Site Name: Johnson Oil, Lease No. 84010, Muscatine

Initial Site Screening (ISS)

CON 12-15
Doc #28976

Project Manager: Tami S. Quam

Date: December 17, 2013

☐ **3931 - Phase II Assessment Review – Brownfield Funded**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – Brownfield Grant Funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination, or

☒ **3321 - Phase II Assessment Review – CERCLA Pre-Remedial Funded**
Phase II submitted that is not part of a real estate transaction

Location:

Latitude: 41.4001 *Longitude: -91.0728* ***County**: Muscatine*
(Decimal Degree format)

USGS Quadrant: ____

Site Size: 2,150

Site Dimension: ☐ Acres ☒ Square Feet
☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): ____

Congressional District: 2

Grant Recipient Name, Address & Contact: NA

Current Owner & Address: Canadian Pacific, 120 South Sixth Street, Suite 900, Minneapolis, Minnesota 55402

Responsible Party Name(s) & Address, if different from current owner:
Unknown at this time

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
NW ¼ of Section 10, T76N, R2W, Muscatine, Muscatine County, Iowa

Directions to site: From Des Moines, go east on I-80. Take exit 239A to merge onto US-218 S. Take exit 80 and turn left onto IA-22. Turn right onto US-61 S and turn left onto Grandview Ave. Take the 1st right onto Sampson St and the site is located on the east side of the RR tracks north of Sampson St.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)

The site is owned by Canadian Pacific and is currently vacant. The railroad has leased the property since about 1947 and it has been used to store petroleum products for about the last 40 years. The site was at one time occupied by three vertical aboveground storage tanks (ASTs) and a building. A Phase I Environmental Site Assessment dated July 2013 identified the following recognized environmental conditions (RECs):

- Johnson Oil (onsite)- the site has been used to store and distribute petroleum products for the past 40 years. In addition, the presence of debris stockpiled onsite represented a REC.
- HON Industries (offsite)- this property has been used for storage and distribution of petroleum products, naphtha, and other chemicals for over 50 years.
- Petroleum Storage Southeast of the Site (offsite)- this property has stored petroleum products since about 1948. There was an underground storage tank (UST) previously located onsite and a petroleum release has been documented on the property.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

The site assessment consisted of four soil borings (SB-1 through SB-4) drilled to 25 feet deep. Soil was field screened using a photoionization detector (PID) and one soil sample from each boring was submitted for analysis of total petroleum hydrocarbons (TPH), total extractable hydrocarbons (TEH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and RCRA metals. Temporary monitoring wells were installed in each boring to collect groundwater samples which were analyzed for TPH, TEH, VOCs, SVOCs, and dissolved RCRA metals. Groundwater was encountered onsite at about 21 feet deep; however, saturated soil was observed at 12 to 15 feet deep.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

VOCs were observed in soil samples SB-1, SB-2, and SB-3; SVOCs were observed in soil samples SB-1 and SB-3; and TEHs were observed in soil sample SB-3. RCRA metals were detected in all of the soil samples. TPH was detected in SB-1 and SB-3; however, there is no standard for TPH in soil. In groundwater, RCRA metals were detected in all of the samples while TEHs were detected in SB-1, SB-2, and SB-3. None of the contaminant concentrations detected in soil or groundwater exceeded an applicable standard. No light non-aqueous phase liquid (LNAPL) was observed in the temporary monitoring wells prior to abandoning the wells.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

Within a quarter mile radius of the site there are four commercial wells owned by Grain Processing Corp. which range in depth from 75 feet to 81 feet. Between a quarter mile and half mile radius of the site, there are several plugged wells, a 93 foot deep USGS exploration well, and approximately 13 commercial wells owned by Grain Processing Corp. that range in depth from 57 feet to 79 feet deep. The Mississippi River is located approximately 3,700 feet east of the site. The site is located in the 5 year capture zone for the alluvial aquifer utilized by Muscatine Power & Water.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.

4

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

As noted above, several contaminants were detected in soil and groundwater onsite but none of the concentrations exceeded a standard. Elevated PID readings and petroleum odors were observed in soil from boring SB-3; however no elevated concentrations of contaminants were observed in soil or groundwater onsite. Based on the low contaminant concentrations observed onsite, additional investigation is not required at this time. The site is not a candidate for the Extended Site Screening (ESS).

Site recommended for:

- ☒ No further action
- ☐ Additional investigation under state program (activity code 2824)
- ☐ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Transfer to LUST/UST

Form Reviewed: Cal Lundberg **Date Reviewed:** 12/20/13

Revised 11/2012

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Tami S. Quam (Name/Title) — Dec. 19, 2013 (Date)

502 E 9th Street, Des Moines, Iowa 50319 (Address) — 515-281-4420 (Phone)

tami.quam@dnr.iowa.gov (E-mail Address)

Site Name: Johnson Oil, Lease No. 84010

Previous Names (if any):

Site Location: NW 1/4 Sec. 10, T76N, R2W

Muscatine (City) — Iowa (ST) — 52761 (Zip)

Latitude: 41.4001 **Longitude:** -91.0728

Compare the following checklist. If "yes" is marked, please explain below.	YES	NO
1. Does the site already appear in CERCLIS?	☐	☒
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	☒
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	☒
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	☒
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	☐	☒
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	☒	☐
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	☒
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance release have occurred, EPA approved risk assessment completed)?	☐	☒

Please explain all "yes" answer(s), attach additional sheets if necessary:

Petroleum products were detected onsite.

Site Determination:

☐ Enter the site into CERCLIS. Further assessment is recommended (Explain below).

☒ The site is not recommended for placement into CERCLIS (Explain below).

☐ Further assessment is recommended under PRE-CERCLA (Explain below).

DECISION/DISCUSSION/RATIONALE:
As noted in the report, VOCs, SVOCs, and TEH were detected in soil sample SB-1 and SVOCs were detected in soil sample SB-2 but the concentrations observed did not exceed a respective soil standard. TPH, barium, and chromium were detected in all of the soil samples but there is no standard for TPH and the concentrations of barium and chromium observed did not exceed a standard. In groundwater, SVOCs were detected in SB-1 and barium was detected in all the groundwater samples but the concentrations observed did not exceed a standard. In addition, TEH as waste oil was detected in all of the groundwater samples but the only groundwater exceedence was observed in SB-3 at a concentration of 446 ug/L. The actual groundwater ingestion standard for TEH as waste oil from the Tier 1 Look-Up Table is 400 ug/L. No light non-aqueous phase liquid (LNAPL) was observed in the temporary monitoring wells prior to abandoning the wells. Based on the low contaminant concentrations observed onsite, additional investigation is not required at this time. The site is not a candidate for the Extended Site Screening (ESS).

Regional EPA Reviewer:

Print Name/Signature _____ Date _____

State Agency/Tribe:

CAL LUNDBERG _____ 12/20/13

Print Name/Signature Date

REGION VII U.S. EPA SUPERFUND
NO DISCOVERY DATE

PRE-CERCLIS INITIATION FORM
NPL Status = O-NOT A VALID SITE OR INCIDENT

Site Name: Johnson Oil, Lease No. 84010, Muscatine **Identified By:** ☐ Removal ☒ Site Assessment ☐ Federal Facilities ☐ States ☐ Other Federal Agency Check if: ☐ FUD Site

Address: NW 1/4 Sec. 10, T76N, R2W County Name: Muscatine

City, State, Zip: Muscatine, Iowa 52761 State ID (if one exists): ____ Congressional District: 2

NPL Status: = : Not a Valid Site or Incident **Federal Facility Indicator:** ☐ Federal Facility ☒ Not a Federal Facility ☐ Status Undetermined

Section: ☐ C-(STAR) SPFD Technical Assistance/Re-Use Branch ☒ L-(EFLR) Enfr/Fund Lead RV Branch ☐ F-(FFSE) Federal Facilities/Special Emphasis Branch ☐ M-(MOKS) MO/KS remedial Branch ☐ I-(IANE) IA/NE Remedial Branch ☐ O-(ER&R) Emergency Response & RV Branch

List Site Alias Name (s): ____

Directions to Site: Take I80 east and take exit 239A to merge onto US-218 S. Take exit 80 and turn left onto IA-22. Turn right onto US-61S and left onto Grandview Ave. Take 1st right onto Sampson St and the site is on the east side of the RR tracks north of Sampson St.

Site Description: Vacant land adjacent to the railroad tracks that was previously used to store/distribute petroleum products.

USGS Quadrant: ____ USGS Hydro Unit: ____

Latitude: 41.4001 **Longitude:** -91.0728
(Decimal Degree format) (with release of 3.17 see attached required location data form)

Lat/Long Accuracy: ☐ Seconds ☐ Miles ☐ Feet ☒ Degrees ☐ Minutes ☐ Kilometers ☐ Meters

Owner Operator Type
- ☐ Bank/Loan Company
- ☐ County Owned
- ☐ District Owned
- ☐ Federally-Owned
- ☐ Former Federally Owned or Operated
- ☐ Former Federally Owned or Operated
- ☐ Government Owned/Contractor Operated
- ☐ Privately Owned/Government Operated
- ☐ Property Defaulted Back to Government
- ☐ Brownfields/Public
- ☐ Municipality
- ☐ Other
- ☒ Private
- ☐ Mixed Ownership
- ☐ State Owned
- ☐ State Owned
- ☐ Trustee, Federal
- ☐ Trustee, State
- ☐ Unknown

Operational Status: ☐ Active ☒ Inactive ☐ Unknown ☐ Blank
Native American Interest: ☐ Yes ☐ No

Non-NPL Status (Choose one):

☒ Not a Valid Site or Incident
☐ Not a Valid Site or Incident: NRC Lead
☐ Not a Valid Site or Incident: RCRA Lead
☐ Not a Valid Site or Incident: State Lead
☐ Not a Valid Site or Incident: Tribal Lead

Add Action: OU_00_
PRE-CERCLIS SCREENING: **Planned Complete:** ____/____/____

Actual Complete: ____/____/____

Lead code (choose one)
☐ F-EPA Fund Financed ☐ FF - Federal Facility ☐ S - State, Fund Financed

SCAP Note: _____

Add below Action (if No Further Action):
OU_00_ Lead: EP
☐ PRE-CERCLIS ARCHIVE Actual Complete: ____/____/____
SCAP Note: _____
Comments: ☐ Site or ☐ Action: _____

Signatures:
States: Cal Sundberg Date: 12/20/13 RPM/OSC/SAM: _____ Date __/__/__

Site Type: (Choose all that apply - for every main category chosen in bold at least one sub- category must be selected; if more than one main and sub-category is selected indicate which is primary):

Primary Designation: OT

☐ **MP-Manufacturing/Processing/Maintenance** - *Applicable sub-categories:*
- ☐ CA-Chemicals and allied products
- ☐ CG-Coal gasification
- ☐ CP-Coke production
- ☐ EP-Electric power generation and distribution.
- ☐ FT-Fabrics/textiles
- ☐ EE-Electronic/electrical equipment
- ☐ LW-Lumber and wood products/pulp and paper
- ☐ WP-Lumber and wood products/wood preserving/preserving/treatment
- ☐ MF-Metal fabrication/finishing/coating and allied industries
- ☐ OR-Oil and gas refining
- ☐ OP-Ordnance production
- ☐ PR-Plastics and rubber products
- ☐ PM-Primary metals/mineral processing
- ☐ RA-Radioactive products
- ☐ TA-Tanneries ☐ OT-Other-Description(needed):____
- ☐ TS-Trucks/ships/trains/aircraft and related components

☐ **MI-Mining** - *Applicable sub-categories*
- ☐ CO-Coal ☐ ME-Metals ☐ NM-Non-metal minerals
- ☐ OG-Oil and Gas ☐ OT-Other-Description(needed):____

☐ **WM-Waste Management** - *Applicable sub-categories*
- ☐ CL-Co-disposal landfill (municipal and industrial)
- ☐ ID-Illegal disposal/open dump
- ☐ IF-Industrial waste facility (non-generator)
- ☐ MD-Mine tailings disposal ☐ OT-Other-Desc.(needed):____
- ☐ ML-Municipal solid waste landfill
- ☐ RW-Radioactive waste treatment, storage, disposal (non-generator)

☒ **OT-Other** - *Applicable sub-categories*
- ☐ AG-Agricultural (e/g.,grain elevator)
- ☐ CS-Contaminated sediment site with no identifiable source
- ☐ DC-Dust control ☐ OT-Other-Desc (needed):____
- ☐ GP-Ground water plume site with no identifiable source
- ☐ MO-Military/Other Ordinance
- ☒ PS-Product Storage/distribution
- ☐ RD-Research,development,and testing facility
- ☐ RC-Retail/commercial
- ☐ SE-Spill or other one-time event
- ☐ TP-Transportation (e.g., railroad yards, airport, barge docking, site)
- ☐ TW-Treatment works/septic tanks/other sewage treatment

☐ **RE-Recycling** - *Applicable sub-categories*
- ☐ AT-Automobiles/tires ☐ DT-Drums/tanks ☐ WO-Waste/used
- ☐ BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- ☐ CC-Chemicals/chemical waste (e.g., solvent recovery)
- ☐ OT-Other-Description(needed):____

Updated by The Newberry Group/Last Update: 01/08/2008

(NOTE: Data analysts will send form to records center after data entry and QA.)

Updated by Systems Research Group 03MAR06

REGION VII
U.S. ENVIRONMENTAL PROTECTION AGENCY

ENFORCEMENT SENSITIVE INFORMATION
FOR INTERNAL USE ONLY

LOCATION FORM - *(Required information highlighted in red)*

SITE NAME: Johnson Oil, Lease No. 84010, Muscatine EPA ID: ____

Latitude: 41.4001 Longitude: -91.0728 **Measurement Sequence:** ____
(Decimal Decree format) (See Comment A)

Lat/Long Source:
- ☐ Contractor
- ☐ Dun & Bradstreet
- ☐ EPA Region 7
- ☐ Geograph
- ☐ Other Federal Agency
- ☐ Regulated Entity
- ☐ State
- ☐ EPA Headquarters
- ☐ Epic
- ☐ Other
- ☐ Private
- ☐ SNAP
- ☐ Tribe
- ☒ Unknown
- ☐ (Blank)

Designate Lat/Long: ☐ Primary ☐ NPL Coordinate

Collection Method:
- ☐ Address Matching -House Number
- ☐ Address Matching - Block Face
- ☐ Address Matching - Street Centerline
- ☐ Address Matching -Nearest Intersection
- ☐ Address Matching - Primary Name
- ☐ Address Matching - Digitized
- ☐ Address Matching - Other
- ☐ Census Block - 1990 - Centroid
- ☐ Census Block/Group 1990-Centroid
- ☐ Census Block/Tract - 1990 - Centroid
- ☐ Classical Surveying Techniques
- ☐ Census - Other
- ☐ GPS Carrier Phase Static Relative Position
- ☐ GPS Carrier Phase Kinematic Relative Position
- ☐ GPS, with Canadian Active Control System
- ☐ GPS Code (Pseudo Range) Differential
- ☐ GPS Code (Pseudo Range) Precise Position
- ☐ GPS Code (Pseudo Range) Standard Position (SA-Off)
- ☐ GPS Code (Pseudo Range) Standard Position Service SA-On
- ☐ GPS-Unspecified
- ☐ Interpolation-Digital Map Source (TIGER)
- ☐ Interpolation-Map
- ☐ Interpolation -MSS
- ☒ Interpolation -Photo
- ☐ Interpolation – Satellite
- ☐ Interpolation - SPOT
- ☐ Interpolation-TM
- ☐ Interpolation - Other
- ☐ LORAN C
- ☐ Public Land Survey-Eighth Section
- ☐ Public Land Survey-Footing
- ☐ Public Land Survey-Quarter Section
- ☐ Public Land Survey-Section
- ☐ Public Land Survey-Sixteenth Section
- ☐ ZIP+2 Centroid
- ☐ ZIP+4 Centroid
- ☐ ZIP Code - Centroid
- ☐ Unknown

Reference Point:
- ☐ Administrative Building
- ☐ Air Monitoring Station
- ☐ Air Release Stack
- ☐ Air Release Vent
- ☐ Atmos. Emissions Trtmnt Unit
- ☐ Boundary Point
- ☐ Building Entrance
- ☒ Facility/Centroid Cent
- ☐ Facility/Station Bldg Entrance
- ☐ Intake Point
- ☐ Lagoon or Settling Pond
- ☐ Liquid Waste Treatment Unit
- ☐ Loading Area Centroid
- ☐ Loading Facility
- ☐ Monitoring Point
- ☐ NE Corner of Land Parcel
- ☐ NW Corner of Land Parcel
- ☐ Other
- ☐ Plant Entrance (Freight)
- ☐ Plant Entrance (General)
- ☐ Plant Entrance (Personnel)
- ☐ Process Unit Area Centroid
- ☐ Process Unit
- ☐ SE Corner of Land Parcel
- ☐ Solid Waste Storage Area
- ☐ Solid Waste Trtmnt/Disp. Unit
- ☐ Storage Tank
- ☐ SW Corner of Land Parcel
- ☐ Unknown
- ☐ Water Monitoring Station
- ☐ Water Release Pipe
- ☐ Well
- ☐ Well Protection Area
- ☐ Release Point
- ☐ Treatment/Storage Plant

Reference Datum: ☐ NAD27 ☒ NAD83 ☐ Other ☐ Unknown ☐ WGS84

Accuracy Meters +/-: ____ ☒ Accuracy Unknown Collection Date: 12/18/2013

Verification Method:
- ☐ Ground Truth Conducted
- ☐ Point in Polygon (Zip)
- ☐ Proximity to Polygon Centroid(Other)
- ☐ *Verified Relative to Map Features (1:100K/Tiger)*
- ☐ Verified Relative to Map Features (Other)
- ☐ Proximity to Polygon Centroid (County)
- ☐ Point In Polygon (County)
- ☐ Proximity to Alternative Facility Coordinate)
- ☐ Proximity to Polygon Centroid (Zip Code)
- ☐ *Verified Relative to Map Features (1:24K)*
- ☐ Verified, Unknown Method
- ☐ Point in Polygon (Other)
- ☐ Blank
- ☒ Not Verified

Point/ Line/ Area: ☐ AREA ☐ LINE ☒ POINT ☐ REGION ☐ ROUTE ☐ (BLANK)

Source Map Scale: ☐ 1:10,000 ☐ 1:12,000 ☐ 1:15,840 ☐ 1;20,000 ☐ 1:24,000 ☐ 1:25,000 ☐ 1:50,000 ☐ 1:62,500 ☐ 1:63,360 ☐ 1:100,000 ☐ 1:125,000 ☐ 1:250,000 ☐ 1:500,000 ☐ NONE ☒ UNKNOWN ☐ OTHER____

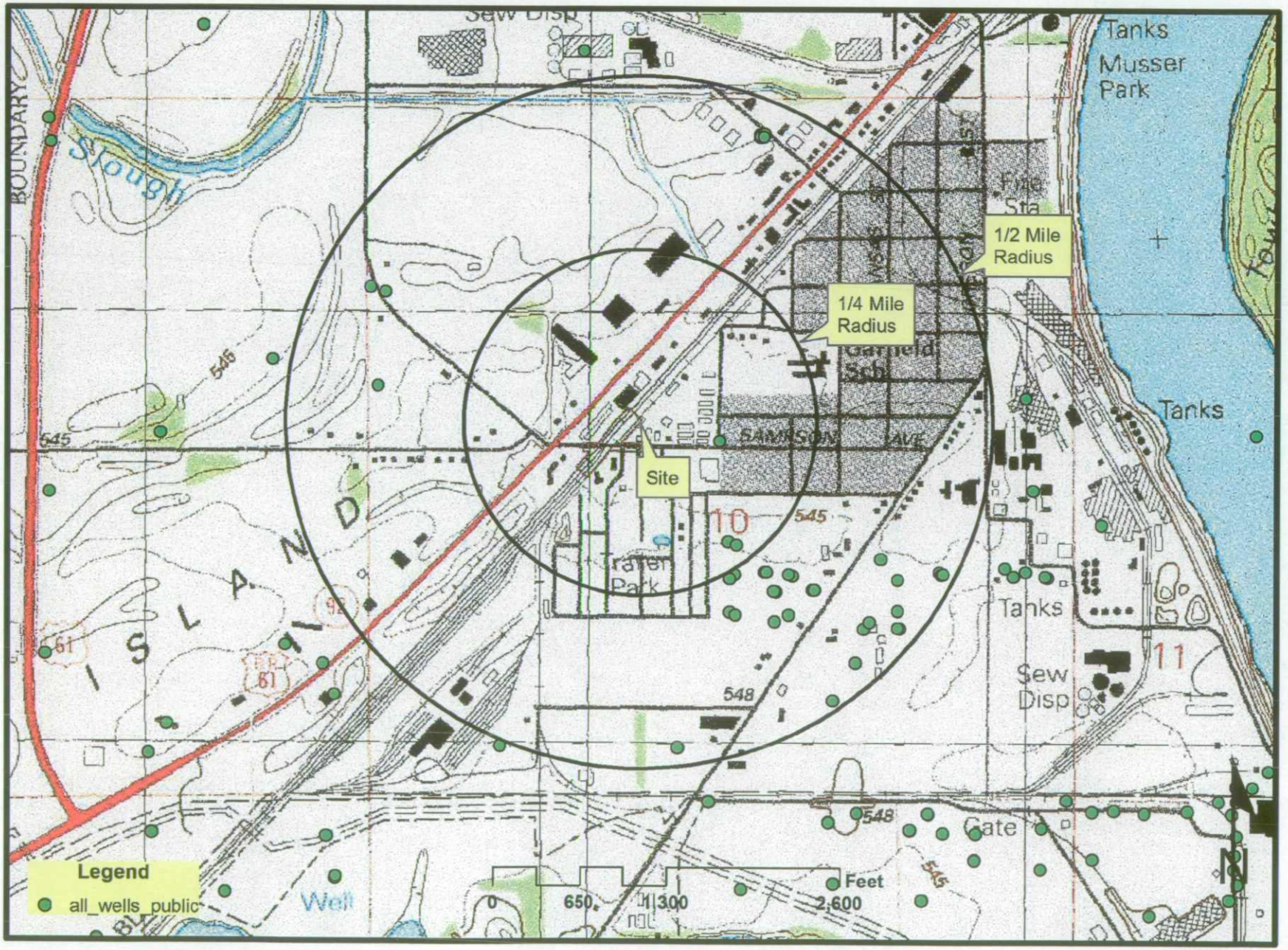
COMMENTS:____

Signatures:

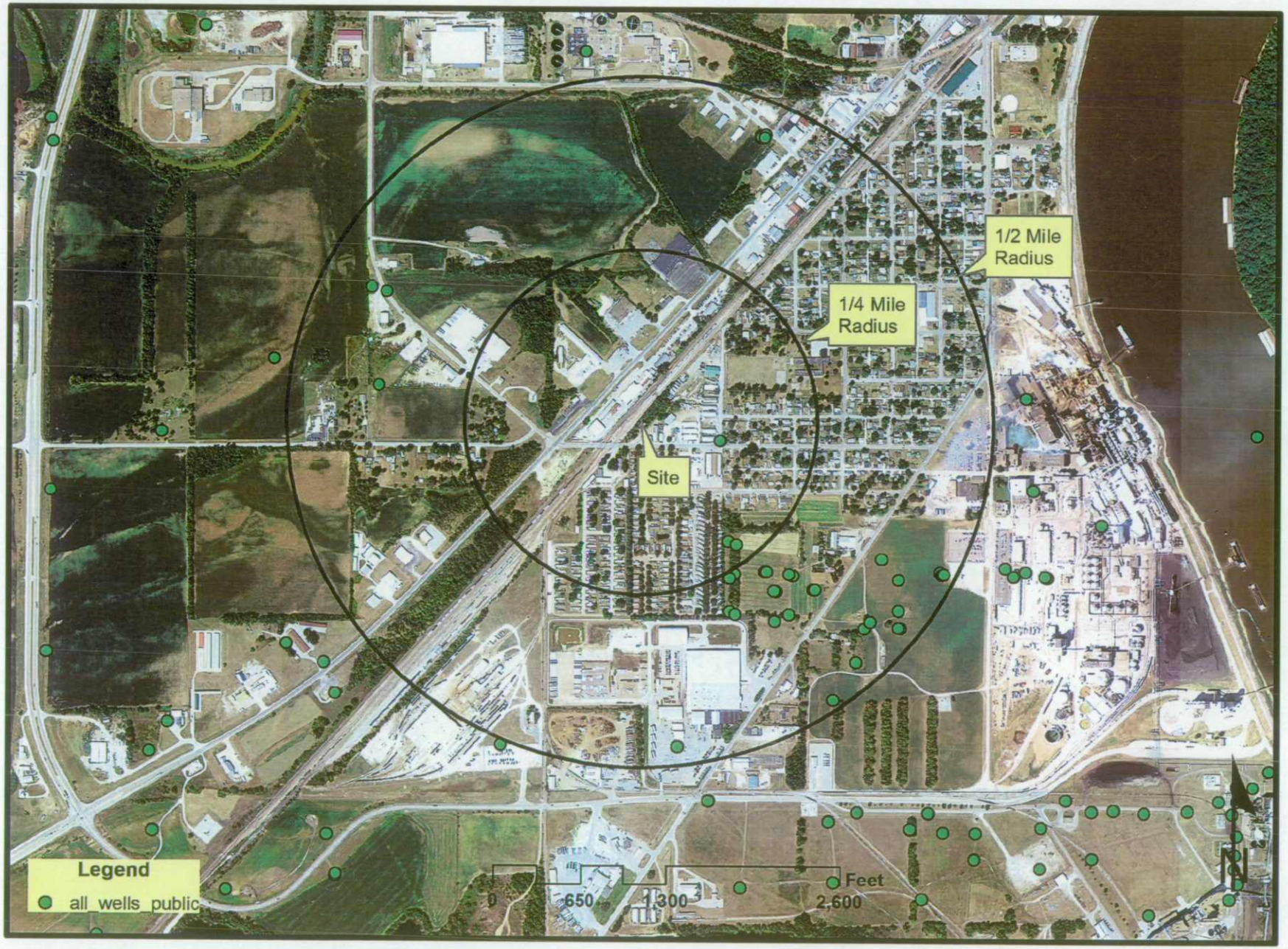
RPM/OSC: _____ **Date:** ___/___/___ **BRANCH CHIEF:** _____ **Date:** ___/___/___

A) A sequential number to indicate the order in which points on a line or area are connected. For an area, the maximum point is connected to the first. Required if the feature is polygonal or linear 3 numeric.

Johnson Oil, Lease No. 84010, Muscatine

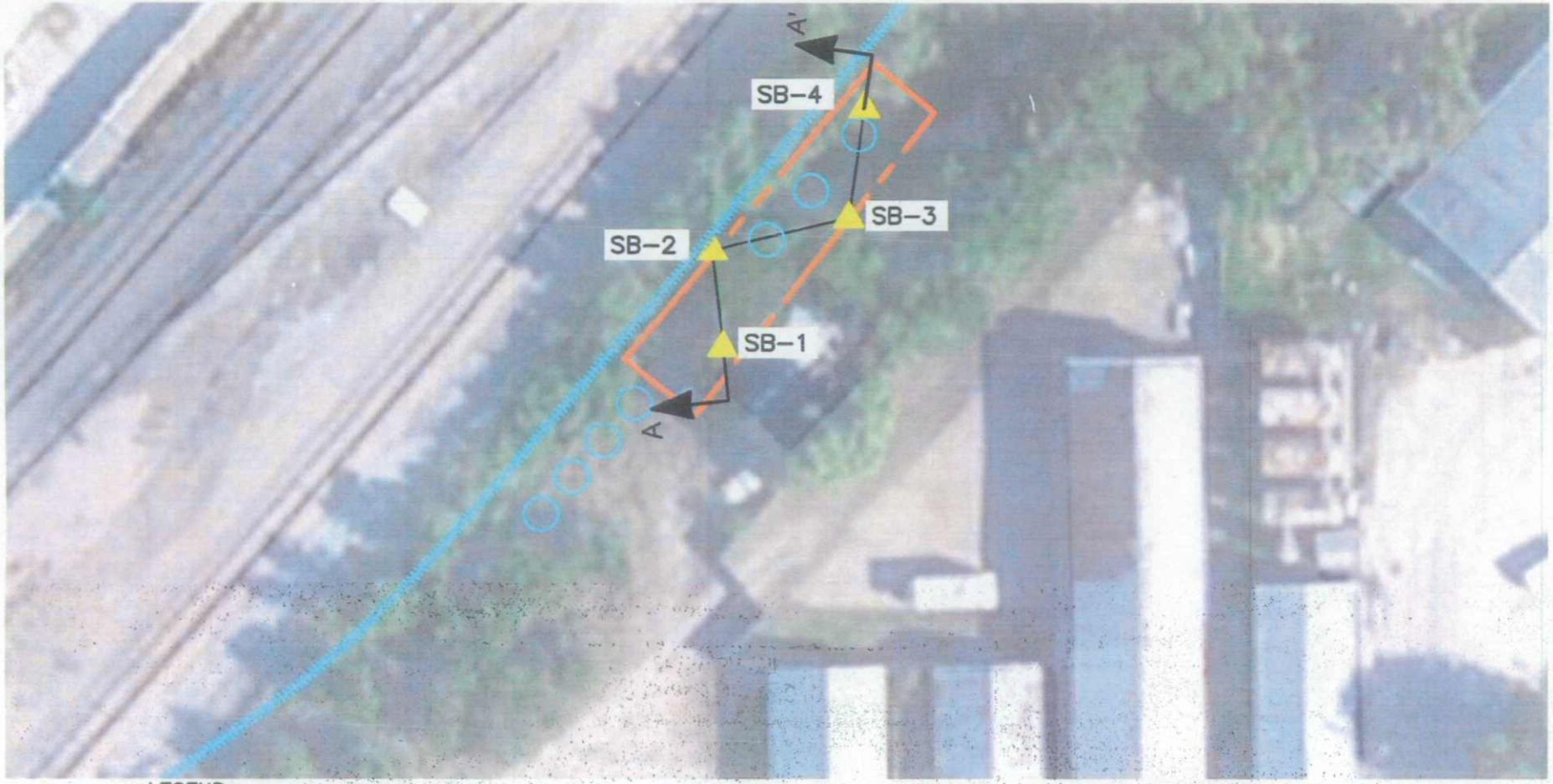


Johnson Oil, Lease No. 84010, Muscatine



NOTES: 1. AERIAL IMAGE OBTAINED FROM ESRI WORLD IMAGERY BASEMAP
2. LOCATION AND PRESENCE OF FORMER STRUCTURES BASED ON CP-PROVIDED LEASE RECORDS

SCALE IN FEET
40' 0 40'



LEGEND
- APPROXIMATE PROPERTY LINE
- APPROXIMATE FORMER STRUCTURE
- SB–2 SOIL BORING LOCATION
- A A' CROSS–SECTION ORIENTATION

Phase II ESA
CP Lease No. 84010
Johnson Oil

Canadian Pacific

GEI Consultants

PHASE II ESA SAMPLING AND CROSS-SECTION LOCATION

Project 1328680 | OCTOBER 2013 | Fig. 3

J:\2013\1327300 - Muscatine South\1328680_Johnson\1328680 MUSC SOUTH LEASE 84010 JOHNSON OIL figures_cef