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November 21, 2008  
1197-02

Alaska Department of Environmental Conservation  
610 University Avenue  
Fairbanks, Alaska 99709

**Attention: Tamara Cardona-Marek, PhD., Environmental Specialist**

Re: *Tamara* Conceptual Site Model for ADEC File No. 100.38.097

Dear Dr. Marek:

Travis/Peterson Environmental Consulting, Inc. (TPECI) presents the following updated Conceptual Site Model (CSM) for the Seekins Ford-Lincoln-Mercury dealership located at 1625 Seekins Drive, Fairbanks, Alaska. The attached documentation includes a completed CSM scoping form and documentation of the environmental cleanup actions completed at the site. TPECI personnel indicated that most of the exposure pathways have been rendered incomplete due to past remediation activities.

**SOIL PATHWAY- COMPLETE**

TPECI considers the direct contact - incidental soil ingestion pathway complete because there may be residual soil contamination underneath the building relating to former USTs located along the east side of the building. This pathway would only be complete once the current operations at the site become disturbed or altered. If the existing building is torn down and soil is excavated then the potential for exposure could exist.

**GROUNDWATER PATHWAY- INCOMPLETE** *complete*

The site is supplied with municipal drinking water and the groundwater at the site is not used as a domestic water source.

**AIR QUALITY PATHWAY - INCOMPLETE**

The inhalation of indoor air pathway is not considered complete even though there are detected contaminants in the groundwater. Larry Peterson of TPECI contacted Ralph Seekins on August 29, 2008 to discuss the status of ventilation within the building. Mr. Seekins confirmed that there is positive pressure in the showroom and administrative offices. There is also an exhaust ventilation system that runs underneath the maintenance shop to ventilate that area and it remains on while the shop is being used. Toxic vapor buildup in either of these locations is unlikely.

100.38.097  
**RECEIVED**

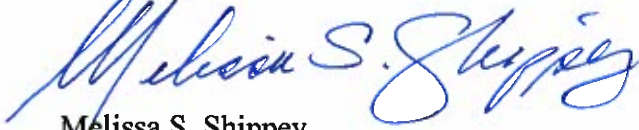
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**CONTAMINATED  
SITES  
FAIRBANKS**

*future  
exposure?*

If you have any questions or regarding the contents of this documentation please contact me at 907-455-7225.

Sincerely,



Melissa S. Shippey  
Staff Scientist

cc: Mr. Al Haynes, Seekins Ford-Lincoln-Mercury, Inc.

Attachments: Conceptual Site Model Scoping Form  
Site Environmental History Documentation

## **DRAFT Human Health Conceptual Site Model Scoping Form**

<b>Site Name:</b>	Seekins Ford-Lincoln-Mercury
<b>File Number:</b>	100.38.097
<b>Completed by:</b>	Travis/Peterson Environmental Consulting, Inc.

### **Introduction**

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, a CSM graphic and text must be submitted with the site characterization work plan.

*General Instructions: Follow the italicized instructions in each section below.*

### **1. General Information:**

**Sources** *(check potential sources at the site)*

- |  |  |
|--|--|
| <input type="checkbox"/> USTs<br><input type="checkbox"/> ASTs<br><input type="checkbox"/> Dispensers/fuel loading racks<br><input type="checkbox"/> Drums | <input type="checkbox"/> Vehicles<br><input type="checkbox"/> Landfills<br><input type="checkbox"/> Transformers<br><input checked="" type="checkbox"/> Other: <span style="border: 1px solid black; padding: 2px;">Former injection well</span> |
|--|--|

**Release Mechanisms** *(check potential release mechanisms at the site)*

- |   |  |
|---|--|
| <input type="checkbox"/> Spills<br><input type="checkbox"/> Leaks | <input checked="" type="checkbox"/> Direct discharge<br><input type="checkbox"/> Burning<br><input type="checkbox"/> Other: <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span> |
|---|--|

**Impacted Media** *(check potentially-impacted media at the site)*

- |  |  |
|--|--|
| <input type="checkbox"/> Surface soil (0-2 feet bgs*)<br><input checked="" type="checkbox"/> Subsurface Soil (>2 feet bgs)<br><input type="checkbox"/> Air | <input checked="" type="checkbox"/> Groundwater<br><input type="checkbox"/> Surface water<br><input type="checkbox"/> Other: |
|--|--|

**Receptors** *(check receptors that could be affected by contamination at the site)*

- |   |  |
|---|--|
| <input type="checkbox"/> Residents (adult or child)<br><input type="checkbox"/> Commercial or industrial worker<br><input type="checkbox"/> Construction worker<br><input type="checkbox"/> Site visitor<br><input type="checkbox"/> Trespasser | <input type="checkbox"/> Recreational user<br><input type="checkbox"/> Farmer<br><input type="checkbox"/> Subsistence harvester<br><input type="checkbox"/> Subsistence consumer<br><input checked="" type="checkbox"/> Other: <span style="border: 1px solid black; padding: 2px;">Subsurface work</span> |
|---|--|

\* bgs – below ground surface

**2. Exposure Pathways:** (The answers to the following questions will identify complete exposure pathways at the site. Place an "X" in each checkbox where the answer is "yes".)

**a) Direct Contact –**

**1 Incidental Soil Ingestion**

Is soil contaminated anywhere between 0 and 15 feet bgs? ☒  
Possibly some residual underneath the building.  
Do people use the site or is there a chance they will use the site in the future? ☒

If both boxes are checked, label this pathway complete:

Complete

**2 Dermal Absorption of Contaminants from Soil**

Is soil contaminated anywhere between 0 and 15 feet bgs? ☒  
Do people use the site or is there a chance they will use the site in the future? ☒

Can the soil contaminants (see list below) permeate the skin? ☒

Arsenic	DDT
Cadmium	Lindane
Chlordane	PAHs
2,4-dichlorophenoxyacetic acid	Pentachlorophenol
Dioxins	PCBs
DDT	SVOCs
Lindane	

If all of the boxes are checked, label this pathway complete:

Complete

**b) Ingestion –**

**1 Ingestion of Groundwater**

Have contaminants been detected or are they expected to be detected in the groundwater, OR are contaminants expected to migrate to groundwater in the future? ☒

Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if ADEC has determined the groundwater is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.346. ☒

future drinking water source

If both the boxes are checked, label this pathway complete:

No - on city water.

## 2 Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water OR are contaminants expected to migrate to surface water in the future?

☐ No

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? *Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities).*

☐ No

*If both boxes are checked, label this pathway complete:*

Incomplete

## 3 Ingestion of Wild Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild food?

☐ No

Do the site contaminants have the potential to bioaccumulate (*see Appendix A of the CSM Guidance*)?

☐ No

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. the top 6 feet of soil, in groundwater that **could** be connected to surface water, etc.)

☐ No

*If all of the boxes are checked, label this pathway complete:*

Incomplete

### c) Inhalation

#### 1 Outdoor Air

Is soil contaminated anywhere between 0 and 15 feet bgs?  
Soil contaminants removed in 1994 by AGRA

☐ No

Do people use the site or is there a chance they will use the site in the future?

Yes

Are the contaminants in soil volatile (*See Appendix B, Table B-1 of the CSM Guidance*)?

☒

*was  
all contami-  
nation  
removed?*

*If all of the boxes are checked, label this pathway complete:*

Incomplete

#### 2 Indoor Air

Are occupied buildings on the site or reasonably expected to be placed on the site in an area that could be affected by contaminant vapors? (i.e., within 100 feet, horizontally or vertically, of the contaminated soil or groundwater, or subject to "preferential pathways" that promote easy airflow, like utility conduits or rock fractures)

☒

Are volatile compounds present in soil or groundwater?

☒

*If both boxes are checked, label this pathway complete:*

Complete

2008 groundwater data indicated DRO, GRO, benzene still above MCLs. 3  
However, concentrations have been reduced dramatically since sampling began in 1995.

**3. Additional Exposure Pathways:** (Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)

#### **Dermal Exposure to Contaminants in Groundwater and Surface Water**

Exposure from this pathway may need to be assessed only in cases where DEC water-quality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include:

- Climate permits recreational use of waters for swimming,
- Climate permits exposure to groundwater during activities, such as construction, without protective clothing, or
- Groundwater or surface water is used for household purposes.

Check the box if further evaluation of this pathway is needed:

☐

Comments:

N/A

#### **Inhalation of Volatile Compounds in Household Water**

Exposure from this pathway may need to be assessed only in cases where DEC water-quality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include:

- The contaminated water is used for household purposes such as showering, laundering, and dish washing, and
- The contaminants of concern are volatile (common volatile contaminants are listed in Table B-1 of Appendix B)

Check the box if further evaluation of this pathway is needed:

☐

Comments:

N/A

#### **Inhalation of Fugitive Dust**

Generally DEC soil ingestion cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway, although this is not true in the case of chromium. Examples of conditions that may warrant further investigation include:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers. This size can be inhaled and would be of concern for determining if this pathway is complete.

Check the box if further evaluation of this pathway is needed:

☐

Comments:

N/A

#### **Direct Contact with Sediment**

This pathway involves people's hands being exposed to sediment, such as during recreational or some types of subsistence activities. People then incidently **ingest** sediment from normal hand-to-mouth activities. In addition, **dermal absorption of contaminants** may be of concern if people come in contact with sediment and the contaminants are able to permeate the skin (see dermal exposure to soil section). This type of exposure is rare but it should be investigated if:

- Climate permits recreational activities around sediment, and/or
- Community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

ADEC soil ingestion cleanup levels are protective of direct contact with sediment. If they are determined to be over-protective for sediment exposure at a particular site, other screening levels could be adopted or developed.

*Check the box if further evaluation of this pathway is needed:*

☐

Comments:

N/A

**4. Other Comments** *(Provide other comments as necessary to support the information provided in this form.)*

**PHASE I ENVIRONMENTAL SITE ASSESSMENT**

**Seekins Ford Lincoln Mercury, Inc.**

**1625 Old Steese Highway**

**Fairbanks, Alaska 99701**

**Performed for:**

**Ford Motor Credit Company**

**3201 C Street, Suite 303**

**Anchorage, Alaska 99503**

**December 31, 2004**

**URS Project No. 13648135**



### **3.0 SITE HISTORY**

#### **3.1 Prior Site Ownership**

The *Phase I Environmental Site Assessment* report, prepared for the subject property by AGRA Earth and Environment, Inc. (AGRA) and dated April 1996, included a fifty-year chain-of-title document. The chain-of-title document was prepared by Milliken Michaels Credit Services and dated March 6, 1996. According to the chain-of-title document, HT Bentley purchased the subject property from Charles Main, Executor of the Estate of John Munz (deceased), on September 16, 1930. The Bentley Family quit claimed the subject property's deed to the Bank of California, N.A. and Clifford C. Burglin (as Successor Co-Trustees of the Bentley Family Trust) on September 6, 1974. The Bank of California, N.A. and Clifford C. Burglin sold the subject property to C&S Enterprises on November 18, 1982. According to Mr. Haynes, C&S Enterprises currently owns the subject property and leases it to Seekins Ford Lincoln Mercury, Inc.

#### **3.2 Prior Site Usage**

URS reviewed a portion of *Soil and Foundation Study*, prepared for the subject property by Shannon & Wilson, dated May 1982. According to Shannon & Wilson's report, the subject property was originally part of the Bentley farm and was utilized as cleared pasture for cattle.

AGRA prepared an addendum to its *Phase I Environmental Site Assessment* report, dated May 21, 1996. As part of AGRA's research, AGRA interviewed Mr. Sidmor Stealy who served in the U.S. military during the late 1940s. Mr. Stealy stated that the subject property and eastern adjoining property were utilized by the military for dumping chemicals and other materials. Mr. Stealy also stated that he personally dumped several 55-gallon drums of carbon tetrachlorothene at the subject property. A buried 55-gallon drum was discovered during Shannon & Wilson's *Soil and Foundation Study* near the central portion of the current location of the showroom and office area. This drum was excavated, but no confirmatory sampling was conducted. Historical aerial photographs indicate that the military may have utilized this property until as recently as 1969.

According to the *Phase I Environmental Site Assessment*, prepared by AGRA and dated April 1996, the subject property was occupied by Northwest Construction from 1975 through 1979. Additional occupants at the subject property during this time may have included Surfcote, NC Machinery, British Petroleum, and Mukluk Freight Company. Information contained in Shannon

& Wilson's report indicated that Trans Alaskan Pipeline occupied the subject property between 1975 and 1979. Both AGRA's and Shannon & Wilson's reports stated that operations at the subject property during this time included vehicle maintenance and repair for heavy equipment. AGRA interviewed an individual (name not reported) who stated that used oil generated at the subject property between 1975 and 1979 was drained onto the ground. The specific location where this oil was allegedly drained was not indicated.

The subject property was developed with an automobile dealership in 1982 and is currently operating as an automobile dealership.

### 3.2.1 Historical Aerial Photographs

URS obtained historical aerial photographs of the subject property and its vicinity from the City of Fairbanks Engineering Department, a *Phase I Environmental Site Assessment* report, prepared for the subject property by AGRA and dated April 1996, and from TerraServer 6.0, an online mapping resource. The historical aerial photograph dated 1959 was provided by the City of Fairbanks Engineering Department. Copies of the historical aerial photographs dated 1960, 1969, 1976, 1982, 1984 and 1994 were provided in the previous environmental assessment. The 1996 aerial photograph was obtained from TerraServer 6.0. In addition, AGRA described 1954, 1972, 1974, 1979, and 1989 aerial photographs in its environmental report, but did not include copies of them in the appendices. Descriptions of each aerial photograph are summarized as follows:

#### 1954

According to AGRA's description of the 1954 aerial photograph, portions of the subject property and its eastern adjoining property contained a 20-acre clearing. Mr. Haynes reported to AGRA that this clearing was used by the military, possibly as a munitions dump. The subject property was also reportedly improved with a building that overlapped the southwest edge of this clearing. A dirt track was evident traversing the clearing from Steese Highway to a small building or trailer situated adjacent to a cone-shaped mound in the southeastern portion of the clearing.

The western adjoining property appeared to be improved with a race track. AGRA interviewed Fairbanks residents who stated that this race track was formerly known as Rendezvous Racing and was used for automobile racing. A small building consistent with the size of a residence and several scattered outbuildings were described as being located in a clearing south of the race track.

#### **4.0 ENVIRONMENTAL CONSIDERATIONS**

##### **4.1 Water Supply**

According to Mr. Haynes, potable water is supplied to the subject property by Golden Heart Utilities.

AGRA prepared a *Water Well Inventory* report for the subject property and properties located within a 0.5-mile radius of the subject property, dated April 1996. AGRA identified three potable water wells formerly utilized at the subject property. Two wells were reportedly utilized at the subject property between 1975 and 1978 and supplied offices and a repair shop formerly associated with the Trans Alaskan Pipeline operations. The report did not indicate if these wells were properly abandoned.

The third well reportedly utilized at the subject property supplied the subject building. Mr. Haynes stated that this well was installed in 1982 when the subject property was developed as an automotive dealership. According to Mr. Haynes, this well was abandoned and the subject property was connected to the municipal potable water supply in 1989.

AGRA identified five potable water wells within a 0.5-mile radius of the subject property that were located crossgradient to the subject property and three potable water wells that were located downgradient to the subject property.

In addition, AGRA reported that Mr. Haynes stated that the eastern adjoining churches utilized potable water wells. Drinking water in these wells was allegedly impacted by an offsite groundwater plume originating from the Fort Wainwright Tank Farm located northeast of the subject property. Additional information regarding the Fort Wainwright Tank Farm is provided in Section 6.4 of this report.

##### **4.2 Wastewater**

Domestic sewerage from the subject building is discharged to the municipal sanitary sewer operated by Golden Heart Utilities. According to AGRA's *Results of Injection Wells Closure Sampling* report dated 1995, the subject property was connected to the municipal sewer system in 1994.

Wastewater currently generated in the subject building is limited to floor and automobile washwater and snow melt. The service garage, body shop and detailing area are equipped with trench-style floor drains. The floor drains discharge to an oil-water separator located in the service garage. Standing liquid observed in the trench-style drains had an oily sheen and sludge was apparent. Information regarding the oil-water separator is provided in Section 4.2.1 of this report.

Mr. Haynes stated that the subject property formerly utilized a septic system and a Class V injection well. The septic system was removed on August 31, 1994 and the injection well and associated leach field were removed in October 1994. Information regarding the septic system and injection well with its associated leach field is provided in Section 4.2.2 of this report.

#### 4.2.1 Oil-Water Separators

At the time of the site reconnaissance, URS observed one oil-water separator at the subject property. The oil-water separator was centrally located in the service garage of the subject building. According to City of Fairbanks Building Department records, the oil-water separator was installed and connected to the municipal sanitary sewer system on July 5, 1994. The oil-water separator is of double-chamber steel construction and has an approximate capacity of 500-gallons. Mr. Haynes stated that the oil-water separator discharges to the municipal sanitary sewer system. Onsite documentation reports that the oil-water separator is inspected by Golden Heart Utilities monthly and the contents are emptied once every two to three years, as needed. The contents of the oil-water separator were most recently emptied on February 15, 2003. According to Mr. Haynes, the sludge collected in the trench-style floor drains is emptied two to three times per year, as needed, and more often for the drain in the automotive washing and detailing area. The sludge from the floor drains was most recently emptied on November 16, 2004.

#### 4.2.2 Septic Systems

Domestic sewerage generated at the subject property is discharged to the municipal sanitary sewer system operated by Golden Heart Utilities. According to AGRA's *Results of Injection Wells Closure Sampling* report, the subject property was connected to the municipal sewer system in 1994.

Mr. Haynes stated that the subject property formerly utilized a septic system and a Class V injection well. The septic system was installed in 1982 when the subject property was developed as an automotive dealership. According to AGRA's *UST Closure Site Assessment*, a septic tank was removed on August 31, 1994.

AGRA's *Results of Injection Wells Closure Sampling* report stated that one Class V injection well and associated leach field were excavated from the subject property in October 1994. The injection well and associated leach field included one 2,000-gallon septic tank and two three-foot-by-three-foot septic cribs. The injection well and associated leach field accepted drainage from service garage floor drains until these drains were redirected to the municipal sanitary sewer system in August 1994.

According to AGRA's *Phase I Environmental Site Assessment* report, AGRA interviewed Mr. Ralph Seekins. Mr. R. Seekins stated that an injection well was also installed with the previous development of the subject property and may still be present at the subject property. Mr. R. Seekins did not know the exact location of the said injection well, but he believed that it was installed east of the current location of the subject building and south of the closed injection well. AGRA's review of Fairbanks North Star Borough Assessing Department records indicated that a septic system was associated with the previous development of the subject property, but it was not clear from these records whether a separate injection well was also present on the subject property.

Additional information regarding the septic tank and the injection well and associated leach field is provided in Section 6.7 of this report.

#### 4.2.3 Cesspools and Dry Wells

URS did not observe cesspools or dry wells at the subject property at the time of the site reconnaissance.

#### 4.2.4 Pits and Sumps

URS did not observe sumps at the subject property at the time of the site reconnaissance. URS observed one pit in the service garage of the subject building. The pit was approximately four feet below ground surface (bgs), and was utilized as an automobile alignment work station. URS

- ADEC Leaking Underground Storage Tank Information System (LUST), database of September 13, 2004.
- ADEC Underground Storage Tank Facilities (UST), database of September 13, 2004.
- ADEC Underground Storage Tanks on Indian Land (INDIAN UST), database of June 23, 2004.
- ADEC Voluntary Cleanup Program sites (VCP), database of September 13, 2004.

The results of the database review are as follows:

## 6.2 On-Site

Seekins Ford Lincoln Mercury, located at 1625 Old Steese Highway, was identified by the EDR-Radius Map report in the RCRA-SQG and UST databases. The subject property is registered as a conditionally exempt small quantity generator of hazardous waste. Twelve administrative RCRA violations were issued on September 20, 1991 and these were corrected on July 20, 1992. Eight administrative RCRA violations were issued on July 7, 1998 and these were corrected on September 14, 1998. One violation was issued on June 26, 2003 and this violation was corrected on October 6, 2003.

According to the EDR-Radius Map report, four USTs are permanently out-of-use at the subject property, and one UST is currently in use. Information from the ADEC, however, indicates that four USTs have been removed from the subject property and one UST is currently in use. The USTs were removed in August 1994 and included: one 5,000-gallon UST containing gasoline, one 2,000-gallon UST containing diesel fuel, and two 500-gallon USTs containing used oil. ADEC records indicate one 500-gallon UST containing heating oil is currently in use at the subject property. All of the USTs were installed in September 1982.

According to the ADEC UST database, a confirmed release was reported at the subject property on September 22, 1995. This LUST has not been granted closure status by the ADEC.

## 6.3 Adjacent Properties

The EDR-Radius Map report did not identify the adjoining properties in the databases researched.

- *Subsurface Investigation*, prepared for the subject property by AGRA and dated December 1995.
- *Phase I Environmental Site Assessment*, prepared for the subject property by AGRA and dated April 1996. A portion of *Remedial Investigation Report*, prepared for Fort Wainwright Tank Farm by Ecology and Environment and dated March 1994, was included as an appendix to the *Phase I Environmental Site Assessment*. AGRA prepared an addendum letter to the *Phase I Environmental Site Assessment* dated May 21, 1996.
- *Water Well Inventory*, prepared for the subject property by AGRA and dated April 1996.
- *Quarterly Groundwater Sampling Results*, prepared for the subject property by AGRA and dated May 1996.

#### *UST Closure Site Assessment*

According to AGRA's *UST Closure Site Assessment*, four USTs were installed at the subject property in 1982 and were removed from two excavation basins on August 31, 1994. Two 500-gallon USTs that contained used oil were removed from an excavation basin located east of the service garage of the subject building. A total of 115 cubic yards of impacted soil were removed from the used-oil USTs excavation basin. Four soil samples were collected from 12 feet bgs and analyzed for benzene, total benzene, toluene, ethylbenzene, and xylenes (BTEX), gasoline-range petroleum hydrocarbons (GRPH), diesel-range petroleum hydrocarbons (DRPH), halogenated volatile organic compounds (HVOs), arsenic, cadmium, chromium, and lead. Benzene, total BTEX, GRPH, DRPH, and HVOs were not detected in three of the four soil samples. Benzene was not detected in the fourth soil sample, but concentrations of total BTEX, GRPH, and DRPH detected in the fourth soil sample were 15.28 mg/kg, 250 mg/kg, and 860 mg/kg, respectively. The HVOs detected in this soil sample were tetrachloroethene and 1,1,1-trichloroethane at concentrations of 11 mg/kg and 0.46 mg/kg, respectively. ADEC soil clean-up criteria for benzene is 0.1 mg/kg, total BTEX is 10 mg/kg, GRPH is 50 mg/kg, DRPH is 100 mg/kg, tetrachloroethene is 6.0 mg/kg, and 1,1,1-trichloroethane is 5.6 mg/kg. Metals concentrations detected in the four samples ranged were 2 mg/kg for arsenic, between 0.2 mg/kg and 0.4 mg/kg for cadmium, between 5.7 mg/kg and 11 mg/kg for chromium, and between 3 mg/kg and 4 mg/kg for lead.

An additional soil sample was collected 4.5 feet beneath the soil sample in which BTEX, GRPH, DRPH, and HVOs were detected at the groundwater interface. This additional soil sample was

analyzed for benzene, total BTEX, GRPH, DRPH, HVOs, arsenic, cadmium, chromium, and lead. Benzene, total BTEX, and GRPH were not detected in this additional soil sample. Elevated concentrations of DRPH (290 mg/kg) were detected in this additional soil sample. The only HVO detected was tetrachloroethene at a concentration of 0.25 mg/kg (i.e., below ADEC soil clean-up criteria). Concentrations of arsenic, cadmium, chromium, and lead were detected at 11 mg/kg, 0.1 mg/kg, 3.5 mg/kg, and 2 mg/kg, respectively.

One 5,000-gallon gasoline UST, one 2,000-gallon diesel UST, and a septic tank were removed from a second UST excavation basin located east of the administrative offices of the subject building. Approximately 1,000 cubic yards of impacted soil were removed from the second excavation basin. Floor soil samples from this excavation basin were collected at 16 feet bgs and sidewall soil samples were collected between 12 feet bgs and 14 feet bgs. Soil samples were analyzed for benzene, total BTEX, GRPH, and DRPH. Concentrations of these compounds ranged from 0.1 mg/kg to 9.7 mg/kg for benzene, 0.16 mg/kg to 1,147.7 mg/kg for total BTEX, non-detectable levels to 4,600 mg/kg for GRPH, and non-detectable levels to 860 mg/kg for DRPH. Three soil samples were collected from stockpiled soils removed from the excavation and analyzed for lead. Lead concentrations ranged from 5 mg/kg to 12 mg/kg in these soil samples.

Although groundwater was encountered at 17 feet bgs during the UST removals and confirmatory sampling, no groundwater samples were collected.

#### *Results of Injection Wells Closure Sampling*

According to AGRA's *Results of Injection Wells Closure Sampling* report, one Class V injection well and associated leach field were excavated from the subject property in October 1994. The injection well and associated leach field included one 2,000-gallon septic tank and two three-foot-by-three-foot septic cribs that were located east of the used-oil USTs excavation basin. The injection well and associated leach field accepted drainage from service garage floor drains until these drains were redirected to the municipal sanitary sewer system in August 1994.

A total of 925 cubic yards of impacted soils were removed from the injection well and associated leach field excavation basin. Two floor soil samples and one sidewall soil sample were collected near the septic tank and four floor soil samples and two sidewall soil samples were collected near the septic cribs. These soil samples were analyzed for benzene, total BTEX, GRPH, DRPH, HVOs, arsenic, cadmium, chromium, and lead. Benzene was not detected in the soil samples. Maximum concentrations of total BTEX, GRPH, and DRPH detected were 0.034 mg/kg, 3



mg/kg, and 19 mg/kg, respectively. The only HVO detect was 1,2-dichlorobenzene; the maximum concentration detected of this HVO was 0.044 mg/kg. ADEC soil clean-up criteria for 1,2-dichlorobenzene is 6.2 mg/kg. Maximum concentrations of arsenic, cadmium, chromium, and lead detected in the soil samples were 1.5 mg/kg, 2 mg/kg, 5.3 mg/kg, and 5 mg/kg.

AGRA stated that because concentrations of analytes detected in soil samples were below ADEC criteria, groundwater was not likely to be impacted. Therefore, groundwater samples were not collected.

### *Subsurface Investigation*

AGRA conducted a subsurface investigation at the subject property between July 17 and August 1, 1995 to assess potential groundwater impacts, delineate impacts in the UST excavation basins and the injection well with its associated leach field excavation, and evaluate if the subsurface conditions at the subject property were affected by offsite sources. The findings of this investigation were summarized in a report, *Subsurface Investigation*, prepared by AGRA and dated December 1995.

Seven soil borings were advanced at the subject property; four of these borings were advanced to depths of 25 feet bgs and were converted to permanent monitoring wells. The permanent monitoring wells were located in the former gasoline UST and diesel UST excavation basin, former used oil USTs excavation basin, the former injection well with its associated leach field excavation, and along the eastern property boundary northeast of the former gasoline UST and diesel UST excavation basin (MW-1 through MW-4, respectively). Three of the borings were advanced to depths of 18 feet bgs and were converted to temporary monitoring wells. The temporary monitoring wells were located west of the service write-up area and north of the parts department; southwest of the corner of the automotive washing and detailing area, and south of the central portion of the body shop (GWP-1 through GWP-3).

Soil and groundwater samples were collected from the soil borings/monitoring wells. Samples collected from MW-1, GWP-1 and GWP-2 were analyzed for benzene, total BTEX, GRPH, and DRPH. Concentrations of benzene, total BTEX, GRPH, and DRPH detected in soil samples were below ADEC soil clean-up criteria. In the groundwater sample collected from MW-1, detected concentrations of benzene were 12,000 µg/L, of total BTEX were 71,300 µg/L, of GRPH were 180,000 µg/L, and of DRPH were 5,400 µg/L. In the groundwater sample collected from GWP-1, detected concentrations of benzene were 1,500 µg/L, of total BTEX were 1,722

$\mu\text{g/L}$ , of GRPH were 4,000  $\mu\text{g/L}$ , and of DRPH were 190  $\mu\text{g/L}$ . Benzene, total BTEX, GRPH, and DRPH were not detected in the groundwater sample collected from GWP-2.

Samples collected from MW-2 were analyzed for benzene, total BTEX, GRPH, DRPH, total petroleum hydrocarbons (TPH), HVOs, volatile organic compounds (VOCs) total arsenic, cadmium, chromium, and lead; in addition, the soil sample collected from MW-2 was analyzed for toxic characteristic leaching procedure (TCLP) tetrachloroethene. Benzene, total BTEX, GRPH, DRPH, TPH, HVOs, arsenic, lead, and TCLP tetrachloroethene were not detected in the soil sample collected from MW-2. Cadmium and chromium were detected in soil at concentrations of 0.5 mg/kg and 12 mg/kg. Benzene, TPH, HVOs, and metals were not detected in the groundwater sample collected from MW-2. In the groundwater sample collected from MW-2, detected concentrations of total BTEX were 6.8  $\mu\text{g/L}$ , of GRPH were 150  $\mu\text{g/L}$ , and of DRPH were 350  $\mu\text{g/L}$ . Concentrations of VOCs detected in the groundwater sample collected from MW-2 were limited to 6.3  $\mu\text{g/L}$  of trichlorofluoromethane, 57  $\mu\text{g/L}$  of 1,1,1-trichloroethane, 8.2  $\mu\text{g/L}$  of carbon tetrachloride, and 20  $\mu\text{g/L}$  of tetrachloroethene.

Samples collected from MW-3 and GWP-3 were analyzed for TCLP benzene, GRPH, DRPH, TPH, HVOs, and TCLP arsenic, cadmium, chromium, and lead. TCLP benzene, GRPH, and TCLP metals were not detected in the soil samples collected from MW-3 and GWP-3. DRPH was not detected in the soil sample collected from GWP-3 and was detected at 90 mg/kg in the soil sample collected from MW-3. Concentrations of HVOs detected in the soil samples were limited to 18 mg/kg of 1,4-dichlorobenzene in the soil sample collected from MW-3 and 11 mg/kg of 1,1,1-trichloroethane in the soil sample collected from GWP-3.

Total metals were not detected in the groundwater samples collected from MW-3 and GWP-3. HVOs were not detected in the groundwater sample collected from MW-3. In the groundwater sample collected from MW-3, detected concentrations of TCLP benzene were 8  $\mu\text{g/L}$ , of GRPH were 2,800  $\mu\text{g/L}$ , of DRPH were 13,000  $\mu\text{g/L}$ , of TPH were 10  $\mu\text{g/L}$ . Concentrations of VOCs detected in the groundwater sample collected from MW-3 were limited to 240  $\mu\text{g/L}$  of dichloromethane, 6.8  $\mu\text{g/L}$  of trichlorofluoromethane, 6.5  $\mu\text{g/L}$  of 1,1-dichloroethane, 12  $\mu\text{g/L}$  of trichloroethene, 3.7  $\mu\text{g/L}$  of benzene, 29  $\mu\text{g/L}$  of tetrachloroethene, 49  $\mu\text{g/L}$  of toluene, 11  $\mu\text{g/L}$  of ethylbenzene, 81  $\mu\text{g/L}$  of xylenes, and 90  $\mu\text{g/L}$  of 1,2-dichlorobenzene. TCLP benzene, GRPH, DRPH, TPH, and VOCs were not detected in the groundwater sample collected from GWP-3. Concentrations of HVOs detected in the groundwater sample collected from GWP-3 were limited to 4  $\mu\text{g/L}$  of trifluoromethane, 4.3  $\mu\text{g/L}$  of chloroform, 2.4 of 1,1,1-trichloroethane, and 17  $\mu\text{g/L}$  of tetrachloroethene.

Samples collected from MW-4 were analyzed for benzene, total BTEX, GRPH, and DRPH; in addition, the groundwater sample was analyzed for VOCs. Benzene, total BTEX, GRPH, and DRPH were not detected in the soil sample collected from MW-4. Benzene and GRPH were not detected in the groundwater sample collected from MW-4. Total BTEX was detected in the groundwater sample at a concentration of 0.5 µg/L and DRPH was detected at a concentration of 380 µg/L. Chloroform was the only VOC detected in the groundwater sample at a concentration of 5.5 µg/L.

Based on the above soil and groundwater sampling, AGRA concluded that:

- The majority of impacted soil had been removed from the UST excavation basins and the former injection well with associated leach field excavation basin. The vertical extent of soil impacts in these areas appeared to be between five and seven feet below the apparent groundwater table.
- A dissolved-phase hydrocarbon groundwater plume may be present and may extend further west than GWP-1.
- A dissolved-phase VOC/HVO groundwater plume may be present and may extend further west than GWP-2.

#### *Quarterly Groundwater Sampling Results*

AGRA prepared a *Quarterly Monitoring Report* for the subject property, dated July 18, 1996. According to the *Quarterly Monitoring Report*, five additional permanent monitoring wells were installed at the subject property immediately east of the southeastern corner of the service garage, in the southwestern corner of the subject property, between GWP-2 and GWP-3, immediately northwest of the northwestern corner of the automotive washing and detailing area, and immediately northwest of the showroom (MW-5 through MW-9). Groundwater samples were collected from these monitoring wells on May 1, 1996 and were analyzed for benzene, total BTEX, GRPH, DRPH, VOCs, and polynuclear aromatic hydrocarbons (PNAs). Benzene, total BTEX, GRPH, and DRPH were detected in groundwater samples; the highest concentrations of these compounds were detected in the groundwater sample collected from MW-1. In the groundwater sample collected from MW-1, detected concentrations of benzene were 7,500 µg/L, of total BTEX were 97,300 µg/L, of GRPH were 240 mg/L, and of DRPH were 6.2 mg/L. The following VOCs were detected in the monitoring wells:

UNDEVELOPED LAND

JOHANSEN HIGHWAY

HOME DEPOT  
(UNDER CONSTRUCTION)

SUBJECT  
PROPERTY

CHURCH

CHURCH

SEEKINS DRIVE

SUBJECT  
BUILDING












OLD STEESE HIGHWAY

UNDEVELOPED LAND

W-80  
CLOSED INJECTION  
WELL W/ ASSOCIATED  
LEACH FIELD

STEES HIGHWAY

# LEGEND

- SUBJECT PROPERTY BOUNDARY 
- DRAINAGE DITCH 
- ABOVEGROUND STORAGE TANK 
- UNDERGROUND STORAGE TANK 
- FORMER UNDERGROUND STORAGE TANK 
- FORMER BURIED DRUM LOCATION 
- DUMPSTER 
- PAD-MOUNTED TRANSFORMER 
- DRUM STORAGE AREA 
- GASOLINE DIESEL DISPENSER 
- MONITORING WELL LOCATION 

NOTE: DRAWING IS NOT TO SCALE



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TITLE

## SITE & SURROUNDING PROPERTIES MAP



URS CORPORATION,  
FARMINGTON HILLS, MI.  
248-553-9449

SEEKINS FARM, INC. MERCURY, IN.  
1825 OLD STEESE HIGHWAY  
FARMINGTON HILLS, MI 48334-99701

DATE  
12-31-04

JOB NO.  
13648135

DR.

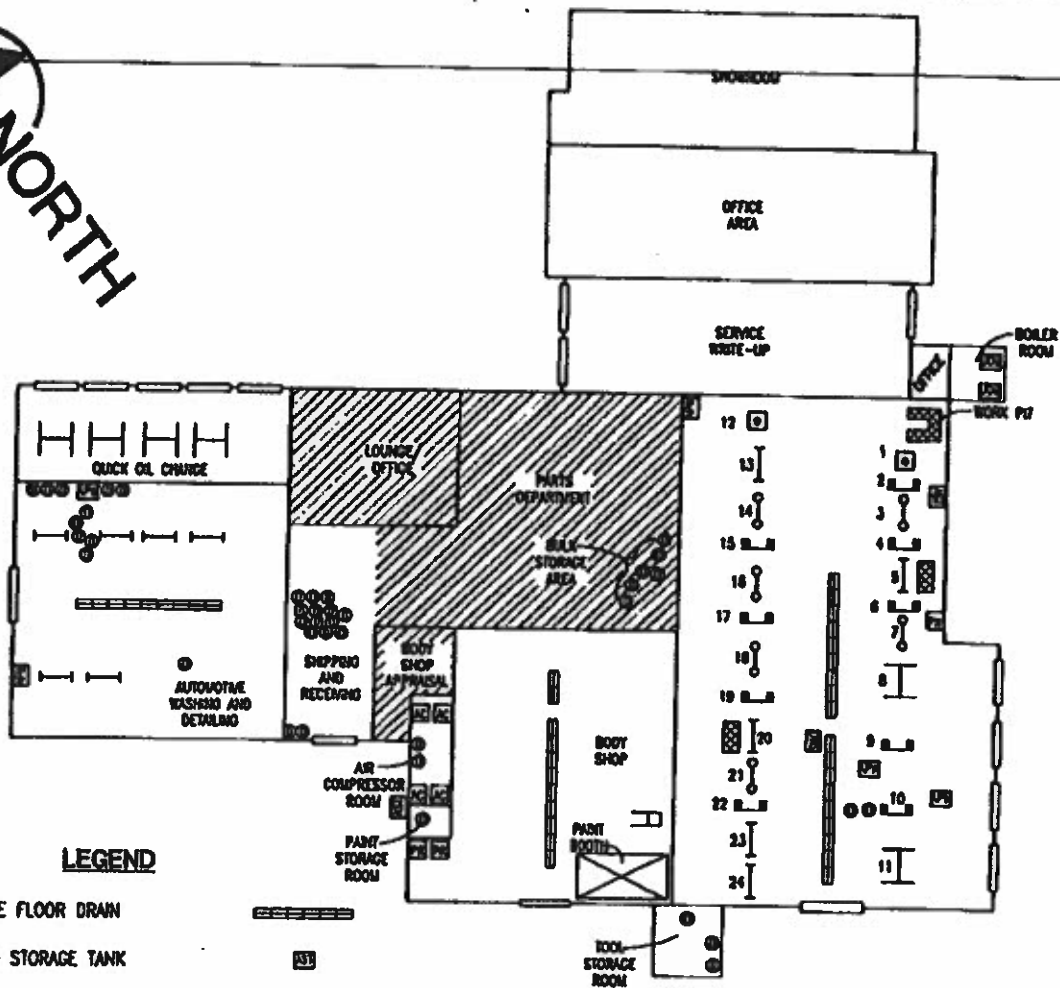
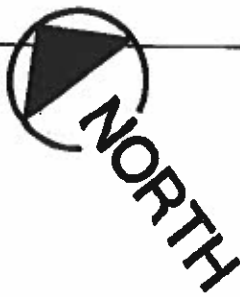
MLB

SKETCH NO.

CK

AEC

FIGURE 2



# **LEGEND**

- TRENCH-STYLE FLOOR DRAIN
- ABOVEGROUND STORAGE TANK
- DRUM
- ABOVEGROUND LIFT
- ABOVEGROUND FOUR-POST LIFT
- ABOVEGROUND FRAME ADJUSTER
- IN-GROUND DUAL-POST LIFT
- IN-GROUND SINGLE-POST LIFT
- IN-GROUND FORE AND AFT LIFT
- FORMER IN-GROUND LIFT
- AIR COMPRESSOR
- PAINT THINNER RECYCLER
- AQUEOUS PARTS WASHER
- PARTS WASHER
- USED OIL BURNER
- OIL-WATER SEPARATOR
- SECOND FLOOR / MEZZANINE LOCATION



NOTE: DRAWING IS NOT TO SCALE

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**TITLE**  
**SUBJECT BUILDING PLAN**

**URS** URS CORPORATION,  
FARMINGTON HILLS, MI  
248-553-9449

SEEKINS FORD LINCOLN MERCURY, INC.  
1625 OLD STEESE HIGHWAY  
FAIRBANKS, AK 99701

DATE 12-31-04	JOB NO. 13648135
DR. MLB	SKETCH NO.
CK. AFC	<b>FIGURE 3</b>

\\rs01\p03\33040135 (PAC-Sales) Ford LA-Palmer-AQ\p03\Fig3.dwg, Layout1, 12/31/2004 01:17:38 PM, MBBrown, L.B.S. Family PC3