or disposed of as follows:

- Soils that are less than 200 ppm on the PID and less than the MPCA Tier 2 Industrial SRVs and the Tier 1 SLVs may be re-used onsite as controlled fill under paved surfaces by the Contractor.

- Soils with laboratory analytical results greater than the Tier 2 Industrial SRVs and TCLP results less than Maximum Allowable Concentrations (MACs) will be disposed of at an approved non-hazardous waste disposal facility, unless otherwise agreed to by the MPCA and Anoka County.

- Soils with laboratory analytical results greater than the Tier 2 Industrial SRVs and TCLP results greater than the Maximum Allowable Concentrations (MACs) will be disposed of at an approved hazardous waste disposal facility, unless otherwise agreed to by the MPCA and Anoka County.

If the contingency soils are petroleum contaminated, they will be managed as described in Section 4.2. If non-petroleum contaminants are present, the MPCA Voluntary Investigation and Cleanup (VIC) staff will be consulted.

5.5. Asbestos-Containing Materials

If ACM is encountered, excavation activities in the vicinity of the material will be stopped and MPCA Asbestos Program staff notified. An Emissions Control Plan (ECP) will be submitted to the MPCA for approval.

Once approval has been received, a certified asbestos abatement contractor will be deployed to the Site to oversee all asbestos-containing materials handling and removal. Asbestos handling and removal will follow the approved ECP submitted under separate cover.

6.0 Site Health and Safety Plan

A Site Health and Safety Plan will be developed under a separate cover and will be maintained at the Site at all times. Braun Intertec will provide the Health and Safety Plan to the General Contractor for reference and will provide technical assistance when required. However, subcontractor compliance with the Health and Safety Plan will be the responsibility of the General Contractor.

7.0 Reporting

Upon completion of Site activities and chemical analyses, Braun Intertec will prepare a RAP/CCP Implementation Report documenting our methods and results of the soil monitoring activities. We request that technical assistance and assurance letters be addressed to Anoka County and the City of Ramsey.

8.0 Schedule

We anticipate project activities to begin in mid-December. Response actions will likely begin as soon as RAP approval is received from the MPCA, so that demolition activities are not delayed.

9.0 References

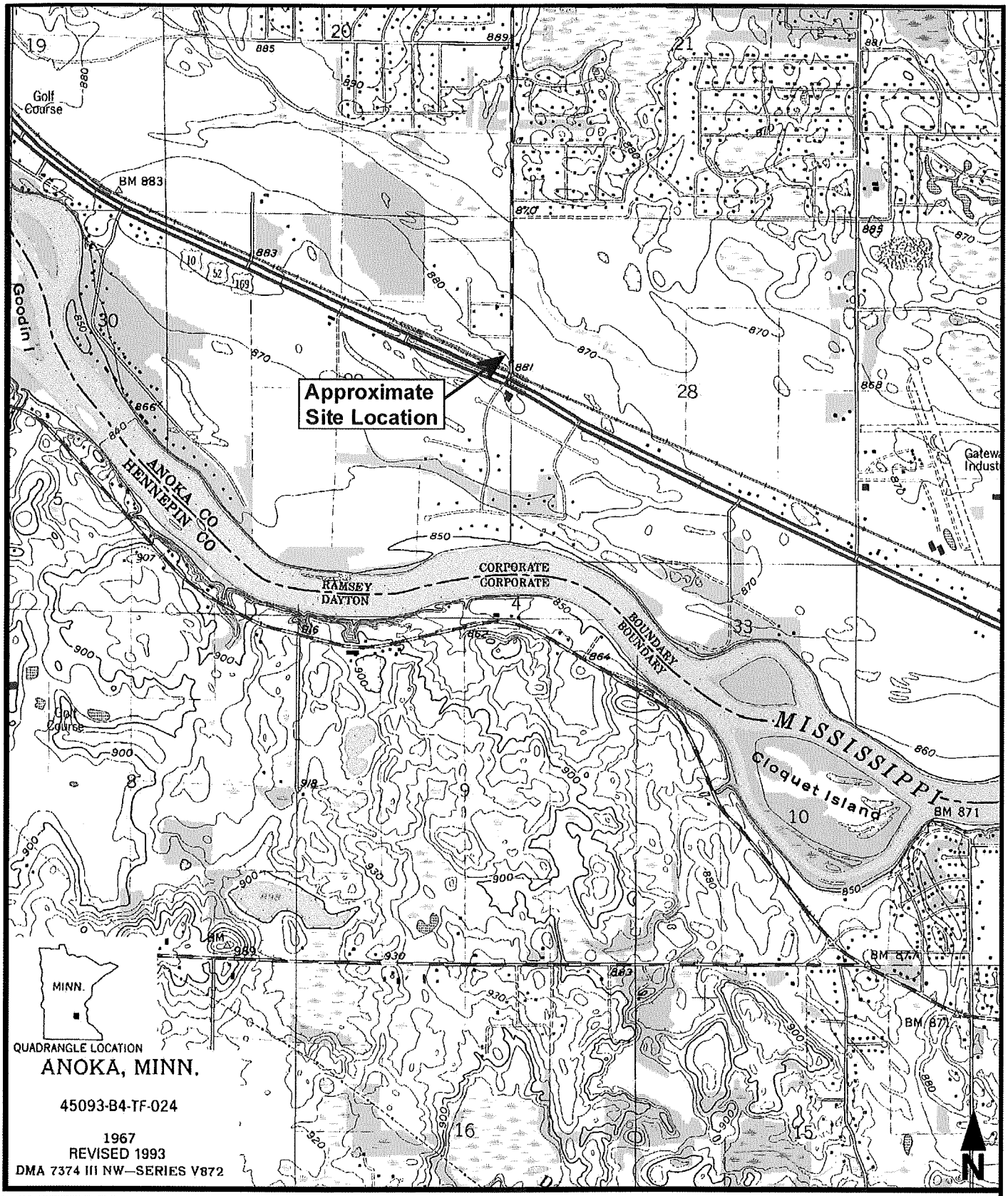
DPRA, 1994. Subsurface Investigations, 12 Brooks Stores, DPRA, August 1, 1994.

Liesch, 1999. Oasis Market (Former Fina Station), 14550 Armstrong Boulevard, Ramsey, Minnesota, Liesch Associates, April 27, 1999.

RJR, 2004. Limited Site Investigation, Oasis Market, 14550 Armstrong Boulevard, Ramsey, Minnesota, R.J. Rykken Consulting, Inc., June 30, 2004.

Northern, 2006. Phase I Environmental Site Assessment, Ramsey Crossings North Maple Holdings Property (P), 14550 Armstrong Boulevard, Ramsey, Minnesota, Northern Technologies., March 31, 2006.

RJR, 2009. UST Removal Assessment, Former Oasis, 14550 Armstrong Boulevard, Ramsey, Minnesota, R.J. Rykken Consulting, Inc., July 10, 2009.



BRAUN INTERTEC SM

Site Location Map
Former Oasis Market
14550 Armstrong Boulevard
Ramsey, Minnesota

USGS TOPOGRAPHIC MAP		
Anoka, MN		
DATE:	11/16/2009	
JOB NO:	SP-09-03784A	
SCALE:	1 : 24,000	FIGURE NO:
DRAWN BY:	FER	1

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40' 0 80'

SCALE: 1" = 80'

BRAUN INTERTEC

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Minneapolis, MN 55438
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Base Dwg Provided By:

RESPONSE ACTION PLAN / CONSTRUCTION CONTINGENCY PLAN
FORMER OASIS MARKET
14550 ARMSTRONG BOULEVARD
RAMSEY, MINNESOTA

Project No:	SP0903784A
Drawing No:	SP0903784A
Scale:	1" = 80'
Drawn By:	BJB
Date Drawn:	10/12/09
Checked By:	GEB
Last Modified:	11/12/09

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